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Nicolas Berman
Bjorn Brey
Jeremy Laurent-Lucchetti

Nottingham Interdisciplinary Centre for Economic and Political Research

School of Economics, The University of Nottingham, Law & Social Sciences Building, University Park, Nottingham, NG7 2RD
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Nicolas Berman
Aix-Marseille University, AMSE & CNRS

Björn Brey
ECARES, Université Libre de Bruxelles

Jérémy Laurent-Lucchetti
University of Geneva

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Abstract

This study shows that military attacks —through fear and panic— can distort political behavior and create a "conservative shift" in subsequent elections. Using the distance to the Ellwood bombardment in 1942, a shelling of civilian installations on the US mainland during WW2 which caused minimal damage but that created a large wave of panic, we find that support for Republican candidates increased in subsequent Gubernatorial, Presidential and House elections in Californian counties in the vicinity of the incident. Interestingly, the effect appears to persist for a long time, even after WW2 ended. Using a large corpus of articles from Californian newspapers and text analysis, we provide evidence that the event led to a persistent shift in conservative beliefs of local communities. We conclude that attacks, through their psychological effects, might have long-run consequences through preference-shifting and changes in voting behaviors.

JEL Classifications: D72, D74, D91, N42
Keywords: attack, bombing, elections, conservatism, World War II

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1 Introduction

Military interventions and bombing have long lasting effects on targeted populations. The direct damages of armed conflicts is tremendous for combatants, but also for civilians and economic activity. The longer-run effects of attacks have only started to be analyzed relatively recently (e.g. Miguel & Roland 2011; Dell & Querubin 2018; Adena et al. 2020; Heldring et al. 2022).The literature highlights two main channels through which attacks can have lasting effects: a direct impact linked to the destruction of property and loss of human lives, eventually leading to a "conflict trap" (e.g. Collier et al. 2003), and an indirect effect transiting through behavioral changes (trust and social preferences). Both effects can contribute to altering permanently the political and institutional framework. The later effect, however, is particularly difficult to isolate empirically. Behavioral changes might be particularly important as there exist precedents where even symbolic defeats led to a drastic change in the political consensus in countries (e.g. Commodore Perry's threatening of Japan triggering the Meiji Restoration, its industrialization, but also a new type of patriotic fever in the population. See Wilson 1992, p.9, p.50).

In terms of individual responses to attacks, a string of influential papers in psychology identifies a "conservative shift": the sentiment of fear and panic generated by such events creates a "demand for protection" that is purported to increase the political support of right-wing parties (Bonanno & Jost 2006; Jost 2017). However, it has been difficult so far to disentangle the behavioral dimension of attacks from the human casualties and economic damage they cause. Can attacks and bombings, purely through their psychological effect, induce behavioral changes tilting political votes toward conservative parties? Are these beliefs sticky and create a lasting shift in the political equilibrium even after the threat disappears?

This study identifies the causal effect of bombing on the political behavior of US citizens by focusing on the Ellwood (California) bombardment by a Japanese submarine on the US West Coast in 1942. The key point of our analysis is that this event led to no casualties and negligible economic damage, therefore muting this "direct" channel. However, the Ellwood episode contributed to a large panic on the US West Coast, that spurred some strong reactions in California (and in the rest of the country to a lesser extent). This allows us to focus on the behavioral effect of the attack and convincingly neglect the fact that shifts in political preferences might have been driven by direct economic or demographic changes.

Our study proceeds in two steps. First, analysing a large corpus of articles from Californian newspapers, we establish that the usage of *fear-related* words substantially increased after the bombing in areas closer to Ellwood. We here follow the recent literature on media and political preferences (e.g. Gentzkow et al. 2014, Gentzkow et al.

2019, Esposito et al. 2021, Ottinger & Winkler 2022) and interpret newspapers' content as representative of the local beliefs and preferences. We therefore interpret changes in words usage as shifts in underlying preferences and beliefs of local communities. We show that the increase in fear words occurs jointly with a surge in the usage of *republican vocabulary* in newspapers located closer to the event. In a second step, we show that this shift in local preferences had strong electoral consequences, as it was accompanied by a substantial move toward republican voting in counties closer to Ellwood. Interestingly, this effect persisted long after the war. We interpret this long-run persistence in voting as an expression of beliefs stickiness as we show that it was associated with a similar increase in the use of war-enemies and communist-related words even after 1945 (potentially heightening the "Red Scare" in the area).

The Ellwood episode – the first naval bombardment of the US by a foreign power since 1814 – occurred on the evening of February 23, 1942. Concerned about President Roosevelt's series of radio speeches "Fireside Chat", the Japanese government ordered the Japanese submarine I-17, which was conducting operations along the West Coast, to shell the California shore at the exact time the speech was broadcast (Hamilton 2015). The objective was to undermine Roosevelt's credibility and spread fear on the West Coast, an objective that the attack plausibly achieved despite the negligible damage. As phone lines were jammed with concerned citizens calling the police and newspapers, hundreds temporarily fled inland fearing an immediate invasion and a blackout was ordered along the coast from Monterey to San Diego (Yenne 2016). Most historical accounts of the event underline the large fear and panic that this bombing created on the West Coast despite the negligible damage caused. According to many observers, the Ellwood bombardment was key in triggering the West Coast invasion scare and influenced the decision to intern Japanese-Americans (Yenne 2016).

The Ellwood shelling has characteristics that make it particularly suitable to our research question. First, it caused very little damage, and no human casualty, which allows us to single out the psychological or behavioral impacts of the attack from the direct economic or human effects. Second, the location of the target appears quasi-random along the California coast, i.e. related to the choice of tasking submarine I-17 instead of another, and to the submarine's proximity to Ellwood when it received the order the night before (Parshall et al. (2017)). The crew decided on Ellwood oilfield due to easy access and no military presence.

Our paper identifies the effects of the Ellwood attack on the spread of panic and conservative rhetoric using text analysis, and on voting behavior at gubernatorial and presidential elections. We use a difference-in-differences approach exploiting the fixed geographic distance from the shelling as a continuous treatment measure (see e.g. Acemoglu et al. 2004; Ager et al. 2020), before and after the attack. This methodology makes two main assumption. The first is that the effect of the bombardment indeed

decreases with distance from the event. This is a natural assumption and we will show that the fear and panic generated by the event, measured through word usage in local newspapers, decays with distance from Ellwood, radiating from the epicenter toward the rest of California. The second is that the location and timing of the attack is unrelated to the evolution of the political situation in California, or on pre-existing local fear or panic – a plausible assumption given the above description of the event. In addition, we provide evidence using census data that distance to Ellwood does not correlate with pre-event socio-economic or demographic characteristics.

We start by documenting how Ellwood triggered a wave of fear and panic using a large corpus of text from Californian newspapers over the 1930-1950 period. We show that the mentions of words associated with the "fear" emotion durably increase after the event in areas close to Ellwood. This surge in fear-related words, which we interpret as a proxy of the population's sentiments, is disproportionately observed in republican-leaning newspapers, and within articles using republican rhetoric – rhetoric which itself intensifies post-event around Ellwood. We also provide evidence that the bombing had a positive effect on the number of subscriptions of republican-affiliated newspapers.

We then show that this wave of fear and panic and the surge in republican vocabulary after the event triggered a "conservative shift" which materialized in subsequent elections in California. We focus on the county-specific vote shares obtained by republican candidates at both gubernatorial and presidential elections. Our estimates show an immediate increase in votes for republican candidates in areas closer to the Ellwood Bombardment in the elections directly following the event. This "conservative shift" is observed in both gubernatorial and presidential elections, and persists long past the end of WW2 (and is still significant 30 years after in the case of presidential elections). The effect is quantitatively relevant: we estimate that republican voting at the 1942 gubernatorial elections (9 months after the event) is 4.12% higher in Los Angeles, the closest large city to Ellwood, than in San Francisco, located further away from the shelling.

Both sets of results – the text analysis and the election estimations – are robust to a battery of sensitivity checks. Our conclusions are not affected when allowing for spatial correlation in the error term, or by changing the way distance enters our specification. More importantly, controlling for a large set of county characteristics interacted with time dummies does not alter the results. Accounting for distance to major cities like Los Angeles, or to other Japanese military targets, like Pearl Harbor or Fort Stevens, also leaves the results unchanged.

The last part of the paper discusses various plausible mechanisms driving the shift in political preferences after the attack. We first show that our results are not driven by a change in voters' turnout. Then we show that no economic or demographic fun-

damentals change after the bombardment. In particular, distance to Ellwood did not significantly impact the economic structure, migration patterns or the population composition of the counties after the event. Therefore, the fear and panic of the event did not create long-run migration or changes in the population composition that could explain the shift in political voting. Similarly, the event did not trigger a drop in business activities or a change in industrial composition that would explain the increase in republican voting. We therefore turn to the impact on behavioral changes and tease out any semantic shifts in the long-run "demand" for conservatism using the newspaper data. We analyze the occurrence of derogatory terms like "Nip" or "Jap", references to war-related words (e.g. attack, invasion) or war and political enemies (communists, axis) and racist vocabulary for minority groups (African-Americans and Mexicans) and we find that they are persistently higher after the event in areas close to Ellwood. This persistence is particularly observed in republican-leaning newspapers, or in articles which use republican vocabulary. Consistently with historical narrative, we therefore substantiate the idea that the panic about a Japanese invasion triggered by fear after the Ellwood event eventually translated into a persistent increase in conservative values, plausibly contributing to the red-scare and xenophobic attitudes even after WWII ended.

Our paper contributes to three strands of literature. First, by showing that the perceived threat of attack triggers a change in political behavior, our paper speaks to the literature studying if threats to the nation prompt retrospective voting (voting influenced by the performance of the party in power). This effect is still debated as it is challenging to empirically isolate voters' assessment from the direct effect of casualties and emotions on electoral results. For example, Karol & Miguel (2007) show that US soldiers casualties in Iraq significantly lowered President Bush's vote share in 2004 elections. similarly, Montalvo (2011) finds that terrorist attacks of March 11, 2004 in Spain largely reduced the vote share for the incumbent's party. By contrast, Getmansky & Zeitzoff (2014) find that being in the range of Gaza rocket fire did not affect incumbents' electoral results. Finally, Elster (2019) uses data on actual missile strikes in Israel and finds that direct exposure to actual attacks increase support for the Likud. We find in our study that voters, after the attack, shifted toward the republican party, not in power at that time. The long-run persistence of the effect and its additional impact on conservative wording in newspapers however point toward a different mechanism than an "anti-incumbent" effect.

Second, the findings of this paper are linked to the social psychology literature and social identity theory showing that attacks against the nation trigger in-group bias—i.e. positive views of the group to which individuals belong—which typically reinforces political participation and support for the leader, a form of "rally around the

flag" effect (Gehring 2020; Lambert 2011). Going a step further, (Jost 2017) documents in a large literature survey of empirical evidence a "conservative shift" following attacks: the sentiment of fear and panic created by the violent event creates a "demand for protection" that is purported to increase the political support of right-wing parties. Many papers substantiated this "shift to the political right" following a large traumatic attacks (see e.g Bonanno & Jost 2006; Berrebi & Klor 2008; Nail & McGregor 2009; Schüller 2015; Akay et al. 2020; Giavazzi et al. 2020) while others have found no effect or an incumbent effect (see e.g. Castanho Silva 2018; Balcells & Torrats-Espinosa 2018; Larsen et al. 2020). Another branch of this literature highlights the link between medias and political preferences in the US, focusing on the increase in racism following movie diffusion (Esposito et al. 2021; Ang 2020; Ottinger & Winkler 2022). Finally, Williams (2022) shows persistent effect of lynching events on long-run voting behavior of African-Americans in the US.

In a similar vein, a recent strand of research shows that fear of a pandemic leads voters to express conservative political attitudes and thus vote for candidates associated to conservative parties. In particular, Campante et al. (2020) estimate that the salience of the Ebola threat in 2014 led to a lower vote share for the Democrats in the 2014 midterm elections and to increasingly conservative attitudes of voters on immigration issues. Beall et al. (2016) additionally find that the Ebola scare increased voters' inclination to conform to popular opinion.

Finally, our paper is also part of the literature on the long-run effect of bombings on local institutions. Recent empirical evidence suggests that exposure to large military bombing campaigns have an important influence on local attitudes and political outcomes (see e.g. Dell & Querubin 2018; Adena et al. 2020; Heldring et al. 2022), even in the long-run. However, the studied events (Vietnam bombing for Dell & Querubin 2018, and WWII for Adena et al. 2020; Heldring et al. 2022) are looking at large destructive attacks. They therefore conflate the direct effect of bombings on the destruction of property and loss of human lives with the indirect effect transiting through behavioral changes. Finally, Schindler & Westcott (2021) shows that the presence of African American soldiers in the UK during WWII reduced anti-minority prejudice over the long-run in UK. While not directly looking at voting patterns, this study shows that this long-run effect certainly worked through an intergenerational transmission of preferences from parents to children.

The rest of the paper is organised as follows. Section 2 provides historical background on the Ellwood event and other japanese attacks, as well as on the political context in California at the time. Section 3 uses the newspaper data to study how fear and conservatism changed after the event. Section 4 presents our results on the effect of Ellwood on voting behavior in California, and section 5 documents the persistence of the conservative shift, again using the newspaper data. The last section concludes.

2 Historical context

Submarine operations and Ellwood bombardment. The success of President Roosevelt's radio speech "fireside chat" in boosting US moral after Pearl Harbor caused some concern in the Japanese government. To counter its effect and undermine Roosevelt's credibility, a Japanese submarine was ordered to shell the US West Coast on 23 February 1942 to coincide with the second scheduled broadcast of the "fireside chat" during the war (Hamilton 2015).

Before the bombardment, the log of movements of the submarine (Parshall et al. 2017) states that the submarine I-17 was conducting merchandise raiding operations along the California coast moving north from San Diego in the search of better targets, while aiming to evade local patrol boats.[1] In the evening of 22 February 1942, I-17 received the order to shell a shore target of its own choice on the evening of 23 February to coincide with Roosevelt's radio broadcast. With the explicit aim of creating panic and undermining moral along the US West Coast (see Yenne 2016, p.116-118). The bombardment's target, Ellwood oilfield (near Goleta in Santa Barbara county), is selected in a meeting of the submarine's officers for its easy access and escape route as well as being within the submarine's reachable distance until the time of bombardment.[2] The Ellwood oilfield was most likely identified from a list of possible targets along the West Coast compiled prior to the war by Vice Admiral Shimizu of the Imperial Japanese Navy and his staff for a planned attack on the night of 25 December 1941 that required coordination between a all Japanese submarines operating on the US West Coast, which was canceled.[3] As an alternative explanation local folklore attributes the location choice of the bombardment to I-17's captain Kozo Nishino having visited before the war Ellwood oilfield as captain of an oil tanker (Yenne 2016, p.117). In both cases, the choice of Ellwood oil field was "quasi-random" as (i) the choice of submarine I-17 was not motivated by its specific location along the US West Coast, and (ii) the submarine was incidentally close to Ellwood, a militarily convenient site for the bombardment, while conducting merchant raiding operations at the time it received the order.

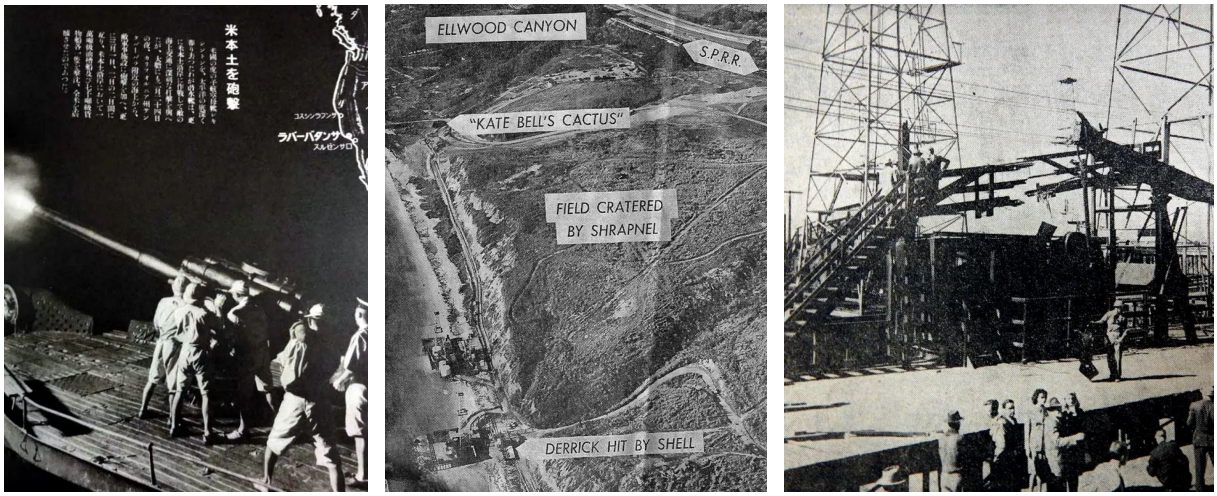
[1] Before this Parshall et al. (2017) reports I-17 was involved in the initial attack on Pearl Harbor on 7 December 1941 and following this ordered along other submarines to attack shipping along the US West Coast. It returned for resupplies to Kwajalein (11 January - 3 February 1942) credited with having sunk two merchant ships during its initial patrol. It arrived back on the US West Coast near San Diego on 20 February 1942.

[2] The B1 class I-17 —planning a surprise attack— maximum submerged speed was only 8 knots (15 km/h) considerably restricting the available targets along the 1,350km California coastline (Carpenter & Polmar 1986).

[3] The initial plan would have involved a sizable number of submarines each tasked to fire 30 shells on the night of 25 December at the different targets along the whole US West Coast. Rear Admiral Sato, aboard I-9, was charged to execute the order. Admiral Yamamoto Isoroku, however, first postponed the shelling and then canceled it on the 27th of December due to most submarines having already depleted their fuel reserves (Parshall et al. 2017).

Accordingly, at around 7:00 pm on 23 February 1942, the submarine I-17 submerged opposite the Ellwood oil field. Readying, aiming and firing its deck gun at a fuel tank just beyond the beach. The weather conditions (night and waves) meant that most rounds missed their target. The attack was reported to the Santa Barbara County Sheriff's Office only after the submarine was spotted (with the report getting lost along the chain of command as no aerial response materialized). After 20 minutes of uninterrupted bombardment, the submarines' gunners ceased fire and the submarine sailed away. Estimates of the number of explosive shells fired ranged from 12 to 25. A derrick and a pump house were destroyed, and the Ellwood Pier suffered minor damage. Figure 1 depicts the event showing a Japanese propaganda poster depicting the firing of a submarine deck-cannon (left), aerial pictures of the shelled locations in Ellwood (center) and the main damage to the derrick (right).

Figure 1: The Ellwood bombardment



Notes: The left image shows a Japanese propaganda poster depicting the firing of a submarine deck-cannon and a map of California with its text glorifying the Ellwood bombardment. The middle image is an aerial picture of the shelled locations in Ellwood and the right image shows the damage to the derrick (the main damage caused). Source: Goleta History.

Despite the negligible damage[4], I-17 plausibly achieved its purpose (Yenne 2016, p.118), which was to spread fear along the US West coast and undermine the credibility of Roosevelt's radio speech. Phone lines were jammed with concerned citizens calling the police and newspapers, hundreds temporarily fled inland fearing an immediate invasion and a 200km wide blackout was ordered along the coast from Monterey to San Diego. News of the Ellwood bombardment likely also caused the major friendly-fire incident in the so-called "Battle of Los Angeles" occurring the day after (Yenne 2016, p.118).[5] The most infamous impact, however, is that the local population

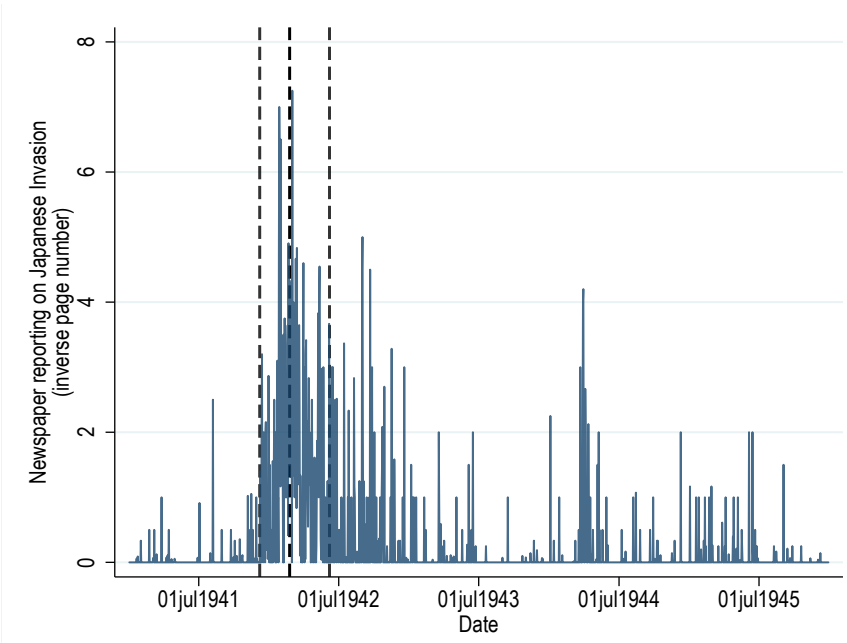
[4]The damage was estimated to have been 500$ and the only person injured was a soldier trying to defuse an unexploded shell the next day.

[5]This event culminated when the American antiaircraft fired over Los Angeles for several hours after some observers believed (wrongly) to have seen Japanese planes on the sky and were afraid of an imminent invasion.

was convinced (wrongly) that some Japanese-Americans helped the bombardment by signaling the submarine from the shore. These baseless claims were used to justify and expand the internment of Japanese-Americans, with the first removals starting only 2 days later on 25 February in Terminal Island near Los Angeles Harbor (Executive Order 9066 was signed by FDR a number of days before the bombardment). Yenne 2016 mentions that news of the Ellwood bombardment spread quickly through newspapers, and word of mouth (phone calls and people traveling by car).

Japanese submarines continued to conduct attacks against allied ships along the US West coast during the rest of 1942. The submarines managed to sink only a handful of merchant ships, besides conducting a few minor attacks on shore targets (Webber 1984). These consisted of a bombardment of Fort Stevens in Oregon (21 June 1942), an attack on a Canadian lighthouse on Vancouver Island (20 June 1942), and two air raids launched from a submarine in an attempt to start forest fires in southwest Oregon (9 & 29 September 1942). The negligible success in disrupting US commercial shipping is in stark contrast to Germany's submarine operation Drumbeat in late 1941 and early 1942, which caused havoc on shipping along the US East and Gulf Coasts ((Yenne 2016), p.163). In the end, Japanese submarines operation caused predominantly psychological rather than physical damages.

Figure 2: Newspaper articles on "Japanese invasion"



Note: The figure depicts the daily number of articles mentioning "Japanese invasion" in California newspapers 1941-1945. The y-axis is the inverse page number of the article mentioning the words. The first black dashed line depicts the date of Pearl Harbor, the second dashed line depicts the date of the Ellwood bombardment, the third dashed line depicts the end of the Battle of Midway.

Panic on the Pacific. Concerns about a Japanese invasion on the US West Coast had started to emerge before the Ellwood bombardment. Here, we provide a brief summary of the fear and panic generated by the event and its political repercussions in California. An extensive account of the events can be found in Yenne (2016). Figure 2 shows California newspapers reporting on "Japanese invasion".[6] Those mentions are initially mostly related to the Japanese advances in Asia (the peak in July 1941 relates to the Japanese occupation of French Indo-China). There is a clear spike in articles on this topic after the attack on Pearl Harbor on 7th Dec 1941 (first dashed line) followed quickly in Asia by the US being defeated in the Philippines and the loss of Hong Kong by the British. Another increase occurred again due to events in Asia during the Malayan campaign ending on 15th February with the Japanese conquest of Singapore. Most notably however, talk about a Japanese invasions peaks in California directly after the Ellwood bombardment (second dashed line) as the bombardment caused fears that the US West Coast would be the next target for the rapidly advancing Japanese forces. After this spike, the newspaper mentions of a Japanese invasion decline but remain remarkably persistent during 1942 despite the actual Japanese advance having already reached its apex by March 1942. Fear and mentions of an invasion continue even after the Pacific war turns clearly in favor of the US Navy following the battle of Midway 4-7 June 1942 (third dashed line). During this battle the Japanese navy lost most of its strike force that attacked Pearl Harbor —4 Japanese aircraft carriers were sunk, while the US navy only lost 1— making any landing of Japanese troops on the US West Coast militarily completely implausible (see e.g. Yenne 2016, Ch.25).[7]

The rampant fears of a Japanese invasion of the continental US are also underlined in the propaganda images in Figure 3 depicting the calling up of volunteers for the civil defenses (left), the (racial-stereotypical) portrayal of the threat of the Japanese army hunting down American civilians, especially white women (middle) and the portrayal of Japanese-Americans as fifth column spies enabling the invasion (right).[8] In particular, the threat of a Japanese-American fifth column was widely discussed in newspapers along the US west coast (including the editorial pages), and among the public (Yenne 2016, p.103). As previously noted this was worsened by the perceived signal lights during the Ellwood bombardment. The fear about a Japanese invasion (and a fifth column aiding them) materialized in a variety of forms in California. To prepare

[6]The number of mentions is adjusted by inverse page number to reflect the salience of the article, meaning that an article on "Japanese invasion" printed on the front page is weighted as 1, and article printed on p.2 is weighted as $\frac{1}{2}$, on p.3 as $\frac{1}{3}$ and so on.

[7]The final spike of mentions of Japanese invasions starting in March 1944 relates to the last major Japanese offensive during WW2 "Operation U-Go" in British India, but quickly disappears again by June as the British are victorious.

[8]To some extent the fear of Japanese espionage might have been rooted in the successful operations of German spies during World War I, e.g. causing the explosion of multiple munition ships in New Jersey harbor (Yenne 2016, p.85).

for the invasion and potential bombardment, blackouts of cities were ordered. Car lights had to be disabled and curfews were imposed on parts of the population (Yenne 2016, p.106, p.130). Strategically important factories were camouflaged to protect them from aerial bombardments during day time. Sport and other events were canceled (Yenne 2016 p.131, p.173). However, the most prominent and infamous policy decision was the interment of Japanese-Americans during WW2 due to security concerns and fear of collusion with the enemy. The two Roberts Commission reports which documented a network of Japanese spies and fifth columnists in Hawaii as well as the (false) sightings of coastal signal lights during Japanese submarine operation had caused soaring public concern against the Japanese and Japanese-Americans living on the Pacific Coast. Governor Culbert Olson stated that Californians, "feel like they're living in the midst of enemies. They don't trust the Japanese, none of them" (see Yenne 2016, p.104). The report lead to further political pressure on California politicians to vocally advocate for the removal of them from the West Coast.

Californian politics during the war. When the US entered the war in 1941, the Californian governor was the liberal Democrat Culbert Olson.[9] As governor Culbert Olson followed a liberal agenda opposing oil company monopolies, backing compulsory universal health insurance, and promoting reform of the state penal system (Newman 2020). He further pardoned Tom Mooney and Warren Billings, labor leaders and socialist activists, accused and jailed (likely using falsified evidence) of plotting the 1916 Preparedness Day Bombing in San Francisco. He also fought to keep the California national guard distinct from the US Army (Yenne 2016, p.20).

The gubernatorial elections of November 3rd, 1942 were strongly divisive. Wartime issues like the interment of Japanese-Americans and martial law took center stage in debates and newspaper columns. The republican challenger Earl Warren—in his role as California Attorney General—had been one of the most visible supporters of Japanese-American interment.[10] He notably declared that "[we should] open warfare against subversive Japanese organizations, [...] it's impossible to distinguish between dangerous enemy aliens, of which we are sure there are many here, and Japanese-American citizens genuinely loyal to the US" (see Yenne 2016, p.106). Along these line, Earl Warren attacked incumbent Governor Cubert Olson on grounds of his liberal stance on the Japanese interment issue when farm labor was scarce (see Yenne 2016,

[9]He won the 1938 gubernatorial election against the incumbent, a conservative republican, and was the first democrat Governor in California since James Budd in 1894.

[10]One of Warren's actions as Attorney General was starting to investigate Japanese land holdings for violations of the state's Alien Land Law immediately after the attack on Pearl Harbor (Newman 2020). Despite his infamous role in the interment of Japanese Americans in California, he later played a key role as a chief justice of the supreme court in presiding over the "Constitutional Revolution" —e.g. Brown v. Board of Education (1954); Loving v. Virgina (1967)— leading to a decisive liberal shift overturning all segregationist state-laws that discriminated against non-Whites (Cray 1997).

Figure 3: Propaganda posters related to fear of Japanese invasion

Notes: The figure depicts the propaganda response to the fear of a Japanese attack on the West Coast. The left poster depicts a call for volunteers in the civilian air defense. The middle poster depicts a Japanese soldier attacking a White woman. The right poster depicts Japanese-Americans stocking up on tools for sabotage and waiting for a signal from Japan to start their sabotage. Source: Norman Rockwell Museum.

p.174). In particular, he declared that "the only thing he [Olsen] could suggest was that he brings the Japs back from the internment camps to help with the harvests."

Before the election Earl Warren also advocated for a stronger role of the military in California politics.[11] He articulated fears of air and other attacks in a speech leading up to the election before the San Francisco Commercial Club on 7 June 1942 (Yenne 2016 p.162): "The use of sabotage and fifth column activities as a technique of Axis warfare, the air raid, the need for special handling of our alien enemy population and even the nagging possibility of gas and bacteriological warfare all bring problems that can hardly be solved through the processes of civil government. Enemy planes have no nice regard for State and county lines or neat questions of jurisdiction. The solution of these problems may have to be found in martial rule." Accordingly, the 1942 gubernatorial election had provided California voters with a stark choice between the more liberal approach of incumbent Governor Cubert Olson advocating for the liberties of California citizens against the imposition of strict military authority (see e.g. Yenne 2016 p.98) and the more pro-military stance of Republican challenger Earl Warren. Earl Warren won the 1942 gubernatorial election with a landslide 57.07%, winning the majority in every county apart from rural and interior Plumas.

This gubernatorial election highlights the increased role played by the military in Californian decision making during the war. In fact, civil politicians were de-facto subordinated—even without the imposition of martial law as in Hawaii—to the enig-

[11]Speaking to a reporter (Yenne 2016 p.109): "I don't know that there is a necessity for martial law, but something must be done. Since the [federal] government declared [the Pacific Coast] a war zone, the government must believe there is grave danger here. If that is true, in my mind, we ought to do everything we can to make the area secure".

matic figure of General DeWitt, which often rather than calming fears added to their spread and hysteria along the US West Coast (see e.g. Yenne 2016, p.103). He, for example, canceled over the head of Governor Culbert Olson the Rose Bowl game and other major events, banned horse racing, forbid hunting in coastal counties, and ordered several blackouts throughout California including the one after the Ellwood Bombardment (Yenne 2016 p.131, p.173). These measures only contributed to the public fear about an invasion rather than having any tangible military benefits.

The end of the war came with the Japanese surrender on 15 August 1945. However, the transition back to peace took time as, for example, the dismantling of the Japanese interment camps continued till 20 March 1946. Only 34.8% of American-born Japanese and 54.3% of foreign born Japanese returned to California after the end of interment (War Relocation Authority 1947), reflecting a dispersal of the Japanese community across the US (99% remained in the US after interment).

After the war and the red-scare. The end of the war was not followed by a quieter political climate in California. As the jubilation of victory in WW2 calmed, many political leaders and policies in the US refocused their attention toward fears of Communism. This was a return to concerns that had been prevalent in California during the first red-scare in the 1920s and 1930s.[12] For example, soon after WWII began in Europe in 1940, the U.S. Congress legislated the Smith (Alien Registration) Act criminalizing association with anti-government organization and introducing the registration of foreign nationals. After the war, the main deployment of the Smith Act was against communists (until it was repealed by the supreme court in 1957). A prominent example was its use in the trial of 144 leaders of the US Communist Party (see Buhle et al. 1998). In general, as the Axis threat and fear of a Japanese invasion vanished, fear of communism rapidly grew again manifesting itself in the second red scare (McCarthyism). Its expression in California has been documented to be particularly strong (Heale 1986).[13]

3 Fear and conservatism in Californian newspapers

The historical setting described in section 2 highlights that the Ellwood bombardment created substantial fear and panic on the west coast. This panic quickly spread through word-of-mouth and newspapers, radiating from the event toward the rest of California. Our empirical strategy therefore proceeds in two steps. In this section, we first

[12] In 1920 J. Edgar Hoover fueled widespread public fears of a May uprising and once again during the California 1934 gubernatorial campaign of Upton Sinclair as democratic candidate

[13] An early high-profile example was the House Un-American Activities Committee's 1947 investigation of Communist influence in Hollywood which was building on an earlier investigation by California's Tenney Committee (the California Un-American Activities Committee created in 1941).

establish, in accordance with the historical narrative of the Ellwood event, that the bombing created a wave of fear and panic, radiating from Ellwood, that persisted over time. In particular we will show that reporting on the bombardment and the usage of fear words was higher in local newspapers closer to Ellwood and only after the event occurred. We further document that this shift in fear words is associated with a "conservative shift" in wording as newspapers used more republican lingo (and less democrat) closer to the event. In the next sections of the paper we will show that voting behavior followed and also shifted toward republican voting in counties closer to the attack. We conclude by highlighting that the persistence of the effect on voting is associated with a persistent use of a relevant series of conservative words even after the invasion threat completely disappeared with the end of WWII.

3.1 Text-based and newspaper Data

We focus on articles published in local Californian newspapers between 1930 and 1950. The data were downloaded between June and August 2022 from newspaperarchive.com[14], the most comprehensive archive of articles published in local newspapers in the US.[15] Text-based information from newspaperarchive.com has been used among others by Gentzkow & Shapiro (2010) and Gentzkow et al. (2015). We first collect data on the number of mentions of fear-related words, using the "EmoLex" database (Mohammad & Turney 2010)[16], which contains a list of 1316 English words, and their associations with eight basic emotions, including fear. These associations have been built through questionnaires in which respondents were asked to whether each words evokes each emotion, and how much. Our algorithm extracts information on the number of occurrences of each of the fear-related words contained in the lexicon, as well as the name and location of the newspaper, the precise day of publication, and the page number of the article. For the fear-words in Californian newspapers 1930-50 alone we obtained more than 27 million data-points in 786'130 articles. We download similar information for a list of specific words related to Ellwood (e.g. Ellwood, Goleta, submarine, Japanese, "nip", etc.) that we will use in the last section of the paper.

As we want to study whether the triggered shift in political preferences, we also collect information on the use of republican and democrat-related words. The word list is taken from Gentzkow et al. (2019), who identified a time-varying list of partisan phrases from republican and democrats congressional speeches. Finally, we use infor-

[14] https://newspaperarchive.com/

[15] Newspaperarchive includes journals worldwide, but coverage is much more extensive in the US and other English speaking countries.

[16] https://saifmohammad.com/WebPages/NRC-Emotion-Lexicon.htm.

mation on newspapers' political leaning/affiliation and subscriptions from the United States Newspaper Panel, 1869-2004 (Gentzkow et al. 2014).[17]

Table 1: Summary statistics, newspapers' data

	Obs.	Mean	S.D.	1st Quartile	Median	3rd Quartile
A. Text-based information						
# Fear-related words	12852	2131.26	5328.04	0	0	1154
# Republican-related words	12348	8.54	20.19	0	0	6
# Democrat related words	12348	4.56	10.35	0	0	3
# Fear & Republican words	12348	6.89	19.72	0	0	3
# Fear & Democrat words	12348	5.42	17.24	0	0	2
Distance to Ellwood in km	12852	279.22	147.47	169.30	202.84	409.60
B. Journals' information						
Newspaper circulation (in thousands)	1003	25.88	59.84	2.86	5.57	17.34
Republican dummy	1011	0.63	0.48	0	1	1
Distance to Ellwood in km	1018	328.97	171.82	174.04	318.14	442.04

Notes: Panel A data constructed from newspaperarchive.com and Gentzkow, Shapiro and Taddy (2019). The information is aggregated by journal-month, and spans the 1930-1950 period, in 51 newspapers from 30 locations. Panel B data is from the United States Newspaper Panel, 1869-2004, restricted to 1930-1960, available every four years. The data contains information on 207 Californian journals.

Table 1 contains descriptive information. The upper panel A provides statistics about the frequency of occurrence of the difference types of words, aggregated at the monthly level. We have information about the articles contained in 51 newspapers active over the period 1930-1950. Republican rhetoric appears more prevalent overall than democrat partisan words. The average newspaper's headquarter is located 279 km away from Ellwood (the minimum is 55km). Figure A.1 in the appendix maps the locations of journals and their political affiliation, when available. Information on newspaper affiliation is missing for most journals, and there are very few democrat-affiliated journals included in our newspaper archive data (in line with overall few California newspapers having been clearly Democratic in the 1930/40s). Panel B contains information from the United States Newspaper Panel (Gentzkow, Shapiro and Sinkinson, 2014), which covers more newspapers and features time-varying data (every four years) on the circulation of each journal. Despite this wider coverage, the spatial distribution of the journals appears quite similar to the one from the newspapers archive data.

Figure A.1 also highlights a main limitation of the available data. It shows that a large number of newspapers are located near Los Angeles or San Francisco. Indeed roughly a third of our sample is located in those two counties alone and 75% of newspapers lie within a 150 km of either LA or San Francisco.

[17] https://doi.org/10.3886/ICPSR30261.v6.

3.2 Empirical design

> "A good newspaper, I suppose, is a nation talking to itself."
>
> Arthur Miller (1915-2005)

In order to substantiate the idea that the bombing created a large movement of fear and panic radiating from Ellwood, we analyze how the occurrence of certain words, within a given a newspaper, is affected by the event. Following the recent literature on polarization and newspapers wording (Gentzkow et al. 2014, Gentzkow et al. 2019, Esposito et al. 2021, Ottinger & Winkler 2022), we assume that local newspapers are a reflection of local sentiments and therefore proxy the local "demand" for political conservatism – an issue we shall come back to at the end of the paper.

A natural way of assessing the effect of the event is the adoption of a difference-in-differences approach with a continuous measure of treatment based on distance from Ellwood (see e.g. Acemoglu et al. 2004; Ager et al. 2020) using journal-level data. Our approach exploits the fixed geographic distance of newspapers headquarters to Ellwood in combination with the timing of the Ellwood shelling to estimate the effect of the perceived threat of foreign invasion on the use of specific words. In order to substantiate the "conservative shift" hypothesis, we focus on the effect of the bombardment on a set of specific words. In general, we estimate:

$$\text{Word}_{j,t} = \beta \text{Ellwood}_j \times \text{Post}_t + \mathbf{D}_j + \mathbf{D}_t + \gamma_t' \mathbf{X}_j \times \mathbf{D}_t + \varepsilon_{j,t} \tag{1}$$

where $\text{Word}_{j,t}$ denotes the number of occurrences of a type of word (e.g. fear-related, republican or democrat rhetoric) in journal j and time t (year-month). We use an inverse hyperbolic sine transformation to accommodate the zero values in the dependent variable (see Table 1).[18] Ellwood_j corresponds to the *proximity* to Ellwood, i.e. minus the distance to Ellwood in km. Post_t is a post-Ellwood event dummy, and $\mathbf{D}_j, \mathbf{D}_t$ are journal and time fixed effects.[19] $\mathbf{X}_j \times \mathbf{D}_t$ denotes the initial journal characteristics interacted with time dummies. In particular, we control for longitude and latitude of headquarters location that we interact with time dummies D_t to account for the varying effect of geography over time. Controlling for latitude and longitude is important in our setting because it might have been the case that the panic were common to all coastal locations during that period (fear of Japanese attacks loomed large), and not radiating specifically from Ellwood. Finally, given the spatial dimension of the data and

[18] An alternative possibility would have been to use a PPML estimator. We favor OLS with an IHS transformation of the dependent variable to be able to account for spatial correlation in the error term, an important issue given the structure of our data. We also show the results obtained with the untransformed variable.

[19] In certain specifications we will look at daily variation, t will therefore index day-year.

the fact that journals are geographically clustered, we allow the error term to exhibit spatial correlation. More precisely, we apply a spatial correction to our standard errors, allowing for both cross-sectional spatial correlation, following the method developed by Conley (1999). We retain a radius of 100km for the spatial kernel in the baseline, and run robustness exercises with alternative radiuses.[20]

Our coefficient of interest is β; positive estimates would imply an observed intensification of the use of certain words in area close to Ellwood, after the event. We will also split the Post_t dummy into two distinct post-Ellwood dummies, i.e. during and after WWII. Finally, alternatively we will run event-study versions of (1), where all time dummies are interacted with proximity to Ellwood.

Discussion on identification. The consistency of our difference-in-difference estimator relies on several assumptions. First, that the location and timing of the attack is unrelated to the evolution of political and more generally individual preferences (which affect newspapers' content) in California over the study period. As mentioned previously, this is a plausible argument: the I-17 Japanese submarine was moving along the California coast from south to north raiding merchant shipping targets when it received its orders for bombardment only on the previous evening. The crew itself decided on the Ellwood oilfield due to easy access and no military presence. Therefore, it is highly unlikely that this specific target was selected based on local characteristics of newspapers or population (even if this would be the case to confound our identification this would need to coincide with a shift in local newspaper coverage at the exact time of the Ellwood bombardment as well). To substantiate these assumptions, we present in the next section a series of balance checks at the county-level showing that distance to Ellwood is unrelated to various observable local pre-event demographic or economic characteristics. Distance to Ellwood and its timing could correlate with other geographical factors such as distance to major cities (Los Angeles and San Francisco in particular) or to other Japanese attacks. As mentioned in the previous section, the spatial variation of the newspaper data is relatively limited, which prevents us from controlling for a wide set of spatial characteristics all at once. Still, in robustness check we will control for distance to a series of major cities, and we will show that other Japanese attacks did not have similar effects on the propagation of fear at least within California (while the effect of distance to Ellwood remains robust to including these con-founders). We will also control for journal size, which may affect word occurrence over time in a way that correlates with (temporal and physical) distance to Ellwood. A final issue relates to measurement error: the newspaper data that we use is not exhaustive (as most historical archives) and it may be the case that coverage varies over

[20] We employ the recent Stata routine `acreg` developed by Colella et al. (2019) based on Hsiang (2010) and Conley (1999).

time in a way that correlates with distance to Ellwood. To rule this out we conduct a placebo-exercises using sport and weather related words as dependent variable. We would expect that coverage of these words would be equally (positively) affected if our results are driven by data availability issues, while the occurrences of these words should be unaffected by the Ellwood bombardment.

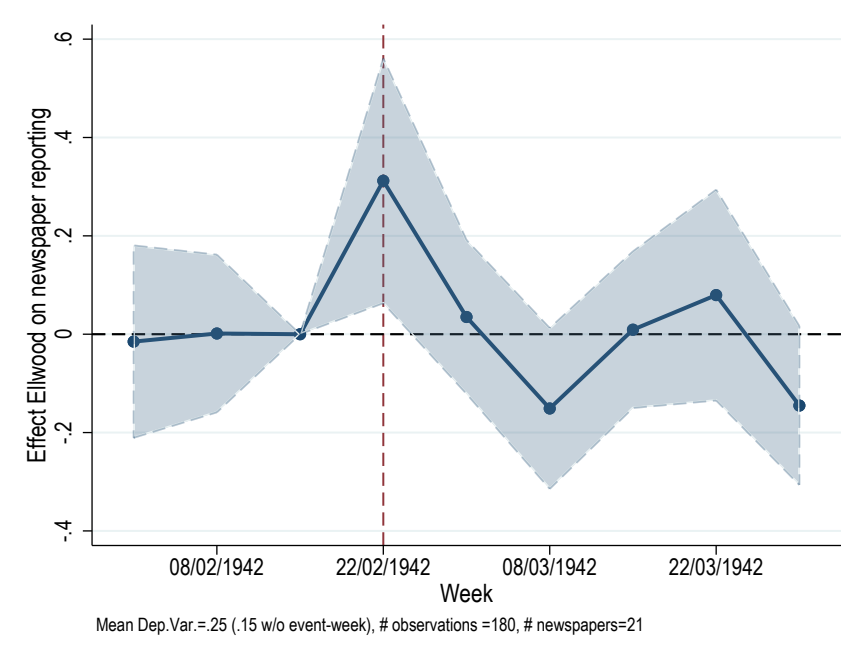
3.3 Results

As a preliminary exercise, we estimate a version of (1) at the daily-level in a two-months window around the event, using the number of mentions of the terms "Ellwood" and "Goleta" (the city where Ellwood is located, in the Santa Barbara county) as a dependent variable. The results, plotted in Figure 4, show that the Ellwood event was reported in local newspapers more often in areas closer to Ellwood in the week of the bombing.[21] It clearly underlines the effect of distance on the reporting of source event and substantiate the idea that distance to Ellwood decreased the perception of vulnerability of local communities. Our estimates suggest that being 100km closer to Ellwood increased the number of articles (weighted by inverse page number) on "Ellwood" and "Goleta" by 208% in the week of the 22/02/1942 compared to before and after that week. This implies that the Ellwood bombardment was mentioned 582% more prominently in Los Angeles newspapers than in San Francisco in newspapers, as LA is 280 km closer to Ellwood than SF. In terms of the inverse page measure we used this implies that if the Ellwood bombardment was front page news in LA, an otherwise identical newspaper in San Francisco would have featured an article on the bombardment only page 6 or 7.

Propagation of fear and panic. Our focus on local newspaper vocabulary allows to highlight the increase in specific words in areas closer to Ellwood just after the event. We start by estimating our main equation 1 focusing on words related to fear (using the "Emolex lexicon", see section 3.1). Figure 5 plots the main coefficient β) at the monthly level for the period Jan 1938- Dec 1946. Consistently with historical accounts of the event we observe that the use of fear words clearly increased after the event in journals closer to the attack. Though proximity to Ellwood does not appear to affect the use of fear words before the event, it clearly has a positive effect starting the month after the bombing. The effect is surprisingly persistent over time and only seems to soften late 1946, after the end of the war. This persistence in the use of fear words in local newspapers is pointing at the fact that the change in local beliefs and sentiments

[21] We find similar results using daily data that show the effect to be by far strongest on the 24th of February —the day after the Ellwood bombardment on the evening of the 23th February— and remains significantly higher for the following 2 days as well.

Figure 4: Effect of Ellwood on Ellwood/Goleta mentions in newspapers

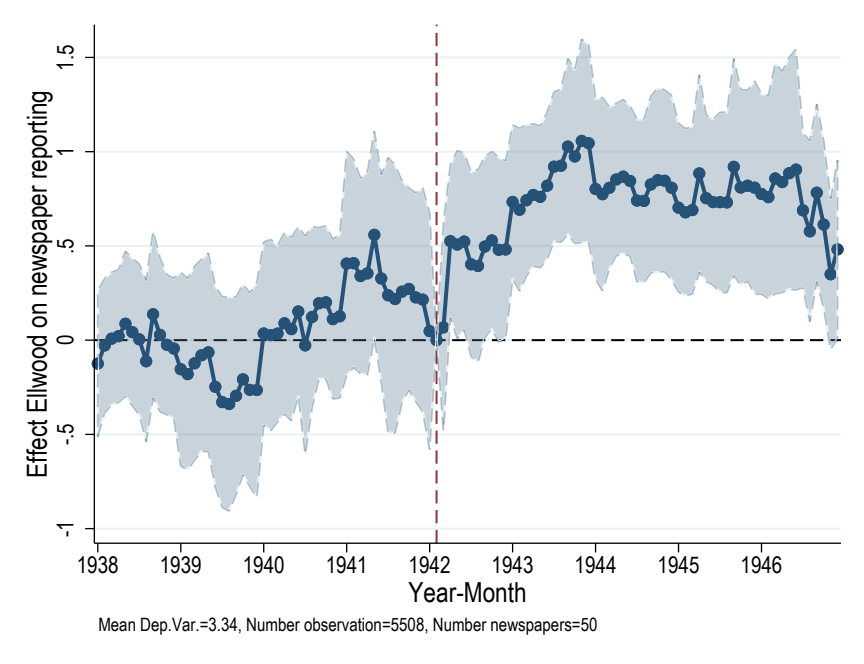


Notes: This figure shows the effect of the Ellwood bombing on the number of occurrences of the words "Ellwood" and "Goleta" (inverse hyperbolic sine). We use a specification akin to (1), at the weekly level, restricted to the months of February and March, 1942 and estimate coefficient β for each week pre- and post-Ellwood. The red dashed line depicts the week of the bombardment. 90% confidence intervals depicted in light grey, based on standard errors allowing for spatial correlation within a 100 km radius.

triggered by proximity to the attack might be sticky. We will analyse in more details the long-run effect on conservative beliefs in section 5.

Shift toward republican vocabulary. Following the "conservative shift" hypothesis, the increase in fear and panic that we identified in areas closer to the event should be associated with a shift toward more politically conservative viewpoints. As a first step we start by using the United States Newspapers Panel (Gentzkow et al. 2014) to estimate the effect of the Ellwood bombardment on newspaper circulation. We restrict the sample to newspapers identified as either consistently Republican, Democrat or Independent over the whole time period. Excluding newspapers which change affiliation over time reduces the issue that newspapers might strategically change their reporting and political affiliation to increase circulation. Of course, restricting the sample creates a selection bias of its own, so that these results should be taken solely as suggestive evidence, which we will further later. Figure 6 Panel A shows that subscriptions of local newspapers declined in areas closer to Ellwood. However, Panel B shows that the number of subscriptions of Republican-affiliated newspapers increased in areas closer to Ellwood or at least did not decline as those of Democratic and Independent newspapers. The increase in subscriptions of Republican newspapers following the Ellwood bombardment therefore appears to be related to their political content, and not driven by an increase in subscription of all newspapers. We tried to also evaluate affiliation

Figure 5: Effect of Ellwood on mentions of fear-related words in newspapers

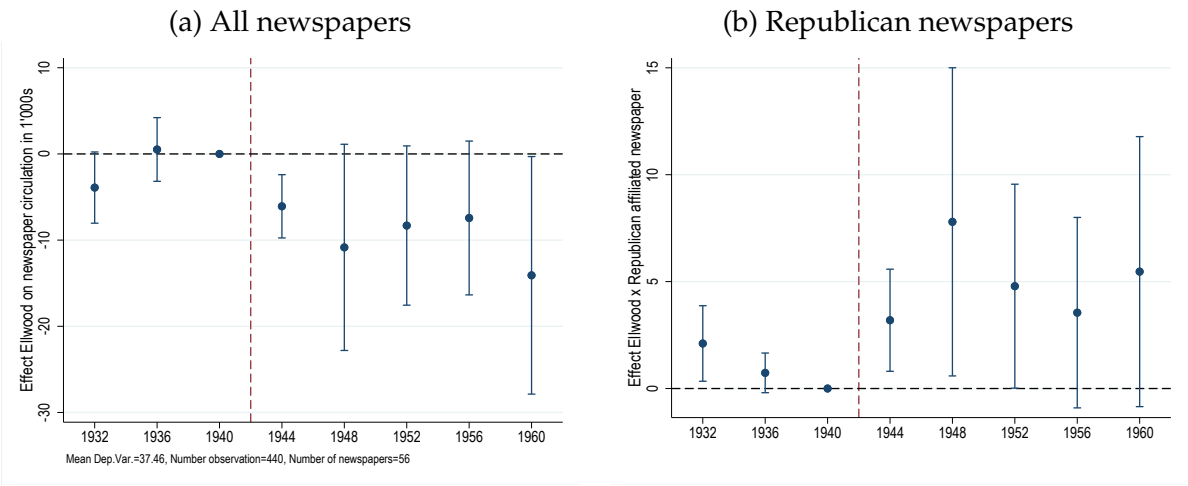


Source: This figure shows the effect of the Ellwood bombing on the number of occurrences of fear-related words (inverse hyperbolic sine) in Californian newspapers. We use a specification akin to (1), at the monthly level, restricted to period 1938-1946, and estimate coefficients β_t (equation) for each month pre- and post-Ellwood. Estimations include journal fixed and time fixed effects, and latitude and longitude interacted with time dummies. 90% confidence intervals depicted in light grey, based on standard errors allowing for spatial correlation within a 100 km radius.

changes using the United States Newspapers Panel dataset, but did not find any significant empirical evidence for affiliation changes —this might be due to the relatively rough coding of affiliations available— with regards to distance from Ellwood after the bombardment. However, we will be able to document affiliation changes related to the Ellwood bombardment in the remainder of this section. To do this we use the more precise Republican/Democratic wording of newspaper articles themselves. The change in newspaper reporting and affiliation plausibly attenuates the magnitude of the presented results in Figure 6 as it mediated the loss of readership of Democratic and Independent newspapers.

A finer analysis crossing political affiliation of newspapers, republican/democrat vocabulary and the use of fear lexicon substantiates the "conservative shift" hypothesis. Table 2 reports results based on equation 1, were we split the sample in different periods: before and after the Ellwood event in panel A and before/after the event for the war period (until Sept. 1945) and for the post-war period (from Oct. 1945 onwards) in Panel B to capture longer run effects of the shelling of Ellwood on conservative political opinions. Columns 1 and 2 use the count of fear-related words as dependent variable – in column 2, the number of fear-related words divided by the page number in the newspaper, to give more weight to articles appearing at the beginning of the

Figure 6: Effect of Ellwood on newspapers' circulation



Notes: This figure shows the effect of the Ellwood bombardment on the circulation of Californian newspapers. The newspaper sample is restricted to those that are identified as either Republican, Democrat or independent for the full time-period. Figure (a) shows the Ellwood effect for the full sample of newspapers, and figure (b) shows the Ellwood effect interacted with whether the newspaper was affiliated with the Republican party at the time. The specification is estimated at the yearly level, using data from the United States Newspaper Panel over the 1930-1960 period. Estimations include journal fixed and year fixed effects, and latitude and longitude interacted with year dummies. 1940 is used as baseline. 90% confidence intervals are shown around each point estimate based on standard errors clustered on the permanent ID of the newspapers in the United States Newspaper Panel.

journal. As above, we find that the use of fear words increased in newspapers closer to Ellwood after the event. The effect is no longer significant after the war. Columns 3 and 6 show the effect on words the most associated with Republican and Democrat parties, as listed by Gentzkow, Shapiro and Taddy (2019) (see section 3.1). We observe (i) that the use of republican vocabulary increased substantially more than democrat vocabulary in newspapers closer to Ellwood after the attack and (ii) that this differential use of political vocabulary remains observed after the end of the war – distance to Ellwood does not impact anymore the use of democrat lingo after 1945 while republican vocabulary is still affected.

Columns 4 and 7 use a dependent variable the count of fear-words, but within articles containing republican (column 4) or democrat (column 7) vocabulary. These follow a very similar pattern: closer to Ellwood, articles using republican vocabulary tend to use more fear words than others, and the effect persists after the war. We find the opposite result for articles using democrat words – a short-lived negative effect. Finally, columns 5 and 8 restrict the sample to republican (column 5) and democrat-leaning (column 8) newspapers, again based on the Gentzkow, Shapiro and Sinkinson (2014) newspaper dataset. The use of fear words increase in the proximity of Ellwood after the event in republican newspapers, the opposite being true for democrat-affiliated journals.

Table 2: Distance to Ellwood and newspaper coverage

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Words	Fear		Republican	Rep. & Fear	Fear	Democrat	Dem. & Fear	Fear
Journals	All				Rep.	All		Dem.
Panel A. Overall effect of Ellwood bombardment								
Prox. to Ellwood × Post	0.086**	0.067**	0.103***	0.083***	3.670***	0.030**	-0.019	-39.272***
	(0.035)	(0.030)	(0.015)	(0.015)	(0.290)	(0.013)	(0.014)	(2.784)
Panel B. Effect of Ellwood bombardment during and after the war								
Prox. to Ellwood × Post	0.267***	0.237***	0.127***	0.031*	5.710***	0.080***	-0.039**	-36.001***
(war)	(0.038)	(0.034)	(0.019)	(0.018)	(0.301)	(0.016)	(0.017)	(2.686)
Prox. to Ellwood × Post	-0.040	-0.051	0.086***	0.120***	2.245***	-0.005	-0.005	-41.556***
(post-war)	(0.045)	(0.039)	(0.018)	(0.019)	(0.384)	(0.017)	(0.018)	(2.938)
N	12852	12852	12348	12348	3024	12348	12348	1008
Controls	Yes							
Fixed effects	Journal, year × month							

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. OLS estimations. Standard errors allowing for spatial correlation within a 100 km radius in parenthesis. Panel A shows the results of estimating equation (1). Panel B splits the post dummy into war and post-war period. Controls include longitude and latitude of headquarters location interacted time dummies. The dependent variables are (all use an inverse hyperbolic sine transformation): in column 1, mentions of fear-related word; in column 2, mentions of fear-related word divided by page number; in column 3 (respectively 6), reporting of republican (democrat) words; in column 4 (resp. 7) mention of fear-related words in articles containing republican (democrat) words; in column (5) (resp. 8), mention of fear words, restricting the sample to republican-(democrat-)leaning newspapers .

Sensitivity analysis. We perform a series of robustness exercises on our baseline results of Table 2, Panel A. First, we check that our conclusions are not sensitive to the choice of the spatial correlation radius in Appendix Table A.1; even with a 500 km radius the increase in the standard errors is moderate and coefficients remains significant at standard levels. Second, we add several control variables to the estimations. In Appendix Table A.2 we first control for journal size (the maximum number of pages observed in a newspaper during a given year) fixed effects (Panel A), to ensure that we are not picking up variations in journal size over time that may correlate with distance to Ellwood.

In Panel B we assess how sensitive our results are to the way distance to Ellwood enters the specification. When using the log of distance, the effect becomes less precisely estimated on the overall mentions of fear-related words (columns 1 and 2); we still find, however, a significant effect on republican words and on the co-occurrence of republican and fear words, as well as on fear words in republican-leaning newspapers – the opposite being true for democrats as previously.

In Panel C we use the level of the dependent variables instead of the inverse hyperbolic sine transformation – except in column 2 when using the page-adjusted number of fear words, the results are qualitatively similar to the baseline. The negative effect on fear words within democratic articles in column 7 even turns clearly significant.

In Panel D we control for the distance to Los Angeles – the closest major city to Ellwood – interacted with the post-Ellwood dummy. If at all this exercise even strengthens our conclusions despite being an extremely demanding specification for our analysis considering the geographic clustering of newspapers across California.

In Panel E we repeat the exercise with the next three most important towns (San Francisco, San Diego, Sacramento) results for overall fear-words and on Republican articles are unchanged. We do not report results within only Republican and Democratic newspapers (col. 5 & 8) due to their small number of observations and the limited difference in their geographic locations. The sample makes a credible estimation of distance to Elwood, three towns and longitude and latitude interacted with fixed effects unfeasible. For democratic articles (and fear words within them) the effect turns positive. The changing significant and sign seems to support our baseline interpretation of a zero effect.

In Panel F we go even further and exclude all newspapers in Los Angeles, San Francisco and Santa Barbara (the location of Ellwood) counties. This represents about a third of our newspaper sample that is particularly geographically clustered and having with the contrast between San Francisco and Los Angeles potentially driving our results. We no longer observe an effect on overall fear words usage in column 1 and 2. However, the overall effect disappearing might reflect that we loose a sizable number of the most important newspapers with a very broad coverage of topics (for example the average number of pages is 27 in the excluded newspapers, while only 20 in the sample). Notably, when digging deeper our results are reaffirmed as we find an increase in Republican wording (including a higher use of fear words within those articles) in columns 3-4, more fear word usage in the slightly smaller sample of Republican papers in column 5 and an unchanged or even lower numbers of Democratic worded articles (including fear words within them) in columns 6-7. This strongly supports our main results. Notably, the sample of Democratic papers in column 8 is unchanged.

We also evaluate the effect of other Japanese attacks on the use of fear words in California. In contrast to distance to cities, these attacks have a specific timing so that we think it relevant to estimate these effects as event studies for the time period 1941-42 (estimated in a single regression).[22] We include simultaneously in the estimations the Ellwood, Pearl Harbor and Fort Stevens treatment (i.e. distance to these events interacted with year-month dummies). Though estimated on a shorter period, this specification is still demanding given the geographic clustering of newspapers and the fact that these events occurred outside California. The distances of these two other attacks will be highly correlated with our longitude and latitude controls. Figure A.3.(a)

[22]We focus on this shorter time interval so that the exact treatment of the respective event is better observable. We do not include the Lookout Air Raids as they occur as well as the attack on Fort Steven in Oregon, but at a later time. There is no sufficient difference in distance from California counties of the two attacks.

shows that controlling for Pearl Harbor and Fort Stevens does not alter the impact of Ellwood on the use of fear words. Other attacks do not appear to have increased the use of fear words in locations closer to the events.[23]

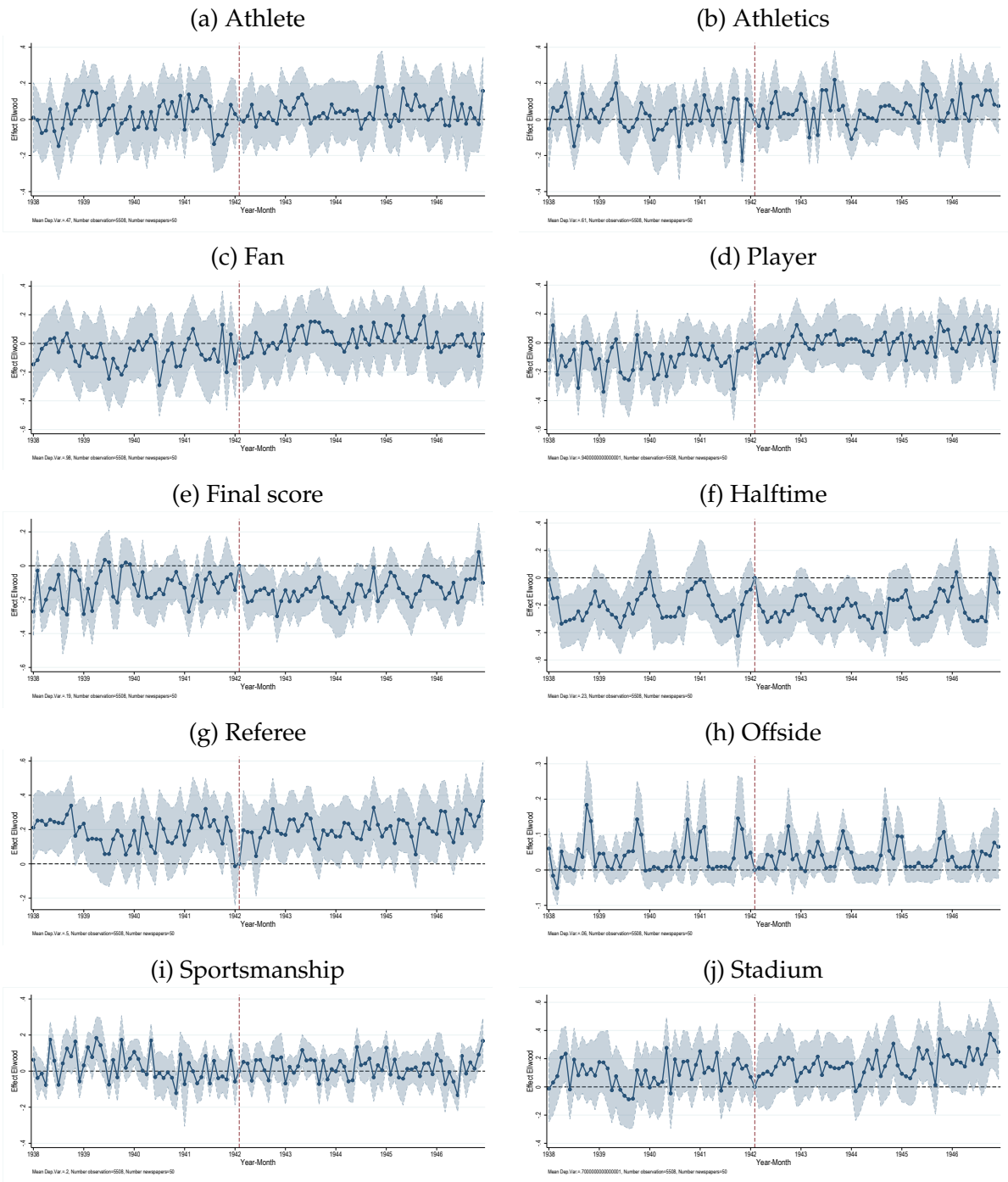
Placebo analysis. Finally, we conduct a placebo exercise using sport-related words plausibly not linked to the Ellwood event. The objective is to substantiate the idea that the increase in fear and republican vocabulary in areas closer to Ellwood is not driven by unobservable shifts in overall newspaper wording. The 10 words selected are "athlete", "athletics", "fan", "player", "final score", "halftime", "referee", "offside", "sportsmanship", and "stadium". We avoid words that plausibly have other usage, potentially war-related (such as "medal", "goal" etc). We also avoided specific sports as for example some individual football games in California (most notably the rose bowl near LA) were canceled due to invasion fears in 1942. Using sport names we would potentially capture reporting on these particular events rather than reflecting general sport related reporting on national events.

Figure 7 presents the corresponding event-studies for each individual sport word. While there are clearly seasonal patterns in the use of the individual words differing by distance to Ellwood, we do not observe a clear change in the pattern of coefficients pre and post the Ellwood bombardment for any of these 10 words. Figure A.4 in the appendix presents a similar placebo exercise based on 5 weather words: "temperature", "cloud", "overcast", "rain", and "sunrise". We find no impact of the Ellwood bombardment in this placebo exercise either. These placebo analysis suggest that there is no general change in newspaper reporting with regards to proximity to Ellwood occurring at the time and they support the causal interpretation of our results presented in Figure 5.

Overall, this set of results gives strong credit to the idea that newspapers reflected a higher demand for conservatism after the bombing. Furthermore, they highlight that the shift in local opinion triggered by the event toward more conservative political positions might be persistent (we will investigate this idea further in section 5). We will show in the next section that this shift in local sentiments translated into a shift in voting behavior.

[23]The estimates of the Pearl Harbor treatment (Figure A.3.b) are large and noisy, but these results need to be taken with caution given the very large distance to the event and the (comparatively) small variation within California. The Fort Stevens treatment (FigureA.3.c) does not appear to have triggered an increase in fear; we only observe a negative effect at the timing of the Ellwood bombardment, which most plausibly reflects that the estimates absorb some of the effect related to the Ellwood event. The two measures are indeed highly negatively correlated due to Ellwoodâ€™s location in Southern California, while Fort Steven is located north of the California border in Oregon.

Figure 7: Placebo: Proximity to Ellwood and sport-words in newspapers



Source: This figure shows the correlation between the distance to Ellwood over time and the number of occurrences of the individual sports related words in Californian newspapers: athlete, athletics, fan, player, final score, halftime, referee, offside, sportsmanship, and stadium. We use a specification akin to (1), at the monthly level, restricted to period 1938-1946, and estimate coefficients β_t for each month pre- and post-Ellwood. Estimations include journal fixed and time fixed effects, latitude and longitude interacted with time dummies. 90% confidence intervals depicted in light grey, based on standard errors allowing for spatial correlation within a 100 km radius.

4 Effect of Ellwood shelling on voting

Section 2 highlights that most of Californian counties drifted toward the republican party after the US entered the war (while the democrat party had a strong presence before the war). Our second objective is to study whether the Ellwood bombing altered the political equilibrium and triggered part of this move toward republican voting. To test this hypothesis we gather data on various electoral outcomes and test wether distance to Ellwood mattered for republican voting after the event. We augment this election data with census data which we will use to control for a host of economic characteristics that may impact voting behavior and to show that this is not due to the Ellwood bombardment being associated with changes in the underlying socio-economic structure of counties.

4.1 Electoral and census data

We obtain political data at the county-level for gubernatorial, presidential, house and senate elections. The data for gubernatorial elections in 1934, 1938 and 1942 comes from OurCampaigns (2021). Our sample for gubernatorial elections is restricted to this time period by no data being available at the county level pre-1934 and the 1946 election being virtually uncontested as incumbent Governor, Earl Warren, was nominated by the Republican and Democratic party.[24] Presidential voting outcomes at county level starting in 1928 till 1972 are sourced from ICPSR (1999). Finally, we obtain data on county-level voting for the House of Representative and the Senate from Leip (2021) for 1930-60. From the same source we gather data on voters' turnout for all elections.

We supplement this with data from the US census on economic characteristics 1920-70 (IPUMS - Ruggles et al. 2019; NHGIS - Manson et al. 2019). These data include demographic (e.g. ethnic composition) and economic (e.g. employment and wage) that may affect voters' preferences. The coordinates of counties are based on the centroid of the corresponding Census shapefile.

Table 3 contains descriptive statistics for the 58 Californian counties. Panel A displays the outcomes of gubernatorial elections. The republicans went from a 47-48 percent score in the pre-war period to almost 63 percent in 1942. The demographic characteristics presented in Panel B show that the share of Japanese in the population was small – 1.2 percent on average. The presidential election data in Panel C also make apparent the increase in republican voting over the period – a trend that only reverses

[24]The 1946 California gubernatorial election was held on November 5, 1946. It is notable for the incumbent Governor, Earl Warren, being nominated by both the Republican and Democratic parties, as well as the Progressive Party. Subsequently, Warren won re-election effectively unopposed, receiving more than 90% of the vote.

Table 3: Summary statistics, elections and census data

	Obs.	Mean	S.D.	1st Quartile	Median	3rd Quartile
A.Main variables						
Republican vote share 1934 (gubernatorial)	58	48.96	10.41	42.75	48.21	55.70
Republican vote share 1938 (gubernatorial)	58	47.37	6.71	42.30	47.41	52.19
Republican vote share 1942 (gubernatorial)	58	62.91	6.92	58.68	63.26	67.21
Distance to Ellwood (in km)	58	446	191	332	441	567
Latitude	58	37.85	2.15	36.61	38.05	39.27
Longitude	58	-120.73	1.92	-122.04	-120.92	-119.82
B. Additional Controls						
Share African-Americans	58	0.81	0.86	0.21	0.42	0.98
Share other race	58	4.22	4.96	1.64	2.57	4.92
Share foreign	58	10.15	3.49	7.12	9.66	12.73
Share Japanese	58	1.16	1.39	0.01	0.64	1.84
Share some college	58	12.53	2.31	10.61	11.96	13.93
Share radio access	58	85.18	7.49	81.20	85.65	91.30
Share manufacturing	56	10.10	10.25	3.29	6.49	11.75
Share unemployed	58	11.35	4.00	8.47	11.03	13.66
Share farmers	58	68.16	42.63	40.05	55.55	93.36
Farm value	58	0.15	0.59	0.03	0.05	0.10
Housing value	57	2.75	1.10	1.99	2.61	3.24
Manufacturing wage	54	1.22	0.23	1.07	1.23	1.40
C. Presidential elections						
Republican vote share 1928	58	59.15	9.18	53.20	58.10	64.70
Republican vote share 1932	58	32.64	7.07	26.90	31.10	37.40
Republican vote share 1936	58	31.65	7.63	24.70	31.80	37.30
Republican vote share 1940	58	42.19	7.95	35.60	42.95	47.40
Republican vote share 1944	58	44.97	7.29	40.90	44.90	49.10
Republican vote share 1948	58	48.28	8.21	42.60	47.70	53.50
Republican vote share 1952	58	59.04	8.17	52.74	59.71	64.20
Republican vote share 1956	58	54.92	8.07	49.92	53.70	59.68
Republican vote share 1960	58	50.62	7.21	44.72	51.38	54.03
Republican vote share 1964	58	39.23	6.67	34.17	38.25	42.58
Republican vote share 1968	58	47.89	6.36	43.60	47.60	51.58
Republican vote share 1972	58	54.87	5.88	51.00	54.70	58.50

Notes: Panel A data sourced from OurCampaigns (2021). Panel B data sourced from the US census on economic characteristics 1920-70; all values taken in 1940. Panel C data sourced from ICPSR (1999).

in the 60s. Appendix Figure A.2 show the change in Republican vote shares in both gubernatorial and presidential elections around the Ellwood event time period.

4.2 Empirical design

We adopt the same natural strategy as in the previous section, i.e. a difference-in-differences approach with a continuous measure of treatment based on proximity to Ellwood, applied to our using county-level data. Our approach exploits the fixed geographic distance to Ellwood in combination with the timing of the Ellwood shelling to estimate the effect of the perceived threat of foreign invasion on political outcomes.

In order to substantiate the "conservative shift" hypothesis, we focus on the effect of the bombardment on the Republican vote share in California gubernatorial and US presidential elections. In particular, we estimate

$$\text{RepVote}_{c,t} = \beta_t \text{Ellwood}_c \times \mathbf{D}_t + \gamma_t \mathbf{X}_c \times \mathbf{D}_t + \mathbf{D}_c + \mathbf{D}_t + \epsilon_{c,t} \quad (2)$$

Where the left-hand-side variable, $\text{RepVote}_{c,t}$, is the Republican vote share in county c at time t. Our analysis covers 58 Californian counties and the 1934-42 gubernatorial elections, or alternatively the 1928-72 presidential elections. $\mathbf{D}_c$ and $\mathbf{D}_t$ denotes full sets of county and time fixed effects, respectively. Ellwood_c is the proximity of county c to Ellwood (i.e. minus the distance in km), which we interact with time dummies $\mathbf{D}_t$ to identify how republican voting changed after the event the vicinity of Ellwood. $\mathbf{X}_c$ denotes a set of county-specific covariates, in particular longitude and latitude, that we interact with time dummies D_t to account for the varying effect of geography over time. In robustness checks we will also include in vector $\mathbf{X}_c$ other demographic and socio-economic county characteristics (such as the share of foreign born, Japanese, African-Americans, other race, college educated, radio access, farmers, manufacturing, unemployed, farm and housing value) interacted with time dummies. This will allow to control for any differential variation over time in these potential confounders that might explain a change in voting behavior (either through a change in preferences or a change in composition).[25] We again allow $\epsilon_{c,t}$ to be spatially correlated within a 100km radius in the baseline, and run robustness exercises with alternative radiuses.

Identification and interpretation. The coefficient of interest is β_t, which captures the differential effect of distance to the 1942 Ellwood shelling, with respect to the baseline year. In other words, this measures the perceived threat of foreign invasion, created by the Ellwood bombardment in 1942, on political outcomes. Our identification strategy relies on two assumptions. First, the location and timing of the attack should be unrelated to the evolution of the political situation in California. This is a plausible argument, as already discussed before: the targeting of Ellwood was quasi-random and it is highly unlikely that this specific target was selected so as to maximize its impact on republican voting. Appendix Table A.3 provides support for this argument by showing that distance to Ellwood is not related to our main outcome at baseline (republican vote share in 1934), neither to any other observable covariates measured in the 1940 census across counties. However, we observe that latitude and longitude correlate with many of these variables and we will therefore as before control for those in our baseline estimation to ensure that distance to Ellwood does not conflate these

[25] As these variables are measured in the 1940 Census, they may represent bad controls for the periods 1934 and 1938, therefore our preferred specification only includes longitude and latitude.

potential confounders. Second, our approach assumes that the change in political preferences triggered by the Ellwood shelling decreases with distance from the event. This is natural assumption as the fear and panic created by the event was mostly spread through word-of-mouth and local newspapers, as shown earlier, and it radiated from Ellwood toward the rest of California. Therefore, assuming that this movement of fear and panic generated the "conservative shift" that nourished republican voting, it implies that we should observe that the effect of the event on political outcomes decays as we move further away from Ellwood.

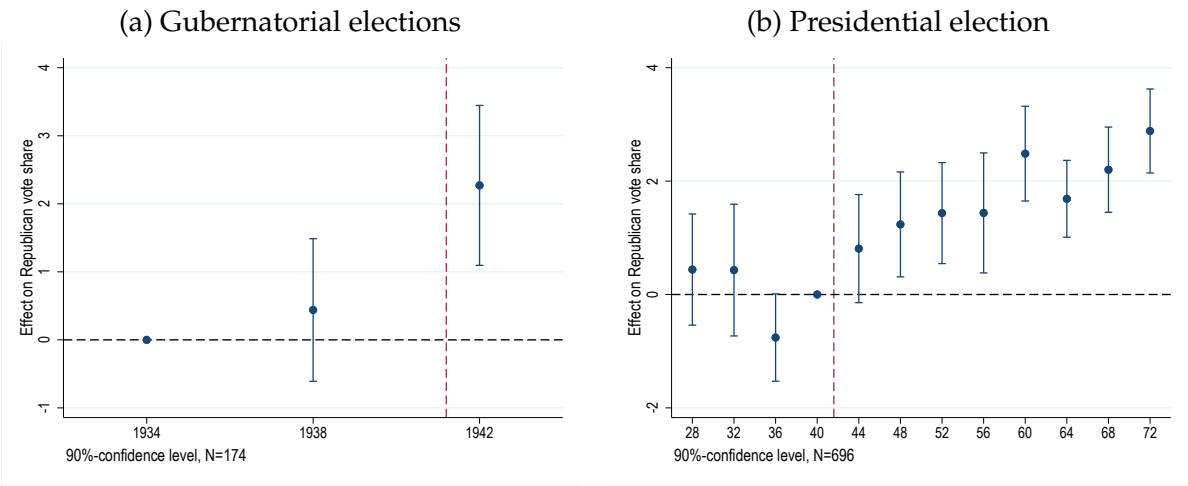
It is noteworthy that in our context an increase in the republican vote share reflects both a shift to the political right and an anti-incumbent effect (as both the US President and the Governor of California were Democrats by 1942). However, one would expect the two effects to go in opposite directions as the incumbent effect would presumably be positive, i.e. a "rally-around-the-flag" effect. Hence, though we are not able to disentangle the two effects we most likely capture the dominant "conservative shift" impact. In addition, it is likely that the "anti-incumbent" effect would disappear over time (as other issues take precedence), while we will show that the effect of distance to Ellwood on republican votes is persistent (notably even after a Republican candidate became president in 1952). We also find corresponding results for the House and Senate both Republican and Democrat representatives from California being roughly equal shares in 1942, where the "anti-incumbent" should accordingly offset any shift to a specific party. We will also show that the usage of many "conservative words" changed with respect to distance to Ellwood after the event (and for a substantial amount of time), substantiating the idea that the event created a shift in preference toward conservative views and that this change is sticky and persist over time.

4.3 Results

Baseline results. Figure 8 presents the event-study estimates for the effect of distance to Ellwood on republican vote shares in California's over time. As specified in equation (2), our specification includes fixed effects for counties and time, and controls for latitude and longitude interacted by time-period fixed effects. The detailed estimates are presented in Table 4, column 1 below (for figure a) and in the appendix, Table A.4 panel B column 1 (for figure b). Figure 8.a shows the effect of Ellwood on gubernatorial elections, i.e. on republican vote shares in the election of 1938 (before the event) and 1942 (9 months after the Ellwood event). Figure 8.b plots the response of republican vote shares in presidential elections, up to 1972.

In both cases we observe that before the bombardment, distance to Ellwood does not impact significantly republican vote shares. After 1942 however, republican vote shares increase around Ellwood. This effect is quantitatively meaningful: in the case

Figure 8: Effect of Ellwood on voting behavior



Source: This figure shows the effect of the Ellwood bombing on republican vote shares in Gubernatorial (a) and Presidential (b) elections. Estimations based on equation (2). They include county and year fixed effects as well as latitude and longitude interacted with year dummies. 90% confidence intervals are shown around each point estimate, based on standard errors allowing for spatial correlation within a 100 km radius. The full results of figure (a) appear in Table 4, column 1. The full results of figure (b) appear in Table A.4 panel B column 1 (which shows the corresponding post-Ellwood dummy result in panel A).

of gubernatorial elections, it implies that the increase in republican voting in 1942 in Los Angeles is 4.12% higher than in San Francisco, as LA is 280 km closer to Ellwood than SF.[26] Another way of quantifying the effect of the Ellwood event on voting is to perform a counterfactual exercise in which the predicted 1942 republican vote shares are computed under the Ellwood scenario (our baseline), and under a scenario where all counties are assigned the *maximum* distance to Ellwood (hence the lower Ellwood effect). In other words, the alternative scenario assumes that the shelling was distant enough from all Californian counties and had a minimal impact on voting. We can then aggregate the predictions to get the California level republican vote share under both scenarios (using data on turnout). Doing so, we find a predicted aggregate vote share of 55.8 percent in the baseline – quite close from the actual 57.1 percent obtained by Earl Warren, the republican candidate. Under the counterfactual scenario however, this vote share falls to 45.7 percent, i.e. a score closer to the 1938 Republican score (44 percent in favor of Frank F. Merriam, the republican candidate).

The study of presidential elections also delivers interesting results. In particular, we see that the effect persists over time (up to the 1972 election) and, if at all, seems to increase even after 1944. We will show in section 5 that a durable shift in preferences is plausibly the cause of this long-lasting persistence. It is also worth noting that the post-Ellwood coefficients are quite close to the ones found for gubernatorial elections, suggesting that the impact of Ellwood on republican vote shares was quantitatively

[26]Interestingly, actual the observed difference in republican vote shares between LA and SF is also 4% as it increased by 13% in LA and 9% in SF between 1938 and 1942.

similar for both types of elections.

Sensitivity analysis. These results are robust to a host of sensitivity checks. First, Appendix Figure A.5 display similar results for House and Senate elections in the appendix. We prefer the gubernatorial and presidential elections as our main specifications due to issues with non-competed seats and multi-party affiliations in House and Senate races creating considerable issues with missing values in those elections. This is further complicated by redistricting of congressional districts every 10 years and the elections for California's two senate seats being held in 6-year intervals in different years. Still our overall findings seems remarkable robust even in those specifications. The senate and house results also support that the effect is not an "anti-incumbent" effect as one California senate seat was held by a Democrat and the other by a Republican. Our estimated coefficients post-Ellwood are nearly identical across the 6-yearly elections for the respective seats. Similarly, Representatives in the House from California were equally Democrats and Republicans in 1940 with the estimated coefficients following the Ellwood bombardment (1942-46) being only slightly larger than the one estimated for the 1942 gubernatorial election. Both in Senate and House elections the effect also appears persistent over time. Second, Table 4 below and its equivalent for presidential elections, appendix Table A.4, show that controlling for additional county characteristics that may correlate with distance to Ellwood and affect voting behavior has little effect on the results. We sequentially include controls for coastal counties, ethnic composition (that might impact voting through a composition effect in the population), economic structure (agriculture and manufacturing especially). All variables are taken at the 1940 value and interacted with time dummies. The coefficients of interest are stable, even when all controls are included simultaneously in column (7). It is therefore likely that a change in these potential confounders is not driving the result. A limitation of the data and of this exercise is that our controls (with the exception of coastal status, and oil availability) are measured in the 1940 census and are therefore potentially "bad controls" for the pre-treatment period (which is why column 1 is our preferred specification). We use the 1940 census data as it provides more detailed information on racial characteristics and is the first census to report educational attainment and radio ownership.

Third, using robust standard errors or increasing the radius within which we allow for spatially correlated error term does not affect the results, as shown in Appendix Table A.5 for both gubernatorial and presidential elections – if anything, the coefficients tend to be a bit more precisely estimated with larger radiuses.

Fourth, in Table A.6 we change the functional form used for distance and replace the level by the log distance. Though lightly less precisely estimated in the case of gubernatorial elections, the effect appears globally robust.

Table 4: Distance Ellwood and gubernatorial elections (additional controls)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dep. var.	Republican Vote Share (Gubernatorial)						
Prox. to Ellwood × 1938	0.439	0.032	0.356	0.522	0.206	0.633	0.263
	(0.637)	(0.545)	(0.628)	(0.720)	(0.524)	(0.555)	(0.304)
Prox. to Ellwood × 1942	2.271***	1.478***	2.638***	2.153**	1.827***	2.428***	1.687***
	(0.715)	(0.569)	(0.796)	(0.901)	(0.547)	(0.599)	(0.284)
N	174	174	174	174	174	168	168
County FE	———	———	———	Yes	———	———	———
Time FE	———	———	———	Yes	———	———	———
Geography × Time FE	———	———	———	Yes	———	———	———
Coastal × Time FE	No	Yes	No	No	No	No	Yes
Oil × Time FE	No	No	Yes	No	No	No	Yes
Race × Time FE	No	No	No	Yes	No	No	Yes
Rural × Time FE	No	No	No	No	Yes	No	Yes
Urban× Time FE	No	No	No	No	No	Yes	Yes

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. OLS estimations. Standard errors allowing for spatial correlation within a 100 km radius in parenthesis. This table contains the results of estimating equation (2) on gubernatorial elections. The dependent variable is the county specific vote share of republicans. Years included: 1934, 1938, 1942. Proximity to Ellwood is minus the distance to Ellwood in 100km. All estimations include county and year fixed effects, as well as control for latitude and longitude interacted with year dummies. Controls (also interacted with year dummies): coastal dummy (col. 2 and 7); oil field dummy and oil reserves (cols 3 and 7); share Foreign, Japanese, African-Americans, other (col. 4 and 7); farm land value and share of farmers in population (col. 5 and 7); and share of population with college education, share of population owning radio, share of manufacturing, unemployment rate and housing value (col. 6 and 7). All controls are taken at their 1940 value.

Finally, in Tables A.7 and A.8 we further check if the distance to Ellwood is really the driving factor of a change in voting behavior after the bombing by including alternative distance variables. In Table A.7 we show that adding distance to other major Californian cities (Los Angeles, San Francisco, San Diego, Sacramento) does not change significantly the main coefficient, either for gubernatorial elections (panel A) nor presidential elections (Panel B) in columns 1-5. Therefore, we do not capture here an effect that would be driven by the relative proximity of Ellwood to one of this major city (e.g. an effect of the fear of a potential Japanese attack in Los Angeles the same year). Results are also robust to excluding Los Angeles, San Francisco and Santa Barbara county (the location of Ellwood) from the regressions (column 6). In Table A.8 we investigate if the effect of distance to Ellwood remains significant when considering the other Japanese attacks on the West Coast (the attack on Fort Stevens and the Lookout Air Raids in Oregon, see section 2) as well as Pearl Harbor. The main objective of this table is to check if the effect of distance to Ellwood was not conflating additional effects of the other Japanese attacks on the West Coast at that period. We observe in column 2 the Ellwood effect is robust to adding distances to Fort Stevens, to the Lookout Air Raids and to Pearl Harbor. Overall it seems that the fear and panic generated by the Ellwood bombing had a particularly strong impact on voting preferences, an effect that we do

not retrieve for subsequent Japanese attacks on the US soil (either due to both attacks in Oregon occurring after the Ellwood bombardment, or due to being a military target in the case of Fort Stevens and successful censorship in the case of the Look Out Air Raids, see Yenne 2016). We also note that there is no significant effect of distance to the Ellwood bombardment outside of California using Oregon and Washington by themselves.

4.4 Alternative mechanisms

In this section we investigate alternative plausible mechanisms underlying this effect of the Ellwood bombing on voting behavior.

Voters turnout. The first is the possibility that the Ellwood bombing affected voters' turnout. Republican vote shares may increase artificially as a result of a lower turnout of Democrat voters. We reproduce our event study analysis on turnout data (share of voters in the population computed from Leip 2021 data). The results are plotted in Appendix Figure A.6. We see that distance to Ellwood does not impact significantly voter turnout following the event. Interestingly though, we observe a slight increase in the turnout in the long-run (end of the 50s'). However, this effect appears too late, and is too limited to explain the drastic change in republican voting directly after the event.

Economic and social impacts. A second possibility is that the Ellwood shelling had a spatially differentiated effect on the economic and social structure of the region, for instance through migration or business relocation (e.g. firms or workers moving because of the fear of an attack). Such a change in the economic structure would certainly impact voting, but not directly through behavioral changes and rather indirectly through a change in composition in the population and economic structure. Table 5 shows the effect of distance to Ellwood on various socio-economic characteristics of counties measured in the 1930 and the 1960 census (with respect to 1940). We distinguish no clear effect of the distance to Ellwood on these fundamental characteristics with regards to the bombing (and no substantial changes over the period). The only noteworthy effect seems to be an increase in WW2 veterans (positively correlated with distance). However, the 1960 share does not differ from the one in 1930. Using NHGIS census data providing complete coverage of California counties and higher frequency observations —but less detailed variables than IPUMS data— we also do not observe any impact on population size, non-White share and property value across California

in Appendix Figure A.7.[27] Therefore, it is very unlikely that economic changes drive the effect of Ellwood bombing on voting behavior.

Table 5: Economic structure and distance Ellwood compared to 1940

	Economics			Migration		
	Agri.	Manuf.	Aero.	Internal	External	Naturalized
	(1)	(2)	(3)	(4)	(5)	(6)
Prox. to Ellwood × 1930	1.564*	-0.001	-0.302	-0.858	0.172	-0.933
	(0.921)	(0.834)	(0.245)	(0.959)	(0.769)	(0.980)
Prox. to Ellwood × 1960	0.890	0.708	-0.120	-0.810	-0.158	-3.726
	(1.148)	(1.172)	(0.132)	(0.757)	(0.375)	(2.370)
	Race					
	White	Black	Asian	Other	Hispanic	Veteran status
	(7)	(8)	(9)	(10)	(11)	(12)
Prox. to Ellwood × 1930	0.211	-0.263	-0.050	0.102	0.823	0.308***
	(0.494)	(0.176)	(0.216)	(0.221)	(0.695)	(0.073)
Prox. to Ellwood × 1960	-0.112	-0.178	0.427	-0.137	0.032	0.283**
	(0.606)	(0.268)	(0.334)	(0.141)	(0.881)	(0.131)
N	93	93	93	93	93	93
County FE	Yes					
Time FE	Yes					
Geography × Time FE	Yes					

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. OLS estimations. County-level estimations with collapsed IPUMS census data (missing data for counties with small identifiable populations). Standard errors allowing for spatial correlation within a 100 km radius in parenthesis. The dependent variable is: the share of the workers employed in agriculture (col 1), manufacturing (col 2), aeronautical industry (col 3) ; the share of the population born in the state (col 4), in a foreign country (col 5), and naturalized (col 6); the share of White (col 7), African-Americans (col 8), Asian (col 9), other (col 10), Hispanic (col 11) in the population; and the share of veterans in the population (col 12). Years included: 1930, 1940 (benchmark), 1960. No 1950 data available at the county level. Proximity to Ellwood is minus the distance to Ellwood in 100km. All estimations include county and year fixed effects, as well as control for latitude and longitude interacted with year dummies.

Heterogeneity. Finally, Tables 6 (for gubernatorial elections) and A.9 (for presidential) study whether the effect of Ellwood on republican vote shares varies with county-specific characteristics. We simply augment (2) with triple interaction terms with county characteristics (controlling for the simple interaction between county characteristics and the post Ellwood dummy). We consider a number of characteristics that might amplify the "conservative shift" triggered by the Ellwood event. First, we study whether the effect of Ellwood was more pronounced in coastal regions, which could be the case

[27] If there is an effect at all. The results in Appendix Figure A.7 suggest that there is an (insignificant) decrease in population and property values that starts to occur in the 1950s more than 10 years after the Ellwood bombardment (with previous estimates in respectively 1945 and 1950 showing a precisely estimated 0 effect). These effects might suggest small long-run negative economic consequences of the change in behavior.

if the fear of Japanese attacks was felt in all the shore-based locations. Column (1) of Tables 6 and A.9 show that it is not the case.

Second, we investigate if the share of Japanese people (before the war in 1940) in a county impacts the effect of distance to Ellwood on voting. This would be the case if, for example, inhabitants would fear that Japanese people are more likely to collaborate with the enemy after the Ellwood event (as implied in the Executive Order 9066 that led to the set-up of internment camps for Japanese in the US) or rather fearing their return as interment had already occurred pre-election. Column 2 of Tables 6 and A.9 show the share of Japanese people in a county does not amplify the original effect.

Third, we investigate if the share of radio owners in the county might be a driver of the effect. The main intuition here is that the Japanese attack was triggered during Roosevelt's speeches on the advancement of the war (broadcasted on radio) in order to affect the morale of US citizens. Furthermore, radio —in contrast to newspapers which were mostly Republican leaning— was a medium with which Democratic politicians could directly reach voters. We obtain conflicting results on gubernatorial and presidential elections. On gubernatorial elections, radio appeared to have had a buffering effect on the impact of distance to Ellwood on republican voting in the 1942 election directly following the event (column 3, Table 6). This seems consistent with radio owners being more exposed to democratic messages on the war being able to listen to Roosevelt's regular radio speeches and vice-versa were less impacted by the change in local newspaper coverage that was more Republican leaning. Surprisingly, we observe the opposite result for presidential elections over the long-run up to 1970 (column 3, Table A.9), which notably were more distant in time from the Ellwood bombardment. The reason for this is hard to disentangle over this longer period. On the one hand it might indicate that radio listeners lost trust in the official government broadcasts over time. Alternatively, radio broadcasting itself might have changed over time as the California governors and US presidents were mostly Republican post-WW2. Finally, we might not want to put too much emphasis on the long-run estimate of radio access here as radio ownership rapidly increased during the 1940s as well as gotten replaced subsequently by television as main medium in the 1950s. Accordingly, radio access in 1940 might be correlated with other factors in the long-run that drive the positive coefficient of the interaction term.

Fourth, in column (4) we interact our treatment variable with the share of the population with college education. Though significance varies (see also Table A.9), we tend to find that the level of education in a county reduced the effect of the Ellwood bombardment. This is in line with previous studies showing overall a moderating effect of education. For instance Schüller (2016) finds that education dampened the effect of 9/11 attacks on attitudes toward immigration.

Finally, column 5 shows that the baseline level of republican voting in 1934 did not impact the effect of Ellwood in gubernatorial elections but magnified the effect in presidential elections. The later effect appears interesting as it suggests that the long-run effect of the Ellwood bombardment is more through binding voters to the Republican rather than persistently changing individuals opinions. This supports that the long-run effect is plausibly driven by social networks in local communities —encompassing through local newspapers that are more Republican leaning— that reinforced Republican voting long after the direct exposure to the Ellwood bombardment faded from peoples memories. These results are reinforced when including all interaction terms at the same time in column 6.

Table 6: Heterogeneity analysis (gubernatorial elections)

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. var.	Republican vote share					
Prox. to Ellwood × 1942	1.467**	2.222***	10.718***	7.096***	2.589	9.746***
	(0.639)	(0.685)	(3.648)	(1.957)	(2.104)	(3.236)
× Coastal County	-0.009					0.436
	(0.570)					(0.307)
× Share Japanese		-0.002				0.003
		(0.003)				(0.003)
× Share radio			-0.106**			-0.090**
			(0.044)			(0.041)
× Share college educ.				-0.434***		-0.204
				(0.161)		(0.161)
× Rep. share 1934					-0.027	0.008
					(0.043)	(0.058)
N	174	174	174	174	174	174
R^2	0.172	0.140	0.155	0.186	0.304	0.368
County FE	Yes					
Time FE	Yes					
Geography × Time FE	Yes					

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. OLS estimations. Standard errors allowing for spatial correlation within a 100 km radius in parenthesis. This table contains the results of estimating equation (2) on gubernatorial elections, augmented with interaction terms. The dependent variable is the county specific vote share of republicans. Years included: 1934, 1938, 1942. Proximity to Ellwood is minus the distance to Ellwood in 100km. All estimations include county and year fixed effects, as well as control for latitude and longitude interacted with year dummies. All time invariant variables are also interacted with a 1942 dummy.

4.5 Fear and voting

The absence of clear alternative socio-economic or political drivers substantiate the hypothesis that most of the shift in voting behavior transited through a change in political preferences. We push further this explanation by looking at the direct effect of fear and panic, instrumented by the Ellwood treatment, on republican voting. We start by computing a county-specific measure of fear sentiment based on our newspaper

data. Our measure is the average number of page-adjusted fear words used in Californian newspapers during that year. This is weighted by the inverse distance between each newspaper and the county's centroid. We then regress republican vote shares at the Gubernatorial elections (that occurred 6 months after the event) on this variable instrumented by the Ellwood treatment. Of course, the results must be taken with caution as the exclusion restriction of the IV may not hold fully – the Ellwood event could have impacted voting through other behaviors than fear and panic as well. Still, we believe that this exercise is interesting because it provides a direct estimation of the effect of fear sentiments on voting, something that we cannot do without an IV because fear and political preferences may be jointly determined.

Table 7: Fear, distance to Ellwood and republican voting

Dep. var.	Exposure to fear words		Rep. Vote shares	
	(1)	(2)	(3)	(4)
Prox. to Ellwood × 1942	0.037***	0.048***		
	(0.011)	(0.011)		
Fear sentiments			55.537***	32.281***
			(21.525)	(11.728)
N	290	280	290	280
F-stat	-	-	12.3	20.3
County FE	Yes			
Time FE	Yes			
Geography × Time FE	Yes			
Other controls × Time FE	No	Yes	No	Yes

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. OLS estimations in columns 1 and 2, 2SLS estimations in columns 3 and 4, where exposure to fear words is instrumented by prox. to Ellwood × 1942. County-level estimations. Standard errors allowing for spatial correlation within a 100 km radius in parenthesis. Fear sentiments is the inverse hyperbolic sine of the number of page-adjusted fear words used in Californian newspapers during that year, weighted by the distance between each newspaper and the county's centroid. Proximity to Ellwood is minus the distance to Ellwood in 100km. All estimations include county and year fixed effects, as well as control for latitude and longitude interacted with year dummies. Other controls (also interacted with year dummies) include: coastal dummy; oil field dummy and oil reserves; share Foreign, Japanese, African-Americans, other; farm land value and share of farmers in population; and share of population with college education, share of population owning radio, share of manufacturing, unemployment rate and housing value. All controls are taken at their 1940 value.

The results are shown in Table 7. Columns (1) and (2) contain the first stage – a county-level version of our newspaper-level results of section 3. The instrument is reasonably strong, providing F-stats of respectively 12 and 20 depending on the specification (for col. 3 and 4). The results confirm that for our gubernatorial time periods (1934, 1938, 1942), distance to the Ellwood event generated a rise in fear words. In columns (3) and (4) we provide the 2SLS results. We find that the effect of fear on republican voting is substantial. Based on the elasticities that we can compute from column (4)[28], we find that a standard deviation increase in our fear sentiments proxy

[28]These elasticities take into account the fact that our instrumented regressor is an inverse hyperbolic sine transformation (Bellemare & Wichman 2020).

is associated with a 7.6 percentage points increase in the republican vote share. This is equivalent to a 14 percent increase when compared to the mean vote share.

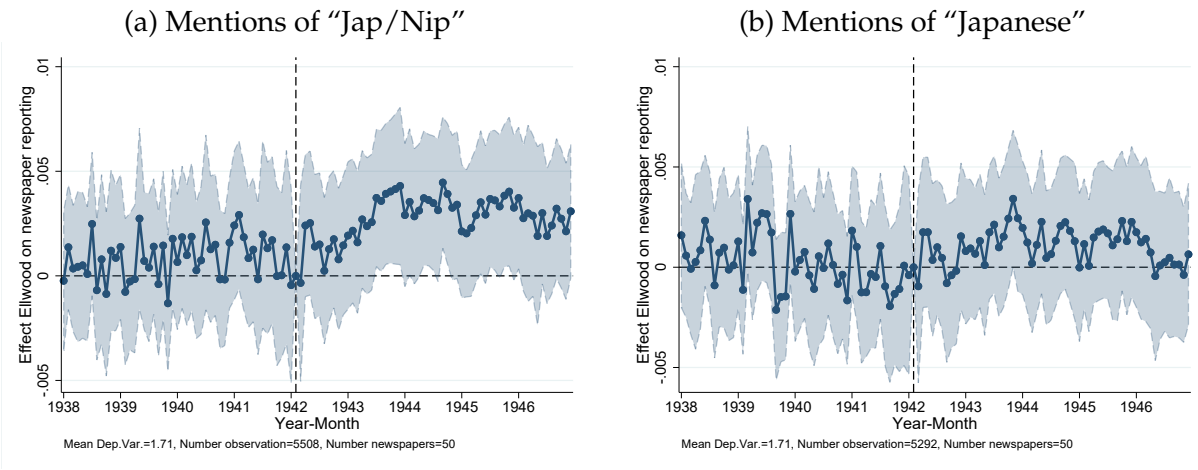
5 The persistence of the conservative shift

Our results so far show that the shelling of Ellwood has triggered a wave of fear in the vicinity of Goleta, and that this wave of fear likely triggered the observed increase in republican vote share in these areas after the event. Indeed, this conservative shift in local preferences was not the result of a change in the economic structure or population composition, nor of variations in voters' turnout. In this section, we investigate in more details the behavioral roots of the persistence of the effect on voting. We go back to the newspaper data and highlight that many words associated with conservative attitudes increased in areas closer to Ellwood after the event and that the usage of these words remained higher in these areas for a long time. In particular, following section 2, we will focus on the semantic shift in the usage of words related to war-enemies and to communism, as well as derogatory terms denoting Japanese, Mexicans and African-Americans to check if the conservative shift was associated with a persistent increase in xenophobic attitudes.

We first turn toward the use of derogatory terms for denoting Japanese people (such as the insulting terms "Nip" or "Jap") in local newspapers. Section 2 highlights that Japanese-Americans were among the main victims of the Ellwood event and the invasion fear on the West Coast as they were the target of strong discrimination and ultimately interment. Figure 9.a shows that mentions of such derogatory terms increased in newspapers located closer to Ellwood. This result certainly reflects an "anti-Japanese" feeling after the event that might have fueled more conservative voting behavior (especially considering the clearly anti-Japanese stance of the Republican candidate in the 1942 election). Interestingly, the pattern depicted in the figure is very similar to the effect of the attack on the use of fear words. On the other hand, when looking at the non-derogatory term "Japanese" in Figure 9.b, we do not find a similar effect: the mentions of the word increase maybe slightly after the event, but the impact is much more limited and remains insignificant.

Fear of invasion and red-scare. We expend the analysis to a larger set of words and use an approach similar to the one described in section 3: we split the sample in 3 periods (before the event, after the event up to the end of WWII and after the end of WWII) to capture long-run changes in word usage that would reflect a persistent change in belief and local sentiment. Table A.10 in the Appendix displays the results for two broad categories of words: Panel A shows results for words related to the war and the fear of invasion, and Panel B displays results related to words designing various

Figure 9: Effect of Ellwood on mentions of Japanese-related words



Source: This figure shows the effect of the Ellwood bombing on the number of occurrences of specific Japanese-related words in Californian newspapers. We use a specification akin to (1), at the monthly level, restricted to period 1938-1946, and estimate coefficients β_t (equation) for each month pre- and post-Ellwood. Estimations include journal fixed and time fixed effects, and latitude and longitude interacted with time dummies. 90% confidence intervals depicted in light grey, based on standard errors allowing for spatial correlation within a 100 km radius.

war/political enemies of the US at the time (Japanese, Axis, Communists). Though significance varies, Panels A1 and B1 display consistent results: the use of these words related to the war and enemies tended to increase more in newspapers located closer to Ellwood after the event. Panel A2 and B2 break down this effect, separating out the medium-run (war) and long-run (post-war) effect of Ellwood on word usage. Panel A2 further shows the usage of most military terms declines post-WW2, but does remain still slightly more covered in the news. Especially, mentions of attacks, invasions and bombardments associated directly with fears of a Japanese invasion of the West Coast. However, the use of the word espionage rises even further after the war in line with even more intense fears of Communist espionage during the second red scare. Interestingly, panel B2 shows that the usage of derogatory "Japanese"-terms continues to be used persistently more closer to Ellwood at the expense of more neutral terms long after the war ended. The use of "Axis" while higher during the war disappears after the war. In contrast, the usage of "Communist" follows a very similar pattern to derogatory terms as it remained higher in areas close to Ellwood even after the war (during the war mainly the use of "Commie" appears to have increased).

The semantic shift is not equally observed on the democrats and republicans sides. This is made clear in Table 8, which looks at the co-occurrences of republican or democrat rhetoric and various words designing war or political enemies. The dependent variables are the number of mentions of terms like Japanese, axis, communist or commie, *within articles containing republican or democrat-related words* (as listed by Gentzkow et al. 2019). Again we split the post-Ellwood time period into the war and post-war pe-

Table 8: Distance Ellwood and newspaper coverage: Axis and communist

Words	(1) Axis & Rep.	(2) Axis & Dem.	(3) Japanese & Rep.	(4) Japanese & Dem.	(5) Communist & Rep.	(6) Communist & Dem.	(7) Commie & Rep.	(8) Commie & Dem.
Panel A. Overall effect of Ellwood bombardment								
Ellwood bombardement	0.115***	0.046***	0.096***	0.026**	0.136***	0.083***	-0.145***	0.008
	(0.011)	(0.010)	(0.013)	(0.012)	(0.014)	(0.012)	(0.035)	(0.035)
Panel B. Effect of Ellwood bombardment during and after the war								
Ellwood bombardement (war)	0.180***	0.112***	0.211***	0.153***	0.003	-0.028**	-0.077	0.058
	(0.016)	(0.013)	(0.019)	(0.016)	(0.014)	(0.013)	(0.047)	(0.042)
Ellwood bombardement (post)	0.069***	0.000	0.015	-0.062***	0.228***	0.161***	-0.192***	-0.026
	(0.013)	(0.012)	(0.014)	(0.014)	(0.018)	(0.014)	(0.042)	(0.043)
N	12852	12852	12852	12852	12852	12852	5252	5252
R^2	0.041	0.042	0.039	0.039	0.053	0.051	0.108	0.116
Controls	Yes							
Fixed effects	Journal, year × month							

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. OLS estimations. Standard errors allowing for spatial correlation within a 100 km radius in parenthesis. Panel A shows the results of estimating equation (1). Panel B splits the post dummy into war and post war period. Controls include longitude and latitude of headquarters location interacted time dummies. The dependent variables are (all use an inverse hyperbolic sine transformation): mentions of the word "axis" in articles containing democrat-related words (col 1) or republican-related words (col 2); mentions of the word "Japanese" in articles containing democrat-related words (col 3) or republican-related words (col 4); mentions of the word "communist" in articles containing democrat-related words (col 5) or republican-related words (col 6); mentions of the word "commie" in articles containing democrat-related words (col 7) or republican-related words (col 8).

riods, to determine whether the impact of Ellwood on conservative political opinions is persistent. In Panel A we see that all the co-usage of republican and enemies terms increase much more in areas closer to Ellwood than the co-occurrence of enemies terms with democrat rhetoric: the coefficients are between 0.6 and 5 times bigger in the former case. Importantly, the effect is also much more persistent on the republican side: at the exception of the word "communist", none of the post-war coefficients is positive and significant for democrat rhetoric. The opposite is observed for the joint usage of republican and enemies words: post-war coefficients are all positive, and significant for three out of four words.[29] Therefore, it seems that the fear of Japanese invasion and the anti-communist attitude was stronger—and co-occurred more often with republican rhetoric—closer to Ellwood on the long-run.

Xenophobic rhetoric. Finally, we investigate the idea that the conservative shift also translated in a persisting semantic shift toward the use of more xenophobic terms, substantiating the idea that the attack triggered an increase in "within-group" attitude at the expense of excluded minority groups present in California. Here it should be high-

[29] In the appendix Table A.11 we perform a similar analysis, but instead of looking at the co-occurrence of enemy words with democrat or republican rhetoric, we look at the usage of these words within republican versus other newspapers. We find systematically stronger and more persistent effects in republican-leaning newspapers.

lighted that the parties policies with regards to minority groups vastly varied by local context across the United States, the time period in question and the respective minority group (e.g. Southern Democrats and the enactment of Jim Crow laws in former Confederate States after the Civil War). So that attitudes towards minority groups and these words should not be seen as unique at the time to either the Democratic nor the Republican party and their respective voters.

Table 9 displays results for the use of racist vocabulary for 3 different minority groups: Japanese ("Nip" and "Jap"), African-Americans ("Sambo", "Rastus", "Nigger" and "Negro") and Mexicans ("Greaser", "Spic" and "Beaner"), and their co-occurrence with republican and democrat vocabulary. In Panel A, we see that the co-usage of republican and xenophobic terms increase much more in areas closer to Ellwood than the co-occurrence of xenophobic terms with democrat rhetoric (statistically insignificant for African-Americans and Mexicans). Interestingly, this positive co-usage with republican terms is found for anti-African-Americans and anti-Mexican vocabulary, two minority groups that were not in any war associated with war-enemies during this period. They were therefore ancillary victims of the Ellwood event and the change in attitudes it generated. Panel B displays a strong persisting effect, similar to the one highlighted in Table 8: post-war coefficients are positive for the co-usage of xenophobic words and republican vocabulary (for all 3 minority groups).[30] This positive co-usage of republican and xenophobic vocabulary substantiates the idea that the conservative shift in voting was accompanied by a long-run shift toward stronger xenophobic attitudes in the area.

Overall, these results paint a picture consistent with the narrative developed in section 2 purporting that the fear of Japanese and Axis invasion translated into a stronger red-scare in California in the long-run, specifically in areas closer to Ellwood. It also translated into a persistent xenophobic shift toward minority groups that were unrelated to the original Ellwood event, Mexicans and African-Americans. These results substantiate the idea that transient—strong—negative emotions such as fear and panic might trigger a behavioral shift toward conservative values favoring "within-group" attitudes at the expense of excluded minority groups. Interestingly, this shift appears to be sticky and might explain the long-run effect of the Ellwood event on voting.

[30]Similarly, we run in the appendix Table A.12 an analysis were we look at the shift in xenophobic rhetoric in republican affiliated newspapers versus others (independent and democrat). We find qualitatively a very similar persistent pattern in the increase in usage of xenophobic rhetoric in republican newspapers closer to Ellwood as the one highlighted in Table 9.

Table 9: Distance Ellwood and newspaper coverage: Xenophobic vocabulary

Words	(1) Anti-Japanese & Rep.	(2) Anti-Japanese & Dem.	(3) Anti-Black & Rep.	(4) Anti-Black & Dem.	(5) Anti-Mexican & Rep.	(6) Anti-Mexican & Dem.
Panel A. Overall effect of Ellwood bombardment						
Ellwood bombardement	0.113***	0.035***	0.063***	-0.012	0.062***	-0.006
	(0.015)	(0.013)	(0.011)	(0.011)	(0.009)	(0.009)
Panel B. Effect of Ellwood bombardment during and after the war						
Ellwood bombardement (war)	0.206***	0.142***	0.085***	0.036***	0.065***	0.011
	(0.022)	(0.017)	(0.014)	(0.013)	(0.011)	(0.010)
Ellwood bombardement (post)	0.048***	-0.041***	0.048***	-0.046***	0.060***	-0.018*
	(0.016)	(0.015)	(0.013)	(0.013)	(0.012)	(0.011)
N	12852	12852	12852	12852	12852	12852
R^2	0.039	0.043	0.042	0.040	0.039	0.039
Controls	Yes					
Fixed effects	Journal, year × month					

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. OLS estimations. Standard errors allowing for spatial correlation within a 100 km radius in parenthesis. Panel A shows the results of estimating equation (1). Panel B splits the post dummy into war and post war period. Controls include longitude and latitude of headquarters location interacted time dummies. The dependent variables are (all use an inverse hyperbolic sine transformation): mentions of the word "jap" and "nip" in articles containing democrat-related words (col 1) or republican-related words (col 2); mentions of derogatory words for African-Americans ("sambo", "nigger", "rastus" etc) in articles containing democrat-related words (col 3) or republican-related words (col 4); mentions of the derogatory words for Mexicans ("spic", "greaser" etc) in articles containing democrat-related words (col 5) or republican-related words (col 6)

6 Conclusion

This paper provides evidence of the role of military attacks creating panic on persistent changes in political behavior. Using the distance to the Ellwood bombardment in 1942 we show that the fear and panic created by the event triggered a "conservative shift" favoring Republican candidates in subsequent elections. Using a large corpus of articles from Californian newspapers and text analysis, we provide evidence that the event also led to a semantic shift reflecting a change toward conservative beliefs in local communities closer to Ellwood. The Ellwood event led to no casualties and very little damage but contributed to the large scale panic that gripped the US West-Coast during WW2. This allows us to focus on the behavioral effect of the attack and convincingly neglect the fact that shifts in political preferences might have been driven by direct economic or demographic channels.

Several caveats apply to our mechanism. First, the Ellwood bombing was certainly not the only event pushing toward a shift in political behavior at that time (e.g. Pearl Harbor and the full US engagement in WW2 happened 2 months before). Our analysis focuses in showing that the areas closer to Ellwood had a greater "conservative shift" than other areas, and that this effect was persistent. Second, the Ellwood event might have impacted political behavior through other means than the wave of fear

and panic. Our analysis excludes that the event generated major structural economic and demographic changes using long run census data, but it might be that alternative unobserved behavioral factors changed and accompanied the shift in political opinions. Finally, our analysis shows that the event generated a long lasting change in a wide range of conservative opinions, some of which are seemingly unrelated to the event itself other than through increased fears of "out-groups". However, our analysis is unable to identify the main transmission mechanism generating this persistence in beliefs. In other words, our study does not discern whether the persisting changes in opinions and attitudes were driven by inter-generational transmission of conservative beliefs within families or if it resulted from a change in social norms within a community that reproduced through network effects or location choices.

Our findings offer a new interpretation of the role of attacks and bombing in generating a long lasting shift in political opinions and behavior. In particular, it highlights that some political parties, positioned on the conservative part of the political spectrum, tend to be more efficient in attracting votes from citizens that have been exposed to a traumatic collective event. More broadly, our study emphasizes the role of strong, transitory, emotions—such as fear and panic—in generating long-run behavioral changes that have profound social implications and through this —because of individual changes in personal or political choices— plausibly long-run economic consequences. We leave to future research the study of factors leading to the transmission of these behavioral changes as well as their exact long-run implications that go beyond the political effect.

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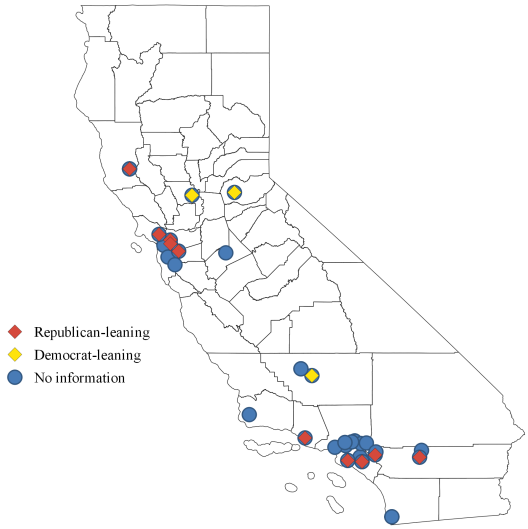
A Appendix

A.1 Descriptives

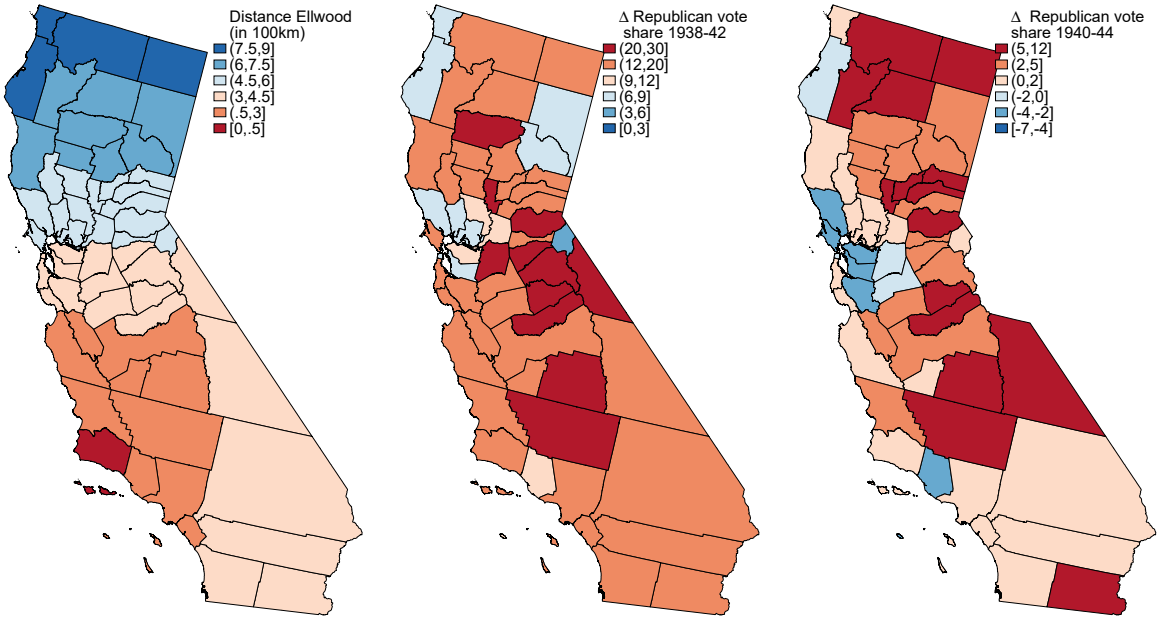
Figure A.1: Location of local newspapers



Notes: The map depicts the location and affiliation of newspapers across California. Source: newspaperarchive.com and United States Newspaper Panel.

Figure A.2: Gubernatorial and presidential elections

(a) Dist. Ellwood (100km) (b) Rep. vote share, Δ38-42 (gubernatorial) (c) Rep. vote share, Δ40-44 (presidential)



Notes: The map depicts the distance to Ellwood (a), change in republican Gubernatorial vote share 1938-42 (b), and presidential vote share 1940-44 (c) across California counties and affiliation of newspapers across California. Source: OurCampaigns (2021) & ICPSR (1999).

A.2 Additional results and sensitivity

Table A.1: Distance to Ellwood and newspaper coverage – spatial correlation

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Words	Fear		Republican	Rep. & Fear	Fear	Democrat	Dem. & Fear	Fear
Journals	All				Rep.	All		Dem.
Prox. to Ellwood × Post	0.086	0.067	0.103	0.083	3.670	0.030	-0.019	-39.272
Spatial radius 100km	(0.035)	(0.030)	(0.015)	(0.015)	(0.290)	(0.013)	(0.014)	(2.784)
Prox. to Ellwood × Post	0.086**	0.067**	0.103***	0.083***	3.670***	0.030**	-0.019	-39.272***
	(0.040)	(0.034)	(0.015)	(0.014)	(0.319)	(0.014)	(0.014)	(3.143)
Prox. to Ellwood × Post	0.086**	0.067*	0.103***	0.083***	3.670***	0.030**	-0.019	-39.272***
	(0.041)	(0.036)	(0.016)	(0.014)	(0.320)	(0.015)	(0.013)	(3.226)
N	12852	12852	12348	12348	3024	12348	12348	1008
Controls	Yes							
Fixed effects	Journal, year × month							

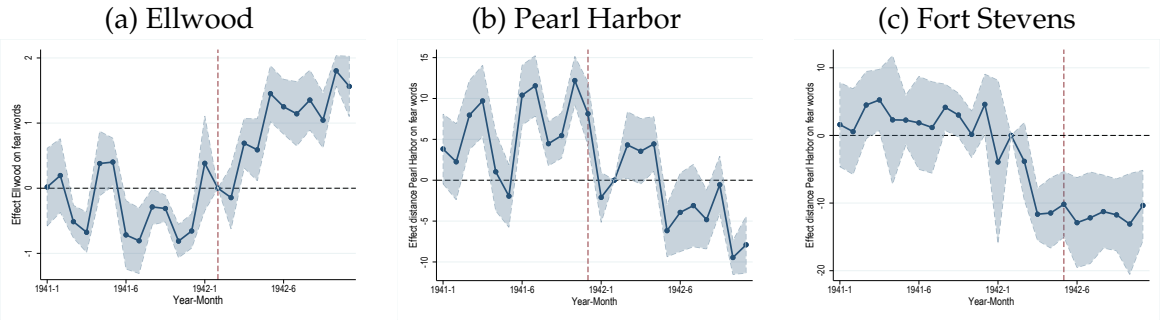
Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. OLS estimations. Standard errors allowing for spatial correlation within a 100, 200 or 500 km radius in parenthesis. The table shows the results of estimating equation (1). Controls include longitude and latitude of headquarters location interacted time dummies. The dependent variables are (all use an inverse hyperbolic sine transformation): in column 1, mentions of fear-related word; in column 2, mentions of fear-related word divided by page number; in column 3 (respectively 6), reporting of republican (democrat) words; in column 4 (resp. 7) mention of fear-related words in articles containing republican (democrat) words; in column (5) (resp. 8), mention of fear words, restricting the sample to republican- (democrat-)leaning newspapers.

Table A.2: Distance to Ellwood and newspaper coverage – additional robustness

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Words	Fear		Republican	Rep. & Fear	Fear	Democrat	Dem. & Fear	Fear
Journals	All				Rep.	All		Dem.
Panel A. Control for journal size FE								
Proximity to Ellwood × Post	0.114***	0.096***	0.089***	0.091***	1.035***	0.049***	0.010	-32.345***
	(0.026)	(0.023)	(0.014)	(0.015)	(0.268)	(0.013)	(0.014)	(0.131)
Panel B. Distance in logs								
log Prox. to Ellwood × Post	0.085	0.039	0.161***	0.174***	2.619***	0.043	-0.009	164.756***
	(0.069)	(0.060)	(0.033)	(0.034)	(0.339)	(0.028)	(0.031)	(11.681)
Panel C. Dep. var. in level								
Prox. to Ellwood × Post	165.760***	5.926	3.073***	1.691***	4336.755***	0.201*	-0.643***	-3.1e+04***
	(42.185)	(6.826)	(0.238)	(0.243)	(590.042)	(0.110)	(0.171)	(2088.581)
Panel D. Control for distance to LA								
Prox. to Ellwood × Post	0.444***	0.348***	0.242***	0.114***	1.954***	-0.038*	-0.115***	-58.623***
	(0.058)	(0.050)	(0.027)	(0.028)	(0.344)	(0.023)	(0.025)	(4.164)
Panel E. Control for distance to other large cities (SF, SD & Sacramento)								
Proximity to Ellwood × Post	0.257***	0.229***	0.142***	0.126***		0.163***	0.101***	
	(0.042)	(0.036)	(0.019)	(0.019)		(0.016)	(0.017)	
N	12852	12852	12348	12348	3024	12348	12348	1008
Panel F. Exclude newspapers in LA, SF, Santa Barbara								
Proximity to Ellwood × Post	-0.044	-0.055	0.095***	0.061***	7.520***	-0.021	-0.078***	-39.272***
	(0.039)	(0.033)	(0.017)	(0.018)	(0.351)	(0.015)	(0.016)	(2.784)
N	8064	8064	8064	8064	2772	8064	8064	1008
Controls	Yes							
Fixed effects	Journal, year × month							

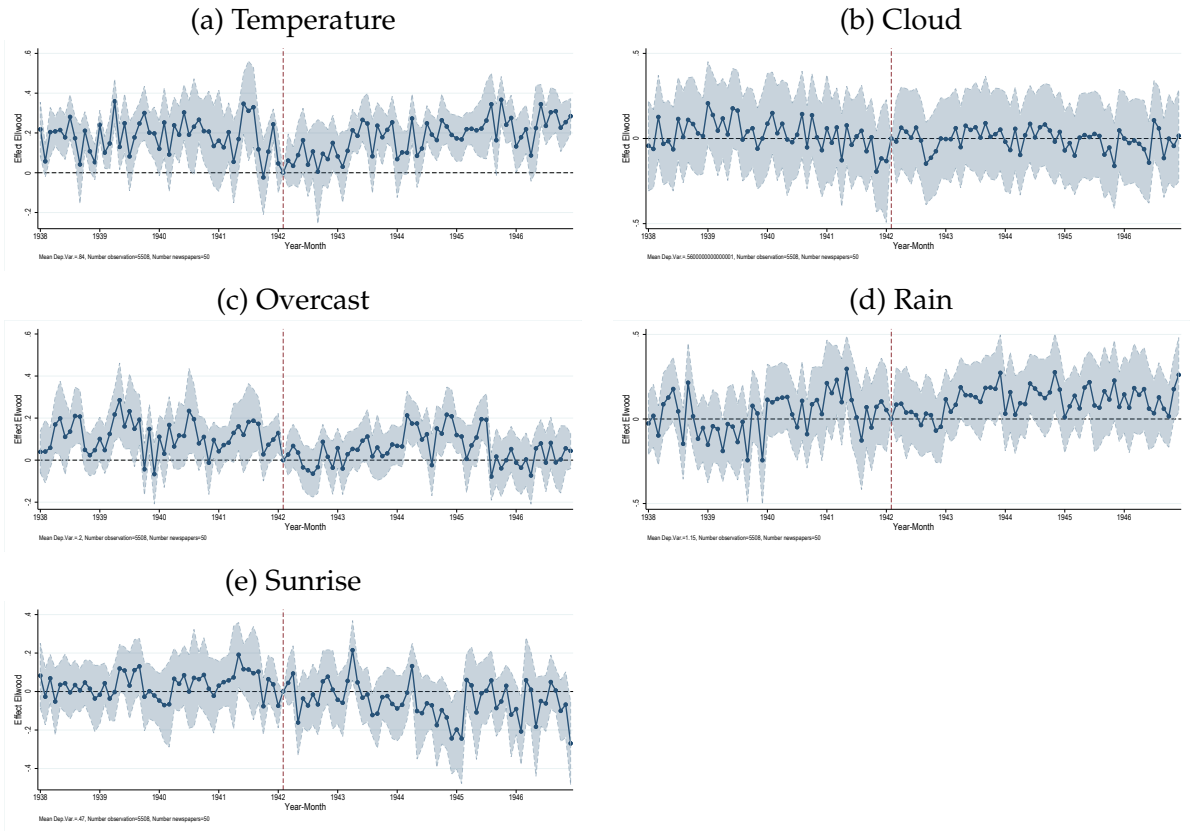
Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. OLS estimations. Standard errors allowing for spatial correlation within a 100 km radius in parentheses. The table shows the results of estimating equation (1). The dependent variables are (all use an inverse hyperbolic sine transformation apart from Panel C): in column 1, mentions of fear-related word; in column 2, mentions of fear-related word divided by page number; in column 3 (respectively 6), reporting of republican (democrat) words; in column 4 (resp. 7) mention of fear-related words in articles containing republican (democrat) words; in column (5) (resp. 8), mention of fear words, restricting the sample to republican- (democrat-)leaning newspapers. Controls include longitude and latitude of headquarters location interacted time dummies. Panel A controls for journal size (maximum number of page during the year) fixed effects. Panel B uses minus the log of distance to Ellwood instead of the level. Panel C uses the level of the dependent variables instead of the inverse hyperbolic sine. Panel D controls for distance to Los Angeles, interacted with the post Ellwood treatment dummy. Panel E controls for distance to the 3 next biggest cities at the time San Francisco, San Diego, and Sacramento interacted with the post Ellwood treatment dummy. Column 5 and 8 not estimated due to too few distinctly located newspapers. Panel F excludes all newspapers located in Los Angeles and San Francisco (two biggest cities) as well as Santa Barbara (location of Ellwood).

Figure A.3: Distance to Ellwood bombardment and other Japanese attacks



Source: This figure contains the results of estimating a specification akin to (1) including other Japanese attacks on the US. Proximity to Ellwood is minus the distance to Ellwood in 100km interacted with month fixed effects. The same measure is used for proximity to Pearl Harbor (Hawaii), and Fort Stevens (Oregon). We do not include Lookout Air Raid (Oregon) as the distance is nearly perfectly correlated with Fort Stevens across Californian and Fort Stevens bombardment occurred prior to the Lookout Air Raid. The red dashed lines depict the timing of the respective attacks. The base year-month is kept constant at the timing of the Ellwood bombardment for easier comparison. Estimations include journal fixed and time fixed effects, and latitude and longitude interacted with time dummies. 90% confidence intervals depicted in light grey, based on standard errors allowing for spatial correlation within a 100 km radius.

Figure A.4: Distance to Ellwood and weather-words



Source: This figure shows the correlation between the distance to Ellwood over time and the number of occurrences of weather related words in Californian newspapers. We use a specification akin to (1), at the monthly level, restricted to period 1938-1946, and estimate coefficients β_t (equation) for each month pre- and post-Ellwood. Estimations include journal fixed and time fixed effects, and latitude and longitude interacted with time dummies. 90% confidence intervals depicted in light grey, based on standard errors allowing for spatial correlation within a 100 km radius.

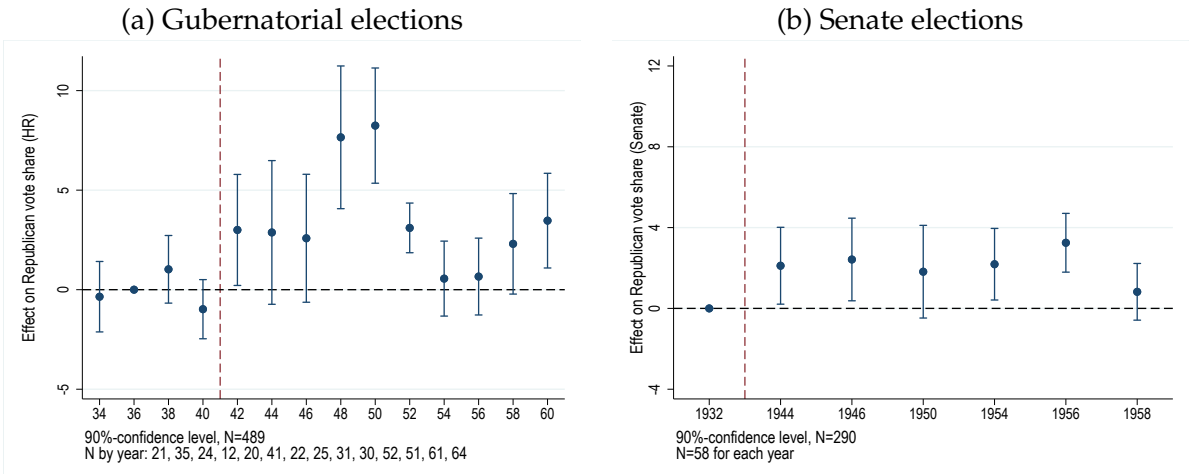
Table A.3: Balance checks, county level

	Vote share	Population share					
	Republican	White	Black	Other	Foreign	Japanese	College
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Proximity to Ellwood	-2.103	-0.446	-0.184	0.630	0.228	-0.472	-0.208
	(1.401)	(0.703)	(0.141)	(0.674)	(0.179)	(0.366)	(0.402)
Longitude	-4.133**	-0.835	-0.282*	1.117	-0.207	-2.063***	-0.787*
	(1.953)	(1.053)	(0.146)	(1.047)	(0.206)	(0.420)	(0.451)
Latitude	-2.028	-0.806	0.067	0.739	-0.278**	-1.847***	-0.257
	(1.380)	(0.725)	(0.070)	(0.748)	(0.115)	(0.296)	(0.270)
N	58	58	58	58	58	58	58

	Employment share			Value		Wage	Access
	Manufacturing	Unemployed	Farmers	Farmland	Housing	Manuf.	Radio
	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Proximity to Ellwood	0.186	0.870	4.221	-0.049	-0.054	0.032	-0.315
	(0.975)	(0.583)	(6.218)	(0.044)	(0.106)	(0.025)	(1.273)
Longitude	3.338*	1.682***	5.240	-0.140	-0.633***	0.055*	-3.674**
	(1.676)	(0.614)	(7.016)	(0.101)	(0.138)	(0.030)	(1.385)
Latitude	1.898	0.974**	-0.356	-0.116	-0.574***	0.051*	-3.497***
	(1.320)	(0.479)	(4.730)	(0.099)	(0.111)	(0.026)	(0.753)
N	56	58	58	58	57	54	58

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. OLS estimations. County-level estimations with 1934 Gubernatorial data and 1940 NHGIS census data. Standard errors allowing for spatial correlation within a 100 km radius in parenthesis. The table analyses whether the distance from Ellwood is correlated with the 1934 republican vote share (col 1) as well as 1940 census characteristics being the share of population that is White (col 2), African-Americans (col 3), other (col 4), foreign (col 5), Japanese (col 6), college educated (col 7) and manufacturing employment share (col 8), unemployment share (col 9), farmer share (col 10). Farmland (col 11) and house (col 12) values. Manufacturing wage (col 13) and radio access (col 14).

Figure A.5: Effect of Ellwood on House and Senate elections



Source: This figure shows the effect of the Ellwood bombing on republican vote shares in House (a) and Senate (b) elections using data from Leip (2021). Estimations based on equation (2). They include county and year fixed effects as well as latitude and longitude interacted with year dummies. The 1936 election with most competitive elections across counties pre-1942 is selected as baseline year for the house election results (a). Missing values due to noncompetitive election with only a Democratic or Republican candidate running in a congressional district. For the senate election results (b) missing years are due to no the election not having a sufficiently clear race between a Democratic and Republican candidate (e.g. due to third party candidates or multiple party affiliations of candidates) making those years incomparable to other elections. 90% confidence intervals are shown around each point estimate, based on standard errors allowing for spatial correlation within a 100 km radius.

Table A.4: Distance Ellwood and presidential elections (additional controls)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dep. var.	Republican Vote Share (Presidential)						
Panel A. Post-treatment							
Prox. to Ellwood × Post	1.745***	1.812***	1.797***	1.508***	1.712***	1.749***	1.323***
	(0.313)	(0.352)	(0.312)	(0.331)	(0.319)	(0.361)	(0.396)
Panel B. Eventstudy							
Prox. to Ellwood × 1928	0.440	0.482	-0.177	0.892	0.408	0.476	0.202
	(0.596)	(0.575)	(0.511)	(0.643)	(0.603)	(0.827)	(0.820)
Prox. to Ellwood × 1932	0.431	0.368	0.519	0.851	0.636	0.860	1.141
	(0.706)	(0.851)	(0.766)	(0.764)	(0.605)	(0.684)	(0.873)
Prox. to Ellwood × 1936	-0.759	-0.779*	-1.106*	-0.654	-0.811*	-0.221	-0.596
	(0.468)	(0.436)	(0.565)	(0.471)	(0.454)	(0.561)	(0.768)
Prox. to Ellwood × 1944	0.810	0.764	0.780	0.859*	0.736	0.797*	0.511
	(0.580)	(0.541)	(0.680)	(0.510)	(0.509)	(0.459)	(0.595)
Prox. to Ellwood × 1948	1.236**	1.391**	1.329**	1.120**	1.292**	1.432***	1.209**
	(0.562)	(0.609)	(0.557)	(0.516)	(0.580)	(0.467)	(0.507)
Prox. to Ellwood × 1952	1.436***	1.684***	1.287**	1.257**	1.427***	1.748***	0.927
	(0.541)	(0.610)	(0.596)	(0.506)	(0.547)	(0.512)	(0.564)
Prox. to Ellwood × 1956	1.439**	1.724***	1.484**	1.305**	1.602***	1.774***	1.404***
	(0.643)	(0.578)	(0.688)	(0.555)	(0.567)	(0.637)	(0.538)
Prox. to Ellwood × 1960	2.485***	2.478***	2.442***	2.411***	2.482***	2.507***	1.690**
	(0.508)	(0.445)	(0.635)	(0.489)	(0.511)	(0.518)	(0.672)
Prox. to Ellwood × 1964	1.688***	1.629***	1.210**	1.799***	1.699***	1.958***	0.390
	(0.412)	(0.327)	(0.540)	(0.391)	(0.406)	(0.433)	(0.564)
Prox. to Ellwood × 1968	2.202***	2.342***	1.684***	2.266***	2.115***	2.583***	1.505***
	(0.457)	(0.389)	(0.541)	(0.458)	(0.449)	(0.479)	(0.531)
Prox. to Ellwood × 1972	2.884***	2.630***	2.633***	3.222***	2.807***	3.423***	1.650*
	(0.450)	(0.482)	(0.564)	(0.375)	(0.454)	(0.467)	(0.918)
N	696	696	696	696	696	672	672
County FE	Yes						
Time FE	Yes						
Geography × Time FE	Yes						
Coastal × Time FE	No	Yes	No	No	No	No	Yes
Oil × Time FE	No	No	Yes	No	No	No	Yes
Race × Time FE	No	No	No	Yes	No	No	Yes
Rural × Time FE	No	No	No	No	Yes	No	Yes
Urban× Time FE	No	No	No	No	No	Yes	Yes

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. OLS estimations. Standard errors allowing for spatial correlation within a 100 km radius in parenthesis. This table contains the results of estimating equation (2) on presidential elections. The dependent variable is the county specific vote share of republicans. Years included: 1928-1972, every four years. Proximity to Ellwood is minus the distance to Ellwood in 100km. Post is a dummy taking the value one for all presidential election year after the Ellwood event (i.e. 1944 onwards). All estimations include county and year fixed effects, as well as control for latitude and longitude interacted with year dummies. Controls (also interacted with year dummies): coastal dummy (col. 2 and 7); oil field dummy and oil reserves (cols 3 and 7); share Foreign, Japanese, African-Americans, other (col. 4 and 7); farm land value and share of farmers in population (col. 5 and 7); and share of population with college education, share of population owning radio, share of manufacturing, unemployment rate and housing value (col. 6 and 7). All controls are taken at their 1940 value.

Table A.5: Distance Ellwood and voting behavior (standard errors)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dep. var.	Republican Vote Share						
Panel A. Gubernatorial							
Prox. to Ellwood × 1938	0.439	0.032	0.356	0.522	0.206	0.633	0.263
Spatial Radius 100km	(0.637)	(0.545)	(0.628)	(0.720)	(0.524)	(0.555)	(0.304)
Spatial Radius 200km	(0.202)	(0.253)	(0.237)	(0.553)	(0.195)	(0.458)	(0.177)
Spatial Radius 500km	(0.664)	(0.569)	(0.513)	(0.618)	(0.549)	(0.651)	(0.230)
Robust s.e.	(0.951)	(0.944)	(1.068)	(0.921)	(0.834)	(0.850)	(0.947)
Prox. to Ellwood × 1942	2.271	1.478	2.638	2.153	1.827	2.428	1.687
Spatial Radius 100km	(0.715)	(0.569)	(0.796)	(0.901)	(0.547)	(0.599)	(0.284)
Spatial Radius 200km	(0.226)	(0.338)	(0.330)	(0.740)	(0.108)	(0.602)	(0.295)
Spatial Radius 500km	(0.649)	(0.539)	(0.472)	(0.664)	(0.500)	(0.632)	(0.258)
Robust s.e.	(1.075)	(1.059)	(1.229)	(1.031)	(0.909)	(0.902)	(0.983)
N	174	174	174	174	174	168	168
Panel B. Presidential							
Prox. to Ellwood × Post	1.745	1.812	1.797	1.508	1.712	1.749	1.323
Spatial Radius 100km	(0.313)	(0.352)	(0.312)	(0.331)	(0.319)	(0.361)	(0.396)
Spatial Radius 200km	(0.281)	(0.307)	(0.316)	(0.323)	(0.294)	(0.325)	(0.324)
Spatial Radius 500km	(0.293)	(0.293)	(0.283)	(0.347)	(0.296)	(0.349)	(0.330)
Robust s.e.	(0.427)	(0.460)	(0.443)	(0.434)	(0.433)	(0.424)	(0.444)
N	696	696	696	696	696	672	672
County FE	———	———	———	Yes	———	———	———
Time FE	———	———	———	Yes	———	———	———
Geography × Time FE	———	———	———	Yes	———	———	———
Coastal × Time FE	No	Yes	No	No	No	No	Yes
Oil × Time FE	No	No	Yes	No	No	No	Yes
Race × Time FE	No	No	No	Yes	No	No	Yes
Rural × Time FE	No	No	No	No	Yes	No	Yes
Urban× Time FE	No	No	No	No	No	Yes	Yes

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. OLS estimations. Standard errors allowing for spatial correlation within a 100 km radius in parenthesis. This table contains the results of estimating equation (2) on gubernatorial elections (Panel A) and Presidential Elections. The dependent variable is the county specific vote share of republicans. Years included: 1934, 1938, 1942 in Panel A; 1928-1972 every four years in Panel B. Proximity to Ellwood is minus the distance to Ellwood in 100km. Post is a post Ellwood event dummy. All estimations include county and year fixed effects, as well as control for latitude and longitude interacted with year dummies. Controls (also interacted with year/post dummies): coastal dummy (col. 2 and 7); oil field dummy and oil reserves (cols 3 and 7); share Foreign, Japanese, African-Americans, other (col. 4 and 7); farm land value and share of farmers in population (col. 5 and 7); and share of population with college education, share of population owning radio, share of manufacturing, unemployment rate and housing value (col. 6 and 7). All controls are taken at their 1940 value.

Table A.6: Log distance Ellwood and voting behavior (log distance)

Dep. var.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Republican Vote Share						
Panel A. Gubernatorial							
log Prox. Ellwood × 1942	2.179*	2.479**	4.372***	0.933	1.994*	2.400**	1.268
	(1.318)	(0.972)	(1.409)	(1.460)	(1.085)	(1.087)	(1.007)
N	174	174	174	174	174	168	168
R^2	0.098	0.163	0.110	0.287	0.242	0.292	0.427
Panel B. Presidential							
log Prox. Ellwood × Post	2.589***	2.630***	3.021***	2.005***	2.584***	2.292***	1.423*
	(0.786)	(0.772)	(0.777)	(0.773)	(0.776)	(0.785)	(0.805)
N	696	696	696	696	696	672	672
R^2	0.161	0.162	0.162	0.175	0.164	0.244	0.285
County FE	Yes						
Time FE	Yes						
Geography × Time FE	Yes						
Coastal × Time FE	No	Yes	No	No	No	No	Yes
Oil × Time FE	No	No	Yes	No	No	No	Yes
Race × Time FE	No	No	No	Yes	No	No	Yes
Rural × Time FE	No	No	No	No	Yes	No	Yes
Urban× Time FE	No	No	No	No	No	Yes	Yes

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. OLS estimations. Standard errors allowing for spatial correlation within a 100 km radius in parenthesis. This table contains the results of estimating equation (2) on gubernatorial elections (Panel A) and Presidential Elections. The dependent variable is the county specific vote share of republicans. Years included: 1934, 1938, 1942 in Panel A; 1928-1972 every four years in Panel B. Log Proximity to Ellwood is minus the log distance to Ellwood in 100km. Post is a post Ellwood event dummy. All estimations include county and year fixed effects, as well as control for latitude and longitude interacted with year dummies. Controls (also interacted with year/post dummies): coastal dummy (col. 2 and 7); oil field dummy and oil reserves (cols 3 and 7); share Foreign, Japanese, African-Americans, other (col. 4 and 7); farm land value and share of farmers in population (col. 5 and 7); and share of population with college education, share of population owning radio, share of manufacturing, unemployment rate and housing value (col. 6 and 7). All controls are taken at their 1940 value.

Table A.7: Distance Ellwood and voting behavior (distance major cities)

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. var.	Republican Vote Share					
City	Los Angeles	San Francisco	San Diego	Sacramento	All	Excluding
Panel A. Gubernatorial						
Prox. to Ellwood × 1942	1.896**	1.665***	1.488***	1.488***	2.196**	1.932***
	(0.879)	(0.431)	(0.437)	(0.402)	(1.026)	(0.315)
Prox. City × 1942	-0.096	0.207	1.741	0.399		
	(1.048)	(0.557)	(1.314)	(0.478)		
N	116	116	116	116	116	110
Panel B. Presidential						
Prox. to Ellwood × Post	3.438***	1.307***	1.750***	0.958**	3.576***	1.733***
	(0.715)	(0.496)	(0.295)	(0.430)	(0.802)	(0.306)
Prox. City × Post	-2.546**	0.542	-0.029	0.913**		
	(1.241)	(0.482)	(1.705)	(0.407)		
N	696	696	696	696	696	660
County FE	Yes					
Time FE	Yes					
Geography × Time FE	Yes					

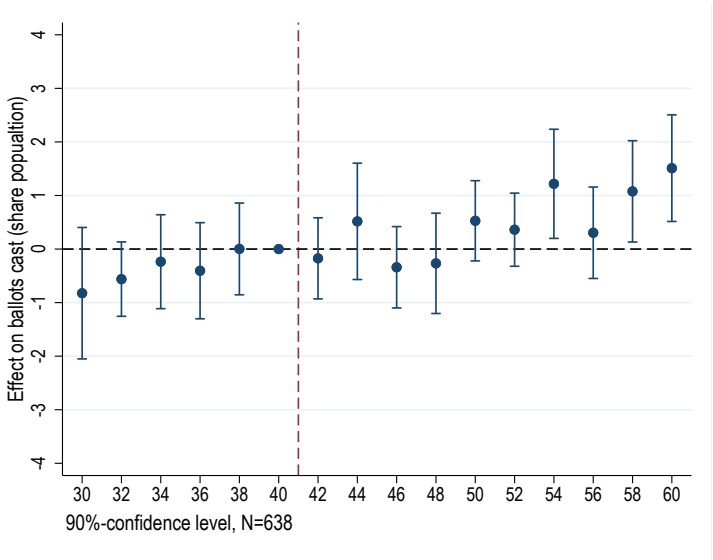
Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. OLS estimations. Standard errors allowing for spatial correlation within a 100 km radius in parenthesis. This table contains the results of estimating equation (2) on gubernatorial elections (Panel A) and Presidential Elections (Panel B). The dependent variable is the county specific vote share of republicans. Years included: 1938, 1942 in Panel A; 1928-1972 every four years in Panel B. Proximity to Ellwood is minus the distance to Ellwood in 100km. Post is a post Ellwood event dummy. Analogous measure used for other cities. Column 5 does not report individual coefficients of the 4 cities for brevity. Column 6 excludes counties (Los Angeles, San Francisco, Santa Barbara) rather than controlling for alternative distances. All estimations include county and year fixed effects, as well as control for latitude and longitude interacted with year dummies.

Table A.8: Distance Ellwood and voting behavior (distance Japanese Attacks)

Dep. var.	(1)	(2)	(3)
	Republican Vote Share		
Sample	West Coast	Oregon	Wash-ington
Panel A. Gubernatorial			
Prox. to Ellwood × 1942	2.051**	-10.372	-3.465
	(0.882)	(20.069)	(5.966)
Prox. Pearl Harbor × 1942	-0.056	-2.584	1.309***
	(0.047)	(1.694)	(0.378)
Prox. Fort Stevens × 1942	0.298	-6.692	-11.661*
	(0.949)	(13.088)	(6.282)
Prox. Lookout Air Raid × 1942	0.534	29.114	
	(1.007)	(18.334)	
N	266	72	78
R^2	0.956	0.948	0.954
Panel B. Presidential			
Prox. to Ellwood × Post	2.573***	2.621	2.540
	(0.654)	(5.697)	(1.768)
Prox. Pearl Harbor × Post	0.063**	0.148	0.053
	(0.030)	(0.515)	(0.165)
Prox. Fort Stevens × Post	-0.813	-1.495	0.657
	(0.598)	(3.392)	(2.763)
Prox. Lookout Air Raid × Post	1.646***	-0.080	
	(0.578)	(6.226)	
N	1596	432	468
R^2	0.189	0.273	0.238
County FE	————-Yes ————-		
Time FE	————-Yes ————-		
Geography × Time FE	————-Yes ————-		
State × Time FE	————-Yes ————-		

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. OLS estimations. Standard errors allowing for spatial correlation within a 100 km radius in parenthesis. This table contains the results of estimating equation (2) on Gubernatorial elections (A) and Presidential elections (B). The dependent variable is the county specific vote share of republicans. Years included: 1938, 1942 in Panel A; 1928-1972 every four years in Panel B. Proximity to Ellwood is minus the distance to Ellwood in 100km. The same measure is used for proximity to Pearl Harbor (Hawaii), Fort Stevens (Oregon), and Lookout Air Raid (Oregon). We do not include Lookout Air Raid in column 3 as the distance is nearly perfectly correlated with Fort Stevens for Washington (and Fort Stevens occurred first and is closest). Post is a post Ellwood event dummy. All estimations include county and year fixed effects, as well as controls for latitude, longitude, and state interacted with year dummies.

Figure A.6: Distance to Ellwood Bombardment and Turnout



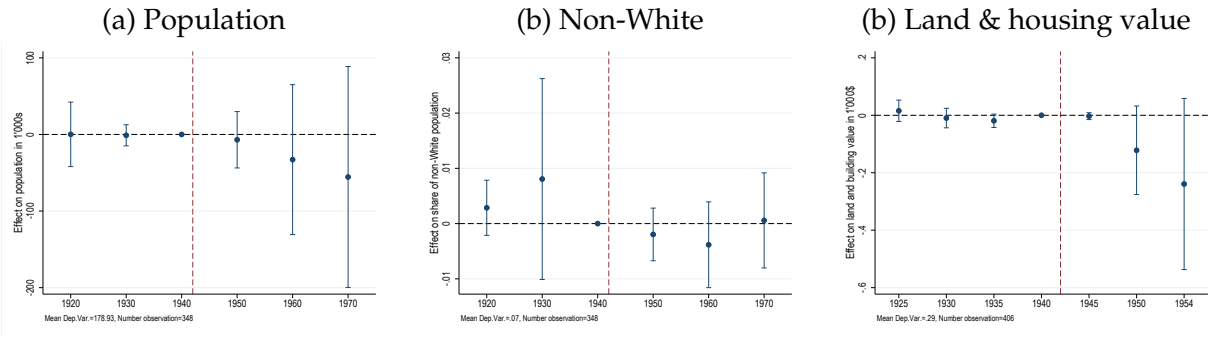
Notes: This figure shows the effect of the Ellwood bombing on on turnout at the county level (ballots cast by population) in California from different types of elections over time using the Leip (2021) dataset. Estimations based on equation (2). They include county and year fixed effects as well as latitude and longitude interacted with year dummies. 90% confidence intervals are shown around each point estimate, based on standard errors allowing for spatial correlation within a 100 km radius.

Table A.9: Heterogeneity analysis (presidential elections)

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. var.	Republican vote share					
Prox. to Ellwood × Post	1.604***	1.752***	-1.408	1.785***	-1.567	-4.689***
	(0.383)	(0.311)	(1.228)	(0.671)	(1.117)	(1.466)
× Coastal County	0.370					-0.097
	(0.358)					(0.243)
× Share Japanese		-0.063				-0.070
		(0.041)				(0.043)
× Share radio			0.038***			0.053***
			(0.014)			(0.016)
× Share college educ.				-0.003		-0.101**
				(0.043)		(0.049)
× Rep. share 1932					0.049***	0.049***
					(0.015)	(0.016)
N	696	696	696	696	696	696
R^2	0.184	0.184	0.199	0.182	0.228	0.255
County FE	Yes					
Time FE	Yes					
Geography × Time FE	Yes					

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. OLS estimations. Standard errors allowing for spatial correlation within a 100 km radius in parenthesis. This table contains the results of estimating equation (2) on presidential elections, augmented with interaction terms. The dependent variable is the county specific vote share of republicans. Years included: 1928-1972, every four years. Proximity to Ellwood is minus the distance to Ellwood in 100km. Post is a post Ellwood event dummy. All time invariant variables are also interacted with the post dummy.

Figure A.7: Relationship Ellwood bombardment with population and land value



Source: This figure shows the effect of the Ellwood bombing on population size (a), share of non-White population (b) and house and land value (c) using NHGIS census data (Manson et al. 2019). Estimations based on equation (2). They include county and year fixed effects as well as latitude and longitude interacted with year dummies. 90% confidence intervals are shown around each point estimate, based on standard errors allowing for spatial correlation within a 100 km radius.

Table A.10: Distance Ellwood and newspaper coverage – additional results

	(1)	(2)	(3)	(4)	(5)	(6)
Word	Attack	Invasion	Bombardment	Military	Submarine	Espionage
Panel A1. Overall effect of Ellwood bombardment						
Prox. to Ellwood × Post	0.033**	0.089***	0.083***	0.084***	0.016	0.074***
	(0.016)	(0.014)	(0.012)	(0.015)	(0.015)	(0.011)
Panel A2. Effect of Ellwood bombardment during and after the war						
Prox. to Ellwood × Post (war)	0.060***	0.163***	0.164***	0.103***	0.117***	0.045***
	(0.020)	(0.021)	(0.018)	(0.019)	(0.019)	(0.013)
Prox. to Ellwood × Post (post-war)	0.015	0.038**	0.027**	0.071***	-0.054***	0.094***
	(0.020)	(0.015)	(0.013)	(0.019)	(0.017)	(0.013)
	(7)	(8)	(9)	(10)	(11)	(12)
Word	Jap	Nip	Japanese	Axis	Communist	Commie
Panel B1. Overall effect of Ellwood bombardment						
Prox. to Ellwood × Post	0.005	0.056***	-0.001	0.063***	0.090***	0.046**
	(0.015)	(0.014)	(0.017)	(0.014)	(0.017)	(0.023)
Panel B2. Effect of Ellwood bombardment during and after the war						
Prox. to Ellwood × Post (war)	0.043**	0.069***	0.062***	0.111***	-0.012	0.130***
	(0.021)	(0.017)	(0.023)	(0.018)	(0.018)	(0.025)
Prox. to Ellwood × Post (post-war)	-0.022	0.046**	-0.046**	0.030	0.162***	-0.013
	(0.018)	(0.018)	(0.021)	(0.018)	(0.022)	(0.029)
N	12348	12348	12348	12348	12348	12348
Controls	Yes					
Fixed effects	Journal, year × month					

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. OLS estimations. Standard errors allowing for spatial correlation within a 100 km radius in parenthesis. Panel A shows the results of estimating equation (1). Panel B splits the post dummy into war and post war period. Controls include longitude and latitude of headquarters location interacted time dummies. The dependent variables are (all use an inverse hyperbolic sine transformation): mentions of the words "attack", "invasion", "bombardment", "military", "submarine", "espionage" (Panel A); "jap", "nip", "japanese", "axis", "communist", "commie" (Panel B).

Table A.11: Distance Ellwood and newspaper coverage: Axis and communist

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Words	Axis		Japanese		Communist		Commie	
Journal	Rep.	Others	Rep.	Others	Rep.	Others	Rep.	Others
Panel A. Overall effect of Ellwood bombardment								
Ellwood bombardement	2.202***	0.059***	1.779***	-0.001	1.831***	0.054***	2.592***	0.070***
	(0.159)	(0.014)	(0.197)	(0.017)	(0.148)	(0.015)	(0.200)	(0.023)
Panel B. Effect of Ellwood bombardment during and after the war								
Ellwood bombardement (war)	3.672***	0.090***	4.165***	0.039*	1.023***	-0.035*	3.949***	0.157***
	(0.172)	(0.017)	(0.212)	(0.022)	(0.153)	(0.018)	(0.205)	(0.025)
Ellwood bombardement (post)	1.174***	0.038**	0.113	-0.029	2.395***	0.117***	1.644***	0.009
	(0.188)	(0.017)	(0.203)	(0.020)	(0.202)	(0.020)	(0.263)	(0.028)
N	3024	9324	3024	9324	3024	9324	3024	9324
Controls	Yes							
Fixed effects	Journal, year × month							

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. OLS estimations. Standard errors allowing for spatial correlation within a 100 km radius in parenthesis. Panel A shows the results of estimating equation (1). Panel B splits the post dummy into war and post war period. Controls include longitude and latitude of headquarters location interacted time dummies. The dependent variables are (all use an inverse hyperbolic sine transformation): mentions of the word "axis" in articles published in independent and democrat-affiliated newspapers (col 1) or republican-affiliated newspapers (col 2); mentions of the word "Japanese" in articles published in independent and democrat-affiliated newspapers (col 3) or republican-affiliated newspapers (col 4); mentions of the word "communist" in articles published in independent and democrat-affiliated newspapers (col 5) or republican-affiliated newspapers (col 6).

Table A.12: Distance Ellwood and newspaper coverage: Xenophobic vocabulary

	(1)	(2)	(3)	(4)	(5)	(6)
Words	Anti-Japanese		Anti-Blacks		Anti-Mexicans	
Journal	Rep.	Others	Rep.	Others	Rep.	Others
Panel A. Overall effect of Ellwood bombardment						
Ellwood bombardement	2.248***	0.040**	1.209***	-0.003	1.380***	-0.006
	(0.186)	(0.016)	(0.137)	(0.013)	(0.128)	(0.013)
Panel B. Effect of Ellwood bombardment during and after the war						
Ellwood bombardement (war)	4.298***	0.072***	2.177***	0.004	2.285***	-0.026
	(0.200)	(0.020)	(0.155)	(0.016)	(0.134)	(0.017)
Ellwood bombardement (post)	0.816***	0.017	0.534***	-0.008	0.748***	0.009
	(0.211)	(0.019)	(0.170)	(0.017)	(0.166)	(0.016)
N	3024	9828	3024	9828	3024	9828
Controls	Yes					
Fixed effects	Journal, year × month					

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. OLS estimations. Standard errors allowing for spatial correlation within a 100 km radius in parenthesis. Panel A shows the results of estimating equation (1). Panel B splits the post dummy into war and post war period. Controls include longitude and latitude of headquarters location interacted time dummies. The dependent variables are (all use an inverse hyperbolic sine transformation): mentions of the word "jap" and "nip" in articles published in independent and democrat-affiliated newspapers (col 1) or republican-affiliated newspapers (col 2); mentions of derogatory words for African-Americans (sambo, nigger, rastus..) in articles published in independent and democrat-affiliated newspapers (col 3) or or republican-affiliated newspapers (col 4); mentions of the derogatory words for Mexicans (spic, greaser...) in articles published in independent and democrat-affiliated newspapers (col 5) or republican-affiliated newspapers (col 6)