# The Effects of Across-Regime Interpersonal Contact on the Support for Authoritarian Regimes \*

Andreas Stegmann CEMFI

November 13, 2018

Please click here for the latest version

#### Abstract

What shapes the ideology of individuals in non-democratic societies and how do changes in such attitudes affect outcomes during democratic transitions? This paper investigates the effects of a policy that had a large impact on individuals' value systems in a non-democratic regime. In 1972, the East German Communist regime agreed to a policy that facilitated visits by West Germans. I implement a spatial regression discontinuity design that exploits geographic variation in the level of travel restrictions across East German districts. First, I find that districts with fewer travel restrictions received indeed more visits from West Germany. Second, I find that during the democratic transition, districts with fewer travel restrictions: (i) exhibited more protest and lower electoral support for the Communist regime; (ii) displayed a value system less aligned with the one promoted by the East German regime; (iii) expressed greater demand for democracy. The evidence suggests that interpersonal, across-regime contact is a powerful way to change attitudes of citizens living under non-democratic regimes, and that these changes can have important consequences for the way in which democratic transitions unfold.

JEL Classification: D83, F55, N44, P26

<sup>\*</sup>Andreas Stegmann: stegmann@cemfi.edu.es.

I am indebted to my advisor Monica Martinez-Bravo for her encouragement and guidance throughout this project. I would also like to thank Manuel Arellano and Diego Puga for their advice and support. I am also grateful to Daron Acemoglu, Tincho Almuzara, Sam Bazzi, Paula Bustos, Frederico Finan, Julio Galvez, Camilo Garcia-Jimeno, Pedro Mira, Joan Monras, Ben Olken, Michel Serafinelli, Joachim Voth, and seminar participants at CEMFI's PhD workshop and SSDEV2018 for helpful comments and suggestions. I gratefully acknowledge financial support from the Maria de Maeztu grant. Early stages of this research were undertaken during my stay at the Department of Economics at MIT, and I sincerely thank their hospitality.

# 1 Introduction

The impact of culture on institutions and development is the subject of a rapidly growing literature in economics.<sup>1</sup> Recent theoretical contributions to this literature have argued that political culture and democratic values are key factors in the emergence and survival of democracies (Besley and Persson, 2018; Ticchi, Verdier and Vindigni, 2013). Yet, there is little empirical evidence on the factors that shape these beliefs in non-democratic regimes and on the long-term consequences of changes in these attitudes for outcomes during democratic transitions.

To address these issues, I investigate a policy that was implemented during the Communist dictatorship in East Germany and that, as I document empirically, affected the attitudes of individuals living under the regime. In 1972, the East German leadership agreed to reduce restrictions for West Germans travelling to East Germany to visit family and friends. Historians have argued that this "[...] visitors program ranks among the most lasting factors destabilizing and delegitimizing the [East German] dictatorship."<sup>2</sup> (Kowalczuk, 2009, p. 185)

To identify the effects of this policy, I exploit exogenous variation in the level of effective travel restrictions across East German districts. In particular, a subset of districts located close to West Germany were granted simplified procedures regarding visits from West Germany. I will refer to these simplified procedures as the extended visitors program throughout this paper. I leverage this cross-sectional variation in a spatial regression discontinuity (RD) design that relies on comparing districts that fell just within the area subject to the extended visitors program, to those that were located just outside of the program boundary. In addition to the spatial RD design, I implement a randomization inference approach, which provides a sharp test of the null hypothesis that the extended visitors program treatment has no effect.

To evaluate the effects of the extended visitors program, I developed a comprehensive dataset, which contains measures of attitudes within the East German population, protest incidences, electoral outcomes during democratic transition, as well as the number of West

<sup>&</sup>lt;sup>1</sup>Alesina and Giuliano (2015) provide a review of the literature on culture and its relation to institutions. <sup>2</sup>In particular, contact between citizens living in different political systems could affect attitudes towards both the domestic and the foreign political and economic system within a non-democratic society. The notion that exposure to a set of ideas through interpersonal contact may be effective in changing individuals' attitudes, and possibly more effective than other forms of communication such as media reporting, is consistent with Allport's (1954) contact hypothesis. Paluck, Green and Green (2018) provide a recent meta-analysis of the empirical evidence on this hypothesis. They conclude that, while contact typically affects attitudes, "given the narrow scope and mixed findings of the policy-relevant contact literature, [...] the jury is still out regarding the contact hypothesis and its efficacy as a policy tool."

<sup>&</sup>lt;sup>3</sup>Figure 1 provides a visual representation of the district-level assignment to the extended visitors program and highlights (in red) the discontinuity within East Germany (depicted in shades of blue). Thick dark lines demarcate administrative regions. The empirical analysis exploits variation within these regions.

visitors received. Specifically, I combine information from existing datasets, as well as data I digitized from archival records kept in different regional archives across former East Germany.

My main results are as follows. First, I show that the extended visitors program was effective in increasing visits from the West: districts that were part of the extended visitors program had 13.5% more visitors than those districts nearby that were not. A simple back-of-the-envelope calculation based on these estimates implies that the extended visitors program increased the chance for an East German citizen to receive a West German visitor by 11% in a single year.

Second, I examine the effect on support for East Germany's non-democratic regime using several measures of political behavior. I estimate that the assignment to the extended visitors program increased the number of protest days during the East German revolution in 1989 by 25% on average. These protests were critical for overthrowing the East German regime and setting off the transition to democracy (Dale, 2005). I also investigate electoral support during the democratic transition in March 1990. Assignment to the extended visitors program lowered the vote share of the legal successor party of the formerly ruling Communist party by 9.6%. This effect persisted for almost a decade after the East German revolution.

These results suggest that visits by West Germans weakened the support for the East German regime. During these visits, East and West Germans were able to exchange views on the different political systems, societal norms as well as on standards of living in East and West Germany. Direct exposure to West Germans' points of view could have been particularly effective in conveying information about the West German political and economic system. Moreover, following Allport's (1954) contact hypothesis, these interactions could have been instrumental in shaping individuals' attitudes towards the dictatorship and East German society in general.

To examine potential effects on beliefs and values of East Germans, I use individual-level data from the German Socio-Economic Panel (G-SOEP) measured at the time of the democratic transition. This survey elicits individuals' views on which types of behavior are socially desirable within East German society. Two types of behavior were specially promoted by the East German regime: being dutiful and showing high performance at one's workplace.<sup>4</sup>

To further document the East German regime's emphasis on the social desirability of such behavior, I perform text analysis using a corpus of text consisting of articles published in the regime's official party newspaper. I show that articles relating to the East German

<sup>&</sup>lt;sup>4</sup>A large qualitative literature highlights that obedient and dutiful forms of behavior were a central theme in East German society. Historians document in detail various examples and situations in which the East German state regularly mandated individuals to be obedient, while framing compliance as dutiful behavior. (Rogg, 2008; Kowalczuk, 2009; Wolle, 2013; Jahn, 2014)

society prioritize Communist civic society as well as individuals' performance within the East German economy. At the same time, a substantial share of articles honoring and thanking members of East German society for fulfilling their respective roles is indicative of the effort to reinterpret obedience as dutiful behavior.<sup>5</sup>

Using the spatial RD approach, I estimate a negative, significant effect of the extended visitors program on the agreement with these values. Assignment to the policy lowers the reported approval of dutiful behavior by 0.211 standard deviations and the reported social desirability of high performance at the workplace by 0.137 standard deviations.

Furthermore, I investigate preferences for democracy. In particular, I document a negative effect on individuals' satisfaction with democracy as it existed in East Germany during the democratic transition. The spatial RD estimates indicate that the extended visitors program reduced satisfaction with democracy in East Germany by 18.9%.

Moreover, I also explore heterogeneous effects of the extended visitors program policy. In particular, I show that these differences in attitudes were most pronounced for cohorts that were more likely to have social ties to, and consequently to interact with, West German visitors.

These findings suggest that the policy weakened the acceptance of salient aspects of the ideology that was promoted by and potentially underlies support for the East German regime. Moreover, the results are consistent with the extended visitors program nurturing democratic preferences. Stronger democratic values, particularly with the East German ideology being less pervasive, may lead to stronger opposition and therefore likely explain the emergence of protests against the regime during the democratic transition.

My empirical analysis is robust to a large number of exercises and tests. More specifically, I rule out statistically significant differences in pre-determined political, economic and demographic outcomes across the discontinuity that this study focuses on. In particular, the vote shares for the SED (Socialist Unity Party of Germany) in the last free election on East German territory in 1946, protest incidences during a major uprising in 1953, the average share of the population who were SED members in the five-year period prior to the introduction of the policy, as well as the availability of West German television broadcasting in 1989 are statistically identical in districts on either side of the discontinuity. This supports the main identification assumption that all relevant factors besides treatment vary smoothly at the discontinuity. Furthermore, the results are robust across different bandwidths and models for the running variable.

<sup>&</sup>lt;sup>5</sup>I also document the lack of an equivalent emphasis within West German newspaper articles at the time.

<sup>&</sup>lt;sup>6</sup>The SED was East Germany's ruling Communist party during the period between 1949 and 1989.

<sup>&</sup>lt;sup>7</sup>In particular, I present results using bandwidths between 25 and 75 km around the discontinuity. Moreover, I include flexible polynomials in different measures of geographic location, that is, the running variable.

I also provide evidence that alternative channels such as economic expectations, grievances about discrimination, repression and surveillance or the desire for national unity are unlikely to be behind the differences in outcomes during democratic transition.

As indicated above, in addition to the spatial RD design, I implement a randomization inference approach, exploiting the fact that there were many possible ways in which East German districts could have been assigned to the extended visitors program. When testing the null hypothesis that the extended visitors program treatment has no effect, this approach has the advantage of imposing a compelling set of counterfactuals.

In particular, I implement this randomization inference approach by comparing the impact of the actual extended visitors program to the effect of counterfactual extended visitor programs. The counterfactual spatial treatment assignments all respect the fact that the actual set of districts subject to the extended visitors program formed a connected and contiguous area. I re-estimate the empirical specification for 500 counterfactual assignments that were randomly selected among the set of feasible treatment assignments. I then use the position of the actual treatment effect in the distribution of counterfactual treatment effects to show that the observed empirical patterns described above would have been unlikely to arise in the absence of the actual policy.

My paper contributes to a rapidly growing literature on the formation of values and beliefs in authoritarian regimes.<sup>8</sup> The overall effect of the extended visitors program identified in this study increases our broad understanding of how interactions between citizens that live - and are to a large extent socialized - in different political systems shape political attitudes and aggregate outcomes such as protest. My main contributions are: (i) I provide, to the best of my knowledge, the first causal evidence on the effect of interpersonal, across-regime interactions on citizens' beliefs and behaviors; and (ii) I provide evidence that influencing attitudes within authoritarian regimes matters for outcomes during democratic transitions (for instance, by promoting protests).

My findings also contribute to an evolving empirical literature on information and censorship in non-democratic societies.<sup>9</sup> Most of this literature has focused on media censorship

In addition, I explicitly control for districts that directly border West Germany. As there is no variation in treatment status for this set of districts, treatment effects are identified exclusively from variation in assignment to the extended visitors program within the set of hinterland districts. This approach addresses concerns about potentially confounding border effects.

<sup>&</sup>lt;sup>8</sup>Spilimbergo (2009) shows, in a cross-country framework, that foreign-educated individuals promote democracy in their home country, but only if the foreign education is acquired in democratic countries. In the context of Hong Kong's pro-democracy movement, Cantoni, Yang, Yuchtman and Zhang (2017) examine university students' decision to participate in protest in response to positive and negative updates to beliefs about others' participation decision. Cantoni, Chen, Yang, Yuchtman and Zhang (2017) study the influence of educational content on students' political attitudes and beliefs. Voigtländer and Voth (2014) analyze the effect of infrastructure investment on attitudes in the early stages of dictatorship.

<sup>&</sup>lt;sup>9</sup>Chen and Yang (2018) argue that demand-side factors such as low demand for uncensored information

in authoritarian political systems. In contrast, this paper studies travel restrictions as another common way in which authoritarian governments restrict their populations' exposure to independent information sources. The evidence that interpersonal, across-regime contact weakens the pervasiveness of authoritarian ideology within non-democratic societies helps us better understand how and why authoritarian policies of isolation work.<sup>10</sup>

Lastly, another related body of work examines the role of foreign interventions and foreign influence in shaping domestic political and economic outcomes. <sup>11</sup> I show that a foreign intervention that facilitates cross-border contact between individuals living in different types of political systems can effectively undermine support for authoritarian rule within non-democratic societies. A policy implication of these results is that democratic governments can shape the views of citizens in non-democratic societies by promoting grassroots-level interactions between citizens living in both types of societies. Recent examples of such policy initiatives include South Korea's *sunshine policy* as well as the US-Cuba thaw initiated under the Obama administration.

The paper proceeds as follows: Section 2 describes the historical and institutional background; Section 3 describes the data and empirical strategy; Section 4 investigates the effect of the extended visitors program policy on the number of West German visitors received by each East German district; Section 5 examines the impact of the extended visitors program policy on support for the East German regime during the democratic transition; Section 6 discusses evidence to support the mechanism that, I argue, is behind the results and examines alternative explanations; Section 7 discusses robustness checks; and Section 8 provides concluding remarks.

and moderate social transmission explain the robustness of porous censorship in authoritarian regimes. In earlier work, King, Pan and Roberts (2013, 2014) show that the Chinese censorship apparatus focuses on eliminating information related to collective actions. Roberts (2016) provides evidence that the Chinese government relies on frictions to restrict the flow of sensitive information on the internet. This is consistent with theoretical work by Gehlbach and Sonin (2014) as well as Shadmehr and Bernhardt (2015) who model censorship as the government obstructing access to valuable information that can affect citizens' beliefs and behaviors. Another stand of this literature has focused on the persuasive effects of media communications on political views (Strömberg, 2004; DellaVigna and Kaplan, 2007; Yanagizawa-Drott, 2014))

<sup>&</sup>lt;sup>10</sup>All districts in the estimation sample had access to West German television broadcasts. Hence, even in the presence of access to foreign media, interpersonal across-regime contact can have an effect, which is surprising.

<sup>&</sup>lt;sup>11</sup>See Dell and Querubin (2017) for foreign military interventions in Vietnam, Kern and Hainmueller (2009), DellaVigna, Enikopolov, Mironova, Petrova and Zhuravskaya (2014) as well as Bursztyn and Cantoni (2016) for the influence of cross-border media, Berger, Easterly, Nunn and Satyanath (2013) for the influence of CIA interventions on international trade, and Martinez-Bravo and Stegmann (2018) for the impact of information on a previously undisclosed CIA operation on immunization in Pakistan.

# 2 Historical Background

### 2.1 Brief History of East and West Germany

Germany was split into four occupation zones at the end of World War II. The borders of these zones were the result of negotiations between the Allies and were settled at the Yalta Conference in 1945. While the USA, England and France occupied the western parts of Germany and soon formed a unified western zone, the Soviet Union took control over the remaining eastern occupation zone. In 1949, the Federal Republic of Germany (West Germany) and the German Democratic Republic (East Germany) were officially founded on the territory of the respective occupation zones.

Shortly after East Germany's official foundation, the East German regime swiftly implemented measures to restrict mobility between both German states. A first marked step towards this direction was closing off the German-German border in May 1952. East Germany created a 5 km wide protective strip and restricted zone along the 1,400 km long inner German border. Further measures were consistently undertaken in the years that followed. In 1960, for instance, East German soldiers had started to place landmines to further fortify border installations. In August 1961, East Germany started to build the Berlin Wall; this effectively closed the last remaining loophole used by East Germans to leave and migrate to West Germany. Thus, by 1972, the border regime had reached an unprecedented level and cross-border contact was severely reduced (Ritter and Lapp, 2006; Schultke, 1999).

Until 1989, the East German regime developed as one of the most rigid and stable regimes among the former Eastern European Communist states. The SED regime did not tolerate political dissent and had established a highly militarized security apparatus to persecute dissidents. Many dissatisfied East Germans thus left the country, either legally after they were granted exit visas or illegally.<sup>14</sup>

The first protests in the fall of 1989 were predominantly led by East Germans who had applied for exit visas and were hoping that the regime would allow them to leave the country in order to reduce public protest and maintain stability (Dale, 2005).<sup>15</sup> The East German

<sup>&</sup>lt;sup>12</sup>East German citizens required a special permit to enter this zone. Moreover, during this process, more than 11,000 persons that were considered potential spies or escape helpers were forcibly resettled.

<sup>&</sup>lt;sup>13</sup>The German-German border was heavily guarded and almost impenetrable. In 1989, for instance, the East German border troops counted 47,000 members (Kowalczuk, 2009).

<sup>&</sup>lt;sup>14</sup>Exit visas were issued after a waiting period of up to 10 years. Meanwhile the application for an exit visas caused - oftentimes severe - discrimination against applicants and their families.

<sup>&</sup>lt;sup>15</sup>In contrast, organized opposition groups that had mostly formed in the beginning of the 1980s did not play an important role in these protests (Opp, Voss and Gern, 1993; Opp and Gern, 1993). These groups were concerned with peace, sustainable development, the environment, and human rights. They were supported by Protestant pastors who provided them with access to meeting sites and limited resources to print (Dale, 2005; Kowalczuk, 2009; Neubert, 1998). However, their advocacy of a "third way", a reformed

regime came under more pressure when Hungary started to open its border towards Austria in May 1989 after effectively leaving the Soviet bloc. Throughout the summer, thousands of East Germans vacationing in Hungary used this opportunity to escape to West Germany. Others occupied West German embassies in Prague, Warsaw, and Budapest to force their emigration. This mass emigration and the East German regime's lack of willingness to introduce reforms significantly stoked up public protests (Hirschman, 1993; Lohmann, 1994; Pfaff and Kim, 2003).

On November 9, 1989, following an attempt by the East German regime to introduce temporary regulations that would allow permanent exit and that were aiming at reducing tensions, the Berlin Wall fell. Continued mass protests led to the shutdown of the Ministry for State Security ("Stasi") and the first free and democratic elections on March 18, 1990. The results were clear: 75 percent of the electorate voted for a party that supported the reunification of both German states which eventually took place on October 3, 1990. The SED had changed its name to "Party of Democratic Socialism" (PDS) after a realignment of its senior leadership and political program. The PDS obtained 16.4 percent of the votes which was generally considered a success by its leadership and political observers. PDS then contested federal German elections until 2005 when the party merged with a West German Socialist political party to form the new party "Die Linke".

# 2.2 The Transit Agreement

Cross-border traffic restrictions between East and West Germany were partially lifted in the Transit Agreement. This treaty was signed by state secretaries Egon Bahr (West Germany) and Michael Kohl (East Germany) on May 26, 1972. Building on an earlier transit agreement of 1971, the treaty governed all practical issues regarding transit from West Germany to West Berlin and other forms of cross-border traffic (including traffic via roads, railways or waterways). The signing of the Transit Agreement preceded the signing of the Basic Treaty on December 21, 1972 in which West and East Germany recognized each other as sovereign states for the first time.

<sup>&</sup>quot;socialism with a human face" did not resonate with the majority of East Germans. (Dale, 2005). Moreover, no significant reform movement emerged from within the ruling SED party. The party's top-level leadership insisted on a narrow and inflexible interpretation of Marxist-Leninist ideology and enforced strict norms of party discipline. Following Mikhail Gorbachev's rise to the leadership of the Soviet Communist Party in 1985, relations between East Germany and the Soviet Union quickly deteriorated. The SED's rejection of Gorbachev's path of reforming socialism culminated in an interview that SED chief ideologist Kurt Hager gave the West German magazine stern where he stated: "would you, by the way, in case that your neighbour repapers his apartment, feel obliged to repaper your apartment as well?" Most East Germans welcomed Gorbachev's reforms instead and hoped for similar changes in their own country (Kowalczuk, 2009; Süss, 1999).

The signing of both treaties between West and East Germany occurred amidst a short period of general easing in the geo-political relations between the Soviet Union and the United States that had started in 1969. In this environment, West German chancellor Willy Brandt pursued policies that would ease tensions between the two German states. His proposed new Ostpolitik aimed at establishing relations and collaborating with East Germany. While the short-term objective of this policy was to ease the situation for individuals living in East Germany, the long-term intention remained the reunification of both German states.

Yet this foreign policy stance towards East Germany, in particular the Basic Treaty, was highly controversial at the time as it implied the abandonment of West Germany's *Hallstein doctrine* which aimed at internationally isolating East Germany. The Hallstein doctrine prescribed that West Germany would view it as an unfriendly act if third countries were to recognize East Germany. The response to such an unfriendly act was often understood to mean a breaking off of diplomatic relations.

In West Germany, the conservative CDU (Christian Democratic Union of Germany), opposition party in the Bundestag, rejected the Basic Treaty because they thought that the government gave away some West German points of view too easily. In particular, the Brandt government, a coalition of Social Democrats and Free Democrats, lost a number of members of parliament to the CDU opposition in protest over the Basic Treaty. In April 1972, it even seemed that the opposition had enough support to recall Brandt and elect a new Chancellor. However, in the parliamentary vote, the opposition came two votes short. Finally, new general elections in November 1972 gave the Brandt government a victory.

In contrast, achieving international recognition as a sovereign state was East Germany's guiding foreign policy principle ever since the foundation of the German Democratic Republic in 1949. At the same time, the East German leadership intended to stabilize the regime by reducing out-migration, and limiting the extent to which there was cross-border exchange. Accordingly, East Germany's security apparatus actively accompanied the negotiations and aimed to prepare for potentially destabilizing effects of the gradual opening.

In 1973, following the mutual recognition as sovereign states, both West and East Germany joined the United Nations. By the end of the 1970s, East Germany had established diplomatic relations to almost all countries of the world. (Kowalczuk, 2009)

The magnitude of the private visitor flows in the period after the easing of travel restrictions had been implemented was substantial. In Appendix Table 1, I present a short quarterly time series on the magnitude of these visitor flows for the years 1975 to 1980. I retrieved this information from archival materials, particularly from quarterly reports produced within the East German Ministry of the Interior.<sup>16</sup> The data indicates that between

<sup>&</sup>lt;sup>16</sup>In particular, I digitized this information using materials available in the German Federal archives. The

3.4 and 3.7 million West German citizens visited East Germany per year in this time period. The pattern across quarters within a year appears fairly stable, with the second and third quarter of a year representing peaks in the number of West German visitors received. In particular, in the time period covered by the data, more than 1 million West German visitors were hosted by East Germans during each of these quarters, respectively. These flows are sizeable when compared to East Germany's population of 16.7 million (of which 12.6 million were above the age of 18) as of 1981.

# 2.3 The Extended Visitors Program

Prior to 1972, private citizens could enter East Germany only by invitation. The rules that governed this entry process were modified and became more generous as a result of the Transit Agreement. In particular, West German citizens could visit East German hosts residing in any district of East Germany on the basis of the private entry by invitation regulations once or multiple times per year for a maximum of 30 days. The treaty also affected East German refugees that had emigrated to West Germany prior to January 1, 1972. The East German authorities revoked their citizenship and guaranteed their exemption from punishment, thereby enabling these persons to visit family and friends who had stayed behind in East Germany.

In order to enter East Germany under this policy, East German hosts had to apply for a warrant on behalf of their West German visitors. In particular, East German hosts had to submit this application at least 4 weeks prior to the expected date of entry to the state authority responsible for the host's residence. Moreover, East German hosts had to produce detailed personal information on their prospective visitors to complete the application.<sup>17</sup> The application was then examined and, if approved, a warrant as well as an additional form was sent to the West German visitors via mail. The form required visitors to list any items and currency that they were planning to bring into East Germany. These forms were then checked thoroughly, supposedly at random, at the border crossing point. In case of no objection due to incorrect declarations, an entry visa was then granted at the border crossing point. This procedure had to be repeated for every entry to East Germany.

In addition to rendering the rules governing entry by invitation more generous, the Transit Agreement also introduced an extended visitors program. This program provided an additional way to enter East Germany and exclusively applied to East German districts in proximity to the inner German border. Eligible West German visitors that planned to visit

data source is BArch DO 1/8.0/50034.

<sup>&</sup>lt;sup>17</sup>The required information included name, data and place of birth, address, name and address of employer as well as the license plate number (if entry by private car was planned).

a locality within this designated set of East German districts could apply for a warrant directly. Importantly, if approved, the warrant was valid for up to 9 entries into East Germany. In addition, East German authorities established four additional border crossing points that operated exclusively under the extended visitors program and greatly reduced the effective distance to destinations within the districts subjected to the extended visitors program. Entry had to occur at the border crossing point that was closest to the destination. Initially, the warrant granted under the extended visitors program only allowed West German citizens to obtain one-day visas. From 1984 onwards, the permitted length of stay was increased to two days. (Ritter and Lapp, 2006; Schultke, 1999)

What was the rationale for introducing the extended visitors program in East German districts located in proximity to the inner-German border? On the one hand, Egon Bahr, West German state secretary and chief negotiator for the Transit Agreement, entered the negotiations with the ambition to achieve significant easing of constraints on cross-border mobility. On the other hand, the East German delegation feared that increased cross-border traffic would weaken its border regime. (Petrick, 2011) The resulting compromise contained the special provisions for districts in proximity to the inner German border described above as it was generally assumed that more social ties across the German-German border were cut off as a result of the division in this area.

How did East German authorities determine which districts to include in the extended visitors program policy? While the bargaining was secret and, to the best of my knowledge, there is no official justification for the assignment of districts to the extended visitors program, historians have argued that geography was an important factor. In particular, since visas granted under the extended visitors program were initially limited to one day, visitors had to exit East Germany prior to midnight through the border crossing point through which they had entered earlier the same day. Hence, this suggests that distance to the nearest border crossing point was a relevant factor in determining treatment assignment. Figure 1 provides a visual representation of the assignment to the extended visitors program.

While the literature does not mention additional criteria or factors, concerns remain that other underlying characteristics influenced assignment to the extended visitors program. Under these circumstances, identification is not a forgone conclusion and will be examined further in section 3.3.

#### 2.4 Visits and the Nature of Interactions

How did the typical visit by West Germans take place and who were those visitors? The surviving records of the East German police allow to point out the following broad patterns:

First, data from the East German region of Leipzig indicates that a large share of the West German visitors were indeed previously residing in East Germany. More specifically, the data for the first half of 1974 shows that 52.9% of visitors entering the region of Leipzig had previously been East German citizens. Second, the available statistical data on the social background of both visitors and hosts indicates that all social classes were well represented among both groups.

Given the lack of more comprehensive data on these visits and to provide a more detailed description of the typical interactions between East German visitors and West German hosts, I included a number of questions about the structure of the typical visit in a series of qualitative interviews that I conducted as part of this research project. In particular, the qualitative evidence discussed next comes from detailed, open-ended interviews with five respondents that lived in former East Germany and eight respondents that lived in former West Germany prior to November 1989. All of the respondents experienced cross-border, interpersonal contact either as a host or a visitor at the time. This qualitative evidence was too small scale and explorative in nature and thus makes no claim to being representative and complete. Yet, the results are indicative about the nature of these visits.<sup>18</sup>

This qualitative evidence suggests that the overwhelming majority of the visits took place in the period between 1972 and 1989. All but one respondent did not experience any interpersonal cross-border contact prior to 1972. While the visits occurred on a yearly basis in some cases, the majority of visits happened regularly, but not every year. Typically, visitors spent between three days and one week, in a few cases even more than one week, in East Germany.

In addition, this evidence suggests that there was slightly more contact between family members, but there is also a substantial share of individuals that interacted with friends. The share of visitors in this small sample that had previously resided in East Germany before returning to visit East Germany as a West German citizen is consistent with the levels reported in the administrative, statistical data described above.

Both East German hosts and West German visitors report that for the majority of the time, both groups interacted at the hosts' home. However, a substantial share also visited restaurants and went on small trips to nearby sights or the outdoors as part of these visits. However, only a small minority left the district of residence of the East German hosts on these occasions. When they did so, the distance travelled was relatively small.

An extensive, then contemporary description of these visits is provided in Böhme (1983).<sup>19</sup>

<sup>&</sup>lt;sup>18</sup>Please refer to section 14 in the Online Appendix for further information on the sampling procedure.

<sup>&</sup>lt;sup>19</sup>Please refer to Online Appendix 14 for a detailed description of retrospective interviews with both former East German hosts and West German visitors on the nature of these conversations. Moreover, researchers have recently obtained access to reports compiled by Infratest, a West German opinion research institute,

Consistent with the qualitative evidence presented earlier, Böhme emphasizes the private nature of the conversations during these visits. In particular, she points out that the visits provided a specific, communicative situation of exchanging positions and social conceptions between East German hosts and West German visitors. In other words, interpersonal contact and ensuing conversations provided an opportunity for a profound comparison of economic and political systems. Individuals' reflection on the own and foreign society shaped issues of discussion, questions and perspectives. Böhme describes these conversations as very intense, sometimes difficult and often characterized by misunderstandings. She contrasts, for instance, a passionate depiction of the efforts undertaken, and the pride that an East German host takes in his personal achievement of overcoming a variety of obstacles at his workplace, with the West German visitor's reaction, who perceives this as "an empathetic description of devastating conditions", and concludes that "the only valid explanation for this attitude could be that the East German state breaks its people."

# 3 Data and Empirical Specification

#### 3.1 Data

I obtained a list of the districts that were subjected to the extended visitors program from Ritter and Lapp (2006).<sup>20</sup> East German districts are in most cases small political entities that consist of a district capital and its surrounding countryside. The assignment to the extended visitors program varies at the district level.<sup>21</sup>

To obtain controls for socio-economic characteristics, I digitized district-level data on the 1971 East German census from the German Federal Statistical Office (1994). Furthermore, in section 3.3, I rely on a number of additional datasets to test for balance. I introduce and describe these datasets in more detail as they become relevant. Finally, to obtain controls for exogenous geographic characteristics, I calculate distance to the nearest regular border crossing point, distance to the spatial discontinuity boundary as well as latitude and longitude of the district centroids using GIS software. More specifically, distance to the nearest regular border crossing point is calculated in the actual road network as of 1977, i.e. shortly after the Transit Agreement was negotiated. To this end, I digitized the complete network of East German roads from Michelin (1977). Section 12 of the Online Appendix

which, on behalf of the West German Ministry for Inner-German Relations, secretly surveyed West German visitors upon returning from East Germany. Please find a brief discussion of this evidence in Online Appendix section 15.

<sup>&</sup>lt;sup>20</sup>Ritter and Lapp's (2006) book provides a detailed description of the evolution of East German border fortifications and cross-border traffic.

<sup>&</sup>lt;sup>21</sup>Due to the special status of East and West Berlin, the city is always excluded from the sample.

contains more detailed information about these data and the data construction.

To establish a relationship between being subjected to the extended visitors program policy and the intensity of interactions with West German citizens, I collected district-level data on visitors from West Germany from reports of the East German police that were classified at the time.<sup>22</sup>

I use two independent datasets to measure political behavior: First, I count the number of days for which a given district experienced protest during the East German revolution. In particular, protest incidences are measured based on an event catalog in Schwabe (1999).<sup>23</sup> This dataset was assembled by Grdesic (2014) and is geo-referenced to the district. This event catalog covers the period between September 1, 1989 and March 18, 1990.

Second, I use the vote share obtained by PDS (Party of Democratic Socialism) in the legislative elections on March 18, 1990, as a measure of electoral support for the East German regime. The PDS was the legal successor of the SED.<sup>24</sup> In particular, I digitized this data at the polling station-level using digital reproductions of the archival records of the electoral results provided by the German Federal Archives. This data is then geo-referenced to the district using the first 4 digits of the official identifier assigned to each polling station. In addition, to examine the persistence of the impact on electoral outcomes, I also rely on data on the electoral results for the federal legislative elections in 1994 and 1998. This data is provided by the office of the German Federal Returning Officer. I use information on the historic administrational affiliation from the German Federal Statistical Office (1995) to assign the electoral results at the municipality-level to the respective, former East German districts.

Lastly, I measure attitudes and values using the East Germany sample of the 1990 round

<sup>&</sup>lt;sup>22</sup>In particular, the department "Pass- und Meldewesen", which was in charge of the passport and registration system within the region-level police organization, regularly compiled statistical reports about the entry of West German citizens into the different districts within the region. Since these reports were prepared at various frequencies (yearly, quarterly, monthly, daily for special occasions such as Christmas or Easter) and given that only a fraction of the written records were preserved, this data collection effort yielded spell data of varying length for the year 1975. If the spell does not cover the entire yearly period, I need to extrapolate from the existing information to generate estimates for the total number of visitors in the year 1975. I describe this as well as the original data sources in more detail in section 12.1.2 of the Data Appendix.

<sup>&</sup>lt;sup>23</sup>This event catalog includes daily reports of local, district-level police forces to the East German Ministry of Interior, records of the Ministry of State Security as well as numerous secondary sources such as newspaper articles.

<sup>&</sup>lt;sup>24</sup>The party had changed its name on February 4, 1990 after a realignment of its senior leadership and political program. In particular, in December 1989 Erich Honecker, General Secretary of the SED until October 13, 1989, Erich Mielke, Minister for State Security, as well as Egon Krenz, General Secretary of the SED from October 13, 1989 onwards, were expelled from the party. The new leadership was comprised of Gregor Gysi, a lawyer who had been a member of the SED since 1967, Wolfgang Berghofer, a top-level SED politician and mayor of Dresden, and Hans Modrow, member of the SED since 1954 and leader of the SED in the region of Dresden since 1973. All of them were considered reformist within the SED.

of the German Socio-Economic Panel (G-SOEP). The G-SOEP survey existed in West Germany since 1984 and was conducted in June 1990 in East Germany for the first time. The survey was thus fielded only 7 months after the fall of the Berlin Wall and 4 months prior to German reunification, i.e. amidst East Germany's democratic transition. This dataset is geo-referenced to the district. Section 6 provides more details on these outcomes.

### 3.2 Regression Framework

This study exploits the discontinuous change in the level of travel restrictions resulting from the introduction of the extended visitors program, comparing outcomes in areas that were subjected to the program in 1972 to outcomes in areas which were subject to the standard border traffic regulations. This boundary forms a multi-dimensional discontinuity in longitude-latitude space. Hence, regressions take the following form:

$$Y_k = \alpha + \gamma T_k + f(location_k) + \delta_r + \beta' W_k + \epsilon_k \tag{1}$$

where  $Y_k$  is the outcome variable of interest in Kreis k, an East German administrative district, and  $T_k$  is an indicator equal to 1 if district k was subjected to the extended visitors program introduced in 1972 and equal to zero otherwise.  $f(location_k)$  is the regression discontinuity (RD) polynomial that controls for smooth functions of geographic location. The  $\sum_{i=1}^n \delta_i \mathbb{1}\{i_k = i\}$  terms are region fixed effects.<sup>25</sup> Effectively, they split the boundary in smaller segments. The region fixed effects ensure that the specification is comparing districts across the same segment of the boundary. Finally,  $W_k$  controls for further observable characteristics at the district level. One potential concern with the specification presented here is that the results could be confounded by border effects. To address this,  $W_k$  includes an indicator that equals one if district k shares a border with West Germany. Since there is no variation in  $T_k$  for the districts that directly bordered West Germany, the effect of the  $T_k$  indicator,  $\gamma$ , is identified only from the comparison of hinterland districts on both sides of the extended visitors program boundary that did not share a border with West Germany. This conservative approach is warranted to preclude confounding border effects. The support for the SED regime in these districts might be affected by the immediate proximity of the fortified border to West Germany. Moreover, municipalities in the restricted 5 km strip near the border were subject to favorable supply of goods. In addition, districts that directly bordered West Germany were affected by a large scale, population resettlement policy in 1952

 $<sup>^{25}</sup>$ East Germany consisted of 15 regions, so-called "Bezirke", which were created after the abolition of states ("Länder") in 1952. Each of these regions was comprised of a number of administrative districts, so-called "Kreise".

("Aktion Grenze") and many municipalities within these counties were either completely excluded from the extended visitors program or could only be visited after additional permits were granted.

In the ideal RD setup, the treatment effect is identified using only the variation at the discontinuity. Given that the available data on attitudes and political behavior does not provide observations at a lower level of aggregation than the district, I use a semiparametric RD approach that limits the sample to districts within 25 to 75 km of the extended visitors program boundary.<sup>26</sup> This approach identifies the causal effects by using a regression model to distinguish the treatment indicator, which is a nonlinear and discontinuous function of longitude (x) and latitude (y), from the smooth effects of geographic location. It is important for the regression model to approximate these effects well, so that a nonlinearity in the counterfactual conditional mean function is not mistaken for a discontinuity, or vice versa (Angrist and Pischke, 2009).

Accordingly, I report estimates from three baseline specifications of  $f(geographic location_k)$ . The baseline approach projects geographic location into a single dimension. In particular, this approach controls for a cubic polynomial in distance to the nearest regular border crossing point (measured in the actual road network as of 1977), a dimension which was important for the allocation of a district to the extended visitors program. Thus, a polynomial in distance to the nearest border crossing point is likely to capture variation in relevant unobservables. While this approach does not map well into the traditional RD approach, it is similar in controlling for smooth variation and requiring all factors to change smoothly at the boundary.

I also report estimates from two additional specifications. The second approach uses a cubic polynomial in latitude and longitude.<sup>27</sup>. This parametrization is relatively flexible and analogous to the standard single-dimensional RD approach. However, this approach is also very demanding as not all datasets provide the power to precisely estimate this flexible specification. The two alternative, single-dimensional specifications therefore provide useful checks on this multidimensional RD.

The third approach represents another single-dimensional specification. In particular, I also examine a specification that controls for a cubic polynomial in distance to the extended visitors program boundary. I report this specification because it is similar to traditional one-dimensional RD setups, but to the best of my knowledge neither historical nor qualitative evidence suggests that distance to the extended visitors program boundary is economically or politically important. Thus, this specification is most informative when examined in

 $<sup>^{26}</sup>$ I provide a visual representation of these discontinuity samples in Appendix Figures 1 to 3

<sup>&</sup>lt;sup>27</sup>Letting x denote longitude and y denote latitude, this polynomial is  $x+y+x^2+y^2+xy+x^3+y^3+x^2y+xy^2$ 

conjunction with the other two.

Lastly, in order to document robustness to functional form assumptions, I also report estimates from specifications that control for linear and quadratic polynomials in these three dimensions of geographic location.

### 3.3 Identifying Assumption & Balance

The spatial RD approach requires the following identifying assumptions. First, all relevant factors besides treatment must vary smoothly at the extended visitors program boundary. That is, letting  $c_1$  and  $c_0$  denote potential outcomes under treatment and control, x denote longitude and y denote latitude, identification requires that  $E[c_1|x,y]$  and  $E[c_0|x,y]$  are continuous at the discontinuity threshold. This assumption is needed for districts located just outside the discontinuity to be an appropriate counterfactual for those located just inside of it.

To assess the validity of this assumption, I document the absence of statistically significant differences in pre-determined political, economic and demographic outcomes. The results are presented in Table 1. The columns of Table 1 restrict the sample to districts for which the centroid is located within a 25, 50 and 75 km band around the extended visitors program boundary, respectively.

To examine political attitudes and support for the Communist regime at baseline, I use data on the vote shares obtained by the SED during the state assembly elections in 1946.<sup>28</sup>

The first row of Table 1 shows that support for the SED in 1946 is statistically identical across the extended visitors program boundary. Moreover, rows 2 to 4 indicate that there are no statistically significant differences in the vote share obtained by the remaining political parties.<sup>29</sup>

Next, I investigate protest incidences during the East German uprising on June 17, 1953. Row 6 of Table 1 examines an indicator for protest incidents during the 1953 uprising. The results show no statistically significant differences in the likelihood of protest occurrence.

Moreover, I use data on the share of the population that was, on average, a member of the SED in the years 1967 to 1971.<sup>30</sup> Importantly, this variable is measuring the strength

<sup>&</sup>lt;sup>28</sup>I compute vote shares obtained by the SED and other political parties at the municipality level. More specifically, I impose the administrative boundaries of municipalities in 1952. The data source for this analysis is Falter (1997). Please find more information on this data in Online Appendix section 12.1.1.

<sup>&</sup>lt;sup>29</sup>The state assembly elections in 1946 were contested by the LPD (Liberal Democratic Party of Germany), CDU (Christian Democratic Union of East Germany) and the VDGB (Peasants Mutual Aid Association). The VDGB was a mass organization for the rural population in the GDR. It was dominated and directed by the SED.

 $<sup>^{30}</sup>$ I digitized this data using archival materials available in the German Federal Archives. The data sources are documents in inventory *BArch DY-30*. Please refer to section 12 of the Online Appendix for a complete

of the SED prior to the introduction of extended visitors program and subsequent to the construction of the Berlin Wall, i.e. at a time when the East German regime had stabilized. Row 7 of Table 1 shows the absence of statistically significant differences in this measure.

The absence of statistically significant differences in both predetermined political attitudes, party strength and protest incidences suggests that the East German regime did not (at least on the margin) specifically provide concessions - by means of assigning districts to the extended visitors program - to districts that had higher underlying tendencies to engage in protest or reject the Socialist government.

I also examine the availability of West German television. Row 8 of Table 1 examines an indicator for availability of West German television broadcasting as of 1989.<sup>31</sup> The results indicate that districts subject to the extended visitors program policy, when restricting to a 50 km or 75 km band around the discontinuity, were significantly more likely to receive West German television broadcasting. However, the mean level of West German television availability is beyond 99% and 97%, respectively. Given this ubiquitousness, it is unlikely that differences in outcomes across the discontinuity are driven by West German television broadcasting.

Lastly, I examine district-level characteristics and demographics. For instance, row 11 of Table 1 shows that there are no statistically significant differences in the log number of refugees, originating from a given East German district k, that arrived to West Germany by 1955. This result is noteworthy for two reasons: First, during the early 1950s, the SED leadership implemented a series of policies to fundamentally transform East Germany's economy and society. A lack of differences in the amount of people that left East Germany during this time period is thus indicative of the absence of differences in political attitudes towards this transformation or the absence of differences in the implementation of this initiative. Second, given that a large fraction of the West German visitors after 1972 used to be former East German citizens, the absence of significant differences is suggestive of the lack of differences in social ties to West Germany across the discontinuity.

Overall, Table 1 reveals only very modest differences: when the sample is restricted to fall within a 75 km or 50 km band around the discontinuity, we see that a smaller share of the population within districts subjected to the extended visitors program had a tertiary degree as of 1971. Moreover, there appear to be small differences in the turnout to the 1946 state assembly election. Lastly, there are some, albeit insignificant, differences in the propensity of a district to be an administrative center of the enclosing region. All but the

list of the underlying documents.

<sup>&</sup>lt;sup>31</sup>In particular, I obtained information on the signal strength of West German television broadcasting for all municipalities in existence as of 1992 from Bursztyn and Cantoni (2016). Please refer to Online Appendix section 12 for more information.

differences in turnout disappear as the sample is limited to fall within a 25 km band around the discontinuity. Given these findings and to be conservative, in all analysis, I include indicators in  $W_k$  that equal 1 if a district is an administrative center of a region and 0 otherwise. Moreover,  $W_k$  also includes the log number of population in 1971 as well as the log number of population that held a tertiary degree in 1971 as additional control variables.

#### 3.4 Randomization Inference

Estimating the effects of the extended visitors program requires identifying a plausible set of counterfactual extended visitors program assignments. This study complements the spatial RD design with a randomization inference type approach following the procedure described by Dell and Olken (2018).

The assignment to the extended visitors program policy occurred at the district-level. I exploit the fact that there were many possible treatment assignment configurations.<sup>32</sup> In the baseline setup, I identify feasible counterfactual spatial extended visitors program assignments by imposing the following requirements:

- 1. The actual implementation of the policy created a single area within which all districts were assigned to the extended visitors program policy. I therefore require that the districts in the counterfactual extended visitors program are adjacent to each other and form a contiguous and connected geography (without holes or gaps).
- 2. The extended visitors program policy established additional border crossing points. These border crossing points could be used exclusively by travellers under the extended visitors program scheme. I therefore require that at least one of the treated districts borders West Germany to serve as an entry point.
- 3. The length of the implicit, counterfactual extended visitors program discontinuity defined by the assignment at the district-level falls within a 250 km band around the true length.
- 4. The mean distance of the implicit, counterfactual extended visitors program discontinuity defined by the assignment at the district-level to the West German border lies within a 25 km band around the true distance.

 $<sup>^{32}</sup>$ I only consider configurations for which the number of districts included in the extended visitors program policy equals the actual number of treated districts.

For robustness, I define a second set of feasible counterfactual spatial extended visitors program assignments.<sup>33</sup>

I then re-estimate the specification introduced in the previous subsections for 500 randomly selected counterfactual treatment assignment configurations that match above criteria.<sup>34</sup> I then compare the actual coefficient on  $T_k$ ,  $\gamma$ , to the distribution of counterfactual coefficients to compute a p-value. Small p-values imply that the patterns observed for the actual assignment to the extended visitors program would have been unlikely to arise in the absence of the actual policy. This randomization inference approach has the advantage of imposing a more compelling counterfactual and also addresses concerns about spatial correlation in the computation of standard errors.

# 4 Extended Visitors Program and Visits from the West

I begin by documenting a relationship between being subjected to the extended visitors program and the degree to which isolation of East German districts was reduced. To this end, I use the log number of West German visitors received in 1975 as the dependent variable. This analysis serves as a first check to verify that the policy indeed led to differences in opportunities to interact with West Germans. The results are presented in Table 2. Panel A reports the specification that uses a cubic polynomial in distance to the nearest border crossing point, Panel B reports the specification that includes a cubic polynomial in distance to the extended visitors program boundary. Column 1 of Table 2 restricts the sample to districts within a 25 km band around the extended visitors program boundary, and columns 2 and 3 restrict it to lie within 50 and 75 km bands, respectively.

The baseline specification presented in Panel A of Table 2 indicates that the extended

<sup>&</sup>lt;sup>33</sup>This second set of counterfactual spatial treatment assignment configurations imposes the following requirements: 1) Counterfactually treated districts are adjacent to each other and form a contiguous and connected geography 2) All districts that border West Germany are included in the set of treated districts (instead of only requiring a minimum of one). 3) The length of the implicit counterfactual extended visitors program discontinuity is at most 75 percent larger than the actual distance. 4) The mean distance of the implicit counterfactual border traffic discontinuity to the West German border lies within a 5 km band around the true distance.

<sup>&</sup>lt;sup>34</sup>Appendix Figure 4 presents a heat map showing where the 500 randomly selected counterfactual extended visitors program zones are concentrated. This figure indicates that districts in the south-western part of the country were most likely to be included in the counterfactual treatment scenarios. Moreover, the baseline restrictions imply that there is a steady gradient with respect to a district's likelihood of being included in a counterfactual treatment group towards the north-eastern part of the country. Similarly, Appendix Figure 5 presents a heat map showing the spatial distribution of the 500 randomly selected alternative counterfactual extended visitors program zones. This alternative set of counterfactuals clearly emphasizes the north-south dimension of the actual assignment to the extended visitors program.

visitors program policy increased the number of West German visitors received in 1975 by approximately 13.5 to 17.4% in treated districts, compared to nearby districts that were subject to the standard entry requirements. Similarly, the point estimates derived from the two alternative RD estimates imply that the number of West German visitors received in 1975 was 8.5 to 20% higher in districts subjected to the extended visitors program policy, compared to excluded districts in close proximity. Moreover, the point estimates remain fairly stable as the sample is restricted to fall within narrower bands of the extended visitors program boundary. Furthermore, all randomization inference p-values are equal to 0.01 or lower, when using single-dimensional RD polynomials (Panels A and C). The estimates obtained from a more demanding specification that builds on a multi-dimensional RD polynomial are marginally significant in the 25 km sample, but generally less precisely estimated.

Hence, this suggests that the extended visitors program increased opportunities for across-regime contact.<sup>35</sup> It is possible that this increase in the exposure to West German citizens led to differences in long-term outcomes, especially political behavior. In the next section, I turn towards empirically assessing this hypothesis.

# 5 Effects on Support for the East German Regime

In this section, I document the effects of being subjected to the extended visitors program on the support for the SED regime. Firstly, I study differences in protest incidences during the East German revolution. In particular, protest incidences are measured based on an event catalog that covers the period from September 1, 1989 to March 18, 1990.<sup>36</sup> The baseline results are presented in Table 3. This table reports the baseline specification that uses a cubic polynomial in distance to the nearest border crossing point.<sup>37</sup> Column 1 of Table 3 restricts the sample to districts within a 25 km band around the extended visitors program boundary, and columns 2 and 3 restrict it to lie within 50 and 75 km bands, respectively.

The baseline specification presented in Panel A of Table 3 estimates that the extended visitors program increased the number of days during which a district experienced protest events by about 25% to 31% compared to a nearby district that was not subject to the extended visitors program policy. Point estimates obtained from the alternative specifications imply that the number of days with protest events was about 28% to 43% higher in the

<sup>&</sup>lt;sup>35</sup>It is important to note that the policy was implemented consistently from 1972 onwards (in 1984, the permitted length of stay granted under the policy was extended to 48 hours). This difference in opportunities for across-regime contact is therefore likely to have been persistent.

<sup>&</sup>lt;sup>36</sup>Please find more information on this dataset as well as background information on the East German democratic transition in sections 2.1 and 3.1, respectively.

<sup>&</sup>lt;sup>37</sup>In the remainder of the paper, I focus on this specification. I show robustness to other measures of geographic location and functional forms in the Online Appendix.

former type of districts. The point estimates remain fairly stable as the sample is restricted to fall within narrower bands around the extended visitors program boundary. Figure 2, Panel A, shows the distribution of counterfactual treatment effects and contrasts it with the estimated effect under the actual policy assignment. All actual treatment effects lie in the right tail of the distribution of counterfactual treatment effects. More precisely, for the baseline specification, the null hypothesis of no treatment effect can be rejected at the 5 and 10 percent level for districts within a 25 km and 50 km or 75 km band around the discontinuity boundary, respectively. Similarly, the null hypothesis of no treatment effect is generally rejected at the 5 and 10 percent level in the alternative randomization inference exercise as shown in Online Appendix Figure 8, Panel A. These estimates imply that treated districts experienced, on average, approximately 2.5 to 4 more actual protest days in the fall/winter of 1989.<sup>38</sup>

Secondly, I examine differences in electoral support for the SED regime during the democratic transition. The baseline specification presented in Panel B of Table 3 estimates that being subjected to the extended visitors program policy reduced the vote share obtained by PDS (the legal successor of the SED party after a change of name in February 1990) by 1.1 to 1.3 percent points which corresponds to a 9.6% to 12% decline over the sample mean. Point estimates obtained from the alternative specifications imply a very similar reduction in the electoral support for PDS. Moreover, the point estimates remain fairly stable as the sample is restricted to fall within narrower bands around the extended visitors program boundary. Figure 2, Panel B, shows the distribution of counterfactual treatment effects and contrasts it with the estimated effect under the actual policy assignment. All actual treatment effects lie in the left tail of the distribution of counterfactual treatment effects. More precisely, for the baseline specification, the null hypothesis of no treatment effect can be rejected at the 1 percent level for all bandwidths. Similarly, Panel B of Online Appendix Figure 8 shows that

Robinson (2012). Small differences in pre-existing conditions, such as the strength of the underlying opposition against the SED regime, could lead to important differences in outcomes. For instance, historical accounts on the occupation of the first district- and region-level Ministry of State Security ("Stasi") offices in the region of Gera hint at the importance of these small differences and their consequences. In 4 of the 7 districts in the region that experienced the extended visitors program, citizens occupied the respective offices on either December 4 or 5, 1989 and were generally able to stop the destruction of sensitive records. In contrast, in only 1 of the 4 districts of the region that were not subject to the extended visitors program policy, citizens occupied the Ministry of State Security immediately on December 4, 1989. In one more of these districts, citizens entered the "Stasi" office on December 6, 1989, but left the office again, unable to prevent the destruction of sensitive information until January 6, 1990. Information on the occupation of the district- and region-level "Stasi" offices comes from Gesellschaft für Zeitgeschichte (n.d.).

Gesellschaft für Zeitgeschichte (n.d.). "Stasi-Besetzungen in Thüringen", http://www.gesellschaft-zeitgeschichte.de, http://www.gesellschaft-zeitgeschichte.de/stasi/1-stasi-besetzung-1989-in-erfurt/stasi-besetzung-in-thueringen/#c676 (last accessed October 14, 2018.)

the null hypothesis of no treatment effect is rejected at the 5 percent level in the alternative randomization inference exercise.

Lastly, I confirm that the effects on the electoral support for PDS persisted until 1998, that is for almost a decade after the beginning of the East German revolution. In particular, Panels C and D of Table 3 show that, for the baseline specification, the reduction in the vote share for PDS is 7.6% to 10.1% and 5.4% to 7.2% over the sample mean for the federal parliamentary elections of 1994 and 1998, respectively. Moreover, Panels C and D of Figure 2 demonstrate that, while the effect size is decaying as time passes, the null hypothesis of no treatment effect can be rejected for all samples at conventional levels of statistical significance. In particular, for the federal parliamentary election of 1994 for instance, the randomization inference p-values range from 0.020 in the sample that restricts to a 25 km band around the discontinuity boundary to 0.002 in the sample that includes districts that are at most 75 km away from the discontinuity boundary. Similarly, the null hypothesis of no treatment effect is generally rejected at the 5 percent level in the alternative randomization inference exercise as shown in Panels C and D of Appendix Figure 8.

# 6 Mechanism

In the previous section, I provide empirical evidence that districts that were subject to the extended visitors program, and consequently experienced a reduction in the degree of isolation of the local population, exhibit significantly more protest, and lower electoral support for the East German Communist regime during and after the democratic transition.

I argue that a plausible explanation for these results is the following: Increased across-regime interactions weaken the pervasiveness of the ideology that underlies the support for the East German regime. The East German regime emphasized the SED's leading role in state and society. (Winkler, 1997) Moreover, the SED pursued a policy of strict differentiation from West Germany. (Nakath, 1997) It is plausible that interpersonal contact to West Germans changes the information environment in which individuals live and undermines these messages. Consequently, individuals may question and reject key values promoted by the East German regime to increase support for its policies and form of governance. This reduced pervasiveness of the East German ideology could induce individuals to push against the limits on tolerated forms of political discussion. In the long run, these more critical discussions could then lead to more opposition to the East German regime and underlie the emergence of protests against the regime during the democratic transition.

### 6.1 Text Analysis

The main outcomes of interest measure an individual's attitudes towards the desirability of different forms of behavior in a society. In particular, the survey question - in the case of eliciting how socially desirable individuals view it to be dutiful - reads as follows:

"Everyone has conceptions about which modes of behavior are desirable and which are not in our society. One of these conceptions would be, for instance, that one should be dutiful. Please indicate for each of the following conceptions, how desirable you think it is that individuals in our society generally act accordingly. How desirable do you think it is that one is dutiful?"

The G-SOEP survey elicits attitudes towards different forms of behavior such as being dutiful, focusing on safety, performing highly at work, striving for prosperity, enjoying life, being independent, supporting one another or realizing one's potential.<sup>39</sup> Some of these behaviors were typically emphasized by the value system that the East German regime promoted, others not so much.

A large qualitative literature emphasizes that dutiful and obedient forms of behavior were a central theme in East Germany's society and daily life. Historians describe in detail various examples and situations in which the state regularly mandated individuals to be obedient, while framing compliance as dutiful behavior. These situations include, for example, the participation in elections, regular parades, work assignments during harvesting season ("Ernteeinsatz"), more generally, participation in activities conducted by a variety of mass organizations, obligatory military education at school and universities, compulsory military service as well as forced discussions about a variety of topics in school, at university or the workplace. In all of these circumstances, individuals within the East German society were continuously reminded of their duty to live up to their respective roles (Rogg, 2008; Kowalczuk, 2009; Wolle, 2013).<sup>40</sup>

To discipline the classification of forms of behavior as consistent with East German propaganda and to validate this qualitative literature, I conduct a text-analysis exercise on text published in the official, East German party newspaper. The objective of this analysis

<sup>&</sup>lt;sup>39</sup>In particular, to elicit attitudes towards these forms of behavior, the last question of the prompt quoted above was varied in the following way: "How desirable do you think it is that one [mode of behavior]?

<sup>&</sup>lt;sup>40</sup>In addition, personal accounts by contemporary witnesses such as Roland Jahn, the current Federal Commissioner for the Stasi Records and a former East German dissident, emphasize the pressure on individuals to be dutiful. Among others, he describes the following ways of behaving within the regime: *Be silent, accustom, run alongside, subordinate, collaborate*. These are some of the chapter titles of Jahn (2014). Each of these chapters anecdotally describes situations in which he or individuals in his social network complied with the state's requirements. He regularly traces how individuals experienced appeals to their sense of duty in these situations.

is to substantiate the content of East German propaganda and to identify forms of behavior that were strongly emphasized by the East German regime. At the same time, I also perform a text-analysis exercise on text published in one of the major West German newspaper at exactly the same point in time to show that these forms of behavior were differentially promoted by the East German propaganda. I then empirically investigate in the subsequent subsection whether attitudes towards these modes of conduct differ across the discontinuity.

In order to provide a quantitative description of the topics discussed and emphasized by the East German propaganda, I obtained all articles that were published on the front pages of the SED's official party newspaper "Neues Deutschland" for 250 randomly selected days in the period between the construction of the Berlin Wall on August 13, 1961 and the fall of the Berlin Wall on November 9, 1989. Similarly, to show differences in topics and content choice between East and West German media, I also obtained all articles published on the front page of the "Frankfurter Allgemeine Zeitung", a high-profile, national West German daily newspapers at the time, for the exact same set of randomly selected days.

Prior to the estimation of Latent Dirichlet Allocation (LDA) models for both the corpus of East and West German text, I preprocess the raw text in several steps, closely following Hansen, McMahon and Prat (2018). The purpose is to reduce the vocabulary to a set of terms that are most likely to reveal the underlying content of interest, and thereby support the estimation of more semantically meaningful topics. I describe the preprocessing of the text data in more detail in Online Appendix section 13. Despite the preprocessing, both text corpora remain high-dimensional objects.

LDA estimates a flexible statistical model for dimensionality reduction. The goal of this model is to find K meaningful word groupings in the data and represent each article in terms of these groupings. These K word groupings are commonly referred to as topics.<sup>41</sup> An important challenge in the context of text analysis is the choice of the appropriate number of topics K, i.e. the dimensionality of the latent-space. In particular, in probabilistic topic modeling, there is typically a trade-off between the interpretability of the model's output - which favors a lower K - and its statistical goodness of fit - which favors a higher K (Hansen, McMahon and Prat, 2018). Given the descriptive purpose of this exercise, I place more emphasis on the former. Accordingly, after experimenting with different values, I choose K = 45 in the case of the East German text data and K = 35 in the case of the West German text data. The difficulty lies in the fact that if one chooses too few topics, each topic tends to be a mix of underlying themes and therefore becomes very general, while the topics become highly specific to the particular content of a few articles if one settles for too many.

<sup>&</sup>lt;sup>41</sup>Topic labels can then - subjectively - be assigned by the researcher based on the terms that are most associated with a given grouping of words.

Appendix Tables 4 and 5 represent the output of these LDA models for both East and West German text, respectively. In particular, I show both the topics within each corpus ordered by their relative frequency as well as the terms that are most associated with a given topic.

To begin with, Appendix Table 4 emphasizes the significance of the party, the armed forces, and mass organizations in East German society. In total, 15.5% of the articles in the East German corpus of text are associated to these topics. In addition, the results highlight the importance of labor and performance in production within the East German state media. Overall, the articles most associated with these themes comprise 13.9% of the total East German text corpus. Moreover, the results indicate that the East German propaganda dedicated significant attention to honoring current members of the East German society who had satisfied their respective roles in an exemplary manner. Lastly, the LDA output highlights that the East German propaganda dedicated significant space to articles about West Germany, and non-Socialist, foreign countries more generally. The terms most associated with the respective topics indicate that the tone of these messages was frequently negative. The terms most associated with the respective topics indicate that the tone of these messages was frequently negative.

In contrast, the results presented in Appendix Table 5 show that the content of West German media differed substantially. Importantly, there is a complete absence of topics that appear to honor members of the West German society for exceptional achievements at the workplace or in the political sphere. Instead, there is a notable concentration of topics that

 $<sup>^{42}</sup>$ In particular, topic 10 deals with the East German leadership, topic 12 is associated with the military, topic 13 focuses on the Free German Youth, topic 17 is associated with SED party matters, topic 19 relates to the Democratic Women's League of Germany, topic 32 deals with the Free German Trade Union and topic 40 is related to the SED party organization.

 $<sup>^{43}</sup>$ More specifically, topic 5 concentrates on agriculture, topic 6 is related to commerce, in particular , topic 18 deals with the part of the production sector that was perceived as most innovative, e.g. microelectronics, topic 25 is associated with the production sector, topic 33 relates to the energy sector and topic 39 deals with heavy industry. The terms most associated with these topics frequently contain the terms "percent" or "ton" which indicates that the respective articles frequently provided an assessment of the performance of a production unit or sector. In particular, this assessment was typically made in relation to the respective production plan for a given time period as highlighted by the term "plan fulfilment" in topic 25.

<sup>&</sup>lt;sup>44</sup>To be precise, topic 4 honors current members of the East German society, while topic 28 specially honors distinguished members of the working class. These two topics account for 5.4 percent of all articles.

<sup>&</sup>lt;sup>45</sup>In particular, topic 1 deals with West Germany. Among the most associated terms is "militaristic". Topic 7 relates to the USA. The most associated terms emphasize the terms "nuclear" and "nuclear weapons". Topic 11 is associated with a number of countries that are labeled as "fascist". Topic 24 relates to capitalism. The terms most associated with this word grouping include "unemployed" and "laid off". Topic 26 deals with foreign affairs in a number of non-socialist countries. Topic 29 is associated with West German politics. Topic 31 relates to West Berlin. One of the most associated terms with this topic is "provocation". Topic 35 focuses on the West German press. Moreover, topic 41 relates to international treaties, while topics 43 and 44 deal with foreign affairs in France and the UK, respectively. In total, articles that are most related to these topics account for 23.2 percent of the East German corpus of text. East Germans who experienced interpersonal contact with West Germans might have seen the West German political and economic system in more favorable terms. Following Allport's (1954) contact hypothesis, the resulting contrast between the regime's messages and private experiences could discredit the values promoted by the East German regime.

describe and report on the democratic process in West Germany.<sup>46</sup> In total, 19.4 percent of all articles in the West German text data are associated with this theme.

These results are consistent with the qualitative literature mentioned above. First, there is a significant emphasis on Communist civil society and individuals' performance within the East German economy.<sup>47</sup> This highlights the roles, functions and activities that the East German regime promoted. Second, the substantial share of articles honoring and thanking members of the East German society for fulfilling their respective roles are indicative of the effort to reinterpret obedience as dutiful behavior. Given the results of this descriptive analysis, I focus on the following two modes of behavior in the subsequent empirical analysis: behaving dutifully as well as high performance at one's workplace. I argue that these SOEP questions are good measures of the degree to which individuals internalized key values promoted by the East German regime.

Beyond this focus on the approval of the value system emphasized by the East German regime, it is plausible that across-regime contact also induced a change in attitudes towards democracy. To investigate this issue, I investigate individuals' satisfaction with democracy in the GDR measured during the democratic transition in 1990. In particular, respondents were asked: "How satisfied or unsatisfied are you with democracy in East Germany as it exists today?" I interpret dissatisfaction with democracy in East Germany as a demand for more democratic reform.

### 6.2 Results

In this section, I document the effects of the extended visitors program policy on individuals' attitudes towards the desirability of different forms of behavior in a society.<sup>48</sup> First, I study

<sup>&</sup>lt;sup>46</sup>More precisely, topic 2 deals with West German politics at the state level, topic 7 is related to West German politics, topic 18 is associated with the office of West German Federal Chancellor, topic 20 deals with elections, topic 21 relates to the legislative process, and topic 25 deals with the West German parliament.

<sup>&</sup>lt;sup>47</sup>A manual review of articles associated with aspects of the East German economy suggest that a large share of these articles positively highlight the performance of individual groups of workers. Typical articles would emphasize, for instance, the effort exerted by coal miners to guarantee power and heat supply in the winter or praise the performance of workers in the agricultural sector, frequently for overcoming difficulties caused by the weather. Interestingly, differences in attitudes towards the value of performance at the workplace are also one of the key examples described by Böhme (1983) to highlight the difficult nature of the interactions between citizens from West and East (see Section 2.4 for a more detailed discussion).

<sup>&</sup>lt;sup>48</sup>In particular, I focus on a discussion of the two forms of behavior identified as being consistent with the values promoted by the East German regime in the previous subsection: being dutiful and high performance at work. For completeness, I present the estimated treatment effects on attitudes towards the remaining forms of behavior for all samples and ways to control for geographic location in the RD polynomials in Appendix Figures 16 to 18. The point estimates are generally insignificant and smaller than the ones discussed in this section. Given that these forms of behavior do not appear to have been differentially treated or emphasized, there is no clear mapping between attitudes towards these forms of behavior and increased across-regime contact. Accordingly, I do not provide a more detailed discussion of the results.

differences in attitudes towards being dutiful. Panel A of Table 4 shows the results when the outcome measures approval of being dutiful, standardized to have a mean of zero and standard deviation of one.

The baseline results suggest that living in a district included in the extended visitors program policy reduces the degree to which individuals approve of dutiful behavior as a desirable mode of conduct in society by 0.167 to 0.303 standard deviations. Point estimates obtained from alternative specifications imply a similar reduction in the desirability of being dutiful in districts that were exposed to the extended visitors program. Moreover, the point estimates remain fairly stable as the sample is restricted to fall within narrower bands around the extended visitors program boundary. All of the point estimates are precisely estimated and statistically significant at conventional levels of significance. In particular, Panel A of Figure 3 shows the distribution of counterfactual treatment effects and contrasts it with the estimated effect under the actual policy assignment. All actual treatment effects lie in the left tail of the distribution of counterfactual treatment effects. More precisely, for the baseline specification, the null hypothesis of no treatment effect can be rejected at the 5 percent level for districts within a 25 km and a 50 km band around the discontinuity. When looking at districts within a 75 km band around the discontinuity, the null hypothesis can be rejected at the 10 percent level. Appendix Figure 13 shows that these randomization inference results are robust to choosing an alternative set of counterfactual treatment scenarios that emphasizes the north-south dimension of the actual treatment assignment.

Second, I study the effects of the extended visitors program policy on the desirability of high performance at work. The results are presented in Panel B of Table 4. The baseline estimates imply that the effect of the extended visitors program policy is negative and reduced the degree to which individuals declare that high performance at one's workplace is desirable by 0.120 to 0.194 standard deviations. The point estimates derived from alternative RD specifications yield similar results. Again, point estimates are fairly stable as the sample is restricted to ever narrower bands around the discontinuity boundary (with the exception of the results derived from the multi-dimensional RD polynomial). The point estimates generally lie in the left tail of the distribution of counterfactual treatment effects shown in Panel B of Table 3. However, two-sided p-values generally exceed conventional levels as the counterfactual treatment effect estimates include a set of positive estimates that exceed the actual treatment effect in absolute terms. The alternative distribution of counterfactual treatment effects presented in Panel B of Appendix Figure 13 generally yield smaller two-sided p-values.

The results presented thus far show that individuals in districts that were subjected to the extended visitors program policy rejected key values that were emphasized and propagated

by the East German regime more strongly than individuals living in nearby districts that were excluded from the extended visitors program. This suggests that increased contact and interpersonal exchange with West German citizens undermined acceptance of the ideology promoted by the East German regime. Next, I proceed to investigate whether there are differences in individuals attitudes towards democracy across the discontinuity.

More specifically, I study the effects of being included in the extended visitors program on individuals' satisfaction with democracy in the GDR. The results are presented in Panel C of Table 4. The baseline estimates suggest that the effect of the extended visitors program policy reduced the share of respondents that are satisfied or very satisfied with democracy in the GDR by 6.3 to 11.5 percentage points. This corresponds to a 14% to 25% reduction over the sample mean. Panel C of Figure 3 shows the distribution of counterfactual treatment effects and contrasts it with the estimated effect under the actual policy assignment. In the baseline specification, the null hypothesis of no treatment effect can be rejected at the 5 and 10 percent level for districts within a 25 km and 50 km band around the discontinuity boundary, respectively. At the same time, the null hypothesis cannot be rejected in the sample of districts within a 75 km band around the discontinuity boundary at conventional levels as the magnitude of the actual treatment effect declines strongly as the bandwidth is increased. Panel C of Appendix Figure 13 shows that p-values derived from the alternative randomization inference exercise that emphasizes the north-south dimension of the actual treatment assignment are generally smaller.

# 6.3 Heterogeneity Analysis

Next, I examine the degree to which the strength of the effects on these dimensions of the value system varies across cohorts. To this end, I interact the extended visitors program indicator with measures of age in 1972, i.e. the year when the extended visitors program was implemented. In particular, I present the results from a specification that interacts the extended visitors program indicator with dummy variables for 15-year bins of age in 1972. <sup>49</sup> The results are presented in Appendix Table 8.<sup>50</sup>

Columns 1 and 2 indicate that the negative treatment effects on attitudes towards dutiful behavior and high performance at the workplace are particularly pronounced for individuals who were between 36 and 50 years of age in 1972. Similarly, the effects on these attitudes, especially on approval of dutiful behavior, are also sizeable for individuals that were between

<sup>&</sup>lt;sup>49</sup>The omitted category are individuals that were 20 years of age or younger in 1972.

<sup>&</sup>lt;sup>50</sup>This discussion focuses on the estimates derived from the sample that restricts to districts within a 50 km band around the discontinuity. The heterogeneity analysis within the remaining samples generally follows the results discussed in this section. These results are available upon request.

the ages of 21 and 35 years when the extended visitors program policy was introduced. Column 3 suggests that the negative treatment effect on satisfaction with democracy in East Germany was differentially stronger for the latter set of cohorts.

These findings are interesting for two reasons: First, the results imply that the treatment effects were stronger for individuals who, based on their life experience, were able to engage in serious exchanges of social conceptions during the across-regime interactions. Second, these cohorts were growing up prior to 1952, i.e. the year when the East German regime began to implement strong measures to restrict freedom of movement and halt migration to West Germany. As a result, these individuals are likely to have more social ties to West Germany than younger cohorts.

#### 6.4 Alternative Mechanisms

In the previous section, I present evidence in favor of the view that the extended visitors program policy reduced support for the East German regime by weakening the support for values promoted by the East German regime. In other words, the evidence suggests that across-regime, interpersonal interactions weaken the pervasiveness of critical aspects of the ideology promoted by the East German regime. In the long term, this reduction in the pervasiveness of the East German ideology could then lead to more protest and stronger electoral rejection of the regime.

In this section, I discuss the plausibility of alternative mechanisms. First, across-regime contact might impact forward-looking economic expectations. In particular, an intriguing question relates to the role of individual-level beliefs about the evolution of an individual's personal economic and professional situation under different political regimes in shaping support for a given political regime. It is plausible that interpersonal contact enables an individual to more accurately update her beliefs on how she would fare under the foreign political and economic system. Doubts and questions about the rightness of the system she currently lives in would emerge, in case that an individual's personal evaluation of the foreign system turns out favorable. Thus, increased interpersonal exchange with West German citizens could - on the margin -undermine the East German regime by modifying economic expectations of the East German population.

To investigate this point more thoroughly, I examine a set of economic and professional expectations measured during the democratic transition. The results presented in Appendix Table 9 suggest that, on average, individuals in treated districts were not differentially concerned about the general economy, their personal economic situation, job security or the potential loss of property rights. Furthermore, Appendix Table 10 shows that individuals

living in treated districts do not exhibit systematically different expectations about the future evolution of their professional career. More specifically, there are no systematic differences in expectations about future layoffs at one's workplace, the likelihood of losing one's job or the likelihood that an individual will start searching for a new job herself. Similarly, these individuals do not differentially expect to change occupations or experience career advancements or setbacks in the future. Lastly, they do not differ in their beliefs about the chance to become self-employed or drop out of the workforce. Overall, the empirical results suggest that economic expectations played at most a limited role in differentially weakening support for the East German regime. Given the ubiquity of West German television broadcasting, interpersonal contact to West Germans might not have revealed additional insights on an individual's economic prospects under the foreign political and economic system. Hence, the lack of differences in beliefs.

Second, the East German regime and the values it promoted might have differentially lost appeal due to differences in economic development across the discontinuity. To investigate this more closely, I examine whether there are differences in income as of May 1989 and May 1990, respectively. More precisely, apart from eliciting current income, the socio-economic panel survey asks individuals to retrospectively report their income from one year ago. The survey considers a large number of different sources of income.<sup>51</sup> I add up all of the available income sources for an individual in a particular month and thus investigate differences in total available income prior to the onset of the East German revolution as well as during the democratic transition.

Systematic, negative differences in income could reflect that the East German regime might have discriminated professionally against East Germans who upheld frequent contact to West German family and friends. This could in turn spur opposition towards the East German regime. However, it is also plausible that individuals residing in treated districts, on average, disposed of higher incomes as a result of the increased exchange with West Germans. These individuals could, for instance, have had access to goods that were in high demand within East Germany and could be sold or traded in at favorable terms. Alternatively, the East German regime might have treated these areas favorably to influence West German visitors' perception of the Socialist economic system. While such favorable treatment could appease local populations, Lipset's (1959) modernization hypothesis suggests that individuals who are economically better off could start to demand an extension of political rights from the East German regime.

<sup>&</sup>lt;sup>51</sup>In particular, the income categories elicited in the survey are the following: wages, maternity benefits, income from self-employment, income from a second job, old-age/invalid pension, widow/orphan benefits, student grants, unemployment benefits, social welfare, other income sources, as well as income received from persons not living in the household.

The empirical evidence presented in Appendix Table 11 suggests that, if anything, individuals in treated districts had lower income both prior to the onset of the East German revolution as well as during the democratic transition. However, it is important to note that these results are generally less precisely estimated and statistically insignificant when choosing alternative measures of geographic controls in the RD polynomials.<sup>52</sup> The negative point estimates suggest that grievances about individuals' economic situation could play a role in shaping rejection of the East German regime. However, the lack of robustness as well as the absence of differences in forward-looking expectations and beliefs suggest that the role of these economic channels was limited. Yet, to be conservative, it is possible that the estimates presented in this paper are the reduced form results of a change in attitudes in a context where citizens in treated districts share limited grievances about their economic situation.

Third, the East German regime might have sought to discriminate against individuals who frequently upheld interpersonal contact to West Germans by withholding access to privileges, for instance those that come with membership in the SED party or East German mass organizations, from a wider share of the local population. In addition, the regime might have differentially invested resources to repress and surveil the population within treated districts. Both restricted access to privileges as well as increased surveillance could create backlash and undermine support for the East German regime.

To address these concerns, in Panels A to B of Appendix Table 12, I show that the log average number of SED party members in the second half of the 1970s as well as the average share of workers that were members of the the Free German Trade Union Federation (FDGB) in the 1980s does not differ statistically across the discontinuity.<sup>53</sup> Moreover, the results presented in Panel C indicate a lack of differences in the log average number of informants working for the Ministry of State Security ("Stasi") in the 1980s. This evidence is at odds with the aforementioned explanations that build upon a differential levels of discrimination or surveillance.

Fourth, an alternative mechanism could be that individuals with more contact to West Germans were more frequently bothered and harassed by the regime and subsequently differentially developed grievances that facilitated mobilization against the Marxist-Leninist regime. To assess the plausibility of this channel empirically, I assess the extent to which there were differences in the number of arrests due to a number of different forms of protest or the exercise of free speech. The evidence presented in Appendix Table 13 shows that there

<sup>&</sup>lt;sup>52</sup>These results are available upon request.

 $<sup>^{53}</sup>$ The FDGB was an East German mass organization. It was part of the so-called National Front and also sent representatives to the East German Volkskammer.

are, if anything, fewer arrests in the treated districts. This is inconsistent with the view that residents of districts that were subjected to the extended visitors program experienced more repression in response to increased exchange with West German citizens.<sup>54</sup>

A last alternative explanation might be that all the dynamics presented in previous sections are driven by a differential strength of social ties and a desire for national unity. In other words, interpersonal contact to West Germans might have spurred the rejection of the East German regime and the values it promoted not by discrediting aspects of authoritarian rule and promoting a demand for more political influence, but by evoking individuals' desire to re-unite with their West German families and friends. Table 1 already presented evidence in favor of the view that - at the discontinuity - there were no such statistically significant differences in social ties to West Germany at baseline as treated and unaffected districts did not differ in terms of refugees that came to West Germany by 1955. Moreover, if all the unrest and rejection of the regime was driven by a desire to re-unite with family and friends in West Germany, we would expect to see differential emigration flows from districts that were subject to the extended visitors program when emigration becomes feasible. Yet, Panel A of Appendix Table 14 shows that this is generally not the case, despite positive point estimates. Similarly, Panels B to D of Appendix Table 14 suggests that respondents in the SOEP survey did not declare that family members, close friends or colleagues at work left for West Germany at different rates in both types of districts.

### 7 Robustness Checks

I document robustness of the main findings on support for the regime as well as on the approval of values that were strongly promoted by the East German regime to choosing alternative measures of geographic location in the RD polynomials. In particular, a large number of Appendix Tables show that the results are robust to selecting either latitude and longitude or distance to the discontinuity as controls.

In addition, a large number of Appendix Figures confirms that the null hypothesis of no treatment effect on these outcomes can consistently be rejected for these specifications in both types of randomization inference exercises.

Lastly, I provide evidence that the results presented in the previous sections are robust to

<sup>&</sup>lt;sup>54</sup>A potential explanation for this pattern might be that tools of violent oppression and repression became more costly to the regime due to the ability of visitors to more easily communicate abuses. Consequently, the regime's reaction might have been constrained by concerns about the international reaction to the use of these measures. In the light of this, these results could represent a "concession" by the East German regime. By itself, concessions could not explain stronger rejection of the East German regime within treated districts. Yet, it is possible that the estimates presented in this paper are the reduced form results of a change in attitudes in a context where the non-democratic regime offers some degree of concessions.

using different functional forms to control for geographic location. In particular, in Appendix Tables 15 to 17, I show that the results on protest as well as the electoral support during the first free election in 1990 are robust to using linear or quadratic polynomials of distance to the nearest border crossing point, latitude and longitude as well as distance to the discontinuity. The results are similar to the baseline results discussed earlier both in terms of magnitude as well as statistical significance (as computed in the baseline randomization inference setup).

# 8 Concluding Remarks

Rigorous travel restrictions for citizens of democratic societies who seek to enter authoritarian regimes are widespread. Authoritarian regimes regularly limit their citizens' exposure to independent information sources by imposing such barriers to entry. While opportunities for interpersonal, across-regime contact have been established at times, little is known about its effects on beliefs and behaviors within non-democratic societies.

In this paper, I provide causal evidence on the effects of a policy that leads to increased contact between citizens that live in different political systems on: (i) the emergence of mass protests demanding democracy, (ii) electoral support for the authoritarian regime, as well as (iii) attitudes held within a non-democratic society. More precisely, I exploit cross-sectional, spatial variation in the level of travel restrictions across East German districts. These travel restrictions affected West German citizens travelling to visit family and friends living under Communist dictatorship in East Germany. I document that districts subjected to the policy received more West German visitors. Moreover, treated districts exhibited significantly more protest as well as weaker electoral support for the legal successor of the previously governing Communist party during and after East Germany's democratic transition.

I provide a plausible explanation for these results: increased across-regime interactions weaken the pervasiveness of the ideology that underlies the support for the East German regime. In the long-term, this reduction in ideological pervasion of the East German society leads to opposition and the emergence of protests against the regime. To support this argument, I provide additional empirical evidence consistent with this mechanism. I show that differences in political behavior coincide with a number of important differences in attitudes measured during East Germany's democratic transition. These differences in attitudes, especially a stronger rejection of dutiful behavior, are consistent with decreased approval of values that were strongly promoted by the East German regime.

Beyond estimating the causal effect of typically endogenous contact between citizens that live in - and are to a large extent socialised - in different political systems, I contribute to the literature on culture and political regime change by providing evidence that changing

attitudes within authoritarian regimes matters for outcomes during democratic transition.

In the light of my empirical results, it is natural to wonder about the potential consequences for the support of democracy if recent engagement policies such as South Korea's sunshine policy or the US-Cuba thaw initiated under the Obama administration had been continued and possibly extended in scale.<sup>55</sup> Similarly, while Chinese leaders approach across-regime contact between Chinese and Taiwanese as a way to promote Chinese reunification, Taiwanese leaders expect that exposing more Chinese to democracy and free speech will undermine popular support for any military operation to force unity.<sup>56</sup>

Moreover, it is an intriguing question to ask about the impact of interpersonal, across-regime contact on outcomes in a wider set of contexts. What is the role of such interactions in the Gaza-Israel conflict, or in the conflict between India and Pakistan? Can engagement policies that promote grassroots-level interactions shape attitudes and behaviors, and, for instance, prevent violent extremism in these settings? How precisely can democratic governments design and implement such policies? These are fascinating issues for future research.

<sup>&</sup>lt;sup>55</sup>For instance, North and South Korea entered into a phase of unprecedented interaction following the introduction of the *sunshine policy* by South Korean president Kim Dae-jung (1998-2003). In the period between 1989 and 2003, a total of 55,257 persons crossed the inner-Korean border from South to North Korea. The extent of cross-border traffic from the South to the North grew substantially in the subsequent years, totalling 186,443 cross-border travellers from South to North Korea in 2008 alone. Since then cross-border travel from South to North Korea declined constantly and almost come to a complete halt in 2017.

Ministry of Unification, South Korea (2018), "South North Relations, Data & Statistics, Inter Korean Traf

Ministry of Unification, South Korea (2018). "South-North Relations - Data & Statistics - Inter-Korean Traffic." https://www.unikorea.go.kr/eng\_unikorea/relations/statistics/traffic/ (last accessed October 3, 2018)

<sup>&</sup>lt;sup>56</sup>Consistent with the findings of this study, anecdotal evidence suggests that across-regime contact between Chinese and Taiwanese influences attitudes towards the political system in China and the question of Chinese reunification. See, for instance, the anecdotes presented in Jacobs (2011).

Jacobs (2011). "As Chinese Visit Taiwan, the Cultural Influence Is Subdued", *The New York Times*, August 10. https://www.nytimes.com/2011/08/11/world/asia/11taiwan.html (last accessed October 10, 2018)

# REFERENCES

**Acemoglu and Robinson (2000).** "Why Did the West Extend the Franchise? Democracy, Inequality, and Growth in Historical Perspective." *Quarterly Journal of Economics*, 115, 1167-1199.

Acemoglu and Robinson (2006). "Economic Origins of Dictatorship and Democracy." Cambridge University Press, Cambridge, MA.

**Acemoglu and Robinson (2012).** "Why Nations Fail. The Origins of Power, Prosperity, and Poverty." *Crown Publishers, New York*.

Aidt and Franck (2015). "Democratization Under the Threat of Revolution: Evidence From the Great Reform Act of 1832." *Econometrica*, 83, 505-547.

Aidt and Jensen (2014). "Workers of the World, Unite! Franchise Extensions and the Threat of Revolution in Europe, 1820-1938." European Economic Review, 72, 52-75.

Alesina and Fuchs-Schündeln (2007). "Goodbye Lenin (or Not?): The Effect of Communism on People's Preferences." *American Economic Review*, Vol. 97, No. 4, 1507-1528.

Alesina and Giuliano (2015). "Culture and Institutions." Journal of Economic Literature, Vol. 53, No. 4, 898-944.

Alesina, Giuliano and Nunn (2013). "On the Origins of Gender Roles: Women and the Plough." *Quarterly Journal of Economics*, Vol. 128, Issue 2, 469-530.

Allport (1954). "The Nature of Prejudice." Garden City, NJ Anchor.

**Almond and Verba (1963).** "The Civic Culture: Political Attitudes and Democracy in Five Nations." Sage Publications, New York.

Angrist and Pischke (2009). "Mostly Harmless Econometrics: An Empiricist's companion." *Princeton University Press* 

Bai, Golosov, Qian and Kai (2015). "Understanding the Influence of Government Controlled Media: Evidence from Air Pollution in China" Working Paper.

Beath, Christia and Enikopolov (2012). "Winning Hearts and Minds through Development. Evidence from a Field Experiment in Afghanistan." Working Paper 2011-14, MIT. https://www.princeton.edu/pc-global/conferences/methods/papers/beath.pdf.

Berger, Easterly, Nunn and Satyanath (2013). "Commercial Imperialism? Political Influence and Trade during the Cold War." *American Economic Review*, Vol. 103, No. 2, 863-896.

**Berman, Shapiro and Felter (2011).** "Can Hearts and Minds be Bought? The Economics of Counterinsurgency in Iraq." *Journal of Political Economy*, Vol. 119, Issue 4, 766-819.

Besley and Persson (2018). "Democratic Values and Institutions." American Eco-

nomic Review: Insights, forthcoming.

Bisin and Verdier (2001). "The Economics of Cultural Transmission and the Dynamics of Preferences." *Journal of Economic Theory*, 97 (2), 298-319.

Bursztyn and Cantoni (2016). "A Tear in the Iron Curtain: The Impact of Western Television on Consumption Behavior." *Review of Economics and Statistics*, Vol. 98, Issue 1, 25-41.

Böhme (1983). "Die da drüben. Sieben Kapitel DDR." Berlin, Rotbuch Verlag, 8-17.

Cantoni, Chen, Yang, Yuchtman and Zhang (2017). "Curriculum and Ideology." *Journal of Political Economy*, Vol 125, No. 2, 338-392.

Cantoni, Yang, Yuchtman and Zhang (2016). "The Fundamental Determinants of Anti-Authoritarianism." Working Paper.

Cantoni, Yang, Yuchtman and Zhang (2017). "Protests as Strategic Games: Experimental Evidence from Hong Kong's Democracy Movement." Working Paper.

Chen and Yang (2018). "The Impact of Media Censorship: 1984 or Brave New World?" Working Paper.

Chiang and Knight (2011). "Media Bias and Influence: Evidence from Newspaper Endorsements." *Review of Economic Studies*, 78, 795-820.

Dale (2005). "Popular Protest in East Germany, 1945-1989." London, Routledge.

**Dell (2010).** "The Persistent Effects of Peru's Mining Mita." *Econometrica*, Vol. 78, Issue 6, 1863-1903.

**Dell and Olken (2018).** "The Development Effects Of The Extractive Colonial Economy: The Dutch Cultivation System In Java" *Working Paper*.

**Dell and Querubin (2017).** "Nation Building Through Foreign Intervention: Evidence from Discontinuities in Military Strategies." *Quarterly Journal of Economics*, Vol. 133, Issue 2, 701-764.

DellaVigna, Enikopolov, Mironova, Petrova and Zhuravskaya (2014). "Cross-Border Media and Nationalism: Evidence from Serbian Radio in Croatia." *American Economic Journal: Applied Economics*, Vol 6, No. 3, 103-132.

**DellaVigna and Gentzkow (2010).** "Persuasion: Empirical Evidence." *Annual Review of Economics*, Vol. 2, 643-669.

**DellaVigna and Kaplan (2007).** "The Fox News Effect: Media Bias and Voting." *The Quarterly Journal of Economics*, 122 (3), 1187-1234.

**Di Tella, Galiani and Schargrodsky (2007).** "The Formation of Beliefs: Evidence from the Allocation of Land Titles to Squatters." *The Quarterly Journal of Economics*, 122 (1), 209-241.

Dube and Naidu (2015). "Bases, Bullets and Ballots: the Effect of US Military Aid

on Political Conflict in Colombia." Journal of Politics, Volume 77, Issue 1, 249-267.

**Durante and Knight (2012).** "Partisan Control, Media Bias, and Viewer Responses: Evidence from Berlusconi's Italy." *Journal of the European Economic Association*, Vol. 10, Issue 3, 451-481.

Falter (1997). "Die Landtagswahlen von 1946 in der Sowjetischen Besatzungszone." GESIS Datenarchiv, Köln. ZA2879 Datenfile Version 1.0.0, doi:10.423271.2879.

Fuchs-Schündeln and Schündeln (2015). "On the Endogeneity of Political Preferences: Evidence from Individual Experience with Democracy." *Science*, Vol. 37, Issue 6226, 1145-1148.

Gehlbach and Sonin (2014). "Government control of the media." *Journal of Public Economics*, 118 (C), 163-171.

German Federal Statistical Office (1994). "Ausgewählte Zahlen der Volks- und Berufszählungen und Gebäude- und Wohnungszählungen 1950 bis 1981." Sonderreihe mit Beitragen für das Gebiet der ehemaligen DDR, Heft 15, Wiesbaden, German Federal Statistical Office.

German Federal Statistical Office (1995). "Gemeinden 1994 und ihre Veränderungen seit 01.01.1948 in den neuen Ländern", Wiesbaden, German Federal Statistical Office.

Gieseke (2015). "Auf der Suche nach der schweigenden Mehrheit Ost. Die geheimen Infratest-Stellvertreterbefragungen und die DDR-Gesellschaft 1968-1989." Zeithistorische Forschungen / Studies in Contemporary History, 12, 66-97.

Gorodnichenko and Roland (2015). "Culture, Institutions and Democratization". NBER Working Paper 21117

**Grdesic** (2014). "Television and protest in East Germany's revolution 1989-1990: A mixed-methods analysis." *Communist and Post-Communist Studies*, Vol. 47, Issue 1, 93-103.

Guiliano and Spilimbergo (2014). "Growing Up in a Recession." Review of Economic Studies, 81 (2), 787-817.

Hansen, McMahon and Prat (2018). "Transparency and Deliberation Within the FOMC: A Computational Linguistics Approach", *The Quarterly Journal of Economics*, Vol. 133, Issue 2, 801-870.

**Hirschman (1993).** "Exit, voice, and the fate of the German Democratic Republic: An essay in conceptual history." *World Politics*, 45, 173-202.

Jahn (2014). "Wir Angepassten: Überleben in der DDR." Piper Verlag.

**Kern and Hainmueller (2009).** "Opium for the Masses: How Foreign Media Can Stabilize Authoritarian Regimes." *Political Analysis*, Vol. 17, Issue 4, 377-399.

King, Pan and Roberts (2013). "How Censorship in China Allows Government

Criticism but Silences Collective Expression." The American Political Science Review, 107 (02), 326-343.

King, Pan and Roberts (2014). "Reverse-engineering censorship in China: Randomized experimentation and participant observation." *Science*, 345 (6199), 1-10.

Kocher, Pepinsky and Kalyvas (2011). "Aerial Bombing and Counterinsurgency in the Vietnam War." American Journal of Political Science, Volume 55, Issue 2, 201-218.

Kopstein (1997). "The politics of economic decline in East Germany, 1945-1989." Chapel Hill, University of North Carolina Press.

Kowalczuk (2003). "17.6.1953: Volksaufstand in der DDR." C.H. Beck.

Kowalczuk (2009). "Endspiel: Die Revolution von 1989 in der DDR." C.H. Beck.

**Lipset** (1959). "Some social requisites of democracy: economic development and political legitimacy." *American Political Science Review*, 53, 69?105.

**Lohmann (1994).** "The dynamics of informational cascades. The Monday demonstrations in Leipzig, East Germany, 1989-1991. World Politics, 47, 42-101.

**Lyall (2009).** "Does Indiscriminate Violence Incite Insurgent Attacks? Evidence from Chechnya." *Journal of Conflict Resolution*.

Malmendier and Nagel (2011). "Depression Babies: Do Macroeconomic Experiences Affect Risk Taking?" The Quarterly Journal of Economics, 126 (1), 373-416.

Martinez-Bravo and Stegmann (2018). "In Vaccines we Trust? The Effects of the CIA's Vaccine Ruse on Immunization in Pakistan." Working Paper

Michelin (1977). "1977 Michelin/AVIS tourist map of Germany", MIT, Rotch Library Map collection, drawer number 73, G6070-6479.

Miguel and Roland (2011). "The Long-Run Impact of Bombing Vietnam." *Journal of Development Economics*, Volume 96, Issue 1, 1-15.

Nakath (1997). "Die Politik der SED. Deutschlandpolitik." In Herbst, Stephan and Winkler (Eds.), "Die SED. Geschichte - Organisation - Politik. Ein Handbuch, 305-318.

Neubert (1998). "Geschichte der Opposition in der DDR 1949-1989 [History of the East German opposition movement, 1949-1989.]" (2nd ed.). Berlin, Ch. Links.

Opp and Gern (1993). "Dissident groups, personal networks and spontaneous cooperation: The East German revolution of 1989" American Sociological Review, 58, 659-680.

Opp, Voss and Gern (1993). "Die volkseigene Revolution. [The people's revolution.]" Stuttgart, Klett-Cotta.

Paluck, Green and Green (2018). "The contact hypothesis re-evaluated." Behavioural Public Policy, 1-30. doi:10.1017/bpp.2018.25

Pannen (2018). "Wo ein Genosse ist, da ist die Partei! Der innere Zerfall der SED-

Parteibasis 1979-1989." (1st ed.). Berlin, Ch. Links.

**Petrick (2011).** "Egon Bahrs Kommunikationsoffensive. Die deutsch-deutschen Verhandlungen zum Transitabkommen, Verkehrsvertrag und Grundlagenvertrag 1970 bis 1973." Erlangen, Verlag Palm und Enke.

**Pfaff and Kim (2003).** "Exit-voice dynamics in collective action: An analysis of emigration and protest in the East German revolution." *American Journal of Sociology*, 109, 401-444.

Prieß (1997a). "Die SED-Parteiorganisation. Die Organisationsstruktur." In Herbst, Stephan and Winkler (Eds.), "Die SED. Geschichte - Organisation - Politik. Ein Handbuch, 124-144.

Prieß (1997b). "Die SED-Parteiorganisation. Parteimitglieder und Funktionäre." In Herbst, Stephan and Winkler (Eds.), "Die SED. Geschichte - Organisation - Politik. Ein Handbuch, 144-148.

Ritter and Lapp (2006). "Die Grenze. Ein deutsches Bauwerk." Berlin, Ch. Links. Roberts (2016). "Rerouting the Masses: The Powerful Influence of Porous Censorship in China." Working Paper.

Rogg (2008). "Armee des Volkes? Militär und Gesellschaft in der DDR." Berlin, Ch. Links.

Roland (2004). "Understanding Institutional Change: Fast-Moving and Slow-Moving Institutions." Studies in Comparative International Development, Volume 38, Issue 4, 109-131.

Rousseau (1913). "Social Contract & Discourses" E.P. Dutton & Co., New York. Sabrow (1999). "Der Konkurs der Konsensdiktatur." In Jarausch and Sabrow (Eds.), "Weg in den Untergang. Der innere Zerfall der DDR", 83-116.

Sacerdote (2001). "Peer Effects with Random Assignment: Results for Dartmouth Roommates." Quarterly Journal of Economics, 116 (2), 681-704.

Sacerdote (2011). "Peer Effects in Education: How Might They Work, How Big Are They and How Much Do We Know Thus Far?" In *Handbook of the Economics of Education*, Vol. 3, Hanushek, Machin, and Woessmann (Eds.), 249-277.

Schultke (1999). "Keiner kommt durch." Aufbau Taschenbuch Verlag.

Schwabe (1999). "Chronik: Demonstrationen, Kundgebungen und Streiks in der DDR vom August 1989 bis zur ersten freien Volkskammerwahl am 18. März 1990." In: Abbe, Hofffman and Stiehler (eds.), "Wir bleiben hier: Erinnerungen an den Herbst '89." Gustav Kiepenheuer Verlag, Leipzig

Shadmehr and Bernhardt (2015). "State Censorship." American Economic Journal:

Microeconomics, 7 (2), 280-307.

Spilimbergo (2009). "Democracy and Foreign Education" American Economic Review, 99 (1), 528-543.

**Strömberg (2004)** "Mass Media Competition, Political Competition, and Public Policy." *Review of Economic Studies*, 71 (1), 265-284.

Suen (2004). "The Self?Perpetuation of Biased Beliefs." *The Economic Journal*, Vol. 114, Issue 495, 377-396.

Süss (1999). "Staatssicherheit am Ende: Warum es den Mächtigen nicht gelang, 1989 eine Revolution zu verhindern. [The end of the secret police: Why East German elites were unable to prevent a revolution in 1989.] *Berlin, Ch. Links Verlag*.

**Ticchi, Verdier and Vindigni (2013).** "Democracy, Dictatorship and the Cultural Transmission of Political Values." *IZA Working Paper*, No. 7441.

Voigtländer and Voth (2012). "Persecution Perpetuated: The Medieval Origins of Anti-Semitic Violence in Nazi Germany." *The Quarterly Journal of Economics*, Vol. 127, Issue 3, 1339-1392.

Voigtländer and Voth (2014). "Highway to Hitler." University of Zurich, Department of Economics, Working Paper, No 156.

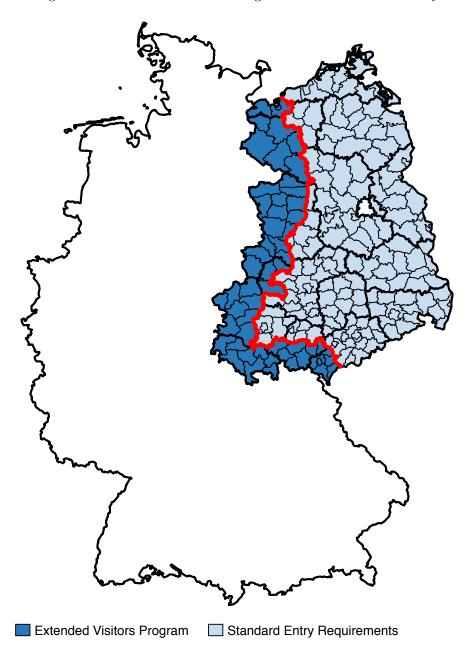
Winkler (1997). "Die Politik der SED. Zum Verhältnis von Partei und Staat in der DDR." In Herbst, Stephan and Winkler (Eds.), "Die SED. Geschichte - Organisation - Politik. Ein Handbuch, 159-176.

Wolle (2013). "Die heile Welt der Diktatur: Alltag und Herrschaft in der DDR 1971-1989." Berlin, Ch. Links Verlag.

Yanagizawa-Drott (2014). "Propaganda and Conflict: Evidence from the Rwandan Genocide." The Quarterly Journal of Economics, 129 (4), 1947-1994.

# 9 Figures

Figure 1: Extended Visitors Program Zone & Discontinuity



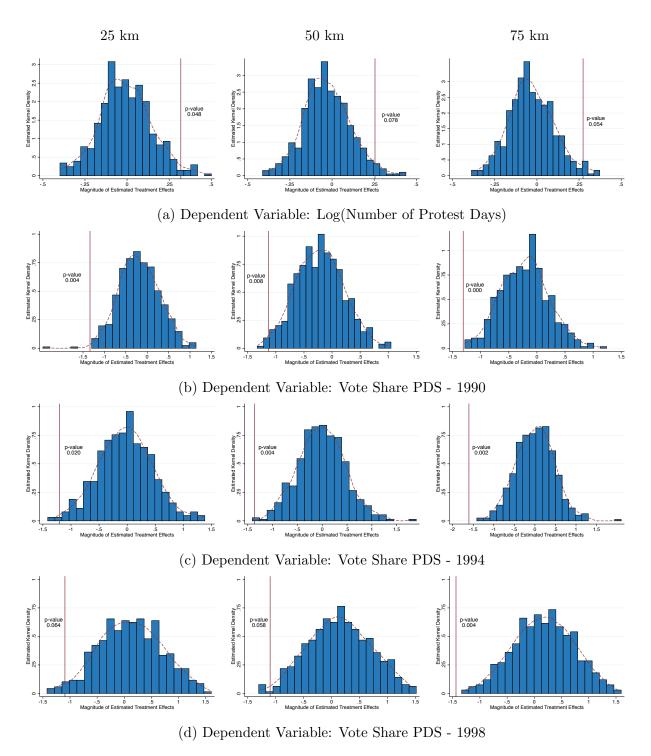


Figure 2: Actual treatment effects on support for the East German regime compared to distribution of counterfactual treatment effects; control for geographic location: distance to nearest border crossing point; Discontinuity samples restricted to 25/50/75 km bands around the discontinuity (from left to right).

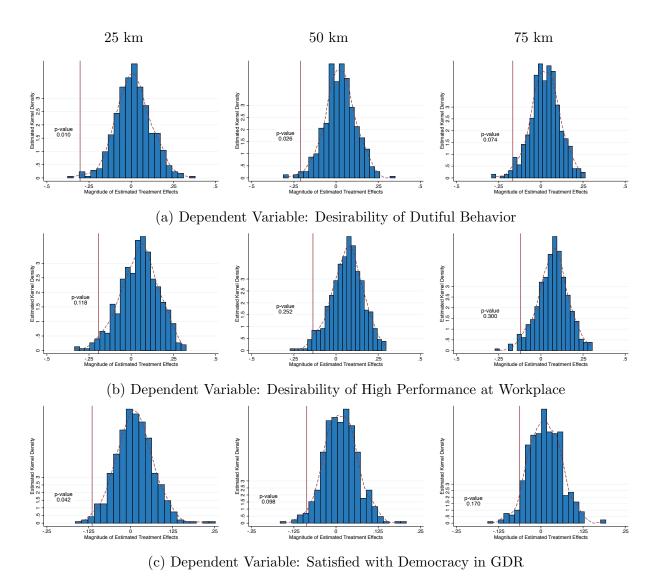


Figure 3: Actual treatment effects on attitudes compared to distribution of counterfactual treatment effects; control for geographic location: distance to nearest border crossing point; Discontinuity samples restricted to 25/50/75 km bands around the discontinuity (from left to right).

# 10 Tables

Table 1: Balance Table (continued on next page)

	Sample restricted to administrative districts within of discontinuity boundary											
	25 km			50 km			75 km					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Estimate	S.E.	Mean	N	Estimate	S.E.	Mean	N	Estimate	S.E.	Mean	N
(1) Vote share - SED - 1946	-0.007	0.013	0.418	3,094	-0.010	0.014	0.424	5,197	-0.011	0.013	0.417	6,483
(2) Vote share - LDP - 1946	0.008	0.017	0.220	3,094	0.015	0.017	0.198	5,197	0.015	0.017	0.192	6,483
(3) Vote share - CDU - 1946	-0.014	0.011	0.215	3,094	-0.018	0.013	0.237	5,197	-0.018	0.015	0.250	6,483
(4) Vote share - VDGB - 1946	0.009	0.008	0.074	3,094	0.009	0.008	0.069	5,197	0.009	0.008	0.0659	6,483
(5) Turnout - 1946	-0.007*	0.004	0.930	3,094	-0.007*	0.004	0.929	5,197	-0.006*	0.004	0.931	6,483
(6) Protest - 1953	-0.011	0.016	0.078	3,093	-0.016	0.015	0.075	5,201	-0.021	0.015	0.074	6,487
(7) Share of population in SED - 1967-1971	-0.003	0.004	0.101	66	-0.003	0.004	0.101	110	-0.001	0.004	0.098	135
(8) West German TV - 1989	0.008	0.007	0.998	2,482	0.020**	0.010	0.991	4,155	0.032**	0.015	0.975	5,134
(9) Urban district	-0.126	0.105	0.152	66	-0.113	0.089	0.127	110	-0.102	0.088	0.119	135
(10) Administrative center	-0.067	0.081	0.076	66	-0.091	0.075	0.073	110	-0.103	0.072	0.0741	135

Notes: The unit of observation is the municipality in rows 1 to 6 and 8. In particular, rows 1 to 6 refer to the set of municipalities in existence as of 1952, while row 8 uses the set of municipalities in existence s of 1992. In rows 7 and 9 to 19, the unit of observation is the district. All regressions include region fixed effects and a dummy for districts that directly border West Germany. Rows 1 to 6 and 8 present standard errors clustered at the district-level. In rows 7 and 9 to 18, robust standard errors are shown. The coefficients that are significantly different from zero are denoted by the following system: \*10%, \*\*5%, and \*\*\*1%

Table 1: Balance Table (continued)

	Sample restricted to administrative districts within of discontinuity boundary											
	25 km			50 km			75 km					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Estimate	S.E.	Mean	N	Estimate	S.E.	Mean	N	Estimate	S.E.	Mean	N
(11) Log(refugees to West Germany) - 1955	-0.115	0.170	7.207	66	-0.196	0.149	7.253	110	-0.204	0.142	7.257	135
(12) Log(population) - 1971	-0.034	0.167	11.09	66	-0.164	0.148	11.12	110	-0.191	0.140	11.12	135
(13) Share of apprentices - 1971	-0.001	0.001	0.029	66	-0.001	0.001	0.029	110	-0.000	0.001	0.029	135
(14) Share of skilled workers - 1971	0.003	0.005	0.315	66	-0.003	0.005	0.313	110	-0.003	0.004	0.311	135
(15) Share of workers with tertiary education - 1971	-0.004	0.003	0.047	66	-0.005*	0.003	0.047	110	-0.006**	0.003	0.047	135
(16) Share of population in work force - 1971	0.003	0.005	0.505	66	-0.001	0.005	0.505	110	-0.001	0.005	0.504	135
(17) Share of population in agriculture - 1971	-0.000	0.009	0.075	66	0.006	0.008	0.075	110	0.008	0.008	0.0772	135
(18) Share of population in manufacturing - 1971	0.007	0.011	0.231	66	-0.002	0.011	0.231	110	-0.003	0.011	0.227	135
(19) Share of population in crafts - 1971	0.005	0.004	0.069	66	0.002	0.004	0.068	110	0.002	0.004	0.069	135

Notes: The unit of observation is the municipality in rows 1 to 6 and 8. In particular, rows 1 to 6 refer to the set of municipalities in existence as of 1952, while row 8 uses the set of municipalities in existence s of 1992. In rows 7 and 9 to 19, the unit of observation is the district. All regressions include region fixed effects and a dummy for districts that directly border West Germany. Rows 1 to 6 and 8 present standard errors clustered at the district-level. In rows 7 and 9 to 18, robust standard errors are shown. The coefficients that are significantly different from zero are denoted by the following system: \*10%, \*\*5%, and \*\*\*1%

Table 2: Effects on Exposure to West German Visitors

	Dependent Variable: Log(Number of Visitors in 1975)						
_	(1)	(2)	(3)				
<u>-</u>	Sample < 25 km	Sample < 50 km	Sample < 75 km				
_	Panel A. Cubic Polynomial in Distance to the Closest Border Crossing						
Local Border Traffic	0.146	0.135	0.174				
	(0.059)	(0.056)	(0.054)				
Randomization Inference p-value	[0.010]	[0.006]	[0.000]				
Observations	66	109	134				
R-squared	0.953	0.943	0.934				
_	Panel B. Cubic Polynomial in Latitude and Longitude						
Local Border Traffic	0.119	0.085	0.084				
	(0.063)	(0.048)	(0.050)				
Randomization Inference p-value	[0.080]	[0.174]	[0.160]				
Observations	66	109	134				
R-squared	0.962	0.952	0.944				
_	Panel C. Cubic Polynomial in Distance to Kleiner Grenzverkehr Boundary						
Local Border Traffic	0.180	0.174	0.202				
	(0.059)	(0.050)	(0.050)				
Randomization Inference p-value	[0.002]	[0.002]	[0.000]				
Observations	66	109	134				
R-squared	0.951	0.941	0.934				

*Notes:* The unit of observation is a *Kreis*, an administrative district in the GDR. In Column 1, the sample consists of all districts that fall within a 25 km band around the discontinuity boundary. In Columns 2 and 3, the sample consists of all districts that fall within a 50 km and 75 km band around the discontinuity boundary, respectively. The regression discontinuity polynomials are cubic polynomials in the measures of geographic location specified in the panel headings. Robust standard errors in parentheses. Randomization inference p-values in square brackets.

Table 3: Effects on Support for the Regime

		phic Location: Distance to the Clos		
	(1)	(2)	(3)	
	Sample < 25 km	Sample < 50 km	Sample < 75 km	
	Panel A. De	Protest Days)		
Mean of Dependent Variable †	16.03	15.31	14.81	
Local Border Traffic	0.319	0.255	0.274	
	(0.158)	(0.141)	(0.136)	
Randomization Inference p-value	[0.048]	[0.078]	[0.054]	
Observations	65	108	133	
2-squared	0.792	0.724	0.672	
	Panel B.	Dependent Variable: Vote Share PI	OS - 1990	
Mean of Dependent Variable	11.15	11.74	12.14	
Local Border Traffic	-1.337	-1.130	-1.312	
	(0.409)	(0.444)	(0.422)	
andomization Inference p-value	[0.004]	[0.008]	[0.000]	
Observations	6,062	10,530	13,412	
Clusters	64	107	132	
R-squared	0.201	0.247	0.243	
	Panel C.	Dependent Variable: Vote Share PI	OS - 1994	
Mean of Dependent Variable	15.82	15.65	15.78	
Local Border Traffic	-1.203	-1.368	-1.605	
	(0.459)	(0.569)	(0.549)	
andomization Inference p-value	[0.020]	[0.004]	[0.002]	
Observations	5,140	8,440	10,618	
Clusters	66	108	133	
a-squared	0.251	0.200	0.211	
	Panel D.	Dependent Variable: Vote Share PI	OS - 1998	
Mean of Dependent Variable	20.36	20.27	20.09	
ocal Border Traffic	-1.094	-1.100	-1.439	
	(0.419)	(0.503)	(0.526)	
Randomization Inference p-value	[0.064]	[0.058]	[0.004]	
Observations	5,033	8,657	10,941	
Clusters	66	110	135	
R-squared	0.192	0.203	0.192	

Notes: In Panel A, the unit of observation is a Kreis, an administrative district in the GDR. In Panels B, the unit of observation is a polling station. In Panels C and D, the unit of observation is the municipality (as of 1994 and 1998, respectively). In Column 1, the sample consists of all districts that fall within a 25 km band around the discontinuity boundary. In Columns 2 and 3, the sample consists of all districts that fall within a 50 km and 75 km band around the discontinuity boundary, respectively. The regression discontinuity polynomials are cubic polynomials in the distance to the nearest border crossing point. Panel A shows robust standard errors in parentheses. Panels B, C and D display standard errors clustered at the district-level in parentheses. Randomization inference p-values in square brackets. † This row displays the mean of the dependent variable in absolute terms.

Table 4: Effects on Attitudes

	Measure of Geographic Location: Distance to the Closest Border Crossing						
	(1)	(2)	(3)				
	Sample < 25 km	Sample < 50 km	Sample < 75 km				
	Panel A. Dependent Variable: Desirability of Dutiful Behavior						
Local Border Traffic	-0.303	-0.211	-0.167				
	(0.076)	(0.068)	(0.066)				
Randomization Inference p-value	[0.010]	[0.026]	[0.074]				
Observations	1,333	2,307	2,877				
Clusters	50	83	102				
R-squared	0.043	0.021	0.016				
	Panel B. Dependent Variable: Desirability of High Performance at Workplace						
Local Border Traffic	-0.194	-0.137	-0.120				
	(0.076)	(0.079)	(0.077)				
Randomization Inference p-value	[0.118]	[0.252]	[0.300]				
Observations	1,331	2,304	2,871				
Clusters	50	83	102				
R-squared	0.027	0.012	0.007				
	Panel C. Deper	dent Variable: Satisfied with Den	nocracy in GDR				
Mean of Dependent Variable	0.46	0.46	0.45				
Local Border Traffic	-0.115	-0.087	-0.063				
	(0.063)	(0.051)	(0.048)				
Randomization Inference p-value	[0.042]	[0.098]	[0.170]				
Observations	1,332	2,312	2,877				
Clusters	50	83	102				
R-squared	0.040	0.022	0.023				

*Notes:* The unit of observation is the individual. In Column 1, the sample consists of all districts that fall within a 25 km band around the discontinuity boundary. In Columns 2 and 3, the sample consists of all districts that fall within a 50 km and 75 km band around the discontinuity boundary, respectively. The regression discontinuity polynomials are cubic polynomials in the distance to the nearest border crossing point. Standard errors clustered at the district-level in parentheses. Randomization inference p-values in square brackets.

## APPENDIX (For Online Publication Only)

#### 11 Theoretical Framework

For additional clarity and to assist interpretation of the empirical results, I provide a theoretical framework describing how different sources of information and East Germans' views on these actors interact in treated and control districts to determine the extent to which East Germans accept the values promoted by the East German regime. In this regard, the framework relates to and partially follows both work by Suen (2004) and Durante and Knight (2012). The framework provides a detailed description of the assumptions underlying the interpretation of the empirical results. It is the objective of this section to allow for a thorough discussion of the suggested mechanism in the light of these assumptions and the historical context.

#### 11.1 Preliminaries

Consider a setup in which there are two possible states of the world,  $\{s_1, s_2\}$ , and two possible actions to take,  $\{a_1, a_2\}$ . The payoffs to choosing different actions under the two states are displayed in the table below. I assume  $\alpha > \beta$  and  $\delta > \gamma$ . That is, action  $a_1$  is the appropriate action if state  $s_1$  is true, while  $s_2$  is appropriate if  $s_2$  is true.

State-contingent Payoffs for Different Actions

Action		
$a_1$	$a_1$	
$\alpha$	β	
$\gamma$	δ	
	$a_1$	

In the context of this study, state  $s_1$  can be interpreted as "the values promoted by the regime are desirable for society as a whole", while state  $s_2$  can be thought of as "the values promoted by the regime are not desirable for society as a whole". Accordingly, action  $a_1$  can be interpreted as "support the values promoted by the regime", whereas action  $a_2$  can be understood as "do not support the values promoted by the regime".

Individuals can reside in two types of districts: treated or control districts. The difference between the two types of districts is that the former are subjected to a visitors programme (e.g. the extended visitors program policy examined in this paper).

Prior probabilities that an individual associates with states  $s_1$  and  $s_2$  are denoted by  $\pi$  and  $1-\pi$ , respectively. Both they payoffs and the subjective prior probabilities may differ

across individuals. For simplicity, I will assume that they are the same for all individuals. In the absence of further information, an individual supports the values promoted by the regime, that is chooses action  $a_1$  if and only if  $\pi\alpha + (1-\pi)\gamma \geq \pi\beta + (1-\pi)\delta$ . This can be rewritten as

$$\frac{\pi}{1-\pi} \ge \frac{\delta-\gamma}{\alpha-\beta}.$$

Following Suen (2004), I define  $c = (\delta - \gamma)/(\alpha - \beta)$  to be the cost of incorrectly choosing  $a_1$  relative to the cost of incorrectly choosing  $a_2$ .

A signal Y is distributed on the support  $[\underline{y}, \overline{y}]$ , with differentiable density function  $f_1$  and cumulative distribution function  $F_1$  under state  $s_1$ , or density function  $f_2$  and cumulative distribution function  $F_2$  under state  $s_2$ . A high value of y is evidence in favor of state  $s_1$ .

A basic ingredient of this theoretical framework is information coarsening. In particular, individuals do not directly observe the signal Y. Instead they have to rely on information suppliers to provide information for their decisions. In order to model this crucial part of the communication process, I assume that the continuous signal Y is coarsened into a binary signal in the communication process. While individuals do not observe the realized value y of the random variable Y, they are being informed by an information supplier whether  $Y \geq t$  or Y < t for some threshold  $t \in (\underline{y}, \overline{y})$ . Importantly, individuals hold fixed beliefs about the threshold t associated with a given information supplier.

To adapt the framework to the specific East German context, I assume that individuals can receive signals from the following three different information suppliers: East German media, West German media as well as West German visitors (family members and friends). More specifically, individuals residing in control districts have access to information provided by both the East and West German media. Individuals that reside in treated districts additionally receive information from West German visitors. The relevant thresholds are thus  $t_e$  for information received from the East German media,  $t_w$  for information received from the West German wisitors, respectively. I assume that individuals residing in both types of districts are identical exante, that is prior to the introduction of the visitors program. Accordingly, these thresholds do not differ between treated and control districts.

For simplicity, I do not explicitly model how individuals form these beliefs about the underlying thresholds applied by the various information suppliers. Instead I assume that  $t_e \leq t_w$ . This implies that individuals expect that the East German media is more inclined to send a positive message about state  $s_1$ , that is a message in favor of the social desirability of the values promoted by the East German regime. In contrast, individuals believe that the

West German media will only provide evidence in favor of state  $s_1$  when the underlying signal Y is large. Finally, I assume that beliefs about the information provided by West German visitors are more balanced and are therefore situated in between  $t_e$  and  $t_w$ , respectively. While  $t_v$  could also be located elsewhere, I will show below that the assumption that East Germans perceived West Germans as a more balanced source of information leads to treatment effects that qualitatively match the empirical estimates. In particular, I will use the subsequent subsections to further describe the conditions that have to hold for this to be true.

In the following discussion, in order to replicate the empirical context studied in this paper, I will focus on a situation where the realization y as well as the above listed thresholds are such that the East German media is perceived by individuals as sending a positive message in favor of state  $s_1$ , whereas the West German media is perceived as sending a negative message, that is not in favor of state  $s_1$ . Lastly, I also assume that West German visitors are experienced as sending a negative message about state  $s_1$ .

This information allows individuals to derive bounds on the actual realization of Y. In particular, individuals residing in control districts will understand that the following is true for the value of y:

$$t_e \le y \le t_w$$

Similarly, individuals living in treated districts will be able to derive bounds on the actual realization of Y by evaluating information received from both East and West German media as well as from West German visitors. The assumption that West German visitors are perceived to be more balanced by both types of individuals implies that the following is true for the perception of the value of y within treated districts:

$$t_e \le y \le t_v$$

This allows individuals to update their subjective beliefs about the probabilities of both state  $s_1$  and state  $s_2$  using Bayes' rule. In particular, an individual living in a control district will choose  $a_1$  if and only if

$$P(s_1|I_c)\alpha + P(s_2|I_c)\gamma \ge P(s_1|I_c)\beta + P(s_2|I_c)\delta,$$

where  $I_c$  represents the information set available to the local population of control districts. This leads to

$$\frac{\pi}{1 - \pi} \frac{\int_{t_e}^{t_w} f_1(y) dy}{\int_{t_e}^{t_w} f_2(y) dy} \ge c,$$

which can also be expressed as

$$\frac{\pi}{1-\pi} \frac{F_1(t_w) - F_1(t_e)}{F_2(t_w) - F_2(t_e)} \ge c.$$

Analogously, individuals living in treated districts will choose  $a_1$  if and only if

$$P(s_1|I_t)\alpha + P(s_2|I_t)\gamma \ge P(s_1|I_t)\beta + P(s_2|I_t)\delta$$

where  $I_t$  represents the information set available to the local population of treated districts. This ultimately leads to the following expression:

$$\frac{\pi}{1-\pi} \frac{F_1(t_v) - F_1(t_e)}{F_2(t_v) - F_2(t_e)} \ge c.$$

#### 11.2 The Comparison across Treated and Control Districts

The expressions derived in the previous subsection can be used to compare the likelihood that individuals decide to pursue action  $a_1$ , i.e. decide to support the value system promoted by the East German regime, across treated and control districts.

Note that given the assumption of common prior probabilities and common payoffs, it suffices to compare the terms  $\frac{F_1(t_w)-F_1(t_e)}{F_2(t_w)-F_2(t_e)}$  and  $\frac{F_1(t_v)-F_1(t_e)}{F_2(t_v)-F_2(t_e)}$ , respectively. In particular, for individuals living in treated districts to be less likely to support the values promoted by the East German regime, the following has to hold:

$$\frac{F_1(t_v) - F_1(t_e)}{F_2(t_v) - F_2(t_e)} < \frac{F_1(t_w) - F_1(t_e)}{F_2(t_w) - F_2(t_e)}$$

This condition implies that having access to a negative message from the visitors programme (in addition to the status-quo information suppliers) will reduce the likelihood that an individual takes action  $a_1$ , i.e. supports the values promoted by the East German regime, if beliefs about the thresholds are such that receiving a negative signal by West German visitors when the state is  $s_2$  compared to state  $s_1$  is relatively more likely than receiving a negative signal from West German media when the state is  $s_2$  compared to state  $s_1$ . In other words, the equation states that West German visitors have to be perceived as relatively less biased compared to West German media.

## 12 Data Appendix

#### 12.1 Data Sources

# 12.1.1 Data on Pre-Determined Political, Economic and Demographic Characteristics

To examine political attitudes and support for the Communist regime at baseline, I use data on the vote shares obtained by the SED during the state assembly elections in 1946. Until March 1990, the state assembly elections in 1946 in the Soviet occupation zone were the only elections in East Germany that were considered to generally satisfy democratic principles. The SED, which was founded in 1946 by forcibly merging the SPD (Social Democratic Party in the GRD) and the KPD (Communist Party of Germany), became the strongest party. However, the SED was able to secure the absolute majority only in one state, despite being heavily favoured by the Soviet military administration during the electoral campaign. This disappointing outcome, from the point of view of the Soviet occupation force as well as from the perspective of the SED itself, in turn contributed to important modifications of the electoral laws. In particular, starting from the state assembly elections in 1950 onwards, voters could only express their approval or refusal of a single list of candidates.

In addition, I also investigate protest incidences during the East German uprising on June 17, 1953. I match a list of villages, towns and cities which experienced protests during the uprising, obtained from Kowalczuk (2003), to the list of all municipalities in existence in 1952. The uprising was preceded by the SED's intensifying campaign to construct socialism in East Germany. In particular, the regime initiated measures to eliminate the remaining, private industrial sector. Moreover, it introduced an increase in work norms in April and May 1953, while keeping wages constant. However, when the grievances of a large share of the East German population grew and the SED leadership came under strong criticism of the Soviet leadership in Moscow, most of the policy measures - with the exception of the uncompensated increase in work norms - were reversed. At first, discontent from upholding the increase in work norms led to sporadic strike events in the beginning of June. However, these dynamics then accelerated and finally culminated in the East German uprising on June 17, when workers in hundreds of East German cities, towns and villages marched and protested in the streets. The magnitude of the uprising and the speed by which it spread across the country took the SED leadership by complete surprise and the regime could only be buttressed due to the deployment of Soviet occupation troops.

Moreover, I use data on the share of the population that was, on average, a member of the SED in the years 1967 to 1971. I digitized this data using archival materials available in the German Federal Archives. The data sources are documents in inventory  $BArch\ DY-30$ . Importantly, this variable is measuring the strength of the SED prior to the introduction of the extended visitors program and subsequent to the construction of the Berlin Wall, i.e. at a time when the East German regime had stabilized.

I also examine the availability of West German television. In particular, I obtained information on the signal strength of West German television broadcasting for all municipalities in existence as of 1992 from Bursztyn and Cantoni (2016). I use the same threshold as the one established in Bursztyn and Cantoni (2016) in order to determine whether a particular municipality had a signal strong enough to receive West German television.

#### 12.1.2 Data on Entry of West German Visitors

To establish a relationship between being subjected to the extended visitors program policy and the intensity of interactions with West German citizens, I collected district-level data on visitors from West Germany from reports of the East German police that were classified at the time. This statistical data is contained in region-level police reports that are being kept in a number of state archives across former East Germany.<sup>57</sup>

In particular, the department "Pass- und Meldewesen", which was in charge of the passport and registration system within the region-level police organization, regularly compiled statistical reports about the entry of West German citizens into the different districts within the region. Since these reports were prepared at various frequencies (yearly, quarterly, monthly, daily for special occasions such as Christmas or Easter) and given that only a fraction of the written records were preserved, this data collection effort yielded spell data of varying length for the year 1975.

In some cases, the spell does not cover the entire yearly period. I therefore need to extrapolate from the existing information to generate estimates for the total number of visitors in the year 1975. In order to do this, I combine region-level, yearly visitor numbers with the district-level spell data. Specifically, I use the spell data to compute a district-level share of the visitors to the entire region that was received by a given district. I then combine these shares with information on the total number of visitors to the entire region in the year 1975 to obtain an estimate of the total number of West German visitors received in 1975 by an East German district.

<sup>&</sup>lt;sup>57</sup>In particular, the information used here was gathered in the following state archives: Landeshauptarchiv Mecklenburg-Vorpommern in Schwerin, Landesarchiv Mecklenburg-Vorpommern in Greifswald, Brandenburgisches Landeshauptarchiv Potsdam, Landesarchiv Sachsen-Anhalt in Halle, Landesarchiv Sachsen-Anhalt in Magdeburg, Thüringisches Hauptstaatsarchiv Weimar, Thüringisches Staatsarchiv Rudolstadt, Thüringisches Staatsarchiv Meiningen - Archivdepot Suhl, Sächsisches Staatsarchiv Chemnitz, Sächsisches Staatsarchiv Dresden and Sächsisches Staatsarchiv Leipzig. Please contact me for further information on the specific archival records.

#### 12.1.3 Data on Protest Incidences in the Fall of 1989

To measure political behavior, I use information on protests during the East German revolution in 1989. In particular, I count the number of days for which a given district experienced protest in this time period. These protest incidences are measured based on an event catalog in Schwabe (1999). This event catalog includes daily reports of local, district-level police forces to the East German Ministry of Interior, records of the Ministry of State Security as well as numerous secondary sources such as newspaper articles. This dataset was assembled by Grdesic (2014) and is geo-referenced to the district. The event catalog covers the period between September 1, 1989 and March 18, 1990.

#### 12.1.4 Data on Volkskammer Election on March 18, 1990

In the empirical analysis, I use the vote share obtained by PDS (Party of Democratic Socialism) in the legislative elections on March 18, 1990, as a measure of electoral support for the East German regime. The PDS was the legal successor of the SED. The party had changed its name on February 4, 1990 after a realignment of its senior leadership and political program. In particular, in December 1989 Erich Honecker, General Secretary of the SED until October 13, 1989, Erich Mielke, Minister for State Security, as well as Egon Krenz, General Secretary of the SED from October 13, 1989 onwards, were expelled from the party. The new leadership was comprised of Gregor Gysi, a lawyer who had been a member of the SED since 1967, Wolfgang Berghofer, a top-level SED politician and mayor of Dresden, and Hans Modrow, member of the SED since 1954 and leader of the SED in the region of Dresden since 1973. All of them were considered reformist within the SED.

I digitized this data at the polling station-level using digital reproductions of the archival records of the electoral results provided by the German Federal Archives.<sup>58</sup> This data is then geo-referenced to the district using the first 4 digits of the official identifier assigned to each polling station. In addition, to examine the persistence of the impact on electoral outcomes, I also rely on data on the electoral results for the federal legislative elections in 1994 and 1998. This data is provided by the office of the German Federal Returning Officer. I use information on the historic administrational affiliation from the German Federal Statistical Office (1995) to assign the electoral results at the municipality-level to the respective, former East German districts.

 $<sup>^{58}</sup>$ In particular, I digitized all information contained in the archival holdings  $BArch\ DA1/19339$  to  $BArch\ DA1/19408$ . The digital reproductions can be accessed through the following link: http://www.argus.bstu.bundesarchiv.de/DA1-26809/index.htm (last accessed on January 15, 2018)

#### 12.1.5 Data on Bundestag Elections

To examine the persistence of the effects on the electoral support for the Communist party's legal successor party, I also examine differences across the discontinuity in the support for the *PDS* during the federal, legislative elections in 1994 as well as in 1998. This municipality-level data was obtained from the office of the Federal Returning Officer. I then use information on redistricting in East Germany provided by the German Federal Statistical Office (1995) to manually geo-reference East German municipalities to East German districts in existence in 1990.

#### 12.1.6 Data on Values and Attitudes

I measure attitudes and values using the East Germany sample of the 1990 round of the German Socio-Economic Panel (G-SOEP). The G-SOEP survey is a household survey and existed in West Germany since 1984 and was conducted in June 1990 in East Germany for the first time. The survey was thus fielded only 7 months after the fall of the Berlin Wall and 4 months prior to German reunification, i.e. amidst East Germany's democratic transition. This dataset is geo-referenced to the district.

## 13 Text Analysis

#### 13.1 Text Data

In order to provide a quantitative description of the topics discussed and emphasized by the East German propaganda, I obtained all articles that were published on the frontpages of the SED's official party newspaper "Neues Deutschland" between January 1, 1949 and December 31, 1989. These articles are available in the online-archive established by the "Neues Deutschland" and were digitized using a machine-based algorithm. I then randomly select 250 days in the period between the construction of the Berlin Wall on August 13, 1961 and the fall of the Berlin Wall on November 9, 1989 to provide a broad overview of relevant topics of discussion. All articles published on the first two pages of the newspaper for these randomly selected days form the East German corpus of text that forms the basis for this descriptive text analysis exercise.

<sup>&</sup>lt;sup>59</sup>Federal Returning Officer (1998). "Ergebnisse nach Wahlbezirken und Gemeinden", no date. https://www.bundeswahlleiter.de/bundestagswahlen/1998/weitere-ergebnisse.html (last accessed on April 23, 2018)

Federal Returning Officer (1998). "Ergebnisse nach Wahlbezirken und Gemeinden", no date. https://www.bundeswahlleiter.de/bundestagswahlen/1994/weitere-ergebnisse.html (last accessed on April 23, 2018)

#### 13.2 Vocabulary and Model Selection for LDA

Prior to estimation I preprocess the raw text in several steps. The purpose is to reduce the vocabulary to a set of terms that are most likely to reveal the underlying content of interest, and thereby support the estimation of more semantically meaningful topics. During preprocessing the text data, I closely follow Hansen, McMahon and Prat (2018).

The first step of preprocessing is to remove common stopwords like "the" and "of" that appear frequently in all articles. The second step is to convert the remaining terms into their linguistic roots through stemming so that, for example, "arbeiter", "arbeiten", and "arbeite" all become "arbeit", i.e. the German word (and stem) for work. The outcome of stemming need not be a German word. After this step, I remove a large list of erroneous terms from the corpus that entered the text data due to the imperfect machine-based recognition of characters. These incorrectly recognized terms do not support the estimation of semantically meaningful topics and I chose to remove them accordingly. In addition, I remove names of persons that are not persons of historic interest (e.g. head of states) as well as names of places that are not either capital cities or region capitals within East Germany. Finally, I follow the suggestion of Blei and Lafferty (2009) and rank the remaining words using term frequency-inverse document frequency (tf-idf), a measure of informativeness that punishes both rare and frequent words. Based on inspection I drop all terms ranked 30,000 or lower in the East German corpus of text. Similarly, I drop all terms ranked 25,000 or lower in the West German text data.

An important challenge in unsupervised learning in the context of text analysis is the choice of the appropriate number of topics K, i.e. the dimensionality of the latent-space. In particular, in probabilistic topic modeling, there is typically a trade-off between the interpretability of the model's output - which favors a lower K - and its statistical goodness of fit - which favors a higher K. Given the descriptive purpose of this exercise, I place more emphasis on the former and, after experimenting with different values, choose K = 45 and K = 35 in the East and West German text, respectively. The difficulty lies in the fact that if one chooses too few topics, each topic tends to be a mix of underlying themes and therefore become very general, while the topics become highly specific to the particular content of a few articles if one settles for too many.

### 13.3 LDA Output

#### 13.3.1 Estimated Topics

The first LDA output of interest is the topics themselves. For instance, in the case of the East German text, topics are probability vectors over the 30,000 unique terms in the vocabulary

that remain after preprocessing. Appendix Table 4 represents each topic in the East German text by listing the terms with highest probability for each topic. Similarly, Appendix Table ?? represents topics in the West German text. Overall, topics form natural groupings of words, as can be seen by the interpretable output. Although nothing in the estimation procedure guarantees this, topics appear to have natural labels: topic 5 in the West German text data is US politics, for instance; topic 14 in the West German text data deals with foreign affairs, and so on. It is important to note, however, that these interpretations are subjective insofar as they rely on judgments of the researcher and are outside of the statistical model. A more detailed description of the topics contained in both the East and West German corpus of text is provided in section 6.1 of the main paper.

#### 13.4 Estimated Content

The second LDA output of interest is the distribution of topics within the respective corpus of text. In particular, the LDA model estimates, for each article in the corpus, a probability that the article belongs to a given topic. In order to describe the content of the entire corpus, I thus assign an article to cover a particular topic if the estimated probability that the article belongs to the topic is higher than the probability for all of the remaining topics. A more detailed description of the distribution of topics within both the East and West German corpus of text is provided in section 6.1 of the main paper.

## 14 Qualitative Survey Evidence

In this section, I will describe qualitative evidence on the way in which interactions between East and West Germans proceeded. By carefully documenting the experiences of a small set of respondents, I provide further evidence on the context of these interactions and identify a number of themes that are also discussed in the quantitative, aggregate analysis presented in the paper.

I conducted this survey in the month of July 2018. I selected individuals at random and in public. In particular, I randomly selected two former regions of East Germany as study sites. Furthermore, I interviewed individuals that visited the memorial site at the former border crossing point Marienborn - Helmstedt, the largest border crossing point between East and West Germany at the time. Lastly, I interviewed randomly selected individuals in one region of former West Germany.

#### 14.1 More Details on Visits

#### 14.1.1 Perspective of East German Hosts

I interviewed a total of five former East German citizens that received visits from West Germany prior to November 1989. Those five individuals were born between 1942 and 1965. Moreover, four of the respondents were female.

Two out of these five individuals indicated that they had regularly hosted West German visitors in the period between 1972 and 1989. For two more individuals the interpersonal contact began later, in 1976 and in 1981, respectively, but also continued to 1989. Lastly, one respondent indicated that the contact only occurred in the second half of the 1970s and then stopped. None of the respondents had contact to West German citizens prior to 1972 though.

Moreover, according to the survey responses, the visits occurred quite frequently with one respondent receiving multiple visits per year and two more yearly visits throughout these time periods. The remaining two respondents indicated that they received multiple visits, but not yearly. The responses also indicate that East German hosts spent substantial amounts time with their West German visitors as three respondents indicated that the typical visit would last for more than a week and one more respondent declared that the visitors stayed for a couple of days, but less than a week. Lastly, one of the respondents typically received visits only for one to two days.

It appears that visitors were mostly family members or relatives of the East German hosts. In particular, four of the five respondents received visits from family members and relatives. One of these respondents as well as the remaining individual received also hosted friends. Consistent with the limited statistical data recovered from archives, a large share of the visitors were former East German citizens: specifically, three out of five respondents indicated that some of their visitors had previously resided in East Germany.

While all of the respondents indicated that they spent the majority of time with their visitors at home, i.e. in their apartments and houses, two out of the five respondents indicated that they also visited restaurants and bars, and 3 out of the five respondents pointed out that they also engaged in small trips to nearby sights or the outdoors with their visitors. However, all of the respondents declared that while spending time with their visitors outside of their homes, they never left the district of residence.

#### 14.1.2 Perspective of West German Visitors

I interviewed a total of eight citizens of former West Germany that visited East Germany prior to November 1989. Those eight individuals were born between 1938 and 1968. More-

over, six of the respondents were male. Only three of the eight individuals had previously been East German citizens and lived in East Germany for some period.

Six out of these eight individuals indicated that they had regularly visited East Germany in the period between 1972 and 1989, one of these respondents visited East Germany even prior to 1972. Moreover, one respondent declared that he had visited East Germany regularly in the period between 1976 and 1989. Finally, there was one respondent that visited East Germany only in the period between 1981 and 1985.

Moreover, according to the survey responses, the visits occurred quite regularly with seven of the respondents indicating that they visited East Germany multiple times, but not yearly and another respondent declaring yearly visits to East Germany within those respective time periods. The responses also suggest that West German visitors spent substantial amounts of time with their respective East German hosts as five of the respondents indicated that a typical visit lasted between three days to a week. Moreover two respondents declared that they spent more than a week in East Germany during a typical visit. Lastly, there was one respondent who visited East Germany only for short one-to-two day trips.

The large majority of respondents described the entry process into East Germany as frightening, oppressive and taxing. The entry process entailed the checking of entering individuals' personal documents and a brief interrogation about the purpose and destination of the visit. In some cases, visitors had to undergo a strip body search. In addition, entering individuals' cars were thoroughly checked, which sometimes included the removal and disassembly of several parts of the vehicle. Accordingly, none of the respondents indicated that they made any attempts to cross the inner German border carrying any prohibited items (e.g. certain books, newspapers or flyers with politically sensitive content) with them.

It appears that West German visitors were hosted pretty equally both by family members and friends: four respondents declared that they were hosted by family members and five respondents were hosted by friends, with two cases in which visitors stayed both with family and friends. Lastly, there was one case where a West German visitor visited a church community in East Germany that had established a partnership with a West German church community.

While all of the respondents indicated that they spent the majority of time during the visits at the hosts' home, five out of the eight respondents indicated that they also visited restaurants, and went on small trips to nearby sights or the outdoors. While doing so, three out of the respondents declared that they also left the district of their hosts' residence. They declared to have traveled about 70 to 100 km during these occasions.

#### 14.2 Details on Interpersonal Contact

#### 14.2.1 Perspective of East German Hosts

While the experiences of East German respondents that received visitors from West Germany vary greatly within this small sample, possibly in response to experiencing these visits at different ages and due to occupying different positions in the East German society at the time, a few common themes emerged in the interviews.

First, with respect to the topics discussed, given that in most cases family ties existed between visitors and hosts, most respondents emphasized that a large share of the conversations dealt with family affairs. In particular, commonly mentioned themes were the educational paths and choices of children, health of elderly family members as well as the job situation of both hosts and visitors.

Another commonly mentioned topic was the economic situation in East Germany as well as the economic differences between both countries. Some respondents declared that they (or their parents) frequently complained to their visitors about the lack of goods as well as the general quality of goods and services offered in East Germany. Moreover, they shared their frustrations with the prevailing economic system, in particular, regarding the fact that many goods could not simply be purchased, but had to be sourced through predominantly personal connections.

Some respondents explicitly expressed that they were oftentimes impressed when visitors talked about the variety of goods that they could purchase and choose from. This feeling was further strengthened as visitors frequently brought gifts along. All respondents declared that those gifts were exclusively basic consumables such as coffee, chocolate or other food that was difficult to find in East Germany. Moreover, other typically mentioned items were clothes that followed Western fashion trends. However, most respondents also described that their visitors stressed that, while there is more choice and higher quality products in West Germany, not every citizen can buy all of these products and that one requires a corresponding income to do so. Broadly speaking, respondents mentioned that they learned about income levels in different occupations and the costs of living in West Germany throughout these conversations. Some respondents then explained that they had made detailed calculations about how they would fare under both systems. They stated that these personal conversations were helpful and illuminating in the light of West German television broadcasting and advertising which - according to the respondents - was misleading. Multiple respondents also explained that, at the time, they could not relate to the concept of unemployment and feared it when indirectly confronted with it through the account of their visitors.

The qualitative evidence suggests that discussions about the political system or politics

in general were more difficult and experiences varied more. Some respondents said that they had frequent and open conversations about the political situation, whereas others remember only limited discussions of politics during these visits.

In one particular case, for instance, an East German medical doctor reported that he and visiting family and friends, who were all former East German citizens, typically made fun of propaganda events and political trainings that she had to attend. This person remembered, for example, that she was yelled at in front of the entire staff and that the political officer threatened her with the words: "Don't believe that you get any more leeway here just because you are a medical doctor! We'll make sure to bring you back into line!" This person stated that she talked about such instances with her visitors and that jointly ridiculing those events comforted her. Furthermore, this person explained that she and her visitors would talk about their impression that East Germany increasingly resembled the Soviet Union (or how they imagined it) and that she disagreed with a system in which progress in life strongly depends on personal connections.

Most East German hosts declared that they could speak freely and openly with their visitors, even if some of them stated to have talked less frequently or only rarely about the political circumstances. Respondents indicated that there was generally no mistrust towards West German family members and friends and one respondent stated that she "never even considered that any of them would use anything [she] said against [her]". Only in one case did a respondent state that she and her family had to be very careful when receiving visitors at home as they had strong reasons to believe that neighbors could listen in on conversations due to the housing situation and were reporting to the Ministry of State Security. Another piece of evidence for this trusting relationship is that all hosts declared that they either had a good or very good relation with their visitors.

In case that respondents indicated to have talked only rarely about politics, there were two different types of cases: One set of cases can be described as showing signs of resignation. Typically, these households had adapted to the political circumstances and had access to some degree of privileges, for example, by having one member of the household that was a low-ranked member of the SED. Those individuals expressed that there was a tacit understanding with the West German visitors about the nature of the political constraints that the members of the household faced. At the same time, those respondents expressed that they - at the time - did not think that there was a chance for the circumstances to change. Accordingly, they talked only rarely about the political situation and sought to avoid situations that could potentially put those privileges at risk.

The other case in which a respondent declared that her family had talked only rarely about the political situation was characterized by the following circumstances. The respondent stated that members of her family typically sought to avoid discussions about politics as several family members were member of the SED and (at least partially) committed Socialists. This person described that often arguments, for instance about the East German education system, would erupt and seriously damage the family relationship.

Apart from this case for which the respondent declared that she felt that visitors were actively trying to influence her and other members of her family, most respondents denied that visitors tried to convince them of a different viewpoint and stated that this would not have been necessary as their perspectives, at large, were aligned.

In line with the different experiences that respondents made with respect to discussing or addressing the political circumstances they lived in during these visits, respondents also provided varied answers to the question of how these visits affected them after the visitors had left. One group of respondents felt sad and partially angry that they were not allowed to cross the border to West Germany themselves. One respondent declared that at times he seriously entertained thoughts of escaping to West Germany, but never followed through due to the high risks associated with attempts to break through the highly fortified inner German border. The remaining respondents shared the same sentiments declared that, while in many cases knowing others that had thought about escape, could never have imagined escape as an option as they did not want to leave their parents or other family members behind.

One respondent said that for her, being a child or an adolescent at the time of the visits, the visits were - to a certain extent - confusing as both the visitors and the hosts considered themselves German, yet they lived in different states and had to cross a border to see each other. Moreover, she stated that she always thought that the West German family and friends of her parents were so similar to her own family and friends which was inconsistent with the representation of West Germans in civics education at school.

The last group of respondents stated that they had adapted to the situation and considered the visits as a normal, regular part of their life. In particular, they knew that the visits would occur regularly and they stated that they therefore did not necessarily reflect much upon the significance of each visit.

In addition, almost all of the respondents stated, that while it was common to have West German visitors and although they personally knew others who experienced contact with West Germans, hosts typically did not talk about these visits. In particular, many respondents compared the situation to strictly unwanted by the regime, but tolerated in practice. More specifically, many respondents declared that they had - to varying degree - contact with state officials which directly or indirectly tried to influence the family and urge them to end being in contact with West German family and friends. Some respondents

mentioned that they were reprimanded at work, but none of the respondents declared to have suffered more serious consequences.

#### 14.2.2 Perspective of West German Visitors

While the experiences of West German respondents that visited East Germany vary as well within this small sample, the individual accounts mimic each other more closely and suggest a few common themes. Importantly, the answers given by West German respondents are broadly consistent with the accounts of East German respondents.

First, with respect to the topics discussed, given that in many cases family ties existed between visitors and hosts, most respondents stated that a large share of the conversations dealt with family affairs. In particular, commonly mentioned themes were the educational paths and choices of a family's children, health of elderly family members as well as the job situation of both hosts and visitors. These topics were also frequently discussed when hosts and visitors had no family connection.

The second commonly mentioned topic was the economic situation in East Germany as well as the economic differences between both countries. Some respondents declared that their hosts frequently complained about the lack of goods as well as the general quality of goods and services offered in East Germany. Multiple West German respondents declared that they remember feeling the need to educate their East German hosts on the economic situation of an average household in West Germany. In particular, they emphasized that they typically had to counter misconceptions about standards of living in West Germany in response to a perception of West German lifestyles portrayed by advertisement on West German television.

In line with the responses by East German respondents, I find suggestive qualitative evidence that discussions about the political system or politics in general were more difficult and accordingly experiences differed more. Some respondents said that they had frequent and open conversations about the political situation, whereas others remember only limited discussions of politics during these visits.

For instance, one West German visitor was visiting East Germany with her parents as a teenager and young adult. This person declared that, while she sometimes encountered prejudices and exaggerated conceptions about the wealth of an average West German household, the most salient themes in her recollection of interactions with peers at the time was the lack of civil liberty, in particular the freedom to move. This respondent stated that she interacted frequently with young East Germans that were completing the compulsory military service. The respondent stated that, in some instances, she had conversations about both the constraints that individuals faced and the options that these individuals had to

navigate those circumstances. In her personal account, this respondent mentioned, for example, that individuals she interacted with contemplated joining the so-called "Bausoldaten" (construction soldier), i.e. serve as a non-fighting member of the units of East Germany's National People's Army. The service as a construction soldier offered East German citizens a possibility to refuse military service with weapons. Conscripts who chose this option often faced discrimination later in life, including denial of opportunities for higher education.

Another West German respondent reported on a situation during which West and East Germans interacted and discussed the East German propaganda with respect to the value of labor. In particular, this visitor, who had been a citizen of East Germany as a child, had met with an old friend from school who was about to go out to the fields on a farm tractor. The visitor noticed that one of the rear wheels was about to come off and accordingly warned his friend, to which his friend replied: "If I get that fixed now, I'll have to get to the garage. Then I'll be labeled as a shirker and a slacker. However, if I go out on the field and that wheel really comes off, I'll be called a hero of labor, one who works with full effort and dedication, pushing the limits." The respondent vividly reported on the ensuing discussion between him and his host about the "senselessness" and "perverseness' of the system.

A third, former West German visitor stated that his host would oftentimes angrily state that "this is all stuff that nobody talks about. These problems do not even exist in a Socialist system.", when talking about conditions in East Germany. In particular, this respondent vividly remembered an episode when both hosts and visitors were taking a walk outside of the hosts' apartment and saw a number of heavily-drunk men in the streets before noon. The respondent stated that the host then commented on this scene in the following way: "Look at this! Dead drunk at bright daylight! People are frustrated, but nobody would talk about it. This is not allowed to exist in our Socialist society."

More generally speaking, all the West German respondents stated that their East German hosts were very explicit about the fact that one cannot talk freely to other people. Many respondents described that they were instructed specifically whom to talk to and whom to avoid. Overall, former visitors frequently mentioned an extensive degree of mistrust that their hosts displayed to other individuals they interacted with during the visits. Consequently and consistent with the recollections collected from former East German hosts, this fear of being monitored or surveilled and evoking negative consequences for the hosts was one of the main reasons cited by respondents who declared that they typically tried to avoid talking about the political situation during their visits in East Germany.

Another group of respondents stated that they talked only rarely about the political situation as both hosts and visitors accepted the status quo and did not see a viable perspective for change at the time. However, even in this case, one respondent stated that he

still always felt that his visits directly reminded his hosts about the limitations of their own opportunities which he personally struggled with.

## 15 Qualitative Evidence from Infratest Surveys

Recently, researchers have also obtained access to reports compiled by Infratest, a West German opinion research institute, which, on behalf of the West German Ministry for Inner-German Relations, secretly surveyed West German visitors upon returning from East Germany. Given that Infratest considered it methodologically and politically unfeasible to directly survey East German citizens, the institute opted for an indirect procedure in which interviews were conducted with a surrogate. In particular, Infratest surveyed West Germans who had visited East Germany about the attitudes of specific East German contact persons that the West Germans had visited and spoken to extensively. The objective of this opinion polling, which was implemented annually in the period 1968 to 1989, was to learn about attitudes and behaviors of the East German population. (Gieseke, 2015)

Clearly, this methodology has a number of important limitations: First, there is an issue of representativeness. The reports only include West German visitors' perspectives on the attitudes held by those East German individuals that had received visits from West Germany. This is equivalent to stating that the survey data lacks information on the control group, i.e. the set of individuals that were not exposed to West German visitors. Moreover, East German hosts on whose attitudes the West German visitors were asked to provide information are not randomly drawn from the East German population and could therefore be selected along important dimensions.

Second, the indirect surveying is problematic as the answers could be severely influenced by West Germans' own attitudes and perspectives. In addition, it is plausible that East German hosts did not express their opinions truthfully when discussing with their West German visitors. In the light of the anecdotal evidence on the sometimes complicated nature of the conversations during the visits, both of these concerns appear relevant.

Last, the indirect opinion polling did not consider the possibility that receiving visitors from West Germany could have an important effect on underlying attitudes and support for the East German Communist regime.

Despite all these important drawbacks, the analysis of this data remains interesting: it allows to examine the evolution of attitudes and values for the section of the East German population that experienced interpersonal contact with West German visitors for a long period of time and at a relatively high frequency. While the Infratest surveys elicited indirect opinions on a large number of dimensions along which the East and West German economic

and political systems could be compared, I focus on two salient aspects discussed in the analysis of the Infratest data conducted by Gieseke (2015):

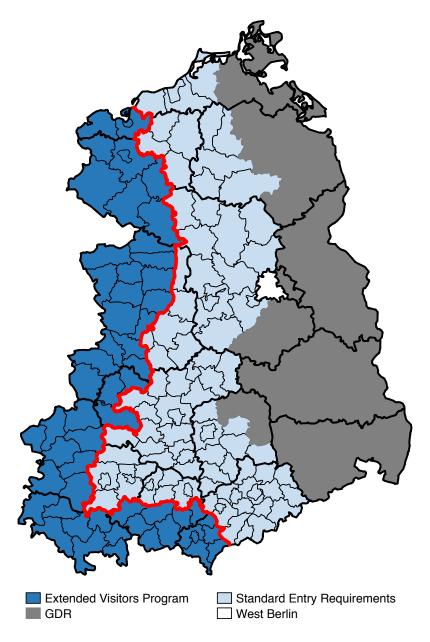
Firstly, the share of East German hosts that West German respondents experienced and classified as either "viewing the political system as generally positive, but criticizing specific aspects" or as "totally convinced of the rightness of the political system" exceeded 30 percent by 1972. It then declined steadily over the course of the 1970s and remained fairly stable at around 20 percent throughout the 1980s before strongly declining in 1989. Similarly, the share of East German hosts that was regarded as "rejecting the political system and criticizing the government and the political situation" was oscillating around 10 percent in the years prior to 1972. In 1973/1974, the respective share increased to about 20 percent and then steadily increased to reach almost 30 percent throughout the 1980s.

Secondly, there was a similar dynamic in the share of East German hosts that - according to their West German visitors - viewed the living conditions in East Germany as bad. In particular, the share of individuals which reportedly expressed this opinion doubled from around 15 percent in the 1970s to oscillating around 30 percent for most of the 1980s.

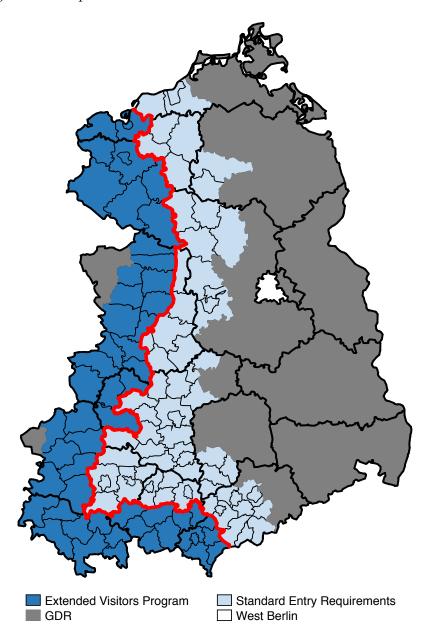
While these patterns are interesting and intriguing, due to the absence of a control group and the lack of plausibly exogenous variation in contact to West German visitors, it is impossible to learn about the effects of this type of across-regime, interpersonal contact on attitudes towards the East German regime from this study.

## 16 Appendix Figures

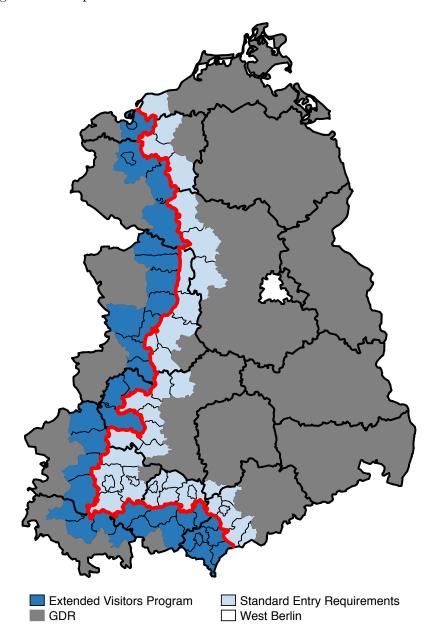
Appendix Figure 1: Sample Limited to Districts within 75 km of Discontinuity Boundary



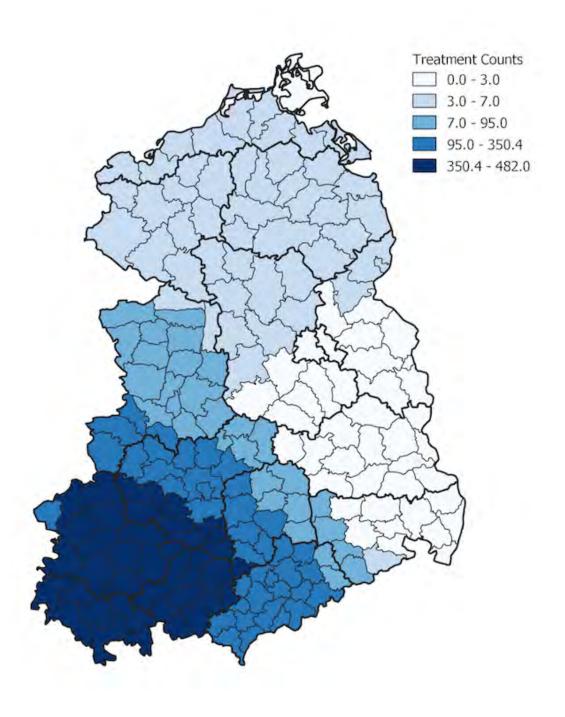
Appendix Figure 2: Sample Limited to Districts within 50 km of Discontinuity Boundary



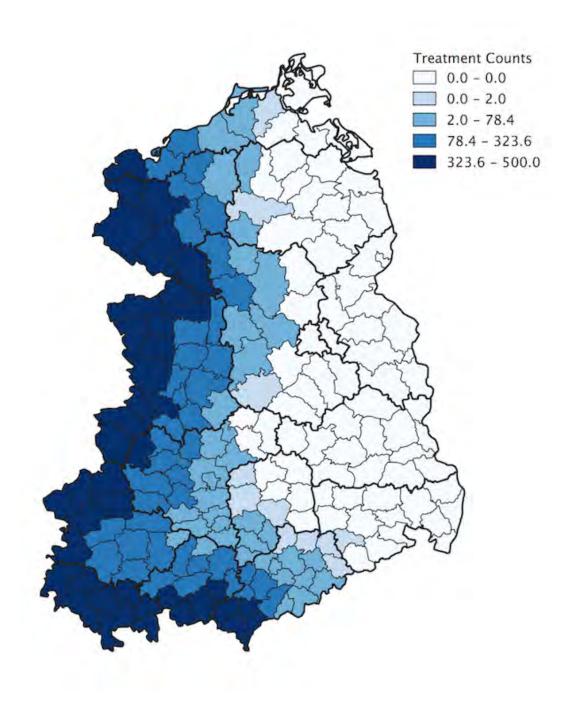
Appendix Figure 3: Sample Limited to Districts within 25 km of Discontinuity Boundary

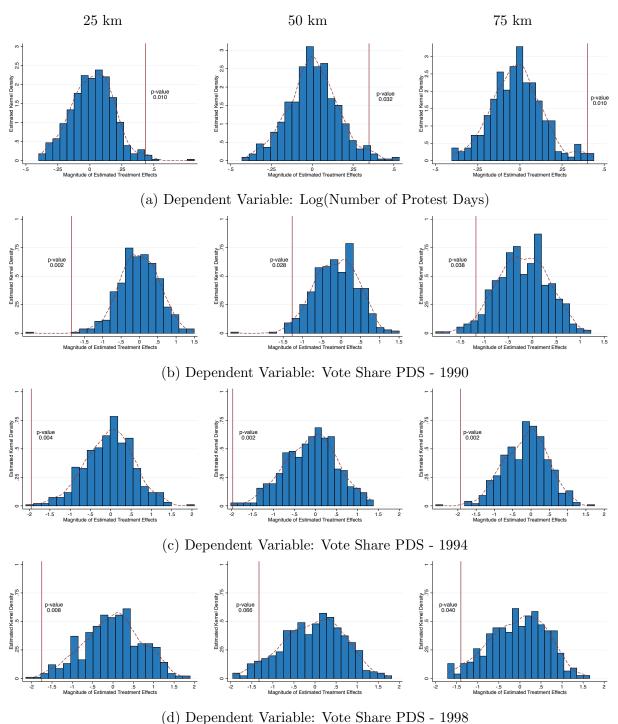


Appendix Figure 4: Heatmap of Randomization Inference Samples



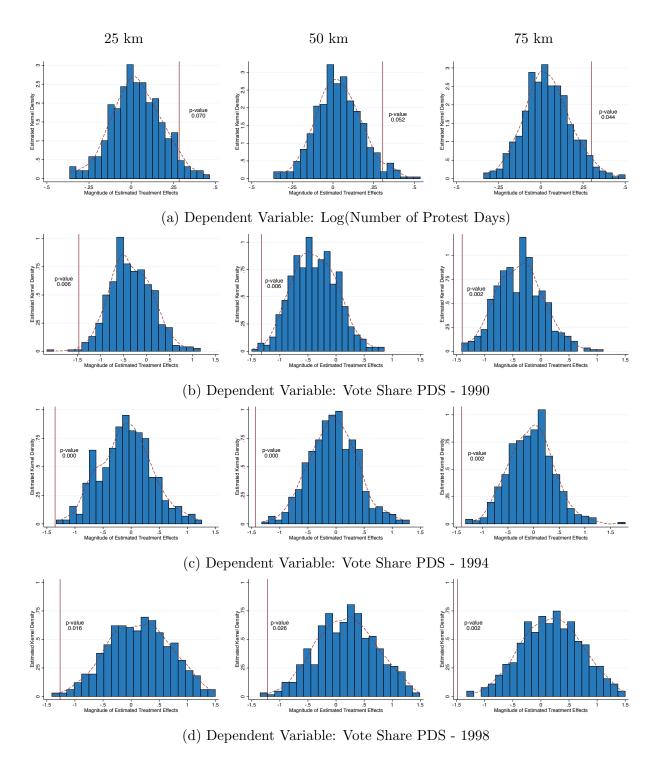
Appendix Figure 5: Heatmap of Alternative Randomization Inference Samples



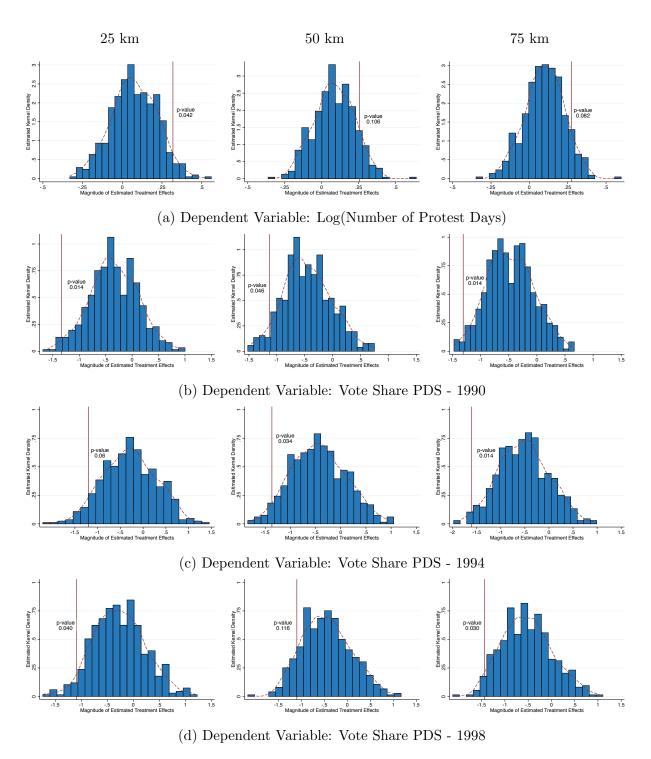


Appendix Figure 6: Actual treatment effects on support for the East German regime com-

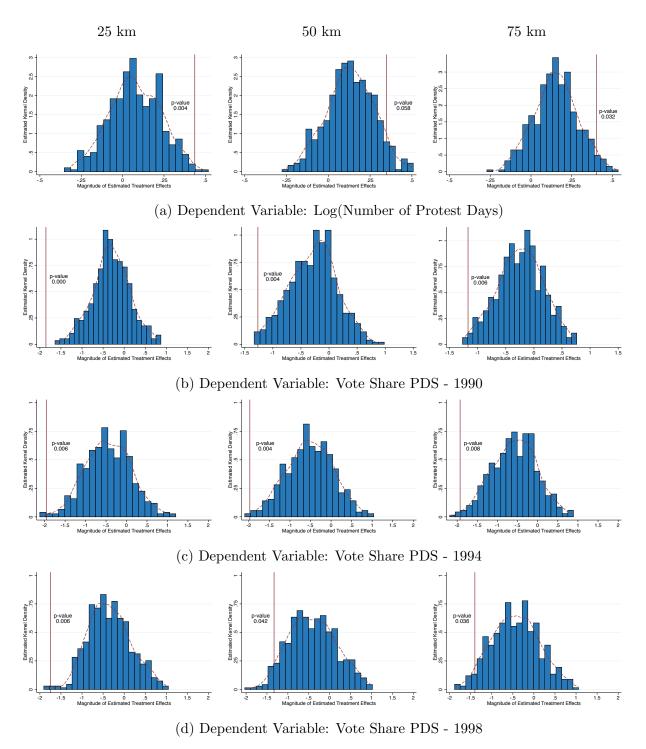
pared to distribution of counterfactual treatment effects; control for geographic location: latitude & longitude; Discontinuity samples restricted to 25/50/75 km bands around the discontinuity (from left to right).



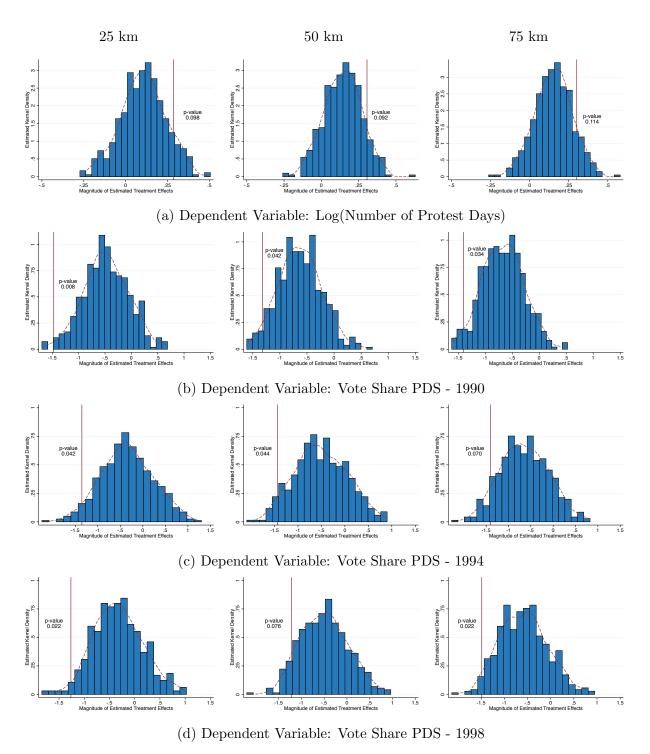
Appendix Figure 7: Actual treatment effects on support for the East German regime compared to distribution of counterfactual treatment effects; control for geographic location: distance to discontinuity; Discontinuity samples restricted to 25/50/75 km bands around the discontinuity (from left to right).



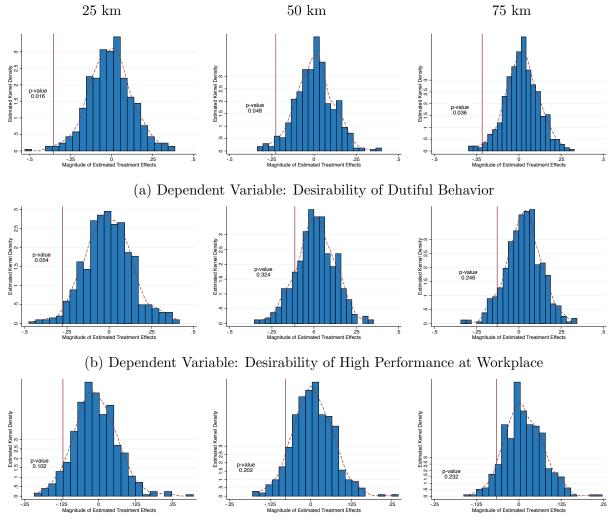
Appendix Figure 8: Actual treatment effects on support for the East German regime compared to distribution of alternative counterfactual treatment effects; control for geographic location: distance to nearest border crossing point; Discontinuity samples restricted to 25/50/75 km bands around the discontinuity (from left to right).



Appendix Figure 9: Actual treatment effects on support for the East German regime compared to distribution of alternative counterfactual treatment effects; control for geographic location: longitude & latitude; Discontinuity samples restricted to 25/50/75 km bands around the discontinuity (from left to right).

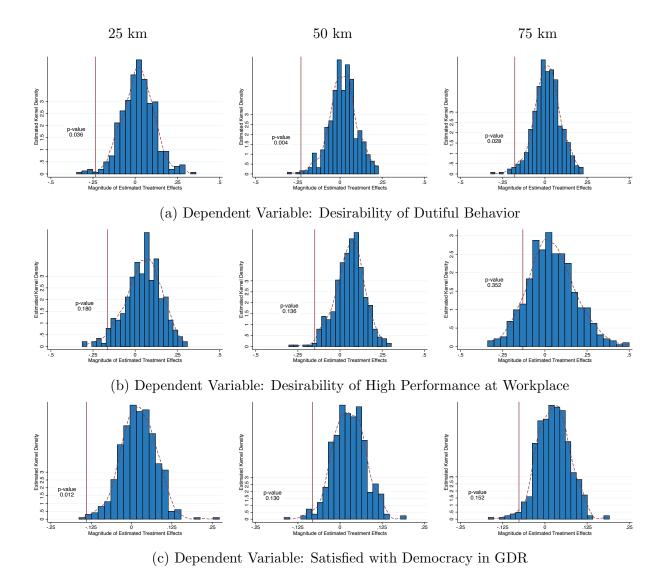


Appendix Figure 10: Actual treatment effects on support for the East German regime compared to distribution of alternative counterfactual treatment effects; control for geographic location: distance to discontinuity; Discontinuity samples restricted to 25/50/75 km bands around the discontinuity (from left to right).

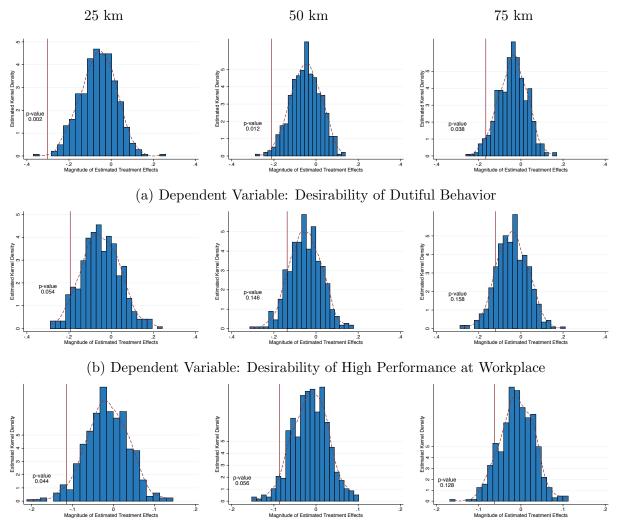


(c) Dependent Variable: Satisfied with Democracy in GDR

Appendix Figure 11: Actual treatment effects on attitudes compared to distribution of counterfactual treatment effects; control for geographic location: latitude & longitude; Discontinuity samples restricted to 25/50/75 km bands around the discontinuity (from left to right).

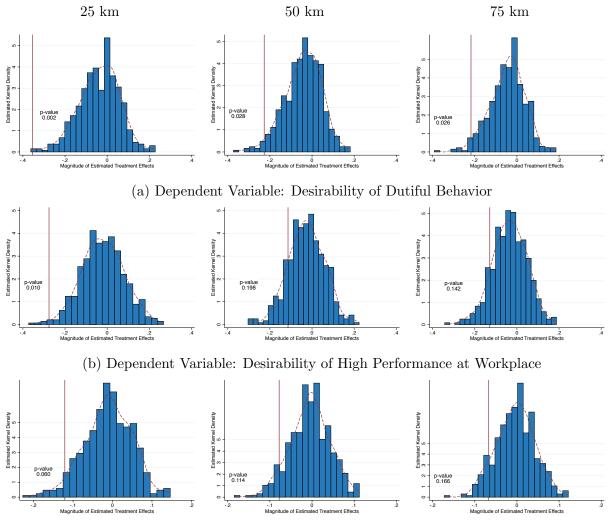


Appendix Figure 12: Actual treatment effects on attitudes compared to distribution of counterfactual treatment effects; control for geographic location: distance to discontinuity; Discontinuity samples restricted to 25/50/75 km bands around the discontinuity (from left to right).



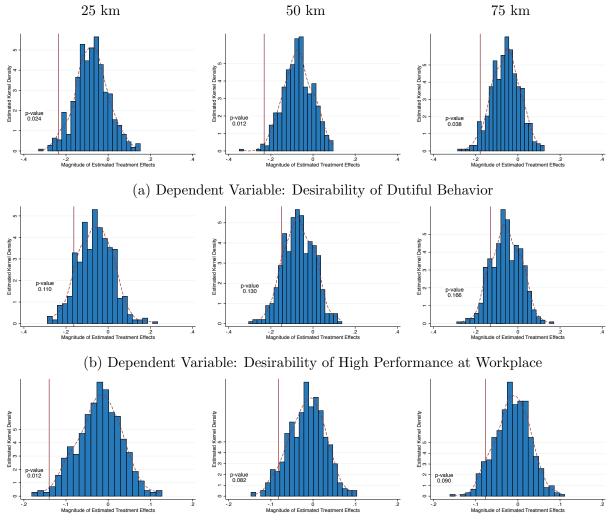
(c) Dependent Variable: Satisfied with Democracy in GDR

Appendix Figure 13: Actual treatment effects on attitudes compared to distribution of alternative counterfactual treatment effects; control for geographic location: distance to nearest border crossing point; Discontinuity samples restricted to 25/50/75 km bands around the discontinuity (from left to right).



(c) Dependent Variable: Satisfied with Democracy in  $\operatorname{GDR}$ 

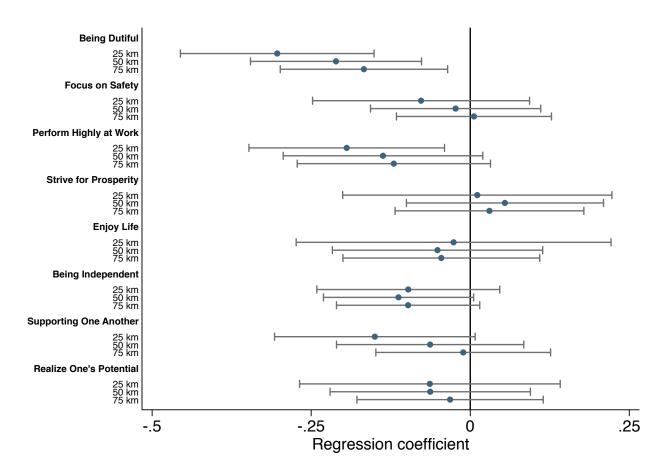
Appendix Figure 14: Actual treatment effects on attitudes compared to distribution of alternative counterfactual treatment effects; control for geographic location: latitude & longitude; Discontinuity samples restricted to 25/50/75 km bands around the discontinuity (from left to right).



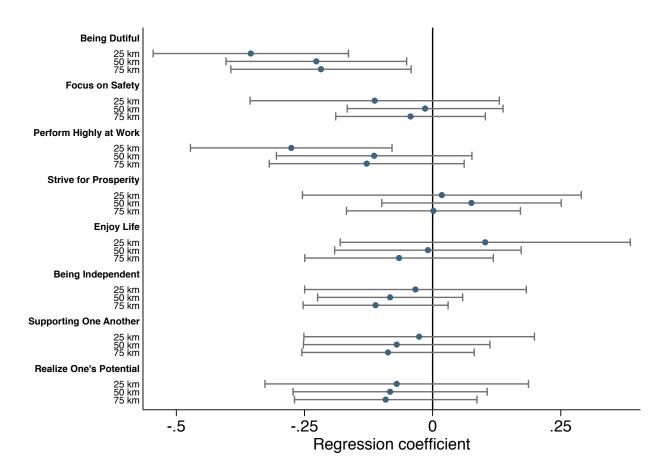
(c) Dependent Variable: Satisfied with Democracy in GDR

Appendix Figure 15: Actual treatment effects on attitudes compared to distribution of alternative counterfactual treatment effects; control for geographic location: distance to discontinuity; Discontinuity samples restricted to 25/50/75 km bands around the discontinuity (from left to right).

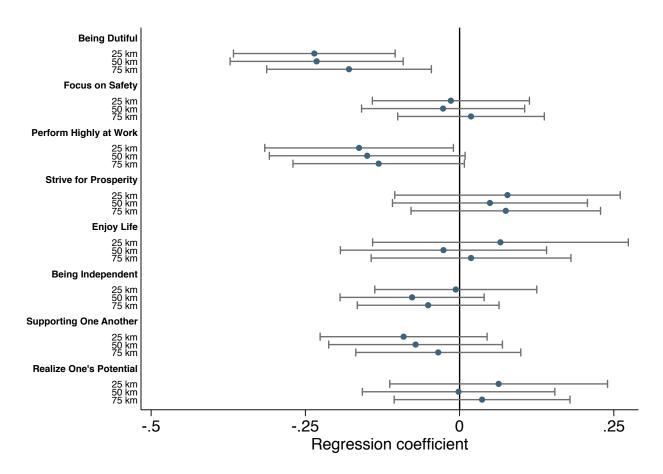
Appendix Figure 16: Effects on all elicited attitudes about desirability of different forms of behavior (distance to the nearest border crossing point)



Appendix Figure 17: Effects on all elicited attitudes about desirability of different forms of behavior (latitude & longitude)



Appendix Figure 18: Effects on all elicited attitudes about desirability of different forms of behavior (distance to the discontinuity boundary)



## 17 Appendix Tables

Appendix Table 1: Time Series of Aggregate Visitor Flows

	-	Qu	arter	_	Year
	<u> </u>	<u>II</u> .	III.	IV.	Total
			Panel A: Year 1975		
West German Visitors (Total)	821,028	1,007,105	1,086,663	814,351	3,729,147
Local Border Traffic	58,439	93,906	105,989	90,814	349,148
			Panel B: Year 1976		
West German Visitors (Total)	495,139	1,191,847	1,039,238	802,493	3,528,717
Local Border Traffic	45,256	98,488	103,818	86,353	333,915
			Panel C: Year 1977		
West German Visitors (Total)	-	1,118,534	1,053,207	804,726	-
Local Border Traffic	-	90,215	102,606	89,988	-
			Panel D: Year 1978		
West German Visitors (Total)	687,614	1,052,854	1,122,348	811,309	3,674,125
Local Border Traffic	46,760	90,028	109,074	84,718	330,580
			Panel E: Year 1979		
West German Visitors (Total)	441,649	1,170,343	1,036,197	778,791	3,426,980
Local Border Traffic	32,104	84,812	97,554	77,086	291,556
			Panel F: Year 1980		
West German Visitors (Total)	514,912	1,192,579	1,032,883	-	-
Local Border Traffic	43,355	90,620	103,277	-	-

Notes: - indicates that the respective information was not available in the archival materials. Data source: B Arch DO 1/8.0/50034.

Appendix Table 2: Effects on Support for the Regime (Latitude & Longitude)

-		Geographic Location: Latitude an				
	(1)	(2)	(3)			
_	Sample < 25 km	Sample < 50 km	Sample < 75 km			
-	Panel A. Dep	pendent Variable: Log(Number of	Protest Days)			
Mean of Dependent Variable †	16.03	15.31	14.81			
Local Border Traffic	0.436	0.348	0.402			
	(0.209)	(0.172)	(0.164)			
Randomization Inference p-value	[0.010]	[0.032]	[0.010]			
Observations	65	108	133			
R-squared	0.814	0.760	0.728			
-	Panel B.	Dependent Variable: Vote Share P	DS - 1990			
Mean of Dependent Variable	16.03	15.31	14.81			
Local Border Traffic	-1.857	-1.267	-1.173			
	(0.435)	(0.370)	(0.396)			
Randomization Inference p-value	[0.002]	[0.028]	[0.038]			
Observations	6,062	10,530	13,412			
Clusters	64	107	132			
R-squared	0.212	0.260	0.251			
-	Panel C. Dependent Variable: Vote Share PDS - 1994					
Mean of Dependent Variable	15.82	15.65	15.78			
Local Border Traffic	-1.959	-1.977	-1.926			
	(0.539)	(0.456)	(0.492)			
Randomization Inference p-value	[0.004]	[0.002]	[0.002]			
Observations	5,140	8,440	10,618			
Clusters	66	108	133			
R-squared	0.266	0.214	0.221			
-	Panel D. 1	Dependent Variable: Vote Share P	DS - 1998			
Mean of Dependent Variable	20.36	20.27	20.09			
Local Border Traffic	-1.752	-1.330	-1.402			
	(0.442)	(0.402)	(0.460)			
Randomization Inference p-value	[0.008]	[0.066]	[0.040]			
Observations	5,033	8,657	10,941			
Clusters	66	110	135			
R-squared	0.209	0.219	0.207			

Notes: In Panel A, the unit of observation is a Kreis, an administrative district in the GDR. In Panels B, the unit of observation is a polling station. In Panels C and D, the unit of observation is the municipality (as of 1994 and 1998, respectively). In Column 1, the sample consists of all districts that fall within a 25 km band around the discontinuity boundary. In Columns 2 and 3, the sample consists of all districts that fall within a 50 km and 75 km band around the discontinuity boundary, respectively. The regression discontinuity polynomials are cubic polynomials in the latitude and longitude of the district center. Panel A shows robust standard errors in parentheses. Panels B, C and D display standard errors clustered at the district-level in parentheses. Randomization inference p-values in square brackets. † This row displays the mean of the dependent variable in absolute terms.

Appendix Table 3: Effects on Support for the Regime (Distance to Discontinuity)

<del>-</del>	Measure of Geogr	aphic Location: Distance to Disco	illimity Boundary			
	(1)	(2)	(3)			
_	Sample < 25 km	Sample < 50 km	Sample < 75 km			
_	Panel A. De	pendent Variable: Log(Number of	Protest Days)			
Mean of Dependent Variable †	16.03	15.31	14.81			
Local Border Traffic	0.285	0.306	0.301			
	(0.143)	(0.145)	(0.138)			
Randomization Inference p-value	[0.070]	[0.052]	[0.044]			
Observations	65	108	133			
R-squared	0.822	0.712	0.673			
-	Panel B.	Dependent Variable: Vote Share P	DS - 1990			
Local Border Traffic	-1.474	-1.324	-1.402			
LOCAL DOLUCE FEATURE	(0.404)	(0.388)	(0.376)			
Randomization Inference p-value	[0.006]	[0.006]	[0.002]			
Observations	6,062	10,530	13,412			
Clusters	64	107	132			
R-squared	0.199	0.247	0.245			
_	Panel C. Dependent Variable: Vote Share PDS - 1994					
Mean of Dependent Variable	15.82	15.65	15.78			
Local Border Traffic	-1.354	-1.435	-1.706			
	(0.408)	(0.433)	(0.418)			
Randomization Inference p-value	[0.000]	[0.000]	[0.002]			
Observations	5,140	8,440	10,618			
Clusters	66	108	133			
R-squared	0.246	0.203	0.215			
-	Panel D.	Dependent Variable: Vote Share P	DS - 1998			
Mean of Dependent Variable	20.36	20.27	20.09			
Local Border Traffic	-1.265	-1.220	-1.487			
	(0.389)	(0.412)	(0.420)			
Randomization Inference p-value	[0.016]	[0.026]	[0.002]			
Observations	5,033	8,657	10,941			
Clusters	66	110	135			
R-squared	0.191	0.208	0.199			

Notes: In Panel A, the unit of observation is a Kreis, an administrative district in the GDR. In Panels B, the unit of observation is a polling station. In Panels C and D, the unit of observation is the municipality (as of 1994 and 1998, respectively). In Column 1, the sample consists of all districts that fall within a 25 km band around the discontinuity boundary. In Columns 2 and 3, the sample consists of all districts that fall within a 50 km and 75 km band around the discontinuity boundary, respectively. The regression discontinuity polynomials are cubic polynomials in the distance to the discontinuity boundary. Panel A shows robust standard errors in parentheses. Panels B, C and D display standard errors clustered at the district-level in parentheses. Randomization inference p-values in square brackets. † This row displays the mean of the dependent variable in absolute terms.

Appendix Table 4: Topics within East German party newspaper (ranked by frequency); terms within topics ranked by probability (continued on next page)

					Topic De	scription					Frequency
1	West Germa	nv									0.042
_	bonn	west german	west	federal	erhard	adenauer	strauss	militaristic	nato	nuclear	0.0.12
			germany	republic						weapon	
2	Foreign Affai	rs: African and	Arabic Countrie	s							0.038
	arabic	israel	independent	african	united arab emirates	syrian	palestinian	anti- imperialist	iraq	angola	
3		ctor: Higher Edu									0.033
	prof	university	academy	student	institute	college	training	professor	section	studies	
4	Congratulato	ry Messages to	Party Member	s and Distingu	ished Member	s of Society					0.033
	comrade	congratulat- ions	birthday	transmit	central committee	role	earned	staatsrat	message of greetings	responsible	
5	Agriculture										0.031
	Ipg	agriculture	hectare	cooperative	harvest	grains	schwerin	percent	village	potato	
6	Commerce										0.030
	leipzig	minister	commerce	comecon	foreign trade	trade fair	chemical	long-term	director general	udssr	
7	USA										0.030
	usa	negotiations	nato	nuclear	nuclear weapons	warsaw	western europe	american	dialogue	station	
8	Foreign Affai	rs: Cuba									0.029
	central committee	delegation	invite	cuba	stay	arrive	cuban	say goodbye	mission	receive	
9	Foreign Affai	rs: General									0.029
	minister	embassy	matter	foreign	state	ministry	diplomat	foreign	authorized	fischer	
				•	secretary			minister			
10	East German	y: Leadership &	Institutions								0.027
	central committee	staatsrat	ministerrat	honecker	stoph	sindermann	embassy	mittag	volkskammer	receive	
11	Foreign Affai	rs: Fascist Coun	tries								0.026
	chile	patriotic	regime	chilean	salvador	nicaragua	fascist	ethiopia	madrid	spanish	
12	Military										0.025
	armed force	people's army	army general	soldier	nva	minister	chief	colonel general	soviet army	lieutenant general	
13	Mass Organia	zation: Free Ge	rman Youth								0.024
	youth	free german youth (fdj)	central council	youth organization	fdj member	thalmann	group	student	pieck	youth brigade	
14	Education Se	ctor: Schooling									0.024
	school	child	girl	apartment	pedagogical	education	inhabitant	family	pioneer	secondary school	
15	Soviet Union										0.024
	soviet	udssr	moscow	cpsu	lenin	colonel	brezhnev	october revolution	soviet peoplee	soviet republics	

Appendix Table 4: Topics within East German party newspaper (ranked by frequency); terms within topics ranked by probability (continued on next page)

				Topic De	scription					Frequen
Religion & Spo	ort									0.024
church	sport	christian	sporty	point	sunday	protestant	christ	team	win	0.02
SED Party Ma										0.023
communist	central committee	comrade	unity party	honecker	dear	worker's party	sincere	brother party	people's party	
Production Se	ctor: Innovati	on								0.023
veb	combine	magdeburg	marx	leipzig	machine	microelectro nics	schwerin	key technology	jena	
Mass Organiz	ation: Democ	ratic Women's I	eague of Gern	nanv (DFD)						0.023
woman	delegate		volkskammer	council	election	dfd	parliament	constitution	national council	
Crime										0.022
crime	police	fascist	protest	court	demonstrati	injured	murder	former	attorney	0.022
Commemorat	ion of Commi	unist Leaders			on					0.022
anti-fascist	former	resistance	memorial	committee	victim	fascist	thalmann	wreath	honor	
Literature										0.022
mark	publisher	book	volume	literature	read	linen	leipzig	edition	author	
Vietnam War										0.022
usa	vietnam	american	vietnamese	washington	troops	hanoi	aircraft	independent	aggressor	
Capitalism										0.022
unemployed	strike	workplace	mining	italy	billion	hired	laid off	dollar	capitalism	
Production Se	ctor: Construc	tion Sector								0.021
percent	mark	construction sector	billian	half-year	planfulfilme net	combine	vvb	industrial sector	branch	
Foreign Affair	s: Non-Social	ist Countries								0.021
japan	foreign minister	prime minister	austria	india	sweden	parliament	vice president	denmark	norway	
Culture										0.021
culture	exhibition	art	artistic	association	artist	opening	museum	writer	poet	0.021
Honoring Dist	inguished Me	mbers of the W	orking Class							0.021
marx	excellent	award	give	festive	fatherland	golden	medal	theater	honored	
West German	Politics									0.021
spd	cdu	social democratic	bonn	bundestag	hamburg	kpd	election	cducsu	wehner	
Weather										0.020
Sunday	degree	damage	north	forest	temperature	storm	centimeter	south	snow	

Appendix Table 4: Topics within East German party newspaper (ranked by frequency); terms within topics ranked by probability (continued)

				Topic De	scription					Frequen
West Berlin										0.019
west berlin	senate	west	provocation	negotiations	letter	mayor	state border	status	brandt	
Mass Organia	ation: Free Ge	rman Trade IIn	ion (EDGR)							0.018
trade union	fdgb	federal	congress	central board	table	dgb	metal	international	trade union	0.018
trade dillon	iugu	board	congress	central board	table	ugb	metai	friendship	confederatio	
Production Se	ctor: Energy									0.018
cottbus	coal	kilometer	opencast mine	traffic	transportatio n	power plant	drive	ton	vehicle	
Foreign Affai	rs: Socialist Cou	ıntries								0.017
people's republic	poland	polish	hungarian	prague	bulgaria	warsaw	checho- slovakia	yugoslavia	hungary	
West Germai	n Press									0.017
frg	newspaper	international law	write	federal republic	start	paper	federal chancellor	news agency	interview	
Maritime Tra	nsport			.,						0.017
rostock	ship	water	built	algeria	july	environment protection	algerian	port	series	
Healthcare Se	ector					protection				0.016
halle	potsdam	erfurt	medicine	gera	healthcare	suhl	position	bath	care	
Space Travel										0.016
station	cosmonaut	kilometer	cosmos	moscow	flight	board	report	minute	examine	
Production Se	ctor: Heavy Inc	dustry								0.016
ton	brigade	rolling mills	steel	brandenburg	project	manpower	working group	glass	construction work	
SED Party Or	ganization									0.015
comrade	central	region leadershin	delegate	party	department	plenum	district leadership	north	letter	
	committee	leadership	delegate	party organization	department	plenum	district leadership	north	letter	0.014
	committee	leadership	delegate committee		department helsinki	plenum		north	letter	0.014
Foreign Affair conference	committee rs: Internationa commission	leadership I Treaties		organization			leadership			
Foreign Affai	committee rs: Internationa commission	leadership I Treaties		organization			leadership			
Foreign Affair conference East German leipzig	committee rs: Internationa commission  Media journalist	leadership I Treaties meeting	committee	organization discuss	helsinki	concept	leadership council	finland	communiqué	0.013
Foreign Affair conference East German leipzig	committee rs: Internationa commission  Media journalist	leadership I Treaties meeting	committee	organization discuss	helsinki	concept	leadership council	finland	communiqué	0.013
Foreign Affair conference East German leipzig Foreign Affair ulbricht	committee rs: Internationa commission  Media journalist rs: France french	leadership I Treaties meeting watch	committee  press conference	organization discuss Sunday	helsinki	concept	leadership council broadcasting	finland	communiqué association	0.013
Foreign Affair conference East German leipzig Foreign Affair ulbricht	committee rs: Internationa commission  Media journalist rs: France french	leadership I Treaties meeting watch	committee  press conference	organization discuss Sunday	helsinki	concept	leadership council broadcasting	finland	communiqué association	0.013
Foreign Affair conference  East German leipzig  Foreign Affair ulbricht  Foreign Affair	committee rs: Internationa commission  Media journalist rs: France french rs: UK	leadership I Treaties meeting watch france	committee  press conference  paris	organization discuss Sunday journey	helsinki television impression	concept  movie  point	leadership council broadcasting enemy	finland invite cause	communiqué association hope	0.014 0.013 0.010 0.010

Appendix Table 5: Topics within West German newspaper (ranked by frequency); terms within topics ranked by probability (continued on next page)

				Торіс Ве	scription					Freque
Federal Govern	nment: Pensio	on System								0.053
mark	percent	million	billion	pay	federal government	increase	pension insurance	raise	unemployed	
West German	State Politics									0.05
spd	cdu	greens	prime minister	fdp	vogel	north rhine- westphalia	lower saxony	party	hessian	
Regional News	i									0.05
frankfurt	march	april	see	austria	faz	abroad	munich	hamburg	february	
Foreign Affairs	: Poland									0.04
foreign	visit	conversation	warsaw	poland	polish	cooperation	official	meeting	reception	
minister										
US Politics				: alamana	£d					0.04
american	president	washington	reagan	johnson	ford	carter	vietnam	america	nixon	
Middle East										0.04
israel	egypt	arabic	pakistan	iran	military	soldier	american	east	palestinians	
West German	Politics: CDU/	CSU-FDP Coali	tion							0.04
kohl	fdp	union	bonn	cdu	strauss	coalition	csu	party	genscher	
NATO								congress		0.04
american	europe	nato	military	soviet union	alliance	genf	negotiation	atlantic	weapons	0.04
Crime, Terroris										0.04
police	frankfurt	injured	terrorist	protest	operation	night	woman	violence	violent	
European Com	munity									0.03
europe	community	brussels	commission	eec	conference	negotiaton	foreign	ministr	resolution	
							minister			
Soviet Union										0.03
soviet	moscow	soviet union	party leader	gorbachev	prague	brezhnev	central committee	eastern europe	czecho- slovakia	
Berlin								33.75		0.03
berlin	west berlin	city	mayor	senat	east berlin	august	east	brandt	bahr	-
Labour Unions										0.03
labour union	work	business	employee	company	service	social	strike	worker participation	employer	
Foreign Affairs	: General									0.03
bonn	federal	treaty	embassy	negotiation	conversation	state	foreign	foreign	scheel	
	government					secretary	minister			
Foreign Affairs										0.03
french	france	paris	europe	gaulle	cooperation	state president	general	german- french	president	
UK Politics						president		HEHEH		0.03
british	london	great britain	wilson	prime minister	conservative	england	thatcher	woman	labour	- 0.00
Federal Govern	nment: Econo	mic Policv		1111113151						0.02
federal	tax	economic	japan	finance	bundesbank	schilly	minister of	business	growth	
government		policy		minister		•	economic		-	
Federal Chance										0.02
federal	bonn	brandt	schmidt	german	federal	chancellor	erhard	foreign	schroeder	
chancellor					government			policy		
East Germany german	gdr	germany	recognition	east berlin	zone	sed	ulbricht	nation	allied	0.02
gennan	gui	Reminant	recognition	cast neilill	20116	seu	uibliciit	Hation	ameu	
Elections										0.02
election	vote		democratic	office		candidate		elected		

Appendix Table 5: Topics within West German newspaper (ranked by frequency); terms within topics ranked by probability (continued)

				Topic De	scription					Frequency
L Legislative P	rocess									0.025
law	federal council	concept	federal government	legislative proposal	constitution	civil servant	basic law	judge	bundestag	
2 Foreign Affa	irs: Spain		•							0.024
former	spain	colonel	minister	cooperation	weeks	position	congress	spanish	madrid	
3 Industry										0.023
price	technological	information	traffic	july	step	applied	affected	production	industry	
Education Se										0.022
professor	science	university	technological	student	college	school	education	teaching	unrest	
West Germa	n Parliament									0.021
bundestag	opposition	parlament	delegate	fraction	coaltion	debate	parlament	minister	cducsu	
1taly - Politic										0.021
party	communist	socialist	democratic	left	democracy	social democratic	party leadership	direction	italy	
7 Religion										0.018
church	pope	world	peace	solidarity	regime	protestant	catholic	holy	vatican	
Social Policy										0.012
work	social	reform	pay	cost	physician	money	system	support	social policy	
Reflections										0.012
face	head	bitter	mood	suspicion	feeling	normal	world politics	sense	remember	
Committee I	learings									0.011
january	may	june	november	seven	committee	hearing	stone	summer	statement	
1 Africa										0.011
nation	unified	independent	world	attitude	black	conference	south african	Sunday	africa	
2 Foreign Affa	irs: Turkey									0.010
friday	july	december	Thursday	prime minister	turkey	eight	february	newspaper	return	
3 Media										0.009
program	newspaper	youth	broadcast	generation	twenty	dealing	book	threatened	participate	
Environment	al Protection									0.008
world	achievement	damage	child	urgent	preserve	courage	overly	earth	poor	
Meetings										0.007
Tuesday	Wednesday	Monday	Thursday	meeting	september	october	reported	february	letter	

Appendix Table 6: Effects on Attitudes (Latitude & Longitude)

_	Measure of Geographic Location: Latitude and Longitude						
_	(1)	(2)	(3)				
_	Sample < 25 km	Sample < 50 km	Sample < 75 km				
-	Panel A. Depe	endent Variable: Desirability of Du	tiful Behavior				
Local Border Traffic	-0.355	-0.227	-0.218				
	(0.095)	(0.089)	(0.089)				
Randomization Inference p-value	[0.016]	[0.048]	[0.036]				
Observations	1,333	2,307	2,877				
Clusters	50	83	102				
R-squared	0.044	0.024	0.017				
-	Panel B. Depender	nt Variable: Desirability of Being	Successful at Work				
Local Border Traffic	-0.276	-0.114	-0.129				
	(0.098)	(0.096)	(0.096)				
Randomization Inference p-value	[0.054]	[0.324]	[0.246]				
Observations	1,331	2,304	2,871				
Clusters	50	83	102				
R-squared	0.035	0.020	0.014				
-	Panel C. Deper	ndent Variable: Satisfied with Den	nocracy in GDR				
Mean of Dependent Variable	0.46	0.46	0.45				
Local Border Traffic	-0.121	-0.078	-0.067				
	(0.077)	(0.051)	(0.050)				
Randomization Inference p-value	[0.102]	[0.202]	[0.232]				
Observations	1,332	2,312	2,877				
Clusters	50	83	102				
R-squared	0.048	0.026	0.027				

*Notes:* The unit of observation is the individual. In Column 1, the sample consists of all districts that fall within a 25 km band around the discontinuity boundary. In Columns 2 and 3, the sample consists of all districts that fall within a 50 km and 75 km band around the discontinuity boundary, respectively. The regression discontinuity polynomials are cubic polynomials in the latitude and longitude of the district center. Standard errors clustered at the district-level in parentheses. Randomization inference p-values in square brackets.

Appendix Table 7: Effects on Attitudes (Distance to Discontinuity)

	Measure of Geogr	aphic Location: Distance to Disco	ntinuity Boundary			
	(1)	(2)	(3)			
_	Panel A. Depe	endent Variable: Desirability of De	Outiful Behavior			
Local Border Traffic	-0.235	-0.232	-0.179			
	(0.065)	(0.071)	(0.067)			
Randomization Inference p-value	[0.036]	[0.004]	[0.028]			
Observations	1,333	2,307	2,877			
Clusters	50	83	102			
R-squared	0.050	0.021	0.016			
_	Panel B. Dependent Variable: Desirability of Being Successful at Work					
Local Border Traffic	-0.163	-0.150	-0.131			
	(0.076)	(0.080)	(0.070)			
Randomization Inference p-value	[0.180]	[0.136]	[0.352]			
Observations	1,331	2,304	2,871			
Clusters	50	83	102			
R-squared	0.040	0.013	0.009			
	Panel C. Deper	ndent Variable: Satisfied with Den	nocracy in GDR			
Mean of Dependent Variable	0.46	0.46	0.45			
Local Border Traffic	-0.140	-0.082	-0.077			
	(0.048)	(0.050)	(0.045)			
Randomization Inference p-value	[0.012]	[0.130]	[0.152]			
Observations	1,332	2,312	2,877			
Clusters	50	83	102			
R-squared	0.051	0.023	0.024			

*Notes:* The unit of observation is the individual. In Column 1, the sample consists of all districts that fall within a 25 km band around the discontinuity boundary. In Columns 2 and 3, the sample consists of all districts that fall within a 50 km and 75 km band around the discontinuity boundary, respectively. The regression discontinuity polynomials are cubic polynomials in the distance to the discontinuity boundary. Standard errors clustered at the district-level in parentheses. Randomization inference p-values in square brackets.

Appendix Table 8: Effects on Attitudes. Heterogeneity by Cohort.

_		Dependent Variable:	
<u>-</u>	Desirability of	Desirability of	Satisfaction with
	Dutiful Behavior	High Performance at Work	Democracy in GDR
-	(1)	(2)	(3)
Local Border Traffic	-0.111	-0.047	-0.038
	(0.083)	(0.088)	(0.055)
Local Border Traffic x (20 < Age in 1972 <= 35)	-0.200	-0.126	-0.111
	(0.107)	(0.094)	(0.050)
Local Border Traffic x (35 < Age in 1972 <= 50)	-0.281	-0.291	-0.075
	(0.128)	(0.169)	(0.063)
Local Border Traffic x (Age in 1972 >50)	0.022	-0.009	-0.089
	(0.173)	(0.204)	(0.089)
Observations	2,307	2,304	2,312
Clusters	83	83	83
R-squared	0.035	0.022	0.035

*Notes:* The unit of observation is the individual. The sample consists of all districts that fall within a 50 km band around the discontinuity boundary. The regression discontinuity polynomials are cubic polynomials in the distance to the nearest border crossing point. Standard errors clustered at the district-level in parentheses.

Appendix Table 9: Effects on Economic Concerns

	Measure of Geographic Location: Distance to the Closest Border Crossing						
	(1)	(2)	(3)				
	Sample < 25 km	Sample < 50 km	Sample < 75 km				
	Panel A. Dependent Variab	le: Strongly Concerned about Gene	eral Economic Development				
Mean of Dependent Variable	0.37	0.37	0.37				
Local Border Traffic	0.010	-0.015	-0.006				
	(0.040)	(0.033)	(0.031)				
Observations	1,331	2,308	2,878				
Clusters	50	83	102				
2-squared	0.026	0.011	0.012				
	Panel B. Dependent Varia	ble: Strongly Concerned about Per	rsonal Economic Situation				
Mean of Dependent Variable	0.28	0.30	0.29				
ocal Border Traffic	-0.028	-0.041	-0.031				
	(0.042)	(0.034)	(0.033)				
Observations	1,330	2,307	2,876				
lusters	50	83	102				
R-squared	0.024	0.016	0.010				
	Panel C. Depende	ent Variable: Strongly Concerned a	about Job Security				
Mean of Dependent Variable	0.30	0.31	0.31				
ocal Border Traffic	-0.030	-0.051	-0.030				
	(0.043)	(0.037)	(0.037)				
Observations	1,284	2,224	2,763				
lusters	50	83	102				
2-squared	0.033	0.012	0.009				
	Panel D. Dependent Va	riable: Strongly Concerned about	Loss of Property Rights				
Mean of Dependent Variable	0.14	0.14	0.14				
ocal Border Traffic	-0.008	-0.010	0.002				
	(0.037)	(0.031)	(0.031)				
Observations	1,269	2,203	2,738				
Clusters	50	83	102				
R-squared	0.045	0.029	0.022				

*Notes:* The unit of observation is the individual. In Column 1, the sample consists of all districts that fall within a 25 km band around the discontinuity boundary. In Columns 2 and 3, the sample consists of all districts that fall within a 50 km and 75 km band around the discontinuity boundary, respectively. The regression discontinuity polynomials are cubic polynomials in the distance to the nearest border crossing point. Standard errors clustered at the district-level in parentheses.

Appendix Table 10: Effects on Professional Expectations (continued on next page)

	Measure of Geographic Location: Distance to the Closest Border Crossing		
	(1)	(2)	(3)
	Sample < 25 km	Sample < 50 km	Sample < 75 km
	Panel A.	Dependent Variable: Layoffs at W	Vorkplace Vorkplace
Mean of Dependent Variable	0.71	0.73	0.73
Local Border Traffic	-0.027	-0.016	-0.005
	(0.041)	(0.034)	(0.035)
Observations	1,002	1,748	2,177
lusters	50	83	102
-squared	0.031	0.012	0.014
	Pan	el B. Dependent Variable: Losing	Job
Mean of Dependent Variable	0.43	0.45	0.45
ocal Border Traffic	0.022	0.017	0.023
	(0.042)	(0.035)	(0.035)
bservations	1,000	1,747	2,169
lusters	50	83	102
-squared	0.029	0.016	0.011
	Panel C	C. Dependent Variable: Look for N	lew Job
Mean of Dependent Variable	0.34	0.33	0.034
ocal Border Traffic	-0.028	0.036	0.043
	(0.061)	(0.053)	(0.052)
bservations	989	1,729	2,153
lusters	50	83	102
-squared	0.038	0.028	0.028
	Panel D. Dependent Variable: Career Advancement		
Mean of Dependent Variable	0.19	0.17	0.17
ocal Border Traffic	0.000	0.018	0.015
	(0.031)	(0.026)	(0.027)
bservations	994	1,734	2,158
lusters	50	83	102
R-squared	0.011	0.011	0.006

Notes: The unit of observation is the individual. In Column 1, the sample consists of all districts that fall within a 25 km band around the discontinuity boundary. In Columns 2 and 3, the sample consists of all districts that fall within a 50 km and 75 km band around the discontinuity boundary, respectively. The regression discontinuity polynomials are cubic polynomials in the distance to the nearest border crossing point. Standard errors clustered at the district-level in parentheses.

Appendix Table 10: Effects on Professional Expectations (continued)

	Measure of Geographic Location: Distance to the Closest Border Crossing		
	(1)	(2)	(3)
	Sample < 25 km	Sample < 50 km	Sample < 75 km
	Panel E	. Dependent Variable: Change Occ	eupation
Mean of Dependent Variable	0.22	0.22	0.22
Local Border Traffic	-0.119	-0.041	-0.033
	(0.033)	(0.031)	(0.030)
Observations	995	1,734	2,160
Clusters	50	83	102
2-squared	0.036	0.015	0.009
	Pane	F. Dependent Variable: Career Se	etback
Mean of Dependent Variable	0.15	0.14	0.15
ocal Border Traffic	0.002	0.008	0.012
	(0.036)	(0.030)	(0.029)
bservations	988	1,718	2,139
lusters	50	83	102
2-squared	0.029	0.012	0.009
	Panel G.	Dependent Variable: Become Self-	Employed
Mean of Dependent Variable	0.09	0.09	0.09
ocal Border Traffic	0.004	0.013	0.003
	(0.021)	(0.021)	(0.020)
Observations	981	1,716	2,133
Clusters	50	83	102
-squared	0.024	0.010	0.005
	Panel H. Dependent Variable: Drop out of Workforce		
Mean of Dependent Variable	0.10	0.10	0.10
ocal Border Traffic	'0.001	0.015	0.018
	(0.029)	(0.022)	(0.021)
Observations	990	1,727	2,149
Clusters	50	83	102
R-squared	0.022	0.019	0.018

Notes: The unit of observation is the individual. In Column 1, the sample consists of all districts that fall within a 25 km band around the discontinuity boundary. In Columns 2 and 3, the sample consists of all districts that fall within a 50 km and 75 km band around the discontinuity boundary, respectively. The regression discontinuity polynomials are cubic polynomials in the distance to the nearest border crossing point. Standard errors clustered at the district-level in parentheses.

Appendix Table 11: Differences in Income

	Measure of Geographic Location: Distance to the Closest Border Crossing		
	(1)	(2)	(3)
	Sample < 25 km	Sample < 50 km	Sample < 75 km
	Panel A. Dependent Variable: Log(Income in May 1989)		
Mean of Dependent Variable †	900.69	900.15	907.43
Local Border Traffic	-0.086	-0.069	-0.065
	(0.042)	(0.034)	(0.032)
Observations	1,267	2,178	2,722
Clusters	50	83	102
R-squared	0.025	0.016	0.016
	Panel A. Dependent Variable: Log(Income in May 1990)		
Mean of Dependent Variable †	997.75	997.99	1,001.54
Local Border Traffic	-0.094	-0.075	-0.074
	(0.055)	(0.039)	(0.037)
Observations	1,289	2,216	2,764
Clusters	50	83	102
R-squared	0.030	0.019	0.019

Notes: The unit of observation is the individual. In Column 1, the sample consists of all districts that fall within a 25 km band around the discontinuity boundary. In Columns 2 and 3, the sample consists of all districts that fall within a 50 km and 75 km band around the discontinuity boundary, respectively. The regression discontinuity polynomials are cubic polynomials in the distance to the nearest border crossing point. Standard errors clustered at the district-level in parentheses. † This row displays the mean of the dependent variable in absolute terms.

Appendix Table 12: Differences in Strength of Repression Apparatus, Party Membership and Mass Organizations

	Measure of Geograp	Measure of Geographic Location: Distance to the Closest Border Crossing		
	(1)	(2)	(3)	
	Sample < 25 km	Sample < 50 km	Sample < 75 km	
	Panel A. Dependent	Panel A. Dependent Variable: Log(Average Number of Informants in 1980s)		
Local Border Traffic	0.020	0.051	0.061	
	(0.103)	(0.098)	(0.091)	
Observations	52	89	114	
R-squared	0.843	0.774	0.805	
	Panel B. Dependent Variable:	Log(Average Number of Party Me	mbers in second half of 1970s)	
Local Border Traffic	0.017	0.023	0.014	
	(0.048)	(0.053)	(0.052)	
Observations	54	92	115	
R-squared	0.974	0.949	0.953	
	Panel C. Dependent Variable: Average Share of FDGB Members among Workers - 1980s			
Local Border Traffic	-0.120	-0.067	-0.135	
	(0.298)	(0.265)	(0.267)	
Observations	66	110	135	
R-squared	0.523	0.508	0.440	

*Notes:* The unit of observation is a Kreis, an administrative district in the GDR. In Column 1, the sample consists of all districts that fall within a 25 km band around the discontinuity boundary. In Columns 2 and 3, the sample consists of all districts that fall within a 50 km and 75 km band around the discontinuity boundary, respectively. The regression discontinuity polynomials are cubic polynomials in the distance to the nearest border crossing point. Robust standard errors in parentheses.

Appendix Table 13: Differences in Arrests

	Measure of Geographic Location: Distance to the Closest Border Crossing		
	(1)	(2)	(3)
	Sample < 25 km	Sample < 50 km	Sample < 75 km
	Panel A. Dependent Vari	able: Log(Number of Arrests due	to Protest (1985 - 1988))
Local Border Traffic	-0.189	-0.206	-0.237
	(0.123)	(0.105)	(0.104)
Observations	260	432	532
Clusters	65	108	133
R-squared	0.693	0.736	0.724
	Panel B. Dependent Vari	iable: Log(Number of Arrests due	to Protest (1981 - 1984))
Local Border Traffic	-0.023	-0.046	-0.060
	(0.057)	(0.050)	(0.048)
Observations	260	432	532
Clusters	65	108	133
R-squared	0.866	0.870	0.854
	Panel C. Dependent Variable:	Log(Number of Arrests due to Li	berty of Speech (1985 - 1988))
Local Border Traffic	-0.088	-0.114	-0.127
	(0.096)	(0.091)	(0.090)
Observations	260	432	532
Clusters	65	108	133
R-squared	0.602	0.588	0.597
	Panel D. Dependent Variable:	Log(Number of Arrests due to Li	berty of Speech (1981 - 1984))
Local Border Traffic	-0.017	-0.009	-0.008
	(0.047)	(0.044)	(0.043)
Observations	260	432	532
Clusters	65	108	133
R-squared	0.599	0.591	0.593

*Notes:* The unit of observation is a Kreis-Year, an administrative district in the GDR observed in a specific year. In Column 1, the sample consists of all districts that fall within a 25 km band around the discontinuity boundary. In Columns 2 and 3, the sample consists of all districts that fall within a 50 km and 75 km band around the discontinuity boundary, respectively. The regression discontinuity polynomials are cubic polynomials in the distance to the nearest border crossing point. All specifications include region-by-year fixed effects. Standard errors clustered at the district-level in parentheses.

Appendix Table 14: Differences in Emigration

	Measure of Geographic Location: Distance to the Closest Border Crossing		
	(1)	(2)	(3)
	Sample < 25 km	Sample < 50 km	Sample < 75 km
	Panel A. Depend	dent Variable: Log(Number of Em	igrants in 1989)
Local Border Traffic	0.079	0.060	0.067
	(0.086)	(0.068)	(0.069)
Observations	65	107	132
R-squared	0.932	0.933	0.931
	Panel B. Depend	ent Variable: Family Members Le	eft East Germany
Local Border Traffic	-0.052	-0.020	-0.043
	(0.040)	(0.036)	(0.036)
Observations	1,337	2,320	2,891
Clusters	50	83	102
R-squared	0.025	0.014	0.012
	Panel C. Deper	ndent Variable: Close Friends Left	t East Germany
Local Border Traffic	0.021	0.038	0.038
	(0.037)	(0.029)	(0.029)
Observations	1,337	2,320	2,891
Clusters	50	83	102
R-squared	0.018	0.007	0.009
	Panel D. Dependent Variable: Colleagues Left East Germany		
Local Border Traffic	0.033	0.028	0.039
	(0.038)	(0.031)	(0.031)
Observations	1,337	2,320	2,891
Clusters	50	83	102
R-squared	0.014	0.016	0.018

Notes: In Panel A, the unit of observation is a Kreis, an administrative district in the GDR. In Panels B to D, the unit of observation is the individual. In Column 1, the sample consists of all districts that fall within a 25 km band around the discontinuity boundary. In Columns 2 and 3, the sample consists of all districts that fall within a 50 km and 75 km band around the discontinuity boundary, respectively. The regression discontinuity polynomials are cubic polynomials in the distance to the nearest border crossing point. Panel A shows robust standard errors in parentheses. Panels B to D show standard errors clustered at the district-level in parentheses.

Appendix Table 15: Robustness to functional form assumptions (distance to nearest border crossing point)

	Measure of Geographic Location: Distance to the Closest Border Crossing			
	(1)	(2)	(3)	
	Sample < 25 km	Sample < 50 km	Sample < 75 km	
	Linea	ar Regression Discontinuity Polyno	omials	
	Panel A. De	Panel A. Dependent Variable: Log(Number of Protest Days)		
Local Border Traffic	0.302	0.319	0.281	
	(0.154)	(0.142)	(0.134)	
p-value	[0.060]	[0.024]	[0.044]	
Observations	65	108	133	
R-squared	0.789	0.703	0.671	
	Panel B.	Dependent Variable: Vote Share Pl	DS - 1990	
Local Border Traffic	-1.341	-1.198	-1.296	
	(0.429)	(0.433)	(0.415)	
p-value	[0.004]	[0.002]	[0.002]	
Observations	6,062	10,530	13,412	
Clusters	64	107	132	
R-squared	0.197	0.246	0.243	
	Quadratic Regression Discontinuity Polynomials			
	Panel C. De	pendent Variable: Log(Number of I	Protest Days)	
Local Border Traffic	0.309	0.306	0.282	
	(0.154)	(0.140)	(0.133)	
o-value	[0.054]	[0.034]	[0.042]	
Observations	65	108	133	
R-squared	0.791	0.707	0.671	
	Panel D. Dependent Variable: Vote Share PDS - 1990			
Local Border Traffic	-1.304	-1.187	-1.315	
	(0.396)	(0.431)	(0.417)	
p-value	[0.004]	[0.002]	[0.000]	
Observations	6,062	10,530	13,412	
Clusters	64	107	132	
R-squared	0.201	0.246	0.243	

Notes: In Panel A and C, the unit of observation is a Kreis, an administrative district in the GDR. In Panels B and D, the unit of observation is a polling station. In Column 1, the sample consists of all districts that fall within a 25 km band around the discontinuity boundary. In Columns 2 and 3, the sample consists of all districts that fall within a 50 km and 75 km band around the discontinuity boundary, respectively. The regression discontinuity polynomials are linear in Panels A and B. In contrast, in Panels C and D, the regression discontinuity polynomials are quadratic. Panel A and C shows robust standard errors in parentheses. Panels B and D display standard errors clustered at the district-level in parentheses. Randomization inference p-values in square brackets.

Appendix Table 16: Robustness to functional form assumptions (latitude & longitude)

	Measure of Geographic Location: Latitude and Longitude			
	(1)	(2)	(3)	
	Sample < 25 km	Sample < 50 km	Sample < 75 km	
	Linea	ar Regression Discontinuity Polyno	omials	
	Panel A. Dependent Variable: Log(Number of Protest Days)			
Local Border Traffic	0.328	0.310	0.320	
	(0.173)	(0.167)	(0.161)	
p-value	[0.088]	[0.098]	[0.082]	
Observations	65	108	133	
R-squared	0.790	0.702	0.672	
	Panel B.	Dependent Variable: Vote Share Pl	DS - 1990	
Local Border Traffic	-1.788	-1.085	-0.998	
	(0.457)	(0.432)	(0.442)	
p-value	[0.002]	[0.016]	[0.036]	
Observations	6,062	10,530	13,412	
Clusters	64	107	132	
R-squared	0.205	0.250	0.245	
	Quadratic Regression Discontinuity Polynomials			
	Panel C. De	Panel C. Dependent Variable: Log(Number of Protest Days)		
Local Border Traffic	0.452	0.369	0.337	
	(0.188)	(0.165)	(0.160)	
p-value	[0.006]	[0.024]	[0.040]	
Observations	65	108	133	
R-squared	0.812	0.746	0.713	
	Panel D. Dependent Variable: Vote Share PDS - 1990			
Local Border Traffic	-1.913	-1.219	-1.052	
	(0.415)	(0.379)	(0.400)	
p-value	[0.000]	[0.024]	[0.044]	
Observations	6,062	10,530	13,412	
Clusters	64	107	132	
R-squared	0.212	0.260	0.250	

Notes: In Panel A and C, the unit of observation is a Kreis, an administrative district in the GDR. In Panels B and D, the unit of observation is a polling station. In Column 1, the sample consists of all districts that fall within a 25 km band around the discontinuity boundary. In Columns 2 and 3, the sample consists of all districts that fall within a 50 km and 75 km band around the discontinuity boundary, respectively. The regression discontinuity polynomials are linear in Panels A and B. In contrast, in Panels C and D, the regression discontinuity polynomials are quadratic. Panel A and C shows robust standard errors in parentheses. Panels B and D display standard errors clustered at the district-level in parentheses. Randomization inference p-values in square brackets.

Appendix Table 17: Robustness to functional form assumptions (distance to discontinuity boundary)

	Measure of Geographic Location: Distance to Discontinuity Boundary			
	(1)	(2)	(3)	
	Sample < 25 km	Sample < 50 km	Sample < 75 km	
	Line	ear Regression Discontinuity Polyno	omials	
	Panel A. D	Panel A. Dependent Variable: Log(Number of Protest Days)		
Local Border Traffic	0.314	0.345	0.284	
	(0.149)	(0.149)	(0.136)	
o-value	[0.052]	[0.034]	[0.064]	
Observations	65	108	133	
R-squared	0.790	0.707	0.672	
	Panel B.	Dependent Variable: Vote Share Pl	DS - 1990	
Local Border Traffic	-1.509	-1.437	-1.455	
	(0.404)	(0.390)	(0.384)	
o-value	[0.004]	[0.002]	[0.000]	
Observations	6,062	10,530	13,412	
Clusters	64	107	132	
R-squared	0.197	0.246	0.242	
	Quadratic Regression Discontinuity Polynomials			
	Panel C. D	ependent Variable: Log(Number of l	Protest Days)	
Local Border Traffic	0.305	0.306	0.307	
	(0.146)	(0.145)	(0.140)	
p-value	[0.062]	[0.050]	[0.046]	
Observations	65	108	133	
R-squared	0.793	0.711	0.673	
	Panel D. Dependent Variable: Vote Share PDS - 1990			
Local Border Traffic	-1.470	-1.324	-1.529	
	(0.405)	(0.388)	(0.391)	
o-value	[0.004]	[0.004]	[0.000]	
Observations	6,062	10,530	13,412	
Clusters	0.198	0.247	0.243	
R-squared	64	107	132	

Notes: In Panel A and C, the unit of observation is a Kreis, an administrative district in the GDR. In Panels B and D, the unit of observation is a polling station. In Column 1, the sample consists of all districts that fall within a 25 km band around the discontinuity boundary. In Columns 2 and 3, the sample consists of all districts that fall within a 50 km and 75 km band around the discontinuity boundary, respectively. The regression discontinuity polynomials are linear in Panels A and B. In contrast, in Panels C and D, the regression discontinuity polynomials are quadratic. Panel A and C shows robust standard errors in parentheses. Panels B and D display standard errors clustered at the district-level in parentheses. Randomization inference p-values in square brackets.