Diffusion of Gender Norms: Evidence from Stalin's Ethnic Deportations

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A consensus in social sciences

- Culture is an important driver of human behavior, and it is distinct from environment, institutions, or genes
 - Richerson & Boyd 2006; Spolaore & Wacziarg 2013; Alesina & Giuliano 2015
- It is transferred both "vertically" across generations and "horizontally" across groups
 - Richerson & Boyd 2006; Bisin & Verdier 2010
- There is a large economics literature on cultural persistence and cultural barriers to social learning
 - Bisin & Verdier 2010; Spolaore & Wacziarg 2009
- There is also vast anthropological evidence on the horizontal transmission of cultural traits (Henrich, 2017)

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Motivation

- Yet, economic research on between-group cultural transmission is rather scarce and yields mixed results about whether exposure to a group with different cultural norms leads to cultural diffusion
 - When exposed, people may embrace new alien cultures
 - Clingingsmith et al. (2009); Tuccio & Wahba (2018)
 - or reject them and increase identification with their own
 - Grosfeld et al. (2013); Sakalli (2018)

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Motivation

- Well-identified studies of interactions between different groups use quasi-natural experiments to ensure exogenous sources of variation in exposure
- Such experiments randomly assign people of different cultural backgrounds to the same locations
 - The literature studied random allocations of children to classes, students to dorms, soldiers to regiments, etc.
 - mostly focusing on the Allport's contact hypothesis and effect of diversity on public goods provision
 - In such experiments, representatives of different groups are incentivised to cooperate (e.g., students and soldiers are often assigned common tasks)
 - Alternatively, they are united by a common goal (as in Clingingsmith et al. 2009 Hajj paper)

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Motivation

- In many settings, people choose freely whether to interact with members of other ethnic groups, and groups often have conflicting objectives
 - Even when groups co-exist in close proximity, people may self-segregate and avoid contact with representatives of other groups
- To study cultural diffusion, one needs to combine an experimental setting of cultural exposure with having no control over interactions between individuals
 - Stalin's ethnic deportations during WWII have both of these features
 - We use this historical experiment to study how gender norms—a cultural trait that differed sharply across deported groups—diffused from deportees to the native population at deportation destinations

Stalin's ethnic deportations

- 2.16 million people were deported from the Western parts of the USSR to Siberia and Central Asia in 1939–1944
 - For the sole reason of belonging to an ethnicity, representatives of which were suspected by Soviet authorities of (potential or actual) collaboration with the Nazis against the Soviets
- The largest four groups of ethnic deportees constituted 84% of all deportees:
 - Germans (over 1M deported)
 - Chechens (over 450K deported)
 - Crimean Tatars (185K deported)
 - Meskhetian Turks (over 75K deported)
- Deportations of these groups were indiscriminate: men, women, and children were deported

▶ All deported ethnicities

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Chechen deportees on the road to their destination



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Ethnic deportees on the road to their destination



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Volga German deportees at work in Siberia



Conditions of ethnic deportations

- Unlike Gulag prisoners, deportees were not confined to camps and were free to interact with the local population
 - Deportees and natives lived and worked in close proximity
 - Deportees had to find accommodation among the locals if their numbers were not overwhelming
 - Their children went to the same schools as locals
- Deportees were not allowed in white collar jobs and had to do manual labor irrespective of their skills

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Culture of deportees

- Deportee groups differed along many dimensions, including religion, education, and gender norms
- We focus on gender norms, that differed sharply between:
 - Soviet Germans vs. all other groups
 - all Protestant deportees vs. all Muslim deportees
 - 96.5% of all Protestant deportees were Soviet Germans
 - 95% of all Muslim deportees were Chechens, Crimean Tatars, and Meskhetian Turks
 - Protestants and Muslims together constituted 87% of all ethnic deportees

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Research question

- Did the group composition of deported groups affect gender norms among the native local population at the destinations of ethnic deportations?
 - The historical narrative suggests a quasi-random exposure
- We find strong resemblance between gender norms among the local population today and those of former deportees
 - As the vast majority of deportees and their descendants had left, and we focus on traditional ethnic groups for Siberia and Central Asia, this is evidence of horizontal (between-group) cultural transmission
 - in addition to vertical transmission

Illustration of the main result

Mean difference in gender norms between locality and its region, by tercile of the locality's share of Protestant deportees among all deportees

Gender norms and share of Protestants among all deportees in vicinity of locality



We contribute to the literatures on:

- 1 Cultural transmission
 - Richerson & Boyd 2006; Bisin and Verdier 2010; Clingingsmith et al. (2009); Tuccio & Wahba (2018)
- 2 Social contact, on co-existence of ethnic and racial groups
 - Boisjoly, et al. 2006; Vanden Eynde, 2015; Carrell, et al. 2015; Finseraas & Kotsadam 2017; Scacco & Warren 2018; Burns, et al. 2019; Rao 2019
- **3** Determinants of gender norms
 - Surveys: Goldin (1990), Giuliano (2017), and Giuliano (forthcoming)
 - Including peer effects in gender norms, e.g., Schmitz & Weinhardt (2019)
- **④** Effects of Stalin's punitive policies
 - Effect of ethnic deportations on distrust in central authority (Levkin 2015, using crude region-level data)
 - Other topics: Toews & Vezina 2017; Ciravegna, et al. 2016; Kapelko & Markevich 2014; Becker et al., 2020

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Timeline of indiscriminate ethnic deportations

- Two main waves:
 - 1941–1942: "Preventive" deportations (Soviet Germans)
 - 1943–1944: "Retributive" deportations (Chechens, Crimean Tatars, Meskhetian Turks)
- Deportees were allowed to return to their homelands also in two waves:
 - 1956-1957: Chechens (and all other smaller groups, with the exception of the three groups)
 - 1991: Soviet Germans, Crimean Tatars, Meskhetian Turks

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Deportation destinations



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Gender Norms and Ethnic Deportations

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Size of ethnic deportations at destination



The intensity of color indicates the density of ethnic deportees in a 2 decimal degree radius, estimated using a quartic kernel. This density is winsorized at the 99th percentile of the distribution.

Destinations often were on a railroad



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Destinations

The way destination localities were determined allows us to overcome potential endogeneity problems

The quotas of deportees at the regional level were set by central authorities in Moscow, who could have taken into consideration the culture of deportees and of the local population In contrast, within the assigned regions, final deportee destination localities were determined solely by the local needs for manual labor

- Upon arrival to the main train station of the regional capital, deportees were assigned jobs by the administration of local state firms that had blue-collar vacancies with hardest work
- 2 As the local population was fairly homogeneous within regions, natives in different localities had similar preferences with regard to accepting different deportee groups

As a result, the choice of destination localities was orthogonal to the skills, ethnic identity, and culture of deportees Results of the balancing tests confirm this historical narrative

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Balance: Geography, climate, and wartime evacuations

Main Explanatory Var.: Deportations dummy				Share of Protestant Deportees					
Sample:	ample: All LiTS PSUs			All depor	All deportation locations PSUs with depo				ions
PLACEBO OUTCOME VAR	COEF	SE	Ν	COEF	SE	Ν	COEF	SE	Ν
Distance to water (ln)	-0.338**	(0.139)	375	0.123	(0.202)	1,043	0.178	(0.189)	234
Distance to railroad (ln)	-0.756***	(0.213)	375	0.215	(0.228)	1,043	0.298	(0.365)	234
Distance to gulag (ln)	-0.351**	(0.177)	375	0.021	(0.198)	1,043	-0.049	(0.442)	234
Travel distance to capital city (ln)	-0.238*	(0.139)	375	0.171***	(0.064)	1,037	-0.098	(0.375)	234
Ruggedness	8.799***	(3.002)	375	0.891	(1.372)	1,043	0.355	(3.514)	234
Soil Suitability low inputs	-0.721***	(0.155)	375	-0.131	(0.190)	1,043	-0.427	(0.272)	234
Soil Suitability high inputs	-1.011***	(0.162)	375	-0.057	(0.165)	1,043	-0.169	(0.285)	234
Precipitation (June-August) (ln)	-0.109	(0.086)	375	-0.056	(0.038)	1,043	-0.034	(0.150)	234
Precipitation (Dec-Feb) (ln)	-0.088	(0.053)	375	-0.067*	(0.037)	1,043	-0.036	(0.151)	234
Temperature (June-August)	2.622***	(0.721)	375	-0.063	(0.224)	1,043	-2.058**	(0.917)	234
Temperature (Dec-Feb)	2.365***	(0.621)	375	-0.517*	(0.303)	1,043	-2.579**	(1.006)	234
Nb. of evacuated enterprises	3.314**	(1.483)	375	-6.244	(5.714)	1,037	-9.391	(11.169)	234
Evacuated enterprise dummy	0.198***	(0.047)	375	-0.098	(0.059)	1,037	-0.158	(0.188)	234

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Balance: 1939 USSR Population Census

Main Explanatory Var.:	Deporta	tions dun	nmy	Share of Protestant Deportees					
Sample:	All LiTS PSUs			All depor	rtation lo	cations	PSUs with deportations		
PLACEBO OUTCOME VAR	COEF	SE	Ν	COEF	SE	Ν	COEF	SE	Ν
Total 1939 population (log)	0.490**	(0.239)	375	-0.091	(0.128)	1,037	0.076	(0.726)	234
Share of Chechens	-0.000	(0.000)	375	0.000	(0.000)	1,037	0.005	(0.005)	234
Share of Germans	-0.007*	(0.004)	375	0.006	(0.004)	1,037	-0.002	(0.018)	234
Share of Russians	-0.311	(0.270)	375	-0.020	(0.030)	1,037	0.096	(0.266)	234
Share of Uzbeks	-0.262	(0.163)	375	-0.020	(0.014)	1,037	-0.043	(0.088)	234
Share of Turkmens	-0.009	(0.009)	375	-0.001	(0.001)	1,037	-0.001	(0.001)	234
Share of Tajiks	0.011	(0.034)	375	0.000	(0.002)	1,037	0.041	(0.034)	234
Share of Kazakhs	-0.453	(0.279)	375	0.050**	(0.023)	1,037	0.863	(0.767)	234
Share of Kyrgyz	0.052	(0.051)	375	0.007	(0.006)	1,037	-0.106	(0.104)	234
Share of Koreans	-0.051	(0.043)	375	-0.001	(0.004)	1,037	0.016	(0.014)	234
Share of Karakalpaki	-0.108	(0.108)	375	-0.001*	(0.000)	1,037	0.000	(0.001)	234
Share of Udmurts	-0.002	(0.003)	375	-0.001	(0.001)	1,037	0.003	(0.003)	234
Share of Tatars	-0.020**	(0.010)	375	0.005	(0.009)	1,037	0.006	(0.012)	234
Share of Mariians	-0.009	(0.009)	375	-0.004	(0.003)	1,037	-0.000	(0.000)	234
Share of Chuvashs	0.003	(0.003)	375	0.005	(0.004)	1,037	-0.002	(0.005)	234

Timing Destinations Balance Gender norms

Balance: 1897 Russian empire Census

Main Explanatory Var.:	Deportat	ions dum	Share of Protestant Deportees						
Sample:	All LiTS PSUs			All dep	ortation lo	ocations	PSUs with deportations		
PLACEBO OUTCOME VAR	COEF	SE	Ν	COEF	SE	Ν	COEF	SE	Ν
Population density (sq km) (ln)	-0.788***	(0.295)	375	0.128	(0.279)	1,102	-0.418	(0.299)	234
Share living in city	-0.126***	(0.047)	305	0.068	(0.066)	1,072	-0.061	(0.065)	197
Share of Russians in 1897	-0.043	(0.042)	305	0.113	(0.098)	1,072	-0.021	(0.104)	197
Share of Germans in 1897	-0.013*	(0.008)	305	0.007	(0.006)	1,072	0.001	(0.002)	197
Share employed in agriculture in 1897	0.057	(0.057)	305	-0.148	(0.124)	1,072	0.201	(0.136)	197
Share employed in industry in 1897	-0.035	(0.028)	305	0.068	(0.056)	1,072	-0.154*	(0.080)	197
Share employed in services in 1897	-0.012	(0.008)	305	0.005	(0.012)	1,072	-0.005	(0.015)	197
Share employed in white collar jobs in 1897	-0.002	(0.003)	305	0.004	(0.007)	1,072	0.005	(0.005)	197
Share literate in 1897	-0.089***	(0.025)	305	0.042	(0.036)	1,072	-0.006	(0.028)	197
Share of literate females in 1897	-0.070***	(0.022)	304	0.003	(0.020)	1,072	-0.013	(0.023)	197
Share of Muslims in 1897	0.055^{*}	(0.033)	305	-0.054	(0.078)	1,072	-0.011	(0.088)	197
Share of Orthodox in 1897	0.020	(0.019)	305	0.026	(0.037)	1,072	0.039	(0.034)	197
Share of Protestants in 1897	-0.019*	(0.010)	305	0.010	(0.006)	1,072	0.002	(0.002)	197
Share of Catholics in 1897	-0.002	(0.001)	305	0.003	(0.002)	1,072	-0.002	(0.002)	197
Share of Buddhists in 1897	0.004	(0.004)	305	0.000	(0.006)	1,072	-0.008	(0.006)	197
Share of Jews in 1897	0.000	(0.001)	305	0.004	(0.002)	1,072	-0.001	(0.002)	197

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Gender norms of Muslim and Protestant deportees

- There is abundant anecdotal evidence from Soviet anthropologists:
 - gender norms were substantially more progressive among Protestant deportees (vast majority of whom were Soviet Germans) compared to all other groups in the USSR, including Muslim deportees
 - German girls were routinely educated as early as 19th century
 - 2 gender norms of native population in Siberia were more progressive than of Muslim deportees, but less progressive than of Protestant deportees
 - 3 gender norms of native population in Central Asia were comparable to those of Muslim deportees, but less progressive than of Protestant deportees
- Equality for men and women was part of Soviet ideology

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Timing Destinations Balance Gender norms

1897 evidence



 On average, gender gap in literacy was uncorrelated with the level of education → these results are not driven by the high level of German education

Data sources

1 Ethnic deportations

- Data on the exact destinations and size of deportees by ethnicity (from NKVD deportation censuses of 1951 and 1946, source: Russian National Archives, GARF)
- 19,839 entries, 17 ethnic groups
- Same for non-ethnic deportees: Kulaks, bandits, "anti-Soviet elements"
- we matched the destination locations of these entries with 1,131 localities in the USSR
- **2** Contemporary outcomes
 - Life in Transition survey data, 2016
 - 375 PSUs in 5 countries
 - Out of which 235 PSUs had a (ethnic) deportation in a 30km travel-distance vicinity
- **3** Historical and geographical controls
 - 1897 and 1939 population characteristics from Censuses
 - Old and new capitals, railroads, ruggedness, climate, soil suitability, water etc.
 - Destinations of evacuated enterprises in 1941, Gulag locations

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Share of Protestants among deportees



Distribution of the number and share of ethnic deportations across LiTs respondents



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Gender Norms and Ethnic Deportations

Composition of ethnic deportations across localities

• 233 PSUs had a Muslim or Protestant deportation in its vicinity

Shares of Protestant and Muslim deportees Variation across LiTs PSUs



Econometric specification

On all PSUs in Russia and Central Asia:

 $\begin{aligned} Y_{il} &= \beta_0 + \beta_1 \log(Prot_Deport_l) + \beta_2 \log(Musl_Deport_l) + \beta_3 \mathbb{1}\{Deport_l\} + \\ &+ \beta_4 \log(Pop39_l) + \sigma' \mathbf{D}_{\mathbf{l}} + \gamma' \mathbf{X}_{\mathbf{l}} + \delta' \mathbf{C}_{\mathbf{i}} + \mu_{r_l} + \epsilon_{il} \end{aligned}$

On all PSUs with deportation settlements in its vicinity:

 $Y_{il} = \alpha_0 + \alpha_1 Prot_Deport_Share_l + \alpha_2 \log(Deport_Size_l) +$

 $+\alpha_{3}\log(Pop39_{l}) + \sigma^{'}\mathbf{D}_{l} + \gamma^{'}\mathbf{X}_{l} + \delta^{'}\mathbf{C}_{i} + \mu_{r_{l}} + \epsilon_{il}$

- i respondents, l localities (PSUs); r_l subnational regions
- Prot_Deport, Musl_Deport, number of Protestant and of Muslims deportees in the vicinity of l; 1{Deport} - dummy for any Protestant and Muslims deportees;
- Prot_Deport_Share share of Protestants; Deport_Size size of deportation; Pop39 - population in 1939 district (30km radius) in the vicinity of l
- $\bullet~\mathbf{D}$ the size and composition of all other ethnic and non-ethnic deportations
- μ subnational region FE; **X** and **C** locality-specific controls (geography, climate, rural/urban, distances to railroads, capital city, etc.) and respondent-level controls (education, age, income, gender, and religion)
- SEs corrected for spatial correlation within a 150km radius (Conley 1999)

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Main identification assumption

- Conditional on region FEs and the presence of an ethnic deportation, the identity of the deportees (e.g., their religion) was orthogonal to any unobserved determinants of gender norms of local population
 - The sample is restricted to the local native ethnicities (i.e., Russians and Central Asians) to ensure that descendants of deportees are not in the sample

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Attitudes: 1st Principal Component

1st Principal Co	omponent of	progre	essive
gender attitudes (Normalized	b/w 0	and 1)

Panel A. Levels. Sample: all localities 0.017^{***} 0.026*** Protestant deportees (ln) (0.004)(0.004)Muslim deportees (ln) -0.005-0.004(0.007)(0.006)1{Muslim/Protestant deportation} -0.096*-0.010(0.052)(0.050)Observations 2.5721.9250.164R-squared 0.1620.00*** 0.00*** *p*-value: β (Protest.) = β (Musl.) *p*-value: β (Protest.) = $-\beta$ (Musl.) 0.01*** 0.12^{*} Mean of dependent var. 0.1700.206SD of dependent var. 0.2710.256

Panel B. Shares. Sample: localities with deportations

Share of Protestant deportees	0.156^{***}	0.180***
	(0.050)	(0.052)
Observations	1,616	1,206
R-squared	0.202	0.188
Mean of dependent var.	0.195	0.163
SD of dependent var.	0.279	0.260
Region FE and controls	√	\checkmark
Sample - gender	Female	Male

• Results on attitudes toward gender equality, by question

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Behavioral outcomes (Placebo – male entrepreneurship)

	Tried to	start	Member of women's		
	a busii	iess	rights a	ssociation	
Panel A. Levels, all PSUs					
Protestant deportees (ln)	0.009**	-0.002	0.007^{*}	0.010***	
	(0.004)	(0.006)	(0.003)	(0.003)	
Muslim deportees (ln)	-0.012^{***}	0.006	-0.001	-0.002	
	(0.004)	(0.006)	(0.006)	(0.005)	
1{Muslim/Protestant deportation}	0.004	-0.029	-0.022	-0.024	
	(0.036)	(0.059)	(0.032)	(0.034)	
Observations	2,732	2,048	2,732	2,048	
R-squared	0.0704	0.0871	0.0667	0.109	
p-value: $\beta(Prot.) = -\beta(Musl.)$	0.000***	0.27	0.21	0.04**	
<i>p</i> -value: β (Prot.) = $-\beta$ (Musl.)	0.63	0.69	0.45	0.29	
Mean of dependent var.	0.108	0.177	0.044	0.025	
SD of dependent var.	0.310	0.381	0.204	0.156	
Panel B. Shares, PSUs with dep	oortations				
Share of Protestant deportees	0.130**	-0.091	0.071	0.140**	
	(0.057)	(0.076)	(0.086)	(0.061)	
Observations	1.688	1.971	1.688	1.971	
B-squared	0.0836	0.0028	0.0035	0.169	
10-5quared	0.0000	0.0520	0.0500	0.105	
Mean of dependent var.	0.116	0.206	0.046	0.026	
SD of dependent var.	0.320	0.405	0.209	0.160	
Region FE and controls	~	~	 ✓ 	~	
Sample - gender	Female	Male	Female	Male	

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Choice of controls is irrelevant: Attitudes, Levels

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
	Baseline			R	obustness				
Dependent Var.:	Gender attitudes (1st Principal Component, normalized b/w 0 and 1)								
Protestant deportees (ln)	0.022***	0.017***	0.021***	0.021***	0.021***	0.022***	0.018***	0.018***	
	(0.003)	(0.005)	(0.003)	(0.004)	(0.003)	(0.003)	(0.004)	(0.004)	
Muslim deportees (ln)	-0.004	-0.007***	-0.003	-0.002	-0.003	-0.004	-0.005	-0.005	
	(0.005)	(0.002)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	
Observations	4,497	5,335	5,335	5,335	5,335	5,335	3,625	3,475	
R-squared	0.149	0.102	0.103	0.105	0.124	0.127	0.151	0.150	
Region FE	√	\checkmark	\checkmark	\checkmark	√	\checkmark	√	√	
1{Muslim/Protestant deportation}	\checkmark		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
Deportee controls, levels	\checkmark			\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
Locality controls	\checkmark				\checkmark	\checkmark	\checkmark	\checkmark	
Demographic controls	\checkmark					\checkmark	\checkmark	\checkmark	
Socio-economic controls	\checkmark						\checkmark	\checkmark	
Extended set of historical controls							\checkmark	\checkmark	
Parental education controls								\checkmark	
Sample - Both genders	√	√	~	√	~	~	✓	√	

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Choice of controls is irrelevant: Behavior, Levels

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Baseline			1	Robustness			
Dependent Var.:		Fema	ale entrepre	neurship ('	Tried to sta	art a busines	ss)	
Protestant deportees (ln)	0.009**	0.011***	0.011***	0.008**	0.008**	0.009**	0.011**	0.013***
	(0.004)	(0.003)	(0.004)	(0.003)	(0.004)	(0.004)	(0.005)	(0.005)
Muslim deportees (ln)	-0.012***	-0.007**	-0.006	-0.009**	-0.010**	-0.010***	-0.011**	-0.013***
	(0.004)	(0.003)	(0.004)	(0.004)	(0.004)	(0.004)	(0.005)	(0.005)
Observations	2,732	3,275	3,275	3,275	3,275	3,275	2,221	2,112
R-squared	0.0704	0.0473	0.0473	0.0518	0.0567	0.0577	0.0755	0.0838
Region FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
1{Muslim/Protestant deportation}	\checkmark		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Deportee controls, levels	\checkmark			\checkmark	\checkmark	\checkmark	\checkmark	√
Locality controls	\checkmark				\checkmark	\checkmark	\checkmark	√
Demographic controls	\checkmark					\checkmark	\checkmark	\checkmark
Socio-economic controls	\checkmark						\checkmark	√
Extended set of historical controls							\checkmark	\checkmark
Parental education controls								√
Sample - Females only	√	√	~	~	~	\checkmark	~	√

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AET and Oster tests: Attitudes, Shares

	(1)	(2)	(3)	(4)	(5)	(6)	(7)		
	Baseline			Robi	istness				
Panel A.	Gender attitudes (1st principal component, normalized between 0 and 1) $$								
Share of Protestant deportees	0.144^{***}	0.111**	0.107^{***}	0.128^{***}	0.131^{***}	0.149^{***}	0.155^{***}		
	(0.043)	(0.049)	(0.038)	(0.042)	(0.041)	(0.048)	(0.048)		
Observations	2,822	3,262	3,262	3,262	3,262	2,340	2,242		
R-squared	0.170	0.119	0.127	0.142	0.145	0.183	0.184		
Panel B.	Altonji-Elder-Taber and Oster tests for Panel A								
Altonji-Elder-Taber	0.064	-	0.127	0.068	0.061	0.057	0.060		
index of observables	(0.158)		0.152)	(0.159)	(0.160)	(0.148)	(0.150)		
Oster δ for $\alpha_1 = 0$	3.04	-	0.77	2.43	2.95	4.45	4.43		
Region FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark		
Deportee controls, shares	\checkmark		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark		
Locality controls	\checkmark			\checkmark	\checkmark	\checkmark	\checkmark		
Demographic controls	\checkmark				\checkmark	\checkmark	\checkmark		
Socio-economic controls	\checkmark					\checkmark	\checkmark		
Extended set of historical controls						\checkmark	\checkmark		
Parental education controls							\checkmark		
Sample - Both genders	\checkmark	✓	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark		

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AET and Oster tests: Behavior, Shares

	(1)	(2)	(3)	(4)	(5)	(6)	(7)			
	Baseline		Robustness							
Panel A.		Female entre	epreneurs	hip (Tried	to start a	business)				
Share of Protestant deportees	0.130**	0.082*	0.131*	0.119**	0.120**	0.122**	0.136**			
1	(0.057)	(0.046)	(0.068)	(0.054)	(0.052)	(0.058)	(0.056)			
Observations	1,688	1,964	1,964	1,964	1,964	1,396	1,328			
R-squared	0.0836	0.0487	0.0574	0.0647	0.0672	0.100	0.108			
Panel B.	Altonji-Elder-Taber and Oster tests for Panel A									
Altonji-Elder-Taber	-0.021	-	-0.078	0.004	0.003	0.003	0.021			
index of observables	(0.073)		(0.084)	(0.066)	(0.067)	(0.067)	(0.067)			
Oster δ for $\alpha_1 = 0$	-13.35	-	-1.88	40.91	58.23	92.86	13.36			
Region FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark			
Deportee controls, shares	\checkmark		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark			
Locality controls	\checkmark			\checkmark	\checkmark	\checkmark	\checkmark			
Demographic controls	\checkmark				\checkmark	\checkmark	\checkmark			
Socio-economic controls	\checkmark					\checkmark	\checkmark			
Extended set of historical controls						\checkmark	\checkmark			
Parental education controls							\checkmark			
Sample - Female only	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark			

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Test for pre-trends: Mother's education

- Mother's education is the only variable observed both pre- and post-treatment
- We predict the birth year of respondents' mothers
 - using respondent's age and aggregate data on the average age of women giving birth by their birth cohort in the USSR
- All mothers are grouped into those who finished compulsory schooling before deportations, who went to school during WWII, and those who went to school after WWII

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Did your mother obtain tertiary education? Pre-trends by birth cohort of respondent's mother: the share of Protestant deportees

point estimates Coeff. on Protestant share X cohort 90% confidence intervals .3 .2 .1 Cohort 1 Cohort 2 Cohort 3 Cohort 4 Cohort 5 (Pre 1926) (1926 - 30)(1931 - 46)(1947 - 59)(Post 1959) Mothers at school Mothers at school Mothers at school Mothers at school before WWII after WWII after WWII during WWII after WWII

Birth cohort of respondent's mother

▶ Table with results

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Gender Norms and Ethnic Deportations

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Same exercise with locality FEs

Rely only on variation between cohorts in the same deportation localities



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The mother's education is not what is driving the results on attitudes of respondents



Respondents are grouped by mother's birth cohort (same groups)

Gender Norms and Ethnic Deportations

Germans, Chechens, and other Muslim deportees

	(1)	(2)	(3)
Dependent Var.:	1st princi	ple component	Tried to start
	progressive	gender attitudes	a business
Sample - gender:	Female	Male	Female
German deportees (ln)	0.019***	0.014***	0.008***
	(0.007)	(0.005)	(0.003)
Chechen deportees (ln)	-0.008*	-0.005	-0.014***
	(0.004)	(0.004)	(0.005)
Crimean Tatar deportees (ln)	0.008	0.001	-0.009**
	(0.005)	(0.006)	(0.004)
Meskhetian Turk deportees (ln)	-0.001	0.002	-0.002
	(0.006)	(0.005)	(0.003)
1{Muslim/Protestant deportation}	-0.098**	-0.014	-0.002
	(0.047)	(0.042)	(0.030)
Observations	2,572	1,925	2,732
R-squared	0.168	0.162	0.0730
Region FE and Controls	\checkmark	\checkmark	√
Sample - all PSUs	\checkmark	\checkmark	✓
<i>p</i> -value: $\beta(Germans) = -\beta(Chechens)$	0.20	0.14	0.37
<i>p</i> -value: β (Chechens) = β (Crimean Tatars)	0.009^{***}	0.36	0.55
p -value: β (Chechens)= β (Meskhetian Turks)	0.25	0.29	0.11
Mean of dependent var.	0.206	0.170	0.108
SD of dependent var.	0.271	0.256	0.310
Region FE and baseline controls, all PSUs	\checkmark	\checkmark	✓

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Gender Norms and Ethnic Deportations

Size of ethnic deportations relative to local population



Effects by quartile according to the ratio of the number of deportees to the local population in 1939



Cultural distance between locals and deportees Religious tree (Mecham et al. 2006); "Levenshtein distance" (Bakker et al. 2009)

Religious Distance	Deportee groups (Traditional religion of deportee groups)								
	Germans (Protestant)	Chechens (Muslim)	Crimean Tatars (Muslim)	Meskhetian Turks (Muslim)					
Local population:									
Russians (Orthodox)	1	2	2	2					
Central Asians (Muslim)	2	0	0	0					
Linguistic Distance		De	eportee groups						
	(Language of deportee groups)								
	Germans (German)	Chechens (Chechen)	Crimean Tatars (Crimean Tatar)	Meskhetian Turks (Turkish)					
Local population:									
Russians (Russian)	92.04	104.13	99.11	98.25					
Kazakhs (Kazakh)	99.23	102.12	35.65	72.81					
Kyrgyz (Kyrgyz)	98.55	100.60	48.00	71.80					
Tajiks (Tajik)	91.06	99.80	97.25	97.82					
Uzbeks (Uzbek)	98.81	101.59	46.68	69.79					

- Culturally, Russians are closer to German deportees than to any Muslim deportee group
- Central Asians share religion with Muslim deportees; and there is a lot of variation in linguistic distance

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Gender Norms and Ethnic Deportations

Heterogeneity: cultural distance

Dependent Var.:	(1)	(2) 1st Pri	(3) incipal Con	(4) nponent	(5)	(6)	(7)	(8) Tried to st	(9) art	(10)
		Progress	sive gender	attitudes				a busines	s	
Sample - localities: Sample - gender:	All Both	All Both	All Both	Centra Both	al Asia Both	All Female	All Female	All Female	Centra Female	al Asia Female
Protestant deportees (ln)	0.019*** (0.004)	$\begin{array}{c} 0.025^{***} \\ (0.004) \end{array}$	0.020^{***} (0.004)	$\begin{array}{c} 0.026^{***} \\ (0.003) \end{array}$	0.025*** (0.002)	0.009** (0.004)	0.009** (0.004)	0.011*** (0.004)	0.006 (0.004)	0.007 (0.005)
Protestant deportees (ln) \times Distance b/w traditional religion of respondent and Protestantism, demeaned	0.020** (0.010)	I	0.029*** (0.010)	I		-0.005 (0.009)		-0.013 (0.009)		
Protestant deportees (ln) \times Linguistic distance b/w respondent's language and German, demeaned		-0.029 (0.094)	-0.079 (0.095)		$\begin{array}{c} 0.034 \\ (0.128) \end{array}$		$\begin{array}{c} 0.074 \\ (0.073) \end{array}$	0.123* (0.070)	l	0.181** (0.073)
Muslim deportees (ln)	-0.011 (0.007)	$\begin{array}{c} 0.009 \\ (0.007) \end{array}$	$\begin{array}{c} 0.001 \\ (0.008) \end{array}$	-0.008 (0.008)	$\begin{array}{c} 0.014 \\ (0.010) \end{array}$	$^{-0.010*}_{(0.005)}$	-0.016^{**} (0.007)	-0.011 (0.008)	-0.020*** (0.005)	-0.024*** (0.007)
Muslim deportees (ln) \times Distance b/w traditional religion of respondent and Sunni Islam, demeaned	$\begin{array}{c} 0.005 \\ (0.006) \end{array}$		$\begin{array}{c} 0.000 \\ (0.006) \end{array}$			-0.011* (0.006)	l	-0.009* (0.005)	l	
Muslim deportees (ln) \times Average distance b/w language of respondent and of Muslim deportees, demeaned		-0.031 (0.036)	-0.016 (0.031)		-0.290** (0.137)		-0.048 (0.043)	-0.064 (0.044)		-0.027 (0.080)
$\mathbbm{1}\{\text{Muslim/Protestant deportation}\}$	-0.012 (0.061)	-0.027 (0.051)	$\begin{array}{c} 0.057 \\ (0.067) \end{array}$	-0.040 (0.070)	-0.381* (0.216)	$\begin{array}{c} 0.005 \\ (0.041) \end{array}$	-0.038 (0.031)	-0.063 (0.038)	0.054 (0.050)	0.016 (0.129)
Average distance b/w language of respondent and of Muslim deportees		-0.354 (0.255)	-0.506** (0.236)		$1.618 \\ (1.161)$		$\begin{array}{c} 0.426^{***} \\ (0.134) \end{array}$	$\begin{array}{c} 0.491^{***} \\ (0.142) \end{array}$		$\begin{array}{c} 0.316 \\ (0.627) \end{array}$
Observations R-squared	4,497 0.153	4,497 0.153	4,497 0.159	$3,546 \\ 0.176$	$3,546 \\ 0.184$	2,732 0.0726	2,732 0.0725	2,732 0.0755	2,078 0.0776	2,078 0.0792
Region FE and Controls	1	~	1	~	1	√	1	~	1	√
Mean of dependent var. SD of dependent var.	0.190 0.265	0.190 0.265	0.190 0.265	0.178 0.266	0.178 0.266	0.108 0.310	0.108 0.310	0.108 0.310	0.119 0.324	0.119 0.324

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< 47 ▶ Gender Norms and Ethnic Deportations

Selective in- and out- migration?

	(1)	(2)	(3)	(4)	(5)
Dependent Var.:	1st Prine	cipal Comp.	Tried to start	Family	Gender
	Gender	Attitudes	a business	moved out	attitudes
Sample - ancestors moved or not:	I	Family did no	ot move	All	All
Sample - gender of respondent:	Female	Male	Female	Both	Both
Panel A. Specification in levels. Sample:	all loca	ities.			
Protestant Deportees (ln)	0.014*	0.013**	0.012**		
	(0.008)	(0.006)	(0.006)	1	
Sunni Muslim Deportees (ln)	-0.006	0.002	-0.013**		
	(0.006)	(0.006)	(0.006)		
Protestant deportees in ancestor's region (ln)				0.009	
				(0.020)	
Protestant deportees in ancestor's region (ln)					0.001
× Family moved out					(0.005)
Muslim deportees in ancestor's region (ln)				0.014	
				(0.016)	
Muslim deportees in ancestor's region (ln)					0.009
× Family moved out					(0.008)
Family moved out					-0.075
					(0.086)
1 {Muslim/Protestant deportation}	-0.032	-0.014	-0.008		
(, , , , , , , , , , , , , , , , , , ,	(0.057)	(0.055)	(0.045)		
Observations	1,659	1,177	1,736	9,277	8,661
R-squared	0.210	0.245	0.0844	0.305	0.155
Mean of dependent var.	0.208	0.160	0.108	0.388	0.210
SD of dependent var.	0.271	0.248	0.310	0.487	0.280
Region FE and Controls	√	~	1		
Country of destination and of origin FEs				~	\checkmark
Clustered by region of origin and respondent				~	\checkmark
FE for the region of ancestor					✓
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Gender Norms and Ethnic Deportations

Robustness: Different clusters (shares)

	(1) 1st Principa Progressiv	(2) l Component	(3) Tried to								
	normalized	b/w 0 and 1	business								
Panel B. Shares. Sample: localities with ethnic deportations.											
Share of Protestant deportees Baseline - Conley s.e. 150km radius s.e. clustered by PSU s.e. clustered by region Conley s.e. 200km radius	$\begin{array}{c} 0.156 \\ (0.050)^{***} \\ (0.058)^{***} \\ (0.043)^{***} \\ (0.047)^{***} \end{array}$	$\begin{array}{c} 0.180 \\ (0.052)^{***} \\ (0.061)^{***} \\ (0.045)^{***} \\ (0.039)^{***} \end{array}$	$\begin{array}{c} 0.130 \\ (0.057)^{**} \\ (0.045)^{***} \\ (0.053)^{**} \\ (0.060)^{**} \end{array}$								
Observations	1,616	1,206	1,688								
R-squared	0.204	0.203	0.0835								
SD of dependent var.	$0.195 \\ 0.279$	0.165 0.260	0.110								
Region FE and Controls Sample - Gender	√ Female	$\checkmark \\ \text{Male}$	√ Female								

Results for the numbers of deportees

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Gender Norms and Ethnic Deportations

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Robustness: Different thresholds for the vicinity radii

Share of Protestant deportees:



▶ Results for the number of Protestant deportees

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Conclusions

- We test for the diffusion of gender norms from deportees to the local population
 - and find that horizontal cultural transmission may occur even without regulating communication between groups and without a common goal that unites these groups
- Both the norms of gender equality and of gender discrimination were adopted by people exposed to another group with those norms, but the diffusion of norms of gender equality was stronger
 - Most probably because these norms were in line with the official ideology
 - It could also be that more progressive (and economically viable) norms transfer more easily
 - The fact that Soviet Germans were more educated and more cooperative could have made their culture more appealing to the local population

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Appendix

Gender Norms and Ethnic Deportations

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2016 evidence

Contemporary differences in gender norms, 2016 LiTs Average response of all respondents of given religion



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Gender Norms and Ethnic Deportations

2016 evidence: gender norms by religion Life in Transition survey, 2016

Dependent Var.:	Chose to disagree or stron	gly agree (on a 4 point Liker	t scale) with the statement:
	A woman should always do most of the household chores	It is better if the man earns the money in the family	Men make better political leaders than women do
Protestant Dummy	0.372***	0.205***	0.228***
	(0.013)	(0.014)	(0.015)
Observations	10,523	10,457	10,345
R-squared	0.128	0.0358	0.0561
Mean of dependent var.	0.370	0.370	0.370
SD of dependent var.	0.483	0.483	0.483
Demographic controls	\checkmark	\checkmark	√

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Deportation locations

		Soviet republic of destination									
	All	Russia	Kazakhstan	Uzbekistan	Kyrgyzstan	Tajikistan	Meskhetian Turks				
Districts (rayons) with deportations	1131	774	190	97	55	12	3				



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Deportation locations

		Soviet republic of destination									
	All	Russia	Kazakhstan	Uzbekistan	Kyrgyzstan	Tajikistan	Meskhetian Turks				
Districts (rayons) with deportations	1131	774	190	97	55	12	3				



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Ethnic deportees, by religion and destination

	The number of ethnic deportees by religion and destination										
				Soviet repu	blic of destina	tion					
Ethnicity (% in religious group):	All	Russia	Kazakhstan	Uzbekistan	Kyrgyzstan	Tajikistan	Meskhetian Turks				
Protestants:	52.7%	31.1%	19.5%	0.3%	0.7%	1%	0.1%				
Germans (97%)	1,,103,654	634,807	423,185	6,424	15,877	21,012	2,349				
Latvians	35,707	35,707	-	-	-	-	-				
Estonians	3,790	3,790	-	-	-	-	-				
Sunni Muslims:	34.6%	2.3%	19.0%	7.3%	5.8%	0.2%	-				
Chechens and Ingush (60%)	450,119	411	375,300	98	74,272	38	-				
Crimean Tatars (25%)	184,827	44,434	6,465	127,999	1,118	4,804	7				
Meskhetian Turks (10%)	75,450	4,518	30,032	31,333	9,567	-	-				
Karachay	25,415		-	-	25,415	-	-				
Balkar	15,093		-	-	15,093	-	-				
Catholics and Jews:	6.6%	4.6%	2.0%	-	-	-	-				
Lithuanians	78,921	78,921	-	-	-	-	-				
Poles (Catholics and Jews)	43,814	7	43,807	-	-	-	-				
Baltic	19,884	19,881	3	-	-	-	-				
Orthodox:	3.1%	1.4%	1.7%	-	-	-	-				
Greeks	36,776	-	36,767	-	9	-	-				
Moldavians	29,988	29,988	-	-	-	-	-				
Buddhists:	2.9%	2.7%	0.1%	-	-	-	-				
Kalmyk	62,251	58,749	2,374	756	262	105	5				
Shia Muslims:	0.2%	-	0.2%	-	-	-	-				
Iranians	4,460	-	4,460	-	-	-	-				
Number of destination		1									
districts, by republic	1,131	774	190	97	55	12	3				

Notes: "Chechen and Ingush" refers mostly to Chechen and some Ingush. No data on Koreans.



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The largest deported Protestant group – Volga Germans

- Catherine II called on Europeans to immigrate to Russia in the late 18th century by promising religious freedom, exemption from military service, and a 30 year exemption from paying taxes
- Many Germans responded to this call (other Europeans, if they migrated at all, went to colonies, while Austria forbade emigration)
- The bulk of those Germans came from largely Protestant regions of Hesse and Palatinate
- Settlers were allowed to keep their language, traditions, and religion
- Girls were not excluded from education

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Summary statistics, PSU sample, main outcomes and treatment

Sample:		All P	SUs		PS	Us with d	eportat	ions
	Mean	SD	Min	Max	Mean	SD	Min	Max
Main outcomes:								
Disagree: A woman should do most of the household chores	0.17	0.37	0.00	1.00	0.15	0.36	0.00	1.00
Disagree: It is better for everyone if the man earns the money	0.19	0.39	0.00	1.00	0.18	0.39	0.00	1.00
Disagree: Men make better political leaders	0.22	0.41	0.00	1.00	0.21	0.41	0.00	1.00
Gender attitudes score from PC1, normalized	0.19	0.26	0.00	1.00	0.18	0.27	0.00	1.00
Tried to start a business	0.14	0.34	0.00	1.00	0.15	0.36	0.00	1.00
Member of a women's groups	0.04	0.19	0.00	1.00	0.04	0.19	0.00	1.00
Mother completed tertiary education	0.14	0.35	0.00	1.00	0.15	0.36	0.00	1.00
Main treatment:								
Share of Protestant deportees (30km radius)	0.20	0.32	0.00	1.00	0.33	0.35	0.00	1.00
Share of (Sunni) Muslim deportees (30km radius)		0.42	0.00	1.00	0.60	0.39	0.00	1.00
Nb of Protestant Deportees (30km radius)	1131.48	2583.00	0.00	22221.00	1876.09	3109.09	0.00	22221.00
Nb of Muslim Deportees (30km radius)	2737.40	4821.04	0.00	24787.00	4538.82	5510.31	0.00	24787.00
Religious distance to Protestants (demeaned)	-0.00	0.41	-0.78	0.22	0.09	0.33	-0.78	0.22
Religious distance to (Sunni) Muslims (demeaned)	-0.00	0.82	-0.43	1.57	-0.19	0.66	-0.43	1.57
Protestant deportees (ln) x Religious distance (demeaned)	0.22	1.79	-7.84	2.13	0.36	2.28	-7.84	2.13
Muslim deportees (ln) x Religious distance (demeaned)	-1.47	2.56	-4.38	15.35	-2.42	2.92	-4.38	15.35
Linguistic distance to Protestants (demeaned)	0.00	0.04	-0.05	0.04	0.01	0.03	-0.05	0.04
Linguistic distance to (Sunni) Muslims (demeaned)	0.00	0.12	-0.09	0.25	0.06	0.12	-0.09	0.25
Protestant deportees (ln) x Linguistic distance (demeaned)	0.02	0.18	-0.41	0.36	0.03	0.23	-0.41	0.36
Muslim deportees (ln) x Linguistic distance (demeaned)	0.24	0.65	-0.86	2.17	0.40	0.79	-0.86	2.17
Observations		572	27		3454			

Summary statistics

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Summary statistics, PSU sample, controls Summary statistics

Sample:	mple: All PSUs				PSUs with deportations			
	Mean	SD	Min	Max	Mean	SD	Min	Max
Controls:								
Protestant or Muslim deportation dummy (30km radius)	0.60	0.49	0.00	1.00	1.00	0.00	1.00	1.00
Share of Catholic/Jewish deportees (30km radius)	0.01	0.05	0.00	0.65	0.01	0.06	0.00	0.65
Share of Buddhist deportees (30km radius)	0.01	0.04	0.00	0.53	0.01	0.06	0.00	0.53
Share of Orthodox Christian deportees (30km radius)	0.01	0.05	0.00	0.65	0.01	0.06	0.00	0.65
Share of Shia Muslim deportees (30km radius)	0.00	0.00	0.00	0.07	0.00	0.01	0.00	0.07
Share of non-ethnic deportees (30km radius)	0.03	0.13	0.00	1.00	0.04	0.13	0.00	0.97
Nb of Catholic/Jewish Deportees (30km radius)	41.76	296.21	0.00	3902.00	69.24	378.94	0.00	3902.00
Nb of Buddhist Deportees (30km radius)	24.13	170.37	0.00	1891.00	40.00	217.94	0.00	1891.00
Nb of Orthodox Christian Deportees (30km radius)	50.44	398.74	0.00	10381.00	83.64	510.76	0.00	10381.00
Nb of Shia Muslim Deportees (30km radius)	7.73	76.29	0.00	1335.00	12.82	97.91	0.00	1335.00
Non-ethnic deportees (30km radius)	182.86	937.90	0.00	10015.00	293.27	1188.65	0.00	10015.00
Nb of deportees (30km radius)	4175.80	6125.40	0.00	34100.00	6913.88	6580.97	1.00	34100.00
Age of respondent	42.98	15.20	18.00	95.00	42.51	14.79	18.00	93.00
Highest education completed	4.82	1.19	1.00	8.00	4.83	1.17	1.00	8.00
Male dummy	0.43	0.49	0.00	1.00	0.43	0.50	0.00	1.00
Household net monthly income (ln)	10.53	2.62	0.00	17.43	11.03	2.63	0.00	17.43
Predicted mother's age	69.60	16.18	43.00	123.00	69.11	15.76	43.00	121.00
1939 population in a 30km radius (ln)	11.54	2.20	6.26	17.42	11.55	1.81	6.26	16.12
Ratio of the number of deportees to local population	0.11	0.45	0.00	5.62	0.18	0.56	0.00	5.62
Capital (old or new)	0.12	0.33	0.00	1.00	0.14	0.34	0.00	1.00
Distance to railroad (km)	17.09	30.36	0.00	162.31	10.70	18.12	0.00	142.41
Urban	0.44	0.50	0.00	1.00	0.47	0.50	0.00	1.00
Ruggedness	75.63	22.96	9.88	99.72	79.16	18.17	26.85	99.72
Travel distance to capital city (km)	505.16	817.43	0.00	6057.08	425.38	670.67	0.00	5970.96
Distance to gulag (km)	135.90	111.25	1.16	458.49	133.57	114.49	1.16	427.38
Distance to water (km)	12.27	13.19	0.00	95.04	11.25	10.30	0.00	54.94
Precipitation (June-August)	25.67	26.74	0.41	118.28	20.89	23.01	0.43	118.28
Temperature (June-August)	21.07	4.95	-1.28	28.56	22.35	4.33	6.66	28.56
Precipitation (Dec-Feb)	35.03	16.18	8.66	111.53	32.82	14.68	9.51	111.53
Temperature (Dec-Feb)	-4.87	6.47	-21.57	4.60	-3.95	6.66	-20.66	4.60
Soil Suitability high inputs	2.90	1.64	1.00	7.64	2.56	1.23	1.00	6.07
Soil Suitability low inputs	3.46	1.27	1.03	7.62	3.25	1.00	1.27	6.84
Observations		5727 3454						
) Jarotschkin (r) Zhuravskava		Gender Norms and Ethnic Deportat					ions	

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1941 evacuation of enterprises

Deportees sent further east than evacuated enterprises



Overlaid with LiTs PSUs



Check on data: 1951 vs. 1946 NKVD archives by region in USSR



Check on data: NKVD archives vs. 1970 Soviet census by region in USSR



• By 1970, the biggest group of Muslims (Chechens) was pardoned and left, while Crimean Tatars and Meskhetian Turks (who were the remaining sizable Muslim groups) and Germans (the biggest Protestant group) stayed at the deportation locations until 1991.

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Gender Norms and Ethnic Deportations

Did your mother obtain tertiary education? No pre-trends

by birth cohort of respondent's mother: number of Protestant and of Muslim deportees



Mother obtained tertiary education

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Did your mother obtain tertiary education? No pre-trends, with PSU FEs

by birth cohort of respondent's mother: number of Protestant and of Muslim deportees



Mother obtained tertiary education

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Gender Norms and Ethnic Deportations

Same result for the number of Protestant and of Muslim deportees

٠ point estimates ٠ point estimates Coeff. on log(Protestant deportees) X Cohort 90% confidence intervals on log(Muslim deportees) X Cohort 90% confidence intervals 03 .03 .02 01 01 - 01 Coeff. - 02 Cohort 2 Cohort 3 Cohort 1 Cohort 2 Cohort 3 Cohort 1 Cohort 4 Cohort 5 Cohort 4 Cohort 5 (Pre 1954) (1954-58) (1959-73) (Pre 1954) (1954-58) (1959-73) (Post 1985) (1974 - 85)(Post 1985) (1974 - 85)Mothers at school Mothers at school before WWII during WWII after WWII after WWII after WWII before WWII during WWII after WWII after WWII after WWII Birth cohort of respondent Birth cohort of respondent

Gender attitudes, 1st principal component

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Gender Norms and Ethnic Deportations

Attitudes toward gender equality

	Chose to "disagree" or "strongly disagree" (on 4-point Likert scale) with the statement:										
	A woman most of the	should always do household chores	It is better the mon	r if the man earns ey in the family	Men make better politic leaders than women do						
Panel A. Levels, all PSUs											
Protestant deportees (ln)	0.028***	0.014**	0.018**	0.020***	0.033***	0.015***					
	(0.004)	(0.005)	(0.007)	(0.007)	(0.009)	(0.005)					
Muslim deportees (ln)	-0.007	-0.013	0.002	-0.001	-0.009	0.005					
	(0.008)	(0.009)	(0.008)	(0.008)	(0.007)	(0.008)					
1{Muslim/Protestant deportation}	-0.107*	0.065	-0.101	-0.053	-0.066	-0.046					
	(0.062)	(0.067)	(0.063)	(0.071)	(0.066)	(0.070)					
Observations	2,679	2,005	2,656	1,996	2,635	1,979					
R-squared	0.200	0.163	0.127	0.144	0.186	0.151					
p-value: β (Protest.) = β (Musl.)	0.00***	0.00***	0.10*	0.01***	0.00***	0.21					
<i>p</i> -value: β (Protest.) = $-\beta$ (Musl.)	0.04**	0.97	0.11	0.16	0.03**	0.06^{*}					
Mean of dependent var.	0.161	0.174	0.205	0.164	0.246	0.176					
SD of dependent var.	0.368	0.380	0.404	0.370	0.431	0.381					
Panel B. Shares, PSUs with de	portations										
Share of Protestant deportees	0.196^{***}	0.227***	0.101	0.201**	0.192*	0.099					
	(0.033)	(0.053)	(0.070)	(0.086)	(0.111)	(0.076)					
Observations	1.662	1,251	1.654	1,250	1,639	1,231					
R-squared	0.230	0.185	0.135	0.154	0.181	0.142					
Mean of dependent var.	0.148	0.158	0.202	0.155	0.234	0.185					
SD of dependent var.	0.355	0.365	0.402	0.362	0.423	0.388					
Region FE and controls	√	\checkmark	✓	\checkmark	√	√					
Sample - gender	Female	Male	Female	Male	Female	Male					
Sample - gender	remale	Male	remale	male	remale	Male					

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Gender Norms and Ethnic Deportations

Deportations by religion and destination

	Al	l		by Sovi	iet republic of	destination, $\%$	% of the total	l
	people 000s	%	Russia	Kazakhstan	Uzbekistan	Kyrgyzstan	Tajikistan	Turkmenistan
Total	2170.151	100.00	41.99	42.71	7.68	6.53	1.20	0.11
Protestant	1143.153	52.68	31.07	19.50	0.30	0.73	0.97	0.11
Muslim	750.904	34.60	2.27	18.98	7.35	5.78	0.22	0.00
Catholic	142.619	6.57	4.55	2.02	0.00	0.00	0.00	0.00
Orthodox	66.764	3.08	1.38	1.69	0.00	0.00	0.00	0.00
Buddhist	62.251	2.87	2.71	0.11	0.03	0.01	0.00	0.00
Shia Muslim	4.46	0.21	0.00	0.21	0.00	0.00	0.00	0.00
Districts (rayons)				100			10	
with deportations	1131		774	190	97	55	12	3

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Ethnic deportations location, their size and composition



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Did your mother obtain tertiary education? Pre-trends

	(1)	(2)	(3)	(4)
Dependent Var.:		Respondent	's mother	
	con	pleted terti	ary educat	ion
Panel A. Specification in levels. Sample: all localities.				
Mother finished school BEFORE WWII \times Protestant deportees (ln)	-0.005	-0.005		-0.002
	(0.004)	(0.004)		(0.005)
Mother finished school BEFORE WWII × Muslim deportees (ln)	0.003	0.003		0.006
	(0.005)	(0.005)		(0.004)
Mother finished school DURING/AFTER WWII × Protestant deportees (ln)	0.006^{**}		0.008^{**}	
	(0.003)		(0.004)	
Mother finished school DURING/AFTER WWII \times Muslim deportees (ln)	-0.007		-0.008**	
	(0.005)		(0.003)	
Mother finished school DURING WWII \times Protestant deportees (ln)		-0.001		
		(0.005)		
Mother finished school DURING WWII \times Muslim deportees (ln)		-0.002		
		(0.005)		
Mother hnished school AFTER WWII × Protestant deportees (in)		0.007**		0.007
		(0.003)		(0.005)
Mother hnished school AFTER WWII \times Muslim deportees (in)		-0.007		-0.002
		(0.005)		(0.004)
1{Muslim/Protestant deportation}	-0.010	-0.009		
	(0.035)	(0.035)		
Observations	5 547	5 5 47	5 5 47	5 547
P commend	0.100	0.100	0.280	0.991
at or june of	0.100	0.100	0.200	0.201
p -value: $\beta^{AFTER}(Protestant) = \beta^{AFTER}(Muslim)$	0.01***	0.01***	0.01***	0.21
p -value: $\beta^{BLFORE}(Protestant) = \beta^{BLFORE}(Muslim)$	0.15	0.15		0.30
Mean of dependent var.	0.142	0.142	0.142	0.142
SD of dependent var.	0.349	0.349	0.349	0.349
Panel B. Specification in shares. Sample: localities with deportations.				
Mother finished school DURING/AFTER WWII × Protestant deportees (share)	0.088^{**}		0.082**	
	(0.039)		(0.037)	
Mother finished school BEFORE WWII × Protestant deportees (share)	-0.018	-0.018		-0.026
	(0.045)	(0.045)		(0.047)
Mother hnished school AFTER WWII × Protestant deportees (share)		0.095**		0.061
		(0.040)		(0.053)
Mother mushed school DURING WWII × Protestant deportees (snare)		0.015		
		(0.059)		
Observations	3,352	3,352	3,352	3,352
R-squared	0.208	0.209	0.275	0.275
p-value: $\beta^{BEFORE}(Protestant) = \beta^{AFTER}(Protestant)$	0.00***	0.00***		0.03**
Mean of dependent var.	0.148	0.148	0.148	0.148
SD of dependent var.	0.355	0.355	0.355	0.355
Region and birth-year FE and baseline controls; sample: both genders	~	~	~	~
Locality (PSU) FE			~	~
	_			

Back to the graph

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Gender Norms and Ethnic Deportations

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Robustness: Different thresholds for the vicinity radii

Log number of Protestant deportees



Back to results in shares

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Robustness: Different clusters (levels)

(1) (2)	(3)
1st Principal Component	Tried to
Progressive attitudes	start a
normalized b/w 0 and 1	business

Panel A. Specification 1, levels. Sample: all localities.

Protestant Deportees (ln) Baseline - Conley s.e. 150km radius s.e. clustered by PSU s.e. clustered by region Conley s.e. 200km radius	$\begin{array}{c} 0.026 \\ (0.004)^{***} \\ (0.006)^{***} \\ (0.006)^{***} \\ (0.004)^{***} \end{array}$	$\begin{array}{c} 0.017 \\ (0.004)^{***} \\ (0.006)^{***} \\ (0.005)^{***} \\ (0.003)^{***} \end{array}$	$\begin{array}{c} 0.009 \\ (0.004)^{**} \\ (0.005)^{*} \\ (0.005)^{*} \\ (0.004)^{**} \end{array}$
Muslim Deportees (ln) Baseline - Conley s.e. 150km radius s.e. clustered by PSU s.e. clustered by region Conley s.e. 200km radius	$\begin{array}{c} -0.005\\(0.007)\\(0.006)\\(0.006)\\(0.006)\\(0.006)\end{array}$	$\begin{array}{c} -0.004 \\ (0.006) \\ (0.006) \\ (0.006) \\ (0.005) \end{array}$	$\begin{array}{c} -0.012 \\ (0.004)^{***} \\ (0.006)^{**} \\ (0.005)^{**} \\ (0.005)^{**} \end{array}$
Observations R-squared	$2,572 \\ 0.164$	$1,925 \\ 0.162$	2,732 0.0704
Mean of dependent var. SD of dependent var.	$0.206 \\ 0.271$	$0.170 \\ 0.256$	0.108 0.310

• Results for the share of Protestant deportees

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Gender Norms and Ethnic Deportations

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