Supplementary Materials: Economic Opportunities, Emigration and Exit Prisoners

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Appendix A Theoretical Analysis

A.1 Baseline Model

Model Setup The players of the game are an authoritarian regime, denoted R, and a citizen C (the citizen could either be an individual or a collective agent such as a household). We focus on two endogenous choices: the regime chooses a level of effort to stop the citizen from leaving whereas the citizen chooses whether or not to *attempt* exiting the polity. The citizen's decision to attempt leaving (instead of staying) is represented by $e \in \{0, 1\}$, where e = 1 means that the citizen attempts to exit the polity. Hurdles to emigration are denoted by r and consists of two parts: an exogenously fixed and observable portion $f \in [0, \overline{f})$, and an endogenously chosen and *unobserved* portion $v \in [0, 1 - \overline{f}]$.¹ Total hurdles are the sum of the exogenous and endogenous portions of the emigration prevention, i.e., r = f + v.

We interpret the variable f as *institutions* that prevent the citizen from successfully emigrating, and are known to the citizen to have this effect, perhaps because they have been implemented in the past and are therefore widely visible. For example, emigration taxes or border walls are formidable and observable hurdles for citizens seeking to emigrate. By contrast, we interpret the choice v as a policy or level of *effort*, i.e., more fine-grained and unobserved measures to prevent emigration. For example, covert border patrols are often used to stop citizens from leaving the polity.²

We model the consequences of emigration hurdles as follows: suppose that the citizen attempts to leave the polity (i.e., e = 1), but due to the regime's efforts, he is not necessarily successful: he might end up in prison instead. Denote the outcome where the citizen is arrested by O = A. This is a function of the exogenous institutions, the endogenous level of effort, and the citizen's activity. In particular, the probability of an arrest is equal to: $Pr(O = A|r, e) = e \cdot r = e \cdot (f + v)$. The other outcomes are that the citizen remains in the polity (O = P) or successfully exits the polity (O = E). These happen with probability Pr(O = P|r, e) = 1 - e and $Pr(O = E|r, e) = e \cdot (1 - r)$,

¹The upper limit \overline{f} is a function of other parameters in the model—as detailed below—and required to ensure an interior equilibrium. Furthermore, the restriction that $v \leq 1 - \overline{f}$ stems from the fact that effort r is a probability, thus $r = f + v \in [0, 1]$.

²In essence, our conceptualization of the hurdles that prevent emigration are close to *repression* in the sense that they prevent the citizen from exerting his right to move abroad. Restricting citizens' freedom of moving abroad is a form of repression, since Article 13 (2) of the United Nation's Universal Declaration of Human Rights states that "everyone has the right to leave any country, including his own."

respectively.

Both the regime and the citizen have preferences over these three outcomes $O \in$ $\{E, A, P\}$ which we denote by $U_R(O)$ and $U_C(O)$, respectively. Existing scholarship has outlined some of the sources of these preferences. For example, some authoritarian regimes prefer to see dissidents to move abroad, since they are then less likely to mobilize against the regime (Hirschman, 1993). Similarly, a citizen might be motivated by ideological disagreement with the regime, family networks, and economic opportunities abroad (Tiebout, 1956; Massey et al., 1993).

For our model, we are agnostic about the exact source of the players' preferences. However, we make three assumptions about the general properties of players' preferences: first, we assume being in prison is the worst outcome for the citizen, i.e., $U_C(A) < 0$ $\min(U_C(Q), U_C(E))$. Second, we assume as economic opportunities abroad increase, the payoff of being in this policy increases $\left(\frac{\partial U_C(E,o)}{\partial o} > 0\right)$ at a decreasing rate $\left(\frac{\partial^2 U_C(E,o)}{\partial o^2} < 0\right)$. Third, we assume that economic opportunities abroad do not affect the regime's preferences. In particular the latter assumption simplifies the model setup and is consistent with our identification strategy in the empirical analysis.³

Both the attempt to leave as well as exerting effort are costly to the citizen and the regime. We assume that the costs of attempting to leave, denoted c, is the citizen's private information, and the regime only knows that c is drawn from a distribution Gwith support $[c, \overline{c}]$. Moreover, the regime's costs for exerting effort to restrict emigration are given by the function K(v), with K being strictly increasing and strictly convex.⁴

Since neither player can observe the other player's choice, the effort choice and the choice to attempt leaving are simultaneous and constitute the first stage of the game. In the second stage nature realizes the outcomes according to the probabilities described above.

We first investigate the equilibrium of the model when economic opportunities abroad are common knowledge. Later on, we scrutinize the case when economic opportunities abroad may be imperfectly known, with both the citizen and the regime believing that o is distributed according to a cumulative distribution function F.

Strategies The regime's strategy is a scalar number $v \in [0, 1 - \overline{f}]$. The citizen's strategy is a function mapping the private costs of leaving into an exit choice, i.e., $e: [\underline{c}, \overline{c}] \to \{0, 1\}$.

³Formally, we have that $\frac{\partial U_j(O)}{\partial o} = 0$ for all $(j, O) \in \{C, R\} \times \{A, E, P\}$ such that $(j, O) \neq (C, E)$. ⁴In addition, K(0) = 0, K'(0) = 0, and $\lim_{v \to 1-\overline{f}} K'(v) = \infty$.

The solution concept is Bayesian Nash Equilibrium.

Best Responses Consider the citizen's calculus first (holding the regime's strategy v fixed). While the expected utility of remaining in the polity is $U_C(P)$, the expected utility of leaving given the costs c is: $rU_C(A) + (1-r)U_C(E) - c$. Thus, the citizen leaves if and only if:

$$U_C(E) - U_C(P) - r \left[U_C(E) - U_C(A) \right] \ge c.$$
(1)

The right-hand side is increasing in c. Thus, the citizen will employ a threshold strategy where he attempts to leave if and only if $c \leq \tilde{c}$, where the threshold \tilde{c} is a function of effort to prevant emigration:

$$\tilde{c}(v) = U_C(E) - U_C(P) - (f+v) \left[U_C(E) - U_C(A) \right].$$
(2)

Note that the citizen's best response is decreasing in $v \left(\frac{\partial \tilde{c}}{\partial v} = -\left[U_C(E) - U_C(A)\right] < 0$ by the fact that for the citizen, being in prison is the worst outcome) which means that a higher levels of repression will deter the citizen from attempting to leave.

Remark This deterrence effect is more pronounced in an alternative specification of the model where the regime chooses its level of effort *before* the citizen attempts to exit and the citizen can perfectly observe the regime's choice. In this case, the regime fully internalizes the effect of its choice on the citizen's strategy when choosing a level of effort. Further details on the equilibrium of this specification are available upon request. Substantively, we believe the simultaneous move version to be of greater relevance: first, some important policies are clearly unobservable—e.g., border controls—and these were very important for our main empirical case, the GDR. Second, in authoritarian regimes, perfect observability seems an implausible assumption—citizens often seem in doubt about the regime's exact policy or action, and the simultaneous move equilibrium is akin to an equilibrium where the citizens receives an arbitrarily precise signal about the regime's policy (see Bagwell, 1995).

Finally, in order to guarantee an interior equilibrium, we assume that when the regime's effort choice is minimal, i.e., v = 0, there are some citizen types who leave and some who stay: $\underline{c} < U_C(E) - U_C(P) - f [U_C(E) - U_C(A)] < \overline{c}$. Note that for $\underline{c} > 0$, this requires that $U_C(E) > U_C(P)$ which we will assume for the remainder of the analysis. Moreover, the condition also implies that $f < \frac{U_C(E) - U_C(P) - c}{U_C(E) - U_C(A)} \equiv \overline{f}$, meaning that the

exogenous portion of emigration hurdles f cannot be too large.

What is the regime's best response to the citizen's strategy? When the citizen employs a threshold strategy, from the regime's perspective, the probability of an emigration attempt is $G(\tilde{c})$. Thus, the regime's optimization problem for its policy can be written as follows:

$$\max_{v \in [0,1-f]} (1 - G(\tilde{c})) U_R(P) + G(\tilde{c}) [(f+v)U_R(A) + [1 - (f+v)]U_R(E)] - K(v), \quad (3)$$

and the first-order condition for an interior solution is:

$$G(\tilde{c})[U_R(A) - U_R(E)] - K'(v) = 0.$$
(4)

First, for every strategy \tilde{c} of the citizen, the regime's repression policy is unique since the objective function is strictly concave $\frac{\partial^2}{\partial v^2} = -K'' < 0$. Second, the regime's best response function (which is implicitly defined by equation 4) is increasing in the citizen's strategy \tilde{c} . To see this, compute:

$$\frac{\partial v^*}{\partial \tilde{c}} = -\frac{g\left(\tilde{c}\right)\left[U_R(A) - U_R(E)\right]}{-K''} > 0, \tag{5}$$

where g = G' is the density of the distribution function G.

For such a positive level effort to prevent emigration (i.e., $v^* > 0$), the preceding expression shows that citizen exit needs to be a *threat*. Formally, the citizen has some proclivity of leaving $(G(\tilde{c}) > 0)$, which is ensured by $\underline{c} < U_C(E) - U_C(P)$), and the regime is better off having the citizen in prison, rather than having the citizen in a different polity $(U_R(A) - U_R(E) > 0)$.

Equilibrium Given that the citizen's best response is decreasing in the regime's strategy and the regime's strategy is increasing in the citizen's, the players' best response functions uniquely intersect. Thus, the game features a unique equilibrium, with the following equilibrium strategies:

$$\tilde{c}^* = \Delta_C^P - \Delta_C^S \left(f + v^* \right)$$
$$v^* = H \left(G \left(\tilde{c}^* \right) \Delta_R^S \right),$$

where $H \equiv (K')^{-1}$, $\Delta_R^S = U_R(A) - U_R(E) > 0$, $\Delta_C^P \equiv U_C(E) - U_C(P) > 0$, and $\Delta_C^S \equiv U_C(E) - U_C(A) > 0$.

Comparative Statics: Strategies We now consider how the players' equilibrium strategies change as economic opportunities abroad improve. Consider the citizen's strategy first. Plugging in the solution for v^* , we define the following function:

$$\Gamma\left(\tilde{c}\right) \equiv \tilde{c} - \Delta_{C}^{P} + \Delta_{C}^{S}\left(f + H\left(G\left(\tilde{c}\right)\Delta_{R}^{S}\right)\right).$$
(6)

The equilibrium cutoff is given by the (unique) solution to the equation $\Gamma(\tilde{c}^*) = 0$. To investigate the effect of a change in economic opportunities o, we employ the Implicit Function Theorem to compute:

$$\frac{\partial \tilde{c}^*}{\partial o} = -\frac{\frac{\partial \Gamma}{\partial o}}{\frac{\partial \Gamma}{\partial \tilde{c}}}.$$
(7)

We will show that this is expression is positive. In particular, we demonstrate that $\frac{\partial\Gamma}{\partial o} < 0$ while $\frac{\partial\Gamma}{\partial \tilde{c}} > 0$. Consider $\frac{\partial\Gamma}{\partial \tilde{c}}$ first. We have:

$$\frac{\partial \Gamma}{\partial \tilde{c}} = 1 + \Delta_C^S H' \left(G\left(\tilde{c}\right) \Delta_R^S \right) \Delta_R^S g\left(\tilde{c}\right).$$
(8)

Consider H':

$$H'(\cdot) = \left((K')^{-1} \right)'(\cdot) = \frac{1}{K'' \left((K')^{-1} \left(\cdot \right) \right)} > 0, \tag{9}$$

where the inequality follows by convexity. Thus $\frac{\partial \Gamma}{\partial \tilde{c}} > 0$. Now consider $\frac{\partial \Gamma}{\partial o}$:

$$\frac{\partial \Gamma}{\partial o} = -\frac{\Delta_C^P}{\partial o} + \frac{\Delta_C^S}{\partial o} \left(f + H \left(G \left(\tilde{c} \right) \Delta_R^S \right) \right).$$
(10)

Since o affects Δ^P and Δ^S through $U_C(E, o)$, we can rewrite this as follows:

$$\frac{\partial U_C(E)}{\partial o} \left[f + H \left(G \left(\tilde{c} \right) \Delta_R^S \right) - 1 \right].$$
(11)

But this is negative, since $H\left(G\left(\tilde{c}\right)\Delta_{R}^{S}\right)\in(0,1-f)$, which proves that $\frac{\partial\tilde{c}^{*}}{\partial o}>0$.

To show that the regime's effort increases with economic opportunities, define the following function:

$$\Psi(v) \equiv v - H\left(G\left(\Delta_C^P - \Delta_C^S\left(f+v\right)\right)\Delta_R^S\right).$$
(12)

The equilibrium policy is the (unique) solution of the equation $\Psi(v^*) = 0$. In order to obtain the effect of opportunities on emigration enforcement effort, compute:

$$\frac{\partial v^*}{\partial o} = -\frac{\frac{\partial \Psi}{\partial o}}{\frac{\partial \Psi}{\partial v}}.$$
(13)

Consider the denominator first:

$$\begin{aligned} \frac{\partial \Psi}{\partial v} &= 1 - H' \left(G \left(\Delta_C^P - \Delta_C^S \left(f + v \right) \right) \Delta_R^S \right) \Delta_R^S g \left(\Delta_C^P - \Delta_C^S \left(f + v \right) \right) \left(-\Delta_R^S \right) \\ &= 1 + \Delta_R^S \Delta_C^S g \left(\cdot \right) H' \left(\cdot \right) > 0, \end{aligned}$$

where the inequality follows from H' > 0 as shown in 9.

Now consider the numerator:

$$\frac{\partial \Psi}{\partial o} = -H'(\cdot) \,\Delta_R^S g(\cdot) \left(\frac{\partial U_C(E,o)}{\partial O} \left[1 - (f+v)\right]\right) < 0,\tag{14}$$

where we again use the fact that H' > 0 by the convexity of K. Thus, we have $\frac{\partial v^*}{\partial o} > 0$. **Comparative Statics: Outcomes** Lastly, we analyze how *outcomes* (which are functions of *both* players' strategies) change as economic opportunities abroad improve. In particular, we scrutinize how the equilibrium probability of an arrest and the equilibrium probability of successful exit change when opportunities abroad increase.

Concerning the probability of an arrest, $Pr(O = A | e^*, v^*) = G(\tilde{c}^*)(f + v^*)$, we have:

$$\frac{\partial}{\partial o} = \underbrace{g\left(\tilde{c}^*\right) \frac{\partial \tilde{c}^*}{\partial o} \left(f + v^*\right)}_{\text{More Citizens}} + \overbrace{G\left(\tilde{c}^*\right) \frac{\partial v^*}{\partial o}}^{\text{Tighter Policy}} > 0.$$

The inequality follows from the comparative statics on strategies derived above. The

first quantity in the preceding expression represents the fact that more citizen types attempt to leave as a result of increased attractiveness of the destination country. The second quantity shows that the regime tightens its enforcement policy, making it more likely that the citizen is detected and imprisoned.

Concerning the probability of a successful exit, $Pr(O = E|e^*, v^*) = G(\tilde{c}^*) [1 - (f + v^*)]$, we have:

$$\frac{\partial}{\partial o} = g\left(\tilde{c}^*\right) \frac{\partial \tilde{c}^*}{\partial o} \left[1 - (f + v^*)\right] + G\left(\tilde{c}^*\right) \left(-\frac{\partial v^*}{\partial o}\right).$$

Without making further assumptions on the primitives, it is not possible to sign this expression: improving economic opportunities abroad increases the pool of citizens attempting to leave, but since the regime's effort is also increasing, it is not clear that there will be more emigrants.

A.2 Extension: Imperfect Information

Now suppose that economic opportunities abroad are unknown and uncertainty is symmetric, i.e., both the regime and the citizen believe that economic opportunities are draws from a cumulative distribution function F. The analysis proceeds as before, the only difference is that $U_C(E, o)$ is replaced by $\mathbb{E}[U_C(E, o)]$. To see this, consider the expected utility for the citizen to attempt to leave:

$$\mathbb{E}\left[rU_{C}(A) + (1-r)U_{C}(E,o) - c\right],$$
(15)

where the expectations operator $\mathbb{E}\left[\cdot\right]$ averages over the distribution of opportunities o. Exploiting the linearity of the expectation operator, one can re-write the preceding expression as:

$$rU_C(A) + (1-r)\mathbb{E}\left[U_C(E,o)\right] - c.$$
 (16)

Thus, instead of $U_C(E, o)$, the citizen considers $\mathbb{E}[U_C(E, o)]$ when considering an attempt to leave the polity.

Preceding as before, both the citizen's equilibrium threshold \tilde{c}^* and the regime's equilibrium repression level v^* are increasing in $\mathbb{E}[U_C(E, o)]$. Similarly, the probability of an arrest is increasing in $\mathbb{E}[U_C(E, o)]$ while the probability of a successful exit is ambiguous in $\mathbb{E}[U_C(E, o)]$.

The last step considers how changes in beliefs translate into differences in $\mathbb{E}[U_C(E, o)]$. First, since $U_C(E, o)$ is increasing in o, we know that for two distributions F and F', if F first-order stochastically dominates F', then

$$\mathbb{E}_F\left[U_C(E,o)\right] \ge \mathbb{E}_{F'}\left[U_C(E,o)\right]. \tag{17}$$

Similarly, by the assumed concavity of $U_C(E, o)$ in opportunities o, we know that for two distributions F and F', if F second-order stochastically dominates F', then again

$$\mathbb{E}_F[U_C(E,o)] \ge \mathbb{E}_{F'}[U_C(E,o)]. \tag{18}$$

Thus, we have two predictions: first, as citizens become more optimistic about economic opportunities abroad, the probability of arrest increases. When citizens have weakly rational expectations—i.e., expectations about economic development abroad are monotonically related to actual economic development abroad, we can interpret our first empirical result in the main text as a test of this prediction. Second, as the variability of beliefs about economic opportunities decrease, the probability of arrest increases. This is our second hypothesis we test in the main text.

Appendix B Political Prisoner Database

The first version of the political prisoner database went live in 1979 on magnetic tape. Whenever a new prisoner was admitted to a prison, a standard form with his demographics and details about his crime and sentence was sent to the central computing agency and digitized using a predecessor of today's optical character recognition (OCR) technology. The responsible officer had to use a specially printed form and a standardized German letterset meant to guarantee error-free transcription into the database. Throughout its lifetime the database was used by officials to retrieve information about trends in criminal offenses that the East German government deemed politically relevant. For example, figure B1 shows a picture of a request by the head of the East German prison regime, Major General Lustik, for a list of all prisoners charged with illegally attempting to emigrate tabulated by gender, punishment, and type of imprisonment.

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Figure B1: On January 13 1984, the head of the East German prison regime, Major General Lustik requested a list of all prisoners charged with illegally attempting to emigrate tabulated by gender, punishment, and type of imprisonment (Ministerium des Inneren, 1984a).

The database contains each prisoner's demographic information, including his or her occupation and last employment and details about the crime and the sentence. Unfortunately, it does not include information about how and in what circumstances the regime arrested a particular citizen. Importantly, however, the three most serious offenses committed by each prisoner are recorded using the relevant section of the GDR criminal code.

B.1 Rebuilding the Database

We obtained two anonymized copies of the original GDR prisoner database: the AKTE copy and the TK copy. Each copy consists of a number of files as well as a (very basic) documentation assembled by the Federal Archives of Germany (*Bundesarchiv*). In both copies, an entry records the imprisonment of a person at a particular date and the corresponding court judgment. Individuals are identifiable via a random ID number assigned by the Federal Archives.

When the database was introduced, it contained each prisoner arrested after December 31, 1978, and every prisoner arrested before December 31, 1978, but with an expected release date after December 31, 1979 (Ministerium des Inneren, 1978). The precise relationship between the TK and the AKTE copy remains unknown. One document in the archival documentation suggests that the AKTE copy was generated to reduce the memory load of the prisoner database by subsetting it on March 19, 1988, with a cutoff date of December 31, 1984 (Ministerium des Inneren, 1988). Based on a comparison with the aggregate time series of the total prisoner population (see below), we presume that the AKTE copy was intended to contain all entries of prisoners released prior to December 31, 1984.

The total number of observations in the AKTE copy is 170,467. Among those, there are 143,242 individual imprisonments. About 82.7% of these imprisonments have a single court judgment and 15.6% have two judgments. Two individual imprisonments display six judgments, which is the maximum number of judgments in this copy.

For our analysis, the most important information is the record of each prisoner's statutory offenses. For each judgment, the three most serious statutory offenses are recorded in three separate variables. Each offense is recorded with the respective section number of the criminal code (*Strafgesetzbuch*). While many entries are incorrectly formated, we were able to decode most of them. In only about 0.4%, there is no indication of any offenseeither because there is no entry or we were unable to match the entry to any of the statutory offenses that existed in the GDR. There are only 475 individual imprisonments (0.3%) where we have no information on the type of offense.

In contrast to the AKTE files, the TK files consists of two parts: TK4 (18 files) and TK5 (20 files).⁵ The TK5 files contain the information for all court rulings for each of the individual imprisonments in the TK4 files. Unfortunately, the TK5 files display some formatting errors. Thus, we first used the csvkit⁶ to parse each file for errors. Encountering an error, the csvkit splits the file into two parts: one with the lines that parse without an error and those that are erroneous. We then inspected each erroneous record manually using Sublime Text's Advanced CSV package⁷.

Across the files, the errors occurred in the last four columns of a file which records information about the last edit of the file and similar data-processing information. In figures B2 and B3, we illustrate this part of a file, which we identify by sorting the files with csvkit such that badly formated areas cluster. During this process, we deleted six records that have been completely corrupted without any identifiable markers to reconstruct their logical structure.

Another complication with the TK copy (both TK4 and TK5) is that many entries are duplicates. About 93% of the records are listed 8 or 9 times. From our archival research, we know that these duplications occurred on a regular basis when a record is corrected by the database maintanance staff. The old record is then flagged separately before being deleted. We also found evidence in the archival sources that the staff faced problems will unintentional duplications of records for unknown technical reasons (Ministerium des Inneren, 1984b, 1986a, 1986b, 1988, 1989).

In order to de-duplicate the data, we first delete all perfect duplicates and the 107 rows of the data that have no valid imprisonment date. These rows belong to 71 individuals who are observed at least one other time in the files, while the other 35 are individuals who are only observed once. Among the remaining entries, we used the one that appears most often in the data. In four instances, two entries happen to be observed equally often. For these instances, we used the entry that appeared most plausible given the available information.

⁵There is also a file among the TK5 files with 95,851 rows. This file has a completely different structure. Instead of 33 columns, it has only 24 columns and for most columns the types of values for each column do not appear in any of the other files. We dropped this file from our analysis.

⁶https://github.com/wireservice/csvkit

⁷https://github.com/wadetb/Sublime-Text-Advanced-CSV

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information ted potentiany personal renac Ne Ne Figure B2: Illustration of a TK5 file segment with ill-formatted rows in the upper part. with black rectangles.



Figure B3: Illustration of a TK5 file segment after ill-formatted rows are re-formatted. We redacted potentially personal information with black rectangles. We proceeded in essentially the same way with the TK5 files (the court rulings). We first eliminated perfect duplicates (N=386,725). From the remaining observations (N=437), we used the observation that appeared most often in the data. We are left with 32 observations where both entries are observed an equal number of times. Unable to make an informed decision about which entry is the correct one, we used both entries pretending that they constitute multiple judgments on the same case. There are only 606 individual imprisonments (0.15%) where we have no information on the type of crime.

We then matched the TK4 files with the TK5 files, retaining all entries from the TK4 files (a left join). We are unable to find a match in TK5 for 14.6% of the individual imprisonments in the TK4 files (39,678). At first sight, this may suggest that for these imprisonments, we cannot determine if the person was a political or ordinary prisoner. However, as we show next, we have reason to believe the unmatched observations contain almost no political prisoners.

We used the AKTE and TK copy to estimate two time series of aggregate totals and compare them with the time series reported in Schröder and Wilke (1998) who calculated the annual total numbers of prisoners in various categories based on other archival materials. We compare two time series: i) the annual totals of the entire prisoner population and ii) the annual totals of prisoners sentenced due to illegally crossing the border (§213 -Ungesetzlicher Grenzübertritt). The later category essentially constitutes the population for our definition of political prisoner. In figure B4 and B5, we show the overlayed time series.

With respect to the totals (figure B4), the AKTE copy matches the Schröder-Wilke series very well in 1981 and 1982 but displays slightly lower population figures in 1979 and 1980. The estimate for 1983 is too low suggesting the AKTE copy is only accurate up to and including 1982. This is not quite consistent with the notion that the AKTE copy contains the state of the database until December 31, 1984. While the AKTE copy shows a slightly lower total prisoner population, the TK copy implies a larger one from 1984 to 1989. This is especially true when we use all observations instead of only where there is a match in the TK5 files.

With respect to the total numbers of prisoners sentenced due to illegally crossing the border, the AKTE copy traces the Schröder-Wilke time series very well during 1979-1982 but again displays a lower number in 1983. In contrast to the results for the total population of prisoners, the TK copy traces the Schröder-Wilke time series also quite well up to 1987 (with a slightly higher number in 1986), but then records many more prisoners



--- Schröder/Wilke -- AKTE --- TK (all) -- TK (matched)

Figure B4: Total number of prisoners as estimated from the AKTE and TK copy of the GDR prisoner database as well as the aggregate statistics as reported in Schröder and Wilke (1998, Table 8).

for 1988 than the Schröder-Wilke series suggests. The last deviation is presumably a function of different reference dates.

B.2 Occupation Classification

In order to link the observations from the GDR prisoner database with the official openposition statistic from the FRG, we classify each occupation reported in the prisoner database into one of 38 major occupation groups for which the FRG reported statistics during the study period. These major occupation groups come from a fine-grained scheme developed by the statistical office of the FRG to classify occupations (Statistisches Bundesamt, 1992).

The GDR prisoner database contains about 2500 unique occupation codes based on a standardized occupation classification scheme (*Systematik der Berufe*) which is part of the larger set of economic classification schemes (*Volkswirtschaftliche Arbeitskräftsystematik*,



--- Schröder/Wilke -- AKTE --- TK (all/matched)

Figure B5: Total number of prisoners sentenced for illegally crossing the border ($\S 213$ - Ungesetzlicher Grenzübertritt) as estimated from the AKTE and TK copy of the GDR prisoner database as well as the aggregate statistics as reported in Schröder and Wilke (1998, Table 8).

VAKS) issued by the regime in the late 1970s. A brief introduction to this scheme appears in Solga (1993). The original documentation of the prisoner database contains 2354 occupation codes and the accompanying occupation name. We supplemented this information with a series of occupation codes from a project by Axel Salheiser at the University of Jena (Salheiser, 2009).

Table B1 shows the proportion of different types of occupation codes per sample. While the proportion of codes that we have been able to decode is higher for the TK copy relative to the AKTE copy, the TK copy features a larger proportion of missing occupation codes which is presumably the result of an inconsistent application of the coding rules by the staff to designate students and unemployed prisoners with a special NIU (not in universe) occupation code.

For an initial categorization of the occupations, we use a simple unsupervised classification algorithm that assigned a GDR occupation to a FRG occupation category based

	AKTE	ΤK
Known	0.53	0.62
Unknown	0.003	0.001
Missing	0.21	0.34
NIU	0.26	0.02

Table B1: Proportion of different types of occupation codes per sample. Occupation codes of type "known" are documented in the materials available to the authors while those of type "unknown" are either undocumented or only encode a broader category of occupations. NIU ('not in universe') is a special code assigned to everyone that is unemployed or student.

on the similarity between occupation name and the names of all occupations that are part of the respective FRG occupation category. We then evaluated the list manually and corrected mis-classified occupations using the website www.klassifikationsserver.de. This website allows us to look up the respective occupation code based on (informal) versions of the occupation name.

The categorization was further simplified by the availability of a partial correspondence list for all occupations that require an apprenticeship in the FRG. Issued in 1990 by the Federal Institute for Vocational Education and Training (Bundesinstitut für Berufsbildung, 1990), it lists the official occupation name in the GDR along with the name in the FRG. We also integrate the short correspondence list compiled by Scheuer et al. (1992) for the occupations related to metal processing, electricians and mechanics.

Appendix C Descriptive Statistics

Occupation Group	Average
Locksmiths, mechanics and related professions	79.58
Building professions	57.58
Farmer and Fishermen	24.64
Metal producers and metal workers	21.28
Electricians	20.39
Food industry professions	19.19
Engineers, chemists, physicists, mathematicians, technicians, specialists	10.14
House painters, varnishers and related professions	9.50
Transport professions	8.36
Textile and clothing industry professions	6.56
Storekeeper, Warehouse and Transport Worker	5.81
Health professions	5.78
Merchants	5.31
Hotel staff	5.28
Machine operators and related professions	5.22
Carpenters, model makers	4.64
Decorators, upholsterers	4.39
Chemical workers, plastics processors	4.19
Stonemasons, construction material manufacturers	4.00
Organizational and administrative professions, clerical occupations	3.53
Social and educational professions, scientific careers if not stated otherwise	3.33
Leather manufacturers, leather processors and furriers	2.42
Timber preparators, manufacturers of wood products	2.36
Ceramists, glassmakers	2.22
Print workers	1.50
Cleaning Services	1.31
Artistic professions	1.19
Product testers, packers, shipping employees	1.17
Personal care professions	1.11
Forestry Workers	0.97
Paper manufacturers	0.64
Miners, mineral extraction workers	0.58
Public safety, corrections and security professions	0.58
Service professions	0.53
Housekeeping	0.33
Authors, Interpreters, librarians	0.22
Assembly workers and metal professions	0.00
Unskilled laborers	0.00

Table C2: Average number of quarterly arrests by the GDR for 38 occupation groups.

Appendix D Robustness: Economic Opportunities & Repression

In this section, we show that our main finding is robust to alternative specifications of the independent and dependent variable. Except for table D4 where we show the estimates from a negative binomial regression, all other estimates are OLS estimates with standard errors clustered by 38 occupation groups. The sample size is always N = 1,368 unless otherwise reported. In table D3, we replicate the main specifications but top-code values of the dependent and independent variable that exceed the 95% quantile of the empirical distribution. Table D5 presents the results for the interactive fixed effect regression as developed in Bai (2009) and table D7 the results from a first-difference regression. In table D6, we replicate the main specifications using a binary version of the $jobs_{t-1}$ variable (many $jobs_{(t-1)}$). This binary version takes the value '1' if the number of open positions is larger than the 75% quantile of the empirical distribution. In figure D6, we replicate the estimates from M3 in D6 for different choices of the quantile cut-point. We also estimate the effect separately for prisoners that used to live in counties with and without TV access (table D8 and table D9). For the definition of TV access see Supplementary Materials E.

Lastly, we collected data on successful escapes from archival records of the West German government about the number of persons that filed an application for an official status (see Supplementary Materials H for the source). While East German immigrants could go to any West German registry office and obtain a passport and an ID card, there were large incentives to file an application for official refugee status. If granted, refugee status meant that the applicant was eligible to receive additional financial assistance to begin his or her new life in the FRG. While the rejection rates were high at first (62.9% in 1950), they saw a steep decline in the next few years, bottoming out at just 3.8% in 1957 and 1.0% thereafter (Bethlehem, 1982, p. 93).⁸ We use this data to construct the ratio $\frac{\# \text{ exit prisoners}}{\# \text{ exit prisoners} + \# \text{ successful emigrants}}}$ and correlate this variable with a measure of economic opportunities. The results are shown in table D10.

⁸See (Kimmel, 2005) for more details on the process by which refugees are granted permission to stay in West Germany (*Notaufnahmeverfahren*).

M1	M2	M3	M4
2.56	18.74***	9.94***	8.81***
(1.44)	(1.27)	(1.32)	(2.32)
1.15^{*}	0.04	0.66^{**}	1.08^{**}
(0.57)	(0.07)	(0.23)	(0.37)
No	Yes	Yes	No
No	Yes	Yes	No
No	No	Yes	No
No	No	No	Yes
No	No	No	Yes
	M1 2.56 (1.44) 1.15* (0.57) No No No No No	M1M22.5618.74***(1.44)(1.27)1.15*0.04(0.57)(0.07)NoYesNoYesNo	M1M2M32.5618.74***9.94***(1.44)(1.27)(1.32)1.15*0.040.66**(0.57)(0.07)(0.23)NoYesYesNoYesYesNoNoYesNoNoYesNoNoNoNoNoNoNoNoNoNoNoNoNoNoNo

 $^{***}p < 0.001, \,\,^{**}p < 0.01, \,\,^{*}p < 0.05$

Table D3: Top-coded data. Estimates of the effect of the number of open positions (per 1000) in the FRG ($jobs_{t-1}$) top-coded for values exceeding the 95% quantile on the number of GDR political prisoners in a quarter-year (also top-coded for values larger than the 95% quantile).

	M1	M2	M3	M4
(Intercept)	1.187***	2.162***	2.118***	2.372***
	(0.239)	(0.0729)	(0.0819)	(0.0592)
$jobs_{t-1}$	0.143^{***}	0.00638^{*}	0.0101^{**}	0.0327^{***}
	(0.0360)	(0.00322)	(0.00322)	(0.00875)
Occupation FE	No	Yes	Yes	No
Quarter-Year FE	No	Yes	Yes	No
Occupation Trend	No	No	Yes	No
Occupation-Year FE	No	No	No	Yes
Quarter FE	No	No	No	Yes

*** $p < 0.001, \, {}^{**}p < 0.01, \, {}^{*}p < 0.05$

Table D4: Estimates of the effect of the number of open positions (per 1000) in the FRG $(jobs_{t-1})$ on the number of GDR political prisoners in a quarter-year. **Negative Binomial Regression** with the over-dispersion as a function of the expected mean and standard errors clustered by 38 occupations in brackets.

	M1	M2
(Intercept)	7.82***	4.13***
	(2.39)	(1.23)
$jobs_{t-1}$	0.16^{*}	0.92^{***}
	(0.06)	(0.24)
Occupation FE	Yes	No
Quarter-Year FE	Yes	No
Occupation-Year FE	No	Yes
Quarter FE	No	Yes
**** < 0.001 *** < 0.01 ***	0.05	

 $p^{**} p < 0.001, p^{**} p < 0.01, p^{*} q < 0.05$

Table D5: Estimates of the effect of the number of open positions (per 1000) in the FRG $(jobs_{t-1})$ on the number of GDR political prisoners in a quarter-year. Interactive Fixed Effect Regression with a (fixed) two-dimensional factor-structure and bootstrap standard errors.

	M1	M2	M3	M4
(Intercept)	4.89***	18.27***	11.41***	10.38***
	(1.08)	(1.96)	(0.50)	(1.86)
many $jobs_{t-1}$	14.72^{*}	3.29^{*}	4.58^{**}	5.82^{**}
	(7.08)	(1.48)	(1.58)	(1.97)
Occupation FE	No	Yes	Yes	No
Quarter-Year FE	No	Yes	Yes	No
Occupation Trend	No	No	Yes	No
Occupation-Year FE	No	No	No	Yes
Quarter FE	No	No	No	Yes

***p < 0.001, **p < 0.01, *p < 0.05

Table D6: Binary Version. Estimates of the effect of many open positions in the FRG (many $jobs_{t-1}$) on the number of GDR political prisoners in a quarter-year. The binary variable 'many $jobs_{t-1}$ ' takes the value '1' if the number of open positions in a quarter-year is larger than the 75% quantile of the empirical distribution of the continuous variable.



Figure D6: Sensitivity to cut-point selection. Estimates of the effect of many open position in the FRG (many jobs_{t-1}) on the number of GDR political prisoners in a quarter-year. The binary variable 'many jobs_{t-1}' takes the value '1' if the number of open positions in a quarter-year is larger than the quantile of the empirical distribution of the continuous variable shown on the x-axis. All specifications include occupation-sample FE and quarter-year FE.

	M1	M2	M3
(Intercept)	0.57***	0.57***	0.56***
	(0.17)	(0.17)	(0.17)
$jobs_{t-1}$	0.98^{*}	0.77	0.84^{*}
	(0.38)	(0.43)	(0.41)
Quarter-Year FE	No	Yes	No
Quarter FE	No	No	Yes
Year FE	No	No	Yes
*** .0.001 ** .0.01	*		

 $^{***}p < 0.001, \ ^{**}p < 0.01, \ ^{*}p < 0.05$

Table D7: Estimates of the effect of the number of open positions (per 1000) in the FRG $(jobs_{t-1})$ on the number of GDR political prisoners in a quarter-year. First-difference regression and standard errors.

	M1	M2	M3	M4
(Intercept)	1.33	18.94***	20.75***	20.37***
	(2.24)	(3.88)	(0.82)	(3.26)
$jobs_{t-1}$	2.09	2.21^{*}	0.37	2.72
	(1.11)	(1.10)	(0.45)	(1.92)
Occupation FE	No	Yes	Yes	No
Quarter-Year FE	No	Yes	Yes	No
Occupation Trend	No	No	Yes	No
Occupation-Year FE	No	No	No	Yes
Quarter FE	No	No	No	Yes

***p < 0.001, **p < 0.01, *p < 0.05

Table D8: Estimates of the effect of the number of open positions (per 1000) in the FRG $(jobs_{t-1})$ on the number of GDR political prisoners from counties with TV access in a quarter-year.

	M1	M2	M3	M4
(Intercept)	0.08	1.52***	1.94***	2.27***
	(0.26)	(0.45)	(0.16)	(0.15)
$jobs_{t-1}$	0.23	0.27^{*}	-0.01	0.20^{*}
	(0.13)	(0.12)	(0.07)	(0.09)
Occupation FE	No	Yes	Yes	No
Quarter-Year FE	No	Yes	Yes	No
Occupation Trend	No	No	Yes	No
Occupation-Year FE	No	No	No	Yes
Quarter FE	No	No	No	Yes

***p < 0.001, **p < 0.01, *p < 0.05

Table D9: Estimates of the effect of the number of open positions (per 1000) in the FRG $(jobs_{t-1})$ on the number of GDR political prisoners from counties without TV access in a quarter-year.

	M1	M2	M3	M4	M5
(Intercept)	3.497**	3.569^{*}	0.269	3.885	2.324
	(1.215)	(1.312)	(4.384)	(4.803)	(3.776)
$jobs_{t-1}$	0.030***	0.029^{***}	0.037^{*}	0.024	0.028^{**}
	(0.006)	(0.006)	(0.014)	(0.017)	(0.010)
Quarter FE	No	Yes	No	Yes	No
Year FE	No	No	Yes	Yes	No
Natural Spline $(df. = 3)$	No	No	No	No	Yes

***p < 0.001, **p < 0.01, *p < 0.05

Table D10: Estimates of the effect of the number of open positions (per 1000) in the FRG $(jobs_{t-1})$ on the ratio $100 \cdot \frac{\# \text{ exit prisoners}}{\# \text{ exit prisoners} + \# \text{ successful emigrants}}$ (N = 36).

Appendix E Robustness: Information about Opportunities & Repression

Table E11 shows the full regression table for the specifications reported in the main text; table E12 contains the estimates when we drop all larger cities (i.e., all *Stadtkreise*: Cottbus, Dresden, Görlitz, Rostock, Stralsund and Wismar); table E13 contains the estimates for the top-coded data, table E16 contains specifications with additional covariates (all taken from Crabtree, Darmofal and Kern (2015)); table E17 uses the ratio of GDR political prisoners per 1000 inhabitants as an alternative dependent variable and table E14 contains the estimates from a negative binomial regression model. Except for the latter, all tables display OLS estimates with clustered standard errors on the county-level (cluster N = 61) in brackets. The sample includes four GDR districts: Neubrandenburg, Rostock, Cottbus and Dresden and—except when stated otherwise—the total sample size is N = 305.

Our preferred measure for TV reception is identical to that of (Crabtree, Darmofal and Kern, 2015). They use an electromagnetic signal propagation model to estimate the TV signal strength for West German TV across all counties in the GDR. Signal propagation models predict signal strength based on broadcast transmitter location, antenna height and topology (Crabtree and Kern, 2018). Crabtree, Darmofal and Kern (2015) use a list of 124 transmitters that existed in 1989 as input for their model. While we cannot be entirely sure, a review of their sources suggests that these transmitters were constructed well before our study period.

Since it is well known that the people in Dresden could not watch West German TV, Crabtree, Darmofal and Kern (2015) use the signal strength in the center of the Dresden county (-86.5 dBm) as a cutoff to define the binary variable if a county receives West German TV. To the extent that 50% of a county's area receives signal equal to or greater than the cutoff value, it is said to receive West German TV.

The authors rightly note "that this is a conservative measure of access to WGTV since WGTV availability in the city of Dresden was very poor. In other words, we are very confident that counties with modeled signal strength below this threshold did not have access to WGTV." Table E15 shows the effect when the (Crabtree, Darmofal and Kern, 2015) preferred definition is used (the one we also report in the main text and table E11) as well as three alternative measures using -80dBm and -82.5dBm as a cut-off as well as the a continuous version that measures the fraction of each county's area that receives signal above the respective cutoff value. Finally, the last row in E15 refers to the TV reception variable as used in Kern (2011) which is very similar to the version in Kern and Hainmueller (2009).

	M1	M2	M3	M4
(Intercept)	-3.40^{***}	-4.04^{***}	-2.62^{**}	-0.78
has West TV	(0.71) 1.57*	(0.99)	(1.01) 1.67^*	(1.81) 2.13^{**}
Population Size	(0.64) 0.14^{***}	(0.63) 0.14^{***}	(0.68) 0.14^{***}	(0.65) 0.14^{***}
Dresden	(0.01)	(0.01) -2.44^{**}	(0.01) -2.68^{***}	(0.01) -3.07^{***}
Neubrandenburg		(0.75) -0.95	(0.76) -0.53	(0.84) -0.51
Rostock		(0.65) 0.11	(0.75) 0.04	(0.76) -0.56
1985		(1.02) - 0.27	(0.95) - 0.27	(1.23) - 0.28
1986		(0.48) 0.07	(0.48) 0.07	(0.50) 0.09
1987		(0.49) 1.41^*	(0.49) 1.41^*	(0.51) 1.43*
1988		(0.64) 5.62^{***}	(0.64) 5.62^{***}	(0.66) 5.60^{***}
Area		(0.98)	(0.98) - 0.24	(1.02)
# Cities			(0.15) - 0.10	
# Protests '53			$(0.22) \\ 0.02$	
Pop. Size cat. 2			(0.04)	0.40
Pop. Size cat. 3				(0.58) - 0.08
Pop. Size cat. 4				(0.77) -0.51
Pop. Size cat. 5				(1.15) 1.16
Area cat. 2				$(1.74) \\ -0.56$
Area cat. 3				(1.21) - 1.28
Area cat. 4				(1.02) -1.04
Area cat. 5				(1.27) - 1.80
# Protests '53: 1				(1.34) - 1.88
# Protests '53: 2				(1.09) - 1.41
# Protests '53: 3				(1.25) -2.53^{**}
# Protests '53: 4				(0.87) - 1.95
# Protests '53: 5				(1.19) -2.28
# Protests '53: 6				$(1.33) -4.70^{***}$
# Protests '53: 7				$(1.41) \\ -0.29$
# Protests '53: 37				$(1.34) \\ 0.25$
# Cities: 2				(1.50) - 0.38
# Cities: 3				(0.78) - 1.33
# Cities: 4				$(0.68) \\ -1.77^*$
# Cities: 5				(0.74) -1.20
# Cities: 9				(1.12) 3.36^{***} (0.98)

Table E11: (Full Table Main Results) Estimates of the effect of the availability of West German TV in a county on the number of GDR political prisoners in a county-year.

	M1	M2	M3	M4
(Intercept)	-1.64^{**}	-1.93^{*}	-0.88	-3.40
	(0.55)	(0.83)	(1.03)	(1.82)
has West TV	0.70	0.53	0.62	1.02^{**}
	(0.46)	(0.43)	(0.48)	(0.39)
Population size	Yes	Yes	Yes	Yes
Year FE	No	Yes	Yes	Yes
District FE	No	Yes	Yes	Yes
Covariates	No	No	Yes	No
Covariates (cat.)	No	No	No	Yes

***p < 0.001, **p < 0.01, *p < 0.05

Table E12: (Dropping larger cities) Estimates of the effect of the availability of West German TV in a county on the number of GDR political prisoners in a county-year. OLS Estimates with clustered standard errors at the county-level (Cluster N = 53) in brackets. Sample includes four GDR districts: Neubrandenburg, Rostock, Cottbus and Dresden but not any of the six *Stadtkreise*. Total N = 265.

M1	M2	M3	M4
1.07	1.36	2.33	2.95
(0.92)	(1.15)	(1.35)	(1.64)
1.16	0.86	1.05	1.68^{***}
(0.67)	(0.63)	(0.71)	(0.50)
Yes	Yes	Yes	Yes
No	Yes	Yes	Yes
No	Yes	Yes	Yes
No	No	Yes	No
No	No	No	Yes
	M1 1.07 (0.92) 1.16 (0.67) Yes No No No No	M1 M2 1.07 1.36 (0.92) (1.15) 1.16 0.86 (0.67) (0.63) Yes Yes No Yes No Yes No No No No	M1 M2 M3 1.07 1.36 2.33 (0.92) (1.15) (1.35) 1.16 0.86 1.05 (0.67) (0.63) (0.71) Yes Yes Yes No No Yes

***p < 0.001, **p < 0.01, *p < 0.05

Table E13: (**Top-coded data**). Estimates of the effect of the availability of West German TV in a county on the number of GDR political prisoners in a county-year top-coded for values exceeding the 95% quantile.

	M1	M2	M3	M4
(Intercept)	0.801**	0.908***	1.114***	0.793^{*}
	(0.264)	(0.232)	(0.240)	(0.313)
has West TV	0.226	0.183	0.207	0.332***
	(0.128)	(0.120)	(0.124)	(0.0942)
Population size	Yes	Yes	Yes	Yes
Year FE	No	Yes	Yes	Yes
District FE	No	Yes	Yes	Yes
Covariates	No	No	Yes	No
Covariates (cat.)	No	No	No	Yes

 $^{***}p < 0.001, \ ^{**}p < 0.01, \ ^*p < 0.05$

Table E14: Estimates of the effect of the availability of West German TV in a county on the number of GDR political prisoners in a county-year from a **Negative Binomial Regression** with the over-dispersion as a function of the expected mean.

	M1	M2	M3	M4	M5	M6	M7
(Intercept)	-2.62^{**}	-2.63^{**}	-2.32^{*}	-3.12^{**}	-2.69^{**}	-2.77^{**}	-2.50^{*}
	(1.01)	(0.98)	(0.99)	(1.09)	(1.02)	(1.03)	(1.16)
ITM Dresden	1.67*						
	(0.68)	1 00**					
ITM 80		1.93^{**}					
ITIM OOF		(0.67)	1 45*				
11M 825			1.45°				
ITM Drosdon (%)			(0.00)	o 30**			
11 M Diesden (70)				(0.89)			
ITM 80 (%)				(0.05)	2 50**		
11111 00 (70)					(0.80)		
ITM 825 (%)					(0.00)	2.30**	
						(0.81)	
$\operatorname{Kern} (2011)$. /	1.17
							(0.70)

***p < 0.001, **p < 0.01, *p < 0.05

Table E15: (Alternative Definition). Estimates of the effect of the availability of West German TV defined in different ways in a county on the number of GDR political prisoners in a county-year.

	M1	M2	M3	M4
(Intercept)	-2.78	-34.01	0.70	-2.79^{*}
	(2.11)	(23.30)	(12.29)	(1.20)
has West TV	1.70^{*}	1.27^{*}	1.71^{*}	1.66^{*}
	(0.78)	(0.53)	(0.70)	(0.66)
Population size	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
District FE	Yes	Yes	Yes	Yes
Baseline Covariates	Yes	Yes	Yes	Yes
Distance to Border	Yes	No	No	No
Covariates (Industry)	No	Yes	No	No
Covariates (Skills)	No	No	Yes	No
Covariates (Pollution)	No	No	No	Yes

***p < 0.001, **p < 0.01, *p < 0.05

Table E16: (Additional Covariates) Estimates of the effect of the availability of West German TV in a county on the number of exit prisoners in a county-year. Baseline covariates: the number of cities in a county, the size of the county (in km^2), and the number of protests during the Uprising of 1953. Covariates (Industry): share of four economic sectors (industry, agriculture, crafts as well as construction, services and transportation), Covariates (Skills): share of skilled labor, unskilled labor, and the share of the population with a college degree. Covariates (Pollution): Nitrogen oxides, sulfur dioxide and respirable dust (all three in tons/ km^2).

	M1	M2	M3	M4
(Intercept)	0.08***	0.08***	0.10***	0.12***
	(0.01)	(0.01)	(0.01)	(0.03)
has West TV	0.02^{*}	0.02^{*}	0.02^{*}	0.03^{**}
	(0.01)	(0.01)	(0.01)	(0.01)
Year FE	No	Yes	Yes	Yes
District FE	No	Yes	Yes	Yes
Covariates	No	No	Yes	No
Covariates (cat.)	No	No	No	Yes

 $^{***}p < 0.001, \ ^{**}p < 0.01, \ ^{*}p < 0.05$

Table E17: Estimates of the effect of the availability of West German TV in a county on the ratio of GDR political prisoners per 1000 inhabitants in a county-year.

Appendix F Analysis: Economic Opportunities and Relatives

Our model predicts that East German citizens with more information about West German economic opportunities will be more likely to face repression. In the main text, we measured superior information with access to West German TV. In this section, we present the results of an alternative measurement where better information is approximated with having relatives in West Germany.

In particular, we estimate whether political prisoners are more likely to have relatives in the FRG than ordinary prisoners. To the extent that having relatives in the FRG is not a common cause of committing ordinary crimes (and getting caught), our estimates generalize from the population of criminals to the general population. To increase the plausibility of this assumption, we condition on a series of other covariates. However, this conditioning must be done with caution since having relatives in the FRG could have affected many other attributes, and conditioning on those could introduce post-treatment bias.

The dependent variable in the analysis is binary and takes the value of '1' if a prisoner has relatives either in the FRG or in any other country that is not part of the Eastern bloc.⁹

While both the AKTE and TK copies include information about prisoners' relatives in the FRG, the TK files also include a prisoner's county of residence. We present two OLS estimates: in the first model, we include birth cohort, education and gender as unmodeled effects only. In the second model, we additionally include fixed effects for the prisoners' occupations, the prison, the county of each prisoner's last residence and quarter-year of arrest.

The results are shown in table F18 and F19. Our smallest estimate suggests that having relatives in the FRG increases the probability of becoming a political prisoner by 5%. While our preferred interpretation is that citizens with relatives in West Germany have more precise information about economic conditions in West Germany, it is not the only one. In particular, having relatives in the FRG could also simply make it more worthwhile to leave the GDR *independent* of economic conditions—an effect related to

⁹Officers were instructed to record whether a prisoner had a "connection to the FRG/West Berlin" (*Verbindung nach BRD/Westberlin* or to 'other capitalistic countries' (*Verbindung nach anderen kapital-istischen Ländern*).

payoffs, not information. However, in light of the other results presented in the main text, we believe this interpretation is less likely and information is at least partly responsible for the result.

	AKTE Sample				
(Intercept)	0.06***	0.22***	0.08		
C	(0.01)	(0.06)	(0.05)		
Conn	(0.05^{****})	(0.05^{***})	(0.03^{+++})		
	(0.01)	(0.01)	(0.01)		
FE Demographics	No	Yes	Yes		
FE Quarter-Year	No	No	Yes		
FE Occupation	No	No	Yes		
FE Prison	No	No	Yes		

Table F18: OLS Estimates and standard errors clustered by prison (cluster N = 89). FE demographics include: gender, birth-cohorts (5), education groups (5). N = 113,675.

	TK Sample			
(Intercept)	0.06***	0.28***	0.39	
(1110100p0)	(0.01)	(0.04)	(0.29)	
Conn.	0.12***	0.11***	0.09***	
	(0.01)	(0.01)	(0.01)	
FE Demographics	No	Yes	Yes	
FE Quarter-Year	No	No	Yes	
FE Occupation	No	No	Yes	
FE Prison	No	No	Yes	
FE County of Residence	No	No	Yes	

Table F19: OLS Estimates and standard errors clustered by prison (cluster N = 82). FE demographics include: gender, birth-cohorts (5), education groups (5). N = 128,590.





Figure G7: Average Polity IV Score and average real GDP per capita (based on Gleditsch (2002)) between 1980 and 1989 for authoritarian regimes (N = 89). Authoritarian regimes are defined as having a Polity IV Score of less than -5. The black solid line is from a bivariate linear regression, and the dashed lines highlight the respective averages.

Appendix H Full List of Archival Sources

- Monthly number of Refugees from the GDR to the FRG:
 - Bundesministeriums f
 ür Vertriebene, Fl
 üchtlinge, und Kriegsgesch
 ädigte. 1961.
 "Graphische Darstellung der Fluchtbewegung aus der Sowjetzone und den Sowjetsektor von Berlin vom September 1949 bis 31. August 1961." [Bundesarchiv: B137 (2081)]
 - Bundesausgleichsamt. 1986. "Statistischer Bericht 2/86. Registrierungsverfahren und Aufnahmeverfahren. Jahresstatistik 1985." [Bundesarchiv: B350 (15)].
 - Bundesausgleichsamt. 1990. "Jahresübersichten BAufnSt. Gießen ab 1951."
 [Bundesarchiv: B350 (15)].
- GDR Prisoner Database:
 - Ministerium des Inneren. 1990. "Projekt NRC Strafgefangenen- und Verhaftetendateien. Archivdatei AKTE Satzart Z, Teilkomplex 4, Teilkomplex 5." [Bundesarchiv: DO 1 MD/003].
- Documents:
 - Ministerium des Inneren. 1978. "Grobprojekt, EDV-Projekt Strafvollzug, Strafgefangenen- und Verhaftetendatei (Personenerfassung)." (Bericht) [Bundesarchiv: DO 1 MD 25]
 - Ministerium des Inneren. 1984a. "Anforderung einer Auswertung aus dem DV-Projekt NRC, Berlin, 3. Jan 1984." [Bundesarchiv: DO 1 MD Dokumentation 63]
 - Ministerium des Inneren. 1984b. "Brief des ve kombinat datenverarbeitung an Ministerium des Inneren. Betr.: Abarbeitung Ihres Projektes SV2x. 01.08.1984" [Bundesarchiv: DO 1 MD Dokumentation 63]
 - Ministerium des Inneren. 1986a. "Brief des Leiter der Verwaltung Strafvollzug an Leiter des Rechenzentrums. Verarbeitung von Änderungsdaten im Projekt NRC, Februar 1986" [Bundesarchiv: DO 1 MD Dokumentation 66]
 - Ministerium des Inneren. 1986b. "Informationen zum Stand der Nutzbarkeit des Projektes NRC, Berlin, 31. März 1986." (Bericht) [Bundesarchiv: DO 1 MD Dokumentation 66]

- Ministerium des Inneren. 1988. "Erfüllungsbericht des Projektes Strafgefangenenund Verhaftetendaten (Personenerfassung). Berlin, den 29.11.1988." [Bundesarchiv: DO 1 MD 66]
- Ministerium des Inneren. 1989. "Brief Verwaltung Strafvollzug Leiter der Abt. Planung/Information and Leiter der Zentralstelle für Projektierung Genossen Obsert der VP Dr. Gericke." [Bundesarchiv: DO 1 MD 66]

References

- Bagwell, Kyle. 1995. "Commitment and Observability in Games." Games and Economic Behavior 8(2):271–280.
- Bai, Jushan. 2009. "Panel Data Models With Interactive Fixed Effects." *Econometrica* 77(4):1229–1279.
- Bethlehem, Siegfried. 1982. Heimatvertreibung, DDR-Flucht, Gastarbeiterzuwanderung: Wanderungsströme und Wanderungspolitik in der Bundesrepublik Deutschland. Stuttgart: Klett-Cotta.
- Bundesinstitut für Berufsbildung. 1990. DDR-Ausbildungsberufe: Vergleichbare und verwandte Ausbildungsberufe der Bundesrepublik Deutschland. Zusammenfassende Übersicht aus den "Bildung und Beruf"-Heften "DDR-Ausbildungsberufe", 301-305. In Bildung und Beruf. Vol. 306.
- Crabtree, Charles, David Darmofal and Holger L. Kern. 2015. "A Spatial Analysis of the Impact of West German Television on Protest Mobilization during the East German Revolution." Journal of Peace Research 52(3):269–284.
- Crabtree, Charles and Holger L Kern. 2018. "Using Electromagnetic Signal Propagation Models for Radio and Television Broadcasts: An Introduction." *Political Analysis* 26(3):348–355.
- Gleditsch, Kristian Skrede. 2002. "Expanded Trade and GDP Data." Journal of Conflict Resolution 46(5):712–724.
- Hirschman, Albert O. 1993. "Exit, Voice, and the Fate of the German Democratic Democratic Republic." World Politics 45(2):173–202.

- Kern, Holger Lutz. 2011. "Foreign Media and Protest Diffusion in Authoritarian Regimes: The Case of the 1989 East German Revolution." Comparative Political Studies 44(9):1179–1205.
- Kern, Holger Lutz and Jens Hainmueller. 2009. "Opium for the Masses: How Foreign Media Can Stabilize Authoritarian Regimes." *Political Analysis* 17(4):377–399.
- Kimmel, Elke. 2005. "Das Notaufnahmeverfahren." Deutschland Archiv 38(6):1023–1032.
- Massey, Douglas S., Joaquin Arango, Graeme Hugo, Ali Kouaouci, Adela Pellegrino and J. Edward Taylor. 1993. "Theories of International Migration: A Review and Appraisal." *Population and Development Review* 19(3):431–466.
- Salheiser, Axel. 2009. Parteitreu, Plangemäß, Professionell? Rekrutierungsmuster und Karriereverläufe von DDR-Industriekadern. Wiesbaden: VS Verlag.
- Scheuer, Markus, Hermann Rappen, Johann Walter and Martin Wenke. 1992. "Ein Beitrag zur Bewertung der in der DDR erworbenen beruflichen Qualifikationen in den Bereichen Metall und Elektro." Mitteilungen aus der Arbeitsmarkt- und Berufsforschung 25(4):553–583.
- Schröder, Wilhelm Heinz and Jürgen Wilke. 1998. "Politische Strafgefangene in der DDR: Versuch einer Statistischen Beschreibung." *Historical Social Research* 23(4):3–78.
- Solga, Heike. 1993. Systematik der beruflichen Tätigkeiten und Ausbildungen in der DDR. Arbeitsbericht 2 Max-Planck-Institut für Bildungsforschung.
- Statistisches Bundesamt. 1992. Klassifizierung der Berufe: Systematisches und alphabetisches Verzeichnis der Berufsbenennungen. Stuttgart: Metzler-Poeschel.
- Tiebout, Charles M. 1956. "A Pure Theory of Local Expenditures." Journal of Political Economy 64(5):416–424.