

# Dividing the Costs of War: Conscript Fatalities and Demands for Progressive Taxation in Interwar Britain

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## Abstract

The “compensatory theory” of tax fairness claims that governments implemented progressive taxation schemes after the World Wars to address concerns that wartime conscription had unfairly imposed the burden of fighting on the poor. Yet existing observational studies rely on cross-national comparisons that cannot rule out alternative explanations—such as greater war debt—for postwar tax policy. This article examines whether subnational variation in World War I conscript fatalities is associated with support for progressive taxation. Using a geocoded dataset of the home addresses of 839,626 British war dead, I find that candidates representing economically left-wing political parties received larger vote shares in constituencies with greater conscript fatality rates. Moreover, Members of Parliament representing high fatality constituencies were more likely to vote in favor of progressive taxation legislation, regardless of party affiliation. These findings suggest that fairness concerns arising from wartime government policy are important drivers of redistributive preferences.

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# 1 Introduction

Whether this House likes it or not, this matter has resolved itself into a discussion as to whether the people have the ability financially to pay for the War, and to meet the needs for national development, or whether the masses of the people ultimately are going to be compelled to pay in money as they have paid largely in blood and tears.

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— Jack Lawson, MP for Chester-le-Street

April 28, 1920

Scholars have long noted that progressive taxation schemes emerged in Western democracies during and after the World Wars. Governments involved in these conflicts introduced marginal income tax rates as high as 91% and implemented new levies on inheritances, financial transactions, and corporate profits. (Cronin, 2005; Piketty and Saez, 2007). Many of the new taxes continued after the wars, and the greater fiscal capacity these schemes enabled has been credited with fueling state expansion in the 20th century, midwifing the creation of the modern welfare state, and contributing to a decline in economic inequality in Europe and North America (Piketty, 2014; Titmuss, 1959). While it is not surprising that the fiscal demands of war induced states to broaden taxation, the degree of progressivity of the new levies and their persistence after the wars remain puzzling.

One explanation for the jump in tax progressivity following the World Wars is the “compensatory theory,” which posits that demands for taxing the rich grew out of a perception that wartime government policy had unjustly favored the wealthy (Seligman, 1893; Scheve and Stasavage, 2016). During the wars, governments implemented policies that had disproportionate impact on the poor, such as conscripting young men and curtailing the rights of workers in military-critical industries (Daunton, 2002). Proponents of the compensatory theory argue that such policies evoked feelings of unfairness among the affected, who then demanded that those who had

escaped conscription or profited off the war be taxed as recompense. Progressive taxation would restore equal treatment by ensuring those that had borne the human costs of war would not also have to bear its financial costs.

Past research has found that states which mandated conscription during the World Wars were more likely to introduce progressive income and inheritance taxes during and after the wars (Scheve and Stasavage, 2010, 2012, 2016). Yet the bulk of evidence from these studies comes from cross-national comparisons of tax rates between participants and non-participants in the World Wars. While such highly aggregated designs can demonstrate that the World Wars influenced tax policy, they cannot isolate the mechanism for the observed shifts in taxation. Indeed, in many states the introduction of conscription coincided with other changes brought about by the wars, such as the expansion of the franchise and the accumulation of debt. Current evidence cannot rule out that progressive taxes were instituted to help pay off the enormous loans taken out to fund the wars, which in some cases exceeded 150% of GDP (Ellison, Sargent and Scott, 2019). Fiscal necessity, rather than popular concerns about fairness, may have driven postwar tax policy. More recently, survey experiments have shown that individuals express greater support for progressive taxation when presented with examples of government policies that benefit the wealthy (Alvarado, 2024; Alvarado et al., 2025; Zakharov and Chapkovski, 2025). However, these experiments have primarily been conducted in contexts outside war and do not elucidate whether changes in constituent preferences driven by fairness concerns were a cause of historical tax policy shifts.

This article addresses these empirical issues by studying how subnational differences in exposure to the human costs of war affect voter and legislator support for progressive taxation. As government war debt is a national issue, it impacts all domestic constituencies in common. Consequently, evidence of local variation in the costs of war affecting support for progressive taxation provides a stronger foundation for the idea that fairness considerations drove postwar tax policy. I justify this approach using a simple formal model of electoral competition over the distribution of public debt payments between social classes. The model demonstrates that if greater human

costs of war make the working class more sensitive to taxation, legislators respond by proposing more progressive taxes to avoid electoral losses, even in the shadow of increased debt.

My empirical analysis tests this mechanism by examining how fatalities of soldiers conscripted to fight in World War I affected political support for progressive taxation in interwar Britain. The deaths of soldiers involuntarily enlisted to fight generated feelings of injustice among the deceased's associates, who observed some wealthy individuals evade conscription or even profit from the war (Daunton, 2002; Harrison, 1971). To measure the local impact of war fatalities, I construct a geocoded dataset of the home addresses of 839,626 British soldiers who died in combat during WWI. I combine this dataset with over 39 million records from the 1911 UK census to estimate the WWI fatality rate of conscripted soldiers for all 509 parliamentary constituencies in England and Wales. Using placebo tests and historical UK Army organizational records, I show that, conditional on regimental recruitment units, the conscript fatality rate is plausibly exogenous to political behavior and driven primarily by random battlefield outcomes. I then examine how variation in the conscript fatality rate affected electoral support for left-wing political parties and the outcomes of parliamentary votes on progressive taxation legislation. I find evidence for two results.

First, candidates representing the Labour Party and other economically left-wing political parties received larger vote shares in constituencies with greater WWI conscript fatality rates. In general elections between 1918 and 1935, left-wing parties increased their share of the vote by an expected 0.45 percentage points for each percentage point increase in the fatality rate of a constituency's conscripts. Counterfactual election simulations reveal that war fatalities had important implications for control of Parliament. A one-standard deviation increase in the conscript fatality rate (roughly 3%) would have been sufficient to flip an additional 87 seats to left-wing candidates during the period under study.

Second, using a new dataset of 424 roll-call votes on tax legislation debated in the House of Commons between 1918 and 1935, I find that members of Parliament (MPs) representing high fatality constituencies were more likely to vote in support of progressive taxation legislation, re-

gardless of party affiliation. The effect of conscript fatalities on MP voting is strongest among members of the Conservative Party, who traditionally opposed direct taxation, and during Parliaments that followed elections where war fatalities provided the greatest electoral benefit to left-wing political parties. Taken together, these results support the hypothesis that progressive taxation was implemented in response to electoral pressure arising from constituent reactions to war fatalities.

This paper contributes to a large literature on the domestic political impacts of international conflict, and in particular how casualties influence voting and trust in government. Several empirical studies, conducted primarily in the context of the Vietnam War and the US War on Terror, have argued that wartime casualties are associated with reduced political legitimacy and incumbent electoral support but greater political participation (De Mesquita and Siverson, 1995; Gartner and Segura, 1998; Gartner, Segura and Barratt, 2004; Koch and Nicholson, 2016; Mueller, 1973; Stam, 1999). This paper also builds on related research examining how those affected by war mobilize to demand compensatory government support (Dorr and Shin, 2021; Haffert, 2019; Skocpol, 1995), the relationship between war and inequality (Piketty, 2014; Scheidel, 2018), and the role of fairness in determining public opinion on redistributive social policy (Cavaille, 2023). The current project adds to this work by looking at how war fatalities influence support for specific policies, namely progressive taxation, and linking voter-level behavior to the passage of taxation legislation.

This paper also contributes to an emerging research agenda employing micro-level conflict data from the World Wars to study combat motivation and electoral outcomes (Acemoglu et al., 2022; Cagé et al., 2023; De Juan et al., 2024; Rozenas, Talibova and Zhukov, 2024). Like Acemoglu et al. (2022), who study the political consequences of WWI fatalities in Italy, my study concludes that greater local fatalities are associated with support for socialist and trade unionist political parties. However, these results contrast with the findings of De Juan et al. (2024), who show that German WWI fatalities are associated with support for extreme right-wing candidates. While determining the political effects of war casualties across states is outside the scope of this paper,

my findings, together with previous research, suggest that war-related grievances push voters toward extreme political positions, but the partisan direction of this effect is contingent on other factors, such as whether a state was victorious in the conflict. This paper also contributes to this literature by being the first to study the effect of war fatalities on government tax policy.

Finally, it must be said that no evidence presented in this paper rules out fiscal necessity as a cause of the implementation of progressive tax regimes. Indeed, it is likely that both social demands for equality and budgetary concerns influenced tax policy during the interwar period. The key contribution of this paper is that it provides the first quantitative evidence that verifies the existence of a separate social fairness channel affecting tax policy in the aftermath of the First World War.

The remainder of this paper proceeds as follows. Section 2 presents a formal model of electoral competition over the distribution of taxation that illustrates the electoral mechanism. Section 3 provides historical context on conscription, government war debt, and political debate over post-war tax policy in interwar Britain. Section 4 describes the data collected on UK WWI conscript fatalities and interwar political behavior. Section 5 contains the approach and results of the empirical analyses assessing the effect of local war fatalities on left-wing electoral success and legislator support for progressive taxation. Section 6 concludes.

## **2 Debt, democracy, and war fatalities**

In this section, I present a simple formal model to study the effect of debt and war fatalities on tax progressivity, based on existing models of redistributive politics (Cox and McCubbins, 1986; Dixit and Londregan, 1996; Lindbeck and Weibull, 1987; Roemer, 2009). Two office-motivated political parties compete in a probabilistic voting setting by proposing taxation platforms that distribute the burden of paying off government debt between social classes. The effect of war fatalities enters the model in two ways: increased class consciousness among the poor and ideological bias toward a party representing the working class, capturing the claim of Scheve and Stasavage

(2016) that government policies that disproportionately impact the poor, such as conscription, generate support for taxing the rich as compensation.

The model illustrates how the debt incurred from war can itself drive progressivity, thus potentially confounding a proposed relationship between mass mobilization for war and progressive taxation. This arises because political parties face a “vote-revenue” trade-off: taxing a social class helps pay off debt but drives away voters (Cox and McCubbins, 1986). Under conditions of high economic inequality, taxing the wealthy yields higher revenues at a lower electoral cost. The model also demonstrates that ideological bias in favor of a party representing the poor also induces candidates to propose more progressive tax platforms. This suggests an empirical approach to test compensatory arguments for tax progressivity that avoids the confounding influence of fiscal necessity. While war debt is national issue, impacting all constituencies in common, constituencies vary in the degree to which their conscripts died during the fighting. If war fatalities generate demands for compensation and therefore ideological support for left-wing parties, we can leverage local variation in war deaths to verify the compensatory theory of tax fairness.

## 2.1 Model

Consider a society inhabited by a continuum of individuals, where the population is normalized to 1. Individuals are stratified into two socioeconomic classes, wealthy and poor, where poor individuals constitute a strict majority of size  $q > \frac{1}{2}$ . Wealthy individuals earn an income of  $y_w$ , while poor individuals earn  $y_p$ , with  $y_w > y_p$ .

Income is taxed at a group-specific tax rate  $t_g$  where  $g \in \{p, w\}$  and  $t_g \in [0, 1]$ . I assume  $t_g$  fully determines the tax burden of group  $g$  (i.e., includes both direct and indirect taxation) and is net of transfers. I further assume that income thresholds for group-specific taxes are fixed. These group-specific tax rates capture in a simplified way the fact that tax policies can be designed to have different impacts on socioeconomic groups. For instance, income tax regimes can be made progressive to account for the wealthy’s greater ability to pay, while consumption taxes can be regressive because the poor consume more as a proportion of income. Individual preferences are

given by post-tax income  $(1 - t_g)y_g$ . The utility of an individual from group  $g$  is given by the function  $u_g(t_g)$ , where  $u_g$  is decreasing in its argument and concave. This formulation imposes the assumption that individuals of both classes always prefer a lower tax on their own income, but are indifferent to the tax rate levied on members of the other social class.

Political competition takes place between candidates of two political parties, denoted  $L$  and  $R$ , who compete for office by proposing tax platforms  $\mathbf{t}^L = (t_p^L, t_w^L)$  and  $\mathbf{t}^R = (t_p^R, t_w^R)$ . As is common in probabilistic voting models, I assume that the candidates commit to implement their proposed platform should they be elected. The candidates are office-motivated and obtain no benefit from setting policy beyond its electoral implications. However, for purposes of exposition I assume that the parties also profess an ideology, with party  $L$  claiming to represent poor individuals and party  $R$  claiming to represent wealthy ones. The candidates' proposed tax platforms are constrained by the existence of government war debt of size  $D > 0$ . Importantly, candidates' tax platforms must be feasible, in that they raise sufficient funds to meet debt obligations.

**Definition 1 (Feasible tax platform)** *A tax platform  $(t_p, t_w)$  is feasible if it satisfies*

$$t_p q y_p + t_w (1 - q) y_w \geq D \quad (1)$$

I assume that the debt is small enough that there exist feasible tax platforms, but large enough that it cannot be paid off solely by taxing a single group. This ensures that feasible tax rates must take strictly positive values. I also assume that any tax revenue in surplus of debt obligations is rebated back to the population, so constraint 1 binds with equality.<sup>1</sup>

A candidate is elected to office via simple majority rule, where each individual has a single vote. Individuals decide which candidate to vote for based on how each candidate's taxation platform affects their consumption and idiosyncratic ideological preferences regarding the candidates' positions. Specifically, individual  $i$  in group  $g$  will vote for the candidate of party  $L$  if

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<sup>1</sup>As a result, electoral competition will take place over one policy dimension, with  $t_w^i$  as a residual.



$$u_g(t_g^L) > u(t_g^R) + \sigma^{ig} + \delta(\alpha)$$

where  $\sigma^{ig}$  is an individual-level parameter that captures individual  $i$ 's bias toward candidate  $L$ . I assume that  $\sigma^{ig}$  is distributed uniformly in group  $g$  over  $\left[-\frac{1}{2\phi_g}, \frac{1}{2\phi_g}\right]$ . The term  $\delta(a)$  represents an electorate-wide preference shock against party  $R$ , and is distributed uniformly over  $\left[-\alpha - \frac{1}{2\psi}, -\alpha + \frac{1}{2\psi}\right]$  where  $\alpha > 0$  and  $\psi > 0$ .<sup>2</sup> The candidates do not know the exact value of  $\delta(a)$  but are aware of its distribution.

The variable  $\alpha$  is the average bias against  $R$  and is meant to represent the political effect of war fatalities or any other intervention that may influence ideological support for the left. I also assume that  $\phi_p$ , the degree of ideological homogeneity among the poor, is an increasing function of  $\alpha$ . These assumptions capture two ways in which mass mobilization for war influences conceptions of just taxation. First, there is evidence that the common experience of conscription among the working classes and perception of unfair treatment increased class consciousness, making voters more ideological homogeneous and sensitive to taxation (Daunton, 2002). Such a class-wide shift in preferences can be modeled as an increase in  $\phi_p$ . Similarly, the inclusion of  $\delta(\alpha)$  is intended to model the contention of Scheve and Stasavage (2016) that government policies which disproportionately harm the poor, such as conscription, induce concerns about fairness in future policy that are distinct from preferences about future consumption. A desire for government policy to redress this past inequity should consequently manifest as a shift in preferences toward party  $L$ , the party that claims to represent the poor. In short, war fatalities influence voting in two ways: first, by creating a general preference shift toward the party of the poor across all voters, and second, by making poor voters a more cohesive bloc.

Under these assumptions and given party platforms  $\mathbf{t}^L$  and  $\mathbf{t}^R$ , the share of individuals from

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<sup>2</sup>I assume that  $\phi_g$ ,  $\alpha$ , and  $\psi$  take values that ensure the distributions are wide enough to avoid boundary issues in equilibrium. Statements of the necessary assumptions are in the appendix.

group  $g$  that vote for party  $L$  is

$$s_g^L(\mathbf{t}^L, \mathbf{t}^R) = \frac{1}{2} + \phi_g(u_g(t_g^L) - u_g(t_g^R) - \delta(\alpha))$$

It follows that  $L$ 's total share of the vote is

$$s^L(\mathbf{t}^L, \mathbf{t}^R) = \frac{1}{2} + q\phi_p(u_p(t_p^L) - u_p(t_p^R) - \delta(\alpha)) + (1 - q)\phi_w(u_w(t_w^L) - u_w(t_w^R) - \delta(\alpha)) \quad (2)$$

Finally, party  $L$  wins the election if it obtains a majority of the vote. Given the uncertainty about the true value of  $\delta(\alpha)$ , this happens with probability

$$P\left(s^L(\mathbf{t}^L, \mathbf{t}^R) > \frac{1}{2}\right) = \frac{1}{2} + \psi\alpha + \frac{\psi}{\phi_p q + \phi_w(1 - q)}(q\phi_p(u_p(t_p^L) - u_p(t_p^R)) + (1 - q)\phi_w(u_w(t_w^L) - u_w(t_w^R)))$$

Therefore, party  $L$ 's goal is to select a taxation platform that maximizes its own probability of victory, taking into consideration party  $R$ 's tax platform. Party  $L$ 's problem is then

$$\begin{aligned} \max \quad & P\left(s^L(\mathbf{t}^L, \mathbf{t}^R) > \frac{1}{2}\right) \\ \text{subject to} \quad & t_p^L q y_p + t_w^L (1 - q) y_w = D \\ & t_p^L, t_w^L \leq 1 \\ & t_p^L, t_w^L \geq 0 \end{aligned}$$

Party  $R$ 's problem can be defined analogously. In fact,  $R$  and  $L$  face the same optimization problem. The equilibrium of this game is characterized by feasible tax platforms  $\mathbf{t}^{L^*}$  and  $\mathbf{t}^{R^*}$  such that neither party can improve its chances of victory by switching to another platform.

## 2.2 Results

The primary quantity of interest in the model is progressiveness' of the equilibrium tax platforms, defined as follows.

**Definition 2 (Tax progressivity)** *The progressivity of a tax platform  $(t_p, t_w)$  is given by the difference in the tax rate paid by the rich and the tax rate paid by the poor,  $t_w - t_p$ . If  $t_w - t_p > 0$ , we say the tax platform is progressive. If  $t_w - t_p < 0$ , we say the tax platform is regressive.*

Furthermore, when comparing tax platforms  $(t_p, t_w)$  and  $(t'_p, t'_w)$ , I say platform  $(t_p, t_w)$  is “more progressive” than platform  $(t'_p, t'_w)$  if the difference  $t_w - t_p$  is greater than  $t'_w - t'_p$ .

I now describe the equilibrium and comparative statics of the model. Proofs of all propositions can be found in Appendix A. First, the political parties will converge on the same tax platform in equilibrium, a result of the fact that both political parties have the same preferences over policy and therefore solve the same optimization problem.

**Proposition 1** *In equilibrium, both parties propose identical tax platforms.*

$$t_p^{L^*} = t_p^{R^*} \qquad t_w^{L^*} = t_w^{R^*}$$

Henceforth, I will refer to the equilibrium policies as  $(t_p^*, t_w^*)$ , doing away with the party superscript.

Second, the expansion of government debt increases the tax burden of both social classes. However, the degree to which this additional debt is borne primarily by the wealthy or the poor is conditioned by economic inequality and the sensitivity to tax policy between the classes. In particular, when the ratio of income between the wealthy and poor  $(\frac{y_w}{y_p})$  sufficiently exceeds the ratio of ideological homogeneity  $(\frac{\phi_w}{\phi_p})$ , the burden of additional debt is placed primarily on the wealthy. The statement of this requirement is given in Proposition 2. This behavior occurs because the political parties face a trade-off when setting tax policy: raising a group’s taxes helps pay off debt but drives away voters. Political candidates consequently tax the social group that offers a better rate of tax revenue to lost votes. This process is isomorphic to the “electoral rates of return” dynamic described in the model of redistributive politics model by Cox and McCubbins (1986). Rather than distributing more benefits to groups that offer the greatest electoral advantages as in the model of Cox and McCubbins (1986), the parties in this model instead impose costs

on the groups that are least likely to switch their vote. It follows that, in highly unequal societies, greater debt, such as that accumulated through war, can drive tax progressivity.<sup>3</sup>

**Proposition 2** *In equilibrium, greater debt obligations increase tax progressivity under the following condition*

$$\frac{y_w}{y_p} > \frac{\phi_w u''_w(t_w^*)}{\phi_p u''_p(t_p^*)} \implies \frac{\partial[t_w^* - t_p^*]}{\partial D} > 0$$

The model also demonstrates that war fatalities, or any other variable that creates greater class consciousness, leads to more progressive tax policy in equilibrium. This operates through the same “rate of return” mechanism as the result on debt. Because an increase war fatalities ( $\uparrow \alpha$ ) also produces an increase in class consciousness among the poor ( $\uparrow \phi_p$ ), the poor become more sensitive to taxation. As a result, the electoral cost of a marginal increase in the tax rate on the poor also rises, leading parties to shift more of the tax burden onto the wealthy.

**Proposition 3** *In equilibrium, an increase in war fatalities ( $\uparrow \alpha$ ) induces the candidates to propose more progressive tax platforms.*

$$\frac{\partial[t_w^* - t_p^*]}{\partial \alpha} > 0$$

Finally, as might be expected, an increase in war fatalities ( $\uparrow \alpha$ ) also increases the expected share of the vote received by  $L$ , the left-wing party. This follows from the fact that war fatalities increase the size of the “fairness” parameter generating ideological support for party  $L$ .

**Proposition 4** *In equilibrium, an increase in war fatalities ( $\uparrow \alpha$ ) increases the expected share of the vote received by party  $L$ .*

$$\frac{\partial E_\delta[s^L(\mathbf{t}^{L^*}, \mathbf{t}^{R^*})]}{\partial \alpha} > 0$$

## 2.3 Discussion and empirical implications

The equilibrium of the model highlights how changes in government debt can confound an observed correlation between mass mobilization and progressive taxation. This indicates that it may

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<sup>3</sup>This of course assumes that the wealthy cannot use their financial position to lobby for lower taxes.

be problematic to ascribe the emergence progressive taxation following a war to ideological shifts about the proper distribution of the tax burden between social classes. Progressive tax policy may have instead resulted from electoral competition between class-based political parties over how to pay for the increased debt that fighting a war imposes.

However, Propositions 3 and 4 suggest an empirical approach that may get around this issue. A debt increase due to war is a national-level shock, but there is constituency-level variation in exposure to mass warfare at the local level in the form of war fatalities. If such exposure does influence individual beliefs about who should pay for the war, particularly in the form of greater ideological homogeneity, we should see candidates of both parties proposing more progressive tax platforms in constituencies with greater exposure to war.

In the sections that follow, I will describe the historical fiscal and political situation in the United Kingdom during the early 20th century, highlighting that the assumptions of the model approximate the circumstances of the time. I will then show that war fatalities are a valid proxy of  $\alpha$  by demonstrating that candidates representing left-wing political parties obtained greater shares of the vote in constituencies whose conscripts died at higher rates during the First World War. Finally, I will show that members of Parliament representing high fatality constituencies were more likely to support progressive taxation, measured as voting in favor of progressive taxation legislation.

### **3 Historical background**

On August 4, 1914, the United Kingdom declared war on the German Empire in response to the invasion of Belgium, thus entering what would become known as the First World War. The ensuing four years of conflict created unprecedented fiscal and personnel demands on the British state. The need for soldiers to maintain the stalemate of the Western Front led to the introduction of conscription in Great Britain in 1916, swelling the ranks of the British Army by 5.7 million men, of which over 800,000 would perish in combat (UK War Office, 1922). Financing the expenditure

necessary to purchase equipment and pay soldiers led the state to expand taxation and issue bonds, causing public debt to surge from 30% of GDP in 1913 to 144% of GDP in 1918 (Office for Budget Responsibility, 2025). These fiscal pressures had long-lasting effects: public debt remained persistently over 150% of GDP for two decades following the war, though this was in part due to economic contractions.

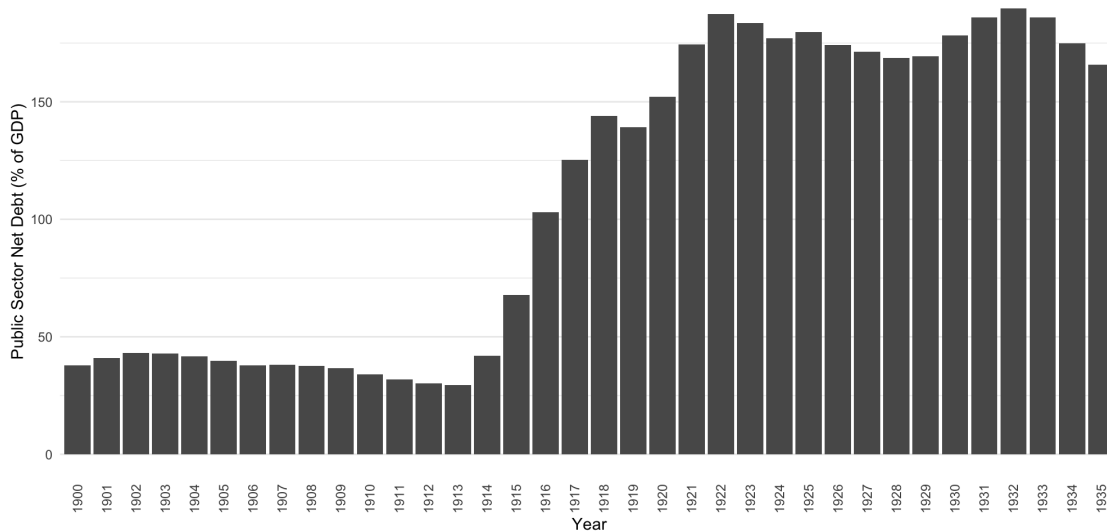


Figure 1: UK net public debt as a percentage of GDP, 1900-1935

The British government confronted the financial costs of war and the accompanying debt with a vast expansion of taxation. The degree to which the tax burden increased is perhaps most dramatically illustrated by the transformation of the income tax. Figure 2 plots the United Kingdom’s marginal tax rate by income bracket between 1900 and 1935. The influence of the war is visible not only by the sharp rise in rates, but also by a far steeper gradation of tax brackets. Immediately before the war, the United Kingdom had a three-tier income tax system. Individuals who earned less than £160 per year were exempt from paying income tax, those who earned between £160 and £5,000, paid 5.83% of their income, and those who earned over £5,000 paid a “super-tax” or marginal rate of 8.33% on that additional income. By the end of the war in 1918, the base tax rate had risen to 30% and the number of individual tax brackets had expanded to nine. The overall gradation of the income tax also increased: the cut-off for paying the “super-tax” had

fallen to £3,000 and a marginal tax rate of 43.33% applied to incomes exceeding £8,000 a year.

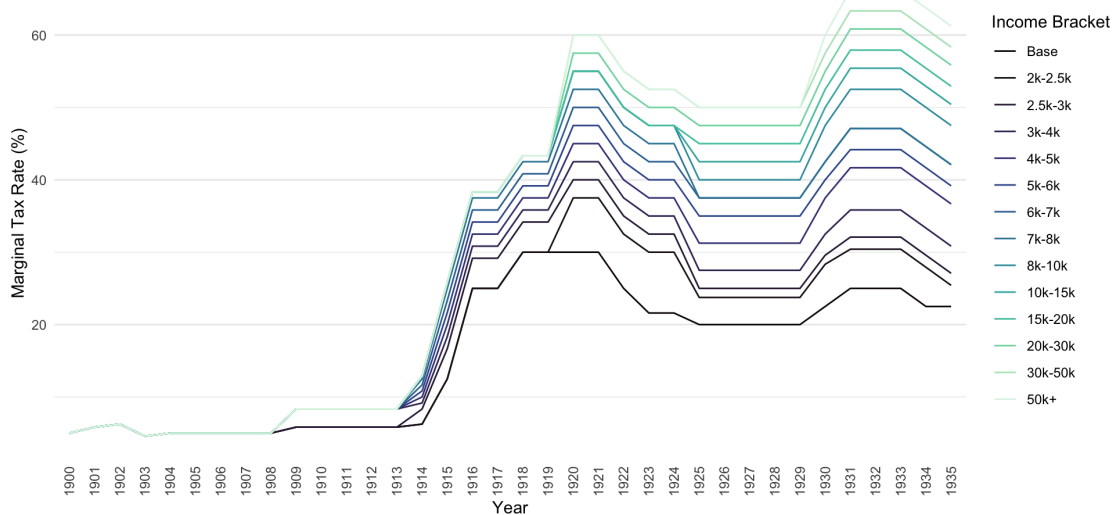


Figure 2: UK income tax brackets, 1900-1935

While the wartime rise in the income tax’s progressivity appears to have distributed the financial costs of the war on the basis of ability to pay, sentiments that an undue share of the burden was being placed on the poor grew throughout the conflict. This was due to a combination of regressive economic policies and conscription. In particular, the personal income exemption fell from £160 to £130 per year in 1915 (Daunton, 1996). This, along with a wartime inflation rate that averaged 14% per year, expanded the number of British individuals paying income tax from 1,200,000 in 1914 to 3,747,000 in 1918, shifting the income tax from a “class tax” to a “mass tax” (Broadberry and Howlett, 2005; Torregrosa-Hetland and Sabaté, 2022). Moreover, tariffs on staples such as tea were increased by as much as 80% and new duties were applied on imported fruit, tobacco, medicine, and many other goods. Feelings of unfair treatment among the working class were also stoked by the passage of laws limiting the rights of workers to ensure production of crucial military supplies was not disrupted. For instance, the Munitions Act of 1915 forbade strikes and limited the ability of workers to leave their jobs (Cronin, 2005). Such restrictions on workers’ rights were seen as particular galling in light of the profits earned by the owners of firms supplying ordnance to the government.

As a result, accusations that state power was being used to the benefit of capital began to spread. This generated calls for a “conscription of riches” among trade unionists to remedy the fact that, in the words of Dockers’ Union leader Ben Tillett, “the capital classes were sitting at home in comfort and security behind the bodies of men better than themselves.”<sup>4</sup> The idea of the conscription of riches crystallized into the policy of a capital levy, a one-time tax on wealth. The capital levy was promoted in Parliament by the nascent Labour Party and the Trades Union Congress, who saw it as a solution to the problem of debt and an instrument to weaken capital (Daunton, 2002). While the wartime coalition government resisted such a levy, some concessions to the growing labor movement were made. For example, as a compromise with organized labor, the government implemented the Excess Profits Duty in 1915, a 50%, later raised to 80%, tax on corporate profits that exceeded a prewar standard, intended to prevent “excessive returns to capital” (Billings and Oats, 2014; Cronin, 2005). However, these concessions did not halt the growth of the labor movement, as evinced by the fact that number of workers going on strike expanded from 300,000 in 1914 to 2 million in 1919 (Cronin, 2005). Consequently, the Labour Party emerged from the war with a stronger electoral profile, catalyzing the transformation of the party from a trade union lobbying group to a political party with a goal of national governance (Douglas, 1972).

Despite the wartime expansion of taxation, the British government had primarily funded the war with loans: an average of 70% of yearly government spending during the war was debt financed (Stamp, 1932). The United Kingdom emerged from the war with a public debt of £6.1 billion pounds, an almost tenfold increase from 1914.<sup>5</sup> Moreover, about £1.4 billion of the debt was short-term “floating debt” that the government was obliged to continuously refinance at a high rate of interest, which could trigger a hyperinflationary cycle (Daunton, 1996, 2002). Prime Minister David Lloyd George’s Conservative-Liberal wartime Coalition government that had re-won election in 1918 was therefore faced with the need to increase taxes immediately after the end of the war.

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<sup>4</sup>Quoted in Harrison (1971).

<sup>5</sup>For reference, £6.1 billion in 1919 is approximately \$370 billion today.



While all the parties in Parliament agreed that the war debt needed to be repaid as soon as possible, there were significant tensions over where to obtain the necessary funds. Parliamentary leaders were aware of the discontent over conscription among workers, which was compounded by a decline in living standards due to an economic recession that reduced British economic output by a quarter between 1918-1922 and fed resentment over perceived unjust wealth accumulation.<sup>6</sup> This, along with the wartime expansion of the franchise to all men and some women over the age of 21, made the prospect of generating revenue through the traditional Conservative method of reducing social spending and increasing indirect taxation electorally dangerous. Doing so might drive voters to Labour, which had campaigned on platform of taxing the wealthy through highly progressive income taxes and a capital levy (Daunton, 1996). The class tensions over taxation were explicitly discussed as the Coalition government planned its tax policy. For instance, Chancellor of the Exchequer Neville Chamberlain, a Conservative, remarked in 1920:

I have felt throughout the danger of the present position of capital. We have for the first time a great political party organised on an anti-capitalist basis. They are a power and have violent views. The prejudice against great wealth in "pockets" is a danger to all capital. The wealth has come to men too rapidly and they have waxed fat while the mass have grown poorer. This is felt among the whole of the professional classes and in black coated circles and by the squires who see new men in the country flinging wealth about extravagantly.<sup>7</sup>

The threat of working class electoral backlash prompted the Coalition government to pursue a progressive postwar tax policy, even over the protests of both party members and financiers. In 1920, the income tax was reformed, increasing the number of income tax brackets to 11 and lifting the highest marginal tax rate to 60% on incomes over £50,000, while keeping the base tax rate constant. Moreover, it was a Conservative Chancellor who proposed a war wealth levy in 1920 on additional wealth generated during the war, the nearest a capital levy came to being

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<sup>6</sup>Immediately after the war, the top 10% of British wage earners collected about 39% of all income and the top 5% of households controlled 82% of wealth (Atkinson, 2007; Lindert, 1986, 2000).

<sup>7</sup>Quoted in Daunton (1996).

implemented. While the wartime wealth levy did not pass, the Coalition government did choose to maintain and expand the Excess Profits Duty. The justification for these policies was to “contain Labour”, as illustrated by Chamberlain’s rebuffal to Conservative MPs opposed to the expansion of the Excess Profits Duty: “It is good for them to know that I stand or fall by my proposals. If they won’t take them from me, they will get them and a Capital Levy from someone else,” referencing the consequences of a Labour election victory.<sup>8</sup>

In addition, great care was taken to ensure that the tax code had an appearance of treating different social classes equally. Prime Minister David Lloyd George admitted as much during the debate over the war wealth levy in 1920, stating: “It is very important to give the impression that we are not a ‘class’ government. The strength of this government must be that it holds the balance evenly between classes, and it is ready to face their opposition.”<sup>9</sup> Some Coalition MPs even feared that the Coalition did not go far enough in addressing labor’s concerns about the just distribution of the tax burden. For example, Winston Churchill, argued that if the Coalition failed to institute a war wealth levy:

It will be said that we are in the grip of the plutocracy and it will be said with a certain truth. It will be very hard anyway to hold this immense electorate by reason and not by force and still hold the capitalist system. If we cannot reason with them and convince them, we shall bring the very disaster which the City fears.<sup>10</sup>

Nevertheless, the Coalition government was unable to forestall the rise of the Labour Party indefinitely. After the 1923 election, Labour formed its first government with the tacit support of H.H. Asquith’s Liberals. Being a minority, the government lasted only 10 months before collapsing and ceding control of Parliament to the Conservatives. Labour formed another minority government in 1929, before splintering into two factions, one of which continued to govern in a coalition with the Conservatives. While Labour did not implement the program of dramatic social change envisioned by some, it did manage to increase progressivity of the tax system and intro-

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<sup>8</sup>Quoted in Daunton (1996).

<sup>9</sup>Quoted in Strachan (2023).

<sup>10</sup>Quoted in Daunton (2023).

duce new taxes on wealth, such as a land value tax. Moreover, tax rates remained high through the 1920s and 1930s, a necessity due the continued costs of servicing debt.<sup>11</sup>

This section has recounted how the experience of mass warfare increased class consciousness among labor and generated society-wide concerns about the just distribution of taxation. There is evidence that these sentiments were recognized by establishment politicians, who attempted to design progressive tax policy to placate the newly expanded electorate and prevent the rise of the Labour Party. However, this section has also highlighted the empirical difficulties of ruling out fiscal necessity of a driver of tax policy, given the urgency of the war debt. Indeed, the rate of the income tax plotted in Figure 2 closely follows the shape of the overall debt burden shown in Figure 1, indicating that it is plausible that the exigencies of debt drove tax policy. In the sections that follow, I will investigate the relationship between the experience of mass warfare and support for a progressive taxation at subnational level.

## 4 Data

My empirical analysis assesses whether World War I fatalities affected left-wing candidate vote share and MP voting behavior in England and Wales during the interwar period. While I collect geocoded fatality data for the entirety of the British Isles, I focus on England and Wales in particular for reasons of additional data availability and comparability. Specifically, missing census data and circumstances of the Irish independence movement prevent extending the study to include Ireland and Scotland.

In Ireland, conscription was never applied due to concerns about political instability, meaning all Irish soldiers who participated in the war were volunteers.<sup>12</sup> Although many Irish soldiers did perish during the conflict, the fact that their sacrifice was voluntary likely means that their deaths produced different reactions than in Great Britain, where most soldiers were unwilling

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<sup>11</sup>The percent of the UK government budget spent on debt service exceeded 40% in 1925.

<sup>12</sup>Men residing in Ireland were excluded from the initial wave of conscription mandated in the Military Service Act of 1916. However, in April 1918, the UK government attempted to impose conscription in Ireland to address a lack of manpower. Conscription was resisted by civil and religious organizations in Ireland, and the effort was abandoned in July 1918 without being enforced (Ward, 1974).

conscripts. Scotland is not included due to inaccessible microdata for the 1911 census, preventing construction of the independent variable.

## 4.1 World War I Fatality Rates

The independent variable of this study is the combat fatality rate of conscripts from a given parliamentary constituency, which is defined as

$$\text{Conscript Fatality Rate} = \frac{\text{Number of World War I Fatalities}}{\text{Number of Conscripts}} \times 100$$

To determine the number of deceased WWI soldiers that resided in each constituency, I constructed a geocoded dataset of soldiers from the British Isles who died during the First World War. The basis of the dataset comes from records of war dead scraped from the website of the Commonwealth War Graves Commission (CWGC), an organization dedicated to preserving the memory of soldiers from the Commonwealth of Nations who died during the World Wars. Each fatality record contains the name, age, burial location, and service record of the fallen soldier, often along with a short epitaph. These epitaphs generally list the name and address of the closest relatives of the deceased, often a spouse and/or parents.

The listed addresses can be precise to the house number, and are current at time of burial for the deceased. I treat these addresses as the “home addresses” of the fallen soldiers in order to geocode the fatalities. To obtain addresses from the fatality records, I submit each epitaph to ChatGPT-4 with a prompt asking it to extract only the address from the text.<sup>13</sup> I employ a large-language model for this task due to the high variability in formatting of the epitaphs and addresses themselves, which renders rule-based and supervised machine learning methods inaccurate.<sup>14</sup> Once an address is obtained using this method, I associate it with a longitude-latitude point via a geocoding API call through a local OpenStreetMap client.<sup>15</sup>

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<sup>13</sup>In cases where addresses for a spouse and parents are both listed, I instruct ChatGPT to provide the spouse’s address. Example addresses are listed in Appendix B.1.

<sup>14</sup>The prompt used to instruct ChatGPT to extract the addresses can be found in Appendix B.2

<sup>15</sup>Hand verification of a random sample of geocoded addresses shows that this method is accurate to within a

I carry out this geocoding procedure on CWGC records pertaining to soldiers who fought for the United Kingdom and were native to British Isles.<sup>16</sup> Excluded are soldiers from British Dominions (i.e., Australia, Canada, Newfoundland, and New Zealand), colonies (i.e., India, other British territories in Africa and Asia), and nationals of other countries who volunteered to fight for the UK. These soldiers can be distinguished by their service in particular regiments, which during this period were segregated geographically. The CWGC database lists 839,626 records of deceased soldiers who fought for the United Kingdom, of these 504,065 (60%) both had a non-empty epitaph and were associated with a British Isles regiment. Of those, 446,295 (89%) were successfully geocoded. Of the records that were successfully geocoded, 358,690 are located in England and Wales, representing between 60% and 70% of the total fatalities sustained by the two countries.<sup>17</sup>

One concern about conducting an empirical analysis using this geocoded data as a treatment is the possibility that the sample of soldiers whose home addresses were successfully geocoded differs from the full population of deceased soldiers in some characteristic that is related to an outcome of interest. To test if this is the case, I compare the samples of geocoded and non-geocoded soldiers using observable characteristics present in CWGC. The results can be found in Appendix B.3. The sample of geocoded soldiers resembles the non-geocoded sample in terms of age at death, time of death, rank, and surname, though non-geocoded soldiers generally had more missing characteristics in the data than geocoded soldiers.

I use the geocoded fatality records to estimate the World War I fatality rate for each House of Commons parliamentary constituency in England and Wales as it was between 1918 and 1945. I first match each geocoded address to a House of Commons parliamentary constituency, using boundary files drawn from the Great Britain Historical GIS database (Southall and Aucott, 2009).

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civil parish for 90% of the sample.

<sup>16</sup>That is, Great Britain, Ireland, the Isle of Mann, the Channel Islands, the Hebrides, the Northern Isles, and all smaller possessions located nearby.

<sup>17</sup>The precise number depends on estimates of Irish and Scottish losses in the war. In 1922, the War Office estimated that 702,000 soldiers from the British Isles perished during the conflict. Estimates of Irish war dead range from 30,000 to 40,000. Similar estimates place Scottish losses between 80,000 and 150,000. (Bunbury, 2014; UK War Office, 1922; Watt, 2019)

Computing the fatality rate requires statistics on the number of soldiers from a constituency that participated in the war. Unfortunately, nearly two-thirds of UK WWI service records were destroyed in 1940, after an incendiary bomb was dropped on the War Office Record Store during the Blitz. I instead estimate the number of individuals from each constituency that would have been conscripted using 1911 UK Census microdata from IPUMS (Ruggles et al., 2003).

Conscription was first introduced in the United Kingdom in January 1916 with the passage of the Military Service Act. The Act mandated that all unmarried men in England, Scotland, and Wales between the ages of 18-41 enlist or obtain an exemption. Conscription was extended to married men five months later in May 1916 and then to men between the ages of 41 to 51 in April 1918. Exemptions were permitted for health reasons, conscientious objection, and for employment in certain “reserved occupations” that were deemed critical for the war effort or essential for the functioning of local communities. Examples of reserved occupations include priests, train drivers, teachers, coal miners, steel mill workers, and armament firm employees. While the number of conscientious objectors was minimal, with only 16,000 making such a claim, by 1918 nearly 2.5 million men were listed as being employed in a reserved occupation (Pattinson, 2016).

To estimate the number of conscripted soldiers in each constituency, I first count the number of males between the ages of 11 and 46 in each civil parish in England and Wales, the smallest level of aggregation available in the 1911 census.<sup>18</sup> This number represents the maximal set of individuals in each parish who could have been conscripted between 1916 and 1918. Using a 1918 “Schedule of Protected Occupations,” I exclude all individuals employed in a reserved occupation. I assume the same proportion of boys under the age of 15 in 1911 entered reserved occupations as current adults in the same parish. This procedure estimates the number of males in each parish that were of draftable age and not employed in a reserved occupation, but does not account for health exemptions. The parish-level data is then aggregated to the level of the parliamentary constituency.

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<sup>18</sup>In 1911 there were 14,681 parishes in England and Wales, of which 14,033 had census records available through IPUMS.

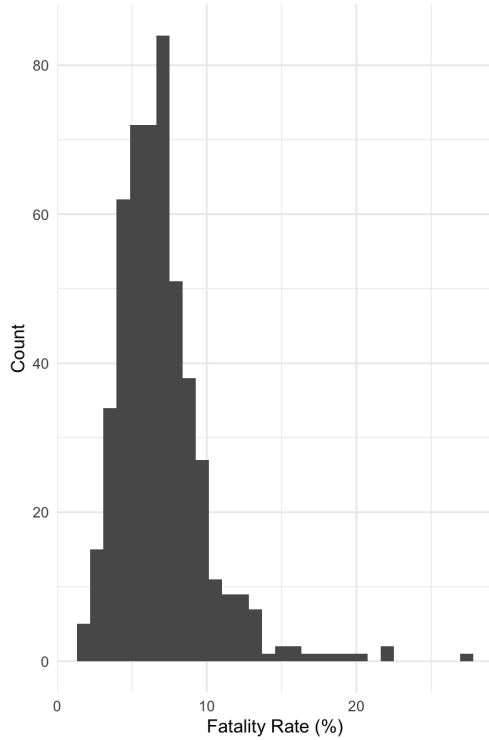


Figure 3: Fatality rate histogram

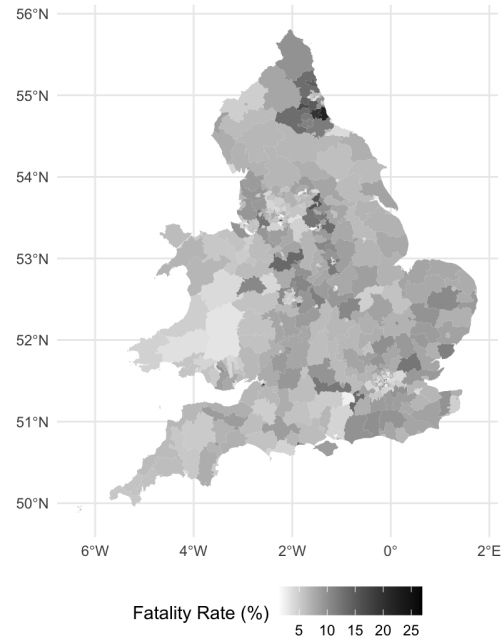


Figure 4: Fatality rate map

There is significant variation in fatality rates across constituencies, with the lowest fatality rate being 1.3% in Southwark North (London) and the highest being 26.5% in Sheffield Central. Figure 4 also reveals that there are some regional patterns. In particular, we see elevated fatality rates in industrial regions in the north of England and lower fatality rates in Wales. A histogram of fatality rate by constituency is shown in Figure 3. The histogram reveals that the distribution of fatality rates is near normal with a long right tail. The median constituency lost 6.3% of its draftable men to the war.

## 4.2 Outcomes

I study the effect of conscript fatalities on two outcome variables: the share of the vote received by left-wing candidates in general elections between 1918 and 1935, and roll-call votes on progressive taxation measures in the House of Commons during the same period.

### 4.2.1 Left-wing party vote share

To examine how local WWI fatalities influenced support for left-wing candidates, I source general election results for the seven general elections between 1918 and 1935 from the House of Commons database compiled by Eggers and Spirling (2014). The database records vote counts received by each candidate contesting an election, as well as overall turnout data and party affiliation for each candidate. To measure left-wing vote share in a constituency, I sum the votes received by all candidates that identified themselves with a communist, labor, socialist, or trade unionist party.<sup>19</sup> Also included are candidates not affiliated with a political party but who self-identified as communist or socialist. Table 1 lists the average share of the vote received by left-wing candidates and the number of constituencies contested by at least one left-wing candidate in England and Wales.

| Election                  | 1918 | 1922 | 1923 | 1924 | 1929 | 1931 | 1935 |
|---------------------------|------|------|------|------|------|------|------|
| Mean left-wing vote share | 31.6 | 37.2 | 39.0 | 36.6 | 38.3 | 33.0 | 40.4 |
| Seats contested           | 355  | 376  | 382  | 453  | 504  | 461  | 482  |

Table 1: Left-wing vote share and seats contested

### 4.2.2 Parliamentary voting on taxation legislation

To measure legislator support for tax progressivity, I collect a dataset of MP voting records for 424 House of Commons divisions on tax policy that took place between 1918 and 1935, comprising 143,773 individual votes. The data were drawn from the digitized Hansard archives, the official record of what is said in Parliament. The roll-call votes relate to five categories of tax legislation, most of which are associated with the Finance Act, the UK's yearly headline budget legislation. I briefly describe each category below.

1. **Capital levy and nationalization:** Legislation and resolutions on direct transfers of capital to the government. Includes proposals to impose a capital levy (a one-time wealth tax)

<sup>19</sup>A full list of parties categorized as left-wing is presented in Appendix B.4



and to nationalize certain industries.

2. **Customs duties:** Legislation on the implementation and level of tariffs on goods entering the United Kingdom. Excludes technical clauses clarifying the precise definition of the good on which the tariff is to be imposed, as well as legislation seeking to impose tariffs on goods from specific countries (e.g. Imperial Preference).
3. **Excise duties:** Legislation related to any form of non-tariff consumption tax. For instance, sales taxes on alcohol, tobacco and cinema tickets, as well the “betting duty,” a tax on book-maker profits.
4. **Income taxes:** Legislation related to rate and gradation of taxes on individual income. Also includes proposals that affect tax exemptions for individuals and their dependents.
5. **Wealth taxes:** Legislation pertaining to death and estate duties (forms of inheritance tax), the land value tax, and the Excess Profits Duty.

The five categories of legislation described above cover the universe of taxation legislation considered in the United Kingdom during the interwar period. Prior research studying the relationship between war and taxation has focused on specific forms of taxation, primarily income taxes. However, such an approach presents a limited view of tax policy during this period. Political parties considered the totality of tax policy when proposing their tax platforms, and carefully considered the ratio of tax revenues coming from direct and indirect taxation. For instance, the Labour Party favored a progressive tax platform that emphasized direct taxation. It consequently stridently opposed consumption taxes and customs duties, seeing them as regressive instruments that raised the cost of living for workers. In contrast, the Conservative Party preferred to finance the government through tariffs and other sources of indirect taxation, reducing the share of government revenue drawn from income tax. These were highly contentious issues—the Liberal Party even fractured in 1931 over the issue of tariffs, though this was catalyzed by the trade wars of the Great Depression.

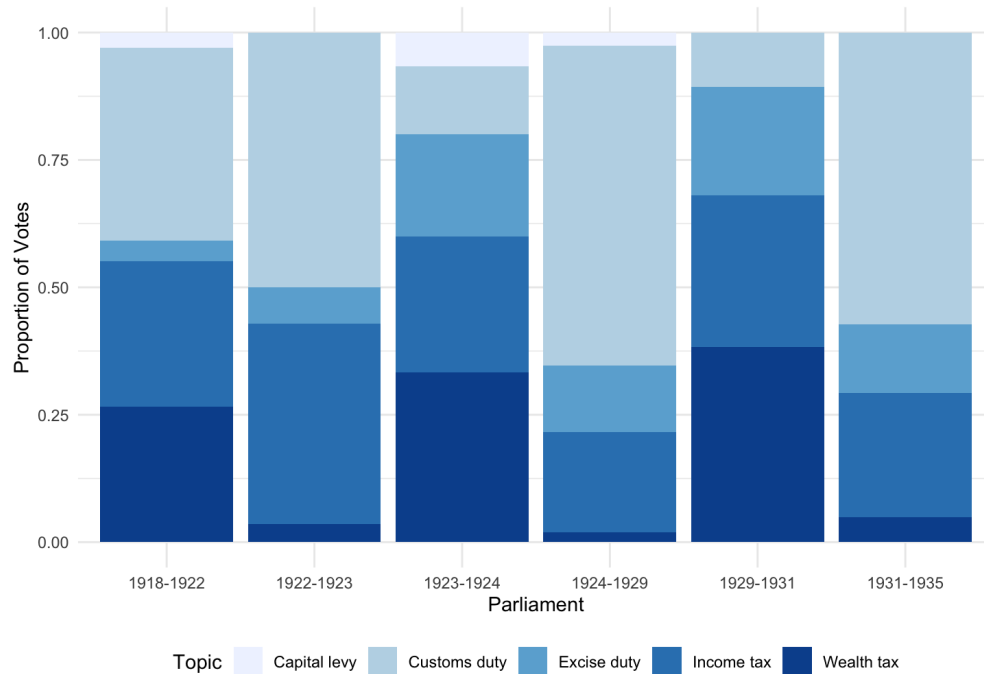


Figure 5: Divisions by topic and parliament

It is worth noting that the salience of different forms of taxation varied over time. Figure 5 plots the proportion of roll-call votes by topic in each parliament. While divisions related to income taxes consistently formed roughly a quarter of all taxation legislation considered in the House of Commons, we see significant variation in the frequency over forms of taxation. Discussions on wealth taxes spiked in 1918-1922, 1923-1924, and 1929-1931, a consequence of debates over the abolition of Excess Profits Duty and the (re-)introduction of the land value tax. Divisions on customs duties also became more frequent after the start of the Great Depression in 1929, comprising more than half of all taxation votes in 1931 to 1935.

For each House division on taxation legislation, I code whether an individual “Aye” or “No” vote is considered to be in support of progressive taxation, and then record each MP’s position. Votes are categorized as “pro-progressive taxation” based on the consequence of the legislation’s passage. For instance, an “Aye” vote may indicate support for progressivity if it is associated with legislation that increases the individual income tax exemption. An example of a pro-progressive “No” vote is one against legislation that seeks to abolish inheritance taxes. Full coding rules and

example legislation can be found in Appendices B.5 and B.6.

### **4.3 Exogeneity of conscript fatalities**

Interpreting a statistical relationship between conscript fatalities and support for progressive taxation as causal requires addressing the existence of potential confounding variables. One such variable is socioeconomic status. In the early 20th century, Labour and other trade unionist parties drew much of their support from industrial and mining regions in the north of England and the south of Wales. Conscripts from industrial areas were often less healthy than conscripts from rural areas, due to a combination of harsh labor conditions, poor sanitation, and exposure to pollution (Davenport, 2020). Worse overall health may have made conscripts hailing from industrial regions less likely to survive the exacting physical demands of fighting a war (Kriner and Shen, 2010). As a result, it is possible that an observation of greater electoral support for left-wing candidates in locales with higher fatality rates may stem from preexisting socioeconomic factors.

Another channel through which socioeconomic status might influence both conscript fatality rate and left-wing vote share is through tactical decisions about force employment. If officers intentionally used conscripts from lower socioeconomic backgrounds as “cannon fodder” by placing them in more dangerous combat situations, as some have alleged, then we would again observe a higher fatality rate in constituencies that had a preexisting inclination to support left-wing candidates (Mueller, 1991). Moreover, although the fact that nearly all able-bodied men were conscripted makes it unlikely that ideological considerations led soldiers to select in or out of military service, it could still be the case that soldiers’ principles influenced fatality rates. For instance, nationalistic soldiers might have volunteered for hazardous assignments or been prone to dangerous heroics. More generally, a constituency’s prewar partisan lean could affect both post-war political behavior and the propensity to take risks during war that could increase combat fatalities (Rozenas, Talibova and Zhukov, 2024).

To mitigate these potential issues, I take a similar approach to De Juan et al. (2024) and conduct

a series of placebo tests that demonstrate WWI conscript fatalities are uncorrelated—conditional on administrative county, the geographic unit of infantry recruitment—with a wide range of demographic, economic, and political features of parliamentary constituencies. To do so, I estimate bivariate regressions of the WWI conscript fatality rate on various constituency-level variables. All models include administrative county fixed effects. Figure 6 plots the obtained coefficients and 95% confidence intervals computed using robust standard errors clustered at the administrative county level. The reported coefficients are standardized.

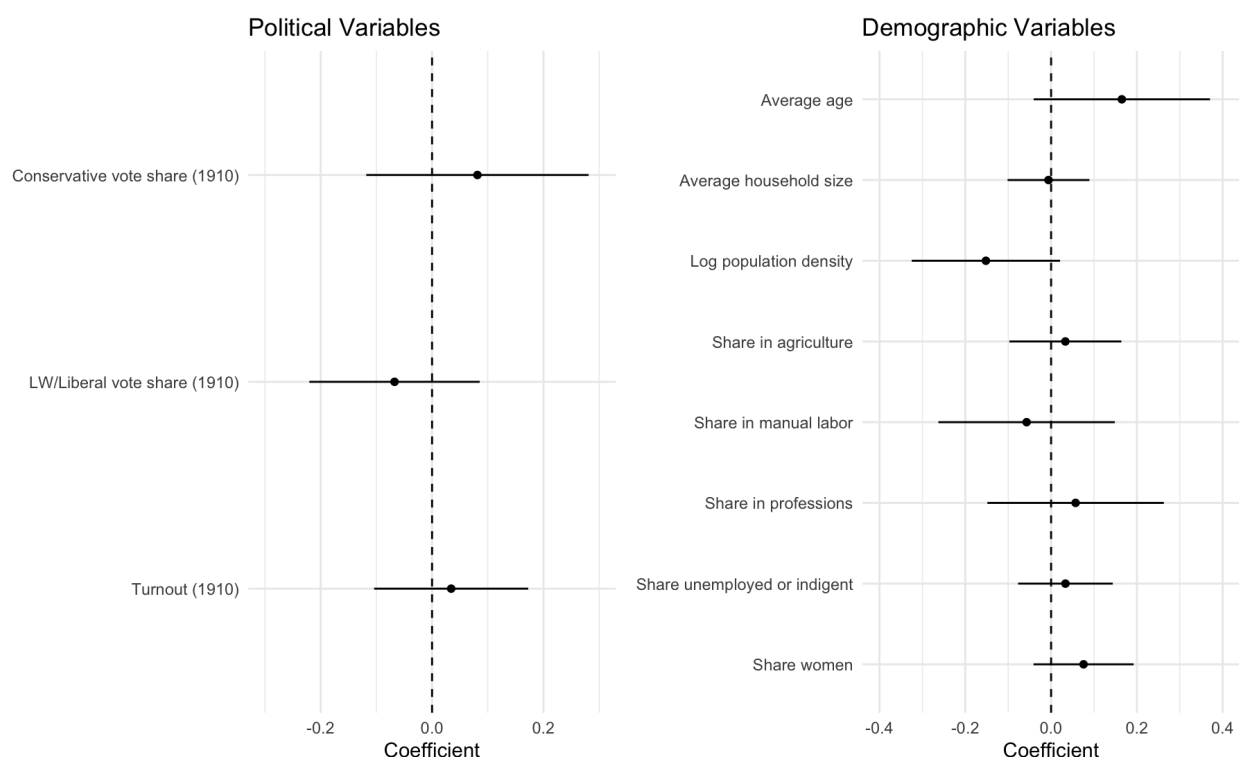


Figure 6: Placebo tests for conscript fatalities on prewar outcomes

The left panel of Figure 6 shows that the WWI conscript fatality rate does not have a statistically significant correlation with Conservative Party vote share, left-wing or Liberal Party vote share, and turnout in the 1910 UK general election. I sum the vote shares of left-wing and Liberal candidates to account for the fact that left-wing parties contested only 62 of the 670 seats in the House of Commons during the 1910 election.<sup>20</sup> Moreover, between 1885 and 1910, the Liberal

<sup>20</sup>This number comprises the total number of candidates standing for election for the Labour Party (56), the Social Democratic Federation (2), and the Independent Labour Party (4) (Eggers and Spirling, 2014).

Party had a policy of sponsoring trade unionist candidates, meaning about a third of left-wing candidates were also affiliated with the Liberal Party (Powell, 1986). Similarly, the right panel of Figure 6 reveals that the WWI conscript fatality rate is not correlated with several economic and demographic characteristics drawn from 1911 UK census.<sup>21</sup> These include variables capturing the demographic structure of a constituency, such as the share of women, average age, average household size, and population density, as well as those capturing economic activity, such as occupational mix (i.e., share of workers employed in agriculture, the professions, and industrial labor) and the share of the population that is unemployed or indigent.



Figure 7: WWI recruiting grounds

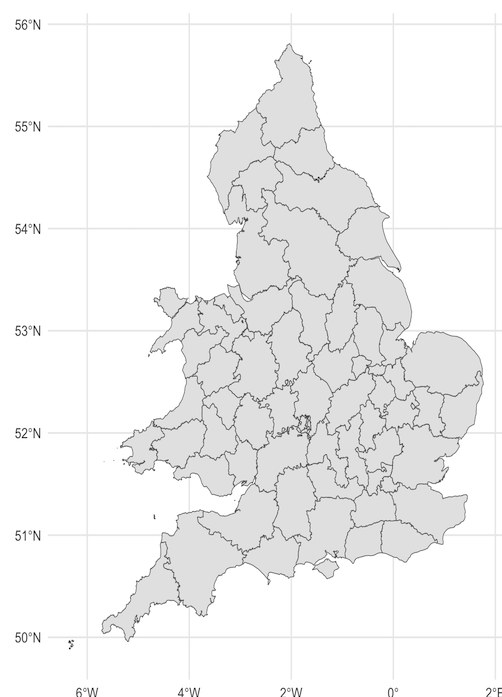


Figure 8: Administrative counties (1911)

It is important to note that the conscript fatality rate is uncorrelated with the selected prewar political and demographic variables conditional on administrative county. This may be a consequence of the fact that infantry recruitment in the UK during WWI was organized geographically. Regiments were allotted administrative counties to draw soldiers from, and consequently followed country boundaries, though in some cases a recruiting ground contained multiple sparsely

<sup>21</sup>Descriptive statistics for all constituency-level data can be found in Appendix B.7.

populated counties. To visualize this, Figure 7 depicts a historic poster displaying WWI line regiment recruiting ground boundaries in red and administrative country boundaries in black (Imperial War Musuem, 2025).<sup>22</sup> Figure 8 separates out administrative county boundaries.

Regiments were composed of battalions, groupings of roughly 1,000 men that were the primary tactical units in the British Army, with soldiers in a battalion all deployed to the same front (James, 2012). Although the Army permitted “Pals Battalions,” or locally-organized battalions, in the initial stages of the war, with the introduction of conscription all recruits were pooled together and assigned to a battalion randomly or by greatest need (French, 2005). Therefore, the results of the placebo tests suggest that variation in constituency-level conscript fatality rates within a recruiting ground were driven primarily by semi-random events on the battlefield, rather than systematic differences between constituencies. In addition, using administrative county fixed effects captures more granular unobserved factors than recruiting grounds, potentially addressing the effect of Pals Battalions earlier in the war. These results offer evidence that WWI conscript fatalities are plausibly exogenous to support for progressive taxation and other political behavior.

## 5 Empirical analysis

### 5.1 Electoral outcomes - empirical strategy

To assess the effect of World War I conscript fatalities on left-vote share during the interwar period in the United Kingdom, I employ a fixed-effects approach. Specifically, I estimate the following baseline specification via ordinary least squares

$$share_{ice} = \alpha fatalityRate_i + \beta candidates_{ie} + \gamma^T \mathbf{X}_i + \delta_c + \nu_e + \epsilon_{ice} \quad (3)$$

where  $share_{ice}$  is the percentage of the vote received by a left-wing candidate in parliamentary constituency  $i$  within administrative county  $c$  during general election cycle  $e$ ,  $fatalityRate_i$  is the

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<sup>22</sup>Some specialized regiments, such as the Army Cyclists Corps and Royal Engineers, recruited over the whole of the United Kingdom.

WWI fatality rate of conscripted soldiers in constituency  $i$ , and  $\epsilon_{ice}$  is an error term. The variable  $candidates_{ie}$  represents the number of candidates contesting constituency  $i$  during election cycle  $e$ . The terms  $\delta_c$  and  $\nu_e$  are administrative county and election fixed effects, respectively. Finally,  $\mathbf{X}_i$  is a vector of controls, consisting of prewar demographic, geographic, and political characteristics of constituency  $i$ . Standard errors are clustered by constituency to account for autocorrelation in voting patterns. The coefficient of interest is  $\alpha$ , which represents the expected change in the share of the vote received by left-wing parties resulting from a one-percentage point increase in the fatality rate of WWI conscripts.

It is worth addressing why I control for the number of candidates competing for office. Although the model I presented in Section 2.1 assumes a two-party race, British politics during the interwar period featured three major political parties, the Conservatives, the Liberals, and Labour, as well as a host of minor and regional parties. This means that many seats were contested by three or more candidates, with some having as many as seven. Moreover, the number of candidates contesting a seat is an important determinant of vote share—if electors vote sincerely and their preferences over candidates satisfy independence of irrelevant alternatives, then the entrance of a new candidate must weakly decrease the share of the vote received by existing candidates.<sup>23</sup> Moreover, races involving more candidates may require a lower vote share for victory. For example, a 35 percent vote share in a two-candidate race implies a blowout loss, but could constitute a narrow victory in a three-candidate race. Consequently, I include the number of candidates as a control variable to ensure vote shares are comparable across races.

The inclusion of the number of candidates contesting a constituency as a control variable is potentially problematic, as it is determined after the war, making it a post-treatment variable. This can create issues for inference if part of the effect of war fatalities on left-wing vote share is mediated through the number of candidates; for instance, by making a constituency appear more or less competitive. If this is the case, then the existence of unobserved confounders that

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<sup>23</sup>An individual's preferences satisfy independence of irrelevant alternatives if the introduction of unrelated options does not change the final decision of the individual. For instance if a voter prefers candidate A to candidate B, then the entrance of candidate C into the race, who the voter regards as worse than both A and B, should not cause the voter to switch his vote to B.

influenced both the number of candidates contending a seat and the share of the vote received by left-wing parties can introduce collider bias (Acharya, Blackwell and Sen, 2016; Rosenbaum, 1984).

However, there are theoretical and empirical reasons to believe that constituency's conscript fatality rate did not influence the number of candidates contesting its Commons seat. A party's decision to propose a candidate for election is influenced by a calculus over the cost of resources needed to contend the seat and likelihood of winning office given a resource investment. Well-resourced parties may find it worthwhile to contest even safe seats. Indeed, for nearly the entirety of the interwar period, all three of the major British parties put forth candidates for office in more than two-thirds of constituencies (and in the case of Labour and the Conservatives, nearly all), although the Liberals contested fewer seats as time wore on. Cases of races with more than three candidates seemed to be primarily driven by fractures of existing parties (i.e., the breakaway of the National Liberals from the Liberals in 1931) or the presence of idiosyncratic regional and independent candidates.

I also empirically test whether war fatality rate affect the number of candidates choosing to run for office. To do so, I regress the number of candidates competing for office on the WWI fatality rate and an array of constituency-level controls. The results are displayed in Appendix C.1. I find that the relationship between war fatalities and the number of candidates is both statistically insignificant and substantively close to zero, providing evidence that the number of electoral candidates contesting a constituency is not influenced by the constituency's war fatalities. Consequently, I treat the number of candidates as acting similarly to pre-treatment variable that does not bias the OLS coefficient  $\alpha$  on the war fatality rate (Pepinsky, Goodman and Ziller, 2024). Finally, as an additional caution against post-treatment bias I also estimate Equation 3 excluding controls and using left-wing electoral margin as an alternative outcome variable.



## 5.2 Electoral outcomes - results

Table 2 displays the principal regression results for electoral outcomes. Column 1 reports the simple bivariate regression of left-wing vote share on the World War I combat fatality rate. Column 2 adds to this prewar demographic and geographic control variables. Columns 3 and 4 introduce administrative county and election fixed effects. Column 5 includes county  $\times$  election fixed effects to account for time-varying regional unobservables. Finally, Column 6 features constituency-level linear trends as an alternative method to account for time-varying unobservables. Full tables for all results presented in this section can be found in Appendix D.1.

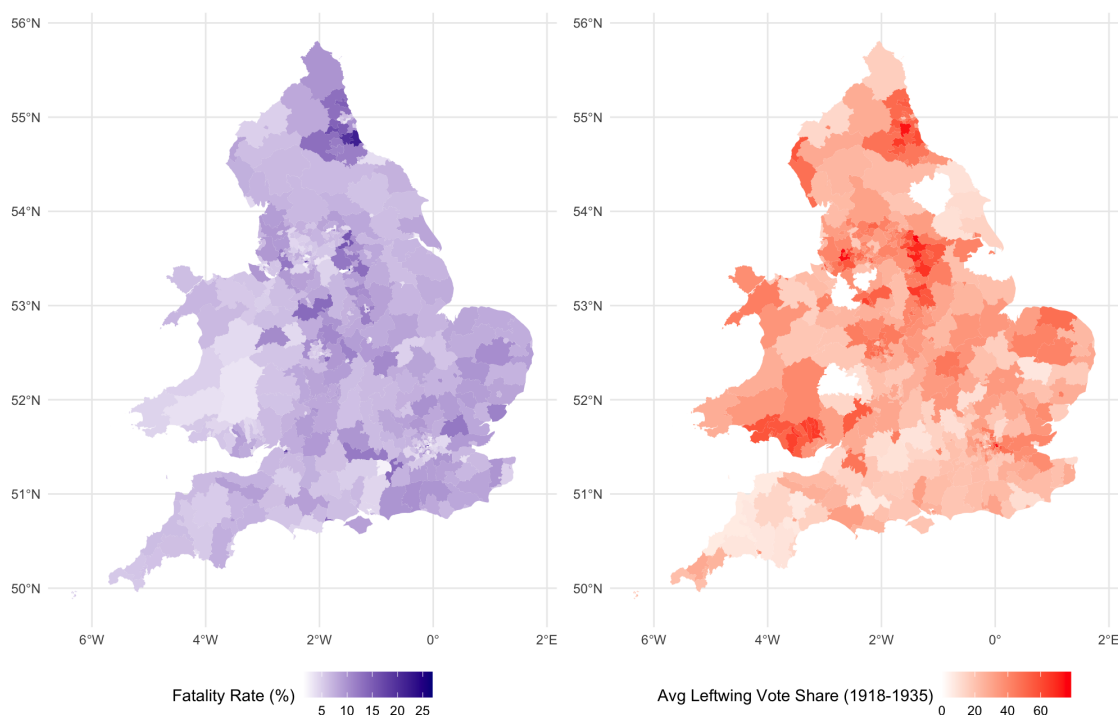


Figure 9: Constituencies by left-wing vote share and WWI fatality rates

In all model specifications, the WWI combat fatality rate is found to have a positive and statistically significant correlation with left-wing vote share. Moreover, the magnitude of the effect is also stable across specifications: a one percentage point increase in the WWI fatality rate of a constituency's conscripts is associated with between a 0.36 and 0.49 percentage point increase in the share of the vote received by candidates representing left-wing political parties.

This result is illustrated in Figure 9, which depicts the average left-wing party vote share in the interwar period and the WWI fatality rate for all parliamentary constituencies in England and Wales. The maps show that Labour, socialist, and trade unionist political parties consistently obtained greater shares of the vote in locations with higher WWI fatality rates, particularly in the north of England and southern Wales.

|                            | DV: Left-wing vote share (%) |                   |                  |                  |                  |                  |
|----------------------------|------------------------------|-------------------|------------------|------------------|------------------|------------------|
|                            | Model 1                      | Model 2           | Model 3          | Model 4          | Model 5          | Model 6          |
| Fatality Rate (%)          | 0.38*<br>(0.20)              | 0.49***<br>(0.13) | 0.37**<br>(0.15) | 0.39**<br>(0.15) | 0.36**<br>(0.16) | 0.45**<br>(0.22) |
| Mean LW Share (%)          | 37.32                        | 36.79             | 36.79            | 36.79            | 36.79            | 36.79            |
| Avg. margin of victory (%) | 21.02                        | 21.02             | 21.02            | 21.02            | 21.02            | 21.02            |
| Controls                   | -                            | ✓                 | ✓                | ✓                | ✓                | ✓                |
| County FEs                 | -                            | -                 | ✓                | ✓                | -                | ✓                |
| Election FEs               | -                            | -                 | -                | ✓                | -                | ✓                |
| County × Election FEs      | -                            | -                 | -                | -                | ✓                | -                |
| Constituency trend         | -                            | -                 | -                | -                | -                | ✓                |
| Num. clusters:             | 503                          | 493               | 493              | 493              | 493              | 493              |
| N                          | 2886                         | 2832              | 2832             | 2832             | 2832             | 2832             |
| R <sup>2</sup>             | 0.01                         | 0.52              | 0.59             | 0.65             | 0.70             | 0.84             |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by constituency.

Table 2: Effect of WWI fatalities on left-wing vote share

I also examine how the effect of World War I fatalities on support for left-wing political parties evolved throughout the interwar period. To do so, I estimate equation 3 separately for each of the seven general elections that took place in the United Kingdom between 1918 and 1935. Results of these regressions are shown in Table 3. All models include a full complement of controls and fixed effects. Coefficients and confidence intervals associated with the WWI fatality rate are plotted by election in Figure 10. The narrow vertical bars represent 95% confidence intervals and thick vertical bars represent 90% confidence intervals.

The chart shows that the effect of war fatalities on left-wing vote share is persistent and strong for elections that took place during the first five years following the end of the war. In particular, we see that the magnitude of the effect increases during the first three elections, peaking in 1923,

where a one percentage point increase in the war fatality rate is associated with a 0.66 percentage point increase in left-wing party vote share. This notably coincides with the Labour Party's most successful election to that point, where it obtained 191 seats and formed its first government (albeit as a minority) with the tacit support of the Liberals. Afterwards, the magnitude of the effect of war fatalities declines, even becoming statistically insignificant in 1924 and 1931.

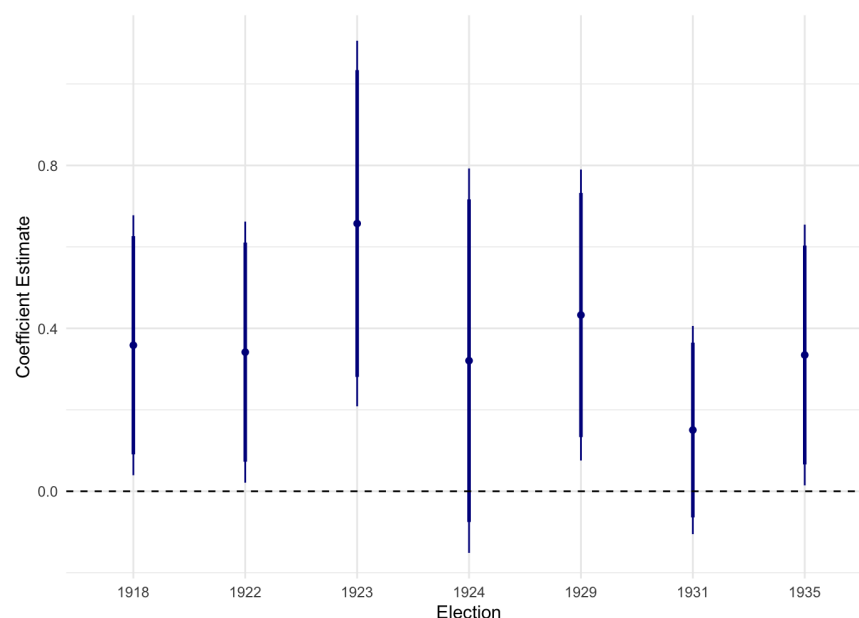


Figure 10: Plot of the effect of WWI fatalities on vote-share by election

|                            | DV: Left-wing vote share (%) |                  |                   |                |                  |                |                  |
|----------------------------|------------------------------|------------------|-------------------|----------------|------------------|----------------|------------------|
|                            | 1918                         | 1922             | 1923              | 1924           | 1929             | 1931           | 1935             |
| Fatality Rate (%)          | 0.36**<br>(0.16)             | 0.34**<br>(0.16) | 0.66***<br>(0.23) | 0.32<br>(0.24) | 0.43**<br>(0.18) | 0.15<br>(0.13) | 0.33**<br>(0.16) |
| Mean LW Share (%)          | 31.92                        | 38.30            | 40.19             | 37.35          | 38.69            | 33.09          | 40.83            |
| Avg. margin of victory (%) | 28.38                        | 16.10            | 12.87             | 18.62          | 16.20            | 32.45          | 22.53            |
| County FEs                 | ✓                            | ✓                | ✓                 | ✓              | ✓                | ✓              | ✓                |
| Num. clusters:             | 47                           | 54               | 51                | 54             | 57               | 53             | 56               |
| N                          | 327                          | 354              | 363               | 422            | 481              | 434            | 451              |
| R <sup>2</sup>             | 0.46                         | 0.69             | 0.69              | 0.74           | 0.78             | 0.75           | 0.76             |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by administrative county.

Table 3: Effect of WWI fatalities on left-wing vote share by election

The effect of war fatalities may appear small, especially considering that during the period under study, left-wing parties received on average around 37% of the vote and the average margin of victory across all races was 21%. However, these averages are skewed by large margins in safe seats, obscuring the fact that roughly one-sixth of races during the interwar period were decided by a margin of less than 5%. In such races, even small changes in vote share can change which candidate wins. To evaluate the implications of war fatalities for control of the House of Commons, I use the estimates obtained in Table 3 to compute counterfactual election outcomes for all 509 non-university constituencies in England and Wales.<sup>24</sup> The results are plotted in Figure 11.

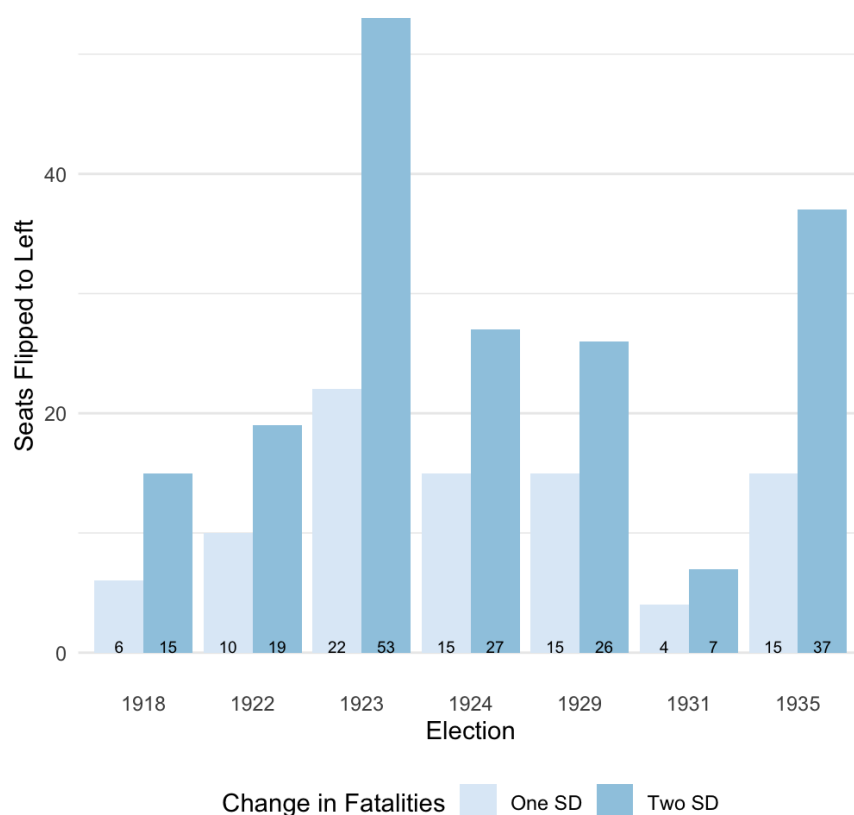


Figure 11: Counterfactual parliamentary seat changes

The counterfactuals show that in 1923, incrementing the war fatality rate by one standard

<sup>24</sup>The counterfactuals assume that the vote share gained by left-wing parties is drawn equally from the shares of the other parties.

deviation (3%) is sufficient to flip 23 seats to left-wing parties, while a two standard deviation increase (6%) would have resulted in an additional 53 left-wing candidates winning office. While the counterfactuals for other elections do not produce as dramatic swings in seats, they still suggest that changes in vote share resulting from war fatalities could have significant consequences for the composition of the House of Commons. Indeed, in 1929, a one-standard deviation increase in war fatalities would have put Labour six seats shy of an outright majority, even disregarding potential seat changes in Scotland and Northern Ireland, a feat that the party would not achieve until 1945 in reality.

I also examine whether war fatalities influence several other electoral outcomes. In Appendices C.4 and C.5, I test for an effect of war fatalities on the share of the vote received by candidates representing the Conservative and Liberal Parties. I find no evidence of an effect of WWI fatalities on electoral support for Conservative candidates. In contrast, there is evidence greater WWI fatalities are associated with reduced support for the Liberal party, perhaps indicating that the war led some traditional Liberal voters to switch to Labour. This is also broadly consistent with prior work arguing that the decline of the Liberal Party in the 1920s and 1930s was due in part to competition from Labour (Adelman, 2014). In Appendix C.3, I conduct the analysis again using an alternative measure of left-wing electoral success, the margin of victory/loss for left-wing candidates, and obtain similar results. In Appendix C.2, I repeat the vote share analysis again while conditioning on 1910 left-wing vote share. The predicted effect of war fatalities is directionally similar and larger in magnitude, perhaps indicating that left-wing messaging about the “conscription of wealth” was more successful in locales where economically left-wing parties were more established.

### **5.3 Parliamentary voting - empirical strategy**

Having shown that conscript fatalities are associated with electoral support for left-wing political parties, I now examine whether conscript fatalities had an impact on the passage of progressive taxation legislation in the House of Commons. Specifically, I test whether members of the House

of Commons representing constituencies with higher World War I fatality rates were more likely to vote in favor of progressive taxation legislation, as predicted by the model. To do so, I estimate the following model via ordinary least squares

$$proTaxVotes_{ictp} = \alpha fatalityRate_i + \gamma^T \mathbf{X}_i + \delta_c + \nu_t + \lambda_p + \epsilon_{icvp} \quad (4)$$

where  $i$  indexes constituencies,  $c$  indexes administrative counties,  $t$  indexes years, and  $p$  indexes political parties.

The variable  $proTaxVotes_{ictp}$  counts the number of times the MP of party  $p$  representing constituency  $i$  in county  $c$  during year  $t$  voted in favor of progressive taxation legislation. As is the case in the vote share specifications,  $fatalityRate_i$  is the WWI fatality rate in constituency  $i$ ,  $\mathbf{X}_i$  is a vector of prewar controls,  $\delta_c$  is an administrative county fixed effect, and  $\nu_t$  is a year fixed effect. New to this specification is a party fixed effect  $\lambda_p$ , which controls for party affiliation  $p$ . The party fixed effect means that I examine within-party variation in fatality rates and voting behavior to ensure that any observed relationship is not being driven solely by partisanship. Finally, to allay concerns that county and vote fixed effects do not address time-varying confounding, I also include party  $\times$  year fixed effects in some specifications. These fixed effects capture how changing national circumstances influence partisan behavior and which party controls the government, both of which can influence voting patterns. As in the vote share specifications, I report robust standard errors clustered at the constituency level to account for autocorrelation.

## 5.4 Parliamentary voting - results

The coefficients obtained from estimating Equation 4 are displayed in Table 4. Column 1 report the estimate with a party fixed effect alone. Columns 2 and 3 add year and county fixed effects, respectively. Column 4 includes constituency-level control variables and Column 5 introduces a party  $\times$  year fixed effect. Full tables for results in this section can be found in Appendix D.2.

The results show that there is a positive correlation between the WWI fatality rate of a con-

|                   | DV: Num. pro-progressive tax votes |                  |                  |                   |                  |
|-------------------|------------------------------------|------------------|------------------|-------------------|------------------|
|                   | Model 1                            | Model 2          | Model 3          | Model 4           | Model 5          |
| Fatality Rate (%) | 0.05**<br>(0.02)                   | 0.05**<br>(0.02) | 0.04**<br>(0.02) | 0.07***<br>(0.02) | 0.06**<br>(0.02) |
| DV Mean:          | 4.67                               | 4.69             | 4.69             | 4.69              | 4.69             |
| Controls          | -                                  | -                | -                | ✓                 | ✓                |
| Party FEs         | ✓                                  | ✓                | ✓                | ✓                 | -                |
| Year FEs          | -                                  | ✓                | ✓                | ✓                 | -                |
| County FEs        | -                                  | -                | ✓                | ✓                 | ✓                |
| Party × Year FEs  | -                                  | -                | -                | -                 | ✓                |
| Num. clusters:    | 508                                | 508              | 508              | 498               | 498              |
| N                 | 9045                               | 9045             | 9045             | 8866              | 8866             |
| R <sup>2</sup>    | 0.49                               | 0.62             | 0.63             | 0.63              | 0.84             |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by constituency.

Table 4: Effect of WWI fatalities on parliamentary voting

stituency's conscripts and the frequency with which the MP representing that constituency voted in favor of progressive taxation. In Column 5, a one-percentage point increase in the local fatality rate is associated with an additional .06 votes cast in support of progressive taxation during a year. This effect is statistically significant and stable in magnitude across all model specifications.

|                   | DV: Num. pro-progressive tax votes |                 |                |                |                  |                 |
|-------------------|------------------------------------|-----------------|----------------|----------------|------------------|-----------------|
|                   | 1918-1922                          | 1922-1923       | 1923-1924      | 1924-1929      | 1929-1931        | 1931-1935       |
| Fatality Rate (%) | 0.10**<br>(0.05)                   | 0.12*<br>(0.06) | 0.05<br>(0.03) | 0.09<br>(0.07) | 0.14**<br>(0.06) | -0.01<br>(0.02) |
| DV Mean:          | 3.47                               | 7.31            | 5.24           | 7.58           | 6.36             | 1.92            |
| Party FEs         | ✓                                  | ✓               | ✓              | ✓              | ✓                | ✓               |
| Year FEs          | ✓                                  | ✓               | ✓              | ✓              | ✓                | ✓               |
| County FEs        | ✓                                  | ✓               | ✓              | ✓              | ✓                | ✓               |
| No. clusters:     | 57                                 | 58              | 58             | 58             | 58               | 58              |
| N                 | 1887                               | 493             | 499            | 1974           | 1460             | 2344            |
| R <sup>2</sup>    | 0.68                               | 0.84            | 0.61           | 0.74           | 0.71             | 0.68            |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by constituency.

Table 5: Effect of WWI fatalities on parliamentary voting by session

Similar to the vote share models, we can decompose the effect of war fatalities on MP behavior

over time by estimating Equation 4 for each parliament. The results are shown in Table 5. Notably, the effect of fatalities on MP support for progressive taxation is largest in parliaments formed after elections where war fatalities provided the greatest benefit for left-wing candidates: 1918, 1922, and 1929. In these three parliaments, a one percentage point increase in war fatalities had an effect around twice as large as the overall effect found in Table 4. This is consistent with both the empirical results found in the previous section and the predictions of the model, which forecasts that candidates for office in constituencies with greater fatalities propose more progressive tax platforms.

A predicted increase of between .04 to .07 votes per year in favor of progressive taxation for each percentage point increase in the war fatality rate may appear small. Nevertheless, the fact that a within-party effect is detectable at all is notable given the high degree of party cohesion seen in Parliament during the Victorian and Edwardian eras. Past studies have documented that English political parties of the time exhibited almost no within-party factional conflict (Eggers and Spirling, 2014; Cox, 2005). The small magnitude of the expected effect of war fatalities is likely a result of strictly enforced party discipline during roll-call votes. Party leaders employed whips to persuade, bribe, threaten, and even blackmail their own MPs to vote the party line on legislation (Troughton, 2023). MPs that disregarded the party line were subject to various punishments, which ranged from being passed over for ministerial posts to expulsion from the party (Pollock, 1930).

The high degree of party cohesion is illustrated in Figure 12, which plots the proportion of votes cast in favor of progressive taxation legislation over time for members of the Conservative, Labour, and Liberal parties. The parties are stratified into groups based on their level support for progressive taxation. Note that over 90% of Labour roll-call votes were cast in favor of progressive taxation, as opposed to only about 10% of Conservative votes. The proportion of votes cast in support of progressive taxation is also roughly stable over time, indicating that MP voting patterns are influenced by the ideological stance of the party leadership. As a result, it seems likely that much of the effect found in the prior analyses is driven by defectors from the party position.



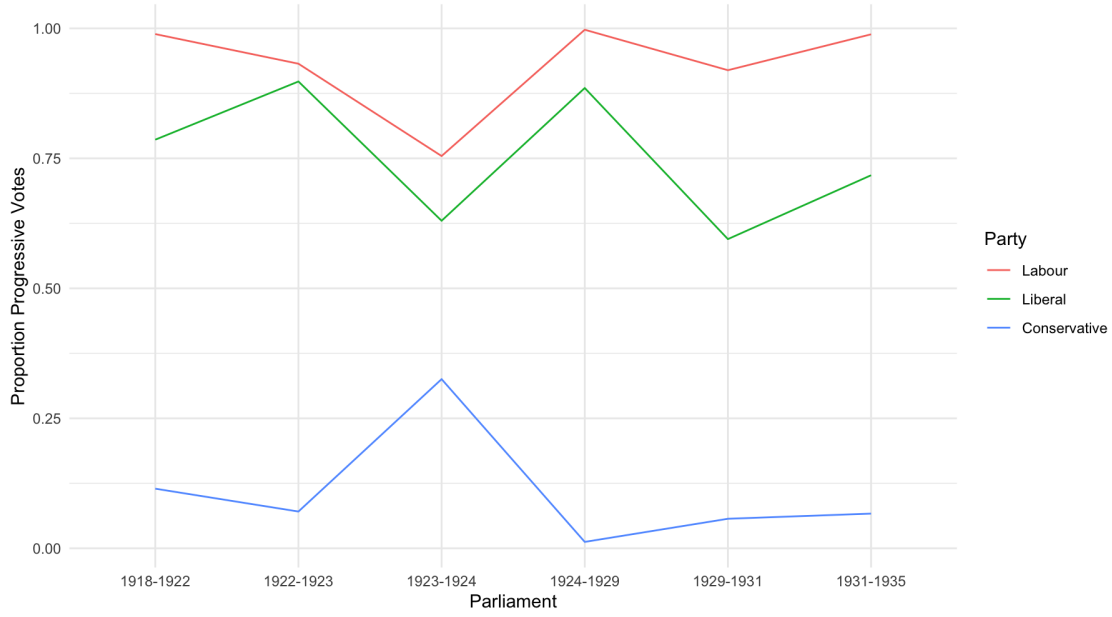


Figure 12: Proportion of votes supporting progressive taxation by party

|                          | DV: Num. pro-progressive tax votes |                |                |
|--------------------------|------------------------------------|----------------|----------------|
|                          | Conservative                       | Labour         | Liberal        |
| Fatality Rate (%)        | 0.03***<br>(0.01)                  | 0.10<br>(0.09) | 0.02<br>(0.25) |
| DV Mean:                 | 0.67                               | 15.07          | 8.68           |
| County $\times$ Year FEs | ✓                                  | ✓              | ✓              |
| No. clusters:            | 416                                | 250            | 171            |
| N                        | 4492                               | 1918           | 649            |
| R <sup>2</sup>           | 0.64                               | 0.80           | 0.84           |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by constituency.

Table 6: Effect of WWI fatalities on parliamentary voting by party

Therefore, to get a better look at how local war fatalities influence MP voting behavior within political parties, I estimate Equation 4 separately for MPs in each of the three major political parties. The results are shown in Table 6. I find no evidence that Labour and Liberal MPs representing high fatality districts were more likely to support progressive taxation legislation, though this may be driven by a ceiling effect as left-wing MPs supported such legislation over 90% of the time. However, I do find evidence of a relationship between conscript fatalities and Conservative

support for progressive taxation. Conservative MPs voted in favor of .03 additional progressive taxation proposals per year for every one percentage point increase in WWI fatality rate of the constituency they represent. To put this effect size in context, note that on average, Conservative MPs only supported such legislation 0.67 times per year, meaning the size of the effect is nearly 5% of the average outcome. This indicates that shifts in constituent preferences caused by war fatalities were important drivers of Conservative MP defections to support progressive taxation.

Examining the constituency characteristics of Conservative MPs who defected from the party line lends additional credence to this explanation. Conservative MPs that defected at least once from the party line to vote in favor of progressive taxation legislation were 10% more likely to represent a constituency with an above-median WWI fatality rate than their colleagues that never defected. In addition, defection appears to have been more frequent among MPs representing constituencies with high fatality rates: defectors were 25% more likely to represent constituencies in the top decile of war fatalities. Moreover, the fact that the effect of war fatalities on MP voting is only detectable for Conservatives provides additional evidence for the model's prediction that politician support for progressive taxation platforms is induced by attempts to offset electoral bias in favor of left-wing parties caused by war fatalities.

Finally, I examine how conscript fatalities affected MP support for the different kinds of taxation legislation. The results are displayed in Table 7, which shows that greater war fatalities are associated with stronger MP support for wealth taxes, which include estate taxes, inheritance taxes, land taxes, and the excess profits duty. The analysis does not find evidence that greater constituency war fatalities affected MP support for or opposition to the other types of taxation legislation. This may suggest that the class conflict hypothesized as characterizing political competition in the model is better framed as between capital and labor than between the wealthy and the poor. War casualties and the experience of mass warfare may have produced increased class consciousness among laborers as well as affecting their preferences about the fairness of government tax policy.

|                         | DV: Num. pro-progressive tax votes |                   |                |                |                |
|-------------------------|------------------------------------|-------------------|----------------|----------------|----------------|
|                         | Income tax                         | Wealth tax        | Capital levy   | Excise duty    | Customs duty   |
| Fatality Rate (%)       | 0.01<br>(0.01)                     | 0.04***<br>(0.01) | 0.00<br>(0.00) | 0.01<br>(0.01) | 0.02<br>(0.01) |
| DV Mean:                | 1.40                               | 1.94              | 0.33           | 0.98           | 2.13           |
| County FEs              | ✓                                  | ✓                 | ✓              | ✓              | ✓              |
| Party $\times$ Year FEs | ✓                                  | ✓                 | ✓              | ✓              | ✓              |
| Num. clusters:          | 498                                | 498               | 496            | 498            | 498            |
| N                       | 7040                               | 4150              | 2064           | 5565           | 8253           |
| R <sup>2</sup>          | 0.82                               | 0.80              | 0.88           | 0.81           | 0.85           |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by constituency.

Table 7: Effect of WWI fatalities on parliamentary voting by topic

## 6 Conclusion

This article has examined the relationship between local World War I conscript fatalities and support for progressive taxation in interwar Britain. I find evidence for two effects. First, constituencies with higher conscript fatality rates provided greater electoral support to candidates representing economically left-wing political parties. These effects were strongest during the elections immediately following the war and in “safe” constituencies where left-wing parties had an established presence prior to the war. Second, members of parliament representing districts that experienced more fatalities were more likely to vote in favor progressive taxation legislation. This effect was particularly pronounced among members of the Conservative Party and on legislation relating to wealth taxes, consistent with anecdotal evidence that Conservatives felt electoral pressure to disprove allegations that they were the party of capital.

This study offers new quantitative evidence linking popular discontent over mass warfare to the creation and persistence of progressive taxation schemes in Western democracies following the World Wars. Prior research on the relationship between mass warfare and tax progressivity relied on highly aggregated state-level comparisons of tax policy, which cannot disentangle the effect of mass mobilization from that of other simultaneous changes associated with the World Wars, such as the expansion of the franchise or the accumulation of debt. This article’s use of

sub-national variation in war fatalities circumvents such confounding factors to directly link legislator support for tax progressivity to voter dissatisfaction over the war via the mechanism of electoral competition, offering support for the “compensatory theory” of taxation.

Finally, the findings of this paper may hint that concerns about the fairness of government taxation policy may be more salient during bad economic conditions. This is suggested by the fact that left-wing candidates received the greatest electoral benefit from war fatalities in the 1918, 1922, 1923, and 1929 general elections. While the size of the effect in the first three elections can be explained by the recency of the war, the re-emergence of the salience of war fatalities in 1929 is surprising. A common factor linking all four elections is that each took place during a period of economic contraction: the postwar recession in the case of the first three and the Great Depression for 1929. Indeed, there some anecdotal evidence that taxation became less contentious politically after the economic crisis and issue of short-term had been mitigated. To quote the historian M.J. Daunton, by 1924: “taxation was taken out of politics and reduced to a matter of technicalities” (Daunton, 1996, 917). This suggests that concerns about fairness are stronger when taxation is perceived to be zero-sum, such as during a fiscal crisis.

## References

- Acemoglu, Daron, Giuseppe De Feo, Giacomo De Luca and Gianluca Russo. 2022. “War, socialism, and the rise of fascism: An empirical exploration.” *The Quarterly Journal of Economics* 137(2):1233–1296.
- Acharya, Avidit, Matthew Blackwell and Maya Sen. 2016. “Explaining causal findings without bias: Detecting and assessing direct effects.” *American Political Science Review* 110(3):512–529.
- Adelman, Paul. 2014. *The decline of the Liberal Party 1910-1931*. Routledge.
- Alvarado, Mariana. 2024. “Compensation and tax fairness: Evidence from four countries.” *British Journal of Political Science* 54(4):1023–1042.
- Alvarado, Mariana, Pablo Querubin, Kenneth Scheve and David Stasavage. 2025. “Testing the Compensatory Theory: A Survey Experiment on Covid-19 and Redistributive Preferences in the UK.” *The Journal of Politics* 0(ja):null.  
**URL:** <https://doi.org/10.1086/736111>
- Atkinson, Anthony B. 2007. “The distribution of top incomes in the United Kingdom 1908–2000.” *Top Incomes over the Twentieth Century: A Contrast between Continental European and English-Speaking Countries* 1:82–140.
- Billings, Mark and Lynne Oats. 2014. “Innovation and pragmatism in tax design: Excess Profits Duty in the UK during the First World War.” *Accounting History Review* 24(2-3):83–101.
- Broadberry, Stephen and Peter Howlett. 2005. “The United Kingdom During World War I: Business as Usual?” *The Economics of World War I* pp. 206–234.
- Bunbury, Turtle. 2014. *The Glorious Madness—Tales of the Irish and the Great War: First-hand accounts of Irish men and women in the First World War*. Gill & Macmillan Ltd.

- Cagé, Julia, Anna Dagorret, Pauline Grosjean and Saumitra Jha. 2023. "Heroes and villains: The effects of heroism on autocratic values and Nazi collaboration in France." *American Economic Review* 113(7):1888–1932.
- Cavaille, Charlotte. 2023. *Fair enough?: support for redistribution in the age of inequality*. Cambridge University Press.
- Cox, Gary W. 2005. *The efficient secret: The cabinet and the development of political parties in Victorian England*. Cambridge University Press.
- Cox, Gary W and Mathew D McCubbins. 1986. "Electoral politics as a redistributive game." *The Journal of Politics* 48(2):370–389.
- Cronin, James. 2005. *The Politics of state expansion: War, state and society in twentieth century Britain*. Routledge.
- Daunton, Martin. 2002. *Just taxes: the politics of taxation in Britain, 1914–1979*. Cambridge University Press.
- Daunton, Martin. 2023. *Churchill's Economics*. Cambridge Companions to History Cambridge University Press pp. 167–188.
- Daunton, Martin J. 1996. "How to pay for the war: State, society and taxation in Britain, 1917–24." *The English Historical Review* 111(443):882–919.
- Davenport, Romola J. 2020. "Urbanization and mortality in Britain, c. 1800–50." *The Economic History Review* 73(2):455–485.
- De Juan, Alexander, Felix Haass, Carlo Koos, Sascha Riaz and Thomas Tichelbaecker. 2024. "War and nationalism: How WW1 battle deaths fueled civilians' support for the Nazi Party." *American Political Science Review* 118(1):144–162.

- De Mesquita, Bruce Bueno and Randolph M Siverson. 1995. "War and the survival of political leaders: A comparative study of regime types and political accountability." *American political science review* 89(4):841–855.
- Dixit, Avinash and John Londregan. 1996. "The determinants of success of special interests in redistributive politics." *the Journal of Politics* 58(4):1132–1155.
- Dorr, Dalton C and Adrian J Shin. 2021. "War, inequality, and taxation." *Economics & Politics* 33(2):315–342.
- Douglas, Roy. 1972. "VIII. The National Democratic Party and the British Workers' League." *The Historical Journal* 15(3):533–552.
- Eggers, Andrew C and Arthur Spirling. 2014. "Electoral security as a determinant of legislator activity, 1832–1918: New data and methods for analyzing british political development." *Legislative Studies Quarterly* 39(4):593–620.
- Ellison, Martin, Thomas J Sargent and Andrew Scott. 2019. "Funding the Great War and the beginning of the end for British hegemony." *Debt and entanglements between the wars* p. 59.
- French, David. 2005. *Military identities: the regimental system, the British army, and the British people c. 1870-2000*. Oxford University Press.
- Gartner, Scott Sigmund and Gary M Segura. 1998. "War, casualties, and public opinion." *Journal of conflict resolution* 42(3):278–300.
- Gartner, Scott Sigmund, Gary M Segura and Bethany A Barratt. 2004. "War casualties, policy positions, and the fate of legislators." *Political Research Quarterly* 57(3):467–477.
- Haffert, Lukas. 2019. "War mobilization or war destruction? The unequal rise of progressive taxation revisited." *The Review of International Organizations* 14(1):59–82.
- Harrison, Royden. 1971. The War Emergency Workers' National Committee, 1914–1920. In *Essays in Labour History 1886–1923*. Springer pp. 211–259.

Imperial War Museum. 2025. "IS YOUR HOME HERE? DEFEND IT!".

**URL:** <https://www.iwm.org.uk/collections/item/object/41245>

James, Brigadier EA. 2012. *British Regiments 1914-1918*. Andrews UK Limited.

Koch, Michael T and Stephen P Nicholson. 2016. "Death and turnout: The human costs of war and voter participation in democracies." *American Journal of Political Science* 60(4):932–946.

Kriner, Douglas L and Francis X Shen. 2010. *The casualty gap: The causes and consequences of American wartime inequalities*. Oxford University Press.

Lindbeck, Assar and Jörgen W Weibull. 1987. "Balanced-budget redistribution as the outcome of political competition." *Public choice* 52:273–297.

Lindert, Peter H. 1986. "Unequal English wealth since 1670." *Journal of political economy* 94(6):1127–1162.

Lindert, Peter H. 2000. "Three centuries of inequality in Britain and America." *Handbook of income distribution* 1:167–216.

Mueller, John. 1973. *War, Presidents, and Public Opinion*. Wiley.

Mueller, John. 1991. "Changing attitudes towards war: The impact of the First World War." *British Journal of Political Science* 21(1):1–28.

Office for Budget Responsibility. 2025. "Public finances since 1900." Public finances databank 2024-25.

**URL:** <https://www.statista.com/statistics/282841/debt-as-gdp-uk/>

Pattinson, Juliette. 2016. "'Shirkers', 'Scrimjacks' and 'Scrimshanks'?": British Civilian Masculinity and Reserved Occupations, 1914–45." *Gender & History* 28(3):709–727.



- Pepinsky, Thomas B, Sara Wallace Goodman and Conrad Ziller. 2024. "Modeling spatial heterogeneity and historical persistence: Nazi concentration camps and contemporary intolerance." *American Political Science Review* 118(1):519–528.
- Piketty, Thomas. 2014. *Capital in the twenty-first century*. Harvard University Press.
- Piketty, Thomas and Emmanuel Saez. 2007. "How progressive is the US federal tax system? A historical and international perspective." *Journal of Economic perspectives* 21(1):3–24.
- Pollock, James K. 1930. "British Party Organization." *Political Science Quarterly* 45(2):161–180.
- Powell, David. 1986. "The new Liberalism and the rise of Labour, 1886–1906." *The historical journal* 29(2):369–393.
- Roemer, John E. 2009. *Political competition: Theory and applications*. Harvard University Press.
- Rosenbaum, Paul R. 1984. "The consequences of adjustment for a concomitant variable that has been affected by the treatment." *Journal of the Royal Statistical Society Series A: Statistics in Society* 147(5):656–666.
- Rozenas, Arturas, Roya Talibova and Yuri M Zhukov. 2024. "Fighting for tyranny: State repression and combat motivation." *American Economic Journal: Applied Economics* 16(3):44–75.
- Ruggles, Steven, Miriam L King, Deborah Levison, Robert McCaa and Matthew Sobek. 2003. "IPUMS-international." *Historical Methods: A Journal of Quantitative and Interdisciplinary History* 36(2):60–65.
- Scheidel, Walter. 2018. The great leveler: Violence and the history of inequality from the stone age to the twenty-first century. In *The Great Leveler*. Princeton University Press.
- Scheve, Kenneth and David Stasavage. 2010. "The conscription of wealth: mass warfare and the demand for progressive taxation." *International organization* 64(4):529–561.

- Scheve, Kenneth and David Stasavage. 2012. "Democracy, war, and wealth: lessons from two centuries of inheritance taxation." *American Political Science Review* 106(1):81–102.
- Scheve, Kenneth and David Stasavage. 2016. *Taxing the rich: A history of fiscal fairness in the United States and Europe*. Princeton University Press.
- Seligman, Edwin RA. 1893. "The theory of progressive taxation." *Political Science Quarterly* pp. 220–251.
- Skocpol, Theda. 1995. *Protecting soldiers and mothers: The political origins of social policy in the United States*. Harvard University Press.
- Southall, Humphrey and Paula Aucott. 2009. "A vision of Britain through time."
- Stam, Allan C. 1999. *Win, lose, or draw: Domestic politics and the crucible of war*. University of Michigan Press.
- Stamp, Josiah. 1932. *Taxation during the war*. Oxford University Press.
- Strachan, Hew. 2023. *The British Home Front and the First World War*. Cambridge University Press.
- Titmuss, Richard M. 1959. *Essays on the welfare state*. Policy Press.
- Torregrosa-Hetland, Sara and Oriol Sabaté. 2022. "Income tax progressivity and inflation during the world wars." *European Review of Economic History* 26(3):311–339.
- Troughton, Tabitha. 2023. *Cracking the Whip: The UK's Party Control System*. The Constitution Society.
- UK War Office. 1922. *Statistics of the Military Effort of the British Empire During the Great War. 1914-1920*. HM Stationery Office.
- Ward, Alan J. 1974. "Lloyd George and the 1918 Irish conscription crisis." *The Historical Journal* 17(1):107–129.

Watt, Patrick. 2019. "Manpower, myth and memory: analysing Scotland's military contribution to the Great War." *Journal of Scottish Historical Studies* 39(1):75–100.

Zakharov, Alexei and Philipp Chapkovski. 2025. "The effect of war on redistribution preferences." *Journal of Public Economics* 241:105284.

# Appendix

## Table of Contents

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|   |               |
|---|---------------|
| <b>A Proofs</b>   | <b>52</b>     |
| A.1 Assumptions . . . . .                               | 52            |
| A.2 Proposition 1 . . . . .                             | 52            |
| A.3 Proposition 2 . . . . .                             | 53            |
| A.4 Lemma 1 . . . . .                                   | 54            |
| A.5 Proposition 3 . . . . .                             | 54            |
| A.6 Proposition 4 . . . . .                             | 55            |
| <br><b>B Data appendix</b>                              | <br><b>56</b> |
| B.1 Sample fatality record . . . . .                    | 56            |
| B.2 LLM prompt . . . . .                                | 56            |
| B.3 Geocoding covariate balance . . . . .               | 57            |
| B.4 List of left-wing parties . . . . .                 | 58            |
| B.5 Tax legislation coding rules . . . . .              | 59            |
| B.6 Example legislation . . . . .                       | 60            |
| B.7 Descriptive statistics . . . . .                    | 60            |
| B.8 Placebo tests . . . . .                             | 61            |
| <br><b>C Additional results</b>                         | <br><b>62</b> |
| C.1 WWI fatalities and electoral candidates . . . . .   | 62            |
| C.2 Conditioning on 1910 left-wing vote share . . . . . | 63            |
| C.3 Left-wing electoral margin . . . . .                | 64            |
| C.4 Conservative vote share . . . . .                   | 65            |
| C.5 Liberal vote share . . . . .                        | 66            |
| <br><b>D Full tables</b>                                | <br><b>67</b> |
| D.1 Electoral outcomes . . . . .                        | 67            |
| D.2 Parliamentary voting . . . . .                      | 69            |
| D.3 Appendix tables . . . . .                           | 73            |

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## A Proofs

This appendix contains the proofs of all propositions in the text.

### A.1 Assumptions

**Assumption 1** *To avoid boundary issues in equilibrium, I assume that  $\phi_g < \frac{1}{2} \left( \frac{\psi}{\psi+1} \right)$  for  $g \in \{p, w\}$  and  $\alpha < \frac{1}{2\psi}$ .*

### A.2 Proposition 1

**Proposition 1** *In equilibrium, both parties propose identical tax platforms.*

$$t_p^{L*} = t_p^{R*} \quad t_w^{L*} = t_w^{R*}$$

**Proof.** Party  $L$ 's maximization problem is

$$\begin{aligned} \max \quad & P \left( s^L(\mathbf{t}^L, \mathbf{t}^R) > \frac{1}{2} \right) \\ \text{subject to} \quad & t_p^L q y_p + t_w^L (1 - q) y_w = D \\ & t_p^L, t_w^L \leq 1 \\ & t_p^L, t_w^L \geq 0 \end{aligned}$$

Substituting  $t_w^L = \frac{D - q t_p^L y_p}{(1 - q) y_w}$  and taking the derivative gives the first order optimality condition

$$\frac{\psi}{q \phi_p + (1 - q) \phi_w} \left[ q \phi_p u'_p(t_p^L) - (1 - q) \phi_w u'_w \left( \frac{D - q t_p^L y_p}{(1 - q) y_w} \right) \left( \frac{q y_p}{(1 - q) y_w} \right) \right] = 0 \quad (5)$$

Likewise, party  $R$ 's maximization problem is

$$\begin{aligned} \max \quad & 1 - P \left( s^L(\mathbf{t}^L, \mathbf{t}^R) > \frac{1}{2} \right) \\ \text{subject to} \quad & t_p^R q y_p + t_w^R (1 - q) y_w = D \\ & t_p^R, t_w^R \leq 1 \\ & t_p^R, t_w^R \geq 0 \end{aligned}$$

Following the same procedure as for party  $L$  gives the first-order optimality condition

$$\frac{\psi}{q \phi_p + (1 - q) \phi_w} \left[ q \phi_p u'_p(t_p^R) - (1 - q) \phi_w u'_w \left( \frac{D - q t_p^R y_p}{(1 - q) y_w} \right) \left( \frac{q y_p}{(1 - q) y_w} \right) \right] = 0$$

Note that the parties' first-order optimality conditions are identical and that the platform of the opposing party is not present. Consequently, the optimization problems are identical and have

the same solution. Taking the second derivative verifies that the objective function is concave and that the solution will be an equilibrium.

$$\frac{\psi}{q\phi_p + (1-q)\phi_w} \left[ q\phi_p u_p''(t_p^R) + (1-q)\phi_w u_w' \left( \frac{D - qt_p^R y_p}{(1-q)y_w} \right) \left( \frac{qy_p}{(1-q)y_w} \right)^2 \right] < 0$$

where the inequality follows from the concavity of the utility functions  $u_g$  and the fact that all other exogenous parameters are strictly positive. ■

### A.3 Proposition 2

**Proposition 2** *In equilibrium, greater debt obligations increase tax progressivity under the following condition*

$$\frac{y_w}{y_p} > \frac{\phi_w u_w''(t_w^*)}{\phi_p u_p''(t_p^*)} \implies \frac{\partial[t_w^* - t_p^*]}{\partial D} > 0$$

**Proof.** Treating the equilibrium tax rate  $t_p^*$  as a function of the debt level  $D$  and differentiating equation 5 with respect to  $D$  produces

$$\frac{\psi}{q\phi_p + (1-q)\phi_w} \left[ q\phi_p u_p''(t_p^*) \frac{\partial t_p^*}{\partial D} - (1-q)\phi_w u_w'' \left( \frac{D - qt_p^* y_p}{(1-q)y_w} \right) \left( \frac{qy_p}{(1-q)y_w} \right) \left( \frac{1 - q \frac{\partial t_p^*}{\partial D} y_p}{(1-q)y_w} \right) \right] = 0$$

Re-arranging and isolating  $\frac{\partial t_p^*}{\partial D}$  on the left-hand side yields

$$\frac{\partial t_p^*}{\partial D} = \frac{(1-q)\phi_w u_w'' \left( \frac{D - qt_p^* y_p}{(1-q)y_w} \right) \frac{qy_p}{(1-q)^2 y_w^2}}{q\phi_p u_p''(t_p^*) + (1-q)\phi_w u_w'' \left( \frac{D - qt_p^* y_p}{(1-q)y_w} \right) \frac{q^2 y_p^2}{(1-q)^2 y_w^2}} > 0$$

where the inequality follows because the numerator and both terms in the denominator are negative, a consequence of the concavity of  $u_g$ . Likewise, the derivative of the tax on the wealthy  $t_w^*$  with respect to  $D$  is

$$\frac{\partial t_w^*}{\partial D} = \frac{\partial}{\partial D} \left[ \frac{D - qt_p^* y_p}{(1-q)y_w} \right] = \frac{1 - q \frac{\partial t_p^*}{\partial D} y_p}{(1-q)y_w} > 0$$

The equilibrium tax progressivity will be increasing in  $D$  if

$$\begin{aligned} \frac{\partial[t_w^* - t_p^*]}{\partial D} &= \frac{1 - q \frac{\partial t_p^*}{\partial D} y_p}{(1-q)y_w} - \frac{\partial t_p^*}{\partial D} > 0 \iff \\ \frac{1}{(1-q)y_w} - \frac{\partial t_p^*}{\partial D} \left( 1 + \frac{qy_p}{(1-q)y_w} \right) &> 0 \iff \\ \left( 1 + \frac{qy_p}{(1-q)y_w} \right) \left( \frac{(1-q)\phi_w u_w'' \left( \frac{D - qt_p^* y_p}{(1-q)y_w} \right) \frac{qy_p}{(1-q)^2 y_w^2}}{q\phi_p u_p''(t_p^*) + (1-q)\phi_w u_w'' \left( \frac{D - qt_p^* y_p}{(1-q)y_w} \right) \frac{q^2 y_p^2}{(1-q)^2 y_w^2}} \right) &< \frac{1}{(1-q)y_w} \end{aligned}$$

Some algebra and simplifying shows the condition for the derivative to be positive to be

$$\frac{y_w}{y_p} > \frac{\phi_w}{\phi_p} \frac{u''_w(t_w^*)}{u''_p(t_p^*)}$$

■

#### A.4 Lemma 1

This lemma is used in the proof of Proposition 3.

**Lemma 1** *In equilibrium, an increase in ideological homogeneity among the poor ( $\uparrow \phi_p$ ) induces the candidates to propose more progressive tax platforms.*

$$\frac{\partial[t_w^* - t_p^*]}{\partial \phi_p} > 0$$

**Proof.** As before, I treat the equilibrium tax rate  $t_p^*$  as a function of  $\phi_p$  and differentiate equation 5 with respect to  $\phi_p$  to obtain

$$\frac{-q}{q\phi_p + (1-q)\phi_w} \underbrace{\frac{\partial P(s^L(t^L, t^R) > \frac{1}{2})}{\partial t_p^*}}_{=0} + \frac{\psi}{q\phi_p + (1-q)\phi_w} \left( qu'_p(t_p^*) + q\phi_p u''_p(t_p^*) \frac{\partial t_p^*}{\partial \phi_p} + (1-q)\phi_w u''_w \left( \frac{D - qt_p^* y_p}{(1-q)y_w} \right) \frac{q^2 y_p^2}{(1-q)^2 y_w^2} \frac{\partial t_p^*}{\partial \phi_p} \right) = 0$$

Note that the term on the left is simply the first-order optimality condition times a constant, which must be 0 in equilibrium. Re-arranging then produces

$$\frac{\partial t_p^*}{\partial \phi_p} = \frac{-qu'_p(t_p^*)}{q\phi_p u''_p(t_p^*) + (1-q)\phi_w u''_w \left( \frac{D - qt_p^* y_p}{(1-q)y_w} \right) \frac{q^2 y_p^2}{(1-q)^2 y_w^2}} < 0$$

where the inequality follows because the numerator is positive, due to the fact that  $u_g$  is decreasing, while the denominator is negative, due to the concavity of  $u_g$ .

The result prior shows that the equilibrium tax rate on the poor decreases in  $\phi_p$ . This means that the tax rate on the wealthy must therefore increase in  $\phi_p$ , as verified below.

$$\frac{\partial t_w^*}{\partial \phi_p} = -\frac{qy_p}{(1-q)y_w} \frac{\partial t_p^*}{\partial \phi_p} > 0$$

Taken together, this means that tax progressivity in equilibrium is increasing in  $\phi_p$  ■

#### A.5 Proposition 3

**Proposition 3** *In equilibrium, an increase in war fatalities ( $\uparrow \alpha$ ) induces the candidates to propose more progressive tax platforms.*

$$\frac{\partial[t_w^* - t_p^*]}{\partial \alpha} > 0$$

**Proof.** Take the derivative of tax progressivity with respect to  $\alpha$ . By the chain rule

$$\frac{\partial[t_w^* - t_p^*]}{\partial\alpha} = \frac{\partial[t_w^* - t_p^*]}{\partial\phi_p} \frac{\partial\phi_p}{\partial\alpha} > 0$$

The inequality follows from Lemma 1 and the fact that  $\phi_p$  is an increasing function of  $\alpha$  (which means  $\frac{\partial\phi_p}{\partial\alpha}$  is positive). ■

## A.6 Proposition 4

**Proposition 4** *In equilibrium, an increase in war fatalities ( $\uparrow \alpha$ ) increases the expected share of the vote received by party L.*

$$\frac{\partial E_\delta[s^L(\mathbf{t}^{L^*}, \mathbf{t}^{R^*})]}{\partial\alpha} > 0$$

**Proof.** Note that because the parties choose the same tax platform in equilibrium, the share of the vote received by party L is

$$s^L(\mathbf{t}^{L^*}, \mathbf{t}^{R^*}) = \frac{1}{2} - q\phi_p\delta(\alpha) - (1 - q)\phi_w\delta(\alpha)$$

Taking the expectation over  $\delta(\alpha)$  yields

$$E_\delta[s^L(\mathbf{t}^{L^*}, \mathbf{t}^{R^*})] = \frac{1}{2} + q\phi_p\alpha + (1 - q)\phi_w\alpha$$

Differentiating with respect to  $\alpha$

$$\frac{\partial E_\delta[s^L(\mathbf{t}^{L^*}, \mathbf{t}^{R^*})]}{\partial\alpha} = q\frac{\partial\phi_p}{\partial\alpha}\alpha + q\phi_p + (1 - q)\phi_w > 0$$

■



## B Data appendix

### B.1 Sample fatality record

Below is a sample record from the Commonwealth War Graves Commission database of fallen World War I soldiers. I extract soldiers' home addresses from the "Additional Info" box, outlined in red in Figure 13.


|   |   |  |  |
|---|---|--|--|
| PRIVATE<br><b>CHARLES JABEZ WESTON</b><br>Service Number: 8515  |   | <br>We are in the process of adding an image of this casualty's point of commemoration |  |
| <b>Regiment &amp; Unit/Ship</b><br>Northumberland Fusiliers<br>2nd/4th Bn.                                      |   |  |  |
| <b>Date of Death</b><br>Died 20 January 1919<br>Age 41 years old  |   |  |  |
| <b>Buried or commemorated at</b><br><u>CAMBERWELL OLD CEMETERY</u><br>85. 25812. Screen Wall.<br>United Kingdom |   |  |  |
| <b>Secondary Unit, Regiment</b>   | transf. to (459943) 479th<br>Agricultural Coy. Labour Corps |  |  |
| <b>Additional Info</b>  |   | Husband of Janette Louisa Weston, of 13, Pemells Place, Queen's Rd., Peckham, London.  |  |

Figure 13: Sample fatality record

### B.2 LLM prompt

Below is the text used to prompt ChatGPT to extract soldier addresses.

You will be provided with a series of short epitaphs. Some of the epitaphs contain an address. If you cannot locate a field in template within the address, leave it blank. If there are addresses for both a wife and parents in the text, extract the one that corresponding to the wife. If there are no addresses in the text, return only the above template with all fields blank. Do not include any other text in your response.

Figure 14: ChatGPT Prompt

### B.3 Geocoding covariate balance

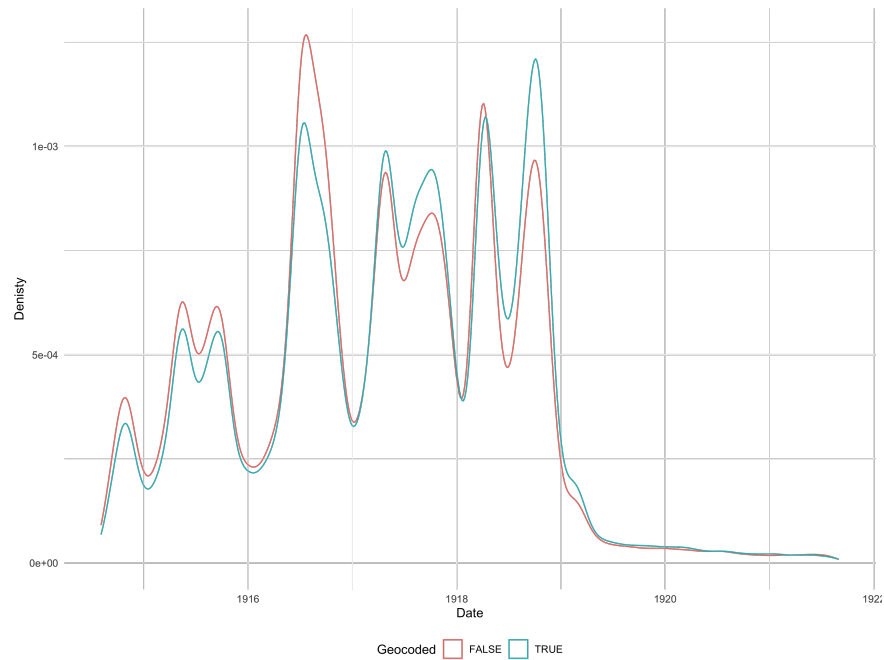


Figure 15: Balance by date of death

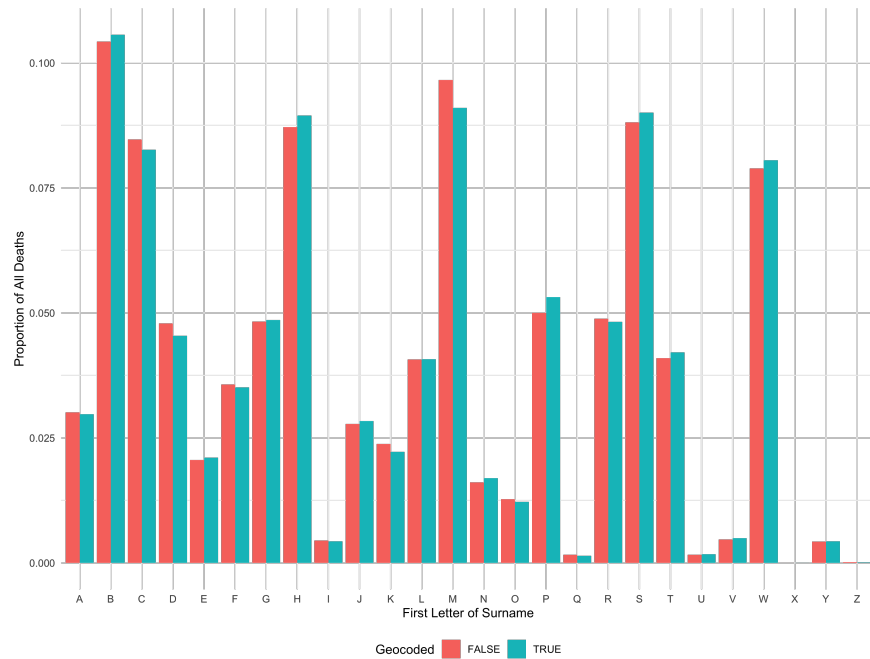


Figure 16: Balance by first letter of surname

Figures 15 and 16 plot the distributions of geocoded and non-geocoded fatality records by date of death and first letter of surname. In both cases the distributions appear similar. Table 8

| Variable        | Geocoded | Non-geocoded |
|-----------------|----------|--------------|
| Average Age     | 26.36    | 28.39        |
| Percent Private | 56       | 61.2         |

Table 8: Balance by age and rank

plots the average age and proportion of soldiers holding the rank of private for geocoded and non-geocoded fatality records. The average values are close, though geocoded soldiers tended to be somewhat younger and less likely to hold the rank of private, indicating that higher-ranked officers may have had better records kept after their death. It is worth noting that non-geocoded soldiers had far more missing data: only 60,882 records of 377,944 (16%) had a recorded value for age at death, though this includes records that had no address information whatsoever. By comparison, 419,216 of 445,260 (94%) geocoded records had age information available.

## B.4 List of left-wing parties

Table 9 lists UK parties I code as being economically left-wing that also had candidates contest a House of Commons constituency in general elections between 1918 and 1935.

| Party/Affiliation                           |
|---|
| British Labour Party                        |
| British Socialist Party                     |
| Co-operative Party                          |
| Communist Party of Great Britain            |
| Highland Land League                        |
| Independent Labour Party                    |
| Independent communist/progressive/socialist |
| National Democratic and Labour Party        |
| National Socialist Party                    |
| Socialist Labour Party                      |

Table 9: UK left-wing parties, 1918-1935

## B.5 Tax legislation coding rules

The table below describes under what conditions “Aye” and “No” votes are considered to indicate support for progressive taxation for each category of taxation.

| Topic        | Aye  | No   |
|--------------|--|--|
| Capital levy | The proposed legislation imposes a capital levy or nationalizes property; or it takes steps to do so   | The proposed legislation limits the ability of the government to nationalize property or impose a capital levy   |
| Customs duty | The proposed legislation reduces the rate of or abolishes an existing tariff   | The proposed legislation imposes a new tariff or increases the rate of an existing tariff  |
| Excise duty  | The proposed legislation reduces the rate of or abolishes an existing non-tariff consumption tax   | The proposed legislation imposes a new non-tariff consumption tax or increases the rate of an existing non-tariff consumption tax  |
| Income tax   | The proposed legislation introduces new tax or modifies existing tax that increases gradation of the income tax (i.e., creates more tax brackets, raises taxes on the rich or lowers them on the poor) | The proposed legislation introduces new tax or modifies existing tax that reduces gradation of the income tax (i.e., collapses tax brackets, lowers taxes on the rich or increases them on the poor) |
| Wealth taxes | The proposed legislation imposes a new tax on capital (i.e., property, securities), increases the rate of an existing tax on capital, or reduces exemptions/increases enforcement of a tax on capital  | The proposed legislation abolishes or reduces the rate of an existing tax capital; or it increases exemptions and/or reduces enforcement of a tax on capital   |

Table 10: Coding rules for tax legislation

## B.6 Example legislation

The following is a clause proposed by James Hudson, MP for Huddersfield, on July 6, 1926. The clause seeks to increase the earned income tax exemption. The text of the clause is

Sub-section (1) of Section fifteen of the Finance Act, 1925 (which makes allowances in respect of earned income), shall have effect as if for the words "one-sixth" there were substituted the words "one-fifth."

The question moved, i.e., the formal statement that MPs must cast a yes-or-no vote on, is "That the Clause be read a Second time." In Westminster-style Parliamentary debate, a second reading of a piece of legislation opens the legislation to debate, allowing other MPs to amend it. If the legislation does not obtain a second reading, it is effectively killed. Thus, because a "No" vote aids the defeat of legislation that would increase the gradation of income tax, an "Aye" vote is coded as being in favor of progressive taxation,

## B.7 Descriptive statistics

| Variable                       | N   | Mean   | Std. Dev. | Min     | Pctl. 25 | Pctl. 75 | Max    |
|--------------------------------|-----|--------|-----------|---------|----------|----------|--------|
| Fatality rate                  | 509 | 6.9    | 3         | 1.3     | 5        | 8.1      | 27     |
| Population                     | 509 | 70814  | 21486     | 16111   | 58676    | 78514    | 188835 |
| Population density             | 509 | 4846   | 7631      | 23      | 155      | 6429     | 54592  |
| Share employed in agriculture  | 509 | 0.063  | 0.072     | 0.0052  | 0.012    | 0.1      | 0.28   |
| Share employed in manual labor | 509 | 0.86   | 0.048     | 0.68    | 0.83     | 0.9      | 0.94   |
| Educators per capita           | 509 | 0.0072 | 0.0022    | 0.00061 | 0.0058   | 0.0086   | 0.015  |
| Share women                    | 509 | 0.52   | 0.025     | 0.41    | 0.5      | 0.53     | 0.62   |
| Unemployed or indigent         | 509 | 211    | 204       | 14      | 82       | 257      | 2126   |
| Average household size         | 509 | 4.5    | 0.31      | 3.8     | 4.3      | 4.7      | 6.3    |
| Average age                    | 509 | 28     | 1.9       | 23      | 27       | 30       | 33     |
| Area                           | 509 | 303    | 462       | 1.2     | 11       | 461      | 3119   |
| Distance from large city       | 509 | 23     | 28        | 0       | 3.3      | 34       | 172    |

Table 11: Constituency descriptive statistics

## B.8 Placebo tests

This appendix details the procedure used to conduct the placebo tests described in Section 4.3 and provides the results in table form. For each prewar demographic/political variable, I estimate the following equation using ordinary least squares

$$fatalityRate_i = \alpha_c + \beta x_i + \epsilon_{ic}$$

where  $fatalityRate_i$  is the conscript fatality rate of constituency  $i$ ,  $\alpha_c$  is an administrative county fixed effect,  $x_i$  is a constituency-level predictor of interest, and  $\epsilon_{ic}$  is an error term. The unit of analysis is a House of Commons parliamentary constituency, using boundaries as they were between 1885 and 1918. Standard errors are clustered at the level of the administrative county. The results are displayed in Table 12. All reported coefficients are standardized.

|                            | DV: Fatality rate (%) |                 |                |                |                 |                  |                |                 |                |                |                |
|----------------------------|-----------------------|-----------------|----------------|----------------|-----------------|------------------|----------------|-----------------|----------------|----------------|----------------|
|                            | Model 1               | Model 2         | Model 3        | Model 4        | Model 5         | Model 6          | Model 7        | Model 8         | Model 9        | Model 10       | Model 11       |
| Conservative vote share    | 0.08<br>(0.10)        |                 |                |                |                 |                  |                |                 |                |                |                |
| LW/Liberal vote share      |                       | -0.07<br>(0.08) |                |                |                 |                  |                |                 |                |                |                |
| Turnout                    |                       |                 | 0.03<br>(0.07) |                |                 |                  |                |                 |                |                |                |
| Average age                |                       |                 |                | 0.16<br>(0.10) |                 |                  |                |                 |                |                |                |
| Average household size     |                       |                 |                |                | -0.01<br>(0.05) |                  |                |                 |                |                |                |
| Log(population density)    |                       |                 |                |                |                 | -0.15*<br>(0.09) |                |                 |                |                |                |
| Share in farming           |                       |                 |                |                |                 |                  | 0.03<br>(0.07) |                 |                |                |                |
| Share in blue collar labor |                       |                 |                |                |                 |                  |                | -0.06<br>(0.10) |                |                |                |
| Share in professions       |                       |                 |                |                |                 |                  |                |                 | 0.06<br>(0.10) |                |                |
| Share unemployed           |                       |                 |                |                |                 |                  |                |                 |                | 0.03<br>(0.06) |                |
| Share women                |                       |                 |                |                |                 |                  |                |                 |                |                | 0.08<br>(0.06) |
| County FEs                 | ✓                     | ✓               | ✓              | ✓              | ✓               | ✓                | ✓              | ✓               | ✓              | ✓              | ✓              |
| Num. clusters:             | 58                    | 62              | 59             | 62             | 62              | 62               | 62             | 62              | 62             | 62             | 62             |
| N                          | 352                   | 468             | 389            | 468            | 468             | 468              | 468            | 468             | 468            | 468            | 468            |
| R <sup>2</sup>             | 0.22                  | 0.21            | 0.19           | 0.22           | 0.21            | 0.22             | 0.21           | 0.21            | 0.21           | 0.21           | 0.21           |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by administrative county.

Table 12: Placebo test table

## C Additional results

### C.1 WWI fatalities and electoral candidates

To test whether local World War I fatalities influenced the number of candidates contesting a House of Commons seat, I estimate the following equation for each general election cycle using ordinary least squares

$$candidates_{ic} = \alpha_c + \beta fatalityRate_i + \delta^T \mathbf{X}_i + \epsilon_{ic}$$

where  $candidates_{ic}$  is the number of candidates contesting constituency  $i$  in county  $c$ ,  $\alpha_c$  is a county fixed effect,  $\mathbf{X}_i$  is a vector of prewar geographic and demographic controls,  $\epsilon_{ic}$  is an error term, and  $fatalityRate_i$  is the percentage of conscripted soldiers from constituency  $i$  that died during the First World War. I include the same set of controls used in the analyses of left-wing vote share and parliamentary voting, as they contain variables that may influence how competitive a seat is. Full tables for results in this section can be found in Appendix D.3.1.

|                   | DV: Number of candidates |                |                |                |                  |                |                |
|-------------------|--------------------------|----------------|----------------|----------------|------------------|----------------|----------------|
|                   | 1918                     | 1922           | 1923           | 1924           | 1929             | 1931           | 1935           |
| Fatality Rate (%) | 0.02<br>(0.02)           | 0.00<br>(0.02) | 0.03<br>(0.02) | 0.01<br>(0.01) | 0.02**<br>(0.01) | 0.01<br>(0.01) | 0.01<br>(0.01) |
| DV Mean           | 2.35                     | 2.42           | 2.43           | 2.40           | 2.91             | 2.17           | 2.27           |
| County FEs        | ✓                        | ✓              | ✓              | ✓              | ✓                | ✓              | ✓              |
| Num. clusters:    | 58                       | 58             | 58             | 58             | 58               | 58             | 58             |
| N                 | 499                      | 497            | 498            | 498            | 498              | 498            | 498            |
| R <sup>2</sup>    | 0.23                     | 0.27           | 0.31           | 0.27           | 0.23             | 0.22           | 0.26           |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by administrative county.

Table 13: Effect of WWI fatalities on number of candidates

Results obtained from estimating these equations are displayed in Table 13. Reported standard errors are clustered at the level of the administrative county. In every general election except that of 1929, a constituency's WWI fatalities do not have a statistically significant effect on the number of candidates choosing to contest that constituency's House of Commons seat. Moreover, in all models, the size of the effect is tiny. Even in 1929, a one percentage point increase in a constituency's fatality rate is associated with an only a 0.02 increase in the number of candidates contesting an election, compared to a mean value of 2.91 candidates. Moving from the minimum fatality rate (1.3%) to the maximum (26.9%) is associated with a 0.56 increase in the number of candidates. The small size of these effects and their general lack of statistical significance provides strong evidence that WWI fatalities do not have an effect on the number of candidates contesting a constituency. Consequently, I treat the number of candidates as similar to a pre-treatment control that does not bias estimates of the effect of WWI fatalities on the vote share received by left-wing candidates.

## C.2 Conditioning on 1910 left-wing vote share

In this section, I reanalyze the effect of war fatalities on left-wing vote share while conditioning for 1910 left-wing vote share rather than 1910 Conservative vote share. Note that because Labour and other economically leftist parties were less prominent before the war, this approach limits the conclusions to those constituencies that left-wing parties regarded as competitive enough to be worth contesting. The overall results are similar, while the election-level results have larger point estimates in most cases, suggesting that war fatalities had a greater effect in constituencies where Labor was already established prior to the war. Full tables for results in this section can be found in Appendix D.3.2.

|                            | DV: Left-wing vote share (%) |                  |                 |                 |                 |                 |
|----------------------------|------------------------------|------------------|-----------------|-----------------|-----------------|-----------------|
|                            | Model 1                      | Model 2          | Model 3         | Model 4         | Model 5         | Model 6         |
| Fatality Rate (%)          | 0.38*<br>(0.20)              | 0.47**<br>(0.21) | 0.35*<br>(0.21) | 0.37*<br>(0.21) | 0.39*<br>(0.22) | 0.68*<br>(0.35) |
| Mean LW Share (%)          | 37.32                        | 36.79            | 36.79           | 36.79           | 36.79           | 36.79           |
| Avg. margin of victory (%) | 21.02                        | 21.02            | 21.02           | 21.02           | 21.02           | 21.02           |
| Controls                   | -                            | ✓                | ✓               | ✓               | ✓               | ✓               |
| County FEs                 | -                            | -                | ✓               | ✓               | -               | ✓               |
| Election FEs               | -                            | -                | -               | ✓               | -               | ✓               |
| County × Election FEs      | -                            | -                | -               | -               | ✓               | -               |
| Constituency trend         | -                            | -                | -               | -               | -               | ✓               |
| Num. clusters:             | 503                          | 237              | 237             | 237             | 237             | 237             |
| N                          | 2886                         | 1428             | 1428            | 1428            | 1428            | 1428            |
| R <sup>2</sup>             | 0.01                         | 0.47             | 0.53            | 0.62            | 0.66            | 0.81            |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by constituency.

Table 14: Effect of WWI fatalities on left-wing vote share (1910 left-wing)

|                            | DV: Left-wing vote share (%) |                 |                   |                |                |                |                 |
|----------------------------|------------------------------|-----------------|-------------------|----------------|----------------|----------------|-----------------|
|                            | 1918                         | 1922            | 1923              | 1924           | 1929           | 1931           | 1935            |
| Fatality Rate (%)          | 0.62***<br>(0.22)            | 0.45*<br>(0.23) | 1.11***<br>(0.28) | 0.35<br>(0.28) | 0.16<br>(0.20) | 0.12<br>(0.17) | 0.39*<br>(0.21) |
| Mean LW Share (%)          | 31.92                        | 38.30           | 40.19             | 37.35          | 38.69          | 33.09          | 40.83           |
| Avg. margin of victory (%) | 28.38                        | 16.10           | 12.87             | 18.62          | 16.20          | 32.45          | 22.53           |
| County FEs                 | ✓                            | ✓               | ✓                 | ✓              | ✓              | ✓              | ✓               |
| Num. clusters:             | 22                           | 24              | 22                | 25             | 25             | 25             | 27              |
| N                          | 172                          | 193             | 189               | 205            | 233            | 217            | 219             |
| R <sup>2</sup>             | 0.45                         | 0.69            | 0.69              | 0.71           | 0.74           | 0.74           | 0.72            |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by administrative county.

Table 15: Effect of WWI fatalities on left-wing vote share by election (1910 left-wing)



### C.3 Left-wing electoral margin

In this section, I test whether the results linking WWI fatalities to left-wing support are robust to an alternative measure of left-wing electoral success: margin of victory/loss. I define the left-wing margin as difference in constituency vote share received by a left-wing candidate and either the runner-up candidate or the victor (if a non-left-wing candidate won).

$$\text{Left-wing margin} = \begin{cases} \frac{\text{Left-wing votes} - \text{Runner-up votes}}{\text{Turnout}} \times 100 & \text{Left-wing winner} \\ \frac{\text{Left-wing votes} - \text{Winner votes}}{\text{Turnout}} \times 100 & \text{Non-left-wing winner} \end{cases}$$

To examine how war fatalities influenced left-wing margin, I estimate the following via OLS

$$\text{leftwingMargin}_{ice} = \alpha \text{fatalityRate}_i + \beta \text{candidates}_{ie} + \gamma^T \mathbf{X}_i + \delta_c + \nu_e + \epsilon_{ice}$$

where  $\text{leftwingMargin}_{ice}$  is the electoral margin, as defined above, of the left-wing candidate(s) in constituency  $i$  in county  $c$  during election  $e$ . I include the same set of controls used in the analyses of left-wing vote share and parliamentary voting, save for the number of candidates. Full tables for results in this section can be found in Appendix D.3.3. The estimated effects of war fatalities are nearly identical in size and significance to those on vote share.

|                            | DV: Left-wing electoral margin (%) |                   |                  |                   |                  |                  |
|----------------------------|------------------------------------|-------------------|------------------|-------------------|------------------|------------------|
|                            | Model 1                            | Model 2           | Model 3          | Model 4           | Model 5          | Model 6          |
| Fatality Rate (%)          | 0.33<br>(0.36)                     | 0.70***<br>(0.24) | 0.59**<br>(0.26) | 0.69***<br>(0.26) | 0.66**<br>(0.28) | 0.67**<br>(0.34) |
| Mean LW Margin (%)         | -13.19                             | -13.03            | -13.03           | -13.03            | -13.03           | -13.03           |
| Avg. margin of victory (%) | 21.02                              | 21.02             | 21.02            | 21.02             | 21.02            | 21.02            |
| Controls                   | -                                  | ✓                 | ✓                | ✓                 | ✓                | ✓                |
| County FEs                 | -                                  | -                 | ✓                | ✓                 | -                | ✓                |
| Election FEs               | -                                  | -                 | -                | ✓                 | -                | ✓                |
| County × Election FEs      | -                                  | -                 | -                | -                 | ✓                | -                |
| Constituency trend         | -                                  | -                 | -                | -                 | -                | ✓                |
| Num. clusters:             | 503                                | 493               | 493              | 493               | 493              | 493              |
| N                          | 2953                               | 2899              | 2899             | 2899              | 2899             | 2899             |
| R <sup>2</sup>             | 0.00                               | 0.46              | 0.52             | 0.64              | 0.68             | 0.83             |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by constituency.

Table 16: Effect of WWI fatalities on left-wing electoral margin

|                            | DV: Left-wing electoral margin (%) |                 |                   |                |                   |                |                 |
|----------------------------|------------------------------------|-----------------|-------------------|----------------|-------------------|----------------|-----------------|
|                            | 1918                               | 1922            | 1923              | 1924           | 1929              | 1931           | 1935            |
| Fatality Rate (%)          | 0.43<br>(0.30)                     | 0.51*<br>(0.30) | 1.12***<br>(0.40) | 0.65<br>(0.42) | 0.90***<br>(0.33) | 0.32<br>(0.27) | 0.65*<br>(0.32) |
| Mean LW Margin (%)         | -24.26                             | -9.36           | -3.19             | -14.18         | -0.87             | -29.24         | -13.00          |
| Avg. margin of victory (%) | 28.38                              | 16.10           | 12.87             | 18.62          | 16.20             | 32.45          | 22.53           |
| County FEs                 | ✓                                  | ✓               | ✓                 | ✓              | ✓                 | ✓              | ✓               |
| Num. clusters:             | 47                                 | 54              | 51                | 54             | 57                | 53             | 56              |
| N                          | 335                                | 363             | 373               | 432            | 491               | 444            | 461             |
| R <sup>2</sup>             | 0.45                               | 0.62            | 0.55              | 0.70           | 0.67              | 0.77           | 0.74            |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by administrative county.

Table 17: Effect of WWI fatalities on left-wing electoral margin by election

## C.4 Conservative vote share

To examine the effect of local war fatalities on Conservative vote share, I estimate the following equation using ordinary least squares

$$conShare_{ice} = \alpha fatalityRate_i + \beta candidates_{ie} + \gamma^T \mathbf{X}_i + \delta_c + \nu_e + \epsilon_{ice}$$

where  $conShare_{ice}$  is the share of the vote received by a Conservative Party candidate contesting constituency  $i$  in county  $c$  during election  $e$ , with the rest of the specification identical to that of Equation 3 for left-wing share. Table 18 displays the results for the entirety of the interwar period, while Table 19 decomposes the effect by election. Full tables for results in this section can be found in Appendix D.3.4. In both cases, there is no evidence that war fatalities increased or decreased the share of the vote received by Conservatives.

|                            | DV: Conservative vote share (%) |                |                |                |                |                 |
|----------------------------|---------------------------------|----------------|----------------|----------------|----------------|-----------------|
|                            | Model 1                         | Model 2        | Model 3        | Model 4        | Model 5        | Model 6         |
| Fatality Rate (%)          | 0.08<br>(0.18)                  | 0.17<br>(0.14) | 0.12<br>(0.15) | 0.10<br>(0.14) | 0.09<br>(0.14) | -0.14<br>(0.20) |
| Mean Con. Share (%)        | 50.62                           | 50.56          | 50.56          | 50.56          | 50.56          | 50.56           |
| Avg. margin of victory (%) | 21.02                           | 21.02          | 21.02          | 21.02          | 21.02          | 21.02           |
| Controls                   | -                               | ✓              | ✓              | ✓              | ✓              | ✓               |
| County FEs                 | -                               | -              | ✓              | ✓              | ✓              | ✓               |
| Election FEs               | -                               | -              | -              | ✓              | ✓              | ✓               |
| County × Election FEs      | -                               | -              | -              | -              | ✓              | -               |
| Constituency trend         | -                               | -              | -              | -              | -              | ✓               |
| Num. clusters:             | 508                             | 498            | 498            | 498            | 498            | 498             |
| N                          | 2877                            | 2823           | 2823           | 2823           | 2823           | 2823            |
| R <sup>2</sup>             | 0.00                            | 0.47           | 0.54           | 0.71           | 0.75           | 0.86            |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by constituency.

Table 18: Effect of WWI fatalities on Conservative vote share

|                            | DV: Conservative vote share (%) |                 |                |                |                |                |                |
|----------------------------|---------------------------------|-----------------|----------------|----------------|----------------|----------------|----------------|
|                            | 1918                            | 1922            | 1923           | 1924           | 1929           | 1931           | 1935           |
| Fatality Rate (%)          | -0.12<br>(0.18)                 | -0.07<br>(0.21) | 0.02<br>(0.21) | 0.18<br>(0.19) | 0.09<br>(0.22) | 0.31<br>(0.29) | 0.08<br>(0.24) |
| Mean Con. Share (%)        | 57.46                           | 48.93           | 43.14          | 52.22          | 39.19          | 62.88          | 54.41          |
| Avg. margin of victory (%) | 28.38                           | 16.10           | 12.87          | 18.62          | 16.20          | 32.45          | 22.53          |
| County FEs                 | ✓                               | ✓               | ✓              | ✓              | ✓              | ✓              | ✓              |
| Num. clusters:             | 47                              | 51              | 53             | 54             | 58             | 50             | 52             |
| N                          | 307                             | 381             | 423            | 428            | 482            | 393            | 409            |
| R <sup>2</sup>             | 0.61                            | 0.64            | 0.59           | 0.68           | 0.73           | 0.72           | 0.71           |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by administrative county.

Table 19: Effect of WWI fatalities on Conservative vote share by election

## C.5 Liberal vote share

To examine the effect of local war fatalities on Liberal vote share, I estimate the following equation using ordinary least squares

$$libShare_{ice} = \alpha fatalityRate_i + \beta candidates_{ie} + \gamma^T \mathbf{X}_i + \delta_c + \nu_e + \epsilon_{ice}$$

where  $libShare_{ice}$  is the share of the vote received by a Liberal Party candidate contesting constituency  $i$  in county  $c$  during election  $e$ , with the rest of the specification identical to that of Equation 3 for left-wing share. Table 20 displays the results for the entirety of the interwar period, while Table 21 decomposes the effect by election. Full tables for results in this section can be found in Appendix D.3.5. The pooled results show there is no statistically detectable effect of fatalities on Liberal vote share. However, this appears to be due to significant heterogeneity in the effect over time.

|                            | DV: Liberal vote share (%) |                 |                |                |                |                 |
|----------------------------|----------------------------|-----------------|----------------|----------------|----------------|-----------------|
|                            | Model 1                    | Model 2         | Model 3        | Model 4        | Model 5        | Model 6         |
| Fatality Rate (%)          | 0.10<br>(0.15)             | -0.14<br>(0.16) | 0.09<br>(0.17) | 0.02<br>(0.17) | 0.00<br>(0.18) | 0.57*<br>(0.31) |
| Mean Lib. Share (%)        | 31.29                      | 30.83           | 30.83          | 30.83          | 30.83          | 30.83           |
| Avg. margin of victory (%) | 21.02                      | 21.02           | 21.02          | 21.02          | 21.02          | 21.02           |
| Controls                   | -                          | ✓               | ✓              | ✓              | ✓              | ✓               |
| County FEs                 | -                          | -               | ✓              | ✓              | ✓              | ✓               |
| Election FEs               | -                          | -               | -              | ✓              | ✓              | ✓               |
| County × Election FEs      | -                          | -               | -              | -              | ✓              | -               |
| Constituency trend         | -                          | -               | -              | -              | -              | ✓               |
| Num. clusters:             | 488                        | 479             | 479            | 479            | 479            | 479             |
| N                          | 1883                       | 1853            | 1853           | 1853           | 1853           | 1853            |
| R <sup>2</sup>             | 0.00                       | 0.37            | 0.43           | 0.50           | 0.60           | 0.78            |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by constituency.

Table 20: Effect of WWI fatalities on Liberal vote share

Observe that in 1931 and 1935, a one percentage point increase a constituency's conscript fatality rate is associated with a greater than one percentage point decline in Liberal vote share.

|                            | DV: Liberal vote share (%) |                |                |                 |                 |                   |                   |
|----------------------------|----------------------------|----------------|----------------|-----------------|-----------------|-------------------|-------------------|
|                            | 1918                       | 1922           | 1923           | 1924            | 1929            | 1931              | 1935              |
| Fatality Rate (%)          | 0.47<br>(0.34)             | 0.13<br>(0.21) | 0.27<br>(0.30) | -0.17<br>(0.40) | -0.22<br>(0.21) | -1.76**<br>(0.78) | -1.27**<br>(0.60) |
| Mean Lib. Share (%)        | 27.57                      | 32.69          | 37.74          | 30.95           | 27.77           | 36.68             | 25.42             |
| Avg. margin of victory (%) | 28.38                      | 16.10          | 12.87          | 18.62           | 16.20           | 32.45             | 22.53             |
| County FEs                 | ✓                          | ✓              | ✓              | ✓               | ✓               | ✓                 | ✓                 |
| Num. clusters:             | 45                         | 50             | 54             | 55              | 58              | 41                | 46                |
| N                          | 236                        | 272            | 372            | 289             | 443             | 98                | 143               |
| R <sup>2</sup>             | 0.53                       | 0.64           | 0.58           | 0.63            | 0.48            | 0.74              | 0.77              |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by administrative county.

Table 21: Effect of WWI fatalities on Liberal vote share by election

## D Full tables

### D.1 Electoral outcomes

This appendix contains full versions of tables reported in Section 5.2.

|                                  | DV: Left-wing vote share (%) |                     |                    |                    |                    |                    |
|----------------------------------|------------------------------|---------------------|--------------------|--------------------|--------------------|--------------------|
|                                  | Model 1                      | Model 2             | Model 3            | Model 4            | Model 5            | Model 6            |
| Fatality Rate (%)                | 0.38*<br>(0.20)              | 0.49***<br>(0.13)   | 0.37**<br>(0.15)   | 0.39**<br>(0.15)   | 0.36**<br>(0.16)   | 0.45**<br>(0.22)   |
| 1910 Con. Vote Share (%)         |                              | -0.08***<br>(0.03)  | -0.11***<br>(0.03) | -0.11***<br>(0.03) | -0.11***<br>(0.03) | -0.11***<br>(0.04) |
| Num. Candidates                  |                              | -6.70***<br>(0.48)  | -6.05***<br>(0.46) | -7.17***<br>(0.54) | -6.88***<br>(0.60) | -6.68***<br>(0.41) |
| Log(Pop. Density)                |                              | 1.22**<br>(0.59)    | 1.00*<br>(0.60)    | 0.96<br>(0.60)     | 0.89<br>(0.64)     | 0.69<br>(0.92)     |
| Log(Population)                  |                              | 1.74<br>(1.55)      | 2.05<br>(1.67)     | 2.57<br>(1.73)     | 2.34<br>(1.85)     | 3.67<br>(2.31)     |
| Avg. Age                         |                              | -3.89***<br>(0.49)  | -3.69***<br>(0.49) | -3.71***<br>(0.51) | -3.71***<br>(0.55) | -1.68*<br>(0.89)   |
| Avg. Household Size              |                              | -8.76***<br>(2.00)  | -6.53***<br>(2.04) | -7.28***<br>(2.09) | -7.09***<br>(2.19) | -0.50<br>(3.25)    |
| Share Women (%)                  |                              | -0.44<br>(0.33)     | -0.58*<br>(0.31)   | -0.58*<br>(0.32)   | -0.61*<br>(0.34)   | -0.72<br>(0.45)    |
| Educators per capita             |                              | -481.59<br>(380.86) | 197.25<br>(383.12) | 121.18<br>(380.56) | 140.85<br>(403.86) | -97.68<br>(629.94) |
| Share unemployed or indigent (%) |                              | 1.29*<br>(0.76)     | 1.80***<br>(0.69)  | 1.87***<br>(0.71)  | 1.82**<br>(0.75)   | -0.16<br>(1.24)    |
| Share in blue collar labor (%)   |                              | 0.57***<br>(0.17)   | 0.91***<br>(0.21)  | 0.88***<br>(0.21)  | 0.89***<br>(0.23)  | 0.72**<br>(0.34)   |
| Share in farming (%)             |                              | -0.59***<br>(0.15)  | -0.59***<br>(0.17) | -0.64***<br>(0.18) | -0.59***<br>(0.19) | -0.05<br>(0.25)    |
| Log(Dist. from large city)       |                              | 1.27***<br>(0.38)   | 0.50<br>(0.47)     | 0.65<br>(0.48)     | 0.56<br>(0.51)     | -0.13<br>(0.76)    |
| Area (km <sup>2</sup> )          |                              | 0.00**<br>(0.00)    | 0.00<br>(0.00)     | 0.00<br>(0.00)     | 0.00<br>(0.00)     | -0.00<br>(0.00)    |
| Mean LW Share (%)                | 37.32                        | 36.79               | 36.79              | 36.79              | 36.79              | 36.79              |
| Avg. margin of victory (%)       | 21.02                        | 21.02               | 21.02              | 21.02              | 21.02              | 21.02              |
| Controls                         | -                            | ✓                   | ✓                  | ✓                  | ✓                  | ✓                  |
| County FEs                       | -                            | -                   | ✓                  | ✓                  | ✓                  | ✓                  |
| Election FEs                     | -                            | -                   | -                  | ✓                  | ✓                  | ✓                  |
| County × Election FEs            | -                            | -                   | -                  | -                  | ✓                  | -                  |
| Constituency trend               | -                            | -                   | -                  | -                  | -                  | ✓                  |
| Num. clusters                    | 503                          | 493                 | 493                | 493                | 493                | 493                |
| N                                | 2886                         | 2832                | 2832               | 2832               | 2832               | 2832               |
| R <sup>2</sup>                   | 0.01                         | 0.52                | 0.59               | 0.65               | 0.70               | 0.84               |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by constituency.

Table 22: Full table for effect of WWI fatalities on left-wing vote share

|                                  | DV: Left-wing vote share (%) |                    |                      |                     |                    |                      |                     |
|----------------------------------|------------------------------|--------------------|----------------------|---------------------|--------------------|----------------------|---------------------|
|                                  | 1918                         | 1922               | 1923                 | 1924                | 1929               | 1931                 | 1935                |
| Fatality Rate (%)                | 0.36**<br>(0.16)             | 0.34**<br>(0.16)   | 0.66***<br>(0.23)    | 0.32<br>(0.24)      | 0.43**<br>(0.18)   | 0.15<br>(0.13)       | 0.33**<br>(0.16)    |
| 1910 Con. Vote Share (%)         | -0.13**<br>(0.05)            | -0.12***<br>(0.04) | -0.12*<br>(0.06)     | -0.11***<br>(0.04)  | -0.09**<br>(0.04)  | -0.12***<br>(0.04)   | -0.14***<br>(0.05)  |
| Num. Candidates                  | -4.30***<br>(1.08)           | -8.06***<br>(0.75) | -11.46***<br>(1.30)  | -8.93***<br>(1.23)  | -5.67***<br>(1.04) | -3.44***<br>(0.71)   | -5.73***<br>(1.08)  |
| Log(Pop. Density)                | -0.30<br>(0.88)              | 2.02***<br>(0.65)  | 1.03<br>(0.99)       | 1.63*<br>(0.94)     | 1.48*<br>(0.81)    | 0.94<br>(0.78)       | 0.17<br>(0.95)      |
| Log(Population)                  | 1.71<br>(1.96)               | 3.62<br>(2.56)     | 9.94**<br>(4.00)     | 1.01<br>(2.80)      | 1.33<br>(2.35)     | 0.84<br>(1.85)       | 0.98<br>(2.33)      |
| Avg. Age                         | -2.11**<br>(0.88)            | -2.20***<br>(0.80) | -1.98**<br>(0.87)    | -3.60***<br>(0.48)  | -4.31***<br>(0.48) | -3.66***<br>(0.60)   | -5.63***<br>(0.41)  |
| Avg. Household Size              | -1.41<br>(3.10)              | -3.59<br>(2.91)    | 0.01<br>(2.75)       | -8.56***<br>(2.11)  | -9.94***<br>(2.25) | -6.44**<br>(2.56)    | -11.52***<br>(2.11) |
| Share Women (%)                  | -0.50<br>(0.39)              | -0.87**<br>(0.40)  | -0.89**<br>(0.37)    | -0.37<br>(0.31)     | -0.79**<br>(0.34)  | -0.88**<br>(0.42)    | -0.24<br>(0.40)     |
| Educators per capita             | 619.57<br>(864.16)           | 261.67<br>(808.30) | -555.90<br>(1081.65) | -103.16<br>(550.59) | 48.52<br>(652.17)  | 879.14**<br>(408.86) | 187.68<br>(451.79)  |
| Share unemployed or indigent (%) | 0.62<br>(0.65)               | 1.16<br>(1.32)     | -0.40<br>(1.26)      | 2.42***<br>(0.77)   | 1.81*<br>(1.08)    | 2.39**<br>(1.08)     | 3.25***<br>(0.81)   |
| Share in blue collar labor (%)   | 0.77**<br>(0.32)             | 1.07***<br>(0.27)  | 0.35<br>(0.47)       | 0.94***<br>(0.27)   | 1.02***<br>(0.22)  | 1.27***<br>(0.18)    | 0.70***<br>(0.26)   |
| Share in farming (%)             | -0.43<br>(0.31)              | -0.06<br>(0.16)    | -0.24<br>(0.31)      | -0.47**<br>(0.23)   | -0.85***<br>(0.22) | -0.99***<br>(0.20)   | -0.88***<br>(0.24)  |
| Log(Dist. from large city)       | 0.69<br>(0.71)               | 0.06<br>(0.75)     | -0.10<br>(0.93)      | 0.25<br>(0.72)      | 0.31<br>(0.70)     | 0.51<br>(0.51)       | 2.04***<br>(0.62)   |
| Area (km <sup>2</sup> )          | 0.00<br>(0.00)               | -0.00<br>(0.00)    | -0.00<br>(0.00)      | 0.00<br>(0.00)      | 0.00<br>(0.00)     | 0.00**<br>(0.00)     | 0.00*<br>(0.00)     |
| DV Mean                          | 31.92                        | 38.30              | 40.19                | 37.35               | 38.69              | 33.09                | 40.83               |
| County FEs                       | ✓                            | ✓                  | ✓                    | ✓                   | ✓                  | ✓                    | ✓                   |
| Num. clusters:                   | 47                           | 54                 | 51                   | 54                  | 57                 | 53                   | 56                  |
| N                                | 327                          | 354                | 363                  | 422                 | 481                | 434                  | 451                 |
| R <sup>2</sup>                   | 0.46                         | 0.69               | 0.69                 | 0.74                | 0.78               | 0.75                 | 0.76                |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by administrative county.

Table 23: Full table for effect of WWI fatalities on left-wing vote share by election

## D.2 Parliamentary voting

This appendix contains full versions of tables reported in Section 5.4.

|                                  | DV: Num. pro-progressive tax votes |                  |                  |                   |                    |
|----------------------------------|------------------------------------|------------------|------------------|-------------------|--------------------|
|                                  | Model 1                            | Model 2          | Model 3          | Model 4           | Model 5            |
| Fatality Rate (%)                | 0.05**<br>(0.02)                   | 0.05**<br>(0.02) | 0.04**<br>(0.02) | 0.07***<br>(0.02) | 0.06**<br>(0.02)   |
| 1910 Con. Vote Share (%)         |                                    |                  |                  | −0.00<br>(0.00)   | −0.00<br>(0.00)    |
| Log(Pop. Density)                |                                    |                  |                  | −0.04<br>(0.10)   | −0.03<br>(0.09)    |
| Log(Population)                  |                                    |                  |                  | 0.21<br>(0.24)    | 0.22<br>(0.21)     |
| Avg. Age                         |                                    |                  |                  | −0.12<br>(0.08)   | −0.13**<br>(0.07)  |
| Avg. Household Size              |                                    |                  |                  | −0.62**<br>(0.29) | −0.66***<br>(0.23) |
| Share Women (%)                  |                                    |                  |                  | 0.03<br>(0.04)    | 0.00<br>(0.04)     |
| Educators per capita             |                                    |                  |                  | −64.41<br>(57.55) | −41.53<br>(54.74)  |
| Share unemployed or indigent (%) |                                    |                  |                  | 0.04<br>(0.17)    | 0.17<br>(0.13)     |
| Share in blue collar labor (%)   |                                    |                  |                  | 0.03<br>(0.03)    | 0.02<br>(0.03)     |
| Share in farming (%)             |                                    |                  |                  | 0.01<br>(0.02)    | 0.01<br>(0.02)     |
| Log(Dist. from large city)       |                                    |                  |                  | 0.03<br>(0.08)    | 0.04<br>(0.07)     |
| Area (km <sup>2</sup> )          |                                    |                  |                  | −0.00<br>(0.00)   | −0.00<br>(0.00)    |
| DV Mean:                         | 4.67                               | 4.69             | 4.69             | 4.69              | 4.69               |
| Controls                         | -                                  | -                | -                | ✓                 | ✓                  |
| Party FEs                        | ✓                                  | ✓                | ✓                | ✓                 | -                  |
| Year FEs                         | -                                  | ✓                | ✓                | ✓                 | -                  |
| County FEs                       | -                                  | -                | ✓                | ✓                 | ✓                  |
| Party × Year FEs                 | -                                  | -                | -                | -                 | ✓                  |
| Num. clusters:                   | 508                                | 508              | 508              | 498               | 498                |
| N                                | 9045                               | 9045             | 9045             | 8866              | 8866               |
| R <sup>2</sup>                   | 0.49                               | 0.62             | 0.63             | 0.63              | 0.84               |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by constituency reported in parentheses.

Table 24: Full table for effect of WWI fatalities on parliamentary voting

|                                  | DV: Num. pro-progressive tax votes |                    |                   |                     |                   |                   |
|----------------------------------|------------------------------------|--------------------|-------------------|---------------------|-------------------|-------------------|
|                                  | 1918-1922                          | 1922-1923          | 1923-1924         | 1924-1929           | 1929-1931         | 1931-1935         |
| Fatality Rate (%)                | 0.10**<br>(0.05)                   | 0.12*<br>(0.06)    | 0.05<br>(0.03)    | 0.09<br>(0.07)      | 0.14**<br>(0.06)  | −0.01<br>(0.02)   |
| 1910 Con. Vote Share (%)         | −0.00<br>(0.01)                    | 0.02<br>(0.01)     | 0.00<br>(0.01)    | −0.01<br>(0.01)     | −0.01<br>(0.01)   | −0.01*<br>(0.00)  |
| Log(Pop. Density)                | −0.00<br>(0.15)                    | 0.14<br>(0.27)     | −0.04<br>(0.22)   | −0.23<br>(0.30)     | 0.23<br>(0.22)    | −0.11<br>(0.09)   |
| Log(Population)                  | 0.37<br>(0.43)                     | −0.24<br>(0.58)    | 0.76**<br>(0.31)  | −0.10<br>(0.44)     | 1.11<br>(0.75)    | −0.01<br>(0.18)   |
| Avg. Age                         | −0.09<br>(0.11)                    | −0.48**<br>(0.19)  | 0.10<br>(0.15)    | −0.36*<br>(0.21)    | −0.15<br>(0.16)   | −0.06<br>(0.07)   |
| Avg. Household Size              | −0.07<br>(0.46)                    | −1.52**<br>(0.73)  | 0.13<br>(0.51)    | −1.91***<br>(0.69)  | −0.41<br>(0.46)   | 0.29<br>(0.20)    |
| Share Women (%)                  | −0.10<br>(0.07)                    | 0.21*<br>(0.11)    | −0.05<br>(0.11)   | 0.06<br>(0.13)      | 0.04<br>(0.08)    | 0.03<br>(0.04)    |
| Educators per capita             | 142.52<br>(98.70)                  | −88.95<br>(137.95) | −91.95<br>(83.61) | −149.62<br>(135.63) | 11.71<br>(115.85) | −79.30<br>(49.96) |
| Share unemployed or indigent (%) | 0.23<br>(0.29)                     | 0.72<br>(0.45)     | 0.00<br>(0.23)    | 0.23<br>(0.24)      | 0.25<br>(0.23)    | 0.00<br>(0.13)    |
| Share in blue collar labor (%)   | 0.12**<br>(0.05)                   | 0.00<br>(0.07)     | −0.04<br>(0.05)   | 0.07<br>(0.09)      | 0.01<br>(0.07)    | −0.01<br>(0.02)   |
| Share in farming (%)             | −0.05<br>(0.05)                    | 0.05<br>(0.06)     | 0.00<br>(0.06)    | 0.02<br>(0.05)      | 0.03<br>(0.04)    | −0.00<br>(0.02)   |
| Log(Dist. from large city)       | −0.10<br>(0.11)                    | 0.17<br>(0.22)     | 0.02<br>(0.14)    | −0.01<br>(0.22)     | 0.29*<br>(0.17)   | 0.04<br>(0.06)    |
| Area (km <sup>2</sup> )          | −0.00<br>(0.00)                    | −0.00<br>(0.00)    | 0.00<br>(0.00)    | −0.00<br>(0.00)     | 0.00<br>(0.00)    | −0.00<br>(0.00)   |
| DV Mean:                         | 3.47                               | 7.31               | 5.24              | 7.58                | 6.36              | 1.92              |
| Party FEs                        | ✓                                  | ✓                  | ✓                 | ✓                   | ✓                 | ✓                 |
| Year FEs                         | ✓                                  | ✓                  | ✓                 | ✓                   | ✓                 | ✓                 |
| County FEs                       | ✓                                  | ✓                  | ✓                 | ✓                   | ✓                 | ✓                 |
| No. clusters:                    | 57                                 | 58                 | 58                | 58                  | 58                | 58                |
| N                                | 1887                               | 493                | 499               | 1974                | 1460              | 2344              |
| R <sup>2</sup>                   | 0.68                               | 0.84               | 0.61              | 0.74                | 0.71              | 0.68              |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by constituency.

Table 25: Full table for effect of WWI fatalities on parliamentary voting by session

|                                | DV: Num. pro-progressive tax votes |                    |                     |
|--------------------------------|------------------------------------|--------------------|---------------------|
|                                | Conservative                       | Labour             | Liberal             |
| Fatality Rate (%)              | 0.03***<br>(0.01)                  | 0.10<br>(0.09)     | 0.02<br>(0.25)      |
| 1910 Con. Vote Share (%)       | -0.00<br>(0.00)                    | -0.00<br>(0.02)    | -0.05<br>(0.05)     |
| Log(Pop. Density)              | 0.05**<br>(0.02)                   | -0.22<br>(0.38)    | -0.05<br>(0.93)     |
| Log(Population)                | 0.21***<br>(0.06)                  | 0.80<br>(0.76)     | -1.31<br>(1.87)     |
| Avg. Age                       | -0.01<br>(0.02)                    | -0.93**<br>(0.37)  | -0.71<br>(0.85)     |
| Avg. Household Size            | -0.01<br>(0.07)                    | -4.49***<br>(1.51) | -1.15<br>(3.12)     |
| Share Women (%)                | -0.01<br>(0.01)                    | 0.12<br>(0.24)     | -0.17<br>(0.52)     |
| Educators per capita           | -0.06<br>(13.50)                   | 116.38<br>(237.00) | -299.45<br>(578.26) |
| Log(unemployment)              | -0.06*<br>(0.04)                   | 0.94**<br>(0.40)   | 0.87<br>(1.73)      |
| Share in blue collar labor (%) | 0.00<br>(0.01)                     | -0.02<br>(0.13)    | -0.10<br>(0.32)     |
| Share in farming (%)           | -0.00<br>(0.01)                    | 0.15<br>(0.16)     | -0.06<br>(0.24)     |
| Log(Dist. from large city)     | 0.04*<br>(0.02)                    | 0.10<br>(0.34)     | -0.27<br>(0.49)     |
| Area (km <sup>2</sup> )        | 0.00<br>(0.00)                     | -0.00<br>(0.00)    | 0.00<br>(0.00)      |
| DV Mean:                       | 0.67                               | 15.07              | 8.68                |
| County $\times$ Year FEs       | ✓                                  | ✓                  | ✓                   |
| No. clusters:                  | 416                                | 250                | 171                 |
| N                              | 4492                               | 1918               | 649                 |
| R <sup>2</sup>                 | 0.64                               | 0.80               | 0.84                |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by constituency.

Table 26: Full table of effect of WWI fatalities on parliamentary voting by party



|                                  | DV: Num. pro-progressive tax votes |                   |                 |                 |                   |
|----------------------------------|------------------------------------|-------------------|-----------------|-----------------|-------------------|
|                                  | Income tax                         | Wealth tax        | Capital levy    | Excise duty     | Customs duty      |
| Fatality Rate (%)                | 0.01<br>(0.01)                     | 0.04***<br>(0.01) | 0.00<br>(0.00)  | 0.01<br>(0.01)  | 0.02<br>(0.01)    |
| 1910 Con. Vote Share (%)         | -0.00<br>(0.00)                    | -0.00<br>(0.00)   | -0.00<br>(0.00) | -0.00<br>(0.00) | -0.00<br>(0.00)   |
| Log(Pop. Density)                | 0.01<br>(0.03)                     | 0.06<br>(0.05)    | 0.00<br>(0.01)  | 0.02<br>(0.02)  | -0.05<br>(0.05)   |
| Log(Population)                  | 0.01<br>(0.07)                     | 0.34***<br>(0.11) | -0.01<br>(0.02) | 0.08*<br>(0.05) | 0.01<br>(0.12)    |
| Avg. Age                         | -0.06**<br>(0.02)                  | -0.06*<br>(0.03)  | -0.01<br>(0.01) | -0.01<br>(0.01) | -0.07<br>(0.04)   |
| Avg. Household Size              | -0.18**<br>(0.08)                  | -0.15<br>(0.13)   | -0.02<br>(0.02) | -0.10<br>(0.06) | -0.31**<br>(0.14) |
| Share Women (%)                  | 0.00<br>(0.01)                     | -0.01<br>(0.02)   | 0.00<br>(0.00)  | -0.01<br>(0.01) | 0.01<br>(0.02)    |
| Educators per capita             | 12.30<br>(18.46)                   | 15.77<br>(23.71)  | -0.08<br>(5.27) | 0.75<br>(11.03) | -36.38<br>(30.96) |
| Share unemployed or indigent (%) | 0.03<br>(0.04)                     | 0.10*<br>(0.06)   | 0.02<br>(0.01)  | -0.01<br>(0.03) | 0.07<br>(0.07)    |
| Share in blue collar labor (%)   | 0.01<br>(0.01)                     | 0.01<br>(0.01)    | 0.00<br>(0.00)  | 0.01<br>(0.01)  | 0.02<br>(0.02)    |
| Share in farming (%)             | 0.00<br>(0.01)                     | 0.01<br>(0.01)    | 0.00<br>(0.00)  | -0.00<br>(0.00) | 0.00<br>(0.01)    |
| Log(Dist. from large city)       | 0.02<br>(0.02)                     | 0.07*<br>(0.04)   | 0.00<br>(0.01)  | 0.00<br>(0.02)  | -0.01<br>(0.04)   |
| Area (km <sup>2</sup> )          | -0.00<br>(0.00)                    | 0.00<br>(0.00)    | -0.00<br>(0.00) | 0.00<br>(0.00)  | -0.00<br>(0.00)   |
| DV Mean:                         | 1.40                               | 1.94              | 0.33            | 0.98            | 2.13              |
| County FEs                       | ✓                                  | ✓                 | ✓               | ✓               | ✓                 |
| Party × Year FEs                 | ✓                                  | ✓                 | ✓               | ✓               | ✓                 |
| Num. clusters:                   | 498                                | 498               | 496             | 498             | 498               |
| N                                | 7040                               | 4150              | 2064            | 5565            | 8253              |
| R <sup>2</sup>                   | 0.82                               | 0.80              | 0.88            | 0.81            | 0.85              |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by constituency.

Table 27: Full table for effect of WWI fatalities on parliamentary voting by topic

## D.3 Appendix tables

This appendix contains full versions of tables reported in Sections C.1, C.2, C.3, C.4, C.5, and ??.

### D.3.1 WWI fatalities and electoral candidates

|                                  | DV: Number of candidates |                    |                    |                    |                    |                   |                    |
|----------------------------------|--------------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|
|                                  | 1918                     | 1922               | 1923               | 1924               | 1929               | 1931              | 1935               |
| Fatality Rate (%)                | 0.02<br>(0.02)           | 0.00<br>(0.02)     | 0.03<br>(0.02)     | 0.01<br>(0.01)     | 0.02**<br>(0.01)   | 0.01<br>(0.01)    | 0.01<br>(0.01)     |
| 1910 Con. Vote Share (%)         | -0.00<br>(0.00)          | 0.00<br>(0.00)     | 0.00<br>(0.00)     | 0.00<br>(0.00)     | -0.00<br>(0.00)    | 0.00<br>(0.00)    | 0.00<br>(0.00)     |
| Log(Pop. Density)                | -0.03<br>(0.07)          | 0.00<br>(0.07)     | 0.11**<br>(0.05)   | 0.00<br>(0.06)     | 0.07<br>(0.04)     | 0.03<br>(0.07)    | 0.03<br>(0.05)     |
| Log(Population)                  | 0.12<br>(0.17)           | 0.46***<br>(0.16)  | 0.39<br>(0.24)     | 0.33<br>(0.25)     | 0.48**<br>(0.19)   | 0.33**<br>(0.16)  | 0.42**<br>(0.20)   |
| Avg. Age                         | -0.12*<br>(0.07)         | 0.00<br>(0.03)     | -0.02<br>(0.04)    | -0.02<br>(0.03)    | -0.01<br>(0.04)    | -0.01<br>(0.06)   | 0.08**<br>(0.04)   |
| Avg. Household Size              | -0.91***<br>(0.23)       | -0.68***<br>(0.16) | -0.99***<br>(0.16) | -0.99***<br>(0.14) | -0.43***<br>(0.13) | -0.37**<br>(0.16) | -0.37***<br>(0.11) |
| Share Women (%)                  | 0.00<br>(0.04)           | -0.00<br>(0.02)    | -0.05*<br>(0.02)   | -0.03*<br>(0.02)   | -0.02<br>(0.02)    | -0.01<br>(0.02)   | -0.00<br>(0.02)    |
| Educators per capita             | -90.41**<br>(36.61)      | -61.14<br>(37.77)  | -25.74<br>(32.82)  | -25.60<br>(29.05)  | 13.75<br>(23.22)   | -53.53<br>(38.91) | -44.31*<br>(24.27) |
| Share unemployed or indigent (%) | 0.03<br>(0.11)           | -0.05<br>(0.07)    | 0.03<br>(0.13)     | 0.15*<br>(0.08)    | 0.03<br>(0.07)     | 0.11*<br>(0.07)   | 0.04<br>(0.05)     |
| Share in blue collar labor (%)   | -0.04*<br>(0.02)         | -0.01<br>(0.02)    | -0.02<br>(0.02)    | -0.03*<br>(0.02)   | -0.00<br>(0.01)    | -0.01<br>(0.02)   | -0.02*<br>(0.01)   |
| Share in farming (%)             | -0.02<br>(0.02)          | -0.03<br>(0.02)    | -0.02<br>(0.01)    | -0.02<br>(0.02)    | -0.02**<br>(0.01)  | -0.03*<br>(0.02)  | -0.02<br>(0.02)    |
| Log(Dist. from large city)       | 0.16**<br>(0.07)         | 0.08**<br>(0.04)   | 0.16***<br>(0.05)  | 0.12***<br>(0.04)  | 0.12***<br>(0.03)  | 0.07<br>(0.05)    | 0.06<br>(0.04)     |
| Area (km <sup>2</sup> )          | -0.00<br>(0.00)          | -0.00<br>(0.00)    | -0.00<br>(0.00)    | -0.00<br>(0.00)    | 0.00<br>(0.00)     | 0.00<br>(0.00)    | 0.00<br>(0.00)     |
| DV Mean                          | 2.35                     | 2.42               | 2.43               | 2.40               | 2.91               | 2.17              | 2.27               |
| Num. clusters:                   | 58                       | 58                 | 58                 | 58                 | 58                 | 58                | 58                 |
| County FEs                       | ✓                        | ✓                  | ✓                  | ✓                  | ✓                  | ✓                 | ✓                  |
| N                                | 499                      | 497                | 498                | 498                | 498                | 498               | 498                |
| R <sup>2</sup>                   | 0.23                     | 0.27               | 0.31               | 0.27               | 0.23               | 0.22              | 0.26               |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by administrative county.

Table 28: Full table for effect of WWI fatalities on number of candidates

### D.3.2 Conditioning on 1910 left-wing vote share

|                                  | DV: Left-wing vote share (%) |                     |                    |                     |                     |                     |
|----------------------------------|------------------------------|---------------------|--------------------|---------------------|---------------------|---------------------|
|                                  | Model 1                      | Model 2             | Model 3            | Model 4             | Model 5             | Model 6             |
| Fatality Rate (%)                | 0.38*<br>(0.20)              | 0.47**<br>(0.21)    | 0.35*<br>(0.21)    | 0.37*<br>(0.21)     | 0.39*<br>(0.22)     | 0.68*<br>(0.35)     |
| 1910 LW Vote Share (%)           |                              | 0.09***<br>(0.03)   | 0.10***<br>(0.03)  | 0.10***<br>(0.03)   | 0.10***<br>(0.03)   | 0.14***<br>(0.05)   |
| Num. Candidates                  |                              | -6.60***<br>(0.68)  | -5.94***<br>(0.60) | -6.91***<br>(0.67)  | -6.91***<br>(0.72)  | -6.08***<br>(0.54)  |
| Log(Pop. Density)                |                              | 0.73<br>(0.80)      | 0.60<br>(0.82)     | 0.52<br>(0.82)      | 0.42<br>(0.87)      | 0.43<br>(1.29)      |
| Log(Population)                  |                              | 3.96*<br>(2.08)     | 4.52**<br>(2.17)   | 5.13**<br>(2.19)    | 5.36**<br>(2.35)    | 5.12<br>(3.54)      |
| Avg. Age                         |                              | -4.00***<br>(0.83)  | -3.06***<br>(0.99) | -3.23***<br>(1.04)  | -3.21***<br>(1.13)  | 0.08<br>(1.76)      |
| Avg. Household Size              |                              | -10.34***<br>(3.23) | -6.00<br>(4.13)    | -7.12*<br>(4.24)    | -7.19<br>(4.51)     | 4.02<br>(6.70)      |
| Share Women (%)                  |                              | -0.43<br>(0.52)     | -0.82<br>(0.54)    | -0.79<br>(0.55)     | -0.83<br>(0.59)     | -0.93<br>(0.81)     |
| Educators per capita             |                              | -600.51<br>(524.82) | -73.80<br>(513.69) | -172.22<br>(511.06) | -255.20<br>(544.01) | -621.28<br>(888.29) |
| Share unemployed or indigent (%) |                              | 1.04<br>(1.07)      | 1.87*<br>(0.96)    | 2.10**<br>(0.98)    | 2.13**<br>(1.04)    | -0.55<br>(1.67)     |
| Share in blue collar labor (%)   |                              | 0.42*<br>(0.23)     | 0.78***<br>(0.27)  | 0.72***<br>(0.28)   | 0.68**<br>(0.29)    | 0.52<br>(0.49)      |
| Share in farming (%)             |                              | -0.38*<br>(0.21)    | -0.44*<br>(0.24)   | -0.49*<br>(0.25)    | -0.51*<br>(0.27)    | -0.05<br>(0.37)     |
| Log(Dist. from large city)       |                              | 1.89***<br>(0.44)   | 0.59<br>(0.71)     | 0.79<br>(0.72)      | 0.75<br>(0.76)      | 0.53<br>(1.30)      |
| Area (km <sup>2</sup> )          |                              | 0.00<br>(0.00)      | -0.00<br>(0.00)    | -0.00<br>(0.00)     | -0.00<br>(0.00)     | -0.01*<br>(0.00)    |
| Mean LW Share (%)                | 37.32                        | 36.79               | 36.79              | 36.79               | 36.79               | 36.79               |
| Avg. margin of victory (%)       | 21.02                        | 21.02               | 21.02              | 21.02               | 21.02               | 21.02               |
| Controls                         | -                            | ✓                   | ✓                  | ✓                   | ✓                   | ✓                   |
| County FEs                       | -                            | -                   | ✓                  | ✓                   | -                   | ✓                   |
| Election FEs                     | -                            | -                   | -                  | ✓                   | -                   | ✓                   |
| County × Election FEs            | -                            | -                   | -                  | -                   | ✓                   | -                   |
| Constituency trend               | -                            | -                   | -                  | -                   | -                   | ✓                   |
| Num. clusters:                   | 503                          | 237                 | 237                | 237                 | 237                 | 237                 |
| N                                | 2886                         | 1428                | 1428               | 1428                | 1428                | 1428                |
| R <sup>2</sup>                   | 0.01                         | 0.47                | 0.53               | 0.62                | 0.66                | 0.81                |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by constituency.

Table 29: Full table for effect of WWI fatalities on left-wing vote share (1910 left-wing)

|                                  | DV: Left-wing vote share (%) |                     |                      |                     |                     |                    |                     |
|----------------------------------|------------------------------|---------------------|----------------------|---------------------|---------------------|--------------------|---------------------|
|                                  | 1918                         | 1922                | 1923                 | 1924                | 1929                | 1931               | 1935                |
| Fatality Rate (%)                | 0.62***<br>(0.22)            | 0.45*<br>(0.23)     | 1.11***<br>(0.28)    | 0.35<br>(0.28)      | 0.16<br>(0.20)      | 0.12<br>(0.17)     | 0.39*<br>(0.21)     |
| 1910 LW Vote Share (%)           | 0.19**<br>(0.09)             | 0.10**<br>(0.04)    | 0.08*<br>(0.04)      | 0.07*<br>(0.04)     | 0.09***<br>(0.03)   | 0.07**<br>(0.03)   | 0.11***<br>(0.03)   |
| Num. Candidates                  | -4.16***<br>(1.22)           | -7.57***<br>(1.02)  | -11.91***<br>(1.26)  | -9.21***<br>(1.61)  | -7.36***<br>(1.02)  | -3.78***<br>(1.04) | -6.97***<br>(1.07)  |
| Log(Pop. Density)                | -0.19<br>(1.34)              | 1.40<br>(0.84)      | 0.92<br>(1.20)       | 1.01<br>(0.95)      | 1.02<br>(0.89)      | 0.57<br>(0.90)     | -0.87<br>(1.30)     |
| Log(Population)                  | 0.40<br>(3.70)               | 6.56**<br>(2.45)    | 15.54***<br>(3.60)   | 5.97***<br>(2.13)   | 4.44*<br>(2.48)     | 4.13*<br>(2.04)    | 5.41***<br>(1.75)   |
| Avg. Age                         | -1.63<br>(2.19)              | -1.81<br>(1.72)     | 0.86<br>(1.50)       | -2.74<br>(1.70)     | -4.82***<br>(1.22)  | -2.90***<br>(0.82) | -6.21***<br>(1.04)  |
| Avg. Household Size              | -0.76<br>(6.91)              | -4.28<br>(5.76)     | 6.84<br>(6.88)       | -8.11<br>(6.88)     | -12.94**<br>(5.01)  | -5.10<br>(3.42)    | -16.42***<br>(4.09) |
| Share Women (%)                  | -0.11<br>(0.90)              | -0.80<br>(0.83)     | -1.41**<br>(0.63)    | -0.53<br>(0.59)     | -0.99*<br>(0.50)    | -1.41**<br>(0.57)  | -0.10<br>(0.60)     |
| Educators per capita             | 41.83<br>(969.19)            | -516.57<br>(829.84) | -1148.19<br>(750.40) | -518.09<br>(530.59) | -185.95<br>(590.26) | 508.57<br>(493.83) | -359.43<br>(676.59) |
| Share unemployed or indigent (%) | 0.02<br>(0.91)               | 2.21**<br>(0.88)    | -1.42<br>(2.37)      | 2.17<br>(1.31)      | 3.23**<br>(1.26)    | 2.40***<br>(0.65)  | 4.36***<br>(0.71)   |
| Share in blue collar labor (%)   | 0.41<br>(0.45)               | 0.94**<br>(0.35)    | 0.12<br>(0.39)       | 0.72***<br>(0.22)   | 0.73***<br>(0.22)   | 1.19***<br>(0.24)  | 0.44<br>(0.33)      |
| Share in farming (%)             | 0.31<br>(0.54)               | -0.02<br>(0.23)     | -0.99*<br>(0.54)     | -0.48<br>(0.32)     | -0.58*<br>(0.33)    | -0.82***<br>(0.19) | -0.62*<br>(0.32)    |
| Log(Dist. from large city)       | 2.38*<br>(1.21)              | 0.31<br>(1.32)      | -0.06<br>(1.06)      | 0.46<br>(0.89)      | 0.98<br>(1.09)      | 0.14<br>(0.44)     | 1.62**<br>(0.69)    |
| Area (km <sup>2</sup> )          | -0.01<br>(0.00)              | -0.00<br>(0.00)     | 0.00<br>(0.00)       | -0.00<br>(0.00)     | -0.00<br>(0.00)     | 0.00<br>(0.00)     | 0.00<br>(0.00)      |
| Mean LW Share (%)                | 31.92                        | 38.30               | 40.19                | 37.35               | 38.69               | 33.09              | 40.83               |
| Avg. margin of victory (%)       | 28.38                        | 16.10               | 12.87                | 18.62               | 16.20               | 32.45              | 22.53               |
| County FEs                       | ✓                            | ✓                   | ✓                    | ✓                   | ✓                   | ✓                  | ✓                   |
| Num. clusters:                   | 22                           | 24                  | 22                   | 25                  | 25                  | 25                 | 27                  |
| N                                | 172                          | 193                 | 189                  | 205                 | 233                 | 217                | 219                 |
| R <sup>2</sup>                   | 0.45                         | 0.69                | 0.69                 | 0.71                | 0.74                | 0.74               | 0.72                |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by administrative county.

Table 30: Full table effect of WWI fatalities on left-wing vote share by election (1910 left-wing)

### D.3.3 Left-wing electoral margin

|                                  | DV: Left-wing electoral margin (%) |                     |                     |                     |                     |                      |
|----------------------------------|------------------------------------|---------------------|---------------------|---------------------|---------------------|----------------------|
|                                  | Model 1                            | Model 2             | Model 3             | Model 4             | Model 5             | Model 6              |
| Fatality Rate (%)                | 0.33<br>(0.36)                     | 0.70***<br>(0.24)   | 0.59**<br>(0.26)    | 0.69***<br>(0.26)   | 0.66**<br>(0.28)    | 0.67**<br>(0.34)     |
| 1910 Con. Vote Share (%)         |                                    | -0.18***<br>(0.05)  | -0.20***<br>(0.05)  | -0.19***<br>(0.05)  | -0.20***<br>(0.05)  | -0.17**<br>(0.07)    |
| Num. Candidates                  |                                    | 5.26***<br>(0.84)   | 6.12***<br>(0.80)   | 2.81***<br>(0.85)   | 3.11***<br>(0.96)   | 2.07***<br>(0.62)    |
| Log(Pop. Density)                |                                    | 1.79*<br>(0.98)     | 1.54<br>(1.00)      | 1.64<br>(1.00)      | 1.51<br>(1.06)      | 0.74<br>(1.45)       |
| Log(Population)                  |                                    | 1.76<br>(2.60)      | 2.87<br>(2.81)      | 5.16*<br>(2.98)     | 4.83<br>(3.19)      | 7.86**<br>(3.69)     |
| Avg. Age                         |                                    | -7.25***<br>(0.87)  | -6.93***<br>(0.90)  | -6.88***<br>(0.95)  | -6.88***<br>(1.02)  | -2.07<br>(1.64)      |
| Avg. Household Size              |                                    | -18.92***<br>(3.52) | -14.35***<br>(3.59) | -16.07***<br>(3.69) | -15.87***<br>(3.92) | -4.05<br>(5.91)      |
| Share Women (%)                  |                                    | -0.63<br>(0.56)     | -0.92*<br>(0.55)    | -0.89<br>(0.55)     | -0.92<br>(0.60)     | -1.37*<br>(0.74)     |
| Educators per capita             |                                    | -879.62<br>(647.27) | 211.25<br>(680.80)  | 6.61<br>(670.22)    | 28.89<br>(711.29)   | -286.41<br>(1003.34) |
| Share unemployed or indigent (%) |                                    | 2.30<br>(1.40)      | 3.06**<br>(1.21)    | 3.19**<br>(1.24)    | 3.16**<br>(1.31)    | -0.88<br>(2.06)      |
| Share in blue collar labor (%)   |                                    | 1.25***<br>(0.29)   | 1.64***<br>(0.37)   | 1.56***<br>(0.38)   | 1.56***<br>(0.41)   | 1.17**<br>(0.54)     |
| Share in farming (%)             |                                    | -1.06***<br>(0.24)  | -1.05***<br>(0.28)  | -1.16***<br>(0.29)  | -1.09***<br>(0.31)  | -0.50<br>(0.41)      |
| Log(Dist. from large city)       |                                    | 2.74***<br>(0.63)   | 1.76**<br>(0.77)    | 2.28***<br>(0.80)   | 2.20***<br>(0.84)   | 0.61<br>(1.17)       |
| Area (km <sup>2</sup> )          |                                    | 0.01***<br>(0.00)   | 0.00<br>(0.00)      | 0.00<br>(0.00)      | 0.00<br>(0.00)      | -0.00<br>(0.01)      |
| Mean LW Margin (%)               | -13.19                             | -13.03              | -13.03              | -13.03              | -13.03              | -13.03               |
| Avg. margin of victory (%)       | 21.02                              | 21.02               | 21.02               | 21.02               | 21.02               | 21.02                |
| Controls                         | -                                  | ✓                   | ✓                   | ✓                   | ✓                   | ✓                    |
| County FEs                       | -                                  | -                   | ✓                   | ✓                   | -                   | ✓                    |
| Election FEs                     | -                                  | -                   | -                   | ✓                   | -                   | ✓                    |
| County × Election FEs            | -                                  | -                   | -                   | -                   | ✓                   | -                    |
| Constituency trend               | -                                  | -                   | -                   | -                   | -                   | ✓                    |
| Num. clusters:                   | 503                                | 493                 | 493                 | 493                 | 493                 | 493                  |
| N                                | 2953                               | 2899                | 2899                | 2899                | 2899                | 2899                 |
| R <sup>2</sup>                   | 0.00                               | 0.46                | 0.52                | 0.64                | 0.68                | 0.83                 |

\*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.1$ . Note: Robust SEs clustered by constituency.

Table 31: Full table for effect of WWI fatalities on left-wing electoral margin

|                                  | DV: Left-wing electoral margin (%) |                     |                       |                      |                      |                       |                     |
|----------------------------------|------------------------------------|---------------------|-----------------------|----------------------|----------------------|-----------------------|---------------------|
|                                  | 1918                               | 1922                | 1923                  | 1924                 | 1929                 | 1931                  | 1935                |
| Fatality Rate (%)                | 0.43<br>(0.30)                     | 0.51*<br>(0.30)     | 1.12***<br>(0.40)     | 0.65<br>(0.42)       | 0.90***<br>(0.33)    | 0.32<br>(0.27)        | 0.65*<br>(0.32)     |
| 1910 Con. Vote Share (%)         | -0.18*<br>(0.10)                   | -0.19**<br>(0.08)   | -0.24**<br>(0.11)     | -0.17**<br>(0.07)    | -0.16**<br>(0.07)    | -0.24***<br>(0.07)    | -0.25***<br>(0.08)  |
| Num. Candidates                  | 5.83***<br>(1.63)                  | 3.07*<br>(1.68)     | -2.38<br>(1.96)       | 0.78<br>(1.71)       | 4.81**<br>(2.15)     | 7.22***<br>(1.43)     | 4.34***<br>(1.47)   |
| Log(Pop. Density)                | -0.88<br>(1.85)                    | 3.20**<br>(1.58)    | 1.10<br>(1.85)        | 2.81<br>(1.73)       | 2.40*<br>(1.37)      | 2.06<br>(1.41)        | 0.54<br>(1.80)      |
| Log(Population)                  | 3.66<br>(3.39)                     | 5.87<br>(3.79)      | 16.47**<br>(6.22)     | 1.92<br>(5.12)       | 5.78<br>(4.77)       | 2.77<br>(3.38)        | 1.19<br>(4.06)      |
| Avg. Age                         | -3.08*<br>(1.81)                   | -4.20***<br>(1.42)  | -3.55**<br>(1.64)     | -6.74***<br>(1.12)   | -7.47***<br>(0.88)   | -7.79***<br>(1.25)    | -10.97***<br>(0.82) |
| Avg. Household Size              | -3.94<br>(6.12)                    | -10.04*<br>(5.17)   | -1.38<br>(4.99)       | -17.64***<br>(3.51)  | -21.19***<br>(3.94)  | -16.94***<br>(4.60)   | -23.04***<br>(3.94) |
| Share Women (%)                  | -1.04<br>(0.84)                    | -1.28*<br>(0.73)    | -1.30**<br>(0.60)     | -0.50<br>(0.55)      | -1.12*<br>(0.67)     | -1.29*<br>(0.68)      | -0.35<br>(0.80)     |
| Educators per capita             | 743.30<br>(1048.38)                | 353.43<br>(1575.04) | -1059.88<br>(1784.64) | -460.19<br>(1084.50) | -273.68<br>(1222.14) | 1723.52**<br>(751.63) | -25.27<br>(879.11)  |
| Share unemployed or indigent (%) | 0.99<br>(1.32)                     | 1.41<br>(1.72)      | -0.41<br>(2.11)       | 3.16***<br>(1.11)    | 3.27*<br>(1.84)      | 4.69**<br>(2.05)      | 5.91***<br>(1.39)   |
| Share in blue collar labor (%)   | 1.33***<br>(0.47)                  | 2.08***<br>(0.63)   | 0.29<br>(0.74)        | 1.83***<br>(0.54)    | 1.44***<br>(0.46)    | 2.53***<br>(0.42)     | 1.34**<br>(0.53)    |
| Share in farming (%)             | -0.99<br>(0.63)                    | -0.26<br>(0.31)     | -0.78<br>(0.50)       | -1.07***<br>(0.40)   | -1.31***<br>(0.30)   | -1.67***<br>(0.34)    | -1.39***<br>(0.36)  |
| Log(Dist. from large city)       | 2.42*<br>(1.20)                    | 0.36<br>(1.20)      | 0.85<br>(1.41)        | 1.86<br>(1.24)       | 1.88<br>(1.33)       | 2.33**<br>(0.98)      | 4.51***<br>(1.25)   |
| Area (km <sup>2</sup> )          | 0.01<br>(0.01)                     | -0.00<br>(0.00)     | -0.00<br>(0.00)       | 0.00<br>(0.00)       | 0.00<br>(0.00)       | 0.01*<br>(0.00)       | 0.01*<br>(0.00)     |
| Mean LW Margin (%)               | -24.26                             | -9.36               | -3.19                 | -14.18               | -0.87                | -29.24                | -13.00              |
| Avg. margin of victory (%)       | 28.38                              | 16.10               | 12.87                 | 18.62                | 16.20                | 32.45                 | 22.53               |
| County FEs                       | ✓                                  | ✓                   | ✓                     | ✓                    | ✓                    | ✓                     | ✓                   |
| Num. clusters:                   | 47                                 | 54                  | 51                    | 54                   | 57                   | 53                    | 56                  |
| N                                | 335                                | 363                 | 373                   | 432                  | 491                  | 444                   | 461                 |
| R <sup>2</sup>                   | 0.45                               | 0.62                | 0.55                  | 0.70                 | 0.67                 | 0.77                  | 0.74                |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by administrative county.

Table 32: Full table for effect of WWI fatalities on left-wing electoral margin by election

### D.3.4 Conservative vote share

|                                  | DV: Conservative vote share (%) |                      |                    |                    |                    |                    |
|----------------------------------|---------------------------------|----------------------|--------------------|--------------------|--------------------|--------------------|
|                                  | Model 1                         | Model 2              | Model 3            | Model 4            | Model 5            | Model 6            |
| Fatality Rate (%)                | 0.08<br>(0.18)                  | 0.17<br>(0.14)       | 0.12<br>(0.15)     | 0.10<br>(0.14)     | 0.09<br>(0.14)     | -0.14<br>(0.20)    |
| 1910 Con. Vote Share (%)         |                                 | 0.10***<br>(0.03)    | 0.07***<br>(0.02)  | 0.07***<br>(0.02)  | 0.07***<br>(0.02)  | 0.02<br>(0.04)     |
| Num. Candidates                  |                                 | -9.13***<br>(0.59)   | -9.16***<br>(0.54) | -6.37***<br>(0.51) | -6.35***<br>(0.58) | -6.56***<br>(0.43) |
| Log(Pop. Density)                |                                 | -0.15<br>(0.52)      | 0.00<br>(0.54)     | 0.04<br>(0.51)     | 0.08<br>(0.54)     | -0.00<br>(0.83)    |
| Log(Population)                  |                                 | 5.81***<br>(1.52)    | 4.53***<br>(1.44)  | 3.25**<br>(1.36)   | 3.24**<br>(1.42)   | -1.53<br>(1.92)    |
| Avg. Age                         |                                 | 4.27***<br>(0.42)    | 3.96***<br>(0.44)  | 3.89***<br>(0.45)  | 3.91***<br>(0.48)  | 1.47*<br>(0.81)    |
| Avg. Household Size              |                                 | 12.05***<br>(1.71)   | 7.75***<br>(1.66)  | 9.35***<br>(1.64)  | 9.39***<br>(1.74)  | 6.50**<br>(2.79)   |
| Share Women (%)                  |                                 | -0.18<br>(0.26)      | -0.27<br>(0.26)    | -0.26<br>(0.26)    | -0.27<br>(0.27)    | -0.07<br>(0.37)    |
| Educators per capita             |                                 | 644.58**<br>(314.16) | 225.48<br>(325.68) | 357.12<br>(314.87) | 350.71<br>(330.02) | 414.40<br>(523.40) |
| Share unemployed or indigent (%) |                                 | -1.13<br>(0.73)      | -1.48**<br>(0.61)  | -1.83***<br>(0.62) | -1.87***<br>(0.65) | 0.26<br>(1.05)     |
| Share in blue collar labor (%)   |                                 | -0.67***<br>(0.15)   | -0.90***<br>(0.16) | -0.82***<br>(0.16) | -0.83***<br>(0.17) | -0.64**<br>(0.26)  |
| Share in farming (%)             |                                 | 0.36***<br>(0.13)    | 0.15<br>(0.13)     | 0.26**<br>(0.12)   | 0.27**<br>(0.13)   | 0.02<br>(0.21)     |
| Log(Dist. from large city)       |                                 | -1.64***<br>(0.32)   | -1.07***<br>(0.38) | -1.30***<br>(0.38) | -1.27***<br>(0.40) | -0.82<br>(0.59)    |
| Area (km <sup>2</sup> )          |                                 | -0.00**<br>(0.00)    | 0.00<br>(0.00)     | 0.00<br>(0.00)     | 0.00<br>(0.00)     | 0.00<br>(0.00)     |
| Mean Con. Share (%)              | 50.62                           | 50.56                | 50.56              | 50.56              | 50.56              | 50.56              |
| Avg. margin of victory (%)       | 21.02                           | 21.02                | 21.02              | 21.02              | 21.02              | 21.02              |
| Controls                         | -                               | ✓                    | ✓                  | ✓                  | ✓                  | ✓                  |
| County FEs                       | -                               | -                    | ✓                  | ✓                  | -                  | ✓                  |
| Election FEs                     | -                               | -                    | -                  | ✓                  | -                  | ✓                  |
| County × Election FEs            | -                               | -                    | -                  | -                  | ✓                  | -                  |
| Constituency trend               | -                               | -                    | -                  | -                  | -                  | ✓                  |
| Num. clusters:                   | 508                             | 498                  | 498                | 498                | 498                | 498                |
| N                                | 2877                            | 2823                 | 2823               | 2823               | 2823               | 2823               |
| R <sup>2</sup>                   | 0.00                            | 0.47                 | 0.54               | 0.71               | 0.75               | 0.86               |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by constituency.

Table 33: Full table for effect of WWI fatalities on Conservative vote share

|                                  | DV: Conservative vote share (%) |                    |                     |                     |                    |                    |                    |
|----------------------------------|---------------------------------|--------------------|---------------------|---------------------|--------------------|--------------------|--------------------|
|                                  | 1918                            | 1922               | 1923                | 1924                | 1929               | 1931               | 1935               |
| Fatality Rate (%)                | -0.12<br>(0.18)                 | -0.07<br>(0.21)    | 0.02<br>(0.21)      | 0.18<br>(0.19)      | 0.09<br>(0.22)     | 0.31<br>(0.29)     | 0.08<br>(0.24)     |
| 1910 Con. Vote Share (%)         | 0.00<br>(0.04)                  | 0.08<br>(0.05)     | 0.05<br>(0.05)      | 0.06<br>(0.04)      | 0.08***<br>(0.03)  | 0.09***<br>(0.03)  | 0.10**<br>(0.04)   |
| Num. Candidates                  | -8.45***<br>(0.70)              | -7.74***<br>(0.98) | -4.51***<br>(1.02)  | -6.62***<br>(1.13)  | -3.42***<br>(0.85) | -7.26***<br>(1.14) | -6.90***<br>(1.14) |
| Log(Pop. Density)                | 0.52<br>(1.17)                  | -0.26<br>(0.86)    | 0.14<br>(0.80)      | -0.11<br>(0.76)     | -0.06<br>(0.49)    | 0.34<br>(0.98)     | -0.21<br>(0.74)    |
| Log(Population)                  | -0.59<br>(1.80)                 | 0.96<br>(1.67)     | -0.26<br>(3.07)     | 5.40***<br>(1.96)   | 2.79<br>(2.11)     | 6.42***<br>(2.32)  | 4.77**<br>(2.38)   |
| Avg. Age                         | 2.92***<br>(0.81)               | 1.97***<br>(0.60)  | 2.43**<br>(0.97)    | 3.48***<br>(0.82)   | 4.89***<br>(1.11)  | 4.88***<br>(0.56)  | 5.39***<br>(0.66)  |
| Avg. Household Size              | 8.06***<br>(2.31)               | 6.70**<br>(2.77)   | 5.87*<br>(3.38)     | 9.12***<br>(2.15)   | 15.21***<br>(2.97) | 9.41***<br>(2.02)  | 9.87***<br>(2.20)  |
| Share Women (%)                  | -0.12<br>(0.46)                 | -0.21<br>(0.24)    | -0.16<br>(0.25)     | -0.51*<br>(0.29)    | -0.17<br>(0.32)    | -0.39<br>(0.35)    | 0.03<br>(0.40)     |
| Educators per capita             | 175.58<br>(749.62)              | 220.13<br>(435.47) | 807.74*<br>(409.27) | 718.63*<br>(373.77) | 203.28<br>(263.94) | 10.38<br>(420.82)  | 123.66<br>(385.60) |
| Share unemployed or indigent (%) | -0.95<br>(0.97)                 | -1.11<br>(0.89)    | -0.19<br>(0.91)     | -1.82**<br>(0.79)   | -2.92***<br>(0.82) | -3.26***<br>(0.75) | -3.02***<br>(0.63) |
| Share in blue collar labor (%)   | -0.78*<br>(0.42)                | -0.88***<br>(0.19) | -0.33*<br>(0.19)    | -1.07***<br>(0.21)  | -0.87***<br>(0.15) | -1.08***<br>(0.21) | -0.73***<br>(0.24) |
| Share in farming (%)             | 0.01<br>(0.25)                  | 0.18<br>(0.19)     | 0.32<br>(0.20)      | 0.27<br>(0.21)      | 0.34<br>(0.21)     | 0.39*<br>(0.23)    | 0.47**<br>(0.19)   |
| Log(Dist. from large city)       | -1.35*<br>(0.79)                | -0.43<br>(0.44)    | -0.72<br>(0.57)     | -1.20***<br>(0.44)  | -1.21*<br>(0.64)   | -1.55**<br>(0.67)  | -2.16***<br>(0.78) |
| Area (km <sup>2</sup> )          | 0.00<br>(0.00)                  | 0.00<br>(0.00)     | -0.00<br>(0.00)     | 0.00<br>(0.00)      | 0.00<br>(0.00)     | -0.00<br>(0.00)    | -0.00<br>(0.00)    |
| Mean Con. Share (%)              | 57.46                           | 48.93              | 43.14               | 52.22               | 39.19              | 62.88              | 54.41              |
| Avg. margin of victory (%)       | 28.38                           | 16.10              | 12.87               | 18.62               | 16.20              | 32.45              | 22.53              |
| County FEs                       | ✓                               | ✓                  | ✓                   | ✓                   | ✓                  | ✓                  | ✓                  |
| Num. clusters:                   | 47                              | 51                 | 53                  | 54                  | 58                 | 50                 | 52                 |
| N                                | 307                             | 381                | 423                 | 428                 | 482                | 393                | 409                |
| R <sup>2</sup>                   | 0.61                            | 0.64               | 0.59                | 0.68                | 0.73               | 0.72               | 0.71               |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by administrative county.

Table 34: Full table for effect of WWI fatalities on Conservative vote share by election



### D.3.5 Liberal vote share

|                                  | DV: Liberal vote share (%) |                     |                     |                      |                      |                     |
|----------------------------------|----------------------------|---------------------|---------------------|----------------------|----------------------|---------------------|
|                                  | Model 1                    | Model 2             | Model 3             | Model 4              | Model 5              | Model 6             |
| Fatality Rate (%)                | 0.10<br>(0.15)             | -0.14<br>(0.16)     | 0.09<br>(0.17)      | 0.02<br>(0.17)       | 0.00<br>(0.18)       | 0.57*<br>(0.31)     |
| 1910 Con. Vote Share (%)         |                            | -0.03<br>(0.03)     | 0.01<br>(0.03)      | 0.00<br>(0.03)       | 0.01<br>(0.03)       | -0.01<br>(0.05)     |
| Num. Candidates                  |                            | -11.55***<br>(0.85) | -11.29***<br>(0.80) | -10.36***<br>(0.77)  | -10.23***<br>(0.84)  | -10.96***<br>(0.77) |
| Log(Pop. Density)                |                            | -0.09<br>(0.64)     | 0.26<br>(0.71)      | -0.02<br>(0.72)      | -0.05<br>(0.76)      | 1.12<br>(1.18)      |
| Log(Population)                  |                            | 0.57<br>(1.86)      | 1.82<br>(1.83)      | 1.18<br>(1.83)       | 1.24<br>(1.97)       | -0.35<br>(2.94)     |
| Avg. Age                         |                            | -0.42<br>(0.51)     | -0.80<br>(0.59)     | -0.73<br>(0.60)      | -0.87<br>(0.65)      | -2.12**<br>(1.00)   |
| Avg. Household Size              |                            | -5.03**<br>(2.24)   | -5.26**<br>(2.59)   | -4.95*<br>(2.70)     | -4.99*<br>(2.88)     | -10.97***<br>(4.04) |
| Share Women (%)                  |                            | 0.62*<br>(0.32)     | 0.62*<br>(0.35)     | 0.67*<br>(0.35)      | 0.71*<br>(0.37)      | -0.12<br>(0.54)     |
| Educators per capita             |                            | -440.62<br>(382.90) | -627.51<br>(412.89) | -798.27*<br>(418.22) | -782.11*<br>(451.76) | -506.09<br>(728.94) |
| Share unemployed or indigent (%) |                            | -0.71<br>(1.06)     | -0.20<br>(1.10)     | -0.06<br>(1.13)      | 0.10<br>(1.16)       | -2.23<br>(1.78)     |
| Share in blue collar labor (%)   |                            | 0.27<br>(0.18)      | -0.04<br>(0.23)     | -0.11<br>(0.23)      | -0.13<br>(0.24)      | -0.45<br>(0.38)     |
| Share in farming (%)             |                            | 0.03<br>(0.14)      | 0.30*<br>(0.16)     | 0.32*<br>(0.16)      | 0.32*<br>(0.17)      | 0.21<br>(0.32)      |
| Log(Dist. from large city)       |                            | 1.34***<br>(0.42)   | 1.49***<br>(0.54)   | 1.38**<br>(0.56)     | 1.27**<br>(0.58)     | 2.14**<br>(0.90)    |
| Area (km <sup>2</sup> )          |                            | 0.00**<br>(0.00)    | 0.00<br>(0.00)      | 0.00<br>(0.00)       | 0.00<br>(0.00)       | 0.00<br>(0.00)      |
| Mean Lib. Share (%)              | 31.29                      | 30.83               | 30.83               | 30.83                | 30.83                | 30.83               |
| Avg. margin of victory (%)       | 21.02                      | 21.02               | 21.02               | 21.02                | 21.02                | 21.02               |
| Controls                         | -                          | ✓                   | ✓                   | ✓                    | ✓                    | ✓                   |
| County FEs                       | -                          | -                   | ✓                   | ✓                    | -                    | ✓                   |
| Election FEs                     | -                          | -                   | -                   | ✓                    | -                    | ✓                   |
| County × Election FEs            | -                          | -                   | -                   | -                    | ✓                    | -                   |
| Constituency trend               | -                          | -                   | -                   | -                    | -                    | ✓                   |
| Num. clusters:                   | 488                        | 479                 | 479                 | 479                  | 479                  | 479                 |
| N                                | 1883                       | 1853                | 1853                | 1853                 | 1853                 | 1853                |
| R <sup>2</sup>                   | 0.00                       | 0.37                | 0.43                | 0.50                 | 0.60                 | 0.78                |

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ . Note: Robust SEs clustered by constituency.

Table 35: Full table for effect of WWI fatalities on Liberal vote share

|                                  | DV: Liberal vote share (%) |                     |                     |                     |                         |                       |                     |
|----------------------------------|----------------------------|---------------------|---------------------|---------------------|-------------------------|-----------------------|---------------------|
|                                  | 1918                       | 1922                | 1923                | 1924                | 1929                    | 1931                  | 1935                |
| Fatality Rate (%)                | 0.47<br>(0.34)             | 0.13<br>(0.21)      | 0.27<br>(0.30)      | -0.17<br>(0.40)     | -0.22<br>(0.21)         | -1.76**<br>(0.78)     | -1.27**<br>(0.60)   |
| 1910 Con. Vote Share (%)         | -0.02<br>(0.06)            | 0.01<br>(0.04)      | 0.02<br>(0.05)      | 0.01<br>(0.05)      | 0.03<br>(0.03)          | 0.27**<br>(0.13)      | 0.10<br>(0.06)      |
| Num. Candidates                  | -7.72***<br>(1.27)         | -11.79***<br>(0.97) | -11.60***<br>(1.27) | -15.11***<br>(1.65) | -4.90***<br>(1.10)      | -14.40***<br>(2.00)   | -15.07***<br>(2.81) |
| Log(Pop. Density)                | 0.29<br>(1.12)             | 1.26<br>(1.19)      | -0.25<br>(1.00)     | 0.43<br>(0.79)      | -1.43*<br>(0.85)        | -1.33<br>(1.87)       | 1.05<br>(1.62)      |
| Log(Population)                  | -1.90<br>(2.30)            | 0.42<br>(3.20)      | 5.76*<br>(3.28)     | 5.99<br>(4.14)      | 0.12<br>(2.87)          | -12.13**<br>(4.87)    | -5.98<br>(5.48)     |
| Avg. Age                         | -0.89<br>(1.20)            | -1.55**<br>(0.75)   | -1.05<br>(0.93)     | -0.29<br>(1.27)     | -0.19<br>(1.04)         | 6.61<br>(4.39)        | -2.32<br>(1.53)     |
| Avg. Household Size              | -10.55**<br>(4.12)         | -8.66***<br>(2.68)  | -9.25**<br>(3.65)   | -1.87<br>(4.77)     | -2.26<br>(2.68)         | 26.27*<br>(14.57)     | -4.67<br>(4.46)     |
| Share Women (%)                  | -0.96*<br>(0.57)           | 0.19<br>(0.43)      | 0.76**<br>(0.36)    | 0.81<br>(0.55)      | 1.23***<br>(0.40)       | -0.18<br>(1.52)       | 1.48***<br>(0.51)   |
| Educators per capita             | -643.34<br>(916.71)        | -317.69<br>(808.44) | -567.65<br>(504.35) | -338.59<br>(595.64) | -1479.95***<br>(482.63) | -1780.07<br>(2252.69) | 680.24<br>(1103.23) |
| Share unemployed or indigent (%) | -1.51<br>(1.37)            | -0.12<br>(1.37)     | 1.40<br>(1.31)      | -1.81<br>(1.57)     | -0.57<br>(1.93)         | 21.02***<br>(5.18)    | 3.72<br>(4.04)      |
| Share in blue collar labor (%)   | -0.36<br>(0.43)            | -0.19<br>(0.27)     | -0.32<br>(0.33)     | 0.29<br>(0.28)      | -0.39<br>(0.24)         | 2.16**<br>(0.88)      | 0.95**<br>(0.42)    |
| Share in farming (%)             | -0.14<br>(0.36)            | 0.56*<br>(0.29)     | 0.03<br>(0.28)      | -0.07<br>(0.28)     | 0.64**<br>(0.28)        | -1.05<br>(0.85)       | 0.46<br>(0.46)      |
| Log(Dist. from large city)       | 2.52**<br>(1.16)           | 2.04***<br>(0.55)   | 0.66<br>(0.80)      | 0.85<br>(0.85)      | 1.51***<br>(0.56)       | -6.65**<br>(2.91)     | 0.14<br>(1.28)      |
| Area (km <sup>2</sup> )          | 0.01<br>(0.00)             | 0.00<br>(0.00)      | 0.00<br>(0.00)      | 0.00<br>(0.00)      | -0.00**<br>(0.00)       | 0.00<br>(0.01)        | 0.01<br>(0.01)      |
| Mean Lib. Share (%)              | 27.57                      | 32.69               | 37.74               | 30.95               | 27.77                   | 36.68                 | 25.42               |
| Avg. margin of victory (%)       | 28.38                      | 16.10               | 12.87               | 18.62               | 16.20                   | 32.45                 | 22.53               |
| County FEs                       | ✓                          | ✓                   | ✓                   | ✓                   | ✓                       | ✓                     | ✓                   |
| Num. clusters:                   | 45                         | 50                  | 54                  | 55                  | 58                      | 41                    | 46                  |
| N                                | 236                        | 272                 | 372                 | 289                 | 443                     | 98                    | 143                 |
| R <sup>2</sup>                   | 0.53                       | 0.64                | 0.58                | 0.63                | 0.48                    | 0.74                  | 0.77                |

\*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.1$ . Note: Robust SEs clustered by administrative county.

Table 36: Full table for effect of WWI fatalities on Liberal vote share by election