What can money buy?
The political consequences of material reparations

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Abstract

After political violence, many states compensate victims as part of their approach to transitional justice. Do material reparations change political participation? I argue that receiving material reparations can increase political engagement. I use a multi-method approach to show that surviving victims of the Pinochet dictatorship in Chile who receive a material reparation are more likely to register to vote after being compensated. I substantiate this claim through content analysis of victim testimonies, qualitative interviews, and causal estimates that exploit exogenous variation in the timing of reparations. I find that reparations are capable of persuading resistant populations to engage in politics. Additionally, my results suggest that the noneconomic component of reparations payments is particularly valued by recipients. These findings suggest that analyses of the consequences of violence should account for experiences with transitional justice policies. From a policy perspective, the results are important for societies implementing transitional justice policies in the hopes of achieving long-lasting peace and preventing reversions to violence.

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1. Introduction

Transitional justice procedures have become increasingly common (Sikkink 2011; Olsen et al. 2010; Bass 2001). Material reparations, or compensation administered to victims from the state, is one such policy. As shown in Figure 1 reparations were administered 41 times between 1978 and 2007, according to the sole cross-national database of such policies (Olsen et al. 2010). These include $4,000 payments to South Africa’s 18,000 victims who testified before the Truth and Reconciliation Commission, compensation for 24,000 victims from Argentina’s military dictatorship, and reparations for nearly 10,000 victims of Morocco’s “years of lead.” Since 2007, additional policies have been implemented and fiercely debated in societies with turbulent pasts, including the United States. These policies are inherently economic, though they also can confer a powerful symbolic meaning, particularly when distributed by the state responsible for past harms. Do material reparations change political participation? Are recipients influenced by the symbolism and/or the economic stimulus implicit in compensation policies?

Transitional justice policies, if well-designed and -implemented, can build trust in the government and encourage political engagement. Yet, we have only begun to investigate how participation in transitional justice affects individuals’ subsequent patterns of political behavior. We have almost no research on the individual-level effects of reparations, in particular. Research examining the effects of transitional justice have mainly been conducted at the country level of analysis, examining how they influence the establishment of other transitional justice measures (Ferrara 2015), affect respect for human rights and democratic advancement (Olsen et. al. 2010; Wiebelhaus-Brahm 2010), and impact social cohesion (Bunselmeyer 2020). Though these studies are informative, there exists a dearth of research that causally identifies the impact on individuals participating in these mechanisms. This micro-level approach pursues the question of how reparations and political participation are linked, complementing existing analyses that consider the effects of policies at varying levels of analysis and with different research designs (Pham et al. 2016).

To gain traction on this question, I examine material reparations in the Chilean case. Chile was the site of a 17-year long military dictatorship under the leadership of General Augusto Pinochet. Between 1973 and 1990, the dictatorship was responsible for 3,000 deaths (Rettig Report) and the torture of nearly 40,000 (Valech Report). I utilize an additive, multi-method approach to examine the link between material reparations and engagement with the state. I leverage random variation in the timing of reparations payments and rely on administrative data to show that after receiving a reparation, surviving victims have up to a 10% greater chance of registering to vote

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1See https://www.ictj.org/our-work/transitional-justice-issues/reparations.
3See Cilliers, Dube, and Siddiqi 2016; Pham, Weinstein, and Longman 2004; Brounéus 2010.
than those who have not yet been compensated. I argue that the increase stems not solely from the economic component of reparations but from the symbolic value victims attach to it. In-depth qualitative interviews and victim testimonies support this claim.

These findings suggest that transitional justice shapes political behaviors in post-violence contexts. In particular, I suggest that transitional justice is capable of redirecting the effects of violence exposure and heightening desires to engage with the state. I highlight a psychological mechanism behind this effect, as the transfer is seen as symbolic acknowledgment of past transgressions. This finding is valuable for post-conflict societies seeking to augment prospects for durable peace and societal reconciliation.

This article contributes to work examining the consequences of transitional justice. Research has largely focused on macro-level outcomes and has rarely studied reparations. Micro-level research generates varying conclusions, suggesting that transitional justice yields positive attitudinal results (Horn et al. 2008; Cilliers et al. 2016; Gibson 2004, 2006) but can result in psychological harm (Brounéus 2010; Baçoğlu et al. 2005; Cilliers et al. 2016). Reparations evidence is similarly mixed. Some research documents that compensation does not factor centrally in victims’ desires after conflict (Espinoza Cuevas, Ortiz Rojas, and Rojas Baeza 2003), while others assert that reparations are a critical - though insufficient - component of transitional justice (Laplante and Theidon 2007; David and Choi 2005; Viane 2010). In Argentina, Sveaas and Sønneland (2015) find that reparations are considered problematic but retain symbolic value and Pham et al. (2016) find that 2/3 of compensated victims in Colombia do not feel that the payments provided justice. While my interviews suggest that Chilean victimsfeel similarly, I link thousands of reparations’ receipts to behavioral outcomes and find an increase in political participation.

I advance a burgeoning body of work that focuses on the micro-level political consequences of violence. Studies suggest different possible behavioral responses to violence. Some posit a withdrawal effect, wherein individuals retreat from political life when they are affected by post-traumatic stress and depression (Ehlers and Clark 2000; Gavlovski and Lyons 2004; Miller and Rasmussen 2009). Other research suggests that victimization increases political participation such as attending community meetings, voting, and political group membership (Bellows and Miguel 2006, 2009; Blattman 2009; Gilligan, Pasquale, and Samii 2014; Bateson 2012). My research builds on this scholarship by showing that the legacy of violence can be altered by transitional justice. This insight can help explain heterogeneous political participation after violence across time and within groups.

Finally, I contribute to scholarship investigating the link between state interactions and political participation. Policy feedback scholars suggest that public policies can influence political behavior (Soss 1999, Campbell 2003, Mettler 2005). In interactions with the criminal justice system, scholars have attached high degrees of procedural justice to stronger perceptions of police legitimacy and feelings of belonging, which is thought to spur democratic participation (Bradford et al. 2014; Loader 2006; Meares 2017). In the realm of public policies, perceptions of state performance providing public services can affect their willingness to engage with the state (Kruks-Wisner 2018). I extend these insights to the realm of transitional justice, where engagement with
state-run material reparations affects subsequent participation patterns.

This paper proceeds as follows. In section 2, I develop my theoretical approach to explain how reparations alter political participation. Implemented in pursuit of economic justice, reparations constitute a policy often invoked as one of several programs designed to recognize and address past injustices. I argue that compensation has an economic and noneconomic component that might increase political participation.

Section 3 describes material reparations in the Chilean case. Reparations were established for victim family members in 1992, after a truth commission report listed the names of those executed by the military regime. Direct surviving victims began receiving reparations after testifying before one of two truth commissions in 2005 and 2011.

In section 4 I present my empirical strategy and results. Through content analysis of victim testimonies, I show that victims focus more on noneconomic repercussions of violence than economic, suggesting that material interests alone constitute only part of the story. I then draw on evidence collected through my interviews with surviving victims to highlight the symbolic meaning attached to compensation. Next, I use my quantitative data, which consist of individual-level reparations disbursements and voter registration records from 2010, before registration became mandatory, accessed through requests to the Chilean government. I leverage exogeneity in the reparations approval process to estimate the causal effect of differences in the timing of repara-
tions payments on voter registration. I find that reparations increase surviving victims’ propensity to register to vote. Section 5 concludes with implications for reconciliation after violence and directions for future research.

2. Political participation after violence

How does political participation change in the aftermath of political violence? While existing studies of the legacies of violence are useful in understanding how individuals might respond to violence exposure, they are less useful in describing how this response might vary within classes of victims and change over time. But it does seem that responses are different and change over time, and I argue that some of this variation can be attributed to transitional justice participation.

The Chilean case is illustrative here. The Pinochet dictatorship started in 1973, and in 1988, he held a plebiscite where voters indicated whether or not they wanted him to stay in power. Chileans had to register to participate, leading to a surge in voter registration, among victims and non-victims. Figure 2 documents registration trends over time, divided by how an individual was affected by violence. Between 1988 and 2012, voters could voluntarily register to vote; conditional on registration, however, individuals were obligated to vote, making registration a close predictor of voter turnout in subsequent elections. Indeed, in the presidential elections held between the return to democracy and the adoption of automatic registration, the percent of registered voters that cast a vote ranged between 86 and 94% (Contreras and Navia 2013). Of the nearly 40,000 registered victims of torture, roughly 70% had registered to vote by 2012, when registration became automatic. Though the majority registered soon after the transition to democracy, many individuals registered years later, as Figure 2 shows. Thus, individuals with similar experiences during violence demonstrate different political behavior in post-conflict settings, exemplified by registering to vote and the timing with which they do so. This empirical reality suggests additional variation that warrants explanation.

Thus, I argue that responses to violence can change over time and across individuals. This is consistent with other studies that highlight heterogeneous reactions among victim populations. Moncada (2018) notes that dynamic political interactions between victims and criminals warrant attention. In this vein, studies find that Mexican victims of criminal violence are most likely to be politically active when they are embedded in strong social networks (Dorff 2017) and that in Colombia, those victimized by state groups are less likely to participate than victims whose perpetrator was not linked to the government (Voytas and Crisman 2019).

The theme emerging from this line of inquiry is that there are heterogeneous patterns in political participation among victims of violence, and that this variation can shed light on complex dynamics after political violence. This literature has neglected the influence of participation in transitional justice policies. This omission is problematic, as transitional justice policies frequently constitute victims’ most meaningful interaction with the state after incidences of political violence, and these policies often explicitly seek to reconstruct trust between citizens and their government. This project thus con-
Figure 2: Cumulative density of voter registration trends over time.

Notes: Voter registration rates among those 18 or older on October 5, 1988 (date of Pinochet plebiscite.) Dashed lines correspond to presidential elections. Red solid line is Pinochet plebiscite. Dotted lines correspond to local elections (mayoral) or Senate elections. Data obtained from Servicio Electoral de Chile (SERVEL).

Consider how transitional justice mediates the relationship between exposure to political violence and subsequent political participation.

Forms of political participation differ in what they require of citizens and what citizens intend from engaging in them. I distinguish between institutionalized and noninstitutionalized political activity. Institutionalized political participation refers to activities such as voting, that take place within the bounds of the formal political system. This activity requires intentional engagement with the state and behooves individuals to make themselves known to state entities. Populations who were victimized by state entities might be resistant to this type of activity given their disaffection with formal political institutions. Indeed, existing work finds that following instances of political violence, citizens express lower levels of generalized trust (De Luca and Verpoorten 2015; Kijewski and Freitag 2016; Rohner, Thoenig, and Zilibotti 2011), lower approval levels of political actors (Gates and Justesen 2016), reduced trust relying on institutions for protection (Ishiyama et al. 2018), and decreased trust in the national government (De Juan and Pierskalla 2016). I consider how attitudinal shifts such as these manifest behaviorally by exploring one example of institutionalized political participation: registering to vote. Registering to vote requires that an individual make oneself known and identifiable to the government. During periods of transition, it is also clearly signifies a break with the past system of government, especially when the transition is from a dictatorship to a democracy where citizens elect their leaders.

In contrast to institutionalized politics, like voting, noninstitutionalized activity does not require individuals to engage directly with the state. Examples of noninstitu-
tional political participation include protest behavior and writing and signing petitions. Though noninstitutional political participation is not the focus of this article, the link between reparations and this type of political behavior remains a topic for future research.

If voter registration is an example of institutionalized political engagement, how might individuals who have received material reparations change their patterns of this type of political behavior? Reparations could affect institutionalized political engagement for a number of reasons. I distinguish here between economic and noneconomic channels. One or both of these mechanisms may be at work if reparations change political participation, and I consider these possibilities with my empirical strategy.

Material reparations clearly have an economic component. This dimension can restore material losses suffered as a result of victimization. Being targeted with violence can lead to a reduction in resources, in the form of losing a job, having education interrupted, or missing rent payments during internment. These lapses might accumulate and cause reduced engagement in political acts. Reparations could therefore help make up this difference, offering a “development boost” allowing citizens to return to normal life activities, including those political in nature (De Grieff 2008). Existing analyses of targeted cash transfer government programs show that they increase voter turnout (De la O 2013; Pop-Eleches and Pop-Eleches 2012), though these programs were not directed toward victims of violence but rather individuals with low socio-economic statuses. Still, if income increases drive political engagement, reparations might increase institutional political activity through this economic pathway. If reparations operate through an economic pathway, I would expect support for this first hypothesis:

- **Hypothesis 1**: Victims will discuss their harms in economic terms. Political participation will increase with the size of a reparations payment.

On the other hand, victims may alter their political participation because of the symbolic dimension of reparations. In conventional economic approaches, money is an impersonal commodity with a quantitative interpretation. However, some argue that individuals can attach symbolic meaning to money beyond its economic value (Belk & Wallendorf 1990; Krueger 1986; Zelizer 1994). This may be because material transactions are embedded in social systems, and because of their interactional and relational nature, they can be used to create and reshape social ties (Carruthers & Espeland 1998; Zelizer 1989, 1994, 1996, 1998). How this manifests behaviorally might also be related to who distributes the money, why it is distributed, how it is distributed, and how recipients are determined (Mickel and Barron 2008). Compensation after political violence entails a recognition of victim status and wrongdoing on the part of the reparation provider. In this way, the noneconomic component of compensation provides individuals with important informational signals about their status and identity. It allows recipients to infer how they, and the groups they belong to, are perceived by the state. The existence of reparations can convey the message that victims are perceived positively by state authorities. At a minimum, reparations might alleviate fear that victims feel toward the state and encourage them to participate politically. This would concord with seminal theoretical work in transitional justice that suggests
that the policies have conciliatory effects (Hayner 2001; Biggar 2001; Kritz 1995). If the noneconomic component of reparations drives participation, then I would expect support for my second hypothesis:

- **Hypothesis 2**: Victims will discuss their harms in psychological terms and perceive reparations as having a symbolic value.

I have just laid out two channels through which institutionalized political activity might change upon receiving compensation. Still, exactly how it might change is unclear. Because institutionalized political activity requires engaging with the state, it might entail a psychological cost among those victimized by state entities. Victims might resist state engagement, given that the state failed to provide citizen protection and itself perpetrated violence. Participation might increase, however, with transitional justice, if it provides the economic boost or conveys a positive symbolic message that helps alleviate this psychological cost.

On the other hand, it is conceivable that reparations would not affect, or could even decrease, levels of institutionalized political behavior. For example, if levels of material reparations are small and do not sufficiently address victim grievances or even exacerbate feelings of injustice, they could further elevate the psychological cost of engaging with the state. This could be the case if victims and family members feel like reparations are “blood money” that do not adequately address their desires and needs. In this case, reparations could create a “self-undermining” policy backlash, wherein individuals would withdraw from the political system they see as unjust (Jacobs and Weaver 2014).

I argue, however, that even if victims and groups of victims feel as though reparations policies are inadequate or incomplete, the institutional nature of the policy might suggest that the formal political system is a way to enact change and to achieve victories for victims, spurring political engagement. This leads to my final hypothesis:

- **Hypothesis 3**: Reparations will increase political participation.

An alternative explanation for a positive association between political participation and material reparations would be that the relationship is correlative rather than causal. In this case, politically active victims would be more likely to receive reparations, resulting in a positive correlation. I account for this possibility in my empirical strategy, taking numerous measures to test for a causal relationship.

### 3. Material Reparations in Post-Repression Chile

To test my expectations, I turn to the case of material reparations in Chile. The Pinochet dictatorship from 1973-1990 left over 3,000 dead (Rettig Report) and tortured nearly 40,000 for political reasons (Valech Report). Those affected by these crimes are currently eligible to collect compensation.
The Chilean case is an example of state violence carried out against its own citizens. Similar settings are not difficult to find. I expect the mechanisms I consider to extend beyond the Chilean case to other contexts where states that formerly committed crimes against civilians institute policies to recognize and repair victims. This has occurred, for example, in Argentina, Colombia, Canada, Democratic Republic of Congo, South Africa, and the United States (in the case of internment of Japanese Americans). In all these cases, the government signals a break with policies of the past by providing reparations, though the amounts and specific aspects of the policies differ. Investigating the Chilean case can begin to shed light on behavioral responses to compensation.

The Chilean case is an important one. Legacies of the past and the policies addressing them can generate mass political movements. This became exceedingly apparent in 2019, when large-scale protests erupted over a series of economic issues. The protests and grievances expanded, and citizens demanded that the constitution from the Pinochet era that remains in place today be replaced. These events showcase how the legacies of past violence can persist and generate mass political activity even years after transitions. Investigating how transitional justice policies function in atmospheres like this is significant, since they are central to politics even years after violence itself has ceased.

Registering to Vote

Registering to vote in the Chilean system was particularly consequential. Registration was reopened in early 1987 before the 1988 plebiscite where voters indicated whether or not they supported an end to Pinochet’s rule and a return to democracy. To register, citizens had to go to an Electoral Service office where a state employee registered them in the official voting registry. Registering to vote before 2012 was voluntary, but conditional on registering, an individual was obligated to participate in all subsequent elections. This requirement makes registration and turnout in subsequent elections prior to 2012 closely correlated as suggested earlier. Failure to cast a vote after registering resulted in being called before a local judge and a fine of up to $220.00 USD.

What did it mean to register to vote? The general population had been unable to vote for their leader since Salvador Allende was elected in 1970. For victims, this period coincided not only with their experience of violence but a more general lack of outlets for political expression (political parties were banned). This might, in turn, generate a feeling of being disempowered as political actors. Thus, registering to vote in this context - and voting against Pinochet - could be empowering, as numerous interviewees noted. For example, when recalling her registration to vote, one respondent told me: “For me, it was an emotional experience. It was so exciting...And when the “No” won, I cried and said ‘Finally, finally we are going to know what happened to our family.’”

But it could also be risky, since voting constitutes a public act with a public record that includes personally identifying information. Even after Pinochet was ousted, he retained a political position and many of his administration remained powerful, creating the perception that the government might be hostile toward victims and that it

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4Exceptions included illness, being out of the country, being more than 200 km from voting place, or other reason deemed eligible by the local judge.

5Personal interview, conducted June 2, 2019, Buin, Chile
could be dangerous to make oneself known. As an interviewee noted: "The return to democracy was full of agreements that let Pinochet and the entrepreneurs control everything. In the end, they tricked us." In a climate of fear and distrust toward political systems, then, registering to vote and subsequently voting was a unique but potentially risky way to express discontent with the Pinochet dictatorship and parties that sympathized with and supported his policies.

For the 1988 plebiscite, 92% of the voting age general population registered to participate. However, as Figure 2 shows, this pattern was not the same for victims. The gap between victims and the general population suggests that the former was initially more resistant to participate in institutionalized political activity.

Collecting Reparations

Several truth commissions have taken place since the democratic transition. The first, the Rettig Commission, reported those who had been killed or permanently disappeared for political reasons. Their family members (spouses, parents, and children) were deemed eligible for monthly reparations payments.

This paper focuses on surviving victims, who constitute the vast majority of reparations recipients in Chile (92%). Torture survivors lobbied for a truth commission to investigate non-lethal crimes. In 2004, President Lagos convened such a truth commission that served as the basis for eligibility for subsequent reparations payments to surviving victims. In 2010, President Bachelet reopened the commission, allowing more survivors and family members to testify about their experiences and begin receiving compensation. To be eligible as a surviving victim, individuals had to have been detained for political reasons and torture had to have taken place in one of the 1,200 official detention centers in Chile. Only those who testified could receive economic compensation. Victims who were listed in the Valech Report had to present themselves at their local Instituto de Previsión Social (Social Security Institute, hereafter IPS) office to begin receiving reparations payments. I identify those 22,513 surviving victims who received compensation as of 2018 using an original dataset of surviving victims and information on their compensation timetable (see Appendix E for time trends in reparations approval times). The schedule of payment amounts, administered monthly, is depicted in Table 1.

4. Evidence on Effect of Reparations

To investigate how material reparations shape political participation, I study several questions. First, what are victims’ concerns, and how do they perceive material reparations? Second, do victims receiving reparations and those not receiving reparations exhibit different levels of engagement with the state? Third, to what extent does receiving a reparation shape patterns of political activity? Utilizing different methods to answer these questions triangulates across different types of data, providing a richer

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6 Personal interview, conducted June 4, 2019, Buin, Chile
7 I do not combine family members and surviving victims because I do not assume that their patterns of political participation and response to transitional justice policies will be similar.
Table 1: Monthly reparation amounts.

<table>
<thead>
<tr>
<th>Category</th>
<th>Chilean Pesos</th>
<th>USD</th>
<th>% of min wage</th>
</tr>
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<tbody>
<tr>
<td>Surviving victim (under 70)</td>
<td>$184,407</td>
<td>$259.84</td>
<td>46%</td>
</tr>
<tr>
<td>Surviving victim (70-74)</td>
<td>$201,636</td>
<td>$284.11</td>
<td>51%</td>
</tr>
<tr>
<td>Surviving victim (75 and up)</td>
<td>$211,053</td>
<td>$297.38</td>
<td>53%</td>
</tr>
<tr>
<td>Relative (1 beneficiary)</td>
<td>$557,590</td>
<td>$785.67</td>
<td>176%</td>
</tr>
<tr>
<td>Relative (&gt;1 beneficiary)</td>
<td>$780,628 total</td>
<td>1,099.94</td>
<td>248%</td>
</tr>
<tr>
<td>Spouse (&gt;1 beneficiary; 40% of total)</td>
<td>$312,251</td>
<td>$439.98</td>
<td>99%</td>
</tr>
<tr>
<td>Parent (&gt;1 beneficiary; 30% of total)</td>
<td>$234,188</td>
<td>$329.98</td>
<td>74%</td>
</tr>
<tr>
<td>Child (&gt;1 beneficiary; 15% of total)</td>
<td>$117,094</td>
<td>$164.99</td>
<td>37%</td>
</tr>
</tbody>
</table>

Notes: 2016 amounts from Leyes Reparatorias de Derechos Humanos Informe. These amounts are disbursed monthly. Conversions via Google Finance, 20 August 2019.

Evidence on Victim Concerns

Before receiving reparations, how do victims discuss the consequences of their torture and imprisonment? To what extent do material reparations address those consequences?

In the theory section, I described both economic and noneconomic dimensions of reparations payments. As a first step in exploring these mechanisms, I turn to survivor testimonies. Prior to the truth commission for victims, victim-centered NGOs began collecting testimonies on their own. The Corporación de Promoción y Defensa de los Derechos del Pueblo (The Corporation for the Promotion and Defense of the Rights of the People, hereafter CODEPU) collected around 1,000 testimonies in the early 2000s to "illustrate the gravity and magnitude" of torture committed during the Pinochet era, urging the government to open an official truth commission, which later happened in 2004 (Rojas et al. 2002). When collecting the testimonies, CODEPU asked victims to provide personal information and recount their torture experiences. Specifically, victims were asked to provide their name, national identity number, age, profession, and date on which they were detained. They were then asked the following questions:

- Who detained you?
- Where did they take you?
- What type of torture were you subjected to?
• Who conducted the torture? For how long?
• Who was detained with you?
• Why did they say they were conducting the torture?
• What type of consequences has the torture had?

Of particular interest is the final, open-ended question, where participants elaborate on consequences they experienced. CODEPU delivered these victim testimonies to then President Lagos in a series of reports: the first one, containing roughly 500 testimonies was published in December 2002; the second one, containing an additional 500 testimonies was published in December 2003; and the third, which included denunciations of those responsible for torture, was published in May 2004. I analyze the first two, totaling 1,004 testimonies. These testimonies, published just months before the policy of reparations began, constitute a "pre-treatment" expression of survivors’ thoughts about the harm they suffered and, sometimes, their desires for addressing it. To systematically analyze the way in which individuals frame their victimization, I perform content analysis of the testimonies included in CODEPU’s report. This exercise serves two purposes: first, it is descriptive and facilitates exploration of victims’ stated concerns and desires; second, it allows me to explore the prevalence of references to economic losses, which might suggest that reparations would help address lost resources and facilitate individuals’ return to normal life and to psychological harm, which might suggest that recognition from the state would be meaningful.

As Figures A1 and A2 suggest, the bulk of testimonies recount individuals’ arrest and detainment, describing where they were taken and the violence that was waged against them. Most testimonies also dedicate a final few words to discussing the consequences of torture and how individuals hope these crimes will be addressed through state policies. Since automated methods are applied to the entire corpus of documents, they focus on descriptions of torture, which comprise the majority of each testimony. To categorize references about the consequences of torture, I therefore read through each testimony and hand-coded whether it made reference to 1) economic, 2) psychological, and/or 3) physical harm (see examples in Table 2). I then summed up the total number of testimonies that framed victimization in economic terms. Additional examples of testimony segments that were coded as economic in nature are presented in Appendix B. Roughly 17% of total testimonies included references to economic hardships faced as a result of an individual’s torture. Significantly more individuals framed their suffering in physical or psychological manners. Figure 3 presents a Venn diagram showing how individuals discussed their victimization. Note that 485 (48% of) victims did not refer to their victimization in economic, physical, or psychological ways but focused exclusively on the details of their detention and torture. The figure shows that individuals are most likely to discuss the physical consequences of torture, followed by the psychological consequences. Though they are least likely to discuss the

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8Translation by the author. According to the publication released by CODEPU, victims were asked “nombre, cédula de identidad, edad, profesión, la fecha en que la persona fue detenida. Se preguntaba ¿quién la detuvieron?, ¿dónde la trasladaron?, ¿a qué tipo de técnicas de tortura la sometieron?, ¿quién las practicaron?, ¿por cuánto tiempo?, ¿quién estuvieron detenidos con él o ella?, ¿en qué condiciones?, ¿fue sometido a proceso?, ¿qué cargos le hicieron?, ¿qué tipo de secuelas dejó la tortura?”
Table 2: Excerpts from testimonies corresponding to each category.

<table>
<thead>
<tr>
<th>Category</th>
<th>Example text</th>
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| Economic  | • “The greatest suffering was borne by my children who were 6 and 4 years old. They were left homeless without money, without medical assistance, etc. Little by little my wife sold the furniture to buy food for them.”  
• “I lost my only job up to that point. After that, I had to work odd jobs. If I’d kept my job, I’d have a full pension and never would have had these economic troubles…” |
| Psychological | • “I suffer from symptoms of pent-up rage, fear in the presence of carabineros, feelings of persecution, and insecurity in certain situations.”  
• “I have constant anxiety, depression, and nightmares.” |
| Physical  | • “Physical consequences include permanent pain in my neck, hands, knees, and feet.”  
• “I still have a scar in the left dorsal region as a result of the blows I received during my detention.” |

Notes: Testimonies from Corporación de Promoción y Defensa de los Derechos del Pueblo (CODEPU) “Testimonios de Tortura en Chile” accessed in the Museo de la Memoria y los Derechos Humanos Centro de Documentación (CEDOC), Santiago, Chile.

economic consequences, a large proportion nonetheless does refer to effects on their material wellbeing.

Evidence on Victims’ Perceptions of Reparations

My first and second hypotheses focus on how victims frame the consequences of repression and how recipients perceive reparations. To more specifically investigate how victims view reparations policies, I conducted 43 in-depth interviews with surviving victims and family members from August 2018 to June 2019. I recruited these interviewees through collaborations with three victims’ organizations and human rights lawyers involved in domestic prosecution cases. In this section, I focus on my interviews with surviving victims, who are the focus of the current research. Through these interviews, I sought to understand how individuals viewed the state’s response to violence and how this shaped their attitudes toward the state and their engagement in politics. I asked these individuals a series of questions about their experiences during the dictatorship, with transitional justice policies in general, and as recipients of material reparations. My sample was not representative of the population receiving reparations, but the format allowed me to investigate the ways in which reparations are perceived and shape views of the government and its response to violence. Though I make no claims as to its representativeness, my sample draws on different classes of victims with different access to reparations and other transitional justice policies. I conducted interviews in the large metropolitan areas of Santiago and Valparaíso and in the rural areas of Paine and Buin, where many participants lived in poverty.
Figure 3: Contents of victim testimonies.

Notes: Testimonies from Corporación de Promoción y Defensa de los Derechos del Pueblo (CODEPU) “Testimonios de Tortura en Chile” accessed in the Museo de la Memoria y los Derechos Humanos Centro de Documentación (CEDOC), Santiago, Chile.
Among all interviewees, the reparations process was well-known and well-understood. Respondents knew precisely how much money they were paid each month and on what day. When asked about their satisfaction with the policy of reparations, many individuals described the economic dimension of reparations to highlight how they found the policy inadequate:

“The payments make you ask ‘What is justice?’ The Chilean state has not been concerned with being clear or deliberate in this regard. This money is not a reparation, because you can’t put a price on the emotional cost of losing a father.”

“The reality of survivors from the dictatorship period is regrettable. Former prisoners are relatively elderly and many have disabilities resulting from their imprisonment and torture. And the amount of reparations is miserable, unlike other countries that have provided larger payments, like Argentina and Uruguay.”

That said, while victims certainly do not see reparations as a complete response or one that fully addresses the crimes committed against them, some describe the symbolic value attached to reparations:

“Before, I thought that there would be no sum of money that can repair this. And while that might not be, everything helps, especially for people who were from poor backgrounds. But the value isn’t just economic; it is symbolic.”

“The fact that there is a recognition from the state that this extermination policy existed [during the Pinochet era] and that it is symbolized by the benefits of the Rettig and Valech Commission, I think that is important.”

As Figure 4 shows, the qualitative evidence collected suggests that surviving victims view reparations as a positive step but an incomplete policy. When it comes to the economic dimensions of reparations, two key themes emerge: 1) victims and family members see money as incapable of addressing injustice; and 2) they believe the size of reparations payment is inadequate. Thus, though victims might have economic concerns and many describe their consequences of victimization in economic terms, the way they discuss reparations does not suggest that the money received is sufficient to alter the cost of engaging in political activity.

Instead, recipients see reparations as reliable (they are delivered via direct deposit monthly) and many note that they were treated well when they visited an IPS office.
Figure 4: Bar plot of qualitative interview themes.

Notes: The X-axis corresponds to the percentage of surviving victims that referenced each theme along the Y-axis during in-depth qualitative interviews conducted by the author.

to prove their identities, suggesting that reparations are administered with a high degree of procedural justice. Together with the text analysis of victim testimonies, these data show that victim losses are not confined to the economic realm, and economic payments alone do not fully repair victims. That said, compensation appears to signify something to victims and is capable of increasing registration rates among those resistant to participate politically.

Evidence on Registration Rates

I turn now to quantitative evidence to assess how those receiving reparations alter their political activity. This allows me to consider the broader population beyond my interview subjects and to examine a behavioral indicator, less susceptible to shortcomings that arise when outcomes are self-reported. I first ask if victims receiving reparations and those not receiving reparations engage differently with the state.

I begin by constructing an original dataset of victims, reparations’ receipts, and voter registration. A list of surviving victims and their national identification numbers was published in the final Valech Commission reports. I link this data with data I requested from IPS through Chile’s Transparency Law. These data include individual-level surviving victims who collect monthly reparations, with the date when IPS approved a surviving victim’s solicitation for reparations. They also include the day of a victim’s IPS approval, her full name, birth date, gender, and province of residence. Table 3 documents summary statistics for these key variables. To my knowledge, this is the
first time these data have been analyzed systematically. Finally, I link these data to voter registration files, which include the date when individuals registered to vote until an electoral reform law made registration automatic. The voter registration data, formerly available on the Electoral Commission’s (SERVEL) website, can be linked to reparations and victim data by merging on an individual’s name and national identification number.

Table 3: Summary statistics for demographic, independent, and dependent variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observations</td>
<td>22,513</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>68.4</td>
<td>29 – 102</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender (Female)</td>
<td>17.4%</td>
<td></td>
</tr>
<tr>
<td>Gender (Male)</td>
<td>82.2%</td>
<td></td>
</tr>
<tr>
<td>Provinces highly represented</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Santiago</td>
<td>39.8%</td>
<td></td>
</tr>
<tr>
<td>Concepción</td>
<td>6.5%</td>
<td></td>
</tr>
<tr>
<td>Valparaíso</td>
<td>4.9%</td>
<td></td>
</tr>
<tr>
<td>Date registered to vote</td>
<td>May 31,1993</td>
<td>Feb. 1987-Sept. 2010</td>
</tr>
</tbody>
</table>

Notes: Information obtained via author request to IPS and historic SERVEL website.

To be eligible to receive reparations, victims had to testify before a truth commission. The final Valech Report includes a list of 38,254 individuals who were victims of torture. A number of these individuals subsequently passed away. According to IPS numbers, 23,815 individuals are still alive. Of these, 1,789 are eligible to receive a reparations payment, but have not gone to the IPS office to solicit and begin receiving compensation.

Table 4: Sample population

Registering to Vote

<table>
<thead>
<tr>
<th>Reparations</th>
<th>Before 2005</th>
<th>After 2005 or unregistered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Claiming before 2010</td>
<td>15,691</td>
<td>5,327</td>
</tr>
<tr>
<td>Not claiming</td>
<td>541</td>
<td>720</td>
</tr>
</tbody>
</table>

Notes: The white cell represents those analyzed in regression specifications. The survival analysis compares the white cell with the light grey cell. The dark grey cells are omitted from all analyses. Information obtained via author request to IPS.

To begin exploring the dynamics between receiving reparations and registering to vote, I use survival analysis to plot the cumulative probability of registering to vote for surviving victims who receive and do not receive reparations. I use a non-parametric
Figure 5: Survival plot of victims receiving versus not receiving reparations payments.

Notes: The Y-axis corresponds to the probability that an individual registers to vote while the X-axis represents days that have passed since an individual received a reparation. Light grey line corresponds to victims eligible for but not receiving reparations; dark grey line corresponds to victims receiving reparations. P-value from logrank test. Data received from Instituto de Previsión Social.

estimator to compute surviving victims’ cumulative distribution function. It is defined as:

\[ F(t) = \text{Prob}(\tau \leq t) \]

where \( t = 0, 1, \ldots \) is the time in days and \( \tau \) is a random variable indicating whether or not the event of voter registration has taken place. This model is often used to measure how long patients survive after certain health treatments. Here, it estimates the probability that an unregistered recipient registers to vote over time.

Figure 5 plots registration trends among those who are eligible but are not receiving reparations (in light grey) and those who are receiving reparations (in dark grey). The plot shows an initial separation between the two groups of victims; it appears reparations’ recipients register to vote relatively soon after receiving compensation. Over time, the gap increases, suggesting that among these resistant individuals, reparations might have an effect. Both groups experience periodic jumps in registration rates which likely correspond to periods preceding national elections.

Evidence on Effects of Reparations

Does receiving a reparation shape political activity? To examine causality, I utilize the bureaucratic approval process which induces randomness in the date individuals are approved for reparations payments to consider how variation in timing influences
registration patterns. This idiosyncratic approval process suggests that the administration of treatment - which here is the time individuals receive their first reparation - is not correlated with other individual-level characteristic. This suggests that treatment is allocated in an “as-if” random fashion.

After a victim or family member visits a local IPS office to prove her identity, IPS employees initiate a bureaucratic approval process. According to qualitative interviews conducted by the author, this process could vary in length, largely due to idiosyncratic considerations: IPS office workload (IPS offices also administer other pensions and benefits for workers and retirees among the general population), holidays, absences by certain employees, etc. Once approved, payments begin the subsequent month. Though this process takes three months on average, it can be quicker or continue upwards of a year.\textsuperscript{13} The bureaucratic process that underlies reparations payments provides an entrypoint to analyze how differences in timing of payments - which arise not due to case-specific considerations but to exogenous factors - influence subsequent patterns of political behavior. Though individuals choose the day in which they solicit reparations payments, individuals are considered recipients only once approved, and I use this approval date as a starting point, estimating the likelihood of registering to vote in the 12 months thereafter. I thus explore how timing in the receipt of compensation impacts registering to vote.

I employ a difference-in-difference design to estimate the individual-level impact of collecting compensation on registering to vote. In the absence of randomized reparations payments in a controlled experiment, the challenge is identifying the relevant counterfactual for individuals who do receive the treatment in real life. Since reparations begin in 2005, I narrow the sample to examine those who had not yet registered to vote at that point, since this is the subset of the population who logically could be influenced to register to vote by reparations. This means I exclude the dark gray cells in Table 4. Though I could compare those unregistered and claiming reparations with those who did not claim reparations, there are reasons to believe that those who do not visit IPS in-person might differ systematically from those who do visit IPS.\textsuperscript{14} As such, I hone in on only those who claimed their reparations payments (the white cell in Table 4) and exploit differences in the timing of receiving compensation. In short, I model how reparations affect the probability of registering to vote in people that had not registered before reparations and who eventually receive reparations payments.

Reparations’ approvals - and therefore the month payments begin - are staggered across individuals in time. My research design controls for time-invariant province-specific factors\textsuperscript{15} (province fixed effects) and country-wide factors that are common across provinces (year fixed effects). This allows me to partial out the effects of election drives and local partisan strongholds. I first use a simple difference-in-difference design and estimate the average treatment effect of the treated, averaged over all post-

\textsuperscript{13}Personal interview, conducted April 15, 2019.

\textsuperscript{14}For example, one interviewee noted that those who do not claim their reparations tend to be poorer and less informed than those who do.

\textsuperscript{15}Provinces are an administrative unit in Chile. There are 56 in the country.
Equation 1 computes a weighted cumulative effect of registering to vote, given that an individual received a reparation. Now, I estimate the effects in each month following treatment, by estimating $T$ lags of reparations’ receipt. To do so, I utilize a dynamic difference-in-difference specification. The difference-in-difference design provides a reliable causal estimate when trends in the outcome of untreated individuals comprise a valid counterfactual for treated individuals (Donald and Lang 2007). I assess the validity of this identifying assumption by estimating leads of payment and looking for systematic differences between untreated and treated individuals. To increase the robustness of the difference-in-difference design, I include individual-level factors (age and gender). Heteroskedasticity-robust standard errors are clustered at the individual level.
Figure 6: Difference-in-difference Estimates of Reparations on Voter Registration for Surviving Victims Receiving Reparations. Coefficient Plot.

Notes: Points correspond to beta coefficients estimated from Equation 2. Heteroskedasticity Consistent Robust Standard Errors Clustered at the Individual level. Lines indicate 95% confidence intervals. The gray area indicates the pre-treatment period. The dashed red line corresponds to the mean window when victims solicit payments from IPS (three months before approval).

I thus estimate:

\[ Y_{it} = \alpha + \gamma_i + \sum_{\tau=-T}^{-1} \beta_{\tau} \mathbb{1}[t = \bar{t}_i + \tau] + \beta_0 \mathbb{1}[t = \bar{t}_i] + \sum_{\tau=1}^{T-1} \beta_{\tau} \mathbb{1}[t = \bar{t}_i + \tau] + \beta_{\tau} [1 \geq \bar{t}_i + T] + X_{it} \delta + \varepsilon_{it} \]  

(2)

\( \beta_0 \) is the immediate effect of reparations, in the month after approval when payments start. \( \beta_1, ..., \beta_T \) correspond to lagged effects (estimated up to 12 months after approval). \( \beta_T \) captures the average effect from month \( T \) and beyond (i.e. after 12 months). Finally, \( \beta_{-T}, ..., \beta_{-1} \) are the \( T \) leads, which test for divergent pre-trends. I omit \( \tau = 0 \) as the reference year. \( X_{it} \) includes a vector of time-varying individual-level covariates.

Results are presented in Figure 6 which shows the estimates for each lead and lag in the specification (full results are in Table A1). The figure shows two key insights. First, most of the leads show no systematic evidence that registration rates statistically differ prior to reparations approval. This suggests that the common trend assumption
is likely valid in this application. Second, after reparations payments begin, there is a steady increase for six months in the propensity to register to vote. After 2 months, those who received a reparation observed a 1% greater chance of registering to vote than those who had not yet been compensated. The effect increases apace until 6 months after compensation, when the effect reaches a 9% change in registering to vote after compensation, and the effect levels out in months 7-12. The final point shows any additional effects after 12 months, which suggests the effect reaches a 10% greater chance of voter registration and that the positive effect persists. For robustness, I use an alternative matching estimator - PanelMatch (Imai, Kim, and Wang 2019) - and present the results in Appendix C.

As noted in the theory section, it may be that the most politically active victims are more likely to both receive reparations and register to vote. I take several measures to rule out that this drives my results. First, I include only those who had not registered to vote when reparations policies began. Focusing on these individuals helps to alleviate the fear that those receiving reparations are particularly politically active; while this may be the case generally, I omit the most politically active individuals who would have registered to vote between 1987 and 2005 when reparations began. These are the populations indicated by the white and light grey cells in Table 4. Still, it may be the case that - even among the restricted sample of those unregistered when reparations began - because reparations are not randomly assigned, reparations recipients could differ from reparations nonrecipients in systematic ways. My regression specifications therefore focus on just those who claim their reparations payments (i.e. those in the white cell in Table 4), controls for time-varying individual-level covariates, and exploits variation in the date reparations payments begin. Finally, my identification strategy allows me to isolate the effect of receiving a reparations payment; I measure voter registration an arbitrary number of months after an individual solicits reparations (by necessity after they have testified before a truth commission) but immediately after they begin collecting compensation. These strategies suggest that the effects I find can be attributed to receiving material reparations.

Evidence on demographic effects

Alternative explanations might suggest that those claiming reparations early and those claiming them later differ in systematic ways. One potential way in which they might differ is age. It could be that those claiming reparations earlier are younger, and that these same younger folks register to vote, while older victims take longer to claim reparations and may find it more difficult to travel to voter registration sites.

To account for this counter-theory, I bin my sample into three different age groups and estimate Equation 2 separately for each. I would be concerned if the $\beta$s estimated differ in systematic ways.

As Figure 7 shows, it does seem as though reparations are particularly mobilizing for younger recipients. Still, older individuals respond with increased registration rates as well, as the coefficients on the lags suggest positive and significant effects.
**Figure 7: Difference-in-difference Estimates of Reparations Amount on Voter Registration by Age Group. Coefficient Plot.**

Notes: Points correspond to coefficients from separate regressions for subset of total sample. Heteroskedasticity Consistent Robust Standard Errors Clustered at the Individual level. Bars indicate 95% confidence intervals.

A different alternative explanation might suggest that the effects I find are an artifact of the urban/rural divide. Specifically, it could be that urban-dwelling victims are driving my results, as they are more likely to collect reparations and register to vote, since IPS offices and voter registration sites might be more accessible in an urban setting. To consider this, I utilize figures from the Instituto Nacional de Estadísticas (National Institute of Statistics) and consider a region “urban” if the percentage of inhabitants living in urban environments is greater than the national average (87%). Seven regions are therefore considered urban and seven are not. As above, I consider these populations separately, and plot the results in Figure 8.

Both groups respond to reparations. If anything, it appears that the effect starts to wane in urban populations. Nonetheless, the positive coefficient is consistent across urban and rural settings.

**Evidence on the Economic and Symbolic Effects**

To conclude with my empirics, I return briefly to Hypothesis 1. As a whole, the text analysis of victim testimonies shows that victims have noneconomic concerns. Though many of them detail economic hardships, the prevalence of physical and psychological content suggests that victims’ losses are not confined to material considerations.
Figure 8: Difference-in-difference Estimates of Reparations Amount on Voter Registration by Geography. Coefficient Plot.

Notes: Points correspond to coefficients from separate regressions for subset of total sample. Heteroskedasticity Consistent Robust Standard Errors Clustered at the Individual level. Bars indicate 95% confidence intervals.
To further consider the empirical implications detailed in Hypothesis 1, I turn to quantitative analyses. If registration rates increase proportionally to the amount of money received, this would provide some support to Hypothesis 1. If this is not the case, this could mean several things. It might be that the economic pathway is less significant than the symbolic. But it could also mean that the amount of reparations payments is too small to alter the cost of political participation, a notion that seems viable from the qualitative evidence. To further explore the economic pathway, I rely on relative reparations amounts. The standard of living differs significantly in various Chilean communes, suggesting that how far a reparation travels also varies across communes. Since communes differ in their average incomes and cost of living, I utilize commune-level economic data to classify areas as above or below the average commune-level income. If reparations’ effect occurs by providing an economic boost, then individuals in low income communities might increase registration rates at a higher clip than those in high income communities. Though reparations payments are the same amount, they would be worth relatively more in low income communities but relatively less in high income communities. The results, presented in Figure 9 show that those in low-income communities do not register at higher rates than those in medium and high income communities.

To supplement these quantitative data and obtain a more robust picture of victim political behavior, I asked interviewees about their motivations when registering to vote
and their voting behavior.

“I registered to vote to advance the victim cause. And I do vote. I always vote for the one on the left. Or cast a null ballot.”16

“I support the left. Because the right victimized us. I’m not political, but we have to defend ourselves.”17

“I didn’t used to vote. Or when I voted, I cast a null ballot. But I actually did vote in the last election, for the first time, for the Frente Amplio. I don’t like them, but I gave them my vote.”18

These extracts illustrate the way voting is viewed as a meaningful political activity. The interviewees see themselves as rights-bearing citizens who express themselves and their political preferences by who they choose to vote and not vote for. Though they believe more needs to be done to repair victims, they see participating in institutionalized politics as one pathway to pursue this objective.

Though I do not mean to suggest that reparations have no economic value, I do not find support for Hypothesis 1 in this analysis. Combined with the evidence that victims often frame their losses in non-economic terms, these analyses offer evidence that the non-economic value of reparations - rather than the income boost alone - is an important part of the policy. Still, these findings warrant further research, since I cannot discern whether my lack of findings is a result of the small size of payments or the absence of an economic pathway.

5. Conclusions

In this paper, I suggest that a specific transitional justice policy - material reparations - is associated with an increase in registering to vote among surviving victims. Because most reparations recipients have registered to vote prior to receiving compensation, this increase is concentrated among those resistant to political participation. I have highlighted existing work and qualitative evidence suggesting that a psychological mechanism might be driving this finding, as surviving victims view reparations as acknowledgment of the crimes they suffered and validity of formal political institutions as a medium to achieve victim gains.

How might these results generalize? A unique aspect of using the Chilean case to examine the link between reparations and registering to vote is the importance of the 1988 plebiscite. In order to vote "Yes" or "No" on Pinochet’s rule, Chileans had to register to vote, which 92% of the population did. The plebiscite registry served as the voting registry in the new democracy; this means that if an individual registered to vote

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16 Personal interview, conducted November 7, 2018
17 Personal interview, conducted June 5, 2019
18 Personal interview, conducted November 4, 2018
against Pinochet, for example, she was registered to vote (and obligated to vote) in subsequent democratic presidential elections. This means that the population whose voter registration could be affected by reparations is a small and resistant one, likely more so than in other cases. However, I argue that the extent to which we find effects among this population suggests that results will likely be similar - if not stronger - in other contexts.

Another feature of the Chilean case worth noting is its high degree of state capacity. Research like this is arguably only possible in such a scenario where data is collected and available. This research relies on individual-level systematic data that allows me to explore micro-dynamics between receiving reparations and registering to vote. At the same time, this feature that makes this research possible also might limit this study’s generalizability. In the Chilean case, though there are delays between soliciting reparations and receiving approvals, they tend to be a few months. Once this period has passed, payments are dependable and consistent. The same cannot be said for cases like Colombia, where the vast majority of registered victims have not been paid. As I mentioned in the theory section, reparations could theoretically increase victims’ sense of injustice; this would be more likely in a case like Colombia than in a case like Chile.

The work presented here contributes to literature examining the determinants of political participation broadly and after incidents of violence specifically: participation in transitional justice can affect patterns in political behavior and should be considered. Additionally, it highlights an important insight: the creation of public policies – and participation in these policies – can also have meaningful impacts on individuals’ political participation. This oft-overlooked driver of political participation is relevant not just in post-violence contexts but in many situations where individuals and groups are targeted by and engaging with public policies.

These results suggest that reparations can be a way to increase political participation, but that the noneconomic dimension of these policies seems to be more consequential than the dollar amount collected by victims. Increases in voter registration might stem from individuals’ satisfaction with the policy and/or from their dissatisfaction with the policy and their desire to further the victim cause. Still, I have argued that registering to vote is psychologically costly for victims and therefore is a significant measure of political activity. My future research will further investigate the mechanisms behind this increase and the aims of heightened political participation.
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Appendix A: Full regression results

Equation 2 regression results

Table A1 presents results from Equation 2.
<table>
<thead>
<tr>
<th>Outcome: Registering to Vote</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\beta_{-6}$</td>
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<tr>
<td></td>
</tr>
<tr>
<td>$\beta_{-5}$</td>
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<tr>
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<td>$\beta_{-4}$</td>
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<td>$\beta_{12}+$</td>
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<tr>
<td></td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Province FE | Yes
Year FE | Yes
Observations | 350,531
Individuals | 5,292
$R^2$ | 0.09

Notes: Rows correspond to coefficients from respective variables. Heteroskedasticity Consistent Robust Standard Errors Clustered at the Individual level in parentheses.
**Appendix B: Text Analysis**

**Word cloud**
To describe the content of victim testimonies, I utilize automated text analysis. I construct a word cloud (Figure A1) which visually presents prevalent words used in the testimonies. I also use a structural topic model (STM) to discover topics commonly addressed by victims in their testimonies (Roberts et al. 2015). This approach considers each document to be comprised of a mixture of topics, and the structural topic model estimates topical prevalence. Appendix Figure A2 displays the expected proportion of the corpus from a 20-topic STM model.

**Testimony structural topic model**
Structural topic models estimate the prevalence of topics contained in the textual corpus. The top topics are presented in A2 along with the topical content, or prevalent words, for each top topic. The model is estimated using the \texttt{stm} package in \texttt{R} (Roberts et al. 2015).

**Examples of testimonies coded as economic**
Below are additional snippets of testimonies that were coded as economic, meaning that the testimony authors framed the consequences of torture as economic in nature.
Figure A2: Structural Topic Model.

Top Topics

- Topic 7: tortur, subject, arrest
- Topic 11: arrest, tortur, suffer
- Topic 10: tortur, polic, arrest
- Topic 2: polic, station, day
- Topic 13: taken, day, militari
- Topic 14: tortur, camp, arrest
- Topic 18: took, time, day
- Topic 4: serena, ovall, regiment
- Topic 8: truck, day, san
- Topic 15: stadium, militari, nation
- Topic 9: time, tortur, place
- Topic 16: air, tortur, ago
- Topic 5: valparaiso, prison, interrog
- Topic 1: alamo, villa, agent
- Topic 19: day, school, linar
- Topic 6: tortur, offic, command
- Topic 20: prison, polic, tortur
- Topic 17: detalhe, antonio, san
- Topic 3: day, tortur, arrest
- Topic 12: guard, los, felt

Note: Top 20 topics estimated from structural topic model on corpus of torture testimonies. Testimonies from CODEPU “Testimonios de Tortura en Chile” accessed in the Museo de la Memoria y los Derechos Humanos Centro de Documentación (CEDOC), Santiago, Chile.
“I lost my job and was then unable to help my parents who depended on me...”

“The greatest suffering was borne by my children who were 6 and 4 years old. They were left homeless without money, without medical assistance, etc. Little by little my wife sold the furniture to buy food for them.”

“I lost my only job up to that point. After that, I had to work odd jobs. If I’d kept my job, I’d have a full pension and never would have had these economic troubles...”
Figure A3: Panel Match Estimates of Reparations on Voter Registration. Surviving victims (recipients and nonrecipients).

Notes: Points correspond to PanelMatch estimates. Lines indicate 95% confidence intervals.

Appendix C: Panel Match Results

The two-way fixed effects specification used in this paper for the main results can yield biased estimates when considering multi-period dynamics (Imai and Kim 2019). I thus consider the main analyses in the paper in using a matching estimator that pairs observations based on covariates and similar treatment histories using the PanelMatch package in R using covariate balance propensity score matching (Imai, Kim, and Wang 2019). I use the universe of family members. For surviving victims and surviving recipients, I use a random subset of roughly 10% of the population for computational ease. Standard errors are computed using bootstrap estimation (n=500). Though the point estimates are somewhat smaller than those found in the paper’s main specification (Equation 1), the direction and significance of the effects persist, adding confidence to the notion that registration rates increase after receiving compensation.
**Figure A4**: Panel Match Estimates of Reparations on Voter Registration. Surviving recipients only.

**Notes**: Points correspond to PanelMatch estimates. Lines indicate 95% confidence intervals.
**Appendix D: Additional interview information**

**Table A2: Descriptive statistics of interview subjects.**

<table>
<thead>
<tr>
<th>Population</th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surviving victims</td>
<td>13</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Family members</td>
<td>30</td>
<td>5</td>
<td>25</td>
</tr>
</tbody>
</table>
Figure A5: Cumulative density of reparations approval trends over time.

Notes: Reparations approval over time. Dashed lines correspond to Valech I and II. Data obtained from IPS.

Appendix E: Trends in reparations approvals