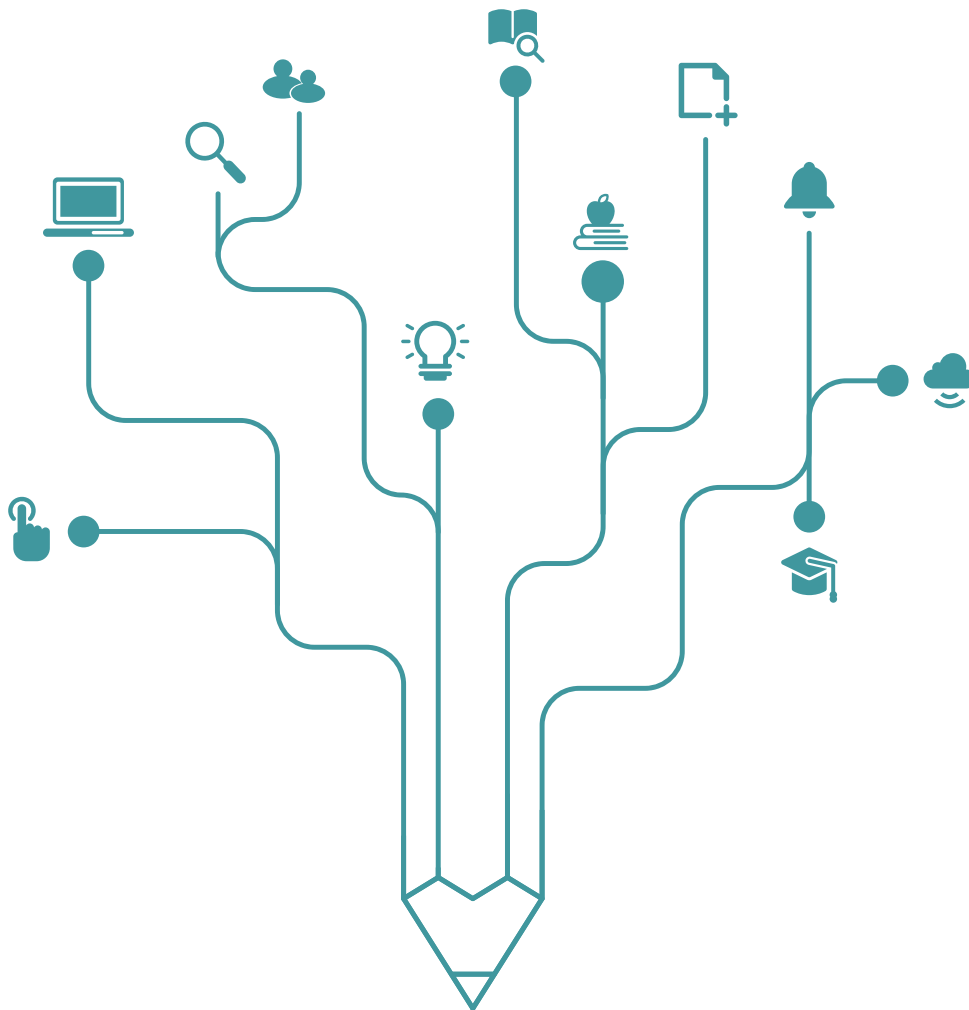


# The Legacy of State Repression on Contemporary Trust: Indiscriminate versus Targeted Repression in Soviet Russia

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# The Legacy of State Repression on Contemporary Trust: Indiscriminate versus Targeted Repression in Soviet Russia

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## Abstract

Indiscriminate state repression leaves long-term negative consequences on interpersonal trust and trust in state institutions. In this paper, we investigate whether a variation in density of Soviet police forces, which governed the level of selectivity in repression execution, lead to heterogeneity in long-term trust response to repression. Similar to other studies, we find that both horizontal trust and vertical trust are negatively associated with indiscriminate repression exposure in the past. However, our results suggest that the magnitude of the negative effect diminishes with repression executed in a more selective fashion proxied by the intensity of the perpetrator's deployment. Surprisingly, we find that trust response might even inverse to positive in localities where the state repression had been accompanied by a perpetrator's presence at extremely high levels, i.e., when the state could ensure highly selective repression. Overall, our findings propose that the legacy of totalitarian regimes on horizontal and vertical trust might depend on the state's capacity to execute repression with more or less precision against perceived enemies.

## Introduction

The totalitarian regimes of the 20<sup>th</sup> century unleashed an unprecedented scale of coercion and violent retribution upon their citizens. This included mass surveillance, disenfranchisement, imprisonment, enslavement, and executions of tens of millions. These tragic events imposed immense suffering not only on direct victims but also on their families and relatives amplifying the scope of the tragedy.

The seminal studies by [Nunn \(2008\)](#), and [Nunn & Wantchekon \(2011\)](#) showed that modern economic development could be undermined by a deteriorated horizontal and vertical trust which emerged as a consequence of exposure to indiscriminate violence in the past. Shall we accordingly expect the same lasting effects of state repression on social capital indices?

The persistent, or so-called across generational effects of state repression is a growing field of research that tries to explain the legacy of state violence on political, social, and economic development of the society. In this paper, we investigate the legacy of Soviet state repression on interpersonal trust and trust in the government among the first generation of descendants who lived at the time of repression. Our study helps to understand how the nature of repression within one repressive regime can produce heterogeneous long-term effects on social capital long after repression ends.

Recently, the literature investigating the legacy of state violence on contemporary political outcomes affirmed that trust in government is negatively associated with state repression in the past ([Levkin 2014](#); [Lichter et. al, 2016](#); [Osorio et. al, 2018](#); [Wang 2019](#)). These findings suggest that state legitimacy and the state-building process might be impaired as a memory of the state as the perpetrator does not vanish over time and across generations. On the other hand, the lasting effects of state repression on interpersonal trust are less understood. While studies on armed conflict showed that exposure to violence undermines trust ([Caasar et. al 2013](#); [Rohner et.al 2013](#), [Kijewski&Freitag 2018](#)), other studies on state repression suggest that under certain circumstances repression might have a positive impact on ingroup-cohesion. For example, long after repression exterminated the targeted group from the community, a higher level of trust is found among a non-targeted group ([Grosfeld et. al 2013](#)). Also, a higher in-group attachment is observed among descendants of victimized group ([Lupu and Peisakhin, 2017](#)).

Interestingly, none of the work on state repression lasting effects on trust considered a possibility of repression being selective and indiscriminate at the same time. The relevance of this question is upheld by the following three notions. Firstly, a growing literature on the long-term effects of political repression on political attitudes does study the legacy of both selective and indiscriminate repression and finds that the difference in contemporary political outcomes might be attributed to the difference between selective and indiscriminate repression. The literature largely agrees that exposure to selective state repression induces political obedience (Kalyvas 2006; Blaydes 2018), while exposure to indiscriminate state repression mobilize and incite victimized groups (Lupu&Peisakhin, 2017; Rozenas et. al., 2017). Secondly, the main purpose of state repression is to deter and suppress the regime’s opposition, apart from securing obedience. This implies that state repression tends to be biased against those individuals and groups perceived as a threat to the regime. However, the level of selectiveness in repression might depend on associated costs, i.e. perpetrator’s capacity to enforce equally selective repression could vary across its territory. In other words, it is highly unlikely that state repression would take solely selective form, nor it can be entirely indiscriminate as the perpetrator has to legitimize its actions by profiling specific groups as the rightful enemies. Finally, the prosecution of innocent alongside those who truly belong to the opposition is an unfortunate characteristic of all state repressions and it is well documented by the scholars. All this imposes a question of whether neglecting a likely variation in repression randomness/selectiveness, inevitably conceals a potential heterogeneity in long-term outcomes such as trust?

State repression in the Soviet Union, especially during Stalin’s rule (from 1924 to 1953), was one the largest state-induced violence ever recorded in history. In approximately three decades, dozens of millions of Soviet citizens were subjected to state prosecutions which led to mass imprisonment, property expropriation, resettlement, and merciless executions (Snyder, 2012; Shearer 2014; Kotkin 2017). In this paper, we explore the long-term effects of Soviet state repression on interpersonal trust and trust in government. Unlike other studies in the field, our approach does not presume that Soviet state repression was entirely indiscriminate nor only selective. We rather take into account historians’ notions about the particular role that the perpetrator - the state’s political police (OGPU/NKVD) could have had in affecting the randomness in repression execution.<sup>1</sup> According to Shearer (2014), the considerable presence

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<sup>1</sup> OGPU is an acronym for The Joint State Directorate, (in Russian: “Объединённое государственное политическое управление при СНК СССР”) founded in 1923. The successor of the OGPU was NKVD which is an acronym for The All-Union Commissariat of Internal Affairs, (in Russian: “Народный киле омиссариат

of the secret police at a given location was a strong predictor for the breadth and the quality of population surveillance which was essential for successful identification of the state's perceived enemy. Apart from urban areas, historians note that the secret police were heavily present along the railway lines, especially at the railway stations (Shearer 2014; Kotkin 2017). Thus, in this paper we utilize geographic distance from Soviet train stations to proxy for perpetrator's ability to execute repression with higher selectiveness, where being further away from the train station mean being exposed to more indiscriminate repression.

Our theoretical expectation is based on previous research on the long-lasting effects of state repression and exposure to violence. We suspect that the insufficient presence of the state police sets off randomness in prosecutions which then elevates uncertainty among people. Under these circumstances, and in an attempt to avoid prosecution or to gain some benefits, people are incentivized to inform and betray one another. Following the work of Nunn & Wantchekon (2011) and Lichter et. al (2016), we expect that culture of mistrust will emerge and erode trust in others and trust in the government when social environment is exposed to random violence. Conversely, we pose that sufficiently high perpetrator's presence in a locality leads to more selective repression which disincentivizes people to inform on others. Taking into account that Soviet repression attempted to establish social order by eliminating specific marginal groups such as kulaks, unemployed, prostitutes, beggars, thieves, homeless, alcoholics and others (Shearer, 2014), we make a proposition that highly selective repression leads to an upswing in social cohesion and consequently result in higher level of interpersonal trust. A similar effect is observed by Grosfeld et. al (2013) among non-Jews groups in communities heavily affected by the Holocaust. We reason that this highly selective repression which eradicates marginal groups perceived as "socially harmful elements", would be also welcomed by median Soviet citizens morphing into higher trust levels in the central authority. Finally, based on the well-established literature on the inherited trust (Algan & Cahuc, 2010, 2014; Nunn & Wantchekon, 2011; Alesina et al., 2013, Cassar et al., 2013) we argue that these heterogeneous effects of repression on trust are transmitted to next generation.

To measure the level of ancestor's exposure to political repression, we use Mozokhin (1937) data set, which incorporates the annual number of executed and imprisoned people by the perpetrator, per region and across Soviet Russia, from 1926 to 1953. The outcome variables are constructed from the Russian Longitudinal Health Monitoring Survey (RLMS) for the year

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внутренних дел"), founded in 1934. Both organizations, in different periods, were entitled to execute repression, and their complementary task was also to conduct extensive population surveillance.

2006, and from 2012-2017. The survey data allows us to identify each individual characteristics and ancestor's region of living and birth. We use geographical locations of the train stations from [Zhukov and Talibova, \(2018\)](#) to proxy for the intensity of the perpetrator's presence.<sup>2</sup>

Firstly, we test the relationship between the elderly's exposure to repression, and the contemporary trust of descendants while controlling for individual characteristics of both elderly and descendants. We find negative effect of exposure to past repression on both interpersonal trust and trust towards the government, even after we include controls for contemporary crime rates and economic characteristics of the regions in the past. In our second step, we estimate the effects of interaction between repression exposure and proxy for the perpetrator's intensity of presence. Though initially we estimate an overall negative trust response to historical repression, we find that contemporary trust response to repression exposure switches from negative to positive when the presence of the perpetrator is significantly high. To the best of our knowledge, our study is first to estimate heterogeneous effects of state repression on modern-day trust.

Our research adds to the growing literature on the long-term effects of state repression by providing additional evidence on the lasting effects of state repression on social capital indices. Firstly, we find evidence to support previous findings suggesting that indiscriminate repression leave negative consequences on both horizontal and vertical trust across generation. Yet if we account for a variation in repression randomness, determined by the intensity of the perpetrator's presence across a geographical area, our results suggest that the magnitude of the negative effect diminishes with repression executed more selectively. In extreme cases, where the density of perpetrator presence is sufficiently high to enable perfect targeting of the regime's enemies, the legacy of repression might not harm trust at all. Moreover, our results suggest that contemporary trust response to highly selective repression experienced by the previous generation might be even positive. Although we find these cases only at the extreme levels, our findings imply that the level of exposure to state repression, by itself, is not sufficient to predict neither the direction nor the magnitude of the effects on social capital. What seems to determine both the sign and the magnitude of the repression effect is the extent to which the repressive state can target its perceived enemies with precision.

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<sup>2</sup> The Transport Department, with 5,383 officers located at train stations, was the largest operational department of the Soviet secret police ([Shearer 2014](#)). The railway system of the Soviet Union was an inheritance from Imperial Russia and [Zhukov and Talibova, \(2018\)](#) in their research strategy use geographical locations of train station as excluded instrumental variable.

## Hypothesis

We theorize that the response of trust today is negatively associated with past repression exposure due to the perpetrator's insufficient capacity to conduct extensive surveillance of the population. Without an adequate number of police agents to identify its enemy, the Soviet perpetrator-state needed to turn to civil informants. Yet, acquiring information about the population from informants leads to a greater likelihood that innocent people are prosecuted. This is because the reasons which motivate civil informants to denounce people around them are not necessarily the same as reasons which motivate the state repression itself. Civil informants denounce others because of private and family disputes, which often has little to do with political reasons of the state (Joshi 2003, Anderson, 2009).

In that social context, a culture of mistrust emerges because everyone might become a victim of state repression through the work of citizen informants. However, this proposition indirectly implies that a higher level of perpetrator presence and consequently better-targeted repression can mitigate the negative effects of repression. When repression execution is based on police intelligence, i.e., when the services of civil informants are not as needed, then existing trust relationships might not be damaged. Thus, we hypothesize that higher selectiveness in state repression, proxied by the presence of police agents, diminish overall negative effects of repression, and in extreme cases, when selectiveness is extremely high, trust response to state repression might even turn positive.

Our hypothesis is developed upon the two notions. Firstly, from closely related literature investigating state repression effects on political outcomes we call attention to the argument that differences in contemporary political attitudes are partially rooted in differences in modes of repression exposures. More precisely, highly selective repression – i.e. a prosecution of targeted individuals or groups for specific reasons, is likely to result in higher levels of obedience without resistance (Lichbach 1987, Kalyvas 2006; Blaydes 2018, Rozenas and Zhukov 2019). On the other hand, indiscriminate violence seems to mobilize the victims and increase an anti-perpetrator sentiment (Balcells, 2012; Kocher et al. 2011).<sup>3</sup> Thus, based on these findings we contemplate, that similarly to political outcomes, contemporary differences in trust response to historical repression exposure might be explained by the differences in the degree of repression selectiveness exposure generation earlier.

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<sup>3</sup> Rozenas et. al (2017) argues that consensus in the literature is far from being reached on the effects of indiscriminate repression.

Secondly, we propose that the variation in the selectiveness of repression is rooted in the perpetrator's resources at a given locality. In other words, a higher selectiveness in repression is achieved if a perpetrator knows "who is who" in the community, and where to find its enemy. We base this argument on historical evidence by Shearer (2004; 2014) who elaborated on the link between the perpetrator's presence intensity and its surveillance capacity on one side, and selectiveness in repression on the other. He argues that Soviet professional surveillance of population, most notably - the passportization system, which was enforced at locations of significant importance for the regime such as train stations, enabled Soviet political police, to effectively locate, identify and prosecute "harmful social elements". In other words, individuals and groups perceived as enemies of the regime such as kulaks, thieves, prostitutes, beggars, alcoholics, hooligans, homeless and others, were cleansed with more precision from communities where Soviet state police was sufficiently present.

On the other hand, in localities with insufficient perpetrator's personnel, the perpetrator would have to rely on a wide-spread network of civil informants (Shearer 2014). Thus, we expect that the intensity of perpetrator's presence at the repressed locality will play a decisive role in determining the long-term legacy of state repression on contemporary trust. As argued by Nunn and Wantchekon (2011) an insecurity caused by indiscriminate violence offers an incentive for betrayal, *because in that kind of social environment "rules-of-thumb or beliefs based on the mistrust of others would have been more beneficial relative to norms of trust"*.<sup>4</sup> Similarly, we predict that in localities where the perpetrator needed to rely on civil informants rather than on their professional surveillance, norms of trust would erode. Of course, an individual's trust could be also impaired externally through repressive institutions as well. After all the Soviet state was the main planner and propagator of the repression. In the places with no professional agents, the perpetrator was recruiting local and regional administrative authorities as civil informants (Shearer, 2014). Hence in the eyes of a victim's family, relatives, neighbors, and other survivors, the Soviet state would be held responsible for the tragic repercussion of what seemed to them – unjustified violence. We do not disentangle between the two potential channels through which the culture of mistrust might emerge rather we look for historical evidence and findings from related literature that may help to explain the magnitude of the expected negative trust response.<sup>5</sup>

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<sup>4</sup> Nunn and Wantchekon (2011)

<sup>5</sup> Nunn and Wantchekon (2011) argue that exposure to indiscriminate violence caused by Slave trade affected trust troughs both internal channels (cultural norms), but also through external to individual (institutions and social structures). Yet the authors find that the internal channels are roughly twice larger than external channels.



When it comes to the expected effects of selective repression, we turn to [Grosfeld et al. \(2013\)](#), which finds that almost complete removal of Jews during the Holocaust, left the non-Jew group more socially cohesive, exhibiting higher trust levels. When highly selective, the Soviet repression would successfully target and remove political enemies from communities as well as “socially harmful elements” namely kulaks, thieves, prostitutes, homeless, beggars, and other marginalized groups ([Shearer, 2004; 2017](#)). Opposite to the environment of uncertainty, in communities where unwanted individuals and groups are successfully identified and eradicated by the regime, norms of trust would stay relatively unaffected. Moreover, in extreme cases when elimination of marginalized groups was executed with highest precision, we expect that perpetrator’s actions would lead to creation of socially extremely cohesive communities where norm of trust would be strengthened and more beneficial for individuals.

Eradicated from a political enemy and free from crime and other “social problems” associated with marginal groups, people exposed to this highly selective violence would welcome state’s action as the one bringing the sense of safety and security for the dwellers of the place. Thus, in this case the individual trust in state institutions might even be positively associated with state repression. Yet, similarly to horizontal trust response, the repression execution would need to be extremely selective to establish a positive association with trust.

Finally, based on the well-established literature on persistency and intergenerational transmission of values and beliefs ([Guiso, Sapiezna & Zingalas, 2010; Dohmen et. al 2012, Allesina et. al 2013, Nunn & Wantchekon, 2011](#)), we argue that the trust component, affected by either selective or indiscriminate repression exposure, will be transmitted to next generation.

## The Soviet state repression and the role of the state’s political police as the main perpetrator

The Soviet state repression especially in the period of Stalin’s rule (from 1922 to 1953), is considered by many as one of the largest and most brutal state-induced violence ever recorded. It is estimated that roughly 17-18 million Soviet citizens were arrested and sentenced to prisons and working camps<sup>6</sup>, while out of approximately 6 million sentenced for political reasons somewhere between 3 – 3.5 million were executed ([Ellman 2002](#)). Yet, the total number of repression victims is still a matter of debate.

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<sup>6</sup> According to Ellman (2002) out of total number sent to camps, 5.4 million were released between 1934 – 1952.

The first massive wave of Soviet repression started at the end of 1929 when the leadership of the Soviet state ordered full-scale collectivization of the farmlands. The decision on forced collectivization came after the government failed to control grain production through means of collective farming (Kotkin, 2017). Well-off peasants, known as the *Kulaks*, were labeled as political enemy of the state that should be expropriated and eliminated as a class. In this first wave of mass-repression called *Dekulakization* (1929-1932), approximately two million people mostly peasants were forcibly resettled and expropriated while tens of thousands of them were executed (Viola, 2007, Kotkin, 2017). The unprecedented scale of violence triggered by Dekulakization made a massive socioeconomic impact on the repressed communities elevating crime rates, poverty, broken families, homelessness (Viola, 2007. Shearer, 2014).

In the book, *Policing Stalin's Socialism: Repression and Social Order in the Soviet Union, 1924-1953* (2014), David R. Shearer writes that after *Dekulakization* the Soviet regime had added more social groups to the list of *socially harmful elements*, apart from *Kulaks*. According to Shearer (2014), in the eyes of the government, the very existence of the groups such as criminals, unemployed, itinerants, orphans, religious groups, and other marginalized groups was seen as a threat to social order. Hence, he argues that the main concern and a challenge for the Soviet state after Dekulakization were to maintain social order by suppressing these groups.<sup>7</sup> The state repression against all these groups was entrusted to the political police OGPU/NKVD – the perpetrator. Although the Soviet political repression had two more major massive phases after *Dekulakization*, mainly *Holodomor* (1932-1933),<sup>8</sup> and the *Great Terror* (1937 -1938),<sup>9</sup> the “socially harmful groups” were constantly repressed by the OGPU/NKVD - throughout the 1930s until Stalin’s death in March 1953.

However, the state intention to oppress and eliminate these groups faced many difficulties. A lack of resources and shortage of personnel made OGPU/NKVD not equally present in all corners of the vast Soviet Russia territory hence the scope and the quality of population surveillance varied across the country.<sup>10</sup> If not sufficiently present at certain

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<sup>7</sup> Shearer (2014) thesis is that policing social order was the main task of OGPU/NKVD in 1930s as every crime was seen as a crime against the social order and the state. Everything ranging from riots and strikes to petty crime and homeless was essentially a political crime as well.

<sup>8</sup> Recently, more scholars took the stand that the famine in Soviet Union in 1932, also known as Holodomor, was deliberately caused by the Soviet regime. Thus it should be considered as state repression. For example, see: “*Mass Repression and Political Loyalty: Evidence from Stalin’s ‘Terror by Hunger’*” by Rozenas and Zhukov (2019). However, the total number of deaths cause by this famine if a matter of a debate. Valin et. al (2002) research estimates 2.5 million deaths caused directly by the famine.

<sup>9</sup> According to Ellman (2002), the estimated one million deaths by Great Terror is most likely underestimation.

<sup>10</sup> Shearer (2014).

locations, OGPU/NKVD would have to rely solely on the civil informants recruited from the pool of ordinary citizens or local bureaucrats, and as we learn from the OGPU archives the police were often seeing information gathered from them as gossips and rumors.<sup>11</sup> The letters exchanged among OGPU officials reveal that police officers and agents were highly reluctant to work with civil informants.<sup>12</sup> The network of civil informant reached a number of half a million by the late 1930s, but it was not well managed nor organized. The civil informants were not paid, nor they had direct contact with OGPU-NKVD officials.<sup>13</sup>

On the other hand, the perpetrator would have substantial personnel deployed to locations of special importance. Such places were factory zones, borders, mines, some urban areas, and train stations. In these places, the perpetrator established offices with professional staff and trained agents-informants who gathered detailed and reliable information.<sup>14</sup> Having professional staff at its disposal meant more bureaucratic approach to data collection and data analysis which led to cataloging the population.<sup>15</sup> The most notable system of surveillance by cataloging was the passportization system with the purpose to make Soviet citizens visible and trackable by the OGPU/NKVD.<sup>16</sup> Started in 1930, the passportization system categorized citizens by their social background, occupation, and ethnic identity while binding individuals to a specific geographical location.<sup>17</sup> Passportization enabled the perpetrator to successfully identify and locate individuals and according to [Shearer \(2004\)](#), this system of mass surveillance became the main instrument in hands of the perpetrator for political repression and policing social order. The small towns below 10.000 inhabitants and rural areas were not passportized.<sup>18</sup>

The Transport Department, with 5,383 officers located at train stations, was the largest operational department of the political police.<sup>19</sup> A heavy presence of police personnel and agent-informants, together with the system of mass-surveillance through passportization, must have had a significant impact on the level of repression selectiveness in the vicinity of the train stations.

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<sup>11</sup> Ibid.

<sup>12</sup> Ibid.

<sup>13</sup> ibid

<sup>14</sup> ibid

<sup>15</sup> Ibid

<sup>16</sup> Ibid

<sup>17</sup> Ibid

<sup>18</sup> By the end of 1930s, 50 million people were incorporated into the passportization out of 162 million Soviet citizens.

<sup>19</sup> Ibid.

## Data

An empirical test of our proposed hypothesis implies the need to combine multiple sources of data. Our chief dataset is the *Russia Longitudinal Health Monitoring Survey (RLMS)* – a nationally representative annual survey of individuals and households conducted jointly by the Higher School of Economics, Carolina Population Center, the University of North Carolina at Chapel Hill and the Russian Academy of Sciences. From this data set, we retrieve a variety of indicators of individuals’ trust and their socioeconomic characteristics. Due to the fact that the questions related to trust are not asked on an annual basis, our analysis employs the following waves of the survey: 2006 and 2012–2017. The data needed to construct the family-level exposure to repressions are obtained from the digitalized historical records of [Mozokhin \(1937\)](#). The raw data permits us to observe the total number of people arrested and executed by years. However, there are two features of this dataset that complicate our analysis. First, the number of people repressed is originally collapsed by region-year cells, while the *RLMS* dataset identifies the location of individuals at the city level (which is a smaller administrative unit). To deal with this issue, we assume that the number of people repressed in the city  $c$  of region  $r$  is proportional to the share of population of region  $r$  residing in city  $c$ . We hence multiply the number of people repressed in region  $r$  by the preexisting city-specific share of population obtained from the 1920 Census.

Secondly, we address the potential issue related to families migrate over time. Given that *RLMS* does not allow us to trace down the full history of the families’ migration, we restrict our analysis to those families, that have never migrated. This procedure relieves the concern about assigning the “wrong” level of repressions’ intensity to some families. To construct the family-specific measure of exposure to repressions, we utilize the longitudinal nature of the *RLMS* data set. First, for every respondent, we assign the birthdate of the oldest person ever observed in the respondent’s family  $h$  (we will hereinafter call the ever-observed oldest person as *the elderly* throughout the paper). Second, we construct the measure of exposure as:

$$Exposure_h = \frac{\sum_{y=d_h}^{1953} \#of\ people\ repressed_{cy}}{Area_c}, \quad (1)$$

where  $\#of\ people\ repressed_c$  denotes the number of people repressed in city  $c$ , during the years  $y$  and 1953;  $d_h$  denotes the birth year of *the elderly*;  $Area_c$  is the size of city  $c$  (measured in  $km^2$ ). Thus, according to our measure, the family-level exposure to repressions depends upon two factors: (i) region of birth of *the elderly*, (ii) *the elderly*’s birth year. Finally, we collect other macro-level indicators relevant to our analysis. A well-recognized link between

crime and citizens’ trust motivates the need to include the regional crime rates obtained from the Russia Federal State Statistics Service (Halpern, 2001; Iacono, 2019).<sup>20</sup> Besides, as historians show, areas with wealthier peasants were more likely to be repressed more severely, especially in early years of repression. If past wealth affects modern trust, then its exclusion from the analysis creates a methodological concern. Ananyev and Guriev (2018) infer a positive link between regional wealth and trust in modern Russia. In addition, literature recognizes the strength of the intergenerational transmission of trust (e.g., Uslaner, 2008). These two strands of studies exacerbate the concern that a failure to control for the past economic performance of peasants poses a threat to our identification. For this reason, we obtain the information on the average revenue and the number of workers employed in the peasants-owned entities from the scanned copies of the internal reports from the Ministry of Trade and Industry provided by Varzar (1912).

Finally, we obtain spatial data on the location of train stations built by the Russian Empire from Zhukov and Talibova (2018). Historical evidence indicates that the government monitored the remote settlements sending NKVD officers along the pre-existing railways. Hence, we believe that the density of railway stations within the city serves as a good proxy of intensity of perpetrator’s presence in the area.

## Empirical Strategy

*Baseline specifications.*—Our estimation strategy rests upon the assumption that conditional on the observed characteristics of the individual, her family, and city, the remaining variation in the family-level exposure to repressions is random. We thus fit the following Linear Probability Model:

$$y_{inc} = \alpha \ln(\text{Exposure}_{hc}) + \theta X + \varepsilon_{inc}, \quad (2)$$

where  $i, h, c$  index individual, family and city, respectively. The mainline outcome considered is trust in others. We convert the outcome into the binary indicator being equal to 1 if the individual reports “Most people can be trusted” and 0 if the response is either “in relationship with people you should be careful” or “I do not know”.  $X$  is a set of controls, which includes the respondent’s characteristics (age, age squared, gender, educational attainment), *the elderly’s* controls (age, age squared, gender, educational attainment), regional characteristics (crime rates, peasantry’s economic performance) and the survey wave’s dummy. Under the

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<sup>20</sup> We use the natural log of the number of registered crimes per 100,000 people.

assumption that the error term ( $\varepsilon_{ih}$ ) from Equation (2) is orthogonal to  $\ln(Exposure_{hc})$ , the OLS estimate of  $\alpha$  identifies the impact of the family-level exposure to repressions on trust.

To test the role of the density of perpetrator's presence, we iteratively interact the  $\ln(Exposure_{hc})$  variable with every element of the set of proxies for the government's awareness about the socioeconomic structure of the city. This naturally supplies the following specification:

$$y_{ihc} = \beta_1 \ln(Exposure_{hc}) + \beta_2 \ln(Exposure_{hc}) \cdot I_c + \beta_3 I_c + \tau X + v_{ih(c)}, \quad (3)$$

In this model,  $\beta_1$  captures the impact of repressions on trust in the presence of the low perpetrator's presence and consequently lower information quality about the enemies of the regime. If a higher presence of the perpetrator in geographical location changes the response of trust to the past repressions, then we should reject the null about  $\beta_2$  being equal to zero. In line with our past discussion, we expect  $\beta_1$  and  $\beta_2$  to be negative and positive, respectively.

Probably the value of  $I_c$  that switches the sign of the impact of repressions on trust from negative to positive is also of great interest. The threshold value of  $I_c$  can be inferred from estimating the right-hand side of the following inequality:

$$I_c \geq -\frac{\beta_1}{\beta_2} \quad (4)$$

Table 1 reports the summary statistics of the variables employed on the right-hand side of Equations (2) and (3). The summary statistics for the outcome variables are reported in the regression tables to facilitate the convenience of the interpretation of the findings

## Results

Our analysis departs from testing the behavior of the estimated impact of exposure to repression on trust under different sets of controls included in Equation (2). Table 2 reports the OLS results. Column (1) of Table 2 shows the results after controlling for polynomials in the elderly's age and the survey waves' dummies. According to the result, one percent change in exposure to repressions is associated with the change in the probability to trust others by -0.01. Column (2) of the same table endows the analysis with the respondent's controls. Column (3) shows the result after controlling for *the elderly's* characteristics. Columns (4) saturates the model with the regional contemporary crime rates. Overall, the results reported in Table 2 display numerical stability across various model specifications. Rounding all the coefficients to the

nearest hundredth, we infer that 1% change in the family-level exposure to repressions lowers the individuals' trust by 0.01. Alternatively, a one-standard deviation change in exposure shifts the reported trust by approximately 0.06 down from the mean – a moderate change.<sup>21</sup>

We now turn to the exploration of the heterogeneity of the impact driven by the intensity of the perpetrator presence. Table 4 reports the OLS results. We maintain the logic of presenting our results, phasing-in the controls sequentially in the way it is done in the previous tables. The first row of Table 4 reports the direct impact of repressions on trust across various econometric specifications. The results sustain the numerical magnitude, showing that 1% in exposure lowers trust by approximately 0.01. The coefficient of the  $[\text{Ln}(\text{exposure}) \times (\text{Railstations/area})]$  term shows the role of the perpetrator's presence. Evaluating the results at the mean-level of the density of railway stations (0.004, according to Table 1), we can say that a unit percentage points change in repressions lowers trust by 0.0097 from the sample mean, according to column (4) of Table 4. According to the same results, the density of railway stations should be equal to 0.018 to fully mute the negative impact of repressions. The latter number belongs to the upper tail of the distribution of railway stations (above 95<sup>th</sup> percentile).

Finally, the bottom row of Table 4 reports the threshold values of the employed proxy for the intensity of perpetrator's presence that turn the impact of repressions on trust into non-negative number. Table A1 shows the distribution of the proxy for the perpetrator's presence by percentiles in our sample. Assessing the approximate location of the threshold value in its corresponding distribution, we observe that the impact is non-negative if the value of the employed proxy for the intensity of perpetrator's presence is above its median. From this observation, we infer that the general impact of repressions of trust is negative, unless the intensity of the perpetrator presence at the location is "unusually" high.

*Robustness check.*—We assess the robustness of our results employing the alternative definition of the family-level exposure to repressions. Recall, according to our workhorse definition of the exposure given by Equation 1, the variable varies by regions and birth year of the elderly. Alternatively, we may think of defining our exposure measure as the total number of people repressed in each region.

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<sup>21</sup> According to Table 1, the standard deviation of exposure to repressions is 2.143, while the standard deviation of trust (reported in the upper panel of Table 2) is 0.382, Hence,  $\frac{-0.01 \times 2.143}{0.382} \approx 0.06$ .

## Conclusion

Previously the literature on modern political outcomes showed that the legacy of political repression leaves heterogeneous effects on political behavior depending on whether repression was indiscriminate or selective. In this paper, we are investigating the consequence of these two modes of historical exposure to political repression on contemporary trust. Using data from Soviet state repression and survey data on trust, we find that the mode in which repression was executed might explain the direction and the magnitude of contemporary trust response. Similar to other studies, we estimate an overall negative effect of exposure to indiscriminate political repression on trust, yet we find that the magnitude of the effect diminishes as selectiveness in repression increases. In extreme and rare cases, where Soviet state repression was highly selective, we find that the response of modern trust to it is positive. In a way, our findings provide a synthesis between studies exploring the legacy of political repression in its highly selective mode (Grosfeld et al., 2013, Lupu&Peisakhin, 2017) and studies estimating the repression legacy on social capital, when repression takes indiscriminate mode (Nunn&Leonard Wantchekon, 2011; Lichter et al., 2016).

The main caveat of our identification strategy is that it considers repression exposure as randomly distributed, which was most likely not the case. Despite some historical evidence suggesting that Soviet repression was disorganized and based on arbitrary assigned regional quotas, there could be an underlying scheme responsible for bias geographical repression distribution. We address this problem by including a control variable for pre-Soviet regional wealth because, at least in its early stages, Soviet repression was biased towards the well-off peasantry. Still, the solution for above mention concern needs to be dealt with, in a methodologically more convincing way. Secondly, our empirical evidence draws from a single country – Soviet Russia, and external validity of our findings is necessary. Lastly, we do not make any propositions regarding channels through which past repression is linked with contemporary trust, i.e., we do not disentangle between family (Grosjean, 2014; Balcells, 2012; Lupu and Peisakhin 2017), social groups (Bissin&Verider, 2001) or institutions (Algan et. al. 2014) as separate channels through which long-term effects continue to persist.

Nevertheless, our study suggests that historical exposure to political repression by itself is not sufficient to explain how the social capital of today is affected by it. We emphasize the role of variation in repression selectiveness as one of the factors that might explain heterogeneous trust response to repression. The level of selectiveness, i.e., the degree of precision with which the perpetrator executes it depends on his capacity, which in turn might



depend on several factors such as the territory and population size, population density, and clarity on how the enemy of the perpetrator is defined. As we know, all these factors vary from one repressive regime to another, suggesting that we should expect a specific mode of repression to govern the direction and the size of the contemporary trust response. Overall, our findings could shed new light on our understanding of how massive acts of state violence affect social capital indices decades after repression ends.

## Tables

Table 1 – Summary Statistics

	<i>A. Regions</i>			
	mean	sd	min	max
Log(Distance to the source of oil in Soviet)	13.42	0.61	12.20	15.42
(#Rail Stations/Area)	0.004	0.007	0.00	0.037
Log(Registered crimes per 100,000 people)	7.35	0.32	6.70	8.42
	<i>B. Respondents:</i>			
Log(repressed/area)	1.25	2.23	-7.34	6.98
Age	45.40	19.27	13.00	100.00
male	0.44	0.50	0.00	1.00
<u>Education:</u>				
At least highschool	0.54	0.50	0.00	1.00
At least university degree	0.25	0.43	0.00	1.00
<u>Marital status:</u>				
In a registered Marriage	0.44	0.50	0.00	1.00
Living together, but not registered	0.09	0.29	0.00	1.00
Divorced	0.09	0.29	0.00	1.00
Widowed	0.13	0.33	0.00	1.00
Living apart	0.01	0.07	0.00	1.00
	<i>C. Elderlies:</i>			
Age	78.06	10.98	53.00	123.00
Male	0.48	0.50	0.00	1.00
<u>Education:</u>				
At least highschool	0.51	0.50	0.00	1.00
At least university degree	0.20	0.40	0.00	1.00

Notes: This table reports the summary statistics of the variables employed in the analysis. N=26,456.

Table 2 – The Impact of the Elderly’s Exposure to Repressions on the Respondents’ Trust. OLS results

	(1)	(2)	(3)	(4)
	Outcome: Trust in others (mean = 0.177, SD = 0.382)			
Ln (exposure)	-0.0108** (0.0027)	-0.0102** (0.0027)	-0.0093** (0.0027)	-0.0111** (0.0027)
Ln(Crime per 100,000)				-0.1171** (0.0147)
Elderly's age	0.0213** (0.0055)	0.0176** (0.0056)	0.0137* (0.0061)	0.0137* (0.0059)
Elderly's age sq	-0.0001** (0.0000)	-0.0001** (0.0000)	-0.0001+ (0.0000)	-0.0001+ (0.0000)
Observations	28,836	28,737	26,456	26,456
Ind. Controls	NO	YES	YES	YES
Eld.Controls	NO	NO	YES	YES
Year FE	YES	YES	YES	YES

NOTES: OLS results. Dependent variable is the binary outcome being equal to 1 if the respondent's answer is "Most people can be trusted" and 0 if the answer is "Should be careful" or "It depends". Individual controls include gender, age, age squared, marital status, educational attainment. Elderly's controls include educational attainment and gender. Robust standard errors clustered by the elderly's birth year (85 clusters) in parentheses. \*\* p < 0.01, \* p < 0.05, + p < 0.1.

Table 4 - The Role of the Perpetrator’s Presence. OLS results

	(1)	(2)	(3)	(4)
	Outcome: Trust in others (mean = 0.177, SD = 0.382)			
Ln (exposure)	-0.0110** (0.0031)	-0.0107** (0.0032)	-0.0100** (0.0031)	-0.0125** (0.0031)
Railstations/area	-3.9023** (1.0740)	-3.2642** (1.0548)	-2.8978** (1.0478)	-2.6500** (0.9584)
Ln (exposure) X (Railstations/area)	0.8642** (0.2296)	0.7490** (0.2278)	0.6911** (0.2254)	0.6906** (0.2112)
Observations	26,456	26,456	26,456	26,456
Eld. Age	YES	YES	YES	YES
Ind. Controls	NO	NO	YES	YES
Eld.Controls	NO	NO	YES	YES
Crime	NO	NO	NO	YES
Year FE	YES	YES	YES	YES
Threshold value of <i>I</i>	0.013	0.014	0.014	0.018

NOTES: Dependent variable is the binary outcome being equal to 1 if the respondent's answer is "Most people can be trusted" and 0 if the answer is "Should be careful" or "It depends". Controls include the respondent's characteristics (gender, age, age squared, marital status, educational attainment), and elderly's controls (educational attainment, gender, age, age squared). Robust standard errors clustered by the elderly's birth year (85 clusters) in parentheses. \*\*  $p < 0.01$ , \*  $p < 0.05$ , +  $p < 0.1$ .

Table 7 – The Impact of the Elderly's Exposure to Repressions on the Other Indicators of Trust

	(1)	(2)	(3)	(4)
	Government	Duma	Parties	Police
mean (sd) of dep. Var	0.391 (0.488)	0.244 (0.430)	0.112 (0.315)	0.159 (0.366)
Ln (exposure)	-0.1237** (0.0217)	-0.0870** (0.0196)	-0.0667** (0.0171)	-0.0698** (0.0157)
Railstations/area	-0.6197 (7.9338)	-1.4035 (6.9906)	-4.1488 (4.9838)	-8.0221 (5.4549)
Ln (exposure) X (Railstations/area)	3.3961* (1.4662)	2.4728* (1.2388)	2.9605** (1.0000)	3.5642** (1.0168)
Observations	7939	7874	7053	7901
Eld. Age	YES	YES	YES	YES
Distance	YES	YES	YES	YES
Ind. Controls	NO	NO	YES	YES
Eld.Controls	NO	NO	YES	YES
Crime	NO	NO	NO	YES
Year FE	YES	YES	YES	YES
Threshold value of <i>I</i>	0.037	0.035	0.023	0.02

NOTES: The dependent variable specified in the heading of each column is the binary outcome being equal to 1 if the respondent's answer is "Completely trust"/"Rather trust" and 0 if the answer is "Neutral"/"Rather distrust", or "Completely distrust". Controls include the respondent's characteristics (gender, age, age squared, marital status, educational attainment), and elderly's controls (educational attainment, gender, age, age squared). Robust standard errors clustered by the elderly's birth year (85 clusters) in parentheses. \*\*  $p < 0.01$ , \*  $p < 0.05$ , +  $p < 0.1$ .

## Appendix

Table A1 – Distribution of Proxies for the Perpetrator’s Presence by Percentiles

Percentile	#Railway Stations/Area
0.05	0
0.25	0
0.50	0.002
0.75	0.005
0.95	0.012

NOTES: This table shows the distribution the proxy for the perpetrator’s presence by percentiles.

Table B1 – The Impact of the Regional Exposure to Repressions on the Respondents’ Trust.

	(1)	(2)	(3)	(4)
	Outcome: Trust in others (mean = 0.177, SD = 0.382)			
	<i>Panel A: OLS results</i>			
Ln (regional exposure)	-0.0141**	-0.0127**	-0.0120**	-0.0139**
	(0.0028)	(0.0027)	(0.0027)	(0.0027)
	<i>Panel B: 2SLS results</i>			
Ln (regional exposure)	-0.0621**	-0.0594**	-0.0578**	-0.0257*
	(0.0137)	(0.0137)	(0.0136)	(0.0101)
Ind. Controls	NO	YES	YES	YES
Eld.Controls	NO	NO	YES	YES
Year FE	YES	YES	YES	YES
Ln (Crime per 1,000 people)	NO	NO	NO	YES

NOTES: OLS results. Dependent variable is the binary outcome being equal to 1 if the respondent's answer is "Most people can be trusted" and 0 if the answer is "Should be careful" or "It depends". Individual controls include gender, age, age squared, marital status, educational attainment, elderly's age and elderly's age squared. Elderly's controls include educational attainment and gender. Robust standard errors clustered by the elderly's birth year (85 clusters) in parentheses. \*\* p < 0.01, \* p < 0.05, + p < 0.1. n = 26,456.

Table B2 - The Role of the Perpetrator's Presence. OLS results

	(1)	(2)	(3)	(4)
Outcome: Trust in others (mean = 0.177, SD = 0.382)				
<i>Panel A: OLS results</i>				
Ln (regional exposure)	-0.0155** (0.0031)	-0.0143** (0.0030)	-0.0139** (0.0030)	-0.0162** (0.0030)
Railstations/area	-15.5110** (2.7953)	-14.4269** (2.6632)	-13.9544** (2.7679)	-11.5369** (2.6591)
Ln (regional exposure) X (Railstations/area)	2.7479** (0.4864)	2.5635** (0.4657)	2.4873** (0.4817)	2.1107** (0.4621)
<i>Panel B: 2SLS results</i>				
Ln (regional exposure)	-0.0306** (0.0092)	-0.0286** (0.0091)	-0.0277** (0.0091)	-0.0227** (0.0076)
Railstations/area	-81.3408** (13.1068)	-82.9827** (13.7426)	-86.1608** (14.1822)	-85.7320** (13.3319)
Ln (regional exposure) X (Railstations/area)	14.4270** (2.2427)	14.6512** (2.3553)	15.1737** (2.4317)	14.9913** (2.3039)
Eld. Age	YES	YES	YES	YES
Ind. Controls	NO	NO	YES	YES
Eld.Controls	NO	NO	YES	YES
Crime	NO	NO	NO	YES
Year FE	YES	YES	YES	YES

NOTES: Dependent variable is the binary outcome being equal to 1 if the respondent's answer is "Most people can be trusted" and 0 if the answer is "Should be careful" or "It depends". Controls include the respondent's characteristics (gender, age, age squared, marital status, educational attainment), elderly's controls (educational attainment, gender, age, age squared) and log of the regional crime rate. The distance to the nearest oil source in modern Russia is controlled for in Panel B. Robust standard errors clustered by the elderly's birth year (85 clusters) in parentheses. \*\* p < 0.01, \* p < 0.05, + p < 0.1. n = 26,456.

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