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State Coercion and Civil Unrest: Evidence from Military Conscription during the Russo-Japanese War

By

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Abstract

While defeat in a foreign war is a common cause of political and social revolutions, not all wars end in uprisings. When and where does war lead to mass rebellion? I address this question by studying how the exposure to the Russo-Japanese War through military conscription and mobilization affected the number of peasant revolts and industrial workers' strikes during the First Russian Revolution of 1905-07. Using original historical data, I leverage plausibly exogenous variation in military conscription quotas and partial mobilization waves by province-year to show that coercive military service increased citizen grievances and led to unrest. Further examination of the heterogeneous treatment effects suggests that conscription resulted in mass uprisings after the defeat in the war and in the presence of ethnic and religious minorities.

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1 Introduction

Just as the state made war, the modern war has made the modern state (Tilly, 1992). To recruit a mass army, the state resorted to coercive military service – universal conscription, but the people need something to fight for. So mass army and conscription led to the demand for franchise extension (Ticchi & Vindigni, 2008). In this way, defeat in a foreign war undermines the legitimacy of the regime and shows the weakness of the state (Mansfield & Snyder, 2010; Miller, 2021), giving the people the necessary opportunity to organize effectively and force the changes. But not all military defeats lead to revolts. So when and where does war lead to mass rebellion? There is still no comprehensive theory to answer this question. Moreover, little is known about the within-country variation in the effects of the universal military conscription or the specific conditions that facilitate rebellion.

My study helps explain how, under specific conditions, war triggers backlash. People can be exposed to war in many ways, with the enemy violence leaving a particularly complicated legacy (Dell & Querubin, 2018; Fontana et al., 2023; Popovic, 2022). However, in an overseas war, especially when the enemy does not threaten the civilian population, the exposure goes through one's own state. One such channel is military conscription, which distributes the human costs of war among the population and increases dissatisfaction with war (Althaus et al., 2012; Horowitz & Levendusky, 2011). Defeat, in such an environment, is particularly costly to the state as it undermines the legitimacy of conscription and the state itself, while also highlighting the weakness of the state. This opens the window of opportunity for the people to revolt.

To test this argument, I study how the exposure to the Russo-Japanese War (1904-1905) through military conscription and mobilization affected the number of peasant revolts and industrial workers' strikes during the First Russian Revolution of 1905-07. As the war was fought for the colonial control of northern China and Korea, Japan did not threaten Russia's European heartland. Thus, most of Russia's population was exposed

to the war only through the coercive military service, as hundreds of thousands of men were conscripted each year, and over a million more were mobilized during the war (Military Ministry, 1907) in a country of about 130 million people. The defeat in the war is widely cited by historians as one of the major causes of the First Russian Revolution, which ended with the introduction of parliament, liberalization, and franchise extension (Ascher, 2004; Pipes, 2011). However, it has not been studied quantitatively until now.

Using a variety of original historical data sources, I leverage the likely exogenous variation in conscription quotas (which depend on the basic demographics and are mostly stable from year to year) and mobilizations (which occurred according to the pre-determined schedule based on the logistical reasons) by province-year to show that increased coercion led to the higher levels of peasant unrest and industrial worker strikes. These findings are robust to a number of plausibility and sensitivity tests, as well as an alternative estimation strategy. As I explore the mechanisms and the heterogeneous effects, the result is driven by the defeat in the war and is larger when ethnic and religious minorities are present.

This paper makes several contributions to the literature. First, it contributes to the numerous studies of the social and political revolutions (Acemoglu & Robinson, 2006; Moore, 1993; Skocpol, 1979; Tilly, 1978). In particular, it complements studies on the role of war in authoritarian survival (De Mesquita & Siverson, 1995) or political change (Cox et al., 2023; Mansfield & Snyder, 2010; Reiter, 2001; Ticchi & Vindigni, 2008). This paper also adds to the literature on the role of the exogenous shocks and external factors in the domestic political dynamics (Miller, 2021), as I provide within-country evidence showing how exposure to a foreign war can lead to mass participation in the revolution.

Second, as part of the growing literature on nation- and state-building and its consequences, I provide evidence from the somewhat overlooked policy of military conscription. Specifically, this paper adds to the studies of backlash against the cultural homogenization and nation-building policies (Carvalho, 2013; Carvalho et al., 2022; Clots-Figueras & Masella, 2013; Fouka, 2020), and specifically military conscription (Marciante, 2022). The novelty of my work is the use of spatial and temporal variation in coercion and unrest and the emphasis on not only heterogeneous cross-sectional but also time-varying conditions.

Finally, the paper contributes to the growing field of the economic history of Eastern Europe and Russia (see the brilliant review in Zhuravskaya et al., 2021). In particular, it adds to the literature on mass rebellions and revolutions in the late Russian empire (C. Dower & Markevich, 2020; Finkel et al., 2017; Finkel et al., 2015; Kofanov, 2020). As I explore the effects of the relatively understudied Russo-Japanese War, this work is, to the best of my knowledge, the first attempt to quantitatively examine the war's impact on the First Russian Revolution.

This paper is organized as follows: the second section presents the theory of war, conscription, and revolution and draws hypotheses; the third section provides the historical background of the events under study; the fourth section describes the data and sources; the fifth section introduces the identification strategy; the sixth section presents the results of the basic empirical analysis as well as the heterogeneous effects; the seventh section describes the robustness and sensitivity checks of the empirical analysis and the alternative specification; and the eighth section concludes.

2 Theory and Hypotheses

Foreign war, and especially defeat in a foreign war, is one of the major causes of social revolution, franchise extension, and democratization (Linz & Stepan, 1996; O'Donnell et al., 2013) from medieval Europe (Cohn Jr, 2008; Cox et al., 2023) to the 20th century (De Mesquita & Siverson, 1995; Reiter, 2001). Defeat undermines the regime's legitimacy while also showing its weakness (Miller, 2021). This opens the window of opportunity

for the people to force change from below (Mansfield & Snyder, 2010). In fact, the three most prominent social revolutions: France, 1789-1800, Russia, 1917-1921, and China, 1911-1949 followed state crises and the coercive capacity disruptions (Skocpol, 1979). Yet, far from all defeats result in revolution or another backlash.

People can be affected by war in several ways. To begin with, civilians can be directly exposed to the war efforts and the violence if the front line passes the inhabited area or the enemy can carry on long-range attacks. The effects of such exposure vary widely from case to case with no definitive generalization. While the studies of the Vietnam War show that the US bombings led to the increased pro-Viet Cong mobilization and the rally-around-the-flag effect during the conflict (Dell & Querubin, 2018; Kocher et al., 2011), evidence from the Russian counterinsurgency in Chechnya (Lyall, 2009) and the Peruvian civil conflict (Schubiger, 2021) indicates increased support for the perpetrator. In other cases, enemy bombings can undermine the regime support in the affected areas during the conflict (Adena et al., 2021), and after the defeat (Popovic, 2022). Military occupation leaves a long-lasting legacy, increasing the post-war support for the resistance forces (Fontana et al., 2023), nationalists (Ochsner & Roesel, 2017), and in some cases anti-government movements (Cannella et al., 2021).

However, even if the enemy poses no threat to the people, the government can impose various hardships, for instance, military conscription. In fact, this is what happened in the studied case, because the war was going overseas, and Japan did not threaten the European heartland of the empire, where the majority of the people lived. Thus, the only way the people were exposed to the war was through the actions of the Russian state itself. This feature provides an opportunity to study the effects of state coercion during the actual war clean of the complicated aftermath of the exposure to warfare and violence.

Conscription plays a key role here, as the wartime government and war support are contingent on the casualties (Althaus et al., 2012). Thus, universal conscription makes casualties more widespread throughout the population, since not only the (self-)selected professional soldiers or volunteers fight. Thereby, drafted as opposed to a professional army decreases mass support for war because of the distributed costs (Horowitz & Levendusky, 2011). What is more, conscription-based as opposed to a professional army also makes protests more likely as the people anticipate conscripts to be less likely to shoot their own kin (Cebul & Grewal, 2022). And not only that, but the mass army also requires the franchise extension or public goods to give the citizen-soldiers incentives to fight (Aghion et al., 2019; Alesina et al., 2021; Alesina et al., 2020; Ticchi & Vindigni, 2008), and as the classical theory suggests if the elites do not extend the franchise, the people would revolt (Acemoglu & Robinson, 2006). In this way, the first and most general hypothesis is:

H1: An increase in the conscription rate has a positive effect on civil unrest.

Furthermore, I suggest that in the case of defeat, harassment by the enemy and own government determines the blame attribution. With the enemy's violence and terror, resentment towards the winner can emerge. However, if the own government was the only one who threatened the people and the enemy did not (sure, the enemy always poses a threat to the soldiers on the front lines, however, it is still the own government that sends them there), the people would attribute the grievance to it. And crucially, the defeat reduces the legitimacy of the government and shows its weakness, creating the conditions to channel those grievances into dissent and ultimately revolution (Levi, 1997; Tilly, 1978). Specifically, the military defeat or wartime failures undermine the regime's ability to threaten retribution, allowing the previous grievances an opportunity for backlash (Rozenas & Zhukov, 2019). In general, the political opportunity structures change with such external shocks (Skrede Gleditsch & Ruggeri, 2010) or power shifts within the government which might emerge from them (Beissinger, 2002). Note that this line of argument mainly applies to the non-democratic context. In a functioning democracy, people mostly can vote out politicians without the fear of retribution (Davenport, 2007), while political organizations like parties provide mobilization structures and facilitate collective action, so such specific conditions are not required. But the Russian empire was not a democracy. Thus, the second hypothesis is:

H2: Conscription has an effect on unrest after the defeat in a foreign war.

However, if a particular group is already organized and militant with mobilization structures it does not necessarily need such specific conditions to protest. So the second hypothesis is about the political action of the masses.

Finally, another channel runs through the characteristics of particular local communities rather than the political dynamics in general. Compared to the dominant group, minorities suffer more from coercive nation-building policies such as conscription as their identity is erased in favor of homogenization (Dehdari & Gehring, 2022). In this way, in order to preserve their "oppositional" identities (Bisin et al., 2011) minorities might resist increased coercion (Carvalho, 2013; Carvalho et al., 2022) or demand the political rights (Yi, forthcoming). And so the final hypothesis is as follows:

H3: The effect of conscription on civil unrest is larger in the communities with aggrieved minorities.

Note that my theoretical mechanism is not limited to and goes beyond the exact individuals who are conscripted. Their families and communities at large have a grievance due to the extraction of the men. In such a way, even if the draft itself happens peacefully and the conscripts comply¹, it may become salient for the community in the following months when the political environment changes.

3 Historical Context

3.1 Late Russian empire

After the "Great Reforms" of tsar Alexander II, which included the abolition of serfdom in 1861 (Finkel et al., 2015; Markevich & Zhuravskaya, 2018), reforms of local governance

¹For once, military draft happens with the participation of the active military which can exercise coercion. Moreover, young men may be more willing to fight in war or pursue military careers than their families.

(P. C. Dower et al., 2018), economic modernization, judicial, educational, and military (in 1874) reforms, his son Alexander III and then Nicholas II – the last Russian tsar – pursued more conservative policies. By the start of the 20th century, the demand for change was rising again in the empire.

Several main issues provided grievances for the majority of the population (Ascher, 2004). To begin with, more educated groups were struggling with samoderzhavie – an outdated political system of absolute monarchy and autocracy – and how if at all it can be compatible with civil liberties, democratization, and constitutional government. Another one was the question of the industrial workers: imperial Russia underwent rapid industrialization in the 1890s, and the new social class of the proletariat also rapidly increased in numbers. Due to poor working conditions and a lack of institutionalized ways to bargain imperial industrial workers became extremely militant and organized strikes became prominent even though they constituted just around 3% of the total population. According to some accounts, the Russian proletariat was the most militant in Europe (Koenker, 2014). Lastly, the question of land was a constant source of grievance for the peasants – the most numerous social group. After the abolition of serfdom, all peasants received freedom from their former masters, but not the land. They had to buy the land from the landlords, and it resulted in a belief that the true liberation decree which would grant land titles to the peasants, was kept in secret by the authorities (Pipes, 2011).

There was also the question of multiple minorities in the diverse colonial empire. In general, a conservative government (for instance, of the Minister of Internal Affairs V. Plehve) favored the Velikorussians as the dominant and titular group. Note that in the empire, the concept of Russians included all of Velikoros (Greater Russians, or just Russians in the modern-day sense), Maloros (Little Russians, modern-day Ukrainians), and Beloros (White Russians, modern-day Belarusians). Hereafter I use the term Russians in the modern-day sense to refer to those who were called Velikorussians. At the same time, the political and cultural autonomy of minorities was minimized whenever possible. Apart from the basic xenophobia, political elites also feared that with more developed non-titular identities minorities will demand autonomy and civil liberties² which will threaten samoderzhavie (Ascher, 2004). Xenophobia was the most strongly pronounced in the form of antisemitism: Jews³ were forced to live within the Pale of Settlement, which included several western provinces, had to pay additional taxes, and had a lower ceiling for promotion in the military and civil service.

3.2 Military Service in the Late Russian empire

The military reform of 1874 was a part of the "Great Reforms" of Alexander II. It was seen by its ideologist D. Milyutin as a social reform and a nation-building exercise. Conscription was introduced for all estates and religions universally to forge a unified nation. It also accidentally formed a new type of political agent: citizen-soldier as opposed to the subject (Sanborn, 2003).

After the reform the Russian Imperial Army was based on the universal draft, with the number of conscripts per territorial unit determined by the government. The draft occurred each year from mid-October to mid-November after the harvesting ended. All males (except for the family's only child or sole breadwinner, and poor health conditions) aged over 21 participated: the drafted served up to five years (more educated men served less), and others were included in the military reserves. In times of war, reservists would be mobilized through the system of partial mobilization to quickly increase the number of soldiers (Zayonchkovskiy, 1952).

Some minorities, like the Muslim population and Christian Ossetians in Caucasus provinces, were not subjects to the conscription – they were not considered loyal enough. Also, army cossacks were not conscripted as they were serving universally as internal forces. Other than that, conscription quotas seem to be explained by nothing but demographics and

 $^{^2\}mathrm{Two}$ model minorities were Finland and Poland, where people had more rights compared to the rest of the empire.

³Note that Jews were primarily defined by the religion of Judaism rather than descent: if the Jewish person would switch to Christian Orthodoxy formal restrictions will be lifted.

population distribution patterns (e.g., population density), and the aforementioned notion of disloyalty assigned to a few groups (Zayonchkovskiy, 1973). Overall the army had a peculiar relationship with minorities. Before the 1874 reform, local elites on the conquered territories usually became officers and were able to remain in high positions. Some ethnic groups, especially nomads, had several types of their own regiments within the military (Lapin, 2001). Throughout the 18th and 19th centuries, more and more ethnic groups were recruited into the army on a regular basis, which provoked discontent (for example, the 1863 rebellion in Poland).

The reform in theory should have become a nation-building exercise that would create an inclusive army, but the results were mixed. For the officers, the army was relatively inclusive even before the reform was the major social lift. The exceptions were Jews who had no chance to become officers and Poles who had to apply for special "trustworthiness" paper to become officers. For the soldiers, the army was formally ethnicity-blind, even though xenophobic beliefs (for instance, antisemitism) were certainly present in soldiers and officers (Hagen, 2004). However, as some minorities responded with draft evasion (or rather were believed to dodge the draft more actively), it reinforced the government's prejudice against Muslim and Jewish people (Ohren, 2006).

3.3 Russo-Japanese War and the First Russian Revolution

On February 8, 1904⁴, without the declaration of war, Japan started the siege of Port Artur – a naval base Russia leased from China, and so the war started. Basically, it was a colonial war for control over Korea, northern China, and some Pacific islands. Some historians argue that Russia is primarily responsible or even "provoked" Japan (Ascher, 2004; Pipes, 2011). Regardless of the responsibility, Japan was perceived as a weak and inferior state by the Russian elites and people alike, and initially, support for the war and the Russian government was high.

⁴The dates will be provided using the Julian calendar (Old Style), which was thirteen days behind the Gregorian calendar (New Style) in the 20th century. Russia switched to the New Style in February 1918.

However, Russian forces were scattered through vast territories and the only way to send reinforcements from the European part (where the majority of people lived) was through the single Trans-Siberian railroad which was still under construction. The majority of the navy was in the European seas as well. Overall, the war effort was disorganized and there were constantly not enough soldiers on the frontline. One piece of evidence of how poorly it was planned comes from the Military Ministry's own report to the emperor. In the report for the action in the year 1903 (Military Ministry, 1905) – the year just before the start of the war – Japan is mentioned only in the context of research of their military tactics and suitability of the Korean peninsula for the warfare. While there were a few mobilizations in the Far East by the end of the year, there were no major preparations for the war (note that the report was compiled a few years later and was submitted to the emperor, so there was no reason to withhold any information). And in the 1902 report (Military Ministry, 1904) Japan is not mentioned at all!



Figure 1: Dynamics of independent variables: conscription rate among the conscriptable population and exposure to partial mobilizations. Each line is the time-series for an individual province.

In order to obtain additional forces and compensate for the losses, the conscription quotas

increased significantly as the draft occurred in the fall of 1904. The conscription quotas (number of men per province) increased by an average of 36%: from the pre-war average conscription rate among the conscriptable population (see the operationalization in the next section) of 0.33 (262,795 conscripts nationwide) to 0.45 (367,378 conscripts nation-wide) in 1904. In addition, throughout the year (starting in April) some uezds (counties or districts, second-level administrative divisions) held partial mobilizations with a total of about one million reservists mobilized. The nationwide dynamics are shown in figure 1 and the maps are in Appendix 1.

The military failures slowly changed the public mood. Moreover, the economy was disrupted by the need to transport troops and military supplies at the expense of other goods. In the summer of 1904, reactionary Minister of Internal Affairs V. Plehve was assassinated, and Nicholas II choose a more liberal candidate to replace him. The new minister started small concessions to the civil society and particularly zemstva (local governments). However, the public perceived it as a sign of weakness and increased criticism and the confrontations with government (Ascher, 2004). Zemstvo representatives gathered in Saint-Petersburg in late 1904 and voted for the constitutional change and the introduction of parliament while the police did not interfere. Returning to their uezds, zemstva representatives started local campaigns.

In December 1904, while the Baltic and Black Sea fleets sailed around Africa on their way to the Far East, Japan captured Port Arthur and took about 25,000 prisoners. In the meantime, the "Bloody Sunday" occurred on January 9, 1905. A secret police agent, priest George Gapon, was a prominent labor leader. Industrial workers in St. Petersburg were on strike since late December 1904, so in an attempt to channel the discontent, Gapon decided to organize a mass demonstration to present a petition of grievances to the tsar. He obtained authorization from the city administration under the condition that the procession would not go to the Winter Palace. The peaceful demonstration holding icons stumbled upon armed forces, wasn't able to disperse, and was shot. 200

people were killed, 800 more were wounded (Pipes, 2011). This was the start of the mass strikes, which the government tried to shut down with the police and the army. The First Russian Revolution began. In February 1905 the Russian army lost the major land battle under Mukhden – the largest battle at that point in history. At the same time, Nicholas II continued to make small concessions agreeing to have some kind of (unelected) council of the "worthiest men".



Figure 2: Dynamics of dependent variables: peasant unrest incidents per million rural population and workers strikes per thousand workers. Each line is the time-series for an individual province.

In May 1905, Russia lost a major naval battle near the Tsushima Strait. The Russian fleet was destroyed. With American President Theodor Roosevelt being the intermediary the peace talks started in Portsmouth. Thanks to the diplomatic talents of S. Witte – head of the Russian delegation – the peace terms were reasonably good for Russia: few concessions were made. Nationwide strikes and popular unrest grew with a peak in October. Also, in the middle of October, a new annual draft started and ended successfully in November filling up above 95% of the quota. Nicholas was choosing between military dictatorship and more concessions and picked the latter (arguably, there was no capacity to shut down the upheaval). On October 17, 1905, the October Manifesto was signed by

the tsar and published. It granted the people civil rights, extended the franchise, and introduced the parliamentary body – the State Duma. The reaction was two-fold: while some celebrated, reactionary-minded crowds responded with a wave of pogroms. When the police failed to stop the pogromists, the peasants perceived it as a sign of weakness and increased seizing of the landlords' properties. In December 1905, the Bolshevik's attempt to continue the revolution until the abolition of the monarchy was crushed by the government concluding the first stage of the revolution (Pipes, 2011).

In 1906-1907 popular unrest decreased as the more institutions promised by the October Manifesto offered new channels for grievances. In addition, after the censorship was lifted in late 1905, debates started to take place in the public sphere (Ascher, 2004). The popular protests dynamic is summarized in figure 2 and the maps in Appendix 1. The Fundamental Laws of 1906 – basically, the proto-constitution – were half-hearted as the tsar still appointed the ministers and was able to dissolve the Duma. The first Duma, with a liberal majority (the socialists boycotted the elections), pushed for further democratization and was dissolved on July 8, 1906. The government willing to find a strongman to handle the revolution appointed P. Stolypin – governor of Saratov province - as the Minister of Interior, impressed by how he handled the peasant unrest. He introduced nationwide martial laws with field courts passing death sentences. Peasant disturbances and socialist terror were contained. In order to fight the root cause of peasant discontent Stolypin started his agrarian reform in late 1906 set to provide peasants with land titles they desired. The results of this reform, which are beyond the scope of the paper, were mixed (Castañeda Dower & Markevich, 2019; Chernina et al., 2014). The Second Duma, being even more radical than the first one as socialists participated in the elections, was dissolved in what became known as the Coup of June 1907, which ended the First Russian Revolution. After the more restrictive electoral laws were passed the more conservative Third Duma started its term in November 1907 (Pipes, 2011).

4 Data and Sources

I construct a province-level panel dataset (province was the highest level of administrative division) for the years 1901-07 years⁵, compiling data from several types of historical and contemporary sources: see table 1 for the details.

Indicator	Source	Unit	Period
Conscription quotas	Military Ministry, 1904,	province-year	1901-1906
	1905, 1906, 1907, 1908		
Partial mobilizations	Olenev, 2016	uezd-date	1904-1905
Peasant unrest	Cokmen and Kofanov 2020	province_vear	1805-101/
	Gokinen and Rolanov, 2020	province-year	1050-1514
Worker strikes	Gokmen and Kofanov, 2020	province-year	1895-1914
Census data	Troinitskii et al., 1905	province, uezd	1897
Crop failure	Kahan, 1989	province-year	1859-1914

 Table 1: Data Sources

As the main independent variable, I use the conscription rate among the conscriptable population: the share of males who have turned 21 minus the army cossacks (and Muslims and Christian Ossetians in the Caucasus provinces) who were not conscripted. The Military Ministry published annual reports with province-level conscription quotas as well as the total population enlisted for conscription and the final total amount of conscripted people. 1897 census data is used in the calculation, and as I do not have a detailed age composition by gender, estate, and religion I do not adjust for the age structure. However, as I study the period before the demographic transition and the within-country mobility was limited for the majority of the population because of the internal passport system I assume its structure to be uniform within the country. I assume that the family structure and the share of only children and sole breadwinners is uniform as well. In this way, in order to get the conscriptable population count I divide the nationwide conscriptable population count proportionally by the share of males excluding non-conscriptable

 $^{^{5}1907}$ is the end of the First Russian Revolution, and also the time when the government began to change the conscription laws. 1901 gives three pre-war years, so the pre-period is the same length. The results hold if 1901 and 1902 or 1907 are omitted.

groups to get the denominator for each province. So, to get the conscription rate for the individual province-year I use the following formula:

$$\text{conscription}_{it} = \frac{\text{conscription quota}_{it}}{\text{enlisted}_t \times \frac{\text{conscriptable}_i}{\sum_{i=1}^{N} \text{conscriptable}_i}}$$

Where conscription_{it} $\in [0, 1]$ is the conscription rate among the conscriptable population in the province *i* in the year *t* – the variable I use. The conscription quota_{it} $\in \mathbb{N}_0$ variable is the conscription quota number, the original indicator I have. enlisted_t is the nationwide total number of people enlisted for conscription in a year *t*. conscriptable_i is the number of conscriptable people of all ages in province *i*: all males minus army cossacks and Muslims and Ossetians in Caucasus provinces (see figure 20 for the map). Note that this indicator is based on the census data and thus is time-invariant. Lastly, $\sum_{j=1}^{N}$ conscriptable_j is the nationwide total number of conscriptable people based on these province-level measures.

Note that as there is no province-level data on the amount of actually conscripted people, I stick to the conscription quotas: between 95-97% of quotas were fulfilled⁶. Still, using conscription quotas has a few benefits. First, being the intention to treat (ITT) it rules outs the problem of non-compliers. It is particularly important given that noncompliance with conscription can be the result of unrest. Substantially, it also measures state coercion more accurately without adding the compliance in question. Second, ITT is a conservative estimate⁷, so if the effect is detected it is less likely to be random noise.

As the second treatment, I utilize partial mobilizations. Unfortunately, there is no data on the number of people mobilized: the Military Ministry in its own report has provided only an approximate number of "around a million people were mobilized" (Military Min-

 $^{^{6}\}mathrm{The}$ aggregate number of total quota and the nation wide number of conscripted people is included in the reports

⁷It is similar to the reduced form of the two-step least-squares model with outcome regressed directly on the instrument, this estimate is lower in magnitude and significance compared to the second stage (see formal derivation in Dunning, 2012, chapters 4, 5).

⁸The census did not have a question on ethnicity, so the measure is based on the question on first language. Non-Russian include Ukrainians and Belarusians.

Variable	N. obs	Mean	\mathbf{Sd}	Min	Max
Conscription quota	300	6443.3	3263.9	894.0	17382.0
Conscription rate	300	0.4	0.1	0.1	0.6
Mobilizations	300	0.2	0.4	0.0	1.0
Peasant unrest	300	51.1	126.7	0.0	854.0
Peasant unrest (per million)	300	28.0	63.3	0.0	407.4
Worker strikes	280	45.1	177.7	0.0	1861.0
Worker strikes (per 1000)	270	1.9	6.4	0.0	73.3
Crop failure	300	0.4	0.5	0.0	1.0
Total population	300	1881759.7	737464.7	346536.0	3559229.0
Industrial workers	270	32055.0	50419.3	3683.0	286804.0
Rural share	300	0.9	0.1	0.3	1.0
Russian share ⁸	300	0.5	0.4	0.0	1.0
Orthodox share	300	0.8	0.3	0.0	1.0

Table 2: Descriptive Statistics

istry, 1906, p. 137). What is available is the list of European uezds mobilized in each wave of partial mobilizations (there were nine waves between April 20, 1904, and August 6, 1905). I construct a dummy for uezd exposure for any mobilization wave in a given year (some uezds have more than one mobilization, which is not captured by such a measure) and aggregate it on the province level weighted by uezd population. Based on the total count of the number of men mobilized, as opposed to conscripted (around a million mobilized over two years versus approximately 370 thousand a year, an increase of around 100 thousand from the pew-war average), mobilizations should give the first-order effect. However, due to the noisy aggregate kind of measure that I have, the true effect may not be fully explored.

There is no systematic relationship between these two policies. For once, they targeted different populations: 21-year-olds as opposed to ex-soldiers and reservists who already participated in the draft. Statistically, however, there is a significant positive correlation between the pre-war and 1904 conscription rates and the exposure to mobilizations in 1904. Nonetheless, as there is a significant negative correlation between mobilizations in 1904 and in 1905, there is also a negative correlation between the exposure to mobilizations in 1905 and conscription in 1904, and no significant correlation with conscription rates in 1905. Overall, I treat them as two independent treatments in my analysis.



Figure 3: Russian empire (excluding Finland) in the early 20-th century, provinces under study are circled in red. Background tile from OSM is used (c) OpenStreetMap contributors.

The detailed description of the data on peasant unrest and worker strikes – my dependent variables – can be found in Gokmen and Kofanov, 2020. These two indicators cover both the mass popular revolts, since peasants made up the majority (about 86%) of the population, and the more organized and politically active, but less numerous group of industrial workers. Peasant unrest included various types of economic and social conflicts, political revolts, and confrontations with the authority. Original data on peasant revolts for the years 1895-1904 comes from the "chronicles" of peasant movements by Anfimov, 1998 and for 1905-1907 from the collection *Russian Revolution of 1905-1907:* 50 years 1905-1955 (*Revolyutsiya 1905-1907 gg. v Rossii: 50 let 1905-1955*), 1955 and also additional regional sources⁹. The data on the industrial worker strikes originally comes from the Industrial Survey conducted in 50 European provinces by Varzar, 1905,

⁹Including Leshenko, 1977 covering Ukraine, Shmygin, 1962 covering the Volga region, Abramov, 1956 and Egorov, 1948 – Central Black Earth region, Shabunya, 1962 – Belarus, Popov, 1954 – Central Russia, Lyaskovskiy, 1958 – Central Asia, and Goryushkin et al., 1985 – Siberia

1910, 1908. I normalize this data by the millions of rural¹⁰ population and thousands of workers respectively. See the detailed descriptive statistics in the table 2.

Since the data on mobilizations is limited to the European provinces, and the data on crop failure (the measure is based on requested food assistance and is the only available time-varying control) does not include Poland, the sample of the study consists of 50 main European provinces of the empire¹¹. Figure 3 shows the area under study, which covers large parts of the modern-day Baltic States, Belarus, Russia, and Ukraine, and the remaining parts of the empire (Poland, Caucasian provinces, Central Asia, and Siberia; Finland was part of the Empire, but is not shown on the map). In total, provinces in the sample account for just over 94 million people according to the 1897 census, almost 75% of the total 125.6 million imperial population. As a robustness check, I also run the analysis on the full sample.

One critical variable omitted in the analysis is the number of casualties. Unfortunately, to the best of my knowledge, there is no representative data on casualties at the province level. The data for the individual military regiments is available in the Russian State Military History Archive (RGVIA) and is not available online. Some data on individual records, including dead, wounded, and captured, from the newspaper Selskiy Vesnik (Village Messenger) is published online at the familio.org website. However, the data is only available for the year 1904 and is still incomplete. In addition, the province-level number of casualties depends on the number of soldiers from a given province¹², and most of the soldiers were conscripted or mobilized. In this way, casualties are the mediating effect of

¹⁰While the census provides data on the peasant estate, I consider the rural population to be a more accurate denominator. The peasants who moved to the cities and became industrial workers are still counted as peasants in the census. On the other hand, when Soviet historians collected data on "peasant revolts," their agenda was to portray maximum struggle under the old regime, so they were inclusive in documenting all rural unrest, not specifically peasant.

¹¹Since conscription data has Orenburgskaya gubernia (province) and Uralskaya oblast' are joint in a single data point in the Military Ministry reports, I merge them in my dataset and this merged unit is included.

 $^{^{12}}$ As long as soldiers had equal chances to be sent to war regardless of their province of origin, which is likely to be the case since the military units were mixed (Zayonchkovskiy, 1973) or killed once at the war.

conscription on unrest and should not be controlled for (Cinelli et al., 2022). On the other hand, the conscription quota can be seen as an instrumental variable for the casualties¹³, and so the current specifications are the reduced-form estimators, so I already have a conservative estimate of the casualties effect.

5 Identification Strategy

Given the panel structure of the data, to difference out any possible time-invariant covariates and account for time trends, I utilize the following two-way fixed effects specification as a baseline to test the first hypothesis:

$$unrest_{it} = \beta conscription_{i,t-1} + \sigma mobilization_{it} + \kappa X_{it} + \alpha_i + \theta_t + \varepsilon_{it}$$
(1)

Here unrest_{it} is the normalized number of peasant unrest incidents or industrial worker strikes in a given province-year. conscription_{i,t-1} is the conscription rate the year before and mobilization_{it} is exposure to partial mobilizations. Since the draft occurred from mid-October to mid-November to avoid reverse causality within a single year, I take the lag of the conscription rate. Since mobilizations happened throughout the year and there is historical evidence of immediate effects on unrest, I do not take lag of mobilization measures. X_{it} is the vector of time-varying controls, which include crop failures. α_i and θ_t are province and year fixed effects, and ε_{it} is an idiosyncratic error term clustered by province.

One limitation of my data and design is the lack of a clear control group with no conscription or no increase in conscription. There were a few provinces with no conscription, but they were systematically different from the others¹⁴ and there is less data available

¹³The problem will be a province-specific adjustment of the conscription quota to the province-specific casualties if the proportion of casualties among the conscripts is not uniform across provinces. There is no way to test this under the current data, but based on the historical evidence, such elaborate adjustments were unlikely.

¹⁴They were located in the borderlands, had little infrastructure and cities, very few settled people, and fewer Russians and orthodox, see figure 20.

for them, so they were not included in the main sample. Such wise, there is no way to estimate the effect of conscription as such, and so the interpretation of the results will be in terms of the average causal response: the average change in the outcome with the given change in the treatment (Callaway et al., 2021).

The key assumption required to estimate the true causal effect is the exogeneity of the conscription rates and mobilizations, i.e., independence from unrest and strikes in the previous periods. Moreover, there should be no back-door path or reverse causality that is not differenced out. It is particularly challenging, given some evidence of the strategic nature of conscription in different contexts (Asal et al., 2017; Atkinson & Fahey, 2022). However, historical evidence suggests that in imperial Russia, conscription quotas were determined by nothing but the (relatively stable) basic demographics discussed above and the (time-invariant) notion of loyalty, while the mobilizations occurred according to the pre-determined schedules based on logistical reasons (Zayonchkovskiy, 1973). There is no historical evidence that conscription or mobilization was influenced by the discontent in a particular province. Even though the army was actively used against the protestors, most of the soldiers were stationed in provinces different from their home – only 11%served in the same military okrug (district)¹⁵ (Svechin, 1928). The statistical tests are in the sensitivity section below, but one piece of evidence is the high year-to-year conscription correlation (above 0.8 for any given pair of years, see figure 8), indicating that it is unlikely that conscription was dynamically adjusted.

5.1 Effects Decomposition

In order to estimate the conditional effects and test hypotheses 2 and 3 I utilize models with the interaction terms. To decompose the temporal variation in the effect of conscription I use the event study design (also known as the dynamic TWFE):

¹⁵Each military okrug consisted of 4 up to 14 provinces. The exception was the Oblast' Voiska Donskogo – the region of the army cossacks – which was a separate military okrug. See figure 21 for the details.



Figure 4: conscription rates among the conscriptable population before and after the start of the war, provinces under study are circled in red. Background tile from OSM is used (c) OpenStreetMap contributors.

unrest_{it} =
$$\sum \gamma_t [\text{conscription}_{i,t-1} \times \theta_t] + \sigma \text{mobilization}_{it} + \kappa X_{it} + \alpha_i + \theta_t + \varepsilon_{it}$$
 (2)

Where $[\text{conscription}_{i,t-1} \times \theta_t]$ is the conscription/mobilization and year fixed effect interaction, with γ_t being the coefficients of interest – effect of conscription on unrest in a given year. Other variables are as before. I do not interact mobilizations with year FEs in the main specification since all mobilizations occurred during the war which is essentially the same period in my theory. I do add the interaction as the robustness check.



Figure 5: Partial mobilizations in 1904 and 1905, provinces under study are circled in red. Background tile from OSM is used (c) OpenStreetMap contributors.

The timing of the start and the end of the war is the same for all provinces, and so conscription increased at the same time and mobilizations started during the same year¹⁶. In other words, there is (almost) no staggered treatment adoption, and so the specification with TWFE and standard errors, clustered at the treatment assignment (province) level is expected to provide reliable estimates in the absence of the heterogeneous effects (Roth et al., 2023; Sun & Abraham, 2021). For me, since the treatment in my case is not a switch but is applied regularly, the specification (2) should give a reliable estimate as long as the cross-sectional heterogeneous effects are parallel over time.

 $^{^{16}{\}rm Oblast'}$ Voiska Donskogo didn't experience mobilizations until 1905, it is removed as a robustness check (see next section).

Finally, to test the third hypothesis of cross-sectional heterogeneity, I employ the model with an interaction term. Specifically, I am interested in the conditional effects of ethnic and religious minorities' presence:

unrest_{it} =
$$\beta$$
conscription_{i,t-1} + ξ [conscription_{i,t-1} × **M**]+
+ σ mobilization_{it} + δ [mobilization_{it} × **M**]+
+ $\kappa X_{it} + \alpha_i + \theta_t + \varepsilon_{it}$ (3)

With M_i being the time-invariant¹⁷ moderator of interest (minorities population share), the effect of M_i is absorbed by the province fixed effect. ξ and δ are the coefficients of interest here as estimates of the conditional effects of conscription and mobilizations.

6 Results

The results of the baseline model specification (1) on the sample of 50 European provinces between 1902 and 1907 are presented in table 3 below. The effects of conscription and mobilization are estimated separately, jointly, and with controls for negative agricultural shocks. Testing the first hypothesis, there is a significant robust positive effect of the military conscription rate on peasant unrest at the 5% level, but there is no robust effect on worker strikes. There is also no systematic effect of mobilizations on peasant unrest. However, mobilizations have a robust positive effect on strikes at the 5% level. Overall, the theoretical prediction is correct, and increases in conscription rates and exposure to the mobilizations have a positive effect on civil unrest, although different groups (peasants versus industrial workers) respond to different treatments.

In terms of the effect size, taking the pre-war period as the control group and the coefficients from the models with controls: one standard deviation increase in the pre-war conscription rate (0.06) is associated with an additional 12.38 peasant unrest incidents

 $^{^{17}\}mathrm{Population}$ data comes from census and is time-invariant.

		Peasan	t Unrest		Worker Strikes				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Conscription	192.637^{*}		222.052**	217.925^{**}	10.911		17.009	16.858	
	(100.950)		(101.255)	(102.923)	(14.456)		(15.154)	(15.216)	
Mobilizations		20.151	23.462	23.556		5.356^{**}	5.574^{**}	5.573^{**}	
		(24.037)	(24.207)	(24.327)		(2.401)	(2.436)	(2.408)	
Controls	No	No	No	Yes	No	No	No	Yes	
Province FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
\mathbb{R}^2	0.549	0.549	0.554	0.554	0.443	0.466	0.469	0.472	
Num. obs.	300	300	300	300	270	270	270	270	
N Clusters	50	50	50	50	45	45	45	45	

Table 3: base	eline es	timate
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***p < 0.01; **p < 0.05; *p < 0.1. Robust-standard errors clustered at province level in parentheses

The unit of analysis is province-year. The dependent variables are peasant unrest incidents per million rural population and workers strikes per thousand industrial workers. Conscription is the rate of conscription quota over the conscriptable population and mobilizations are the share of uezds exposed to mobilizations in a province, weighted by population. Controls include crop failure and lagged crop failure.

per million rural population. Given that the average rural population in provinces under the study is 1.64 million people, this is an increase of 20.3 incidents per province (the pre-war province under study had a mean of 6.6 peasant unrest incidents with a standard deviation of 22.39). Taking the average annual exposure to mobilizations in 1904-1905 is 0.59 in the provinces under study (that is uezds with the total 59.6% of the province population being exposed to mobilizations), such a mobilization exposure compared to the pre-war zero is associated with an additional 3.32 strikes per thousand workers. With the mean number of workers in the provinces under study being 32.06 thousand it is an increase of 106.4 strikes per province (the pre-war mean number of strikes per province is 45.118 with a standard deviation of 177.791).

The following subsections present the results of the model specifications (2) and (3), which examine the heterogeneous treatment effects across time and space. I also test alternative explanations for the detected effects.

6.1 Time-Varying Effects

Results of the model specification (2) providing the conscription effect decomposition by year are presented in the table 7 and in the graphical form in figure 6. Note that for the year = t, the plot and table show the effect of conscription_{t-1} (and mobilizations_t) on unrest_t. For peasant unrest, the figure indicates insignificant effects of conscription during the pre-war period (1901 to 1903, corresponds to unrest in 1902-1904), an increased magnitude of conscription in 1904 and 1905, and a drop in 1906, but only conscription in 1905 is a significant predictor of unrest in 1906 at the 5% level. The relationship is switched for worker strikes: significant positive pre-trend decreases in magnitude and becomes insignificant at the 5% level after the start of the war.



Figure 6: Event study results of model specification (2), models (2) and (5) from table 7: the effect of conscription_{t-1} on unrest_t are depicted. The war started in 1904 and ended in 1905, the revolution started in 1905 and ended in 1907. The unit of analysis is province-year. The dependent variables are peasant unrest incidents per million rural population and worker strikes per thousand industrial workers. Conscription is the rate of conscription quota over the conscriptable population and mobilizations are the share of uezds exposed to mobilizations in a province, weighted by population. Controls include crop failure and lagged crop failure.

The second hypothesis testing if the effect of conscription on civil unrest is driven by the

period following the defeat in a foreign war. The predicted effect holds for peasant unrest: there is no relationship before the start of the war and the only significant effect follows the defeat in the war in 1905. However, there are two more interesting results: the effect of conscription₁₉₀₄ on unrest₁₉₀₅ increases in magnitude compared to the pre-war period, and the effect of conscription₁₉₀₆ on unrest₁₉₀₇ is statistically indistinguishable from 0. For the former, it can be either the effect of unrest at the end of 1905 following the defeat, or the defeat is not necessary and the frontline failures can effectively signal the state's weakness. Moreover, the window of opportunity could emerge because of the changes in government policy (see the historical description above and Pipes, 2011) which were also perceived as a sign of weakness. Monthly data on unrest is needed to distinguish between these two alternative explanations. For the latter, it can be explained by the further changes in the political environment as new political institutions and freer media replaced mass protests as the arena of contention (Ascher, 2004).

Note also that the effect is reversed for worker strikes. This is consistent with the notion that the window of opportunity is not required for the more organized and militant groups, such as the industrial workers in imperial Russia (Koenker, 2014). Conscription seemingly was a more salient issue for them before the war. During the revolution, howver, workers across the empire participated in the nationwide strikes in 1905 because their motivations were shaped by the changing political environment, and their organizational capacity was a substitute for the political opportunities opened up by the defeat.

6.2 Heterogeneous Effects

Finally, the specification (3) examines the cross-sectional heterogeneity of the effects. The moderators include the share of non-Russians and non-orthodox population and the dummy for the Pale of Settlement. The first two moderators measure all ethnic and religious minorities, respectively (see figure 7), while the last one captures the most discriminatory practice of all, taken against the Jews. The results are shown in table 4 below, all models include controls.



Share of ethnic Russians 0.00 0.25 0.50 0.75 1.00



Figure 7: Ethnic and religious composition according to the 1897 census, provinces under study are circled in red. Background tile from OSM is used (c) OpenStreetMap contributors.

To begin with, the share of non-Russians is a significant positive moderator of the con-

scription rate at the 1% and 5% significance levels for both peasant unrest and worker strikes. It is also a significant (at the 5% level) moderator of the mobilizations with strikes being the dependent variable. This means that with the increasing share of non-Russians higher conscription rates have stronger effects compared to provinces with a higher Russian population. The share of the non-orthodox population is significant at the 1% level moderator of both conscription and mobilizations with strikes being the dependent variable. At the same time, there is no significant moderation for peasant unrest (this discrepancy can be due to the sample composition, as there is higher variation in the share of ethnic, compared to religious, minorities). Lastly, the Pale of Settlement is significant at the 5% level moderator of conscription for peasant unrest. Since conscription or mobilizations have no significant positive effect outside the interaction term, this also suggests that there are no revolts in the absence of minorities.

Overall, there is evidence in favor of the third hypothesis stating that military conscription is more salient for the aggrieved minorities. However, since the aggregate data is used, there is no evidence that minorities are the ones responsible for the unrest. The discrepancy in the effect of religious minorities (non-orthodox population) on peasant unrest and worker strikes is interesting and requires further investigation with more detailed data. Surprisingly, the Pale of Settlement does not have that strong of an effect. There are two possible explanations for that. First, as Jews were systematically accused of draft dodging (Ohren, 2006), evasion is an alternative response to state coercion without direct confrontation. Second, it may also be related to the widespread antisemitism which could make Jews less likely to engage in mass politics as opposed to more secretive revolutionary movements. Also, note that Jews primarily lived in urban areas due to movement restrictions. In this way, there is an alternative explanation of the positive effect specifically on peasant unrest. Proximity to Jews, who were believed to be draft dodgers, made the rest of the population feel relatively more punished by increased conscription rates since they would have to compensate for the Jews. This hypothesis might also be tested with the data on Jewish pogroms.

	Pe	easant Unre	st	W	orker Strikes	3
	(1)	(2)	(3)	(4)	(5)	(6)
Conscription	-75.787	153.198	108.423	-20.929^{**}	-4.970	-2.199
	(115.595)	(110.558)	(119.179)	(9.511)	(11.976)	(9.070)
Mobilizations	-3.348	11.057	21.738	1.125	1.034	4.197^{*}
	(26.186)	(23.347)	(29.761)	(1.705)	(1.810)	(2.407)
Conscription \times non-Russians	602.638***			70.447**		
	(162.070)			(25.952)		
Mobilizations \times non-Russians	29.262			5.243***		
	(22.319)			(1.783)		
Conscription \times non-orthodox		319.593			143.149***	
		(307.190)			(42.445)	
Mobilizations \times non-orthodox		30.723			9.115***	
		(55.792)			(2.590)	
Conscription \times Pale			331.280^{**}			38.767
			(148.067)			(23.640)
Mobilizations \times Pale			-6.157			1.573
			(18.436)			(1.889)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Province FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
\mathbb{R}^2	0.597	0.561	0.575	0.537	0.584	0.500
Num. obs.	300	300	300	270	270	270
N Clusters	50	50	50	45	45	45

Table 4: minorities moderators (direct effects of time-invariant moderators are absorbed by province fixed effects)

 $^{***}p < 0.01; \,^{**}p < 0.05; \,^*p < 0.1.$ Robust-standard errors clustered at province level in parentheses

The unit of analysis is province-year. The dependent variables are peasant unrest incidents per million rural population and worker strikes per thousand industrial workers. Conscription is the rate of conscription quota over the conscriptable population and mobilizations are the share of uezds exposed to mobilizations in a province, weighted by population. Non-Russians stand for the share of non-ethnic Russians (non-Velikoros in census) population, Non-orthodox is the share of population who didn't select Orthodox Christianity as their religion, Pale is the dummy for the Pale of settlement. Controls include crop failure and lagged crop failure.

6.3 Alternative Explanations

Additionally, I test two possible alternative explanations of the observed effects. First, my theory proposes that the effect of conscription on unrest goes through the grievances and blame attribution. So, one alternative explanation, which removes this channel, is the mechanical effect of population extraction and displacement disrupting the local economy (P. C. Dower & Markevich, 2018; Voth et al., 2022). If this alternative explanation is true, the effect of population displacement should be larger in places with lower population or lower population density as it is harder to replace the drafted men with fewer people around¹⁸.

To test it, I use the models with interaction terms (3) using the rural population (for peasant unrest), number of workers (for strikes), and population density (for both dependent variables) as moderators. Models (1), (2), (4), and (5) in table 5 provide the results. The only significant interaction term is the positive effect of conscription and population density, with all others being statistically insignificant even at the 10% significance level. This exercise shows no evidence in favor of this alternative explanation.

Second, my theory is centered on the conscription and extraction of people. However, given that the effect is primarily driven by the period after the defeat, there is an alternative explanation through demobilizations. After the end of the war, mobilized men (but not conscripts) would return to their homes through late 1905-1906. Given that the system of partial mobilizations was poorly organized, and mobilized soldiers were actively engaged in military disturbances on their way to the frontline (Military Ministry, 1907), it is natural to assume that they will also engage in unrest upon their return or otherwise influence local political (Cagé et al., 2021; Yi, forthcoming). As unrest spiked in 1905-1906 and the only significant [conscription \times year] effect explains unrest in 1906, this alternative seems plausible.

¹⁸This proposition is based on the assumption that the same conscription rate will be more disruptive due to the lower absolute number of men available as the replacements, which depends on the economy of scale.

	Pe	easant Unres	st	Worker Strikes		
	(1)	(2)	(3)	(4)	(5)	(6)
Conscription	-1905.195	-168.079	224.181**	102.845	25.270	15.609
	(2184.507)	(156.818)	(107.142)	(60.306)	(16.645)	(14.129)
Mobilizations	339.828	13.079	26.695	10.677	6.018^{*}	5.542**
	(370.933)	(29.667)	(25.907)	(6.922)	(3.280)	(2.448)
Conscription \times rural population (log)	145.955	· · · · ·	· · · ·	· /	· /	· · · ·
	(152.635)					
Mobilizations \times rural population (log)	-22.443					
	(25.175)					
Conscription \times population density		10.877***			-0.230	
		(3.293)			(0.415)	
Mobilizations \times population density		0.221			-0.010	
r r		(0.293)			(0.043)	
Conscription \times industrial workers (log)		(0.200)		-9.099	(0.010)	
······································				(5.764)		
Mobilizations \times industrial workers (log)				-0.528		
				(0.646)		
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Demobilizations	No	No	Yes	No	No	Yes
Province FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
B ²	0.565	0.590	0.562	0.478	0.473	0.474
Num obs	300	300	300	270	270	270
N Clusters	50	50	50	45	45	45

Table 5: alternative explanations (direct effects of time-invariant moderators are absorbed by province fixed effects)

 $^{***}p < 0.01$; $^{**}p < 0.05$; $^*p < 0.1$. Robust-standard errors clustered at province level in parentheses

The unit of analysis is province-year. The dependent variables are peasant unrest incidents per million rural population and worker strikes per thousand industrial workers. Conscription is the rate of conscription quota over the conscriptable population and mobilizations are the share of uezds exposed to mobilizations in a province, weighted by population. Controls include crop failure and lagged crop failure. Demobilizations are the sum of mobilizations in 1904 and 1905 after the end of the war and 0 before 1905. I test this alternative explanation by adding control for demobilizations in the baseline equation (1). I measure demobilizations as the sum of exposure to mobilizations in 1904 and 1905 after the end of the war, and 0 before the end. The results are in models (3) and (6) in table 5. The positive effects of conscription on peasant unrest and of mobilizations on worker strikes persist in both magnitude and significance with this additional control.

7 Sensitivity Analysis

This section describes and presents the results of the sensitivity analysis of the analytical decisions and identification assumptions, placebo tests, robustness and stability checks, as well as an alternative identification strategy.

7.1 Identification Assumptions

To formally test the exogeneity of my independent variables I use plausibility tests based on the reversed equation (1) with conscription and mobilizations or their growth as dependent variables (tables 9, 10). There is no effect of unrest in previous periods, so I assume it to be plausibly exogenous. There is however the significant negative effect of peasant unrest on mobilizations_{t+1}. This is a statistical artifact of the lack of mobilizations in 1906 after the biggest wave of unrest in 1905. If 1906 is dropped there is no significant effect in the reversed model, however the baseline specifications remain significant.

Apart from that, TWFE models require the following assumptions in order to be unbiased (Imai & Kim, 2021): (a) homogeneous treatment effects, (b) parallel trends, and (c) linear additivity. Assumption (a) directly contradicts my third hypothesis and the results of the heterogeneous treatment effects analysis. In this way, the TWFE coefficients from the baseline specification (1) provide the weighted effect across subgroups. As for the assumption (b), with a continuous treatment Callaway et al., 2021 recommend using "strong" version $\mathbb{E}[\text{unrest}_t(c) - \text{unrest}_{t-1}(0)] = \mathbb{E}[\text{unrest}_t(c) - \text{unrest}_{t-1}(0)|\text{conscription} = c]$. This "strong" assumption requires for all levels of conscription, "the average change in outcomes over time across all units, if they had been assigned that amount of dose, is the same as the average change in outcomes over time for all units that experienced that dose" (Callaway et al., 2021, p. 11) meaning that there is no time-varying effect outside the treatment period. This assumption is supported by the event-study results. I also run an additional model with the baseline TWFE specification (1) but only on the pretreatment period, and find no significant effect (see table 8). Finally, for (c), I expect it to hold.

To account for possible SUTVA violations, I control for the spatial spillovers of conscription and mobilizations as a further robustness check. Also, as the literature on mass protests heavily emphasizes the diffusion of protests (Barrie, 2018; Huang et al., 2019), I additionally model spatial and temporal lag of the dependent variables. The results of the main analysis hold, see the table 11.

Additionally, I provide a placebo treatment/outcome test, also known as the parallel trends test (Eggers et al., 2021). In order to do that, I run the baseline specification (1) but with the lagged dependent variable. The results are in the table 13. There is no significant relationship between conscription and mobilizations and either of the dependent variables_{t-1}. This also provides evidence that the parallel trends assumption might hold. In this line, I also test another TWFE specification assumption – no lagged treatment effects (Imai & Kim, 2019), see results in table 14. There are no statistically significant lagged treatment effects.

7.2 Robustness

I also use a different measure for the conscription rate by simply normalizing it on the total population rather than to conscriptable males. Also, total exposure to mobilizations is utilized. That is, if the uezds were exposed to more than one mobilization in a given year, they are counted more than once. As for the dependent variables, I normalize the unrest by peasant estate rather than by rural population figure. The results are in table 15, the direction, magnitude, and significance of the effects from the main analysis mostly hold.

To further test the robustness of the results, I add time-invariant controls that interacted with the year fixed effects to the baseline specification. Moreover, I also use negative binomial models for the count data to re-estimate the baseline specification (1), but with the raw number of incidents as the dependent variable. The results are in tables 12 and 20, the direction and magnitude of the effects hold, and significance mostly holds.

Finally, to check the stability of the sample, I drop individual military okrugs and the first and last years. I also run (under-controlled) models on the unrestricted sample, which includes Asia, the Caucasus, and Poland. Results are in tables 16, 17, 18, and 19, direction, magnitude of the effects holds, and significance mostly holds.

7.3 Alternative Specification

Finally, I use a different panel estimator and an alternative specification leveraging the conscription shock of 1904. To begin with, following the suggestions of Millimet and Bellemare, 2023, I make use of the first difference (FD) estimate for the panel data as an alternative to TWFE. The panel FD specification is as follows:

$$\Delta \text{unrest}_{it} = \beta \Delta \text{conscription}_{i,t-1} + \sigma \Delta \text{Mobilizations}_{it} + \kappa X_{it} + \nu_{it} \tag{4}$$

where Δ unrest_{it} is the change between the periods t - 1 and t in the number of peasant unrest incidents per million rural population and worker strikes per thousand industrial workers. Δ conscription_{i,t-1} is the change between the periods t - 2 and t - 1 in the conscription rate among the conscriptable population. Δ Mobilizations is the change between the periods t - 1 and t in the exposure of province i to mobilizations, measured as the share of uezds exposed to mobilizations, weighted by population. X_{it} is the vector of time-varying and optionally time-invariant controls. ν_{it} is an idiosyncratic error term.

FD requires a weaker form of the strict exogeneity assumption, compared to TWFE. While TWFE requires no time-varying heterogeneous effects (HTE) over the entire period to be unbiased, FD requires no time-varying HTE between the two consecutive periods, which is more feasible (Millimet & Bellemare, 2023). In this way, FD provides a more robust estimate, trading it to one time period lost due to differencing. Also, note that the fixed effects are differenced out here. The panel FD results are in table 22, the direction and significance of the effects hold, while the magnitude is larger as first differences have different ranges compared to the original numbers.

Next, I utilize an alternative identification strategy. Conscription rates are mostly stable before the war (1901-1903) and after the war started (1904-1906), with 1904 being the discontinuity. Mobilizations also start with the war, see figures 1, 8, and 9. In this way, this increase in conscription and mobilizations in 1904 offers likely exogenous (see below) shock, which I leverage in the following "static" FD estimate. Since almost all the variation in both peasant unrest and worker strikes comes from 1905 onwards (see figures 2, 10), I collapse the panel into two periods. Pre-treatment: 1901-1903 conscription and 1902-1904 unrest, and post-treatment: 1904-1906 conscription, mobilizations, and 1905-1907 unrest. Conscription and unrest figures are averaged within these new periods. The cross-section specification is as follows:

$$\Delta \text{unrest}_i = \beta \Delta \text{conscription}_i + \sigma \text{Mobilizations}_i + \kappa X_i + \nu_i \tag{5}$$

Where Δ unrest_i is the change between the 1902-1904 and 1905-1907 averages of peasant unrest incidents per million rural population and worker strikes per thousand industrial workers. Δ conscription_i is the change between the 1901-1903 and 1904-1906 averages of the conscription rate among the conscriptable population. Mobilizations_i is the exposure to mobilizations of province *i*, measured as the proportion of uezds exposed to mobilizations in 1904, weighted by population. X_i is the optional vector of time-invariant controls. ν_i is the individual error term.

Again, the key identifying assumption is the treatment exogeneity, which is tested with the pre-treatment observable indicators. The results of this exercise are shown in table 21. Δ conscription_i or Mobilizations₁₉₀₄ are not associated with the pre-treatment unrest indicators, and while there are a few significant time-invariant predictors, they are differenced out. The results of the specification (5) are presented in the table 6: the first difference of conscription remains the significant positive predictor of peasant unrest. The magnitude is larger since the first differences of conscription rate and unrest are on a different scale compared to the baseline TWFE specification. However, there is no significant effect of either treatment on worker strikes. Overall, this confirms the main results of the analysis for peasant unrest and again suggests that the highly organized group of industrial workers was not affected by this shock in the same way.

		Δ Peasa	nt Unrest			Δ Worke	er Strikes	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Δ Conscription	936.871***	988.928**	1408.806**	1870.740**	-28.306	40.122	113.923	84.266
	(331.678)	(402.031)	(644.312)	(721.903)	(30.664)	(67.998)	(85.683)	(54.231)
Mobilizations ₁₉₀₄		-7.516	-22.421	-51.089		-9.999	-9.345	-5.748
		(26.788)	(27.848)	(30.581)		(7.602)	(8.977)	(5.595)
(Intercept)	-52.041	-51.962	472.391	798.389**	7.130^{**}	7.365^{*}	58.202	39.268
	(35.807)	(35.905)	(355.091)	(362.575)	(3.352)	(3.820)	(45.182)	(27.082)
Popultion	No	No	Yes	Yes	No	No	Yes	Yes
Geography	No	No	Yes	Yes	No	No	Yes	Yes
Minorities	No	No	Yes	Yes	No	No	Yes	Yes
Pre-war conscription	No	No	No	Yes	No	No	No	Yes
Pre-revolution unrest	No	No	No	Yes	No	No	No	Yes
\mathbb{R}^2	0.145	0.353	0.406	0.536	0.184	0.406	0.504	0.702
Num. obs.	50	50	50	45	45	45	45	45

 Table 6: first-difference estimate

***p < 0.01; **p < 0.05; *p < 0.1. Robust-standard errors

The unit of analysis is province. The dependent variables are the change between the 1902-1904 and 1905-1907 average numbers of peasant unrest incidents per million rural population and worker strikes per thousand industrial workers. Δ Conscription is the change between the 1901-1903 and 1904-1906 averages of conscription rate among the conscriptable population. Mobilizations₁₉₀₄ is the province exposure to mobilizations, measured as the share of uezds exposed to mobilizations in 1904, weighted by population. Population controls include: province population (log), share of rural population, and population density. Geography controls are the province centroid longitude and latitude. Minorities control for the share of ethnic Russians and religious orthodox. Pre-war conscription is the average conscription rate between the 1901-1903. Pre-revolution unrest is the average numbers of peasant unrest incidents per million rural population and worker strikes per thousand industrial workers in 1902-1904.

Finally, I also use an alternative event study estimate based on Freyaldenhoven et al., 2021, which also leverages the same FD treatment effect estimate. There are three differences in this approach compared to the specification (2): the effect is normalized to set the effect in period treatment-1 (in my case, conscription in 1903) to 0, the cumulative effect of the FD of the treatment is estimated (which also results in too wide confidence intervals since I have the treatment applied every year, not just once), and sup-t bands are used instead of confidence intervals. The results are presented in figure 11 and table 23, the key result of the baseline event-study (effect of conscription in 1905 on peasant unrest in 1906) holds. The pre-trends are also insignificant in this specification as well.

8 Discussion

To understand how war can lead to mass rebellion, I examined the effects of exposure to the Russo-Japanese War (1904-1905) on the mass uprisings during the First Russian Revolution (1905-1907). Using the original historical data on conscription quotas, peasant unrest, and worker strikes in early 20th-century imperial Russia, I show that the increased military conscription during the war was one of the causes of the mass unrest during the revolution. To the best of my knowledge, it is the first attempt to quantify the effect of the war on the Russian Revolution of 1905-1907.

The empirical analysis employs panel data analysis methods such as two-way fixed effects and first-difference estimators. The results suggest that exposure to the war through conscription does indeed have a positive effect on mass uprisings. This result is not driven by the mechanical population displacement effects or the demobilization of soldiers from the war and is robust to a variety of plausibility, sensitivity, and robustness checks. For peasant unrest, the effect is most pronounced after the defeat in the war, when the state showed its weakness and the regime's legitimacy declined. For the more organized and militant group of industrial workers, however, the dynamic is reversed, as such groups don't need external shocks to organize. The effect of conscription is also most pronounced when ethnic and religious minorities are present, as these communities have additional grievances due to the forced homogenization in the army. Other mechanisms, such as the public goods provision and institutional legacies can be assessed in future research.

As this paper uses within-country data from a specific time period, the common caveats about external validity apply: for once, I study events before mass media and mass propaganda, which can alter the blame attribution during the war (Adena et al., 2021). Overall, the quantitative historical political economy relies on cumulative learning from different methods and contexts as the means of developing strong generalizable theory (Callis et al., 2022). According to Callis et al., 2022, there are three design-based strategies of cumulative learning: (1) replication of a similar design across different contexts and populations; (2) variation across different versions of the treatment; and (3) examination of different outcomes. Strategies (2) and (3) were employed to some extent in this study: conscription and partial mobilizations provide two different channels of exposure to the war, while peasant unrest and worker strikes capture the treatment effects on the two different populations. For instance, the results for the industrial workers may be more applicable to the democratic context, where the political mobilization structures operate without the need for an external shock. Additionally, formal test of the effect sign and magnitude generalizability can be added in the future versions (Egami & Hartman, 2023).

As for (1), it is partly invoked in the robustness check on the unrestricted sample, however, the proper test may involve replicating of a similar design but in the context of a different war. For example, Russia's war with Turkey (1877-1878) offers an interesting comparison, as the war similarly was fought not on the home grounds, but the Russian empire won that war. So, according to my theory, increased conscription during the war with Turkey should not have an effect on the mass unrest¹⁹. Such an exercise might be added in future versions of this study.

¹⁹And there was no wave of revolts after the war, though the casualties were also lower.

To date, most of the democratizations following defeat in a foreign war occurred in the first half of the 20th century (Miller, 2021), in the era of peak mass conscription-based armies (Tilly, 1992). The role of exposure to the war through conscription in these cases is a subject for future research. Similarly, the effect of the abandoning of conscription on the costs of war and the domestic support or backlash to war in democracies (Horowitz & Levendusky, 2011), and perhaps even more importantly, in autocracies. For instance, some dictatorships learn from their mistakes,²⁰ and choose strategically whom to send to die,²¹, which is also the subject of future research.

Software

R version 4.3.1 (R Core Team, 2023) was used with the following R packages: fuzzyjoin v. 0.1.6 (Robinson, 2020), ggpubr v. 0.6.0 (Kassambara, 2023), ggspatial v. 1.1.8 (Dunnington, 2023), plyr v. 1.8.8 (Wickham, 2011), sf v. 1.0.14 (Pebesma, 2018; Pebesma & Bivand, 2023), tidyverse v. 2.0.0 (Wickham et al., 2019), writexl v. 1.4.2 (Ooms, 2023). Developers and contributors to this open source software provide important and under-appreciated service to the scientific community and deserve their credit and citation.

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 $^{^{20} \}rm https://www.rbc.ru/politics/26/11/2014/5475df2ccbb20f6a2105d2cc accessed on July 21, 2023.$ $<math display="inline">^{21} \rm https://en.zona.media/article/2022/05/11/casualties eng accessed on July 21, 2023.$

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Figure 8: Year-to-year correlation in conscription rate among the conscriptable population for the provinces under study.



Figure 9: Dynamic of independent variables: conscription rate among the conscriptable population and exposure to partial mobilizations. Light gray error bars show the sample standard error.



Figure 10: Dynamic of dependent variables: peasant unrest incidents per million rural population and workers strikes per thousand workers. Light gray error bars show the sample standard error.



Figure 11: Event study results: the effect of $conscription_{t-1}$ on $unrest_t$ are depicted (effects of $conscription_{1904}$ on $unrest_{1905}$ is set to 0). The war started in 1904 and ended in 1905, the revolution started in 1905 and ended in 1907. The unit of analysis is provinceyear. The dependent variables are peasant unrest incidents per million rural population and worker strikes per thousand industrial workers. Conscription is the rate of conscription quota over the conscriptable population and mobilizations are the share of uezds exposed to mobilizations in a province, weighted by population. Controls include crop failure and lagged crop failure.



Conscripts growth with the start of the war, %

Figure 12: Conscription increase with the start of the war, provinces under study are circled in red. Background tile from OSM is used (c) OpenStreetMap contributors.



Figure 13: Baseline peasant unrest incidents per million rural population, provinces under study are circled in red. Background tile from OSM is used (c) OpenStreetMap contributors.



Figure 14: Peasant unrest incidents per million rural population in 1905, provinces under study are circled in red. Background tile from OSM is used (c) OpenStreetMap contributors.



Figure 15: Peasant unrest incidents per million rural population in 1906-07, provinces under study are circled in red. Background tile from OSM is used (c) OpenStreetMap contributors.



Figure 16: Baseline worker strikes per thousand workers, provinces under study are circled in red. Background tile from OSM is used (c) OpenStreetMap contributors.



Figure 17: Workers strikes per thousand workers in 1905, provinces under study are circled in red. Background tile from OSM is used (c) OpenStreetMap contributors.



Figure 18: Worker strikes per thousand workers in 1906-07, provinces under study are circled in red. Background tile from OSM is used (c) OpenStreetMap contributors.



Figure 19: Number of the industrial workers per thousand people. Background tile from OSM is used (c) OpenStreetMap contributors.



Figure 20: Share of the conscriptable males. Background tile from OSM is used (c) OpenStreetMap contributors.



Figure 21: Military okruga. Background tile from OSM is used (c) OpenStreetMap contributors.



Figure 22: Uezds exposed to each wave of mobilization. Background tile from OSM is used (c) OpenStreetMap contributors.

Appendix 2: Additional Tables

	Р	easant Unre	st	W	orker Strik	æs
	(1)	(2)	(3)	(4)	(5)	(6)
Conscription \times 1902	-122.097	-88.769	-148.474	55.253**	59.339**	59.385**
	(142.568)	(136.236)	(148.023)	(21.006)	(21.891)	(25.292)
Conscription \times 1903	10.081	38.379	-21.619	56.456^{**}	59.935**	59.983**
	(158.151)	(153.567)	(158.846)	(20.656)	(21.605)	(25.459)
Conscription \times 1904	-76.190	-126.297	-55.923	51.575^{**}	40.182**	40.115**
	(128.083)	(141.258)	(125.829)	(19.241)	(18.432)	(14.592)
Conscription \times 1905	119.462	164.413	135.629	18.787	26.003	26.022
	(164.355)	(163.972)	(164.873)	(22.218)	(23.415)	(24.451)
Conscription \times 1906	242.329**	263.470^{**}	221.536**	22.543^{*}	25.094^{*}	25.128
	(105.617)	(107.146)	(108.450)	(13.116)	(13.767)	(16.121)
Conscription \times 1907	-19.189	5.084	-39.011	24.971^{*}	27.998^{*}	28.033
	(99.470)	(95.949)	(100.120)	(13.650)	(14.361)	(16.868)
Mobilizations		30.120			5.501^{*}	
		(27.327)			(2.677)	
Mobilizations \times 1904			-16.027			5.541
			(15.788)			(5.370)
Mobilizations \times 1905			53.996			5.481
			(39.651)			(3.954)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Province FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
\mathbb{R}^2	0.564	0.571	0.577	0.467	0.489	0.489
Num. obs.	300	300	300	270	270	270
N Clusters	50	50	50	45	45	45

Table 7: Event-study estimates

***p < 0.01; **p < 0.05; *p < 0.1. Robust-standard errors clustered at province level in parentheses

The effect of conscription_{t-1} and mobilizations_t on unrest_t is estimated. The war started in 1904 and ended in 1905, revolution started in 1905 and ended in 1907. The unit of analysis is province-year. The dependent variables are peasant unrest incidents per million rural population and workers strikes per thousand industrial workers. Conscription is the rate of conscription quota over the conscriptable population and mobilizations are the share of uezds exposed to mobilizations in a province, weighted by population. Controls include crop failure and lagged crop failure.

	Peasant	Unrest	Worker	Strikes
	(1)	(2)	(3)	(4)
Conscription	103.911	136.631	-2.512	-2.457
	(76.064)	(94.049)	(2.499)	(2.649)
Controls	No	Yes	No	Yes
Province FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
\mathbb{R}^2	0.380	0.454	0.484	0.488
Num. obs.	150	150	135	135
N Clusters	50	50	45	45

Table 8: pre-war period

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

Robust-standard errors clustered at province level in parentheses

The unit of analysis is province-year, sample is reduced to the pre-war period. The dependent variables are peasant unrest incidents per million rural population and worker strikes per thousand industrial workers. Conscription is the rate of conscription quota over the conscriptable population. Controls include crop failure and lagged crop failure.

	(Conscripti	on Rate _{t_{\perp}}	.1		Mobili	$zations_{t\perp 1}$	
	(1)	$(2)^{1}$	(3)	(4)	(5)	(6)	(7)	(8)
Peasant unrest	0.000		0.000	0.000	-0.000^{*}		-0.000^{**}	-0.000^{**}
	(0.000)		(0.000)	(0.000)	(0.000)		(0.000)	(0.000)
Workers strikes		-0.001	-0.001	-0.001		0.001	0.001	0.001
		(0.001)	(0.001)	(0.001)		(0.002)	(0.002)	(0.002)
Controls	No	No	No	Yes	No	No	No	Yes
Province FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
\mathbb{R}^2	0.947	0.949	0.949	0.950	0.735	0.730	0.732	0.732
Num. obs.	300	270	270	270	300	270	270	270
N Clusters	50	45	45	45	50	45	45	45

Table 9: exogeneity check

 $^{***}p < 0.01; \,^{**}p < 0.05; \,^*p < 0.1.$ Robust-standard errors clustered at province level in parentheses

The unit of analysis is province-year. The dependent variables are the conscription rate among the conscriptable population and the share of uezds exposed to mobilizations in a province. Peasant unrest is the number of incidents per million rural population and worker strikes are normalized per thousand industrial workers. Controls include crop failure and lagged crop failure.

	4	ΔConscrip	otion Rate	е		$\Delta Mobil$	izations	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Peasant unrest	-0.000		-0.000	-0.000	0.001		0.001	0.001
	(0.000)		(0.000)	(0.000)	(0.003)		(0.003)	(0.004)
Workers strikes		-0.001	-0.001	-0.001		-0.056	-0.054	-0.062
		(0.000)	(0.000)	(0.000)		(0.082)	(0.082)	(0.083)
Controls	No	No	No	Yes	No	No	No	Yes
Province FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
\mathbb{R}^2	0.780	0.795	0.796	0.796	0.662	0.664	0.665	0.667
Num. obs.	250	225	225	225	250	180	180	180
N Clusters	50	45	45	45	50	45	45	45

Table 10: exogeneity check – growth

***p < 0.01; **p < 0.05; *p < 0.1. Robust-standard errors clustered at province level in parentheses

The unit of analysis is province-year. The dependent variables are the change in conscription rate among the conscriptable population and the change in the share of uezds exposed to mobilizations in a province. Peasant unrest is the number of incidents per million rural population and worker strikes are normalized per thousand industrial workers. Controls include crop failure and lagged crop failure.

Table 11: additional control

		Peasant	Unrest			Worker	Strikes	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Conscription	208.523^{*}	223.649**	309.060**	287.360**	19.462	18.520	17.317	19.075
	(104.208)	(104.470)	(117.979)	(124.888)	(15.700)	(16.820)	(14.032)	(14.363)
Mobilizations	24.543	23.893	20.438	20.406	5.559^{**}	5.637^{**}	5.815^{**}	5.801^{**}
	(24.492)	(24.432)	(23.111)	(23.294)	(2.423)	(2.435)	(2.664)	(2.697)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dep. var. autocorr.	Yes	No	No	Yes	Yes	No	No	Yes
Dep. var. spatial autocorr.	No	Yes	No	Yes	No	Yes	No	Yes
Spillovers	No	No	Yes	Yes	No	No	Yes	Yes
Province FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
\mathbb{R}^2	0.558	0.554	0.563	0.566	0.475	0.473	0.473	0.475
Num. obs.	300	300	300	300	270	270	270	270
N Clusters	50	50	50	50	45	45	45	45

 $^{***}p < 0.01; \,^{**}p < 0.05; \,^*p < 0.1.$ Robust-standard errors clustered at province level in parentheses

The unit of analysis is province-year. The dependent variables are peasant unrest incidents per million rural population and worker strikes per thousand industrial workers. Conscription is the rate of conscription quota over the conscriptable population and mobilizations are the share of uezds exposed to mobilizations in a province, weighted by population. Controls include crop failure and lagged crop failure, dependent variable lag, dependent variable spatial lag (Queen-I weights), and conscription and mobilization spillovers within military okrug.

		Peasant Unrest				Worker Strikes			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Conscription	192.225^{*}	201.319^{*}	72.890	241.854^{*}	19.125	29.150	12.140	3.143	
	(104.562)	(110.431)	(113.673)	(133.167)	(16.107)	(17.343)	(13.447)	(18.395)	
Mobilizations	21.060	22.506	2.322	19.065	6.428^{**}	5.228^{**}	1.660	3.934^{**}	
	(27.814)	(24.894)	(22.705)	(22.163)	(2.401)	(2.406)	(2.205)	(1.809)	
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Population (log)	Yes	No	No	No	Yes	No	No	No	
Share rural population	No	Yes	No	No	No	Yes	No	No	
Minorities share	No	No	Yes	No	No	No	Yes	No	
Geography	No	No	No	Yes	No	No	No	Yes	
Province FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
\mathbb{R}^2	0.567	0.560	0.649	0.627	0.487	0.488	0.623	0.545	
Num. obs.	300	300	300	300	270	270	270	270	
N Clusters	50	50	50	50	45	45	45	45	

Table 12: additional time-invariant controls interacting with year fixed effects

***p < 0.01; **p < 0.05; *p < 0.1. Robust-standard errors clustered at province level in parentheses

The unit of analysis is province-year. The dependent variables are peasant unrest incidents per million rural population and worker strikes per thousand industrial workers. Conscription is the rate of conscription quota over the conscriptable population and mobilizations are the share of uezds exposed to mobilizations in a province, weighted by population. Controls include crop failure and lagged crop failure, province population (log of), share of rural population in province, share of non-Russians and non-orthodox population, and province centroid longitude and latitude.

		Peasant	$Unrest_{t-1}$			Worker S	$Strikes_{t-1}$	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Conscription	-59.387		-69.429	-77.671	0.548		0.383	0.279
	(56.401)		(65.766)	(73.310)	(0.883)		(0.940)	(0.981)
Mobilizations		-6.010	-6.892	-6.724		-0.134	-0.130	-0.130
		(6.650)	(7.389)	(7.166)		(0.106)	(0.111)	(0.113)
Controls	No	No	No	Yes	No	No	No	Yes
Province FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
\mathbb{R}^2	0.249	0.251	0.262	0.271	0.341	0.345	0.345	0.355
Num. obs.	250	250	250	250	225	225	225	225
N Clusters	50	50	50	50	45	45	45	45

Table 13: placebo test

***p < 0.01; **p < 0.05; *p < 0.1. Robust-standard errors clustered at province level in parentheses

The unit of analysis is province-year. The dependent variables are lagged peasant unrest incidents per million rural population and lagged worker strikes per thousand industrial workers. Conscription is the rate of conscription quota over the conscriptable population and mobilizations are the share of uezds exposed to mobilizations in a province, weighted by population. Controls include crop failure and lagged crop failure.

		Peasant $Unrest_{t+1}$				Worker Strikes				
		1 Casant	Omest _{t+1}	()		WOIKCI	$SUIKCS_{t+1}$	()		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		
Conscription	161.279		194.819	243.206	40.574		34.522	33.352		
	(215.667)		(210.913)	(197.663)	(24.881)		(22.141)	(21.653)		
Mobilizations		23.505	23.020	21.623		-5.232	-4.762	-4.758		
		(21.919)	(21.486)	(21.621)		(3.830)	(3.455)	(3.457)		
Controls	No	No	No	Yes	No	No	No	Yes		
Province FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
\mathbb{R}^2	0.569	0.550	0.573	0.591	0.491	0.465	0.510	0.511		
Num. obs.	250	300	250	250	225	270	225	225		
N Clusters	50	50	50	50	45	45	45	45		

Table	14:	lagged	effect
		()()	

 $^{***}p < 0.01; \, ^{**}p < 0.05; \, ^*p < 0.1.$ Robust-standard errors clustered at province level in parentheses

The unit of analysis is province-year. The dependent variables are leads of peasant unrest incidents per million rural population and leads of worker strikes per thousand industrial workers. Conscription is the rate of conscription quota over the conscriptable population and mobilizations are the share of uezds exposed to mobilizations in a province, weighted by population. Controls include crop failure and lagged crop failure.

	Peasant Unrest	Peasant	Unrest (alt)	Worker Strikes
	(1)	(2)	(3)	(4)
Conscription (alt)	28063.985**		32267.481***	1011.335
	(10484.617)		(11451.346)	(1481.652)
Mobiliations (alt)	34.992^{*}		38.117^{*}	-4.781
	(19.293)		(19.470)	(2.930)
Conscription		260.656**		
		(111.280)		
Mobilizations		25.785		
		(23.977)		
Controls	Yes	Yes	Yes	Yes
Province FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
\mathbb{R}^2	0.573	0.565	0.586	0.482
Num. obs.	300	300	300	270
N Clusters	50	50	50	45

Table 15: alternative measures

***p < 0.01; **p < 0.05; *p < 0.1. Robust-standard errors clustered at province level in parentheses

The unit of analysis is province-year. The dependent variables are peasant unrest incidents per million rural population, peasant unrest incidents per million peasants and worker strikes per thousand industrial workers. Conscription is the rate of conscription quota over the conscriptable population, conscription (alt) is the rate of quota over the total population, mobilizations are the share of uezds exposed to mobilizations in a province, weighted by population, and mobilizations (alt) are the sum of the shares of uezds exposed to each wave of mobilization in a province, weighted by population. Controls include crop failure and lagged crop failure.

				Peasan	t Unrest			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Conscription	183.674	270.146**	215.466^{*}	166.401^{*}	218.053**	262.171^{*}	224.999^{*}	192.641^*
	(124.140)	(117.922)	(105.914)	(90.296)	(104.239)	(151.561)	(113.422)	(101.570)
Mobilizations	18.711	33.268	35.367	16.622	23.024	5.545	19.646	29.519
	(26.141)	(26.052)	(23.535)	(28.338)	(25.201)	(27.732)	(25.631)	(25.865)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Saint-Petersburg okrug	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Kazan' okrug	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Odessa okrug	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Kyiv okrug	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Warsaw okrug	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Moscow okrug	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Vilna okrug	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Voisko Donskoe	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Province FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
\mathbb{R}^2	0.559	0.589	0.554	0.505	0.550	0.600	0.545	0.559
Num. obs.	258	240	276	258	294	216	264	294
N Clusters	43	40	46	43	49	36	44	49

Table 16: individual military okruga dropped

***p < 0.01; **p < 0.05; *p < 0.1. Robust-standard errors clustered at province level in parentheses

The unit of analysis is province-year. The dependent variable is the number of peasant unrest incidents per million rural population. Conscription is the rate of conscription quota over the conscriptable population and mobilizations are the share of uezds exposed to mobilizations in a province, weighted by population. Controls include crop failure and lagged crop failure.

		Worker Strikes						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Conscription	31.113	21.235	15.790	27.436	7.213	15.569	2.228	14.317
	(18.302)	(18.133)	(15.495)	(16.799)	(11.575)	(20.615)	(15.948)	(14.729)
Mobilization	4.991^{*}	8.050^{***}	5.693^{**}	7.602^{**}	5.143^{**}	4.005	2.115	6.341^{**}
	(2.608)	(2.760)	(2.465)	(2.823)	(2.499)	(2.588)	(2.043)	(2.540)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Saint-Petersburg okrug	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Kazan' okrug	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Odessa okrug	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Kyiv okrug	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Warsaw okrug	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Moscow okrug	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Vilna okrug	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Voisko Donskoe	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Province FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
\mathbb{R}^2	0.467	0.486	0.469	0.498	0.547	0.492	0.408	0.478
Num. obs.	234	222	246	234	264	192	234	264
N Clusters	39	37	41	39	44	32	39	44

Table 17: individual military okruga dropped

 $^{***}p < 0.01; \,^{**}p < 0.05; \,^*p < 0.1.$ Robust-standard errors clustered at province level in parentheses

The unit of analysis is province-year. The dependent variable is the number of workers strikes per thousand industrial workers. Conscription is the rate of conscription quota over the conscriptable population and mobilizations are the share of uezds exposed to mobilizations in a province, weighted by population. Controls include crop failure and lagged crop failure.

	I	Peasant Unre	est	Worker strikes			
	(1)	(2)	(3)	(4)	(5)	(6)	
Conscription	216.061**	456.457***	605.360***	23.301	25.280	36.716	
	(105.630)	(144.049)	(148.249)	(16.111)	(22.138)	(25.954)	
Mobilizations	20.997	24.555	23.241	5.963^{**}	5.770^{**}	6.342^{**}	
	(24.197)	(24.468)	(24.238)	(2.492)	(2.455)	(2.663)	
Controls	Yes	Yes	Yes	Yes	Yes	Yes	
1902	No	Yes	No	No	Yes	No	
1907	Yes	No	No	Yes	No	No	
Province FE	Yes	Yes	Yes	Yes	Yes	Yes	
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	
\mathbb{R}^2	0.577	0.573	0.612	0.513	0.506	0.566	
Num. obs.	250	250	200	225	225	180	
N Clusters	50	50	50	45	45	45	

Table 18: first and last year dropped

***p < 0.01; **p < 0.05; *p < 0.1. Robust-standard errors clustered at province level in parentheses

The unit of analysis is province-year. The dependent variable is the number of workers strikes per thousand industrial workers. Conscription is the rate of conscription quota over the conscriptable population and mobilizations are the share of uezds exposed to mobilizations in a province, weighted by population. Controls include crop failure and lagged crop failure.

	P	easant Unre	st	Worker Strikes			
	(1)	(2)	(3)	(4)	(5)	(6)	
Conscription	86.497	281.250***	135.334^{*}	41.027**	10.765	25.737	
	(89.200)	(81.954)	(71.308)	(16.728)	(14.580)	(18.123)	
Mobilizations	29.033			2.671			
	(21.562)			(2.626)			
Controls	No	Yes	No	No	Yes	No	
Main sample	Yes	Yes	Yes	Yes	Yes	Yes	
Poland	Yes	No	Yes	Yes	No	Yes	
Caucasus	No	Yes	Yes	No	Yes	Yes	
Asia	No	Yes	Yes	No	No	No	
Province FE	Yes	Yes	Yes	Yes	Yes	Yes	
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	
\mathbb{R}^2	0.536	0.540	0.507	0.463	0.446	0.462	
Num. obs.	354	348	480	312	270	336	
N Clusters	59	58	80	52	45	56	

Table 19: unrestricted sample

***p < 0.01; **p < 0.05; *p < 0.1. Robust-standard errors clustered at province level in parentheses

The unit of analysis is province-year. The dependent variables are peasant unrest incidents per million rural population and workers strikes per thousand industrial workers. Conscription is the rate of conscription quota over the conscriptable population and mobilizations are the share of uezds exposed to mobilizations in a province, weighted by population. Controls include crop failure and lagged crop failure.

	Peasant	Unrest	Worker Strikes		
	(1)	(2)	(3)	(4)	
Conscription	22.67***	3.706	25.25***	-1.200	
	(1.658)	(2.732)	(2.343)	(3.860)	
Mobilizations	0.0959	0.3987	0.2399	0.2921	
	(0.2368)	(0.4907)	(0.2463)	(0.3221)	
Controls	Yes	Yes	Yes	Yes	
Province FE	Yes	Yes	Yes	Yes	
Year FE	No	Yes	No	Yes	
Num. Obs.	294	294	285	285	
Squared Correlation	0.29000	0.67682	0.68667	0.85744	
Pseudo \mathbb{R}^2	0.14737	0.18097	0.18833	0.23738	
BIC	$2,\!455.5$	$2,\!399.0$	$2,\!110.2$	2,029.4	
Over-dispersion	0.90055	1.2510	0.92005	1.6032	

Table 20: Negative binomial models

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

Robust-standard errors clustered at province level in parentheses

The unit of analysis is province-year. The dependent variables are counts of peasant unrest incidents and workers strikes. Conscription is the rate of conscription quota over the conscriptable population and mobilizations are the share of uezds exposed to mobilizations in a province, weighted by population. Controls include crop failure and lagged crop failure.

	Δ Cons	cription	Mobilizat	$tions_{1904}$
	(1)	(2)	(3)	(4)
Conscription _{1901–1903}	0.165^{*}	0.133	3.798^{**}	3.161^{*}
	(0.083)	(0.106)	(1.445)	(1.786)
Population (log)	0.009	0.008	-0.291^{**}	-0.253^{*}
	(0.007)	(0.008)	(0.117)	(0.134)
Russians share	-0.001	-0.002	-0.109	-0.276^{*}
	(0.010)	(0.011)	(0.140)	(0.160)
Orthodox share	-0.000	0.009	0.194	0.481
	(0.012)	(0.017)	(0.232)	(0.296)
Population density	0.000	-0.000	0.003	0.002
	(0.000)	(0.000)	(0.003)	(0.003)
Rural population share	0.075^{*}	0.086^{*}	-0.602	-0.468
	(0.040)	(0.047)	(0.687)	(0.856)
Longitude	-0.000	-0.000	0.010	0.004
	(0.000)	(0.001)	(0.006)	(0.008)
Latitude	-0.000	0.000	-0.018	-0.013
	(0.001)	(0.001)	(0.013)	(0.015)
Peasant unrest (pre-revolution)	0.000	0.000	-0.001	-0.001
	(0.001)	(0.001)	(0.002)	(0.002)
Worker strikes (pre-revolution)		0.005		-0.369
		(0.010)		(0.331)
(Intercept)	-0.134	-0.139	4.600^{**}	4.088^{*}
	(0.107)	(0.116)	(2.161)	(2.321)
\mathbb{R}^2	0.605	0.604	0.447	0.480
Num. obs.	50	45	50	45

Table 21: first-difference estimate, exogeneity check

***p < 0.01; **p < 0.05; *p < 0.1. Robust-standard errors in parentheses

The unit of analysis is province. The dependent variables are the change between the 1901-1903 and 1904-1906 averages of conscription rate among the conscriptable population and province exposure to mobilizations, measured as the share of uezds exposed to mobilizations in 1904, weighted by population.

	Δ Peasant Unrest				Δ Worker Strikes			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Δ Conscription	760.895***	858.208***	857.054***	858.600***	62.427***	79.416***	81.121***	81.792***
	(118.930)	(145.151)	(147.272)	(147.816)	(16.969)	(20.568)	(21.028)	(21.150)
Δ Mobilizations		26.750^{**}	26.234^{**}	26.221^{**}		4.638^{***}	4.645^{***}	4.690^{***}
		(12.266)	(12.414)	(12.487)		(1.480)	(1.476)	(1.489)
(Intercept)	-14.604^{***}	-16.795^{***}	-14.595^{***}	-10.591	-1.144^{***}	-1.528^{***}	-1.584^{***}	9.870
	(2.796)	(3.424)	(4.020)	(31.764)	(0.374)	(0.457)	(0.534)	(7.950)
Controls	No	No	Yes	Yes	No	No	Yes	Yes
Time-invariant controls	No	No	No	Yes	No	No	No	Yes
\mathbb{R}^2	0.305	0.332	0.333	0.333	0.199	0.277	0.281	0.284
Num. obs.	250	250	250	250	225	225	225	225
N Clusters	50	50	50	50	45	45	45	45

Table 22: first-difference estimate

 $^{***}p < 0.01; \, ^{**}p < 0.05; \, ^*p < 0.1.$ Robust-standard errors clustered on province level in parentheses

The unit of analysis is province-year. The dependent variables are the change between the periods t-1 and t in the number of peasant unrest incidents per million rural population and worker strikes per thousand industrial workers. Δ Conscription is the change in conscription rate among the conscriptable population between the periods t-2 and t-1. Δ Mobilizations is the change in province exposure to mobilizations, measured as the share of uezds exposed to mobilizations, weighted by population between the period t-1 and t. Controls include crop failure and lagged crop failure. Time-invariant controls include province population (log), share of rural population, population density, province centroid longitude and latitude, the share of ethnic Russians and religious orthodox.

	Peasant	Unrest	Worker Strikes		
	(1)	(2)	(3)	(4)	
Conscription (lead)	269.003	258.842	63.102**	53.746**	
	(303.625)	(331.597)	(27.926)	(25.606)	
Conscription (fd)	450.925^{**}	476.030^{*}	-11.258	9.083	
	(208.682)	(267.068)	(16.456)	(20.723)	
Conscription (fd lag)	1069.003**	1084.059^{**}	45.159	58.425	
	(443.012)	(460.923)	(58.133)	(59.126)	
Conscription (lag2)	917.134	973.884	-58.619	-7.495	
	(617.028)	(774.771)	(41.351)	(49.416)	
Mobilizations		6.032		4.995	
		(36.034)		(3.137)	
Controls	Yes	Yes	Yes	Yes	
Province FE	Yes	Yes	Yes	Yes	
Year FE	Yes	Yes	Yes	Yes	
\mathbb{R}^2	0.791	0.791	0.720	0.734	
Num. obs.	150	150	135	135	
N Clusters	50	50	45	45	

Table 23: Event-study estimates based on Freyaldenhoven et al., 2021

***p < 0.01; **p < 0.05; *p < 0.1. Robust-standard errors clustered at province level in parentheses

The unit of analysis is province-year. The dependent variables are peasant unrest incidents per million rural population and workers strikes per thousand industrial workers. The effect of conscription_{t-1} and mobilizations_t on unrest_t is estimated. FD (first difference) estimates the effect of the increase in conscription in 1904. The unit of analysis is province-year. The dependent variables are peasant unrest incidents per million rural population and workers strikes per thousand industrial workers. Conscription is the rate of conscription quota over the conscriptable population and mobilizations are the share of uezds exposed to mobilizations in a province, weighted by population. Controls include crop failure and lagged crop failure.