

Ethnic hierarchy in the Russian labour market: A field experiment*

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Abstract

The correspondence study has now become a standard method of measuring discrimination in the labour market. For the first time in the literature, we present a correspondence study of ethnic discrimination in Russia. A sample of over 9,000 job applications makes it one of the largest such studies ever conducted. We include 10 ethnic groups and run the experiment in four Russian cities, whose populations have varying ethnic compositions. Ethnic preferences of Russian employers are different across locations. In Moscow and St Petersburg, employers treat applications from ethnic Russians and ethnic groups of European origin (Germans, Jews, and Ukrainians) in about the same way. Visible minorities of Southern origin are discriminated against. Men from ethnic groups of Southern origin experience stronger discrimination than women. In Kazan and Ufa, two cities with ethnically mixed populations, and in which indigenous ethnic groups have a privileged status, all applicants are treated about equally. We discuss the effects, on discrimination, of ethnic autonomy and of the ethnic composition of a population; these effects may apply to other ethnic federations beyond the Russian case.

Keywords: ethnic hierarchy; ethnic discrimination; correspondence study; labour market; Russia.

The field experiment has now become a standard method for studying racial and ethnic discrimination in the labour market. In a typical labour market experiment (also known as an audit or correspondence study), researchers randomly assign a signal of race or ethnicity to fictitious CVs, apply for jobs and record contacts from employers. As long as the signal assignment is random, the differences in the contact rates across the groups can be treated as evidence of discrimination. Such experiments have now been conducted in many countries (for recent literature reviews see Baert (2018); Bertrand and Duflo (2017); Neumark (2018); Rich (2014); Zschirnt and Ruedin (2016)). There is overwhelming evidence that on average employers contact applicants from majority groups more often than applicants from minority groups. Racial and ethnic discrimination in the labour market is well documented.

As Bertrand and Duflo (2017) note, this literature remains mainly descriptive and methodological innovations are rare. The dominant theoretical approach is to differentiate between statistical and taste-based discrimination (Arrow, 1973; Becker, 1957; Phelps, 1972). Most empirical evidence is consistent with taste-based discrimination, with some exceptions (Rich, 2014). Surprisingly, the discrimination literature remains largely detached from the psychological and sociological theories of prejudice and intergroup bias that often underpin the research on attitudes towards immigrants (Ceobanu and Escandell, 2010).

Another limitation of much of the existing experimental literature on discrimination is the lack of detail. The usual approach is to compare a small number of racial or ethnic groups. The experiments rarely have

enough power to identify variation in ethnic discrimination by gender, occupation, location and other factors. Most studies focus on the USA and Europe, with only a few exceptions. Exploring contextual, including geographic, variation in discrimination is a promising direction for future research (Pedulla, 2018).

In this paper we present the results of the first ethnic discrimination experiment conducted in Russia. Adding another country to the literature on discrimination may be interesting, but the contribution of this paper goes beyond simply another case study. We focus on two main questions.

First, instead of trying to separate statistical from taste-based discrimination, we explore ideas and test hypotheses derived from the literature on ethnic hierarchies in multiple group systems (Hagendoorn, 1995). Attitudes of ethnic majorities towards different minority groups are not the same, and vary according to an implicit hierarchy. In Western countries, minority groups of European origin are usually more widely accepted than groups of African and Asian origin. Most field experiments to date looked at one or only a few minority groups. Even the larger audit studies rarely had enough statistical power to provide reliable estimates of the differences in contact rates across minority groups. In this study, we implement a design with 10 ethnic groups and a sample size of over 9,000 job applications, that allows us to provide reliable estimates of discrimination for each group.

Second, we focus on geographical variation in discrimination. Russia is a multi-ethnic federation where, in some regions, indigenous ethnic

groups have a special institutional status. Are the patterns of ethnic discrimination and hierarchy the same or different in ethnically heterogeneous, compared to ethnically Russian, regions? This question is relevant beyond the Russian case and applies to other large states that include autonomous ethnic regions (such as China, India, Nigeria, or the United Kingdom). To answer this question, we conducted our experiment in four Russian cities. Two of them (Moscow and St Petersburg) are metropolitan areas, with mostly ethnically Russian populations. The other two cities (Kazan and Ufa) are capitals of ethnic autonomies, with mixed ethnic Russian and indigenous Muslim populations.

The results show considerable differences in the patterns of ethnic discrimination across these locations. In Moscow and St Petersburg, employers discriminate against visible ethnic minorities of Southern origin, but not against groups of European origin. Discrimination against ethnic minority men is stronger than that against ethnic minority women. On the other hand, in Kazan and Ufa all ethnic groups are treated by employers in approximately the same way, with the contact rates for most groups of Southern origin being only marginally, and not statistically significantly, lower than for groups of European origin. We interpret these results as evidence of racialised ethnic hierarchies in the labour market, and discuss the effects of ethnic population composition and ethnic autonomy on discrimination.

The paper is structured as follows. In section 1 we begin with a review of the experimental evidence of discrimination in the context of ethnic hierarchies in multi-ethnic societies. In section 2, we consider

how discrimination may vary across locations according to the different ethnic structures of the populations and the differing institutional status of minorities. Section 3 introduces the Russian context. In section 4 we present the experimental design, followed by section 5 with the results. In section 6 we discuss the findings and their interpretations.

1 Experimental evidence of ethnic hierarchy in the labour market

Most literature exploring mechanisms of discrimination in the labour market has focused on separating statistical from taste-based discrimination. Taste-based discrimination implies that employers are prejudiced against racial and ethnic out-groups and are willing to pay a penalty to avoid hiring from them (Becker, 1957). Statistical discrimination may happen even when employers are not directly prejudiced. If productivity-related unobserved characteristics vary across groups, employers may be reluctant to hire workers from some groups because they expect them to be less productive (Arrow, 1973; Phelps, 1972). Disentangling pure prejudice and statistical discrimination is useful for the analysis of employers' motives for discriminatory behaviour, although recent research shows that discrimination may also be unintentional and based on unconscious implicit prejudice (Bertrand et al., 2005; Bertrand and Duflo, 2017; Quillian, 2006), especially when attention is a scarce resource (Bartoš et al., 2016). However, the employers' decision-making process should not be the only focus for experimental research on discrimination. Experiments can also be used to study how ethnic prejudice is driven by social contexts

and historical legacies of intergroup relations.

Human societies tend to be organised as group-based hierarchies (Sidanius and Pratto, 2001). Many modern societies, especially in North America and Western Europe, are multiracial and multi-ethnic and include large ethnic minorities, often both indigenous and of immigrant origin. Researchers of intergroup social distance argue that social status varies across racial and ethnic groups (Hagendoorn, 1995). In many Western societies North Europeans have the highest status, followed by South and Eastern Europeans, Asians and Africans. This ethnic hierarchy seems to be stable across time and societies and is generally accepted both by the ethnic majority and by minorities. Survey evidence confirms that attitudes of natives towards immigrants of different ethnic origin can vary strongly. Ethnic stereotypes are group-specific. In the USA, respondents rate White Americans higher than Asians, and Asians higher than African Americans and Hispanics, on most traits (Bobo and Masaghi, 2001). The British public accepts immigrants from Australia, but many are more sceptical about Europeans, and especially immigrants from Africa, the Caribbean region and South Asia (Ford, 2011). Swiss voters reject the citizenship applications of immigrants from Turkey and the former Yugoslavia more often compared to Western European countries (Hainmueller and Hangartner, 2013).

Correspondence studies have mostly been interpreted as attempts to measure discrimination in the labour market. As with most experiments, they often lack external validity and generalizability (Baldassarri and Abascal, 2017). By design, these studies are limited to only a few

occupations, skills, locations, racial and ethnic groups, and channels of recruitment. In most cases we can only collect data about invitations to interviews rather than actual job and wage offers. Extrapolating experimental estimates of discrimination in recruitment to other areas of the labour market requires us to make many assumptions. However, correspondence tests can also be seen as a tool for measuring group-specific ethnic prejudice, as revealed in employers' hiring decisions. While not coming from nationally representative samples, experimental studies of ethnic prejudice have the important advantage of minimising social desirability bias. The focus of research then shifts, from providing unbiased estimates of labour market discrimination, to examining the relative standings of racial and ethnic groups.

Most correspondence studies only involved one or two ethnic minority groups and were not designed to measure group variation in discrimination. Even in experiments with multiple groups, sample sizes were usually not large enough to provide reliable comparisons across groups. In the United Kingdom, Wood et al. (2009) compared White British with Black African, Black Caribbean, Chinese, Indian, Pakistani and Bangladeshi job applicants and found that the extent of discrimination against all minority groups was similar. However, they only sent about 400 job applications per minority group and had low statistical power for minority group comparisons. This is a standard problem in other similar studies. In the Netherlands, Andriessen et al. (2012) found that Antillean, Moroccan, Surinamese, and Turkish applicants all had similarly lower response rates compared to native Dutch. In Austria, Chinese, Nigerian,

Serbian and Turkish applicants were all discriminated against compared to native Austrians, with the lowest callback rates for Nigerians (Weichselbaumer, 2017). According to McGinnity and Lunn (2011), in Ireland German applicants faced discrimination that was similar in magnitude to that faced by Africans and Asians. On the other hand, in Belgium the discrimination against Ghanaians, Moroccans and Turks was found to be statistically significantly stronger than that against Slovaks (Baert et al., 2017).

Some studies had larger sample sizes and were better designed for intergroup comparisons. In Australia, applicants with Italian names had only slightly lower callback rates than those with Anglo-Saxon names, while discrimination against Chinese and Middle Eastern applicants was stronger (Booth et al., 2012). This result is inconsistent with the findings from Canada, where discrimination against applicants with Greek names was about as strong as that against Chinese, Indians and Pakistani (Oreopoulos, 2011). In probably the largest labour market correspondence test to date (21,000 job applications), Maurer-Fazio (2012) found a clear ethnic hierarchy in the Chinese labour market. Chinese Han applicants had the highest callback rate, followed by Mongolians and Uyghurs, with Tibetans at the bottom of the list. Preliminary results from a large harmonized correspondence study recently conducted in five European countries (Germany, Netherlands, Norway, Spain, United Kingdom) show that immigrants from Europe and the United States are treated more favourably compared to applicants with Asian and African backgrounds (Coenders and et al., 2018).

It is easier to obtain larger sample sizes for studies of discrimination in the rental market, and some of them included multiple ethnic groups of different origin. In France, applicants with Polish and Portuguese names had similar response rates to the native French, while landlords' reactions to African and Turkish names were more negative (Acolin et al., 2016). In Italy, there was stronger discrimination against people with Arab/Muslim names compared to those with names from Eastern Europe (Baldini and Federici, 2011). In London, Poles were more likely to receive positive responses from landlords than were Arabs, Africans and Indians (Carlsson and Eriksson, 2015).

Overall, most studies show that in Western countries non-native minorities of European origin receive preferential treatment, in the labour and housing markets, compared to non-Europeans. It is unclear if there is much variation in discrimination across the non-European ethnic groups. These findings confirm the existence of an ethnic hierarchy in the labour market and are consistent with the social distance research, and survey evidence of ethnic differences in employment and wages (Heath and Cheung, 2007). Not all minorities are the same, and some are treated better than others.

2 Discrimination and the ethnic composition of populations

Blumer (1958) famously suggested that racial prejudice emerges when members of the dominant group perceive a challenge, to their superior social status, from subordinate out-groups. The group threat hypothesis

became one of the pillars of the literature on attitudes towards immigrants (Ceobanu and Escandell, 2010). Empirically, it is often tested by looking at the association between prejudice and real or perceived immigrant group size, possibly mediated by economic conditions (Quillian, 1995; Semyonov et al., 2006). Majority members may feel more threatened in places with a higher proportion of ethnic minority members, especially when the economy is poor. The support, from empirical evidence, of the group threat hypothesis has been mixed. When the analysis is conducted at the regional rather than the country level, some studies confirm the association between minority group size and anti-immigrant prejudice in Europe (Markaki and Longhi, 2013), while others fail to find this link (Hjerm, 2009; Rustenbach, 2010).

Another well-established theoretical approach that is often discussed in this literature is the contact hypothesis (Allport, 1954). Under certain conditions, experiencing positive contact with members of out-groups may reduce prejudice (Pettigrew and Tropp, 2006). While the group threat and contact theories may generate contradictory predictions, they both stress the importance of contextual factors for intergroup relations. Both theories imply that the level of discrimination would vary across locations with different racial and ethnic population compositions. More ethnically diverse places may stimulate intergroup contact that will reduce prejudice. On the other hand, the influx of ethnically different populations may trigger the sense of group threat and provoke negative attitudes towards newcomers.

Empirical tests of both hypotheses have been rare in the discrimina-

tion literature. Gaddis and Ghoshal (2015) found that in Los Angeles and New York discrimination against Arab Americans was somewhat stronger in the neighbourhoods with the highest concentration of mosques, although their results did not extend to other measures of ethnic minority presence, or to other cities. Housing discrimination against African Americans was stronger in locations where White constituted between 30% and 80% of the population (Hanson and Hawley, 2014), potentially suggesting group threat effects. In France and in London, housing discrimination against ethnic minorities was stronger in places with more immigrants (Acolin et al., 2016; Carlsson and Eriksson, 2015). On the other hand, in Sweden there was stronger housing discrimination against ethnic minorities outside metropolitan areas where the population share of ethnic minorities was smaller (Carlsson and Eriksson, 2014).

Population share of ethnic minorities is a rather crude measure of group threat, and can sometimes be misleading. In his famous essay Blumer (1958) noted that group position is a historical product and is set by the conditions of initial contact. When looking at the association between the ethnic composition of a population and the level of prejudice it is important to consider the historical origins of ethnically diverse locations. Ethnically mixed populations may emerge as a result of migration when minority groups, often with a lower status in the ethnic hierarchy, move to a territory already populated by the dominant group, as in the case of the slave trade in Americas (forced migration) or modern immigration to Western countries. Most existing studies of discrimination analysed it in the context of ethnic heterogeneity historically produced

by immigration.

Another historical cause of ethnically mixed locations is conquest and colonisation, when a dominant group subjugates a territory with an ethnically distinct population. The European colonisation of Asia, Africa and the Americas produced many racially and ethnically heterogeneous populations across the world. Some ethnically mixed regions in Europe are also products of earlier colonisation (Wales and Northern Ireland in the United Kingdom, the Basque country in Spain). Perceptions of group threat may be different in places where ethnic heterogeneity originated from earlier colonisation by a high-status group and where the indigenous group maintains its ethnic identity. We use this observation in our research design.

3 The Russian context

Before describing the research design we will briefly introduce Russia's complex ethnic history. Our main arguments are not country specific, and extend beyond the Russian case. However, most readers who do not specialise in area studies will not be familiar with many of Russia's ethnic groups and the historical context of their incorporation into the Russian state. Outlining this is necessary to provide conceptual underpinnings for our research design and findings.

According to the most recent census, in 2010, ethnic Russians constitute about 80% of Russia's population. The other 20%, or 26 million people, describe themselves as not ethnically Russian and belong to over 100 ethnic groups. The proportion of ethnic Russians varies from 97%

in the central Tambov region to 1% in the republic of Ingushetia in the North Caucasus. This ethnic heterogeneity reflects the history of the Russian state and is a result both of conquest and colonisation (by ethnic Russians, of territories with indigenous populations) and of immigration of ethnic minorities to Russia's heartlands.

By the early 15th century the Grand Duchy of Moscow occupied a relatively small territory in what is known now as the Central European Russia and was populated predominantly by Orthodox Slavs. In the 15th century a rapid territorial growth began, with Moscow subjugating other Russian principalities (most famously, Novgorod) and expanding into the territory to the east, which was sparsely populated by Finno-Ugric ethnic groups (Riasanovsky, 2000). In 1552, Russians conquered the Khanate of Kazan in the Volga river region and, four years later, the Khanate of Astrakhan near the Caspian Sea. These events started the process of conquest and colonisation, by the Russian state, of the Southern steppe in the Volga river basin (Khodarkovsky, 2002; Moon, 1997). By the time of the Russian invasion, the ethnically and linguistically heterogeneous population of the Khanate of Kazan included groups of Turkic and Finno-Ugric origin (Romaniello, 2012). The dominant group, Muslim Tatars, maintained its ethnic and religious identity after the conquest and is now the second largest ethnic group in Russia, counting over 5 million people.

In the west, the period from the 16th to the 18th century was marked by the competition between the Russian and Polish-Lithuanian states. In the mid-17th century, eastern Ukraine split from Poland to form an alliance with Russia that, with time, evolved into full political integration.

By the late 18th century Lithuania, along with most of Ukraine and parts of Poland, became parts of the Russian empire, contributing to its ethnic diversity. In the north, a series of wars with Sweden resulted in the annexation by Russia of the territories near the Baltic sea, populated by modern Estonians and Latvians (1721), and Finland (1808).

In the east, Russians organised their first military excursions into Western Siberia in the 16th century, and by the early 18th century had largely conquered all Siberian lands, which were sparsely populated by indigenous tribes of various ethnic origins. Mass colonisation of Siberia only followed in the late 19th and 20th centuries. In the south, the Crimean khanate, inhabited by Muslim Crimean Tatars, was conquered in 1783. Georgia, an Orthodox Christian kingdom in the southern Caucasus, became part of the Russian empire in 1801. The 19th century wars with Persia and the Ottoman empire resulted in incorporation of several khanates in the Southern Caucasus, populated by Christian Armenians and Muslim Azerbaijanis. The conquest of the North Caucasus was only completed by 1864, after several decades of stout resistance by indigenous Muslim ethnic groups (primarily in modern Dagestan and Chechnya). In Central Asia, the territories of modern Kazakhstan were subjugated by Russians in the early 19th century, and the emirate of Bukhara and the khanates of Kokand and Khiva (broadly corresponding to the territories of modern Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan) were incorporated by the late 19th century (Riasanovsky, 2000).

By the time of the First World War and the 1917 revolution, the Russian empire was therefore a multi-ethnic conglomerate where ethnic

Russians constituted less than a half of the total population (Mironov, 2017). The war and the revolution resulted in several western parts of the empire becoming independent states (Estonia, Finland, Latvia, Lithuania, Poland). Most other territories, after a period of turmoil, were in 1922 incorporated into the Soviet Union. At that time, the Bolsheviks had a fierce debate about the “nationalities question” in Soviet Russia. Eventually, they rejected the orthodox Marxist approach, that denied the significance of ethnic identities, and adopted the “great danger” concept that argued Russian chauvinism was a greater danger compared to local ethnic nationalisms. The political implication of this approach was the adoption of a policy intended to promote local ethnic identities and accelerate the social, economic, and cultural development of “backward” ethnic groups (Vujacic, 2007), in what was called in the literature the “affirmative action empire” (Martin, 2001). The Soviet state introduced ethnic quotas in universities and governmental organizations, promoted ethnic elites, established language schools, printed books and newspapers in local languages (which in some cases required the development of new alphabets) and supported intellectuals from ethnic minorities (Hirsch, 1997, 2000; Slezkine, 1994). The “affirmative action empire” policy was revoked in the mid-1930s and many ethnic groups later suffered from state repression and forced deportations. However, some of the institutions adopted in this early period stayed in place and continue to affect Russia’s ethnic policies until now.

According to the 1936 Constitution, the Soviet Union was organised as a nested hierarchy of administrative units (Tishkov, 1997). At the

highest level, there were 11 (later 15) Soviet socialist republics; the Russian Federation was one of them. Russia further consisted of autonomous Soviet republics in the territories populated by the largest ethnic minorities, provinces (*oblasts*) in the ethnic Russian heartlands, and territories (*krais*) in the colonised territories with ethnically mixed populations. *Krais* included ethnic autonomous *oblasts*, populated by smaller ethnic groups. With some changes (autonomous ethnic districts (*okrugs*) were introduced later), this structure, based on the principles of ethnic federalism, remained in place until the disintegration of the USSR, and was inherited by modern Russia.

In contemporary Russia, among 85 “federation subjects”, there are 22 ethnic republics and 4 ethnic autonomous districts. Most republics have a “titular” ethnic group (or in some cases two groups) that is usually reflected in their names (for example, Tatarstan for the republic of Volga Tatars). The population share belonging to titular ethnic groups varies across the republics. Chechens are 95% of Chechnya’s population, while in the northern republic of Karelia, the Karels (a Finno-Ugric people) constitute only 7% of residents. The language of the titular ethnic group is usually recognised, in each of the republics, as an official language in addition to Russian. The extent to which indigenous languages are actually used in everyday life varies, but most republics have print media and TV and radio broadcasting in the languages of titular groups. Titular languages are taught in schools, although examinations have to be taken in Russian. Many republics still keep the Soviet institutions that were originally designed to produce native ethnic intelligentsia (such as local

Academies of Sciences, etc.) (Giuliano, 2011; Gorenburg, 2003). The system of ethnic quotas in the government and employment is no longer in place, but the “nativization” of local cadres remains at approximately the same level as in the late Soviet period (Shcherbak and Sych, 2017). Heads of republics usually belong to titular groups, a rule that the Kremlin followed even when it abolished direct gubernatorial elections between 2005 and 2011.

In addition to the conquest of new lands, another source of Russia’s ethnic heterogeneity has been voluntary or forced migration of ethnically non-Russian groups. Small communities of foreign craftsmen, merchants and soldiers had lived in Moscow since the Middle Ages, but the first mass migration occurred in the 18th century, when Catherine the Great invited colonists from Germany into Russia. About 40,000 came, mostly settling in the Volga river region and modern Eastern Ukraine (Mironov, 2014). By 1914, over 1 million ethnic Germans moved to the Russian empire (Osinsky, 1928). WWI and the 1917 revolution marked the end of the Pale of Settlement (a law that banned Jews from settling outside the western parts of the empire), and thereafter many Jews moved to the cities in Central Russia. By the time of the 1926 census, they constituted 6% of Moscow’s and 5% of Leningrad’s populations, being the second largest ethnic group in both cities after ethnic Russians (Perepis, 1928). Rapid industrialisation and urbanisation in the Soviet period stimulated internal migration. Soviet colonisation of the Urals and Siberia involved many ethnic groups, leading to ethnically heterogeneous populations in Siberian urban centres. Another cause of ethnic mixing was forced migra-

tion. In the course of WWII, the Soviet government forcibly sent Crimean Tatars, Chechens and Ingushes, Germans, Kalmyks and other groups to Kazakhstan, Central Asia, and Siberia. After the war, it deported tens of thousands of Estonians, Latvians and Lithuanians to Siberia. Overall, between 1936 and 1956, over 3 million people were forcibly removed from their homelands (Tishkov, 1997).

The collapse of the USSR in 1991 led to further population flows. Ethnic Russians started to return to Russia from the former Soviet republics that became independent states. Following ethnic wars and the deterioration of the economic situation in the Caucasus in the early 1990s, many Armenians, Azerbaijanis and Georgians moved to Russia. These migration flows are hard to quantify, but between the 1989 and 2002 censuses the Armenian population of Russia increased from 0.5 million to 1.1 million people. Russia's economic recovery, that started in the early 2000s, stimulated new waves of economic migration, mainly from Ukraine, Moldova, and Central Asia (Agadjanian et al., 2017). Official statistics for the most recent immigration flows are poor, but in 2012 there were over 2 million Uzbek and over 1 million Tajik nationals in Russia, mainly employed in low-skilled occupations in the Moscow region and in other metropolitan areas. The number of Ukrainian passport-holders in Russia was 1.4 million in 2012, and it has significantly increased after the Russian-Ukrainian military conflict in 2014 (Bessudnov, 2016).

The ethnic heterogeneity of Russia's population makes it an interesting case for studying ethnic hierarchies and discrimination in the labour market. Russia has large ethnic minorities of both European origins (e.g.

Germans, Jews, Ukrainians) and non-European origins (e.g. Armenians, Chechens, Georgians, Tatars, Uzbeks). There are religious differences as well; some groups are mostly Orthodox Christian (Armenians, Georgians, Ukrainians), while others are Muslim (Azerbaijanis, Chechens, Tatars, Uzbeks) or Buddhist (Kalmyks, Tuvans). Previous research into interethnic social distance in Russia shows that Slavic minorities of Eastern European origin are placed higher in the ethnic hierarchy than minorities of Southern origin (Bessudnov, 2016; Hagendoorn et al., 1998). Another differentiating factor is the institutional status of minorities. Ethnic groups whose indigenous settlement area is within the Russian borders are usually titular, i.e. have the institutionalised privileged status in ethnic republics that they perceive as “theirs” (Hagendoorn et al., 2008; Minescu et al., 2008; Minescu and Poppe, 2011). Ethnic groups of immigrant origin do not have titular rights.

Our research design aims to employ these characteristics of the Russian case. First, we are interested in whether ethnic discrimination in the Russian labour market is group specific and follows an ethnic hierarchy, in which groups of European origin occupy a higher position than non-European groups. Second, we want to investigate if ethnic discrimination in employment is context dependent and varies between ethnically Russian regions and titular ethnic republics.

4 Research design

4.1 Ethnic groups

Table 1 shows characteristics of the ethnic groups that we included in the study. We selected groups of both European and non-European origin and both titular and non-titular groups.

Table 1: Ethnic groups included in the study

Ethnic group	Size in Russia in 2010 (,000)	Region of origin	Dominant religion	Titular
Ethnic Russians	111,017	European Russia	Orthodox Christian	
Armenians	1,182	Caucasus	Orthodox Christian	no
Azerbaijanis	603	Caucasus	Muslim	no
Chechens	1,431	North Caucasus	Muslim	in Chechnya
Georgians	158	Caucasus	Orthodox Christian	no
Germans	394	Western Europe	Christian	no
Jews	157	Eastern Europe	Jewish	no
Latvians	19	Eastern Europe	Christian	no
Lithuanians	31	Eastern Europe	Christian	no
Tajiks	200	Central Asia	Muslim	no
Tatars	5,311	Volga region	Muslim	in Tatarstan
Ukrainians	1,928	Eastern Europe	Orthodox Christian	no
Uzbeks	290	Central Asia	Muslim	no

Note: Population size reported according to the 2010 Russian census. It underestimates the size of ethnic groups in the most recent immigration wave, in particular, Ukrainians, Tajiks and Uzbeks.

We followed the standard practice of signalling ethnicity by randomly assigning ethnic names to CVs. We collected ethnic first names and surnames from a popular Russian social media website. For ethical reasons, we recombined first names and surnames in such a way that they could not uniquely identify real people on Russian social media. We provide examples of ethnic names in the Appendix.

To make sure that the names could be recognised as ethnic by employers, we conducted a survey. In the survey, we presented a list of names to respondents and asked them to assign the names to ethnic groups in an open-ended question, without providing a list of groups. We recruited a non-probability snowball sample on social media websites ($n = 861$). Compared to the general population, people in our sample were younger and more educated, more often female, and Moscow and St Petersburg were over-represented. Arguably this may better reflect demographic characteristics of urban HR employees than a national probability sample.¹

Table 2: Recognition of ethnic names

Ethnic group	% correct	% broadly correct	% not Russian
Georgian	91	98	100
Armenian	90	96	100
Russian	88	90	12
Ukrainian	82	92	95
Jewish	72	84	99
Tatar	57	90	99
German	42	62	85
Latvian	35	65	100
Lithuanian	22	73	100
Chechen	20	83	99
Uzbek	19	91	100
Azerbaijani	16	90	100
Tajik	12	84	99

Note: Broadly correct identification includes the following groups. For Russian and Ukrainian names any Slavic group; for Georgian and Armenian any group from the Caucasus; for Jewish and German Jews or Germans; for Latvian and Lithuanian any Baltic group; for Azerbaijani, Chechen, Tatar, Tajik, and Uzbek names any Muslim group, or generic “Caucasus”, or “Central Asia”.

The recognition of ethnic names varied by group (see Table 2). For

four groups (ethnic Russians, Armenians, Georgians, and Ukrainians) respondents correctly identified the names in over 80% of the cases. For all Muslim ethnic groups the identification rates were much lower. However, most respondents, even when unable to correctly identify the exact ethnic group for Muslim names, gave as an answer the name of another Muslim group. Muslim names have common origins and may indeed sound similar. For all ethnic minority groups, except Germans, the names were recognised as not ethnically Russian in over 95% of cases. German names, arguably the most assimilated group in the list, were recognised as not ethnically Russian in 85% of the answers.

4.2 Locations

We conducted the experiment in four cities in Russia. Two cities, Moscow and St Petersburg, are large metropolitan areas in European Russia with mostly ethnically Russian populations. The other two, Kazan and Ufa, are capitals of titular ethnic republics in the Volga river region. Table 3 provides information about the cities' populations and ethnic composition.

Moscow is Russia's capital, with a population of over 12 million people. According to the 2010 census, 92% of the population are ethnically Russian. This number is unlikely to include many people from the most recent immigration waves from the Caucasus, Central Asia and Ukraine. In 2016, about 500,000 foreign workers had a work permit in Moscow and the Moscow region (Scherbakova, 2017). According to the census, the largest ethnic minorities in Moscow are Ukrainians, Tatars, Armeni-

Table 3: Characteristics of four locations

City	Population (2017, thousand)	Ethnic composition (2010)
Moscow	12,381	Russians (92%) Ukrainians (1.3%) Tatars (1.3%) Armenians (1%)
St Petersburg	5,282	Russians (92%) Ukrainians (1.5%) Belarusians (0.9%) Tatars (0.7%)
Kazan	1,232	Russians (49%) Tatars (48%)
Ufa	1,116	Russians (49%) Tatars (28%), Bashkirs (17%)

Note: Data on population come from the estimates of the Russian Statistical Office. Data on ethnic composition come from the 2010 census.

ans, Azerbaijanis and Jews. The largest groups in the recent immigration wave, unaccounted for in the census, are Tajiks and Uzbeks.

St Petersburg, Russia’s capital between 1712 and 1918, is the second largest city in the country, with a population of over 5 million people. Over 90% are ethnically Russian; the largest ethnic minorities are the same as in Moscow.

Kazan is the capital of the ethnic republic of Tatarstan. In the late imperial period, ethnic Russians were already a majority of the city’s population; according to the 1897 census, 74% of the inhabitants spoke Russian as their mother tongue and 22% spoke Tatar. In 1920, the city became the capital of the Tatar Autonomous Socialist Republic, and Tatars – a predominantly Muslim ethnic group – acquired a titular

status. In 2010, 49% of the Kazan population were ethnically Russian, and 48% Tatar.

Ufa is the capital of the republic of Bashkortostan located to the east of Tatarstan, in the region between the Volga river and the Ural mountains. Bashkirs, the titular group, were a nomadic Muslim people who acknowledged the authority of the Russian tsar in the 16th century. Ufa was founded by Russian settlers in 1574, and for most of its history had a small ethnic Bashkir population. The Bashkir and Tatar languages are mutually intelligible, and the identity boundaries between these two groups have been fluid (Gorenburg, 1999). In 2010, Ufa had a 49% ethnic Russian population, 28% Tatars and 17% Bashkirs.²

The choice of locations was driven by our research questions. We have two cities with predominantly ethnically Russian populations, located outside ethnic republics (Moscow and St Petersburg). Two other cities (Kazan and Ufa) are capitals of titular ethnic republics, and in both cities ethnic Russians are about half of the population.

4.3 Experimental design

The study was conducted on two popular Russian job search websites, with monthly audiences of 3 million and 10 million visitors. The job application process is similar on both websites. A person looking for a job creates an account on the website, completing the required fields. Then the job seeker can browse through vacancies advertised by firms, and apply online. After an application is made, firms gain access to the applicant's CV, and decide if they want to contact them. Contact can

be made on the website or by phone.

We created accounts for applicants in four cities and across four occupations: salesperson (low-skilled, high customer contact); cook (low-skilled, low customer contact); sales manager (high-skilled, high customer contact); and computer programmer (high-skilled, low customer contact). Each account was randomly assigned gender and an ethnic name. Creating accounts was a time-consuming process that could not be automated. At this stage, we reduced the number of ethnic groups to 10, combining several groups pairwise: Azerbaijanis and Chechens (both Muslim groups from the Caucasus); Latvians and Lithuanians (Baltic groups); and Tajiks and Uzbeks (Muslim Central Asian groups). Our survey shows that, for these groups, employers are unlikely to identify the names precisely, although most will be able to attribute them to broader regions.

Thus we have a full factorial design, with two treatments, ethnicity (10 levels) and gender (2 levels), and two strata, city (4 levels) and occupation (4 levels). This required the creation of 320 online accounts, 160 on each website (selected to constitute a fractional factorial design on each website) (Lawson, 2015). For each ethnic group we have 32 names (16 male and 16 female). This is considerably more than in most previously conducted experiments, reducing idiosyncratic name effects (Gaddis, 2017). Name was the only signal of ethnicity. All job applicants were presented as Russian nationals in the age range 28 to 35 years, with Russian as their mother tongue. We assigned to them educational credentials from vocational schools and universities in the city of job application, and local mobile telephone numbers.

Prior to the main study, but after a pilot study (that involved sending 1,000 job applications), we conducted power analysis with the following assumptions: effect size of 0.2 (corresponding approximately to the difference between 40% and 30% contact rate); intraclass correlation of 0.01 where names were treated as clusters (this value was determined by the pilot study); 95% statistical significance level; and power of 80%. With these assumptions, we required a sample size of about 8,000 in order to obtain reliable estimates for 10 ethnic groups, interacted with a factor with two levels (such as sex or pairwise combinations of cities or occupations).

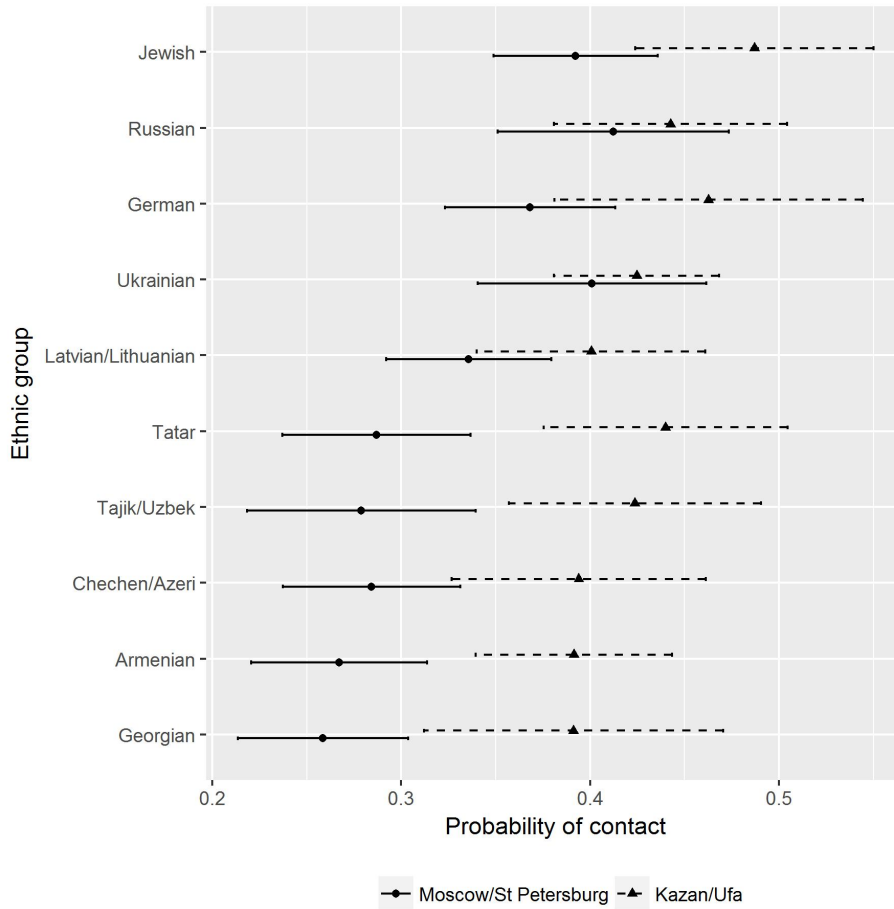
Data were collected between June 2017 and January 2018. We employed six research assistants who monitored the websites, sent job applications and recorded contact made by employers on the websites or on the phone. When employers contacted applicants on the phone, research assistants were instructed to politely decline invitations to job interviews.

5 Results

5.1 Contact rates by ethnic group and location

Overall, we submitted 9,684 job applications. In 37% of the cases, employers invited applicants for an interview, either by contacting them on the phone (21%) or on the website (24%), with some employers using both communication channels. Table 4 reports contact rates by ethnic group. This is shown separately for Moscow and St Petersburg – on the one hand – and Kazan and Ufa on the other. Figure 1 shows this information as a dot plot with 95% confidence intervals. We do not have

Figure 1: Contact rates by ethnic group and location



enough statistical power to report estimates in four cities separately, but the patterns are similar in Moscow and St Petersburg, and in Kazan and Ufa (see Appendix for details). Table 5 presents linear probability models for being contacted by employers, that control for all the other characteristics of applications (gender, occupation, city, website, and research assistant) and test for statistical significance of the differences from the reference group, ethnic Russians.

In Moscow and St Petersburg, the in-group, ethnic Russians, have

Table 4: Contact rates by ethnic group and location

Ethnic group	n applications	n response	proportion contacted	95% CI	callback ratio	odds ratio
Moscow and St Petersburg						
Russian	616	254	0.41	[0.35; 0.47]	1	1
Ukrainian	566	227	0.40	[0.34; 0.46]	1.03	0.95
Jewish	604	237	0.39	[0.35; 0.44]	1.05	0.92
German	649	239	0.37	[0.32; 0.41]	1.12	0.83
Latvian and Lithuanian	551	185	0.34	[0.29; 0.38]	1.23	0.72
Tatar	617	177	0.29	[0.24; 0.34]	1.44	0.57
Azerbaijani and Chechen	605	172	0.28	[0.24; 0.33]	1.45	0.57
Tajik and Uzbek	570	159	0.28	[0.22; 0.34]	1.48	0.55
Armenian	610	163	0.27	[0.22; 0.31]	1.54	0.52
Georgian	549	142	0.26	[0.21; 0.30]	1.59	0.50
Kazan and Ufa						
Jewish	384	187	0.49	[0.42; 0.55]	0.91	1.20
German	376	174	0.46	[0.38; 0.54]	0.96	1.09
Russian	409	181	0.44	[0.38; 0.50]	1	1
Tatar	350	154	0.44	[0.38; 0.50]	1.01	0.99
Ukrainian	365	155	0.42	[0.38; 0.47]	1.04	0.93
Tajik and Uzbek	387	164	0.42	[0.36; 0.49]	1.04	0.93
Latvian and Lithuanian	362	145	0.40	[0.34; 0.46]	1.10	0.84
Azerbaijani and Chechen	368	145	0.39	[0.33; 0.46]	1.12	0.82
Armenian	378	148	0.39	[0.34; 0.44]	1.13	0.81
Georgian	368	144	0.39	[0.31; 0.47]	1.13	0.81

Note: Groups ordered by the contact rate within each pair of locations. 95% CI stands for 95% confidence interval, calculated after adjusting standard errors for cluster-design effects (Green and Vavreck, 2007). Callback ratio was calculated as the proportion of responses for ethnic Russians divided by the proportion of responses for an ethnic group. Odds ratios were calculated as the odds of receiving a response, for an ethnic group, divided by the odds of receiving a response for ethnic Russians.

Table 5: Linear probability models of being contacted by employers

	<i>Dependent variable:</i>	
	contacted by employer	
	Moscow/St Petersburg	Kazan/Ufa
	(1)	(2)
Ethnic group (ref.: ethnic Russians)		
Jewish	-0.02 (0.04)	0.05 (0.04)
Ukrainian	-0.01 (0.03)	-0.005 (0.04)
German	-0.04 (0.03)	0.04 (0.04)
Latvian/Lithuanian	-0.07* (0.03)	-0.04 (0.04)
Tatar	-0.12*** (0.03)	0.01 (0.04)
Tajik/Uzbek	-0.13*** (0.03)	-0.02 (0.04)
Azerbaijani/Chechen	-0.13*** (0.03)	-0.04 (0.04)
Armenian	-0.14*** (0.03)	-0.03 (0.04)
Georgian	-0.15*** (0.03)	-0.04 (0.04)
Observations	5,937	3,747

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. Linear probability models; standard errors in parentheses. The dependent variable is binary (1 if contacted by employer, 0 if not). All models control for gender, occupation, city, website, and research assistant's name (coefficients not shown). Cluster-robust standard errors applied (clustered by applicant's name). Ethnic Russians are the reference group.

the highest contact rate – 41%. Applicants with Ukrainian, Jewish and German names have only slightly, and not statistically significantly, lower contact rates. On the other hand, all ethnic groups of non-European Southern origin have significantly lower contact rates, ranging from 26% (Georgians) to 29% (Tatars). Applicants with Latvian and Lithuanian names are in the middle of the list, with a contact rate of 34%. We observe a clear ethnic hierarchy in hiring, where all groups of European origin are given preference compared to Southern groups of non-European origin, most of whom are visible minorities.

In Kazan and Ufa, the response rates are higher than in Moscow and St Petersburg across all the ethnic groups. This reflects characteristics of the local labour markets. In contrast to the results in Moscow and St Petersburg, in Kazan and Ufa none of the differences in the contact rates between ethnic Russians and other ethnic groups is large or statistically significant. Jewish and German applicants have the highest contact rates, closely followed by ethnic Russians and Tatars, who are contacted by employers with equal frequency. The difference between ethnic Russians and Tatars, on the one hand, and other groups of Southern origin, on the other hand, is only between 2 and 5 percentage points, and not statistically significant. The overall ethnic hierarchy, though, is similar to Moscow and St Petersburg, and most groups of European origin are contacted more often than most groups of Southern origin, even if the differences in contact rates are smaller.

Overall, we find substantial differences in the ethnic preferences of employers between Moscow and St Petersburg, on the one hand, and

Kazan and Ufa, on the other. In the former, there is strong discrimination against all non-ethnically Russian groups of Southern origin. In the latter, discrimination is much weaker, to the extent that – given our sample size – we cannot be sure that it exists in the population.

5.2 Gender differences in contact rates across ethnic groups

Do men and women of ethnic minority origin experience discrimination to the same extent? To answer this question, we fit regression models with interaction effects between ethnicity and gender. Our sample size is not large enough to allow for the analysis at the level of individual ethnic groups (split by location) and we combine all ethnic groups into two categories: of European origin (Germans, Jews, Latvians and Lithuanians, ethnic Russians and Ukrainians) and of non-European origin (Armenians, Azerbaijanis and Chechens, Georgians, Tajiks and Uzbeks, and Tatars). The results are reported in Table 6.

In Moscow and St Petersburg, discrimination against men of Southern origin is stronger compared to discrimination against women, and the difference is statistically significant. On average, female applicants from Southern groups are contacted 7 percentage points less often than female applicants from European groups. For male applicants the difference is 15 percentage points. In Kazan and Ufa, we do not find strong evidence of discrimination, and the interaction effect between ethnicity and gender is smaller and not statistically significant.

We conducted a similar analysis for the interaction between ethnicity and occupation, and did not find evidence that ethnic hierarchies vary

Table 6: Interaction between ethnicity and gender

	<i>Dependent variable:</i>	
	contacted by employer	
	Moscow/St Petersburg	Kazan/Ufa
	(1)	(2)
Ethnic group (ref.: European)		
Southern	-0.07*** (0.02)	-0.02 (0.02)
Gender (ref: female)		
male	-0.001 (0.03)	0.01 (0.03)
Southern * male	-0.08** (0.03)	-0.03 (0.03)
Observations	5,937	3,747

Note: *p<0.05; **p<0.01; ***p<0.001. Linear probability models; standard errors in parentheses. All the models control for occupation, city, website, and research assistant's name (coefficients not shown). Cluster-robust standard errors applied (clustered by applicant's name). Groups of European origin and women are the reference groups. European origin includes Germans, Jews, Latvians and Lithuanians, ethnic Russians and Ukrainians. Non-European origin includes Armenians, Azerbaijanis and Chechens, Georgians, Tajiks and Uzbeks, and Tatars.

across occupations. This is further discussed in section 6; and details are available in the Appendix.

5.3 Ethnic differences in explicit rejections

When employers did not want to invite applicants for an interview, they could either not respond at all to their application, or send an automated message on the website, rejecting applicants explicitly. Sending a message was unnecessary and can be seen as a stronger signal of rejection. In Table 7 we analyse the probability of receiving an automated rejection message in response to an unsuccessful application. In Moscow and St Petersburg, the probability of being rejected is higher for groups of Southern origin (except Tatars) compared to ethnic Russians, and the difference is statistically significant for Azerbaijanis and Chechens, Tajiks and Uzbeks, and Georgians. In Kazan and Ufa, we do not observe this pattern and none of the coefficients is statistically significant at the 95% level.

5.4 Contact on the phone and on the websites

In this section we analyse the communication channels that employers used for contacting applicants. They could do this either on the websites (by sending a message asking an applicant to contact them) or by making a call to an applicant's mobile phone. By sending a message through the websites employers could avoid initiating a personal conversation with an applicant on the phone. Table 8 reports models that look at the probability of receiving a phone call as opposed to not receiving a call,

Table 7: Probability of receiving an explicit rejection

	<i>Dependent variable:</i>	
	rejection message	
	Moscow/St Petersburg	Kazan/Ufa
	(1)	(2)
Ethnic group (ref.: ethnic Russians)		
Jewish	-0.02 (0.02)	0.04 (0.03)
Ukrainian	-0.005 (0.03)	0.05 (0.04)
German	-0.03 (0.03)	0.02 (0.03)
Latvian/Lithuanian	0.02 (0.03)	0.03 (0.03)
Tatar	-0.004 (0.02)	0.03 (0.04)
Tajik/Uzbek	0.06** (0.02)	-0.004 (0.03)
Azerbaijani/Chechen	0.08** (0.03)	0.02 (0.03)
Armenian	0.03 (0.02)	0.07 (0.04)
Georgian	0.05* (0.02)	0.05 (0.04)
Observations	3,982	2,150

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. Linear probability models; standard errors in parentheses. The sample includes only applications that have not received a positive response. The dependent variable is whether an application was explicitly rejected on the website, coded 0 or 1. Models control for gender, occupation, city, website, and research assistant's name. Cluster-robust standard errors applied (clustered by applicant's name). Ethnic Russians are the reference group.

for those applications that got a positive response.

In Moscow and St Petersburg, all ethnic groups are less likely to be contacted on the phone, compared to ethnic Russians. The effect is statistically significant for all groups, except Ukrainians. Even Germans and Jews, two groups that overall are contacted by employers about as often as ethnic Russians, are considerably less likely to receive a phone call (by 11 percentage points). For all the Muslim groups, the effect is even stronger, and the difference from the phone contact rate with ethnic Russians reaches 20 percentage points and more. In Moscow and St Petersburg many employers try to avoid initiating phone conversations with the members of out-groups, especially Muslim groups of Southern origin. By contrast, in Kazan and Ufa the differences in phone contact rates across ethnic groups are much smaller and none of them is statistically significant at the 95% level.

6 Discussion

In Moscow and St Petersburg, we find a clear pattern of ethnic discrimination in the job market. Applicants from the groups of European origin receive preferential treatment compared to the groups of Southern origin. As predicted by the theory of ethnic hierarchies (Hagendoorn, 1995), the in-group, ethnic Russians, has the highest contact rate. The contact rates for some other groups of European origin (Germans, Jews, Ukrainians) are similar to those for ethnic Russians, and the differences between these groups are not statistically significant. These findings may seem surprising. Antisemitism, both in the general population and in state

Table 8: Contact on the phone and on the websites

	<i>Dependent variable:</i>	
	contacted on the phone	
	Moscow/St Petersburg	Kazan/Ufa
	(1)	(2)
Ethnic group (ref.: ethnic Russians)		
Jewish	-0.11* (0.05)	-0.08 (0.05)
Ukrainian	-0.06 (0.05)	-0.001 (0.05)
German	-0.11* (0.06)	0.06 (0.05)
Latvian/Lithuanian	-0.17** (0.05)	-0.02 (0.06)
Tatar	-0.20** (0.07)	-0.06 (0.08)
Tajik/Uzbek	-0.22*** (0.05)	-0.07 (0.07)
Azerbaijani / Chechen	-0.22*** (0.05)	-0.001 (0.06)
Armenian	-0.16** (0.06)	-0.03 (0.05)
Georgian	-0.17** (0.06)	-0.02 (0.05)
Observations	1,955	1,597

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. Linear probability models; standard errors in parentheses. The sample includes only applications that received a positive response. The dependent variable is 1 if contact was made on the phone and 0 if the phone was not used. The models control for gender, occupation, city, website, and research assistant's name. Cluster-robust standard errors applied (clustered by applicant's name). Ethnic Russians are the reference group.

policies, was a feature of Jewish life in the late Soviet Union, and Jews were discriminated against in higher education and in a number of white-collar occupations (Pinkus, 1990). The Soviet Union's collapse in 1991 was followed by large-scale Jewish immigration to Germany, Israel and the USA. In the 1990s and 2000s state discrimination against Jews disappeared, and antisemitism in Russian society became less pronounced. In a 2015 survey, only 8% of Russians expressed negative attitudes towards Jews (Levada, 2016; Levinson, 2016). Our results confirm these findings.

We collected data in 2017, three years after the beginning of the Russian-Ukrainian military conflict that resulted in the annexation of the Crimea and the establishment of pro-Russian military regimes in parts of Eastern Ukraine. The Russian state media closely followed the conflict, with a largely anti-Ukrainian stance. Ukrainian names were well recognised in the survey we conducted. Yet, we do not find evidence of discrimination against Ukrainians, who were contacted by employers about as often as ethnic Russians. Perhaps the explanation is that many ethnic Russians do not see Ukrainians as being from a separate nation and therefore do not perceive them as an out-group. Their views on the Ukrainian state are more negative than on the Ukrainian people. In a survey conducted in 2015 in Russia, 43% said that there was no difference at all between ethnic Russians and Ukrainians, and another 35% said the differences were minor. Only 3% reported negative attitudes towards Ukrainians (64% reported positive attitudes) (Public Opinion, 2015).

For all the groups of Southern origin, the contact rates in Moscow and St Petersburg are much lower than for ethnic Russians. Among the

Southern groups, there is little difference in the contact rates. Partly this can be explained by the inability of HR employees to differentiate between the names of different Muslim groups (as shown in our pre-experiment survey). However, two Christian ethnic groups from the Southern Caucasus, with members whose names are easily recognised by Russians (Armenians and Georgians), have contact rates that are as low as for the Muslim groups. These results show that religion is not the main factor that structures Russia's ethnic hierarchy. The groups of European origin who are not visible minorities, and are more culturally Russified (or at least are perceived by ethnic Russians as Russified) are rarely discriminated against. By contrast, visible minorities from the South (both Muslim and Christian) are perceived as out-groups and are treated more negatively. The ethnic hierarchy in Russia is racialised, in a similar way to that in the USA, where White immigrants assimilate into the mainstream middle-class culture more easily compared to non-White minorities (Portes and Min, 1993; Waters and Eschbach, 1995).

How strong is ethnic discrimination in Russia compared to other countries? In Moscow and St Petersburg, the odds ratio for all Southern groups compared to ethnic Russians ranged between 0.5 and 0.57. In a recent meta-analysis (Zschirnt and Ruedin, 2016), the average odds ratio across 34 correspondence tests conducted in Western countries was 0.6. In a famous US study (Bertrand and Mullainathan, 2004), the odds ratio for African American versus White job applicants was 0.59. Therefore, ethnic discrimination in Moscow and St Petersburg appears to be somewhat stronger than average. Note that the signal of ethnicity in our study

is relatively weak: we only randomise applicants' names and indicate that all applicants are Russian nationals and native Russian speakers. We do not include photographs in the applications. This makes our estimates of discrimination more conservative. In reality, job applicants from ethnic minorities, who sometimes speak Russian with an accent and are not Russian citizens, may face stronger discrimination at the stage of recruitment.

Male applicants from discriminated ethnic groups achieve lower contact rates than female applicants. This is consistent with the results from some other experimental studies. In Sweden, women with Arabic names are treated more positively by employers than are men (Arai et al., 2016). In Finland, Russian men face stronger discrimination than Russian women (Liebkind et al., 2016). According to a meta-analysis of 37 correspondence tests, white men receive 63% more callbacks compared to ethnic minority men, while the gap for women is 52% (Quillian and Nanni, 2018). In the social dominance literature this is known as the subordinate male target hypothesis; this postulates that ethnic discrimination is directed primarily against men from out-groups (Sidanius and Pratto, 2001; Sidanius and Veniegas, 2000). While we do not have data to test this empirically, it is likely that in Russia ethnic minority men are perceived by employers as more threatening than women. Russia's post-Soviet history has seen several ethnic riots, that all started after street altercations between young ethnically Russian men and migrants from the Caucasus (Arnold, 2018; Foxall, 2014), and popular stereotypes about men from Southern ethnic groups are often related to impulsive-

ness and aggression (Bodrunova et al., 2017).

Perhaps the most intriguing finding of the study is the difference in ethnic discrimination between Moscow and St Petersburg, on the one hand, and Kazan and Ufa, on the other hand. By contrast to the findings in Moscow and St Petersburg, in Kazan and Ufa we do not find much variation in the contact rates across all ethnic groups. In both cities (Kazan and Ufa), ethnic Russians and Tatars are the two largest ethnic groups, and the contact rates for them are very similar. The rates are lower for other groups of Southern origin, but the difference from ethnic Russians and Tatars is small (odds ratios vary between 0.81 and 0.93) and not statistically significant. We believe that this is a unique case, as most previous experimental studies discovered discrimination against minority groups.

Why are the results in Kazan and Ufa different from those in Moscow and St Petersburg? We only have four cities in this study, and have to combine them pairwise to increase statistical power. With, essentially, only two cases, we are therefore unable to conduct statistical analysis and make any generalisations. We can, however, discuss possible explanations that may be tested in future studies.

One possible explanation is the ethnicity of employers. Perhaps ethnically Russian employers discriminate on the basis of ethnicity and non-Russian employers do not. Since Kazan and Ufa have a higher share of the non-Russian population this may reduce discrimination. We think that this is an insufficient explanation for our findings. Both in Kazan and Ufa, ethnic Russians are about 50% of the population. We do not

have data on their share among employers, but we were able to estimate the ethnic composition of the group of HR employees who responded to job applications (by coding their first names as ethnically Russian or non-Russian). In Kazan and Ufa, 28% and 23% of the HR employees had non-ethnically Russian names, compared to 7% in Moscow and 4% in St Petersburg. This suggests that ethnic Russians constitute a majority of employers in Kazan and Ufa. Besides, surveys suggests that at the national level the attitudes towards immigrants from the South, among Tatars, are only marginally more positive than among ethnic Russians (Bessudnov, 2016).

Another possible explanation is related to characteristics of the local labour markets. In Moscow and St Petersburg, the labour markets are more competitive (overall, 33% of the job applications received a positive response) compared to Kazan and Ufa (43%). Perhaps employers have less space for discrimination when the job market is tight and there are fewer applicants. This is the argument proposed by Baert et al. (2015), who show with data from Belgium that discrimination against Turks only exists in occupations with a larger pool of candidates, and is absent in occupations where vacancies are more difficult to fill. However, this is not what we find in our study. In Moscow and St Petersburg, cooks had a higher contact rate compared to other occupations, suggesting a less competitive job market for cooks (in Kazan and Ufa the contact rates are highest for computer programmers and cooks). Irrespective of location, we do not find significant variation in discrimination across occupations (see Appendix for details).

One of our arguments in this paper is that ethnic discrimination in the labour market is driven not so much by rational deliberation by employers, or by local labour market conditions, but rather by underlying ethnic stereotypes that are often implicit and have roots in the history of intergroup relations. We believe that the case of Kazan and Ufa can be better explained by a combination of two factors – ethnic heterogeneity of the population and the system of ethnic federalism. This may also help us resolve a seeming contradiction between predictions made by the contact and group threat theories.

According to the group threat literature, a large out-group population is perceived by ethnic majorities as a threat; therefore, higher ethnic heterogeneity may lead to ethnic animosity and discrimination. This may well be the case in Moscow and St Petersburg, where the level of ethnic discrimination is high. Both cities recently experienced mass migration from the Caucasus and Central Asia, and the ethnic heterogeneity there is largely the result of migration of ethnic groups that are often perceived as subordinate in status. In Kazan and Ufa, the share of non-ethnically Russian population is higher, but historically this is a result of Russian colonisation rather than migration of non-Russian ethnic minorities. The population there has been split between ethnic Russians, Tatars and Bashkirs for several centuries, without major changes happening in living memory. A long history of ethnic coexistence may reduce ethnic threat, both for ethnic Russians and the titular ethnic groups.

The contact theory predicts that more frequent contact between ethnic groups contributes to more positive intergroup relations, and there-

fore ethnic mixing may reduce discrimination. What is often forgotten is that according to Allport (1954), intergroup conflict only ameliorates ethnic conflict under a number of conditions, including equal group status and support by authorities and institutions. In Moscow and St Petersburg, recent immigrants are often occupationally segregated and work in low-skilled jobs in construction and services (Lokshin and Chernina, 2013). This reduces opportunities for contact with the locals, and when contact occurs it is often in social situations that imply unequal status. In Kazan and Ufa, Tatars and Bashkirs are titular ethnic groups whose special status in the republics is institutionally recognised. Ethnic Russians living in these regions do not have a primordial sense of territorial ownership structured along ethnic lines. Ethnic segregation in the labour market is low, and both ethnic Russians and Tatars are well represented in white-collar occupations, although the share of non-manual workers among ethnic Russians is somewhat larger (Giuliano, 2011). This may create more opportunities for everyday positive contacts between ethnic groups. Survey evidence suggests that the attitudes towards ethnic minorities of immigrant origin are more positive in Tatarstan and Bashkortostan compared to Moscow and St Petersburg (Bessudnov, 2016).

Most students of ethnic federalism focused their attention on the effects of federalism on separatism (Erk and Anderson, 2009), while inter-ethnic attitudes in ethnic autonomous regions remain less widely studied (Alexseev, 2010; Minescu and Poppe, 2011). Our results are consistent with the findings from China, where Maurer-Fazio (2012) reported the absence of labour market discrimination against Mongolians in In-

ner Mongolia and against Uyghurs in Xinjiang (although these results pre-date the recent crackdown on Uyghur nationalism by the Chinese government). However, our argument is stronger, as it is not only titular ethnic groups who are not discriminated against in two of Russia's ethnic republics, but also other non-indigenous groups of immigrant origin.

Given a small number of cases, we should be careful not to over-interpret these findings. Explanations of ethnic discrimination and conflict cannot be mechanically reduced to a few variables (Brubaker and Laitin, 1998). After all, a federal status and a long history of ethnic mixing did not prevent the ethnic massacre in Yugoslavia (Oberschall, 2000). Further studies of the effects, on discrimination, of ethnic autonomy and the ethnic composition of populations, may include a larger sample of Russia's regions; as well as cases from Western Europe (Northern Ireland, Scotland, Wales, Catalonia, the Basque country), China, India and ethnic federations in Africa (such as Ethiopia and Nigeria).

Notes

¹In the experiment we did not use the same names as in the survey, but they were selected using the same methodology.

²The Bashkir population outside Bashkortostan is small, and Bashkir names are similar to Tatar ones. Initially, we included in the experiment a smaller number of Bashkir CVs, in Ufa only, but the sample size did not allow us to form any conclusions. We excluded Bashkir applications from all the reported analyses.

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A Appendix

Table A1: Examples of ethnic names

Ethnic group	Male name	Female name
Ethnic Russians	Nikolay Orlov	Maria Konovalova
Armenians	Grant Petrosyan	Ruzanna Akopyan
Azeris	Elshad Ragimov	Ayten Ismailova
Chechens	Umar Satuev	Amina Alaeva
Georgians	Kaha Abuladze	Irma Kobakhidze
Germans	Vladimir Gerber	Lilia Weber
Jews	Arkady Vaysman	Rita Yudnovich
Latvians	Aivars Kalnins	Irena Veigule
Lithuanians	Thomas Skurvidas	Emilia Kuraite
Tajiks	Dilovar Sharifov	Parvina Mirzoeva
Tatars	Farid Shamsutdinov	Dilyara Nazipova
Ukrainians	Oleksandr Melnichuk	Ruslana Khristenko
Uzbeks	Doston Ibodullaev	Aziza Nazirova

Figure A1: Contact rates by ethnic group in four cities

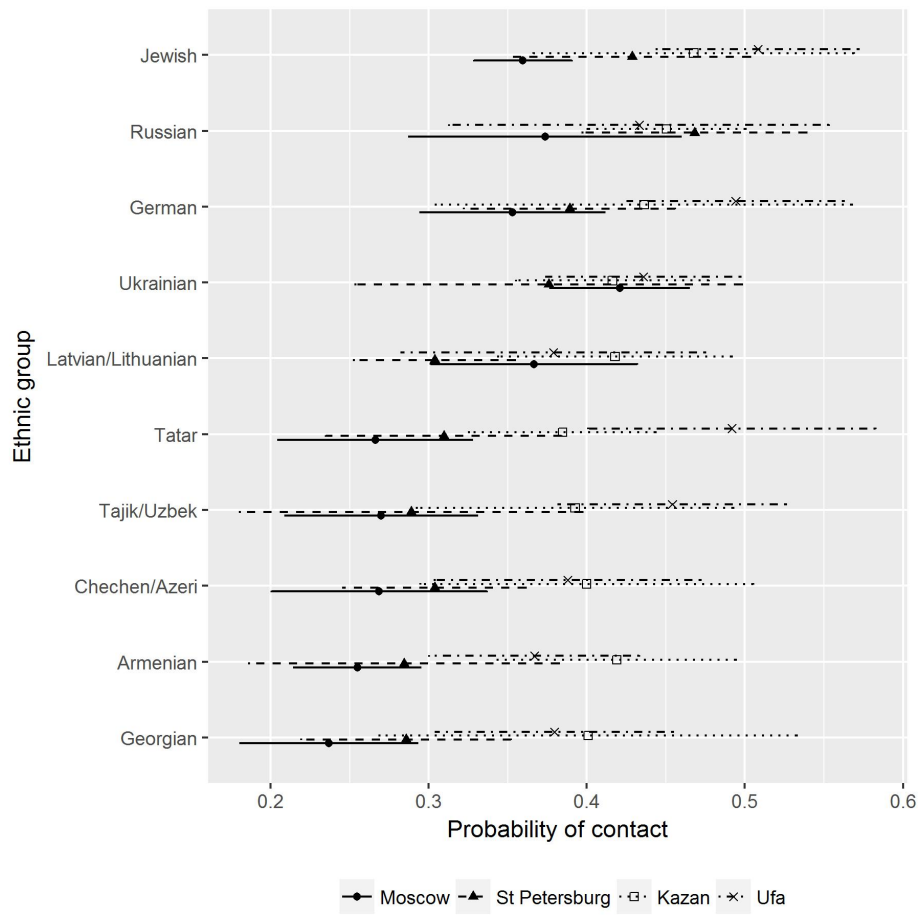
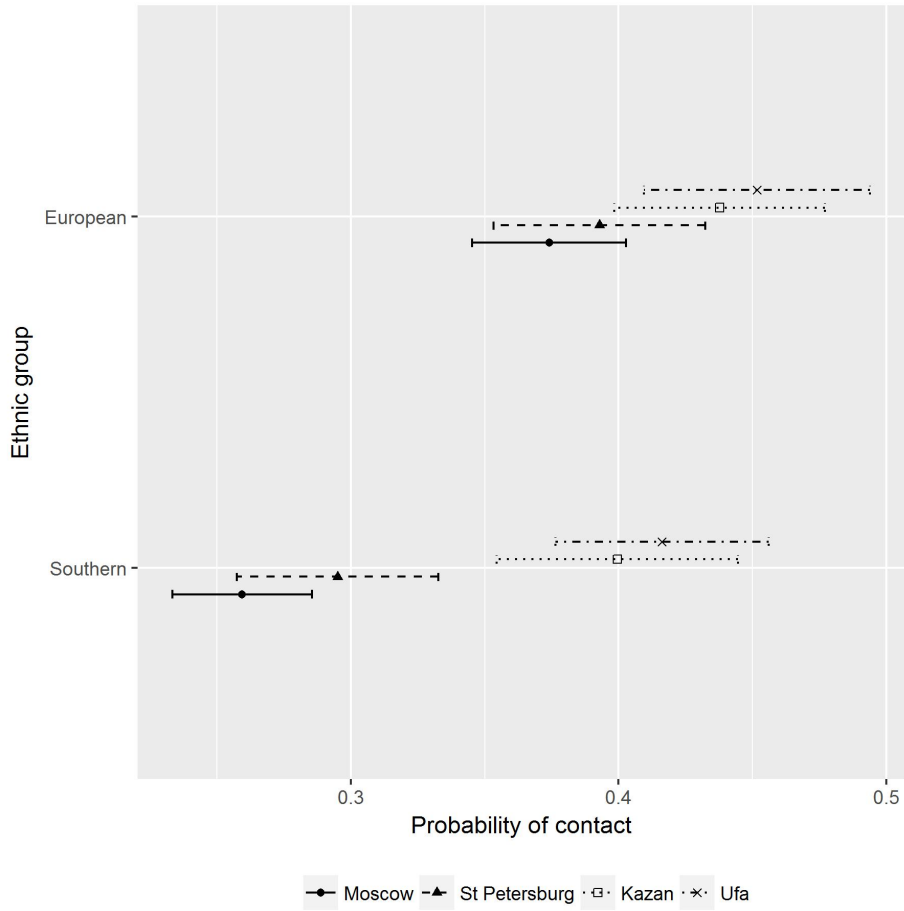


Figure A2: Contact rates by ethnic group in four cities (ethnic groups combined)



Note: European origin includes Germans, Jews, Latvians and Lithuanians, ethnic Russians and Ukrainians. Non-European origin includes Armenians, Azerbaijanis and Chechens, Georgians, Tajiks and Uzbeks, and Tatars.

Table A2: Interaction between ethnicity and occupation

	<i>Dependent variable:</i>	
	contacted by employer	
	Moscow/St Petersburg	Kazan/Ufa
	(1)	(2)
Ethnic group (ref.: European)		
Southern	-0.10*** (0.03)	0.04 (0.04)
Occupation (ref.: cook)		
salesperson	-0.06* (0.03)	-0.10* (0.04)
sales manager	-0.12*** (0.03)	-0.02 (0.04)
programmer	-0.10** (0.03)	0.10 (0.05)
Southern * salesperson	-0.01 (0.04)	-0.07 (0.05)
Southern * sales manager	-0.01 (0.04)	-0.09 (0.05)
Southern * programmer	0.01 (0.04)	-0.10 (0.07)
Observations	5,937	3,747

Note: *p<0.05; **p<0.01; ***p<0.001. Linear probability models; standard errors in parentheses. All the models control for gender, city, website, and research assistant's name (coefficients not shown). Cluster-robust standard errors applied (clustered by applicant's name). Groups of European origin and cooks are the reference groups.