

The Origins of Women's Political Capital in the Separate Sphere

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November 2024

Word Count: 7,175

Abstract

I leverage novel data on women's volunteer activities during the Civil War to measure the relationship between social capital in a sex-segregated environment and political capacity. Towns and counties in with volunteer groups that supported the Union War effort by leveraging women's domestic labor were more likely to hold women-led marches against the sale of alcohol and to petition Congress in favor of women's suffrage. These findings point to the usefulness of social networks as a tool for empowering women, even in a context in which women are precluded from public life or participation in mixed-sex activities.

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1 Introduction

Any mass social movement must confront the problem of collective action. Social movements on behalf of women as a specific political class face particularly difficult organizational challenges because sex cross-cuts other social identities (race, class, nationality, etc.), adding to the potential costs of participating in protests and mass social actions (Chafe 1978; Htun 2004; Goldin 2023). Explanations for how women overcome this problem and successfully make political gains are varied (Teele 2025) and include the “demand side” - the strategic extension of rights and opportunities to women from those who could benefit from such an alliance (Przeworski 2009; Braun and Kvasnicka 2013; Teele 2018) – as well as the “supply side” – effective activist movements headed by talented women who overcome barriers to collective action, sometimes seizing advantage of an exogenous shock like war that disrupts patriarchal institutions (Mageza-Barthel 2015; Tripp 2015; Evans 2018).

In this paper, I focus not in the proximate causes of women’s political emancipation but on the underlying social factors that allow women to capitalize on the opportunity for advancement. I argue, and provide large-scale empirical evidence to show, that American women’s political mobilization in the nineteenth century was underpinned by social capacity developed in the “separate sphere” of a sex-segregated society. Using rare data on women’s social organizations operating in the domestic sphere – the context in which most women spent most of their time – I find a clear link between women’s ability to organize to carry out domestic tasks and their effectiveness as political organizers.

Quantitative data on women’s time use, social participation, and political interests is notoriously difficult to obtain before the twentieth century due to relatively low female labor force participation, political disenfranchisement, and legal subordination to heads of household, all of which inhibit the creation of paper trails on women’s activities. I compile a novel dataset on women’s home front volunteering during the American Civil War. This dataset provides comprehensive information on the activities of the United States Sanitary Commis-

sion (USSC), an organization founded to link local volunteer groups in Union states to a nationwide network that directed donations – mostly in-kind contributions such as food and clothing produced by women themselves – to army hospitals.¹ Crucially, the main activity in which these wartime volunteer societies engaged was precisely the kind of home production to which most women devoted most of their time on behalf of their households: preserving food and making clothing and medical supplies. I show that towns in which a chapter of the USSC was active were substantially (about six to ten percentage points) more likely to hold a women-led street protest against the sale of alcohol during the “Temperance Crusade” movement of the 1870s. Counties with a higher proportion of population residing in towns with a USSC chapter were more likely to petition Congress in favor of women’s suffrage between the end of the Civil War and the passage of the 19th Amendment.

The previous works to which this paper is most similar are Carpenter and Moore (2014) and Carpenter et al. (2018), which examine women’s political petitioning and show spillovers from the pre-war abolitionist movement to the fight for suffrage. Canvassing for petition signatures was a rare opportunity for women to engage politics: “Petitioning was one of the only avenues available to women to participate in political discourse... By the 1830s, petitioning was widely perceived by women as their primary (if not their only) public voice in American politics” (Carpenter and Moore 2014, 482). However, as Carpenter and Moore (2014) and Carpenter et al. (2018) emphasize, petitioning was an *explicitly* political activity. In contrast, I focus on links between political organizing and doing work within the domestic sphere, the primary occupation of most nineteenth century women.

I link women’s volunteer activities to two main outcomes: participation in the Temperance Crusade movement of the 1870s and petitions to Congress in favor of women’s suffrage. The Crusades were a mass movement of women against the sale of alcohol, which was blamed for domestic violence and family impoverishment (Stewart 1890; Blocker 1985). The Crusade movement was widespread – almost a thousand towns and cities held at least one

¹The word “Sanitary” in the name of the organization refers to its goal of improving conditions in hospitals.

march in 1873 and 1874; many held multiple events across days, weeks, or months (Blocker 1985). Women physically occupied bars and saloons, directly confronted sellers and buyers of alcohol, and faced threats (and actual occurrences) of violent retaliation (Daniels 1878, 297). While the Crusaders usually did not permanently eliminate alcohol sales, they originated more permanent political organizations to advance the cause of temperance and, eventually, women's suffrage. Given the radical tactics of this protest movement, its origins in a political capacity developed in the domestic context are all the more striking.

My findings support qualitative research on the social lives of women in the early history of the United States. Cott (1977) documents the “separate spheres” occupied by men and women in terms of economic production and social roles. While these roles necessarily entailed sex segregation and curtailed women’s ability to access political power, Cott writes that this environment nevertheless fostered women’s nascent political ambitions: “The internal dynamics of the women’s sphere, by encouraging women to claim a social role according to their sex and to share both social and sexual solidarity, provoked a minority of women to see and protest those boundaries” (204). Experimental (Gneezy, Niederle, and Rustichini 2003; Gneezy, Leonard, and List 2009; Booth and Nolen 2012; Karpowitz, Mendelberg, and Shaker 2012; Karpowitz and Mendelberg 2018) and observational (Hampole, Truffa, and Wong 2023) evidence demonstrates that sex-segregated environments can be useful “enclaves” in which women can develop skills for competition, leadership, and persuasion that translate well to mixed-sex environments. Most nineteenth-century American women had no choice but to operate in a largely sex-segregated environment; nevertheless, I show that this environment was useful for developing political capacity.

Tetrault (2014) argues against a historical account of the American women’s rights movement that focuses exclusively on the contributions of elite women (i.e., the “myth of Seneca Falls” as the origin of the suffrage movement). These prominent woman leaders – such as Susan B. Anthony, Lucretia Mott, and Elizabeth Cady Stanton – were extraordinary, not just

in terms of their impact but also in terms of their access to resources, educations, and family circumstances that allowed them to have unusual careers as public-facing activists. While clearly effective at marshaling popular support for women’s rights, they were not representative of the many thousands of women who marched in Temperance Crusades, joined feminist anti-alcohol organizations like the Women’s Christian Temperance Union, or took part in campaigns for suffrage once they began to gather critical mass. The USSC data, on the other hand, captures data on the activities of women who were more representative of a larger nascent activist class. In Section 5.2, I discuss the social and economic backgrounds of the leadership of these movements.

My findings highlight the importance of looking beyond typical measures of political engagement when assessing the political capacity of disenfranchised groups. This is vital for understanding how these groups make gains in the American context and beyond. While the United States has made great strides towards gender equality across a variety of social outcomes, including labor force participation, education, and political access, women remain politically disempowered in many other contexts across the globe. My findings point to the possibility that women can become an empowered and politically mobilized class within the context of a socially segregated environment – a potentially important finding for expanding women’s rights in the modern day.

2 Historical Context

2.1 Women and Politics in Antebellum America

The representative free American woman in the mid-nineteenth century spent her time working in the home. Poorer women performed long and difficult domestic work in the home, while wealthier women with access to paid domestic labor and new innovations (manufactured goods and labor-saving devices) had more time to devote to “the cult of domesticity” – investment in the household and family beyond the bare necessities of subsistence – as well

Table 1: Major women's organizations and political movements by date of founding and estimated number of participants.

Year	Event	Participants
1848	Seneca Falls Convention	c. 300 (Tetrault 2014, 104)
1850	First National Women's Rights Convention	c. 1000 (Brown 1997, 51)
1863	Women's Loyal National League founded in support of emancipation	c. 400,000 petition signatories (Venet 1991, 148)
1869	National Woman Suffrage Association and American Woman Suffrage Association founded	c. 7,000 members from merger of NWSA and AWSA in 1893 (Goan 2020)
1873	Start of Temperance Crusade movement	c. 57,000-143,000 (Blocker 1985, 24)
1874	Founding of WCTU	22,800 by 1881; 138,388 by 1891 (Gusfield 1955, 222)

as to charitable work and social concerns (Kleinberg 1999). Women who worked outside of the home did so most often as domestic servants; factory manufacturing work, most of it in Northern states, only employed 75,000 women by 1860 (Kleinberg 1999, 27). In the absence of the vote, politically interested women found outlets via gathering signatures for political petitions and participation in benevolent societies (Carpenter and Moore 2014; Blackhawk et al. 2021).

Some women engaged in activism for specific causes – including abolition and better working conditions for industrial laborers (Tetrault 2014) – but even after the 1848 Seneca Falls Convention, the nascent women's rights movement remained relatively small and exclusive compared to the mass gatherings and large organizations that dominated the wartime and post-war landscape (Table 1). Women activists before the Civil War were more likely to be from relatively wealthy families and had the benefit of unusually high education levels (Kleinberg 1999; Wellman 2004; McMillen 2008). In contrast, the war mobilized women to engage in both mass political expression (about 400,000 women signed petitions circulated by the Women's Loyal National League under the leadership of Stanton and Anthony) and mass volunteering for the United States Sanitary Commission. In the next section, I discuss the context and activities of women's wartime activities.

2.2 Civil War Aid Societies and Women’s Mass Mobilization In the “Separate Sphere”

At the start of the American Civil War, the Union Army faced the challenge of organizing, staffing, and supplying medical facilities to cope with large numbers of casualties from battles and disease. In response, a group of philanthropists founded the United States Sanitary Commission, a civilian organization that provided money, supplies, and labor to Army hospitals. These aid societies organized fundraising campaigns and contributed in-kind supplies from the home front, such as clothing and preserved food, directly to the war effort. A representative list of donated items (Figure 1) would have been typical of home production in an era when the “corporate family” (with a self-employed head of household, often employed in farming) still made up a majority of American households (Ruggles 2015, 1801).² In addition to these in-kind contributions, clubs associated with the USSC also engaged in fundraising. Societies in large cities held “Sanitary Fairs” that offered food, souvenirs, and entertainment in exchange for donations that were passed on to the USSC. These events, which were largely organized and staffed by women, raised millions of dollars for the war effort (Madway 2012).³

The top leadership of the USSC included both men and women. Women made up the management of its twelve regional branches – roles with considerable influence over strategic operations – as well as the “agents” who interfaced between branch leadership and local club leadership, and the bulk of town-level volunteers (Giesberg 2006). Giesberg (2006), a social history of the USSC, writes that “[r]ural women invested branch women with their confidence and believed them to be agents of the United States government, and in return, branch women worked hard and were committed to sustaining and maintaining the autonomy of women’s wartime relief work” (94). The USSC rosters give the names of many of the club leadership at the local level; women made up over ninety percent of local club leadership.

²Arnica is an herbal remedy for topical pain relief. Azumea was a brand of baking powder (Civitello 2017).

³The Metropolitan Fair in New York City raised about \$2 million (Madway 2012, 271).

Anticipating the tactics of the postwar temperance and suffrage movements, the movement to recruit women to volunteer roles during the Civil War deliberately couched itself in the cultural ideals of the nineteenth century. A regimental surgeon who praised the work of soldiers' aid societies wrote that "the Sanitary Commission furnishes to the suffering soldier just that kind of delicacy or substantial which a judicious mother or wife would furnish if they had the opportunity."⁴ Others who came into contact with women volunteers, both nurses and aid society contributors, wrote of the "delicate yet important attentions which only a woman can give at the bedside of the suffering" and the contributions of homemade goods "all showing women's warm hearts and women's skillful hands."⁵

2.3 Postwar Activism

The postwar women's movement focused on two causes of particular interest to women: temperance and suffrage (with some overlap with the less-gendered cause of civil rights and racial equality). These social movements intersected with one another at individual and organizational levels. Political activism against the sale of alcohol focused on the impacts of men's alcoholism on wives and families, including domestic violence, lost earnings, and neglect.⁶ Initially, temperance was a more popular cause among women than the nascent suffrage movement; McMillen (2008) documents that "In 1850 and again in 1853, Massachusetts activists circulated suffrage petitions and submitted them to the state legislature. Of the

⁴United States Sanitary Commission. "The Sanitary Commission of the United States Army: a Succinct Narrative of Its Works and Purposes" (1864) 211.

⁵The United States Sanitary Commission, Cleveland Branch. (1861/1862) "Annual Report of the Soldiers' Aid Society of Northern Ohio to the U.S. Sanitary Commission." 38-39.

⁶Rorabaugh (1981) estimates that American adults consumed about 1.9 gallons of pure alcohol every year, mostly from an estimated annual average of 2.4 gallons of spirits (equivalent to over 200 standard modern alcoholic drinks), as well as some wine, beer, and cider (p. 233). Some, obviously, consumed much more than the average. The social consequences of this level of consumption could be severe, not only for consumers themselves but for family dependents. Temperance activists pointed to dramatic case studies of spousal abuse, poverty, and family abandonment stemming from alcohol abuse. The goals and support base of the American temperance movement shifted at the turn of the century. The leading twentieth-century anti-alcohol organization, the Anti-Saloon League, had male leadership and pursued legislative approaches to banning alcohol, culminating in Prohibition. Unlike nineteenth-century women campaigners, who specifically conducted outreach to recruit immigrant women to their cause, the Anti-Saloon League sought conservative, nationalist allies, particularly among anti-immigration nativists (Okrent 2010).

ISSUES OF THE PHILADELPHIA AGENCY
OF THE
U. S. SANITARY COMMISSION,

Including the Women's Pennsylvania Branch, from October 15th, 1861,
to December 1st, 1865.

Arrow Root, lbs.....	86.....	\$39 75
Adhesive Plaster, yds.....	110.....	28 00
Azumea, boxes.....	101.....	10 10
Apple Butter, gallons.....	845.....	732 50
" " cans.....	980.....	294 00
Aprons, muslin.....	10.....	5 00
Arnica, bottles.....	120.....	30 30
Arm Slings.....	5,521.....	1,334 25
Blankets, wool.....	7,488.....	20,278 50
" gum.....	28.....	56 00
Beef, lbs.....	379.....	68 22
" extract of, cans, lbs.....	9,509.....	9,509 00
" tea, " ".....	143.....	143 00
" soup, " ".....	5,202.....	1,236 90
" roast, " ".....	13,242.....	3,058 02
" assorted, " ".....	1,738.....	372 80
" corned, barrels.....	10.....	232 50
" dried, lbs.....	2,206.....	471 86
" Julienne, cans, lbs.....	624.....	156 00
" a la-mode " ".....	4,080.....	1,020 00
Barley, lbs.....	139.....	12 22
Bread, loaves.....	959.....	76 72
Butter, lbs.....	2,672.....	1,131 20
Bandages, barrels.....	925.....	1,383 75
" dozens.....	2,096.....	2,936 39

Figure 1: An excerpt from a list of items donated by women and disbursed through the Philadelphia branch of the USSC, from the "Report of the general superintendent of the Philadelphia Branch of the U.S. Sanitary Commission, to the Executive Committee, January 1st, 1866" (40).

two hundred thousand women living in the state, only two thousand signed the petitions, although fifty thousand women had recently supported a temperance petition” (127).

In late 1873, the tone and tactics of the temperance movement – and of women’s activism more generally – shifted dramatically. In the town of Hillsboro, Ohio, about 50 miles from Cincinnati, a traveling lecturer delivered a talk to a local women’s group on the social harms of alcohol. In response, the women of Hillsboro, led by fifty-seven-year-old Eliza Daniel (“Mother”) Stewart, spontaneously marched on local saloons to protest the “wretchedness, woe, misery, privation, neglect, want, pinching poverty, and disgrace for [a woman] and her children” caused by alcohol (Stewart 1890, 39). The first “Temperance Crusade” in Hillsboro became the epicenter of a mass movement. Over the course of 1873 and 1874, women in over 900 towns and cities held Crusades of their own.

The Crusades had some short-run successes, pressuring some local merchants to shut down the sale of alcohol, but little long-run effect on the actual supply of alcohol in American towns based on a quantitative survey presented in Blocker (1985). Their greater legacy was the organizations that emerged from the protest movement, including those that had spillover effects on suffrage. The Women’s Christian Temperance Union (WCTU), founded by Crusade participants in December 1874, became the leading American temperance organization and amassed considerable political influence. The WCTU pursued an approach its longtime leader, Frances Willard, called the “do everything” strategy, explicitly linking the pursuit of the franchise to the goal of temperance via the mobilization of women voters (Willard 1895, 10).

The messaging of the women’s temperance movement drew heavily on notion that women’s domestic roles granted them special moral insight and authority. Mattingly (2000) explains that this messaging was an intentional strategic choice: “temperance women made a conscious, rhetorical decision to reach a broad-based audience by addressing the temperance cause,” including women who were not yet ready, or in a position, to campaign for suffrage but who

identified with a movement to improve the general welfare of women (22). Cott (1977) writes that “women, through their reign in the home, were to sustain the ‘essential elements of moral government,’ to allow men to negotiate safely amid the cunning, treachery, and competition of the marketplace” (69). Leveraging the narrative of women as a “civilizing” political force was a useful strategy to both broaden the pool of potential allies and to defend women’s claim to public authority (Towns 2009; Corder and Wolbrecht 2016). Women who leveraged their capacity to perform the tasks of “civilizing” society – labor that formed the backbone of the home economy – had both practical experience coordinating with other women and a special claim to moral, and political, authority.

An obvious question is the degree to which participation in the USSC made women more capable vs. reflected previous capabilities that had not previously been turned towards a political purpose. Biographical evidence shows substantial overlap at the individual level between wartime volunteering and postwar activism. Mary Livermore, a prominent temperance and suffrage activist, served as both a wartime nurse and an administrator for the Chicago branch of the USSC. Eliza Daniel Stewart, the leader of the first Temperance Crusade in Hillsboro, Ohio, spent the war “busily engaged in procuring and sending supplies to the sick and wounded” (Daniels 1878, 278). The president of the Akron Soldiers’ Aid Society, Adeline Myers Coburn, “shifted her organizational and leadership skills to the temperance crusade” after the war (Endres 2006, 36). DuBois (1978) notes that during a postwar speaking tour by Anthony and Stanton, most of the women who arranged to meet the two speakers had a background in wartime volunteering, not prewar suffrage activism: “They exemplified the large numbers of women who first recognized themselves as public people and citizens when they mobilized for the war and represented a promising field for the expansion of the woman suffrage movement” (181).

However, these accounts pre-suppose an existing stock of social and organizational capital. The activities of the USSC leveraged women’s skills as the managers of domestic economies,

producers of goods, and organizers of social networks, all of which pre-dated the war. As I later discuss in Section 5.3, a collection of several hundred first-person accounts of post-war activist activities from 1873-1874 do not mention the USSC specifically as a source for useful experience. However, the accounts repeatedly draw on parallels between the war and women's activism to legitimize women as a political class, a connection bolstered by women's contributions during the war. While individual women who took active high-level leadership roles in wartime were often leaders in political organizing, the rank-and-file possessed powerful, latent social capital that was revealed during wartime.

3 Social Capital and Political Capacity in Sex-Segregated Settings

A strong base of social capital strengthens democracy (Putnam 2000).⁷ Community engagement raises interest in, and awareness of, politics and lowers the costs of political coordination. Sex-segregated social capital can be particularly useful for developing leadership characteristics in women. Karpowitz and Mendelberg (2018) argues that all-female groups “may be uniquely positioned to empower women... by shaping their members’ interactions with each other in ways that change gender norms, building female members’ authoritative influence, and thus inviting them to envision significant policy change” (1134-1135). It finds evidence that, in a laboratory setting, female participants assigned to all-female groups for playing a deliberative game were more likely to voice their opinions, and to choose a strategy that reflected the preferences of its members, than mixed-sex (or all-male) groups.

Burns, Scholzman, and Verba (2001) finds that twenty-first century women are less politically engaged due to deficits in education, as well as due to lack of representation, which leads to lower interest in politics. These gaps were naturally much larger in the nineteenth century,

⁷Conversely, social capital can also form a channel by which anti-democratic political sentiments multiply (Berman 1997; Satyanath, Voigtlander, and Voth 2017).

when women were formally disenfranchised and largely excluded from public life. In the nineteenth century, same-sex enclaves were usually the only option women had for forming social networks outside of their families – but evidence suggests that these are precisely the kinds of networks that would have been most useful for building political capacity. Even in the twenty-first century, women are more likely to belong to social groups with a voluntary, and relatively apolitical, focus, suggesting the continued relevance of these kinds of groups to women’s political participation (Norris and Inglehart 2013).

In the mid-nineteenth century, technology and labor market conditions augmented women’s domestic labor, raising their productivity; in response, a culture of domesticity flourished. Popular publications promoted, and responded to a demand for, information about domestic pursuits, homemaking, and handicrafts (Kleinberg 1999, 71–72). This culture of domesticity was expressly apolitical. However, for women who wished to engage in politics, it proved subversively useful: women, as the guardians of family virtue, had a special claim to moral legitimacy that could be used as a tool of persuasion (Skocpol 1995; Carpenter and Moore 2014; Carpenter et al. 2018). Substantial anecdotal evidences suggests a link between women’s networks situated in the domestic sphere and political organizations focused on women’s issues. Susan B. Anthony’s first speech on suffrage was delivered at a quilting bee – a gathering of women engaged in gendered domestic labor together (Kleinberg 1999, 70).

The records of the United States Sanitary Commission are unique in that they provide data on women’s social capital. Rarely do large historical datasets capture how women spent their time, and with whom. The rest of this paper focuses on the connection between women’s social capital in the “separate sphere” and the development of an explicitly political women’s movement.

4 Data

4.1 Civil War Aid Society Database

The USSC was organized into seventeen different branches, some of which spanned multiple states. The New York Metropolitan Archives contains complete records for thirteen of these branches. Accordingly, I restrict the sample to states for which the USSC data is complete or near-complete: Connecticut, Delaware, Massachusetts, Maine, Michigan, Minnesota, New Jersey, New York, Rhode Island, Vermont, New Hampshire, Wisconsin, and Ohio.⁸ Together, the sample states comprise twelve of the twenty-six Union states (including border states) and, collectively, about 52% of the Union population.⁹ Appendix B gives further details on the construction of the dataset.

All analyses omit parts of the U.S. that did not have any USSC branches (states that joined the Confederacy and non-state territories). With very few exceptions (six marches in Tennessee and two in Texas out of 911 total), Crusades did not occur in the South. Thus, including Southern towns and cities in the analyses would inflate the relationship between the USSC and the outcomes of interest. I instead choose to focus only on Union states.

Figure 2 shows the locations of towns that did and did not have a soldiers' aid society affiliated with the USSC in states for which there is complete or near-complete USSC data. There is substantial regional variation in the degree to which towns participated in the USSC; for instance, a majority of localities in New York and southern parts of New England took part, while participation was sparser further West and in northern parts of New England.

⁸The New York Public Library Humanities and Social Sciences Library Manuscripts and Archives Division, United States Sanitary Commission Records 1861-1878, MSSCol 3101, Box 979. “Catalogue of the aid societies tributary to the U.S. Sanitary Commission, alphabetically arranged.” I omit California because, as the only Western state with USSC affiliates, it was fundamentally different politically and, uniquely, the bulk of its soldiers' aid societies were run by men. Indiana is omitted because aid activities were mostly run by the state-level Indiana Sanitary Commission (Thornbrough 1965).

⁹Source: Author's calculation using 1860 U.S. Census (Ruggles et al. 2024.) If branches that preserved and donated volunteer records to the archival collection also tended to produce more volunteers or more activists, the results could be potentially unrepresentative of the country as a whole. Thus, the results presented in this paper should be interpreted as reflecting the relationship between volunteering and activism in the subset of Union states covered by the archival sample.

Within Ohio, enthusiasm was particularly high in the northeastern corner of the state around Cleveland. Even in areas where participation was high, participating towns are interspersed with those that did not have a USSC affiliate club, and in areas where participation was low, some towns did join. There are no sharp geographic or regional boundaries that clearly demarcated the USSC's presence. Section 4.4 discusses the characteristics of towns that did vs. did not have USSC-affiliated aid societies.

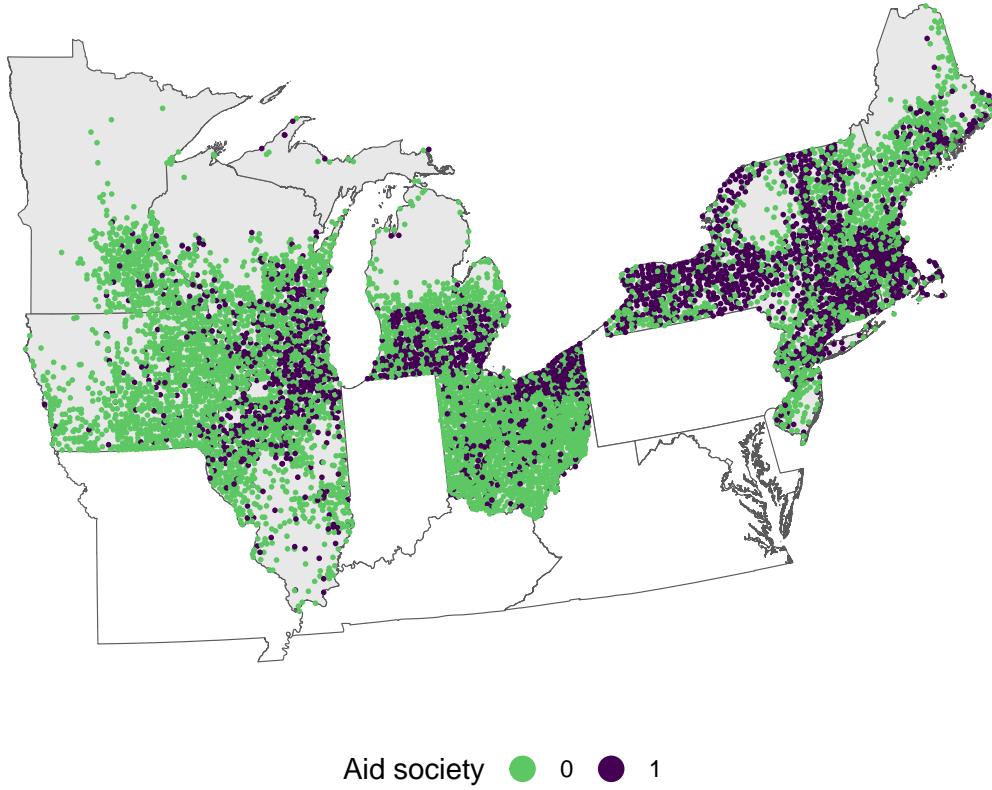


Figure 2: Map of towns that did vs. did not have a local soldiers' aid society affiliated with the USSC. State boundaries are from 1860 (thus West Virginia and Virginia appear as one combined unit); adjacent states in the Union that are in (*out of*) sample are shaded gray (*white*).

4.2 Outcomes

4.2.1 Temperance Crusades, 1873-1874

As the first postwar outcome of interest, I use town-level data from Blocker (1985) on Temperance Crusades in 1873-1874. To my knowledge, this data has been used in only one other quantitative study, García-Jimeno, Iglesias, and Yildirim (2022), which focuses on

communication networks as proximate drivers of Crusades, while I focus on the ultimate social mechanisms that enabled women to organize. In total, 911 towns across the country held Crusades, 466 of which are located in states in the sample described in Section 4.2.1.

Figure 3 shows the locations of towns that had Temperance Crusades in the sample states. The town that hosted the first Crusade – Hillsboro, OH – is located in the southwest corner of the state and formed a clear epicenter of the protest movement. Crusades were more common in Midwestern states than in states further East, which García-Jimeno, Iglesias, and Yildirim (2022) attributes in part to the technology through which news of the protest movement spread.



Figure 3: Locations of Temperance Crusades in in-sample states. State boundaries are from 1860 (thus West Virginia and Virginia appear as one combined unit); adjacent states in the Union that are in (*out of*) sample are shaded gray (*white*).

4.2.2 Suffrage Petitions

To measure post-war women's suffrage activism, I use data from Carpenter et al. (2018) on post-war petitions in favor of women's suffrage submitted to Congress between 1874 and

1920. This database contains 905 petitions that can be linked to a specific in-sample county. These petitions were typically submitted by or on behalf of women activists, and I interpret them as a measure of enthusiasm for, and ability to organize in favor of, suffrage. Appendix E gives further details of this data. Because the long right tail of the distribution of petitions by counties largely reflects the locations of large population centers, Figure 4 shows counties coded according to whether their residents submitted at least one suffrage petition, which is used as the postwar suffrage outcome.¹⁰

The Temperance Crusade outcome is measured at the town level, but suffrage petitioning is measured at the county level. To transform the town-level USSC variable into county-level data that can be related to the suffrage petition outcome, I measure the share of a county's 1860 population living in a town with an aid society, thus capturing the share of a county's population "exposed" to a society. Figure A6 shows the distribution of the exposed population by county.

4.3 Demographic, Economic, and Political Controls

I use town- and county-level demographic, social, and economic covariates drawn from the 1850 and 1860 U.S. Censuses, collated by Dippel and Hebllich (2021), to adjust for pre-war town characteristics and to examine the role of societies in a subset of the data matched on pre-war characteristics. To control for basic geographic characteristics, I use state fixed effects and linear and quadratic controls for latitude and longitude. Most specifications also include log 1860 population. Black, foreign-born, and Catholic and German population shares (due to the association of German immigrants with beer halls, a potential target of temperance activists), are drawn from the 1860 Census and are included to capture demographic characteristics. To capture localities' economic characteristics, I include town-level log distance to the nearest railroad (in 1860, based on railroad shapefiles from Atack 2016) and county-level per-capita

¹⁰I use a binary outcome, rather than an alternative transformations to handle outliers, due to ambiguities introduced by some petitions covering multiple localities versus other cases in which towns submitted petitions separately.

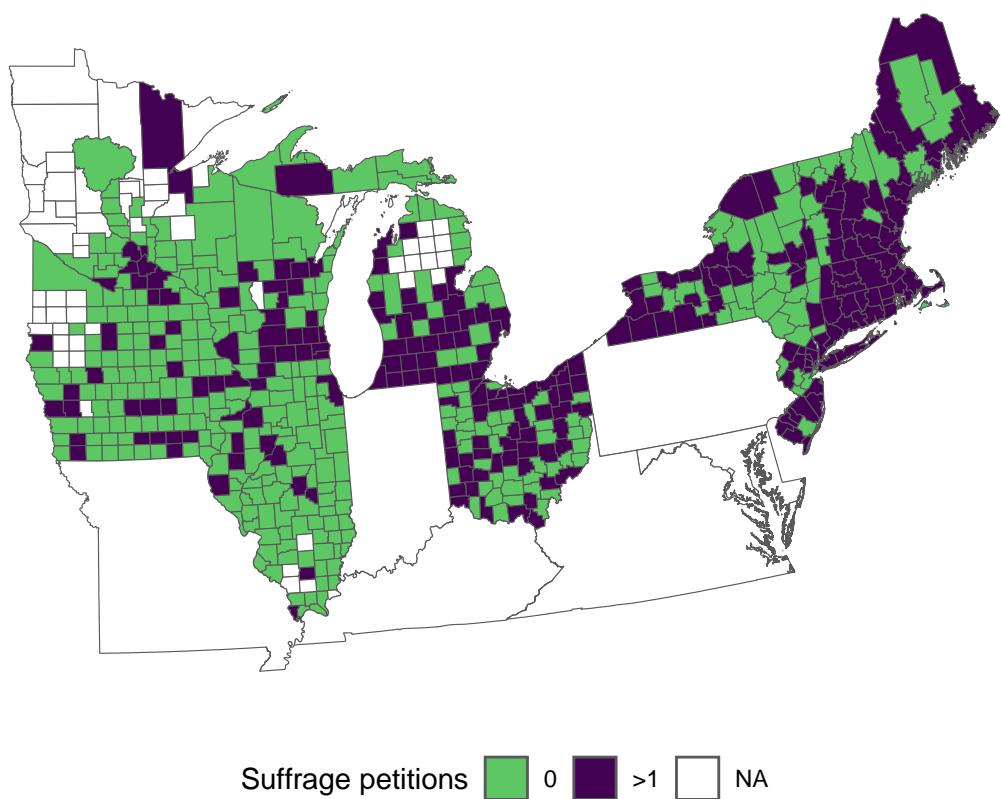


Figure 4: Counties that did vs. did not submit at least one petition in favor of women's suffrage to Congress between 1874 and 1920. Counties with no settlements designated as towns or cities in the 1860 Census, and adjacent states in the Union that are not in sample, are displayed in white.

agricultural output value in 1860; manufacturing employment (and, separately, women’s manufacturing employment) per capita in 1860; and 1860 illiteracy rates. To adjust for the political leanings of a town, I include 1860 town-level Republican vote share. Where variables are available only at the county level (for instance, those drawn from the 1860 Census), I assign the county measures to all towns within the county.

Because a location’s probability of having an aid society, or participating in later activism, may be affected by general levels of social interconnectedness and pro-sociality, I also include controls for local levels of social capital, political engagement, and organizational capacity before and during the war. First, I include the number of church “sittings” (seats) per capita in 1860, observed at the county level, as a measure of religiosity (with Catholic settings as a separate variable, to capture variation introduced by immigrants from Catholic-majority countries). Second, I include town-level Civil War enlistment from Dippel and Heblich (2021). Male wartime enlistment in the Union Army was almost entirely on a volunteer basis; thus, conditional on enthusiasm for the Union cause, enlistment data captures town-level variation in civic volunteerism among a town’s men. Third, I control for pre-war enthusiasm for temperance using town-level data on the locations of the Independent Organization of Good Templars (IOGT), a pro-temperance organization open to both women and men. Town-level data on the locations of local IOGT chapters (called “lodges”) is available for the state of Wisconsin. I also control for the prevalence of alcohol at the town level using data from García-Jimeno, Iglesias, and Yildirim (2022), which collects listings of alcohol distributors from state business gazettes.¹¹

Finally, I include two variables that capture local political organizational capacity, one for women only and a second, more general measure. To measure the pre-war political capacity of women, I include a variable on the number of petition signatures gathered by female abolitionist campaigners at the county level (Carpenter and Moore 2014).¹² Secondly, using

¹¹This should be taken as a correlate of alcohol availability, not a perfect measure, as not all alcohol sellers necessarily chose to be listed in state business gazettes, and home production is not captured.

¹²The abolitionist cause would only have been championed by women with abolitionist political sentiments;

data from Blackhawk et al. (2021), I construct a town-level measure of the number of petitions submitted by citizens and interest groups to Congress between 1850 and 1860.¹³ I use the first to construct a measure of explicitly political petitioning and the second a measure of general petitioning. These petitions can be understood to capture a town’s level of civic involvement, capacity, or enthusiasm. Appendix E gives additional information about the construction of these variable, and Appendix Tables A1 and A2 give summary statistics for town-level and county-level covariates respectively.

4.4 What Differentiated Aid Society Towns?

The top panel of Figure 5 shows the difference in means for towns with vs. without a USSC aid society for each town-level pre-war variable with and without adjusting for baseline geographic variables (linear and quadratic terms for latitude and longitude, state fixed effects, and log 1860 population).¹⁴ All variables are mean-standardized for ease of comparison.

Towns and counties with soldiers’ aid societies tend to be more populous, closer to railroads, and more industrial (as measured by manufacturing jobs per capita). This is consistent with evidence from qualitative accounts found in the USSC archives: rural women faced practical barriers to joining, including less disposable income and higher costs to communicate with, or ship supplies to, USSC branch offices.

Places with aid societies exhibit more enthusiasm for pro-Union causes (higher Republican vote share in 1860, war enlistment, and abolitionist petition signatures gathered by women activists before the war). This is not unexpected, since while aid society volunteering was not explicitly political (in contrast to protesting, petitioning, lobbying, etc.), it supported

thus, this cannot be construed as capturing women’s *general* political capital. See Montoya (2020) for a discussion on the interaction of race and gender and the segregation of the suffrage movement.

¹³Some issues mentioned in petitions to Congress are political in nature (for instance, petitions to legislate the closure of businesses on Sunday for religious reasons, or change the age of consent for marriage), while others draw attention to more prosaic requests (for instance, the approval of an individual’s veteran pension).

¹⁴The top panel of Figure A7 shows the same relationships (using the continuous county-level share of population living in an aid society town as the outcome); the two produce generally comparable results.

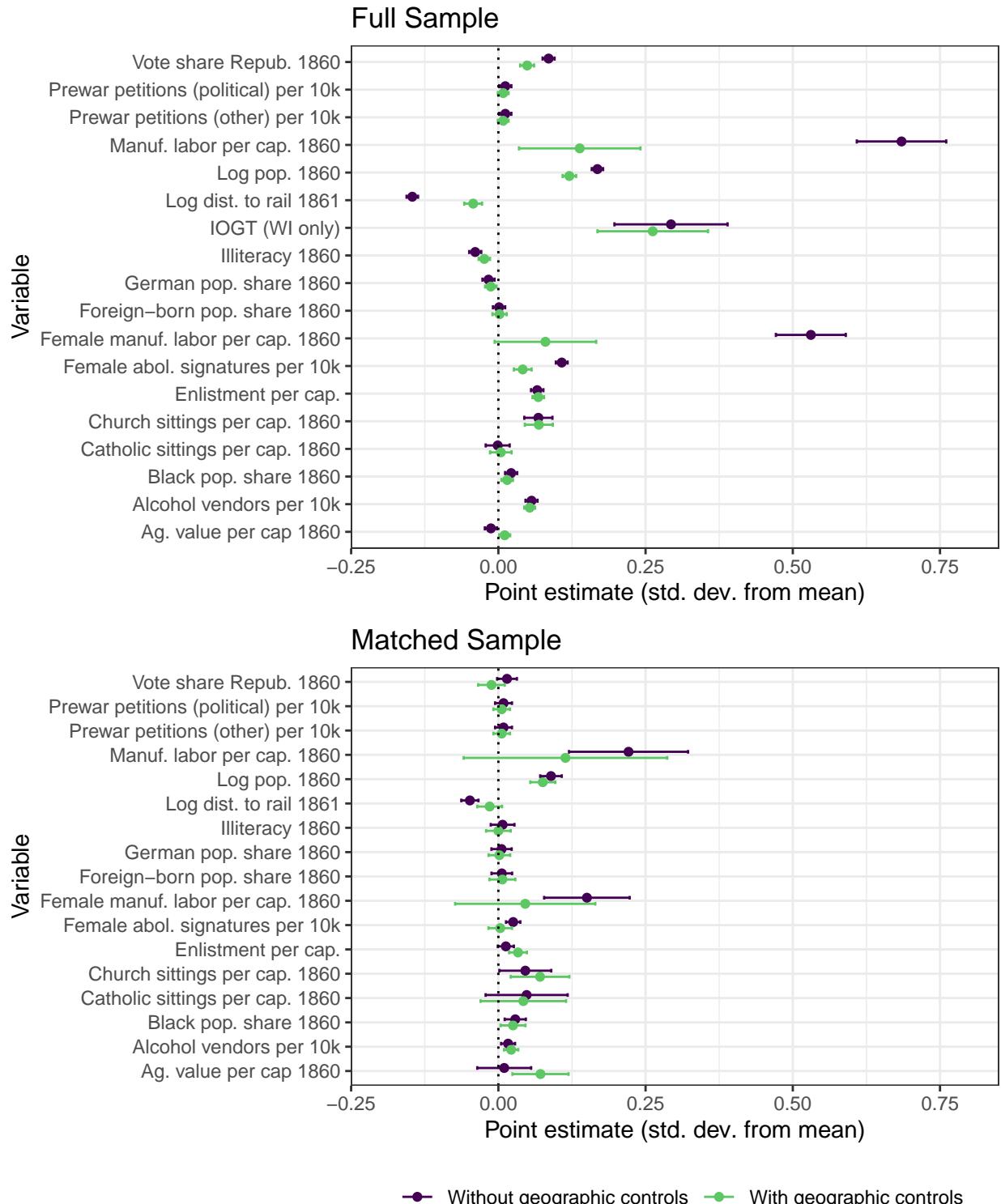


Figure 5: Balance table comparing difference in means for demographic, socio-economic, and political variables in towns that did vs. did not have a USSC-affiliated soldiers' aid society, with and without adjusting for state fixed effects (except for IOGT, which is available only for Wisconsin) and linear and quadratic latitude and longitude. Variables available only at county level are assigned to all towns within those counties. All variables are mean-standardized for ease of comparison.

the American government and the war effort. Aid society towns also have more total church sittings per capital (although they are no more or less Catholic). The point effects for pre-war petitions sent to Congress (both political and general) are significant but very small in magnitude.

In Wisconsin, the only state for which there is town-level data on pre-war temperance activism, there is a strong relationship between participation in the IOGT and volunteering. Unusually for the time, the IOGT offered membership to both men and women. The focus of the prewar IOGT was on personal abstinence, not legislative prohibition.¹⁵ It would therefore not be surprising if the IOGT attracted the same kind of women – those interested in civic participation, though not necessarily (or exclusively) in political campaigning – that they would be likely to engage in during wartime.

One possible concern is that, despite the inclusion of covariates to adjust for observable differences between locations with and without societies, results may be biased due to underlying (observable) differences between towns that did vs. did not have a USSC-affiliated aid society. To check for and control for this potential bias, I use propensity score matching to build a more comparable town-level sample using the method suggested by Imai and Ratkovic (2014). The bottom panel of Figure 5 shows the difference in means between towns with vs. without a USSC aid society for the matched sample.

For the county-level version of the dataset, in which exposure to a soldiers' aid society is measured continuously (the share of a county's population that resides in a town with a society), I use the entropy balance weighting method (Hainmueller 2012) to re-weight each observation for improved balance.¹⁶ The bottom panel of Figure A7 shows the balance of the weighted sample. In this figure, the graph reflects the point estimates of a regression of the share of counties' population exposed to a USSC society on each covariate. Differences in

¹⁵See, for instance, a list of rules published by the IOGT in 1859, which prohibit consuming alcohol as well as benefiting from its advertisement or sale or serving it to others (Chase 1859).

¹⁶Town-level matching and county-level weighting are conducted using the **MatchIt** (Ho et al. 2018) and **WeightIt** (Greifer 2019) R packages, respectively. Details are available in Appendix F.

means across variables are generally reflective of those generated at the town level.

5 Analysis

5.1 Town- and County-Level Results

The difference in the probability of holding a Crusade conditional on having vs. not having had a wartime aid society is stark. In the full sample, of towns that had an aid society, 12.4% had a Crusade, vs. 2.9% of those with no aid society.

Table 2 shows this difference adjusted for pre-war covariates using variations on the following OLS regression:

$$Crusade_i = \alpha + \beta society_i + \mathbf{X}\gamma + \epsilon_i \quad (1)$$

where $Crusade_i$ is a variable capturing whether town i held a Temperance Crusade (either 0 or 1); α is an intercept term; $society_i$ is a variable representing whether town i had a soldiers' aid society during the Civil War; and γ is a vector of coefficients for control variables discussed in Section 4.3.

Even after introducing a full slate of controls on social and organizational capital, towns with USSC-affiliated soldiers' aid society had a strikingly higher likelihood of hosting a Temperance Crusade. The point estimate remains statistically significant and fluctuates little after adjusting for geographic variables, economic and political characteristics, and measures of pre-war social capital (Columns 2-5).

The point effect on $society_i$ in the regression conducted on the matched sample (Column 6 of Table 2) is of a slightly smaller magnitude than those from the regressions that use the full sample (6.2 percentage points vs. 7.8-10.4 percentage points). This suggests that at least some of the observed effect in the full sample can be attributed to bias due to a

Table 2: Relationship between USSC and Temperance Crusades. Regressions results are from OLS specifications of Temperance Crusades on USSC presence at the town level (Equation 1). Columns 1-5 use the full sample. Column 6 uses the matched sample based on the full dataset. Column 7 (Wisconsin only) includes a control for pre-war mixed-gender temperance societies. Robustness checks can be found in Appendix D.

	Dependent variable:						
	Has Crusade				Matched sample Wisconsin only		
	Full sample						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
USSC society	0.095*** (0.006)	0.104*** (0.006)	0.099*** (0.006)	0.087*** (0.006)	0.078*** (0.006)	0.062*** (0.009)	0.089*** (0.018)
Log pop.		0.050*** (0.003)	0.044*** (0.003)	0.051*** (0.004)	0.048*** (0.004)	0.098*** (0.007)	0.082*** (0.013)
Dist. to rail			-0.019*** (0.004)	-0.018*** (0.004)	-0.017*** (0.004)	-0.006 (0.006)	0.073 (0.090)
Illiteracy				-0.012*** (0.003)	-0.010*** (0.003)	-0.009*** (0.003)	-0.011* (0.006)
Repub. vote share 1860					0.007** (0.003)	0.007* (0.004)	0.007** (0.004)
Black pop. share					0.035*** (0.003)	0.031*** (0.003)	0.028*** (0.003)
Foreign-born pop. share					0.0002 (0.004)	-0.003 (0.004)	-0.009 (0.004)
German pop. share					0.0005 (0.003)	0.003 (0.003)	0.001 (0.003)
Ag. value per cap.					0.002 (0.003)	0.004 (0.004)	0.001 (0.004)
Manuf. per cap.					0.011 (0.044)	0.019 (0.046)	0.027 (0.045)
Female manuf. per cap.					-0.031 (0.033)	-0.040 (0.033)	-0.036 (0.032)
Enlistment per cap.					0.039*** (0.003)	0.032*** (0.003)	0.047*** (0.005)
Church sittings per cap.					-0.041*** (0.011)	-0.036*** (0.011)	-0.060*** (0.022)
Catholic sittings per cap.					0.012 (0.008)	0.013* (0.008)	-0.009 (0.025)
General Congress. pet.					0.003 (0.003)	0.002 (0.002)	0.016 (0.018)
Political Congress. pet.					0.005* (0.003)	0.006* (0.003)	0.004 (0.004)
Female abol. pet.					-0.004 (0.004)	-0.004 (0.004)	-0.002 (0.006)
Alcohol vendors per cap.						0.038*** (0.003)	0.033*** (0.004)
IOGT							0.030*** (0.005)
							0.096*** (0.023)
Geo. controls		✓	✓	✓	✓	✓	✓
Observations	7,862	7,862	7,787	7,429	7,429	3,695	631
Adjusted R ²	0.035	0.109	0.127	0.152	0.175	0.239	0.260

Note:

*p<0.1; **p<0.05; ***p<0.01

Table 3: Relationship between USSC and suffrage petitioning. Regressions results are from OLS specifications of an indicator for any suffrage petitioning activity on USSC presence at the county level (Equation 2). Columns 1-4 use the full sample. Column 5 uses the weighted sample.

	<i>Dependent variable:</i>				
	Sent suffrage petition				Weighted sample
	Full sample				
	(1)	(2)	(3)	(4)	(5)
USSC society	0.132*** (0.020)	0.061** (0.026)	0.044* (0.026)	0.035 (0.028)	0.077*** (0.024)
Log pop.		0.065*** (0.019)	0.042 (0.027)	0.019 (0.029)	-0.022 (0.031)
Dist. to rail			-0.110** (0.045)	-0.105** (0.046)	-0.102** (0.047)
Illiteracy			-0.017 (0.021)	-0.018 (0.021)	-0.071*** (0.023)
Repub. vote share 1860			0.086*** (0.031)	0.115** (0.049)	0.134** (0.055)
Black pop. share			0.038* (0.021)	0.033 (0.021)	0.044** (0.017)
Foreign-born pop. share			-0.020 (0.026)	-0.028 (0.028)	-0.034 (0.029)
German pop. share			0.026 (0.020)	0.025 (0.020)	0.038* (0.021)
Ag. value per cap.			0.037* (0.022)	0.024 (0.033)	0.035 (0.036)
Manuf. laborers per cap.			0.037 (0.032)	0.035 (0.032)	0.023 (0.035)
Female manuf. laborers per cap.			-0.008 (0.032)	-0.007 (0.033)	-0.012 (0.036)
Enlistment per cap.				-0.017 (0.040)	-0.043 (0.045)
Church sittings per cap.				0.007 (0.039)	-0.032 (0.051)
Catholic sittings per cap.				0.003 (0.022)	0.022 (0.029)
General Congress. pet.				0.060*** (0.023)	0.317*** (0.045)
Political Congress. pet.				-0.002 (0.023)	-0.035 (0.029)
Female abol. pet.				-0.012 (0.026)	-0.020 (0.033)
Geo. controls			✓	✓	✓
Observations	577	577	565	565	565
Adjusted R ²	0.070	0.217	0.241	0.244	0.295

Note:

*p<0.1; **p<0.05; ***p<0.01

lack of common support over the covariates or to imbalance on the observable covariates (Heckman, Ichimura, and Todd 1998). However, a 6.2 percentage-point difference between “society towns” and those with no such society is still substantively meaningful, especially in light of the low (2.9%) probability that a town without an aid society held a Crusade. Column 7 shows results for Wisconsin only, including a variable that captures the presence of an IOGT lodge.¹⁷ Appendix D shows other variations on the main specification: adjusting for population in the regression weights; dropping the smallest and largest cities; and using Conley standard errors to account for spatial proximity. The effect is of generally similar magnitude and significance across all alternative specifications.

To measure the longer-run relationship between USSC societies and women’s political capacity, I turn to the outcomes that capture post-war suffrage petitioning and women voters’ participation after enfranchisement. I run the following regression at the county level:

$$Petition_i = \alpha + \beta society_i + \mathbf{X}\gamma + \epsilon_i \quad (2)$$

where $Petition_i$ is a dichotomous measure of whether any town in county i sent at least one petition to Congress in favor of suffrage; $society_i$ is the share of population in county i that resides in a town or city that had a wartime aid society; and \mathbf{X} is a matrix of county-level covariates.¹⁸

Table 3 shows the results of variations on Equation 2. The point estimates on all specifications are positive, but standard errors are large on estimates using the unweighted sample when covariates are introduced. The point estimate generated using a weighted sample, however, is statistically significant, suggesting that lack of a common support introduces bias that is ameliorated by a more balanced sample. In the weighted sample, a one standard-deviation increase in the share of a county living in a town with a USSC-affiliated aid society is

¹⁷Note that no towns in Wisconsin contribute pre-war suffrage petitions.

¹⁸I use a binary formulation for Y_i rather than measuring (for instance) the number of petitions per capita because of inconsistencies in documenting the number of signatories on each individual petition.

associated with a 7.7-percentage point increase in the probability of a town originating a suffrage petition.

While the specifications above control for a number of other variables, the nature of historical spatial analyses – particularly of the nineteenth century United States, when population, proximity to urban centers, and transportation networks had a particularly large impact on political outcomes (García-Jimeno, Iglesias, and Yildirim 2022) – suggest a sensitivity analysis to stress-test the degree to which results could be affected by the presence of an omitted variable that is correlated with both women’s social capital and their political efficacy. I conduct such an analysis based on Cinelli and Hazlett (2020) to demonstrate how large an effect a hypothetical omitted variable would need to have to explain all of the effect attributed to the explanatory variable of interest (in this case, the presence of USSC-affiliated aid societies). Formal details and results of this method are given in Appendix H. I benchmark the sensitivity of results to Civil War enlistment rates, which proxy a town’s general level of political involvement and support for politically progressive causes. Such a hypothetical omitted variable would need to have a relationship several times stronger than that of enlistment with both the treatment and outcomes in order to fully explain the variation that is attributed to my measure of women’s social capital highlighted specifications.

5.2 Individual-Level Evidence

Town-level data gives useful indicators that the *places* that produced women volunteers also produced women activists. Without complete rosters of either wartime volunteers or political activists, it is impossible to show how much individual-level overlap there was between the two movements, particularly given the possibility that women married (or remarried) and changed their names, or moved, between the 1860s and 1870s. With a partial list of aid society members – that of the club leadership – and names of activists gleaned from biographical data, it is possible to recover general social characteristics of women who organized the wartime volunteer effort, and who were temperance activists, and compare them to those of

the population at large.

For three geographically diverse areas – Connecticut; Western New York; and Wisconsin – I construct lists of (a) the names of local clubs from the USSC database and (b) the names of temperance activists (usually leadership) mentioned in Wittenmyer (1882) and Steel (1874), two collections of contemporary accounts of the Crusade movement. I locate as many of these names as possible in the 1860 Census; the successful match rate is 42% and 56%, respectively. I then compare the economic status (measured by the summed real and personal property of the head of the household in which they lived) of club leadership and temperance activists to that of the population in their geographic area. Figure 6 shows the results of this exercise.

Economically speaking, both groups of women tended to be from the upper half of the wealth distribution. Most club leadership and activists' heads of households (usually husbands or fathers) had professional backgrounds (i.e., physician, justice of the peace, or merchant) or were relatively wealthy farmers. Most women's professions were listed as "keeping house." This suggests a leadership class made up of women from upper-middle class backgrounds – precisely those who most likely to have access to labor-augmenting technology that allowed them to expend time on charitable efforts, and those who were the main audience for the "cult of domesticity." These were the same kinds of women as those who made up the Temperance Crusade movement: per a contemporary description, "the wives and daughters of the ministers, bankers, judges, lawyers, merchants and mechanics" (Wittenmyer 1882, 98).

Did activists have political experience that pre-dated the Crusade movement? By their own accounts, no: they had "never engaged in any public work" (p. 127); one participant wrote that "We are a wonder unto many, it being so unusual here for women to get up to anything that looks like thinking and acting for themselves" (p. 572). They were, however, almost invariably active participants in Christian religious congregations (mainstream Protestant, Catholic, or Quaker). Religious affiliations, and religious motivations, are almost always mentioned in individual accounts of the temperance movement. They were not likely to work

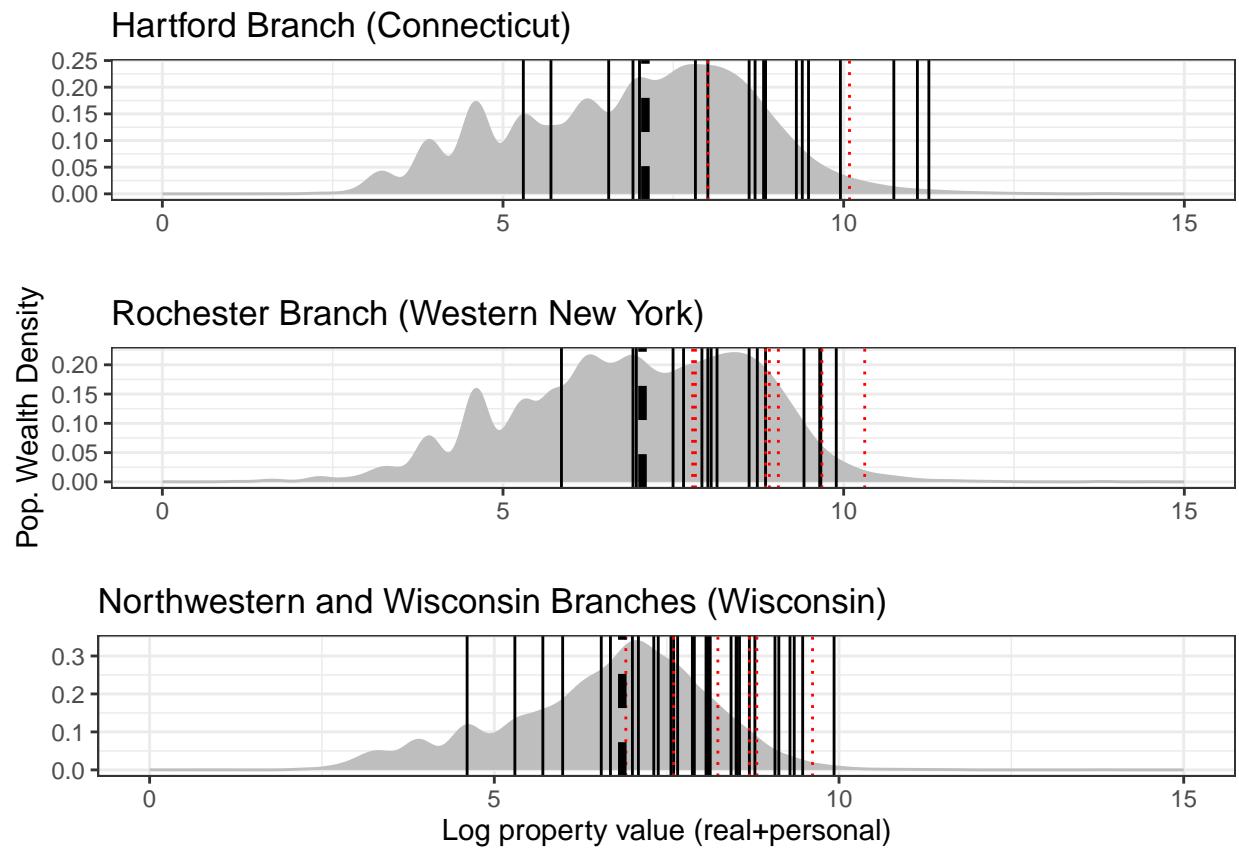


Figure 6: Log head-of-household wealth, as reported in the 1860 Census (as the summed value of real estate and personal property), of USSC aid society leadership (solid black lines) by branch plotted against the wealth distribution of all residents in the branch's coverage area. A thick dashed line shows the median log wealth of the coverage area population. Red dotted lines show the head-of-household wealth (in 1860) of temperance leadership.

outside of the home – women’s employment is almost never mentioned in Wittenmyer (1882), and women’s manufacturing employment (the main kind of employment outside of the home) does not predict volunteering after controlling for basic geographic covariates (and is fact negatively correlated when controlling for a full slate of covariates, although not significantly so). Neither do qualitative accounts tend to mention any political experience in the form of anti-slavery petitioning.

5.3 Discussion

Did opportunities to volunteer during the Civil War have a *causal* effect on women’s activist movements? The standard toolbox of quantitative approaches for causal inference is notably weak in this particular historical setting. There are no available data series on women’s volunteering before the Civil War; this data is only observed once, during the war, precluding a differences-in-difference approach that requires observation over a period of time. There are no sharp geographic boundaries correlated with volunteering that are not also politically meaningful in other ways (i.e., the border between Union States and the Confederacy). Finally, factors that might have specifically encouraged volunteering – such as Republican voting or male war participation – are dangerously correlated with either general economic characteristics or outcomes of interest, potentially biasing results from an instrument variable approach. In lieu of such evidence, I will consider qualitative evidence for and against a causal interpretation.

Of the approximately 400 independently written accounts collated in Wittenmyer (1882) that were submitted by Crusade participants across the country, none explicitly attribute their activism to experience gained in wartime – that is, none suggest that wartime organizing helped them build practical skills that were directly helpful in organizing protests or gathering petition signatures a decade or more later. This does not mean that such experiences were *not* helpful, particularly amongst high-profile women who expanded their networks and got their first taste of large-scale organizing during the war, riding a wave of support for a

popular cause. It does, however, suggest that most women who participated in the USSC were drawing on already-existent stocks of social capital, rather than forming connections with other women for the first time.

The personal accounts do, however, make repeated and explicit connections between the national service rendered by men at war and that rendered by women participating in moral campaigning. In making this connection, women emphasized both their organizational capabilities and the legitimacy of their political goal. Temperance activists joined a “mighty army of women” (p. 17) who, “by systematic and persistent work... are pushing the battle and expect the victory” (p. 627). Tactically, they perceived value in leveraging ideas about service to the state to boost the legitimacy of their political demands. Women who had engaged in national service as wartime volunteers may have had a better claim to this legitimacy based on their own record of sacrifice, especially if they were embedded in communities in which the message was likely to be received by sympathetic male veterans. While a close examination of the strategic messaging of women activists is beyond the scope of this paper, it raises promising avenues for further research on the mechanics of moral suasion.

6 Conclusions

I use novel, large-scale data on Union women’s home front volunteer efforts during the Civil War to establish a link between women’s social capital and political capacity in the United States in the nineteenth century. Towns and counties in which women organized clubs to contribute domestic labor towards the war effort were substantially more likely to hold women-led marches against the sale of alcohol in the 1870s and more likely to submit petitions to Congress on behalf of women’s suffrage in the late nineteenth and early twentieth centuries. Both groups were led by upper-middle class women who were the primary audience for the “cult of domesticity,” a social ethos that emphasized the role of women as the keepers of the home and guardians of moral virtue – roles that could be leveraged as tactics of moral

suasion in women's political movements.

A large literature focuses on how women made gains in the twenty-first century by adopting social and labor market roles that had previously been reserved for men. I instead focus on the origins of women's political movements in sex-segregated, heavily gendered social roles that emphasized the virtues of domesticity. While qualitative historical research has made such a connection, a dearth of large-scale data on how, and with whom, women spent their time has precluded quantitative research. The records of the United States Sanitary Commission, a rare large and comprehensive dataset on women's social lives, fills this gap.

Establishing a relationship between women's social capital in a sex-segregated context and their ability to organize politically has implications beyond this paper's setting in the antebellum United States. Gendered social roles and sex segregation remain the norm in many societies across the world in the twenty-first century, and for many women around the globe, violence, discrimination, and a lack of legal protections preclude full participation in public life (World Bank Group 2024). In such contexts, leveraging women's social capital may be the most effective path towards equality. Evidence from American history shows that a women's political movement can flourish within the "separate sphere."

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A Archival Source Data

All Societies tributary to the Buffalo Branch - Continued

Societies	Where Located	Prominent Officers
Boston Corners	Boston Corners, Erie Co.	Mrs. H. J. Chaffee, Pres.
West Remington	West Remington, Wyoming Co.	Mrs. Lydia J. Tracy, Pres.
Rock Ridge	Rock Ridge, Niagara Co.	Mrs. N. Powers, Pres.
South Bayou	In Rural Genesee Co.	" Miller, Pres.
Bristol	Bristol, Ontario Co.	W. Scott Hicks
Byron	Byron, Genesee Co.	Mrs. Walker
Brent & Evans	"	Jacob Kline, Pres.
Clarendon	Clarendon, Orleans Co.	Katharine Carpenter, Secy.
Clarence	Clarence, Erie Co.	O. Oakley, Pres.
Clarence	" "	E. A. Andeworth, Pres.
Chemung County	Chemung County, Erie Co.	C. V. Pugsley, Pres.
Cambria	Cambria, Niagara Co.	Rev. Dr. Scoville, Secy.
Elmwood	Elmwood, Chautauque Co.	A. Farwell, Secy.
Charlotte, Centre	Charlotte, Centre Co.	J. R. Brown, Pres.
Colton	Colton, Erie Co.	B. Bullock, Pres.
Castile	Castile, Wyoming Co.	H. J. Bonus, Pres.
Con西湖ville	Con西湖ville, Wyoming Co.	Edwin Water, Pres.
Conondaga	Conondaga, Ontario Co.	W. A. Codd, Pres.
Chittenango	Chittenango, Erie Co.	Mrs. Hartman, Pres.

All Societies tributary to the Buffalo Branch - Continued

Societies	Where Located	Prominent Officers
North Collins	North Collins, Erie Co.	Mrs. Horace Kimball, Pres.
Colored Ladies	Buffalo, Erie Co.	Geo. Dorer, Pres.
Colton-Centre	Colton-Centre, Erie Co.	" Mr. Cole, Pres.
North Colton	North Colton, Erie Co.	" E. O. Haller, Pres.
Shelby	Shelby, Ontario Co.	C. L. Haskell
Clark's Mills	Clark's Mills, Ontario Co.	Allen Grove
Centreville	Centreville, Allegany Co.	a. C. Mariner
Dale	Dale, Wyoming Co.	Rev. Mr. Gilman
Darien	Darien, Genesee Co.	Mrs. Thos. Middle, Pres.
DeWittville	" "	Horace Neit, Pres.
DeWittville	DeWittville, Chautauque Co.	Mrs. Annie Aldrich
Eaton	Eaton, Erie Co.	Pete Coffey, Secy.
Elm Valley	Elm Valley, Erie Co.	Julia Bustino, Secy.
Eiona	Eiona, Erie Co.	Mrs. Kieran Hartigan, Pres.
Egyptville	Egyptville, Erie Co.	J. C. Mariner
Ella	Ella, Cattaraugus Co.	Juliet E. Braund, Secy.
East Ashford	East Ashford, a.	Mrs. A. J. Wiltsie, Secy.
Forestville	Forestville, Chautauque Co.	G. W. Blanchard, Pres.
Elliott	Elliott, Erie Co.	Mrs. Ellen Griffen, Pres.

Figure A1: An example of a USSC society roster from the Buffalo (New York) branch.

B Sample Construction

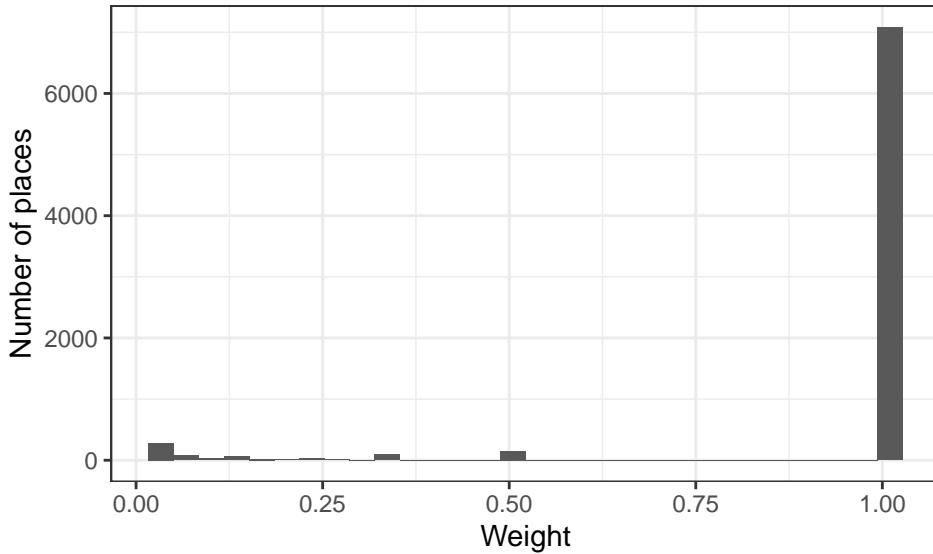


Figure A2: Distribution of weights used to accommodate uncertainty in exact location of soldiers' aid societies.

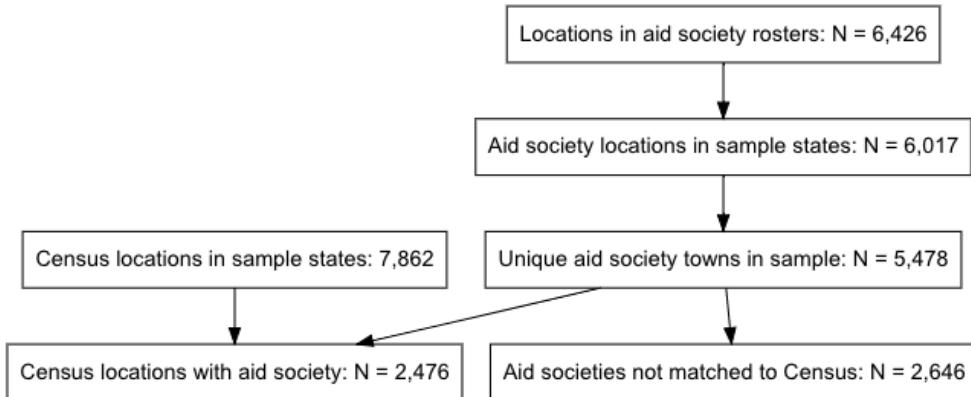


Figure A3: Flowchart showing construction of sample from aid society archival rosters and 1860 Census.

C Summary Statistics

Table A1

Statistic	N	Mean	St. Dev.	Min	Max
Crusade	7,862	0.059	0.236	0	1
Pop. 1860	7,862	1,588.501	4,944.853	2	266,661
Nearest rail 1861	7,862	3.680	1.873	-6.750	6.651
Vote share Repub. 1860	7,796	0.574	0.109	0.025	1.000
Enlistment per cap.	7,493	0.074	0.071	0.0001	0.985
Prewar petitions (political) per 10k	7,861	0.00003	0.0003	0.000	0.011
Prewar petitions (other) per 10k	7,862	0.0002	0.001	0.000	0.037
Female abol. signatures per 10k	7,862	0.023	0.049	0.000	0.325
Alcohol vendors per 10k	7,862	2.532	12.309	0.000	428.571
IOGT	680	0.134	0.341	0	1

Summary statistics for town-level data

Table A2

Statistic	N	Mean	St. Dev.	Min	Max
Total suffrage petitions	574	1.516	3.756	0	47
Church sittings per cap.	571	0.755	1.423	0.000	15.974
Catholic sittings per cap.	571	0.072	0.344	0.000	6.927
Black pop. share	574	0.001	0.004	0.000	0.043
Manuf. laborers per cap.	571	0.039	0.060	0.000	0.484
Femal manuf. laborers per cap.	571	0.005	0.015	0.000	0.107
Illiteracy	574	0.049	0.070	0.000	0.646
German pop. share	574	0.028	0.050	0.000	0.402
Ag. output value per cap	574	0.218	0.196	0.000	1.000
Foreign-born pop. share	565	0.271	1.590	0.00002	28.028

Summary statistics for county-level data

D Main Results – Robustness

Table A3: Column 1 weights town-level observations by population. Column 2 shows results from a logistic regression. Column 3 drops the top and bottom 5 percent of towns by population. Column 4 drops all ambiguous matches. Column 5 uses a probabilistic match to assign USSC societies to towns in which there are multiple matches (i.e., if one society plausibly matches to two different towns, each town is assigned 0.5 societies).

	Dependent variable:				
	Pop. weights (1)	Logistic (2)	Has Crusade	Drop ambiguous (4)	Prob. match (5)
			Drop large/small (3)		
USSC society	0.097*** (0.008)	1.747*** (0.139)	0.075*** (0.006)	0.084*** (0.006)	
USSC society (probabilistic matching)					0.088*** (0.006)
USSC society (alternate matching)	0.158*** (0.004)	1.299*** (0.096)	0.032*** (0.005)	0.051*** (0.004)	0.051*** (0.004)
Log pop.	0.004 (0.004)	-0.236*** (0.084)	-0.015*** (0.004)	-0.014*** (0.004)	-0.017*** (0.004)
Dist. to rail	-0.019*** (0.004)	-0.289*** (0.082)	-0.010*** (0.003)	-0.009*** (0.003)	-0.010*** (0.003)
Illiteracy	-0.007 (0.005)	0.096 (0.082)	0.008** (0.004)	0.003 (0.004)	0.007** (0.004)
Repub. vote share 1860	0.027*** (0.003)	0.142*** (0.055)	0.015*** (0.004)	0.033*** (0.004)	0.031*** (0.003)
Black pop. share	0.013** (0.006)	0.007 (0.104)	-0.004 (0.004)	-0.004 (0.004)	-0.003 (0.004)
Foreign-born pop. share	0.011*** (0.004)	-0.035 (0.066)	-0.001 (0.003)	0.003 (0.003)	0.003 (0.003)
German pop. share	0.003 (0.010)	0.029 (0.179)	0.002 (0.004)	0.004 (0.004)	0.004 (0.004)
Ag. value per cap.	-0.161*** (0.056)	-0.988 (1.376)	-0.006 (0.047)	0.010 (0.046)	0.019 (0.046)
Manuf. laborers per cap.	-0.130*** (0.036)	-0.660 (1.116)	-0.014 (0.034)	-0.037 (0.033)	-0.040 (0.033)
Female manuf. laborers per cap.	0.085*** (0.004)	0.503*** (0.048)	0.037*** (0.003)	0.040*** (0.003)	0.039*** (0.003)
Enlistment per cap.	-0.065*** (0.017)	-0.510* (0.266)	-0.031*** (0.011)	-0.040*** (0.012)	-0.041*** (0.011)
Church sittings per cap.	0.001 (0.017)	-0.087 (0.306)	0.011 (0.007)	0.012 (0.008)	0.012 (0.008)
Catholic sittings per cap.	0.031*** (0.012)	0.068* (0.038)	0.028*** (0.011)	0.003 (0.003)	0.003 (0.003)
General Congress. pet.	0.010** (0.004)	0.045 (0.039)	0.003 (0.003)	0.005* (0.003)	0.005* (0.003)
Political Congress. pet.	0.008* (0.005)	-0.065 (0.101)	-0.003 (0.004)	-0.004 (0.004)	-0.004 (0.004)
Geo. controls	Yes	Yes	Yes	Yes	Yes
Observations	7,429	7,429	6,752	6,712	7,429
Adjusted R ²	0.558		0.107	0.164	0.153
Log Likelihood		-1,147.103			
Akaike Inf. Crit.		2,364.207			

Note:

* p<0.1; ** p<0.05; *** p<0.01

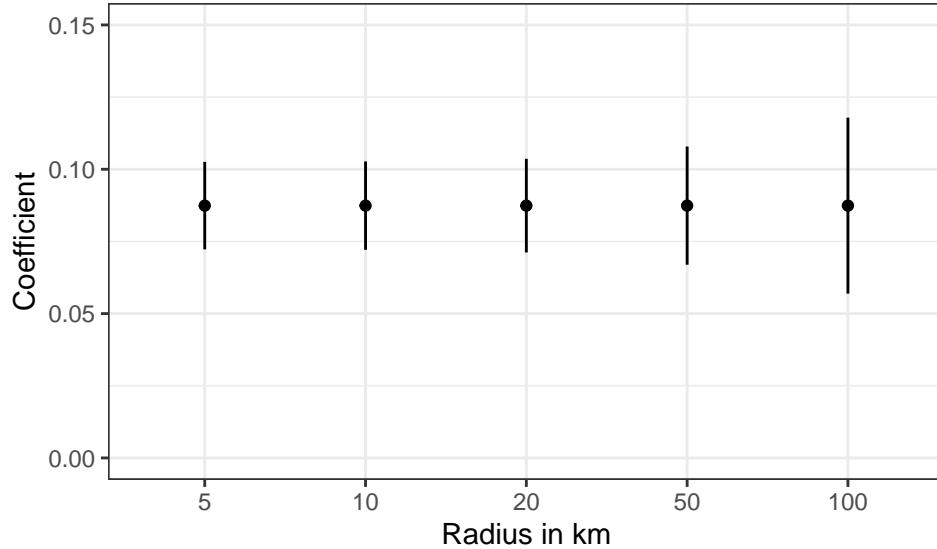


Figure A4: Point estimates and 95% confidence intervals for the coefficient on a USSC society with full slate of controls and Conley standard errors, for radii of 5, 10, 20, 50, and 100 km.

E Petitions Data Construction

For simplicity of interpretation, and because results varied minimally between the main results and the appropriate robustness check, I assign aid societies at random to plausible matches when ambiguous.

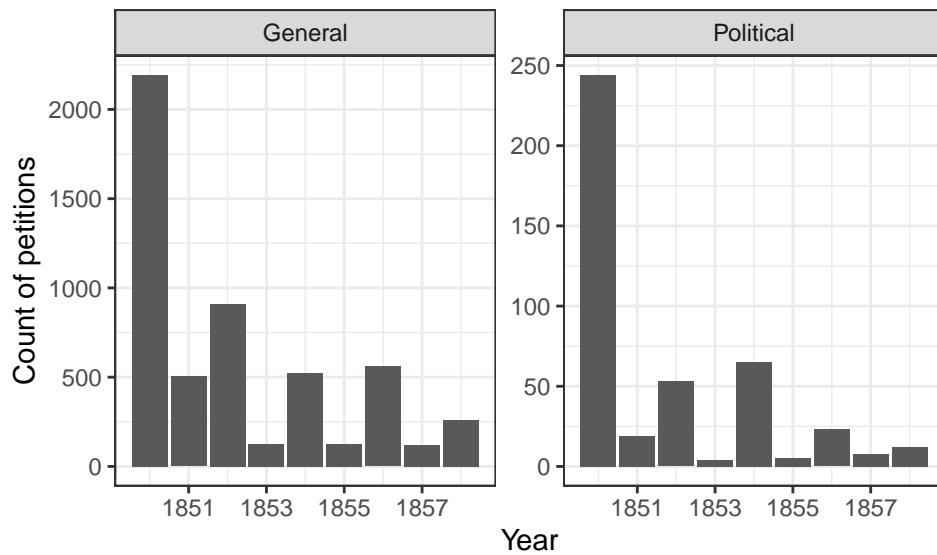


Figure A5: Number of petitions per year (Blackhawk et al. 2021). Note difference in y-axis scales.

F Matching Details

To execute the matching strategy described in Ho et al. (2018), I estimate a logistic regression

$$Pr(society_i = 1 | X_i) = \frac{\exp(X_i^T \beta)}{1 + \exp(X_i^T \beta)} \quad (\text{A1})$$

where X_i is an estimated matrix of all control variables available for the full sample (excluding the Wisconsin-only IOGT variable) and β a vector of the associated coefficients. Maximizing the fit of Equation A1 yields propensity score predictors for each observation. I then use nearest-neighbor matching to construct a dataset matched on the calculated propensity scores. The matched dataset consists of 2,430 (1,265) towns with (*without*) an aid society.

G County-Level Sample Construction

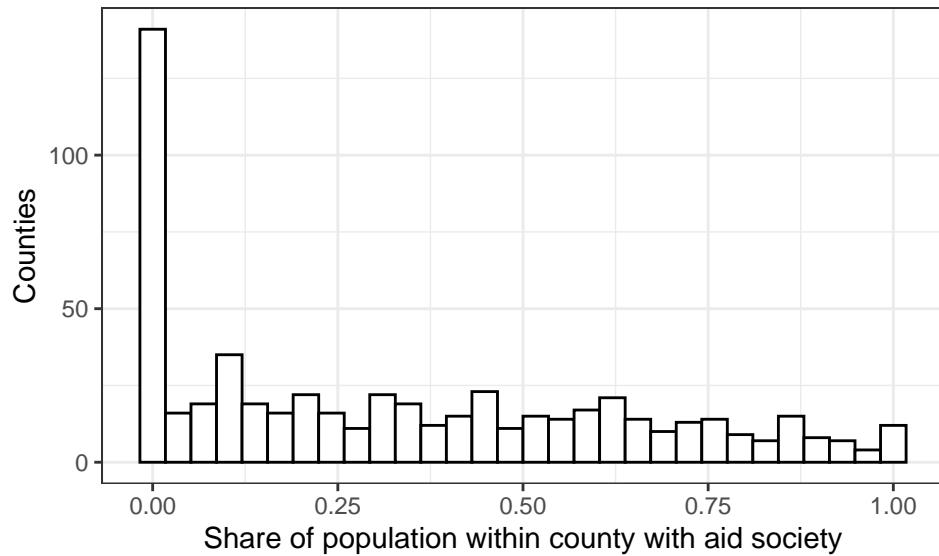


Figure A6: Share of counties' 1860 population living in a town with an aid society.

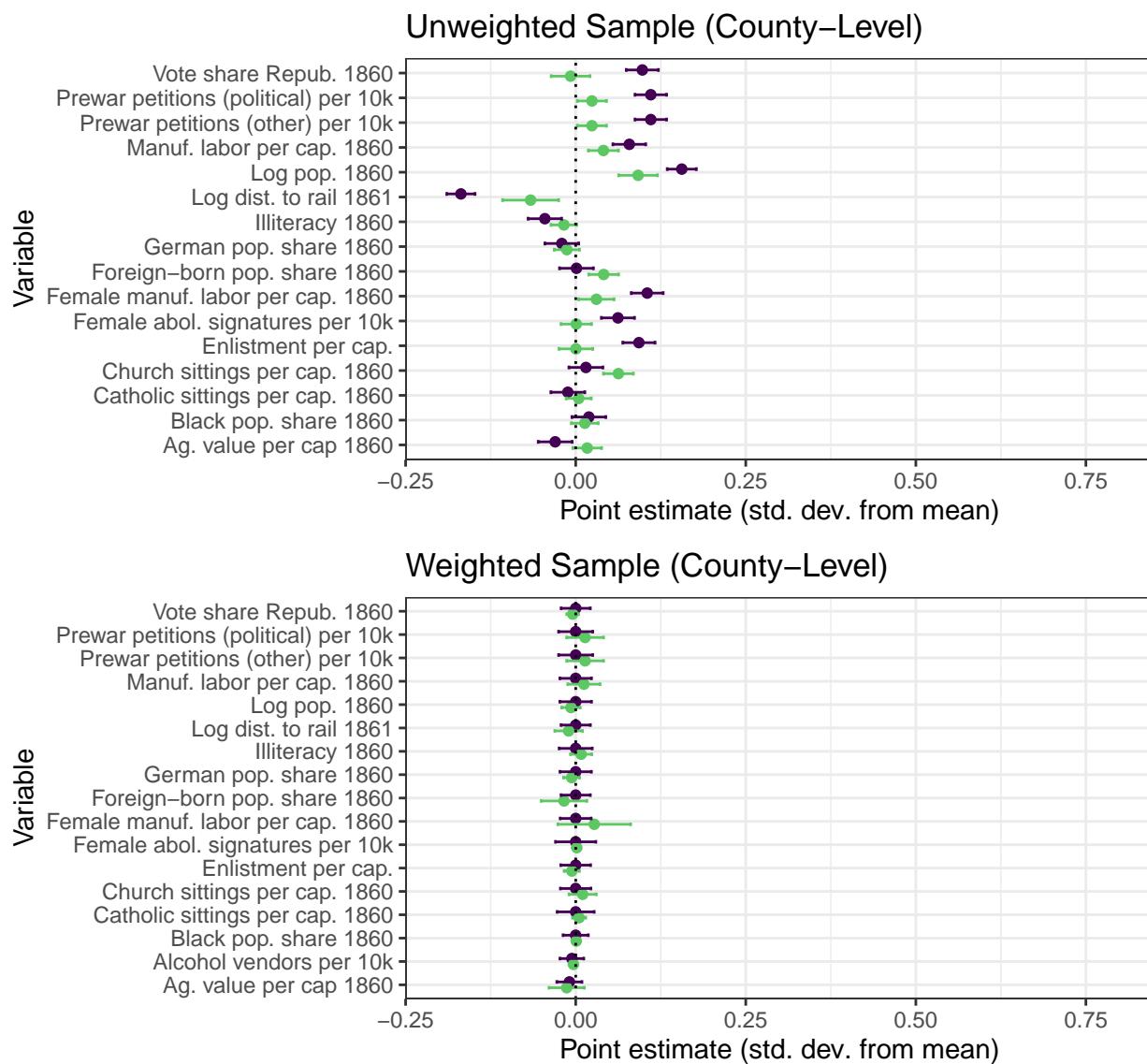


Figure A7: Balance table comparing coefficients for share of a county's population exposed to a USSC-affiliated aid society regressed on county-level demographic, socio-economic, and political variables, with and without adjusting for state fixed effects and linear and quadratic latitude and longitude. All variables are mean-standardized for easier comparisons.

H Sensitivity

Suppose that there is some unobservable covariate U_i that is correlated both with the presence of an aid society and with the occurrence of a Temperance Crusade. The approach suggested by Cinelli and Hazlett (2020) is to measure how strong the relationships between U_i and the USSC variable, and U_i and the Crusade outcome, would have to be to completely explain the effect attributed to the presence of an aid society in the matched and weighted sample regressions actually shown in Tables 2 and 3.

Formally, following Cinelli and Hazlett (2020), I define the *partial R^2 of the unobserved confounding variable with the outcome* as

$$R_{Y_i \sim U_i | society_i, \mathbf{X}}^2 = \frac{R_{Y_i \sim society_i + \mathbf{X} + U_i}^2 - R_{Y_i \sim society_i + \mathbf{X}}^2}{1 - R_{Y_i \sim society_i + \mathbf{X}}^2} \quad (\text{A2})$$

and the *partial R^2 of the unobserved confounding variable with the treatment* as

$$R_{society_i \sim U_i | \mathbf{X}}^2 = \frac{R_{society_i \sim \mathbf{X} + U_i}^2 - R_{society_i \sim \mathbf{X}}^2}{1 - R_{society_i \sim \mathbf{X}}^2} \quad (\text{A3})$$

where Y_i and $society_i$ are defined as in Section 4 and \mathbf{X} is a matrix of control variables. The intuition behind the sensitivity analysis is to measure how $\hat{\beta}$, the coefficient on $society_i$, would change in relation to a range of hypothetical non-zero values for $R_{Y_i \sim U_i | society_i, \mathbf{X}}^2$ and $R_{society_i \sim U_i | \mathbf{X}}^2$. If one assumes the presence of an omitted variable (or variables) that is orthogonal to $society_i$ (the binary, town-level USSC society variable), such a variable would have to explain more than 8.47% of the residual variance of both $society_i$ and the Crusade variable in order to reduce the coefficient on $society_i$ to a range in which it is no longer statistically distinguishable from zero at the 95% significance level. As a benchmark, the partial R^2 of wartime enlistment with respect to $society_i$ and the Crusade variable are 0.27% and 3.19%, respectively. With respect to the county-level outcome of a suffrage petition, a hypothetical omitted variable would need to explain 1.62% of the residual variance, and for this specification, the partial R^2 of wartime enlistment with respect to the continuous exposure-to-a-society variable and the suffrage petition outcomes are 0.86% and 0.30%, respectively.

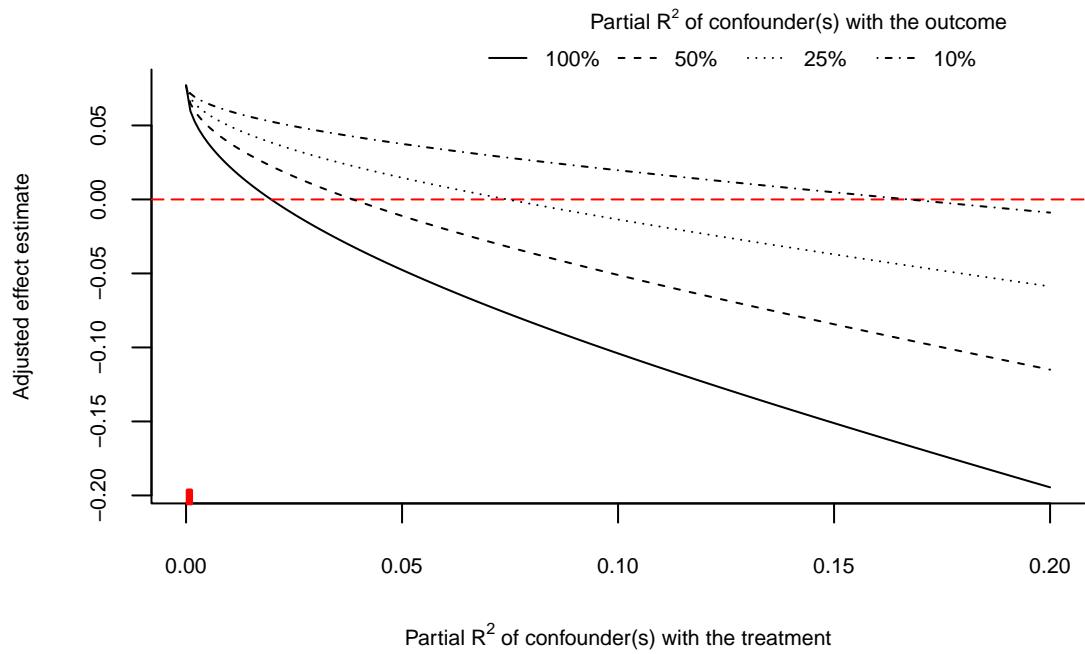


Figure A8: Sensitivity of the main county-level result (the regression of suffrage petitioning on counties' population exposure to USSC society presence) to potential unobservable omitted variable bias. Red markers on the x-axis benchmark the hypothetical sensitivity to an unobserved variable against one, two, and three times the strength of the relationship between the treatment ($society_i$) and the wartime enlistment variable (measured in mean-standardized per-capita enlistment, which I denote $enlistment_i$).