

Bureaucratic Discrimination in Electoral Authoritarian Regimes: Experimental Evidence from Russia

Michael Rochlitz*
Evgeniya Mitrokhina**
Irina Nizovkina***

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Abstract

Are investors in electoral authoritarian regimes discriminated against for political activism? In this paper, we implement a simple experiment to test whether affiliation with the ruling party or the political opposition affects the probability that investors receive advice from investment promotion agencies in Russian regions. Between December 2016 and June 2017, we sent 1504 emails with a short question and a number of randomized treatments to 188 investment promotion agencies in 70 Russian regions. Although investment promotion agencies are nominally depoliticized in Russia, we find that switching the political affiliation of a potential investor from the opposition party "Yabloko" to the government party "United Russia" on average increases the chances to receive a reply by 30%. The effect strongly depends on regional levels of political competition, with higher levels of discrimination in regions that are less politically competitive.

^{*}University of Bremen, Faculty of Business Studies and Economics; e-mail: michael.rochlitz@uni-bremen.de.



^{**}Laboratory for Comparative Social Research, National Research University Higher School of Economics, Russian Federation

^{***}National Research University Higher School of Economics, Russian Federation



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1 Introduction

The non-discriminatory application of the law to all citizens is a fundamental building block of modern democratic states. A central role in this respect is attributed to impersonal and impartial decision-making by Weberian-type bureaucracies (Olson 2006; Weber 2009; Ronsanvallon 2011). Nevertheless, a growing empirical literature has established that in many countries, citizens are not treated equally by state bureaucracies. In settings as diverse as the US, Germany, Sweden, South Africa, the UK or China, state bureaucracies have been found to discriminate against members of historically disadvantaged groups, in particular with respect to ethnicity (Distelhorst and Hou 2014; White et al. 2015; Adman and Jansson 2017; Hemker and Rink 2017) or race (Keiser et al. 2004; Butler and Broockman 2011; Halliday 2011; Giulietti et al. 2019). Apart from historically determined discrimination, ingroup favoritism also seems to play an important role, especially in large and ethnically diverse countries such as the US (Broockman 2013), South Africa (McClendon 2016), China (Distelhorst and Hou 2014), or India (Neggers 2018).

A topic that has been less intensely covered is systematic *political* discrimination. We know that in hybrid or electoral authoritarian regimes, but also in well-established democracies, the elites in power sometimes mobilize parts of the bureaucracy to win elections, by using what is often referred to as administrative resources, patron-client networks or political machines (Golden 2003; Frye et al. 2014; Gans-Morse et al. 2014; Kudelia and Kuzio 2015; Peters 2018; Frye et al. 2019a,b). These mobilizations are however mostly temporary and clustered around elections, for example by providing transport to bring pro-regime voters to the polls, or by exerting pressure on employees in state institutions such as schools or hospitals to vote for the regime. To the best of our knowledge, there are yet no systematic quantitative studies of large-scale, systematic discrimination along political lines by state bureaucracies, in particular in the context of electoral authoritarian regimes – even though here the problem might be particularly relevant.

By conducting a randomized controlled experiment to test whether nominally depoliticized government agencies discriminate investors along political lines in the Russian Federation, we attempt to make a first step towards filling this gap in the literature. We use conjoint analysis for our experiment, a methodology that allows to test for the effect of a number of randomized treatments on an outcome, and has been widely used in marketing studies to elicit consumer behavior (Green et al. 2001; Lohrke et al. 2010; Chen et al. 2010; Rraghavarao et al. 2011), as well as more recently to study questions in political science (Hainmueller and Hopkins 2014; Hainmueller et al. 2014; Horiuchi et al. 2018; Gutiérrez-Romero and LeBas 2020) and economics (Tano et al. 2003; Boyle et al. 2015; Rofè et al. 2017).



Bureaucratic Discrimination in Electoral Authoritarian Regimes: Experimental Evidence from Russia

Adopting our methodology from this literature, we sent 1504 emails to 188 investment promotion agencies in 70 Russian regions, between December 2016 and June 2017. The emails consisted of a simple question by a fictional entrepreneur, and a number or randomized treatments, with our main treatment being a small hint indicating affiliation with a political party. We find that switching the political affiliation of a potential investor from the opposition party "Yabloko" to the government party "United Russia" on average increases the chances to receive a reply by 30%, while most other treatments such as gender, firm size, nationality of the firm or sector did not have a significant effect on the probability to receive a reply. The degree of political discrimination, however, strongly depends on regional levels of political competition, with regions that are less politically competitive featuring higher levels of political discrimination.

In our paper, we thus go beyond studies that document the existence of political machines (Gans-Morse et al. 2014; Frye et al. 2014; Kudelia and Kuzio 2015; Frye et al. 2019a,b) or electoral fraud and manipulation during elections (Myagkov et al. 2009; Enikolopov et al. 2013; Simpser 2013; Harvey 2016; Skovoroda and Lankina 2017), and document an example for the systematic discrimination of entrepreneurs affiliated with the political opposition during everyday life, in an electoral authoritarian regime. Importantly, other than in studies focusing on the use of administrative resources during elections, where chains of command are often easier to detect,¹ in our research design it remains more difficult to discern the determinants for the bureaucratic behavior we observe. In other words, while we discuss several potential mechanisms in section 5, we are not able to say if the bureaucrats in our study have been directly instructed to discriminate against members of the political opposition, or if they merely try to anticipate what is expected form them and act accordingly, or if they act out of another motivation.

Finally, by showing how entrepreneurs affiliated with the ruling party are systematically given preferential treatment, we also connect with a literature on the determinants of authoritarian responsiveness in other authoritarian states, such as for example China (Chen et al. 2016; Su and Meng 2016; Truex 2016; Distelhorst and Hou 2017). Other than in Russia, being affiliated with the ruling party in China does not seem to effect the probability to receive a reply from regional bureaucracies, while the threat of using collective action, or the threat of tattling to superiors does seem to increase the probability to receive an answer (Chen et al. 2016; Distelhorst and Hou 2017). Comparing our results with results from China allows us to highlight some of the differences between electoral autocracies or "hybrid regimes", where elections – while not being used to change or select political leaders – are still being carried out by the regime for a number of reasons such as regime legitimacy, cooptation of the opposition or information collection (Levitsky and Way 2002; Gandhi and Lust-Okar 2009; Boix and Svolik 2013; Simpser 2013; Brancati 2014; Morgenbesser 2016), and autocracies that do

¹A good example to illustrate these chains of command is a video of a conference given by the major of the Russian town of Novokuznetsk before the 2011 Duma elections, where he describes the instructions he got during the national conference of the ruling party United Russia in Moscow, and forwards them to entrepreneurs in his city (https://www.youtube.com/watch?v=kD4W5zAKICq).



not conduct elections at all, at least at the national and regional level. In the former, various political parties exist, and the ruling or "dominant" party is first and foremost a tool to win elections (Reuter 2013, 2017). Its political prominence has therefore to be ensured by various means, including the use of administrative resources. In the latter type, there is only one party, of which the bureaucracy and the government are a part, and which has not to compete in elections (Zheng 2009; McGregor 2013; Truex 2016). It consequently also seems less in need of political support by the bureaucracy.

Our paper is organized as follows. Section 2 provides a conceptual framework, and Section 3 presents our methodology, experimental design and data, and discusses the ethics of our research. Section 4 presents the results, section 5 discusses potential mechanisms behind our findings, and section 6 concludes.

2 Conceptual Framework

From a theoretical point of view, the problem we are interested in can be characterized as a simple principal-agent relationship between a politician and a bureaucrat (Gailmard 2014; Peters 2018). The politician wants to stay in power, while the bureaucrat is interested in advancing her or his career. We define the extent to which the politician can control and use the bureaucrat for the purpose of staying in power as the degree to which the bureaucracy is politicized. The objective of this paper is to introduce a methodology to measure the degree of bureaucratic politicization, as well as to examine what factors *determine* the politicization of a bureaucracy.

The extent to which a bureaucracy is politicized is not trivial, as it has considerable implications for economic performance and efficiency. An extensive literature has discussed the advantages of transferring important decisions from partisan political control to independent agencies and bureaucracies (see Peters 2018 for a review). When bureaucracies lack independence or are politicized, politicians can use their influence to distribute economic resources to partisan groups and political advocates, in order to consolidate political control. Such patronage or clientelist policies are prevalent throughout all types of political regimes, and often lead to inefficiencies in the allocation and supply of public goods (Robinson and Verdier 2013). These inefficiencies can sometimes be substantial, to the point that the degree to which bureaucracies are politicized and the specific nature of state-business links are seen by some as a major determinant of the long-term economic prospects of a country (Evans and Rauch 1999, 2000; Khan 2000; Huber and McCarty 2004; Kohli 2004; Olson 2006; Cali and Sen 2011).

The novelty of our paper consists in testing for the politicization of a relatively low-level bureaucracy that is nominally depoliticized, and not visibly involved in voter mobilization during elections.² To limit the likelihood that the behavior of bureaucrats in our experiment is nevertheless motivated by the

²While some regional bureaucracies in Russia, such as the office of the regional governor (Reuter and Robertson 2012; Reuter 2013; Rochlitz 2016) or mayors (Reuter et al. 2016; Beazer and Reuter 2019) are often directly involved in running regional political machines, this is not the case for investment promotion agencies. When building our dataset we took care to check for any signs of political affiliation for the agencies included in our sample, but did not find any instance where this was the case.



Bureaucratic Discrimination in Electoral Authoritarian Regimes: Experimental Evidence from Russia

necessity for political mobilization during election campaigns, we conducted our experiment a couple of months after the Russian national parliamentary (Duma) elections that took place in September 2016, during a period where the pressure from the federal center to deliver electoral support was arguably relatively low. In addition, we also control in our regression for the occurrence of regional gubernatorial and parliamentary elections. This permits us to be reasonably sure that what we capture is the daily behavior of a normal bureaucratic institution, not an exception caused by pressure from the federal center due to a national or regional election.

After testing for the occurrence of politicization, we test in a second step for the determinants of bureaucratic discrimination along political lines. Here the literature suggests that while bureaucratic discrimination exists in both democracies (Butler and Broockman 2011; Halliday 2011; Broockman 2013; Hainmueller and Hopkins 2014; White et al. 2015; McClendon 2016; Adman and Jansson 2017; Hemker and Rink 2017; Giulietti et al. 2019) and autocracies (Distelhorst and Hou 2014, 2017; Chen et al. 2016; Su and Meng 2016), the use of administrative resources to mobilize voters in support of the ruling party is especially common in electoral authoritarian regimes (Allina-Pisano 2010; Bader 2011; Reuter 2013; Frye et al. 2014, 2019a,b; Ross 2014; Rochlitz 2016; Busygina et al. 2018). The fact that the Russian Federation is composed out of 85 regions that vary significantly with respect to regional levels of authoritarianism and political competition (see e.g. Reisinger 2014, Baranov et al. 2015, Saikkonen 2016 or Libman and Rochlitz 2019) permits us to put this assumption to a rigorous empirical test. Looking at variation at the sub-national level allows us to hold factors such as language or national political and legal system constant, while at the same time varying the type of local political regime from contexts that are relatively democratic (such as for example the regions of Moscow or Sverdlovsk) to regions that resemble fully-fledged autocracies (such as for example Dagestan in the North Caucasus), something that would not be possible in a cross-country setting.³

Making use of this variation, we hypothesize that the degree of bureaucratic politicization is inversely correlated with the degree of political competition. In other words, the less competitive is a given polity, and the less it features institutions such as a free press or independent NGOs, the higher will be the ability of the politician to exert pressure on the bureaucrat. Instead of basing their decisions on economic criteria, bureaucratic agencies in more authoritarian contexts might thus be forced to use political criteria to allocate support by the state.

In our study, we use two variables to proxy the degree of political competition in Russian regions, the vote share for the ruling party during the parliamentary elections in 2016, and an indicator of political competitiveness that is based on expert opinions, and is frequently used in the literature (Petrov and Titkov 2013). As we show in Section 4, the level of bureaucratic politicization we identify is indeed much stronger in regions that feature less political competition.

³See Reisinger (2014) on the advantages of using Russian sub-national data to study questions in comparative political science, and Libman and Rochlitz (2019), chapter 5, for a detailed discussion of regional regime types in Russia.



3 Methodology

Our analytical approach consists of two steps. First, we carried out a randomized correspondence experiment, to elicit what attributes of a request for information influence the probability that Russian regional bureaucrats answer the request. In a second step, we then try to analyze the underlying determinants of the bureaucratic behavior we observe.

Our experimental design is based on conjoint analysis, a methodology that requires respondents to make a decision based on hypothetical profiles, which differ with respect to a number of randomly varying attributes (Louviere 1988; Lohrke et al. 2010). This then enables the researcher to statistically infer the cognitive models underlying these decisions, with the help of regression analysis (Boyle et al. 2015). In our experiment, the hypothetical profiles are short requests for information sent by fictional entrepreneurs to regional investment promotion agencies in Russian regions, and the attributes give hints about the political affiliation of some of these entrepreneurs, as well as describing the nationality, sector and size of the firms that are represented by the entrepreneurs.

Overall, we sent out 1504 emails to 188 regional investment promotion agencies in 70 Russian regions, between December 23rd, 2016 and June 19th, 2017. We focus on three response variables, by examining how a specific attribute affects (1) the probability that an email is answered, (2) the speed by which an email is answered, and (3) how detailed the answer was, proxied by the number of words. Section 3.1 describes the setting of our experiment and the selection of regional investment promotion agencies. Section 3.2 discusses the design of the emails and the treatment, and section 3.3 presents the hypotheses to be tested. Section 3.4 presents the data used in the empirical analysis, and provides a balance test to check the success of our randomization strategy. Finally, section 3.5 addressed the ethical implications of our research.

3.1 Setting

The Russian Federation presents a particularly well suited context to test the research questions we have in mind, for two reasons. First, Russia is one of the world's most prominent electoral authoritarian regimes, i.e. a state where elections are regularly carried out, but where the government uses its resources to ensure that on average and in most cases, the government candidate or party wins the election (Levitsky and Way 2010; Golosov 2011; Gill 2012; Gel'man 2015; Smyth and Turovsky 2018). Although the problem of a politicized bureaucracy is arguably most acute in such contexts, as of now there is still a lack of empirical studies documenting bureaucratic discrimination in electoral authoritarian regimes. Secondly, the significant variation in regional political regimes in Russia provides an ideal setting to examine the effect of regime type on the degree to which a bureaucracy is politicized (Hale 2003; Gel'man 2010; Turovsky 2010; Saikkonen 2016; Libman and Rochlitz 2019).

In our study, we focus on regional investment promotion agencies. During the last 15 years, most Russian regions set up at least one, and often several agencies to help potential investors and entrepreneurs with their work in a given region. These agencies are either directly part of a regional administration, or are nominally independent, but nevertheless depend in their financing to a large



part on the regional government. Importantly, the objective of the agencies selected for this study is purely economic, i.e. to attract potential investors to a given region, as well as to support entrepreneurs in the region with advice and information. They are thus, at least in theory, not supposed to base their decisions on political criteria. Out of Russia's 85 regions, we selected all regions that had at least one investment promotion agency with a working website. In the case of more than one agency per region, we selected those agencies with the most detailed and up-to-date websites, up to a maximum of 3 agencies per region.

3.2 Experimental Design

During the 6 months that our experiment lasted, 8 emails were sent to each agency. For every agency, we randomly assigned the date when an email was sent, with the only limitation that emails were not supposed to be sent on two consecutive days. The email text consisted of a simple question by an entrepreneur representing a firm that was presented as having an interest to potentially invest in the region. In the email, the entrepreneur presented her- or himself and the firm, expressed an interest to invest, and asked about state-programs to support investors in the region. In order to make our emails appear as realistic as possible, the texts and questions asked varied slightly for each of the 8 emails, although the overall content remained the same.

Appendix A presents an example of an email text, both in the original Russian and in an English translation. Together with the text, the name of the sender of the email as well as the email provider also varied randomly for the 8 emails that were sent to each agency. For this purpose, we created 16 email accounts from various Russian email providers, 8 with a typical female Russian name, and 8 with a typical male Russian name. While the request for information in each email was the same, we randomly distributed five different attributes among all emails that were sent, which represent the treatments of our experiment. Table 1 presents the treatments and their relative frequency.

Table 1: Treatment Instruments (as % of all emails)

Treatments	Treatment Variations
Party Affiliation	United Russia (5%) / LDPR (5%) / KPRF (5%) / Yabloko (5%)
Nationality	Chinese (10%) / US (10%) / German (10%) / Russian (70%)
Gender	Male (50%) / Female (50%)
Firm Size	Small (50%) / Medium (50%)
Sector	IT (20%) / Retail (20%) / Agriculture (20%) / Transport (20%) / Tourism (20%)

To test our main research hypothesis, we randomly assigned a treatment of political affiliation

⁴The fact that the tasks of investment promotion agencies are supposed to be purely economic becomes visible when looking at the first pages of the websites of the respective agencies. These stress innovation, investment and economic efficiency, but do not show any visible signs of a political affiliation. When selecting the investment promotion agencies for our study, we were careful to check for any signs of affiliation with a political institution or political party, to ensure not to include any partisan institutions in our sample. However, among the 188 agencies selected for our study, none displayed any signs of a partisan affiliation.



to 20% of the emails sent. This means that every agency receives on average only between 1 and 2 emails with a party treatment during the 6 month period of our experiment, to ensure that our experiment remains as realistic as possible. The treatment consisted of a small note below the name of the entrepreneur who sent the email, identifying the sender as a member of a business association affiliated with one of Russia's main political parties. Importantly, such associations do indeed exist and can be frequently encountered in Russian regions,⁵ although the specific names of the associations used in our experiment were fictional.

As party treatment, we selected Russia's governing party United Russia (UR), the Liberal Democratic Party (LDPR), the Communist Party of Russia (KPRF), as well as the party Yabloko. The Liberal Democratic Party and the Communist Party are represented in the State Duma and define themselves as political opposition, although they often vote alongside the government for important questions, and are therefore also referred to as "systemic opposition" (Ross 2015). Yabloko, on the other hand, has not been represented in the Duma since 2003, but is one of Russia oldest genuine opposition parties, and has recently again had some success at the local and municipal level (Semenov 2017; White 2018; Gorokhovskaia 2019).

In addition, we also randomly varied the nationality of the firm represented by the entrepreneur. For 30% of our emails, the firm represented by the entrepreneur was not Russian, but Chinese, American or German, respectively, even though the entrepreneur was always identifiable as a Russian citizen, through her or his name.

Finally, we also varied the emails with respect to 3 additional attributes, to control for the effects of sector, firm size, and gender of the entrepreneur who was sending the email. As illustrated in Table 1, we randomly assigned 5 sectors to the firms in our experiment, namely information technology (IT), retail, agriculture, transport and tourism, and two different firm sizes, small and medium. All treatments were randomly distributed among the 1504 emails that were sent out.

3.3 Hypotheses

As described in section 3.1, the purpose and objective of the investment promotion agencies selected for our study is to provide potential investors and entrepreneurs in a given region with business-related help and advice. According to Article 19.2 of the Russian Constitution, "the State shall guarantee the equality of rights and freedoms of man and citizen, regardless of sex, race, nationality, language, origin, property and official status, place of residence, religion, convictions, membership of public associations, and also of other circumstances". As all 188 agencies in our sample are either directly part of or affiliated with a regional administration, at least in theory they should therefore not

⁵Both the ruling party United Russia and the opposition party Yabloko have an institutionalized platform to support small and medium businesses in Russia's regions, see https://er.ru/news/163744/ for United Russia, and www.yabloko.ru/content/fraktsiya_predprinimatelej_svedeniya for Yabloko. There are also multiple individual entrepreneurs who are affiliated with political parties, act as regional deputies, and advocate entrepreneurial rights on their websites and public profiles.

⁶http://www.constitution.ru/en/10003000-03.htm



Bureaucratic Discrimination in Electoral Authoritarian Regimes: Experimental Evidence from Russia

discriminate potential investors with regard to political or other non-economic criteria.

If this is indeed the case, we would expect our party-affiliation treatment not to have an effect on the probability that an email is answered, nor on the speed or the number of words of an answer. However, as different regions have different comparative advantages across economic sectors, and as some regions might be interested to attract investors from certain sectors more than investors from other sectors, one could potentially expect the sector-specific treatment to have an effect on the probability to receive an answer. If on the other hand Russia's regional bureaucracies *are* politicized, we would expect the party-affiliation treatment to have an effect. We would expect the effect to be positive for entrepreneurs affiliated with the government party United Russia, and negative for the opposition party Yabloko. If the degree of politicization is stronger in more authoritarian regimes, we would expect these effect to be particularly strong in regions where United Russia performed well in the 2016 Duma election. As the Communist Party (KPRF) and the Liberal Democratic Party (LDPR) are not considered to be serious competitors of the government party United Russia, we would expect the effect of our treatment to be only slightly negative or not significant for these two parties.

Finally, we also test a second component of bureaucratic politicization, i.e. if entrepreneurs representing a foreign firm are discriminated against. Especially after the events of the Ukraine crisis and the imposition of sanctions against Russia by the European Union and the United States in 2014, various representatives of the Russian government have expressed the necessity to limit economic ties with the West, and to increase Russia's economic cooperation with China (Charap et al. 2017; Malle 2017; Lukin 2018). Our nationality treatment permits us to test if these political views have found their way to the regions, and now influence actual decision-making processes of Russian regional bureaucracies. If this is the case, we would expect a negative effect of our treatment on the number and quality of answers for entrepreneurs representing firms from the United States and Germany, and a positive effect for entrepreneurs representing Chinese firms.

3.4 Data

To test the statistical robustness of the unconditional results of our experiment, we run a series of multivariate regressions with regional-level control variables. The data for the control variables come from the regional-data handbook of the Russian Federal Statistics Service, for the year 2017.⁷ Table 2 presents descriptive statistics for all the control variables in our study.

To control for the overall amount of emails a regional agency might receive per day, we control for the number of firms in a given region, as well as for the share of firms that are fully or partially owned by foreigners, the share of small firms per region, and the amount of foreign direct investment. We then also control for climatic conditions, natural resource wealth and GRP per capita, as all three factors might determine the investment attractiveness of a region.

Finally, we also control for three factors that might influence the politicization of regional invest-

⁷https://gks.ru/folder/210/document/13204



Table 2: Descriptive Statistics (Control Variables)

Variable	Mean	St.Dev.	Min.	Max.
Gross Regional Product (million roubles)	1085613	2152299	44571.9	15724910
Population	2061474	1927747	145570	12400000
Number of firms at the end of the year	65995.66	131589.5	3214	1001076
Percentage share of firms owned by foreigners	1.46	1.79	0.27	16.23
Percentage share of small firms in the region	0.07	0.19	0.019	2.49
Foreign Direct Investment (mln dollars)	225084.6	369040.5	9988	2291141
Percentage share of people living in cities	72.46	10.72	29.2	100
Average regional temperature in January	-12.63	7.76	-37.5	3.5
Oil production (thousands of tons)	6051.16	35079.73	0	305000
Vote share for UR in the 2016 Duma Elections	49.57	12.49	35.16	88.9
Share of the population that is ethnically Russian	0.84	0.18	0.036	0.97
Occurrence of a regional election	0.25	0.43	0	1

ment promotion agencies, namely the vote share of United Russia in the 2016 Duma elections, the share of the population that is ethnically Russian, and the occurrence of regional elections during the time our experiment was carried out. While the regional vote share for United Russia is a direct proxy for the strength of the government party in a given region, the local political regime in regions where the share of ethnic Russians is lower is often more autocratic than in other, otherwise comparable regions (Dininio and Orttung 2005; Goodnow et al. 2014). As the occurrence of regional gubernatorial or parliamentary elections could lead to a temporarily higher politicization of a given region, they are controlled for with the help of a dummy variable.

In addition to our regional-level controls, we also include a series of dummy-variables to control for idiosyncrasies in the experiment. We thus add a dummy for the weekday and the month that an email was sent, as well as for the order of the email (i.e., if an email was the 2nd or the 6th email than an agency did receive), the specific text being used, and the macro-region where the agency is located. This last dummy allows us to control for the possibility that for example agencies located along the border with China react differently to requests from Chinese firms than agencies in the European part of Russia. As some answers came with an attachment, we also add an attachment dummy when looking at the speed and the number of words of a reply.

To exclude the possibility that a mistake in the randomization is driving the results we find, we carried out a balance of covariates test for all region-level covariates in our regression. Tables 5 and 6 in the appendix present the results for our main two treatments, party-affiliation and nationality. The t-tests for both treatments and almost all our covariates are not significant, suggesting that our randomization strategy was successful.

3.5 Ethical Implications

In our study, we were careful to keep the impact of our experiment on the actual work of regional investment promotion agencies as low as possible. The question in our emails was short and precise, and – judging from the answers we received – did on average not necessitate an effort of more than



Bureaucratic Discrimination in Electoral Authoritarian Regimes: Experimental Evidence from Russia

two or three minutes to be answered, which would amount to an average of about 20 minutes of time spent per agency for the 6 months of our experiment. After having received an answer, we sent a short note of thanks by the fictional entrepreneur, to ensure that future requests for information by other entrepreneurs would be treated with equal attention.

This results in an invasiveness for our study that remains equal to or lower than that of most other, comparable studies in social science, for example field experiments with fictional applicant profiles that test for ethnic or gender bias during job applications (Bertrand and Mullainathan 2004; Banerjee et al. 2009; Pager et al. 2009; Oreopoulos 2011), experimental studies looking at discrimination on the rental and housing markets (Hanson and Hawley 2011; Diehl et al. 2013; Ewans et al. 2014; Edelman et al. 2017), or correspondence experiments testing for discrimination by state agencies (Butler and Broockman 2011; White et al. 2015; Chen et al. 2016; Hemker and Rink 2017; Giulietti et al. 2019).

4 Results

4.1 Descriptive Statistics and Multivariate Regression

From the 1504 emails that were sent out, we got a reply for 42 emails that the email could not be delivered for technical reasons, leaving us with 1462 emails that were successfully delivered. Table 7 in the appendix provides descriptive statistics for the whole sample of all emails that were successfully delivered.

Out of the 188 investment promotion agencies that we contacted, 36 agencies did not reply at all. For these 36 agencies, we cannot exclude the possibility that our emails were not delivered correctly. As the objective of our experiment is to study the personal behavior of bureaucrats, rather than the quality of the technical infrastructure of each agency, we therefore exclude these 36 agencies from our sample. This leaves us with a final sample of 1210 observations. In column 2 of Table 4, we also present results for the whole sample of 1462 emails, to show that the results do not differ in any substantial way from the restricted sample.

We received an answer for 686 of the emails that were sent out, leaving us with a response rate of 46.9% for the whole sample of 1504 emails, and a response rate of 56.7% for the restricted sample of 1210 emails. Table 3 presents descriptive statistics for the response rate of all treatments, for the restricted sample. For almost all treatments, the response rate is relatively close to the average response rate of 56.7%. In other words, most treatments do not seem to have a visible effect on the probability that an email was answered.

The only exception are the party-affiliation treatments for United Russia and Yabloko, and the nationality treatment for Chinese firms. While emails sent by entrepreneurs affiliated with United Russia feature a response rate that is 10.9% above the average rate, emails sent by entrepreneurs affiliated with the opposition party Yabloko have a response rate 15.8% below the average rate. The response rate for entrepreneurs representing a Chinese firm is also 5.8% lower than the average



Table 3: Descriptive Statistics (Treatment Variables)

Treatment	Emails sent	% of total	Answered	% of emails sent	Words	Days
All Emails	1210	100%	686	56.7%	320.4	6.0
United Russia	68	5.6%	46	67.6%	259.8	8.4
KPRF	62	5.1%	36	58%	321.6	3.8
LDPR	60	4.96%	34	56.6%	411.4	7.5
Yabloko	66	5.5%	27	40.9%	256.0	2.9
Russian	849	70.17%	494	58%	311.4	5.8
US	107	8.84%	59	55%	266.1	7.4
German	146	12.07%	78	53.4%	373.5	5.6
Chinese	108	8.93%	55	50.9%	384.9	7.1
Female	609	50.3%	343	56.3%	284.5	6.3
Male	601	49.7%	343	57%	356.4	5.8
Small	600	49.6%	352	58.6%	347.6	6.8
Medium	610	50.4%	334	54.8%	291.8	5.2
IT	237	19.6%	133	56%	302.7	5.3
Retail	244	20.2%	138	56.6%	279.0	6.4
Agriculture	224	18.5%	135	60%	374.9	6.5
Transport	265	21.9%	157	59%	363.5	5.5
Tourism	240	19.8%	123	51.3%	271.4	6.5

response rate.

To control for the variation in regional-level factors, we then carry out a multivariate regression. Table 4 presents the results, and Figure 1 illustrates the main results of our regression in graphical form. As already suggested by the descriptive statistics, we find that the party-affiliation treatments "United Russia" and "Yabloko" had by far the strongest effect on the probability to receive a reply. While entrepreneurs affiliated with United Russia were 11.3% more likely to receive a reply, those affiliated with Yabloko were 18.6% less likely to receive a response. In other words, just by switching the party affiliation from Yabloko to United Russia, a fictional entrepreneur would have been able to increase the average probability to receive a reply by 30%. On the other hand, being affiliated with the Liberal Democratic Party (LDPR) or the Communist Party (KPRF) had no measurable effect on the response rate, confirming our hypothesis that these two parties do not play a substantial role as independent political forces. We also find a significant negative effect for investors representing a Chinese firm, who are about 10% less likely to get an answer, as well as a positive effect for small firms, which are about 4.7% more likely to receive a reply than medium-size firms. All other treatments had no measurable effect on the probability to receive a reply.

After looking at the probability to receive an answer, we examine the effect of our treatments on the *quality* of a reply, proxied by the speed that an email was answered, and the number of words in an answer. On average, it took an investment promotion agency 6 days to send a reply. Emails sent by entrepreneurs affiliated with the Communist Party were answered about 2 days faster, on average, while for entrepreneurs representing a small firm it took about 1 day longer, on average, to



Table 4: Main Results

Variable	Probability to	Probability to	Days to receive	Number of words
	receive an answer	receive an answer	an answer	per answer
	(restricted sample)	(whole sample)		
United Russia	0.113*	0.125**	2.162	-17.57
	(1.88)	(2.26)	(1.38)	(-0.42)
KPRF	-0.0342	-0.0171	-1.918*	29.60
	(-0.59)	(-0.30)	(-1.85)	(0.47)
LDPR	-0.001	-0.039	0.125	36.46
	(-0.02)	(-0.74)	(0.09)	(0.66)
Yabloko	-0.186**	-0.144**	-0.814	-21.66
	(-2.62)	(-2.33)	(-0.90)	(-0.52)
US	-0.044	-0.067*	1.938	-41.68
	(-0.97)	(-1.67)	(1.29)	(-0.99)
German	-0.062	-0.054	-0.263	68.20**
	(-1.40)	(-1.29)	(-0.28)	(2.08)
Chinese	-0.098*	-0.091**	0.768	42.10
	(-1.94)	(-2.18)	(0.86)	(0.80)
Female	0.003	0.003	0.628	-55.10***
	(0.14)	(0.13)	(0.92)	(-2.77)
Small	0.047*	0.030	1.116*	30.30
	(1.80)	(1.32)	(1.69)	(1.37)
Tourism	-0.072	-0.037	0.503	-12.16
	(-1.63)	(-0.91)	(0.48)	(-0.27)
Retail	-0.012	0.005	1.293	-12.73
	(-0.24)	(0.12)	(1.41)	(-0.37)
Transport	0.007	0.030	-0.791	8.581
·	(0.17)	(0.73)	(-0.93)	(0.22)
Agriculture	0.011	0.010	0.940	73.26*
	(0.24)	(0.25)	(1.00)	(1.95)
Order email was sent	-0.029**	-0.0263*	0.350	-2.656
	(-2.11)	(-1.70)	(1.37)	(-0.15)
Attachment dummy (answer)	no	no	yes	yes
Text dummy	yes	yes	yes	yes
Weekday dummy	yes	yes	yes	yes
Month dummy	yes	yes	yes	yes
Macro-region dummy	yes	yes	yes	yes
Regional-level controls	yes	yes	yes	yes
Observations	1210	1462	686	686



US
German
Chinese
UR
LDPR
KPRF
Yabloko
-0.3 -0.2 -0.1 0.0 0.1 0.2
Estimate

Figure 1: Probability to receive a reply by treatment

get a reply. All other treatments did not have a statistically significant effect on the speed of the reply.

Whereas no clear pattern emerged with respect to the speed of an answer, the content of a reply, proxied by the number of words, revealed some interesting additional information on the response patterns of the bureaucrats in our sample. While on average an answer contained 320 words, entrepreneurs representing a German firm received 68 words more, on average, as compared to entrepreneurs representing a Russian firm, which is our baseline in this regression. Female entrepreneurs, on the other hand, received 55 words less on average than men, with the result being strongly significant at the 1% level.⁸ As for 363 out of the 686 answers we received we were able to identify the name - and therefore the gender - of the person who answered the email, we were able to control for gender in this restricted sample (Table 8). Using an interaction term as well as two separate regressions, we find that female bureaucrats send longer answers, on average, than male bureaucrats. They also seem slightly more likely to send fewer words to female entrepreneurs than men. One has to remain somewhat cautious, however, when interpreting these results, as they rely on a much reduced sample, and are also not robust to the inclusion of all controls. Finally, we also find that entrepreneurs representing an agricultural firm receive more detailed answers, on average, while all other treatments do not have a statistically significant effect on the number of words per reply.

4.2 Interpretation of our results

Overall, we find strong and consistent evidence for the fact that investment promotion agencies in Russian regions are indeed politicized, despite the fact that they are not typically involved in mobiliz-

⁸These results are in line with a literature on the persistence of gender-related discrimination on the Russian labor market (Gerber and Mayorova 2006; Glass 2008), as well as a broader literature on the persistence of conservative gender roles in Russian society (White 2005; Sperling 2014).



ing the electorate, are relatively low-key, and that the experiment was conducted in a period of comparatively low political activity. Our findings suggest that members of the political opposition are not only discriminated against during election time in their political activities, as documented elsewhere in the literature (White 2013, 2018), but also during their day-to-day activities as entrepreneurs. Being affiliated with the ruling party, on the other hand, seems to provide some definitive advantages, in our case resulting in preferential treatment when asking government agencies for support and information.

While our results thus support the first hypothesis outlined in section 3.3, we find no evidence in support of our second hypothesis, i.e. a visible preference towards economic cooperation with Chinese firms at the regional level, to the detriment of firms from Europe or the United States, in response to economic sanctions after the Ukraine crisis. On the contrary, while entrepreneurs representing a Chinese firm are significantly less likely to receive a reply, representatives of a German firm receive substantially more detailed answers. While these results have to be taken with a grain of salt, as we do not have comparable data for the time before the Ukraine crisis, they do suggest that what seems to be primarily important to explain the behavior of Russian bureaucrats are factors related to Russian domestic politics, rather than the current foreign-policy position of the national leadership. In other words, when it comes to economic decision-making in the regions, German firms still seem to be appreciated as investors, despite a deterioration in the relationship between both countries at the international level, during the time our experiment was carried out.

5 Mechanisms

Section 4 has provided evidence for the politicization of investment promotion agencies in Russian regions. In this section, we are now trying to identify the mechanisms behind the behavior we find. Section 5.1 will focus on the effect of regime type and political competition on the degree of politicization, and section 5.2 is going to discuss a number of specific channels and mechanisms through which the type of political regime could potentially influence bureaucratic behavior.

5.1 Bureaucratic discrimination and political competitiveness

Although bureaucratic discrimination can be found across all types of political regimes, we argue in this paper that discrimination along *political* lines is especially relevant in electoral authoritarian regimes. To test this hypothesis, we take advantage of the large variation in regime types across Russian regions – from regimes that feature a high level of political competition, such as Moscow, Sverdlovsk Oblast, Novosibirsk Oblast or Primorsky Krai, to the quasi-authoritarian regimes in Tatarstan or Bashkortostan, and personalistic dictatorships in the Northern Caucasus.

To proxy the level of regional political competitiveness, we take the regional-level election results

⁹A potential explanation for this result might be the still relatively high reputation German firms enjoy in Russia, as compared to other foreign businesses; a fact illustrated by the presence of multiple companies that advertise themselves as German firms, although they have no link to Germany and only produce for the Russian market, such as for example the shoe firm *Thomas Munz*, or the provider of office supplies *Erich Krause*.

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Bureaucratic Discrimination in Electoral Authoritarian Regimes: Experimental Evidence from Russia

for the government-party United Russia during the Duma elections that took place in September 2016. These results are a good proxy for the level of regional political competitiveness, as they do not only show the level of political support for the ruling party, but also illustrate the level of electoral manipulation and fraud, with more authoritarian regional regimes often featuring a disproportionately high vote share for United Russia (Golosov 2011; Goodnow et al. 2014; Bader and van Ham 2015; White 2015; Skovoroda and Lankina 2017).

Table 9 in the appendix presents the maximum likelihood estimation of an interaction between our main results and regional levels of electoral support for United Russia, and Figure 2 illustrates our results in graphical form.

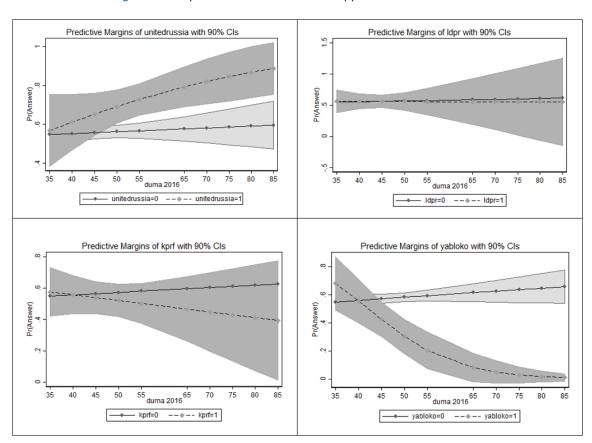


Figure 2: Response rate and electoral support for United Russia

A first notable finding depicted in Figure 2 is that agencies located in regions with politically more authoritarian regimes feature a slightly higher overall percentage of answers. Secondly, as illustrated by the upper-left graph in Figure 2, while in regimes with high levels of political competitiveness being affiliated with United Russia does not seem to affect the probability to receive a reply, the effect of a United Russia affiliation becomes significant and positive and increases notably with growing levels of political authoritarianism. An affiliation with the Communist or the Liberal Democratic Party, on the



Bureaucratic Discrimination in Electoral Authoritarian Regimes: Experimental Evidence from Russia

other hand, does not seem to affect the probability of getting an answer, irrespective of the level of political competitiveness. Finally, if we look at the effect of an affiliation with Yabloko, this effect is even slightly positive, if not significant, in the most competitive regions, as illustrated by the lower-right graph in Figure 2. However, the effect then quickly becomes significant and negative as the level of political authoritarianism increases. In regions where United Russia got more than 65% of the vote in 2016 (such as for example the Republics of Kalmykia, Tatarstan, Tuva, Mordovia, or Kemorovo Oblast), entrepreneurs affiliated with the opposition party Yabloko do no longer get any replies to their requests for information from regional investment promotion agencies.

To test for the robustness of our results, we then also run the same regressions with the Petrov-Titkov index of regional levels of democratization as proxy for political competitiveness (see Table 10 and Figure 3 in the appendix). The results remain substantially the same.

5.2 Channels and Mechanisms

Section 5.1 has shown that there seems to be a strong correlation between the degree to which regional investment promotion agencies are politicized, and the type of the regional political regime. While in Russia's most liberal and politically competitive regions we found no evidence for discrimination along political lines, political discrimination becomes increasingly prevalent and visible in more authoritarian regimes. In this section, we discuss a number of potential mechanisms that might stand behind these findings.

A first potential explanation could be that in more authoritarian regions, bureaucrats receive more or less direct instructions from the regional leadership to take political criteria into account when determining what kind of investors to support. Such a behavior would be in line with a literature describing how the careers of Russian regional governors (Reisinger and Moraski 2012; Reuter and Robertson 2012; Rochlitz 2016), but also – to some extent – the careers of Russian mayors (Reuter et al. 2016; Beazer and Reuter 2019) – are closely linked with their ability to mobilize votes for the ruling party United Russia, and how workplace mobilization and direct pressure on employees plays an important role in this respect (Frye et al. 2014, 2019a,b). If this hypothesis holds, our findings would suggest that in more authoritarian regimes, mayors and governors have more direct possibilities to exert pressure on the regional bureaucracy, and also make use of them. The nature of the more authoritarian among Russia's regional regimes, in particular their relative lack of checks and balances such as independent NGOs or an independent press (see e.g. Turovsky 2010; Reisinger and Moraski 2017) makes this a plausible explanation, even though we cannot test it directly in this paper.

Another possible explanation is that bureaucrats preemptively anticipate what they think to be the correct and expected behavior, and behave accordingly when dealing with politically sensitive cases, even though they are not directly instructed to do so. Such forms of anticipatory obedience have been documented for the Russian media (Schimpfössl and Yablokov 2014, 2020) and for Russian academia (Libman 2015), and it seems quite plausible that they might also exist in Russian regional



Bureaucratic Discrimination in Electoral Authoritarian Regimes: Experimental Evidence from Russia

bureaucracies, especially in regions that are more authoritarian. 10

Finally, a third potential explanation is that affiliation with a political party might serve as a signal for the financial strength or credibility of an investor. Thus, an affiliation with the ruling party could signal that the entrepreneur might benefit from preferential access to financial and other resources. It could therefore be worth attracting her or him to the region, while being affiliated with Yabloko could be seen as a potential weakness, as the entrepreneur might get into political trouble, have a lower probability to attract support and financing, or might be vulnerable to state-sanctioned corporate raiding attacks (Gans-Morse 2012; Rochlitz 2014; Kazun 2015).

In sum, most probably all these reasons do play a role in explaining the behavior we find, albeit to a varying degree in different regions. To pinpoint the precise mechanisms behind the variation in political discrimination we identify goes however beyond the scope of this study, leaving an opening for further case-study and experimental research.

6 Conclusion

Our study uses an online correspondence experiment to test for political discrimination by the bureaucracy in an electoral authoritarian regime, the Russian Federation. We find substantial evidence that entrepreneurs affiliated with the ruling party are more likely to receive a reply to a simple request for information from investment promotion agencies in Russian regions, while entrepreneurs affiliated with an active opposition party are significantly less likely to receive an answer. Being affiliated with one of the pro-regime, "systemic" opposition parties, on the other hand, has no effect on response rates.

The effect we find strongly depends on regional levels of political competition. In regions that are politically competitive, i.e. where several parties actively compete in elections and the ruling party United Russia received a relatively low share of the vote during the last Duma election in September 2016, we do not find evidence for discrimination along political lines. Such discrimination becomes visible and increases substantially, however, with declining levels of political competition. In the most authoritarian regions in our sample, the response rate for entrepreneurs affiliated with the ruling party was above 80% (for an average, national-level response rate of 56.7%), while entrepreneurs affiliated with the opposition party Yabloko did no longer receive any replies at all.

Building on the existing literature about political machines, administrative resources and workplace mobilization in electoral authoritarian regimes, our study provides empirical evidence that political discrimination does not only take place during elections, but can also affect the daily lives and activities of entrepreneurs, if their political affiliation becomes visible. By studying the behavior of

¹⁰Both in cases where dealing with opposition-affiliated investors is actually sanctioned by the regime, and in cases where regional bureaucrats merely preemptively avoid establishing such contact, a further reason for bureaucrats to refrain from answering could be that investors openly indicating their political affiliation are seen as potential future troublemakers or "mavericks", and a bureaucrat would want to avoid being the person who initially attracted them to a region. Indeed, a number of Russian entrepreneurs have recently become relatively high-profile critics of the government, such as for example Yana Yakovleva, or Dmitry Potapenko (see e.g. https://www.rferl.org/a/russia-businessman-rails-against-official-extortion/27420874.html).



Bureaucratic Discrimination in Electoral Authoritarian Regimes: Experimental Evidence from Russia

bureaucrats in a set of relatively depoliticized, low-key bureaucratic agencies, we show empirically how the mechanisms put in place to ensure the political dominance of the ruling party in electoral authoritarian regimes can permeate society even more deeply than previously assumed.



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Appendix

Appendix A Example of an Email Text (the treatments are highlighted in red)

Hello,

my name is Alexander Shabolov. I am a representative of a Russian (Chinese, US, German...) IT (retail, agriculture, transport, tourism...) sector company. I would like to get some information about investment possibilities in your region. Specifically, I'm interested in programs supporting small (medium size) business.

Sincerely,

Alexander Shabolov

Council for Entrepreneurial Development of United Russia (KPRF, LDPR, Yabloko...)

Здравствуйте!

Меня зовут Александр Шаболов. Я являюсь представителем фирмы из России (Китая, Америки, Германии) в сфере (ІТ, розничной торговли, сельского хозяйства, транспорта, туризма). Я бы хотел узнать о возможностях инвестировать в ваш регион. В частности, меня интересует, существуют ли какие-то программы поддержки предпринимателей в сфере малого (среднего) бизнеса?

С уважением, Александр Шаболов

Вице-председатель предпринимателского совета партии Единая Россия (ЛДПР, Яблоко, КПРФ...)



Appendix B Additional Tables and Graphs

Table 5: Balance test (party affiliation)

	Nonparty	UR	LDPR	KPRF	Yabloko	NP-UR	NP-LDPR	NP-KPRF	NP-Yblk
	Mean/SD	Mean/SD	Mean/SD	Mean/SD	Mean/SD	p-value	p-value	p-value	p-value
GRP	417917.5	425766.2	456029	422571.9	415366.3	0.924	0.297	0.88	0.924
GNF	(252529)	(304154.7)	(311925.9)	(258159.3)	(224872.8)	0.924	0.297	0.00	0.924
Population	2070012	1917935	2244457	1832173	2114107	0.505	0.501	0.258	0.822
гориацин	(1938417)	(1930881)	(2204068)	(1731557)	(1646278)	0.303	0.501	0.236	0.022
Number of firms	67291.94	55684.03	79015.18	59732.89	59713.69	0.356	0.534	0.609	0.356
Number of fiffis	(134144.8)	(117248.1)	(161376.3)	(122041.7)	(62900.03)	0.330	0.554	0.009	0.550
Share of foreign firms	0.014	0.012	0.014	0.014	0.011	0.189	0.899	0.555	0.012
Share or loreign limis	(0.017)	(0.01)	(0.012)	(0.01)	(0.007)	0.109	0.033	0.555	0.012
Share of small firms	0.001	0.001	0.001	0.001	0.001	0.472	0.466	0.003	0.471
Snare of small firms	(0.002)	(0.004)	(0.003)	(0.0001)	(0.003)	0.472	0.400	0.003	0.471
FDI	222895.6	224718.6	278854.6	208028.4	220965.2	0.971	0.307	0.729	0.957
FUI	(362756.6)	(425771.9)	(468657.7)	(357024.7)	(299737)	0.971	0.307	0.729	0.937
Urban population	72.555	70.232	72.759	73.182	72.311	0.000	0.839 0.880	0.578	0.839
Orban population	(10.638)	(12.75)	(11.525)	(9.292)	(10.146)	0.039	0.000		
Temperature in January	-13.744	-13.463	-13.416	-14.352	-13.962	0.756	0.634	0.457	0.756
remperature in January	(6.373)	(6.332)	(5.797)	(6.821)	(5.912)	0.730	0.034	0.437	0.750
Oil production	4231.345	10235.87	9614.286	5682.946	6197.896	0.631	0.341	0.732	0.631
Oil production	(28552.45)	(48849.9)	(48802.63)	(35658.02)	(35024.54)	0.031	0.541	0.732	0.031
Vote share for UR	49.644	49.84	48.453	49.516	49.373	0.854	0.421	0.933	0.854
vote snare for UR	(12.536)	(11.88)	(12.511)	(12.738)	(12.538)	0.054	0.421	0.533	0.854
Share of Russians	0.826	0.813	0.854	0.825	0.824	0.939	0.221	0.965	0.939
Onaie UI Mussialis	(0.203)	(0.224)	(0.188)	(0.22)	(0.201)	0.535	U.ZZ I	0.305	0.939
Observations	1157	77	77	74	77				



Table 6: Balance test (nationality of the firm)

					I			
	Russian	US	German	Chinese	Rus-US	Rus-Germ	Rus-Chin	
	Mean/SD	Mean/SD	Mean/SD	Mean/SD	p-value	p-value	p-value	
GRP	418372.1	442695.6	439411.4	441388	0.396	0.400	0.396	
GI II	(243087.2)	(282454.5)	(284115.2)	(267203)	0.000	0.100	0.000	
Population	2013142	1902200	2011427	2516816	0.537	0.992	0.056	
	(1793659)	(1740593)	(1807272)	(2636983)	0.557	0.332	0.000	
Number of firms	62542.71	61405.87	63927.92	97392.22	0.918	0.899	0.065	
Number of firms	(110836)	(108376.6)	(123857.1)	(190307.6)	0.910	0.099	0.065	
Chara of foreign firms	0.014	0.013	0.015	0.016	0.614	0.713	0.448	
Share of foreign firms	(0.016)	(0.013)	(0.018)	(0.019)	0.614	0.713	0.440	
01	0.001	0.001	0.001	0.001	0.574	0.040	0.139	
Share of small firms	(0.002)	(0.002)	(0)	(0.003)	0.574	0.043	0.139	
EDI	212624.7	214286	238222.3	271839.5	0.005	0.450	0.477	
FDI	(332191.5)	(370925.9)	(393033.2)	(437937.3)	0.965	0.459	0.177	
l laboration and allow	72.802	74.609	73.087	72.959	0.004	0.754	0.751	0.004
Urban population	(10.085)	(10.505)	(9.991)	(12.634)	0.094	0.751	0.901	
	-12.739	-13.407	-12.023	-11.864			0.040	
Temperature in January	(7.863)	(7.347)	(8.142)	(6.706)	0.380	0.325	0.213	
011 1 11	5721.263	7557.944	8084.603	4402.778		0.500		
Oil production	(33215.74)	(41600.84)	(43435.04)	(29632.97)	0.661	0.532	0.668	
	48.449	47.25	48.385	47.818				
Vote share for UR	(11.07)	(11.048)	(10.397)	(11.401)	0.292	0.946	0.587	
	0.837	0.856	0.851	0.845				
Share of Russians	(0.18)	(0.168)	(0.168)	(0.18)	0.289	0.383	0.662	
Observations	1021	133	175	133				



Table 7: Descriptive Statistics (Treatment variables, whole sample)

Treatment	Emails sent	% of total	Answered	% of emails sent	Words	Days
All Emails	1462	100%	686	46.9%	320.4	6.0
United Russia	77	5.27%	46	60.53%	259.8	8.4
KPRF	74	5.06%	36	48.65%	321.6	3.8
LDPR	77	5.27%	34	44.16%	411.4	7.5
Yabloko	77	5.27%	27	35.06%	256.0	2.9
Russian	1021	69.84%	494	48.38%	311.4	5.8
US	133	9.1%	59	44.36%	266.1	7.4
German	175	11.97%	78	44.57%	373.5	5.6
Chinese	133	9.1%	55	41.35%	384.9	7.1
Female	733	50.14%	343	46.79%	284.5	6.3
Male	729	49.86%	343	47.05%	356.4	5.8
Small	734	50.21%	352	47.96%	347.6	6.8
Medium	728	49.79%	334	45.88%	291.8	5.2
IT	292	19.97%	133	45.55%	302.7	5.3
Retail	298	20.38%	138	46.31.6%	279.0	6.4
Agriculture	276	18.88%	135	48.91%	374.9	6.5
Transport	313	21.4%	157	50.16%	363.5	5.5
Tourism	283	19.36%	123	43.46%	271.4	6.5



Bureaucratic Discrimination in Electoral Authoritarian Regimes: Experimental Evidence from Russia

Table 8: Controlling for the gender of bureaucrats sending a reply (reduced sample, for answers where the sender's name was available)

Variable	Number of words	Number of words	Number of words	Number of words
	per answer	per answer	per answer	per answer
			(only women	(only men
			answering)	answering)
Female	-92.2**	-73.53	-98.55*	-72.9
	(42.68)	(77.76)	(56.54)	(61.49)
Gender	91.97**	105.57		
	(46.46)	(66.37)		
Female*Gender		-26.9		
		(93.58)		
Party treatment	yes	yes	yes	yes
Nationality treatment	yes	yes	yes	yes
Sector treatment	yes	yes	yes	yes
Observations	363	363	252	111

Female is a dummy variable taking the value 1 if the entrepreneur sending a request is a woman, and 0 if the request was sent by a man. Gender is a dummy variable taking the value 1 if the bureaucrat answering the email is a woman, and 0 if the email was answered by a man. We were able to identify the name and therefore the gender of the bureaucrat answering the email for 363 out of the 686 answers that we received.



Table 9: Probability to receive an answer and regional levels of political competition (UR 2016 election results, ML estimates)

Variable	(1)	(2)	(3)	(4)
United Russia	-1.111	0.529*	0.529*	0.534*
	(-0.89)	(1.85)	(1.85)	(1.87)
KPRF	-0.168	-0.167	0.918	-0.161
	((-0.68)	(-0.68)	(0.75)	(-0.64)
LDPR	0.016	0.285	-0.003	-0.001
	(-0.06)	(0.14)	(-0.01)	(-0.00)
Yabloko	-0.830**	-0.830**	-0.829**	4.962**
	(-2.57)	(-2.58)	(-2.57)	(2.51)
US	-0.207	-0.195	-0.184	-0.215
	(-1.03)	(-0.98)	(-0.91)	(-1.09)
German	-0.284	-0.285	-0.280	-0.247
	(-1.48)	(-1.49)	(-1.46)	(-1.27)
Chinese	-0.412*	-0.427*	-0.428**	-0.403*
	(-1.89)	(-1.97)	(-1.97)	(-1.83)
Female	0.025	0.022	0.018	0.039
	(0.21)	(0.19)	(0.15)	(0.33)
Small	0.217**	0.213**	0.207*	0.217**
	(1.91)	(1.86)	(1.82)	(1.88)
2016 Duma elections	0.004	0.005	0.006	0.01
(UR vote share)	(0.48)	(0.65)	(0.81)	(1.07)
UR treatment	0.034			
and UR election results in 2016	(1.45)			
LDPR treatment		-0.007		
and UR election results in 2016		(-0.15)		
KPRF treatment			-0.023	
and UR election results in 2016			(-0.91)	
Yabloko treatment				-0.124***
and UR election results in 2016				(-2.90)
Sector controls	yes	yes	yes	yes
Text, week, month	yes	yes	yes	yes
and macro-region dummy	-	•	-	-
Observations	1210	1210	1210	1210

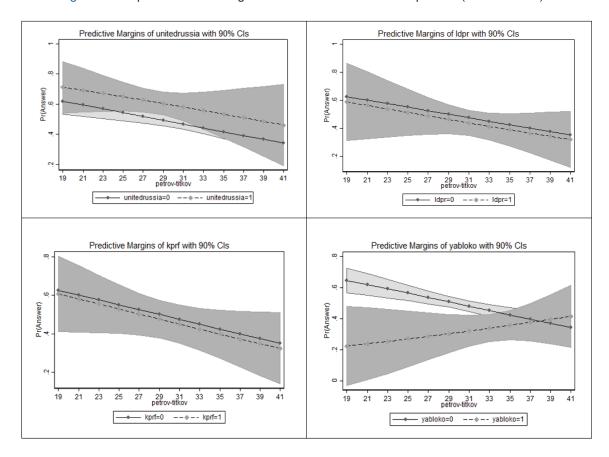


Table 10: Probability to receive an answer and regional levels of democratic competition (Petrov-Titkov, ML estimates)

Variable	(1)	(2)	(3)	(4)
United Russia	0.397	0.507**	0.507**	0.504**
	(0.23)	(2.01)	(2.00)	(1.99)
KPRF	-0.110	-0.110	-0.049	-0.112
	(-0.46)	(-0.46)	(-0.04)	(-0.47)
LDPR	-0.162	-0.205	-0.162	-0.160
	(-0.69)	(0.11)	(-0.69)	(-0.68)
Yabloko	-0.627**	-0.627**	-0.627**	-4.066*
	(-2.17)	(-2.16)	(-2.17)	(-1.94)
US	-0.317*	-0.318*	-0.318*	-0.331*
	(-1.70)	(-1.69)	(-1.69)	(-1.81)
German	-0.237	-0.237	-0.237	-0.221
	(-1.30)	(-1.30)	(-1.31)	(-1.21)
Chinese	-0.392**	-0.392**	-0.392**	-0.385**
	(-2.10)	(-2.10)	(-2.09)	(-2.06)
Female	0.028	0.028	0.028	0.035
	(0.25)	(0.26)	(0.25)	(0.31)
Small	0.115	0.115	0.115	0.110
	(1.18)	(1.17)	(1.18)	(1.11)
Petrov Index	-0.057***	-0.057***	-0.057***	-0.063***
	(-2.78)	(-2.85)	(-2.90)	(-3.17)
UR treatment	0.004			
and Petrov Index	(0.06)			
LDPR treatment		0.001		
and Petrov Index		(0.02)		
KPRF treatment			-0.002	
and Petrov Index			(-0.05)	
Yabloko treatment				0.107*
and Petrov Index				(1.74)
Sector controls	yes	yes	yes	yes
Text, week, month	yes	yes	yes	yes
and macro-region dummy	-	-	-	-
Observations	1210	1210	1210	1210



Figure 3: Response rate and regional levels of democratic competition (Petrov-Titkov)



Note that with the Petrov-Titkov regional democracy rating, levels of political competitiveness are measured from 19 (low levels of democracy) to 41 (high levels of democracy).



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Editors

Prof. Dr. Christian Cordes Evolutionary Economics

Phone: +49 (0)421 218 66616, e-mail: c.cordes@uni-bremen.de

Prof. Dr. Dirk Fornahl

Regional and Innovation Economics

Phone: +49 (0)421 218 66530, e-mail: dfornahl@uni-bremen.de

Prof. Dr. Jutta Günther Economics of Innovation and Structural Change

Phone: +49 (0)421 218 66630, e-mail: jutta.guenther@uni-bremen.de

Prof. Dr. André W. Heinemann Federal and Regional Financial Relations

Phone: +49 (0)421 218 66830, e-mail: andre.heinemann@uni-bremen.de

Prof. Dr. Torben Klarl Macroeconomics

Phone: +49 (0)421 218 66560, e-mail: tklarl@uni-bremen.de

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