Enemies of the People

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Donald J. Trump
@realDonaldTrump

The FAKE NEWS media (failing @nytimes, @CNN, @NBCNews and many more) is not my enemy, it is the enemy of the American people. SICK!

17/02/2017, 21:32

*No mercy for these **enemies of the people**... War to the death against the rich and their hangers-on, the bourgeois intellectuals...*

Lenin, 1917

*Whoever tries to break the unity of the socialist state... is a sworn **enemy of the state, of the peoples of the USSR**. And we will destroy any such enemy...*

Stalin, 1937

Enemies of the People

- Used to designate a specific group: The educated elite
- Journalists, artists, affluent peasants, engineers, lawyers, doctors, scientists, etc...
- Identified as a threat to the Soviet regime, as counter-revolutionaries
- Along with millions of other non-political prisoners [1], $\simeq$ 3 million *enemies* were sent to forced labor camps scattered across the Soviet Union: The GULAG

[1] It is estimated that $\simeq$ 15 million people went through the GULAG system from 1928 to Stalin's death. Number of slaves taken from Africa between 17th and 19th century: $\simeq$ 12 million.

This paper

- We look at the long-run effects of the forced resettlements of *enemies of the people* on development outcomes across localities of the ex-Soviet Union

Related papers

(Forced) migration has long-run effects as migrants take their human capital with them

- Hornung (2014) shows that in the late 17th century Prussia, firms in areas receiving skilled Huguenots from France experienced increased productivity.
- Farmers resettled by policy experiment in Indonesia transfer their human capital and skills (Bazzi et al. 2016).
- Easterly and Levin (2016) also suggest the effect of Europeans colonizers is mostly from the human capital they brought with them.
- State sponsored settlements in Brazil around 1900 have higher levels of schooling and income per capita today (Ferraz et al. 2016).
- Europeans settlers raised literacy rates and helped industrialization in Argentinean counties (Droller 2017).
- Human capital spillovers from missionary areas contributed to superior education outcomes (Valencia 2018).

Related papers

(Forced) migration has long-run effects as migrants take their human capital with them

- Cities where Gulag camps were located grew significantly faster than similar cities without camps (Mikhailova 2012).
- The location of a Gulag camp in a district is associated with anti-communist voting during the last Soviet 1991 referendum and 1996 presidential election (Kapelko and Markevitch 2014).
- Jarotschkin and Zhuravskaya (2019) explore the ethnic deportations of Stalin and the diffusion of gender norms.
- Becker et al. (2018) educational investment (mobiles assets) of families who have been exposed to forced migration.

What we can learn from the enemies of the people

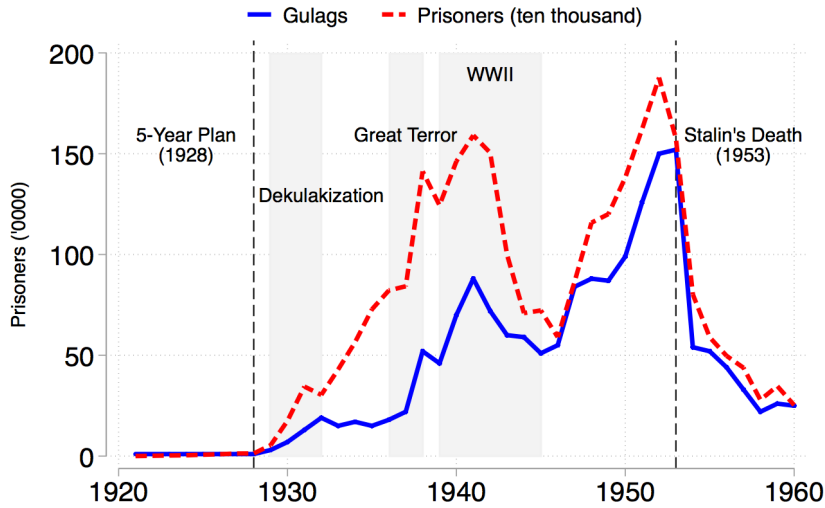
Our setting is akin to a natural experiment (to gauge the effect of human capital on prosperity) with plausibly exogenous variation in human capital

- No self-selection to destinations of forced migrants
- Little evidence on endogenous location decisions on enemies (to be discussed!)
- Little institutional heterogeneity (camps are operated from Moscow)

HISTORICAL BACKGROUND

The Gulag: served terror and industrialisation from 1920s to 1950s

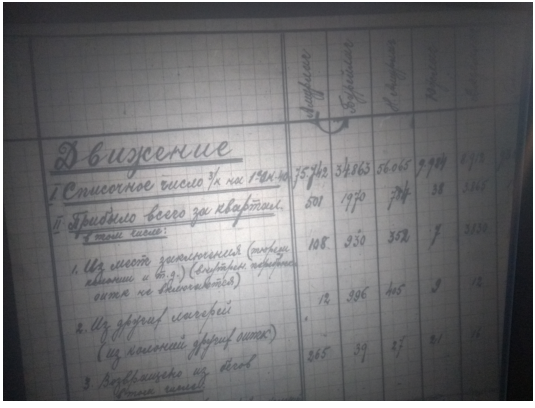




Source: Memorial

ARCHIVAL DATA ON CAMPS

Camp Data



⇒ Data on age, gender, education, ethnicity and type of committed crime on the camp level in 1939, 1941 and 1952 was collected from the documents at GARF.[2]

[2]Jointly with two students, Lilia Shevchenko and Eugen Potorac, we have digitised all the data.

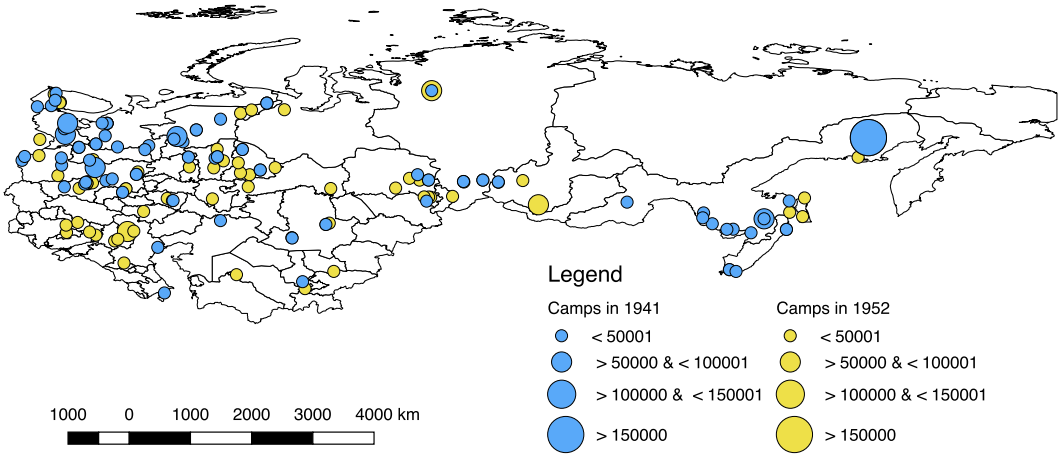
Triangulation with Memorial Data (1941 wave)

$\Rightarrow$ Triangulation of aggregate numbers with Getty et al. (1993): missing 15% for 1939 and 3% for 1941 and 1952 waves.

Table: Descriptives Gulag Camps

	Mean 1939	Mean 1941	Mean 1952	Census 1939
	(1)	(2)	(3)	(4)
Share Women (%)	9	7	13	56
Ethnicities (%)				
Russian	-	66	-	58
Ukrainian	-	11	-	14
Belorussians	-	3	-	3
Other European	-	4	-	> 4
Kaukasians	-	2	-	> 3
Central Asian	-	4	-	> 4
Turkic in Russia	-	2	-	> 3
Other Asian	-	0	-	> 0
Education (%)				
Illiterate	8	6.6	-	34
Primary	80	83	-	57
Secondary	10	8.7	-	6.8
Tertiary	1.8	1.6	-	0.6
Age (%)				
<25	21	20	37	42
25-34	34	37	34	16
35-44	28	24	18	13
> 44	18	19	11	29
Share Enemies (%)	30	23	19	-
▸ Crimes ▸ Anecdotal Evidence				
Number of Prisoners	36580	20902	19284	
Number of Camps	31	70	88	

Location and size of Camps



Source: Self-Constructed except location which is coming from Memorial. 74 regions for the period 1939-1989.

Legacy of the Camps

Gulag: The legacy

After Stalin's death the Gulag slowly came to an end. But:

- Prisoners often continued working on the same industrial projects (Cohen 2010)
- Some camps emerged as industrial cities (example: Karaganda)

Gulag: The legacy

Why enemies remained even when freed:

- Stalin's plan: No *enemy* should ever to be allowed to return home
  - Strict limits on mobility: Wolf tickets
- Managers actively recruited ex-prisoners with the required technical skills (Barenberg 2014)
- Gulag towns had become a way of life

Data

$\Rightarrow$ Link camps to Soviet Census on region level (1926, 1939, 1959, 1989, 2002, 2010).

For the periods 1939, 1959, 1989, 2002 and 2010 we are able to construct 74 spatial entities, which are consistent across periods. ▸ Treatment Prisoners

We are also able to look at the pre-trend between 1926 and 1939. But for that period, we are only able to construct 33 spatial entities which are stable across periods. No statistically significant differences in trends between treated and control. ▸ Pre-Trend

Census 1939 - 2010

	(1) Pop. (000)	(2) Women (%)	(3) < 15 (%)	(4) > 44 (%)	(5) Tertiary (%)
Nr. Camps $\times$ 1959	60.630**	-0.080	-0.013	-0.215	0.014
	(26.036)	(0.104)	(0.153)	(0.137)	(0.057)
Nr. Camps $\times$ 1989	102.911	-0.084	-0.393**	0.303	0.255
	(67.735)	(0.097)	(0.197)	(0.196)	(0.224)
Nr. Camps $\times$ 2002	114.603	0.022	-0.480**	0.577***	0.665**
	(80.382)	(0.096)	(0.196)	(0.189)	(0.298)
Nr. Camps $\times$ 2010	106.263	0.043	-0.277	0.628***	0.927**
	(99.076)	(0.101)	(0.181)	(0.188)	(0.424)
N	354	354	354	354	354
R-sq	0.25	0.57	0.83	0.81	0.88

Note: Robust standard errors are in parentheses : *** p<0.01, ** p<0.05, * p<0.1. Year specific correlation conditional on region and time FE. Share of individuals with a tertiary education is calculated for those who are between 15 and 45.

Gulag: The legacy

Does the share of *enemies* in a camp predict development outcomes today?

Data and Empirics

Data

- Data on *enemies*: Camp-level data on prisoners from the archives (discussed above)
- Data on night-light intensity in 2010: DMSP-OLS satellite program
- Data on firms in 2014: Business Environment and Enterprise Performance Survey (EBRD) $\Rightarrow$ Replace with detailed Russian Firm Census (SPARK)!
- Data on households in 2010: Life in Transition Survey (EBRD) $\Rightarrow$ Replace with detailed Russian HH Panel?

ENEMIES AS A NATURAL EXPERIMENT

All the books and reports we have read on the Great Terror (our preferred wave of 1941) suggest that the arrests have been politically motivated. ▸ Citations

Enemies might have been allocated to

- More productive regions
- Skill-intensive or capital-intensive activities
- Larger camps with agglomeration economies

Control Variables:

1. reflecting geographic conditions such as soil quality and elevation
2. reflecting economic activity of camps and resource extraction
3. reflecting human activity such as urbanisation, population density and camp size

Controls

In total we collect and construct up to 40 variables capturing observables from 3 different groups (geographic conditions, economic activity, human density).

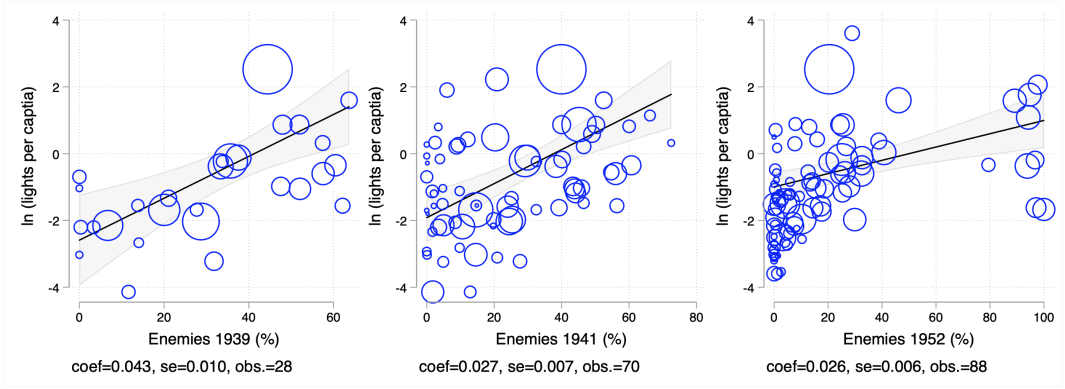
Unconditional correlation between enemy share and the variables ▸ Raw Correlations:

- Geography: positive correlation with Longitude and Latitude
- Economic Activity: positive correlation with Forestry and Food Industry
- Agglomeration: negative correlation with Population Density and Urbanisation

LASSO reduces the number of variables: Forestry, Pop. Den. and Urbanisation. ▸ LASSO

Results

Enemies vs. lights per capita

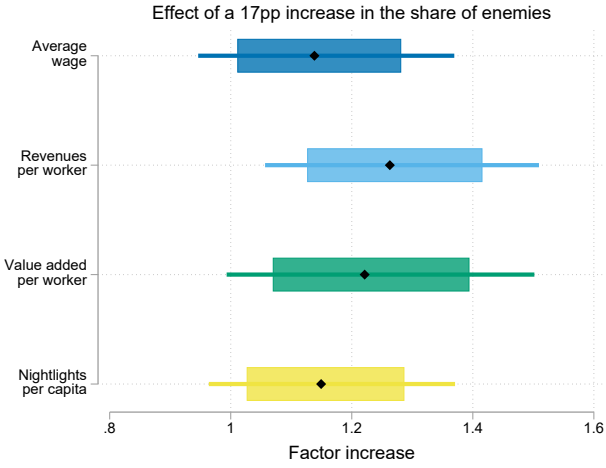


Specification at the household or firm level

$$y_i = c + \alpha \frac{Enemies_i}{Prisoners_i} + X'\beta + e_i$$

- y_i is a firm or household outcome in city i (within 30km of a Gulag)
- $\frac{Enemies_i}{Prisoners_i}$ is the share of *enemies* among prisoners in nearby Gulag(s)
- X vector of controls for geography, country FE, firm industry, economic activity and size of the Gulag(s)

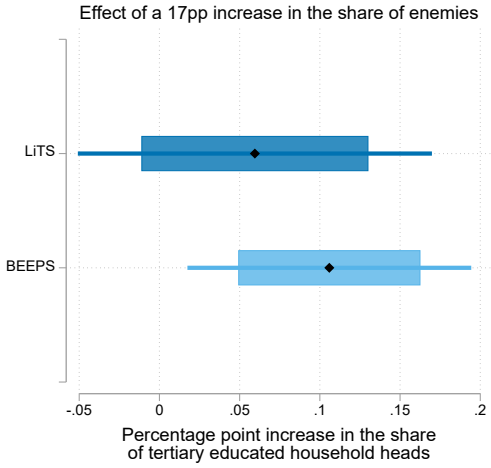
Results



The box gives the 90% confidence interval, the spikes the 99% one.

▸ Lights ▸ Value added ▸ Revenues ▸ Wages

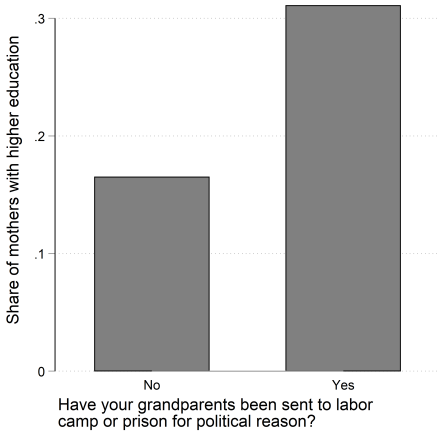
Results

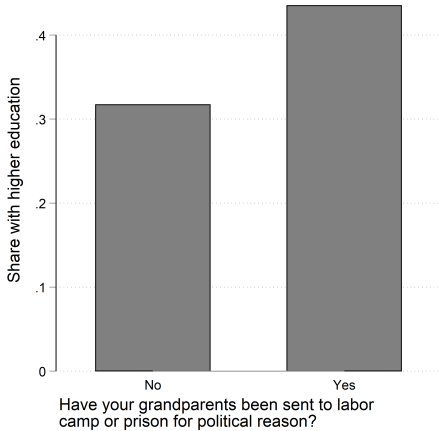


The box gives the 90% confidence interval, the spikes the 99% one.

▸ BEEPS ▸ LiTS

The education persistence of enemies





Conclusion

Conclusion

- We highlight the prevalence of *enemies of the people* as Gulag prisoners in one of the darkest episodes of recent history.
- The forced resettlement of *enemies* is a strong predictor of prosperity today, captured by night-lights, firm productivity, wages and education.
- Our paper can be seen as a natural experiment that identifies the long-run persistence of education and its effect on prosperity.

Next on the Agenda

- Collect better data on firms and households.
- Data Collection in Process:
  - Railways and Waterways in 1939 and 2010
  - Arms Factories since 1920
  - Location of Universities
  - Science Cities (Schweiger et al. 2019)
  - City Level Census
- Think harder about the mechanisms $\Rightarrow$ nature versus nurture.

Appendix

Enemies of the people as human capital

- Purges in Moscow Factories, 1936-1938: Directed almost exclusively against managers and technical specialists
- Purges in rural districts - 1937: The prime victims were the heads of local institutions
- From Moscow and Leningrad telephone directories of the 1930s:
  - 60% of senior officials of the People's Commissariat of Heavy Industry present in 1937 were missing in 1939
  - 3% of doctors disappeared, 30% of lawyers

Source: Getty and Manning (1993)

Table: Share of Enemies among reported occupations in 1939

	Business & Artists	Military	Clerks	Police	Kulaks
Share Enemies	68	70	78	92	63

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TABLE: Types of Crimes

	1939 Total	1939 %	1941 Total	1941 %	1952 Total	1952 %
	(1)	(2)	(3)	(4)	(5)	(6)
Enemies	12356	30	6101	23	5520	19
Social Order	9870	26	4759	23		
Dangerous	6838	19	4633	25		
Property Crimes	5476	15	3225	17		
Abuse of Power	2842	9	1630	9		
War Crimes	290	1	416	3		
Number of Camps	30	30	70	70	88	88

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Census 1926 - 1939

	(1) Pop.	(2) Pop.	(3) Pop.	(4) Men	(5) Women
Prisoners 1941	0.092				
	(1.632)				
Prisoners 1952		1.675			
		(1.625)			
Prisoners			0.542	0.260	0.281
			(0.987)	(0.454)	(0.537)
N	66	66	66	66	66
R-sq	0.17	0.18	0.17	0.15	0.19

Note: Robust standard errors are in parentheses : *** p<0.01, ** p<0.05, * p<0.1. Correlation conditional on region and time FE.

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Census 1939 - 1959

	(1) Pop.	(2) Pop.	(3) Pop.	(4) Men	(5) Women
Prisoners 1941	2.051***				
	(0.753)				
Prisoners 1952		4.650***			
		(1.468)			
Prisoners			1.840**	0.810**	1.030***
			(0.731)	(0.396)	(0.358)
N	148	148	148	148	148
R-sq	0.16	0.24	0.20	0.07	0.33

Note: Robust standard errors are in parentheses : *** p<0.01, ** p<0.05, * p<0.1. Correlation conditional on region and time FE.

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Enemies as a natural experiment

- *The main purpose of the Great Terror was declared at the very outset to be the physical annihilation of enemies rather than their use as cheap labor*
- *The political motives for the Terror took absolute priority over economic ones*

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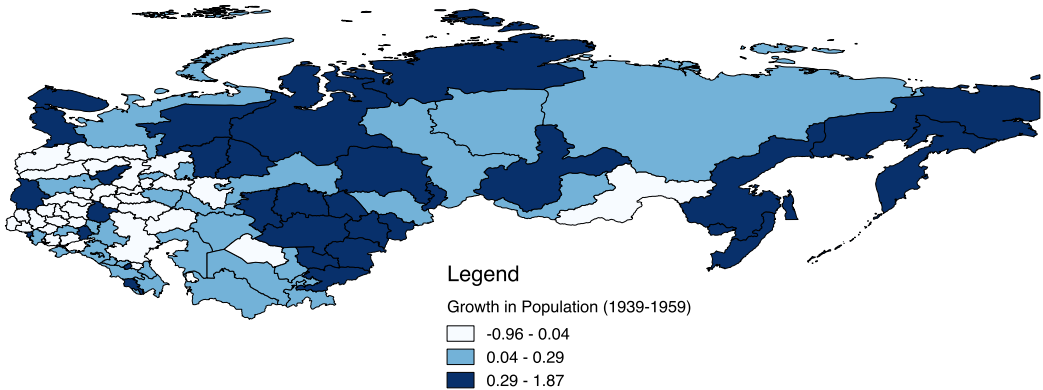
Khlevnyuk (2003)



$\Rightarrow$ 3000 prisoners increase population growth on average by 1pp.

TABLE: Population Growth

Years	1939	1941	1952
	(1)	(2)	(3)
	A. Men		
Men in 1000	0.002*	0.002*	0.003***
	(0.001)	(0.001)	(0.001)
	B. Women		
Women in 1000	0.032***	0.033***	0.025***
	(0.014)	(0.011)	(0.008)
	C. Total		
Total in 1000	0.003**	0.003***	0.003***
	(0.001)	(0.001)	(0.001)

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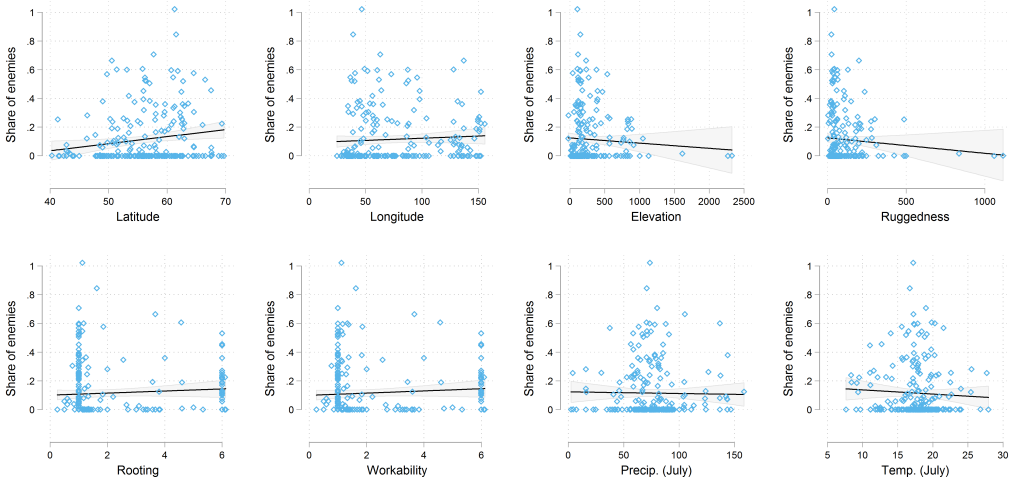
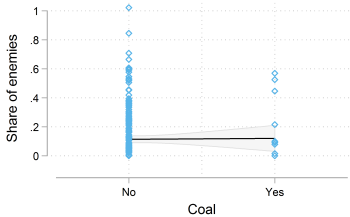
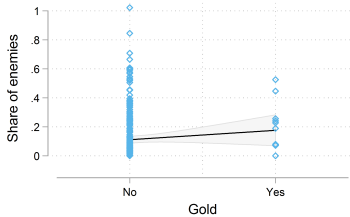
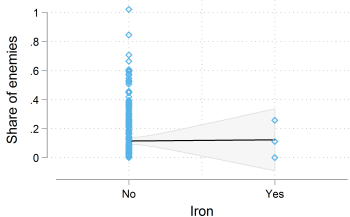
Enemies' share vs. Climate and land

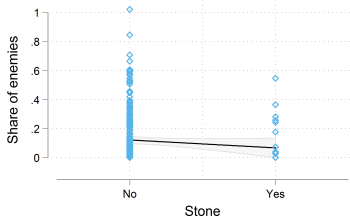


Enemies' share vs. Natural Resources

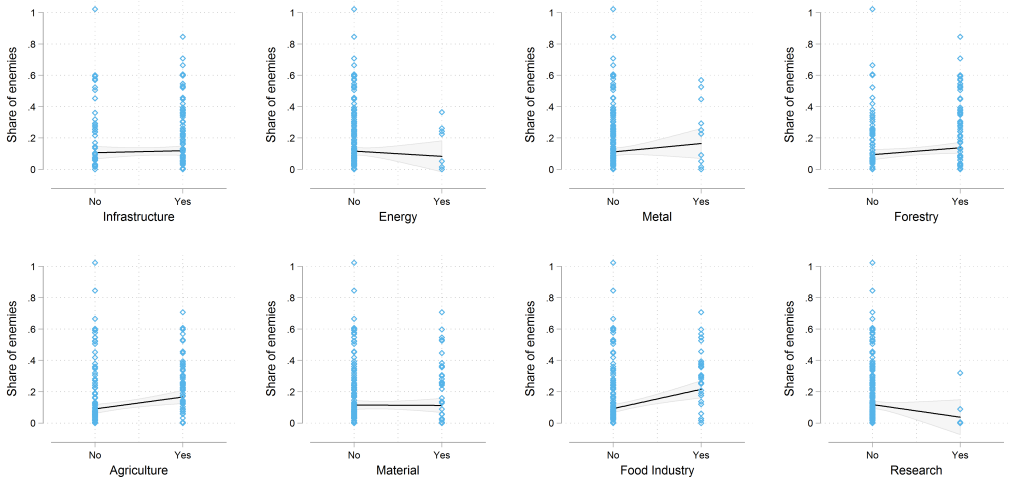




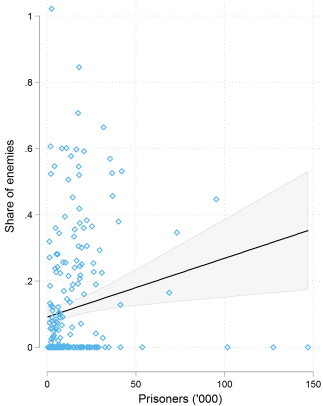


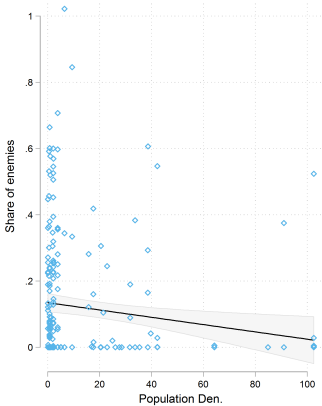


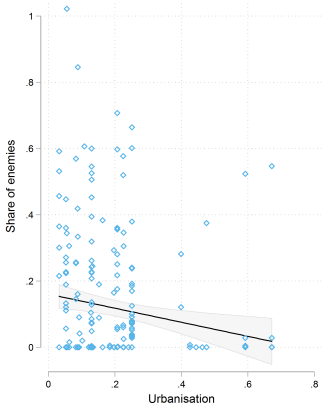
Enemies' share vs. Gulag industries



Enemies' share vs. Population







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The correlates of enemies

	(1) Enemies 1939 (%)	(2) Enemies 1939 (%)	(3) Enemies 1941 (%)	(4) Enemies 1941 (%)	(5) Enemies 1952 (%)	(6) Enemies 1952 (%)
Forestry (=1)	18.883***	18.883***	19.056***	21.632***		
	(6.631)	(6.631)	(4.525)	(4.282)		
Regional Urbanisation in 1926	-0.701***	-0.701***				
	(0.189)	(0.189)				
Regional Pop. Den. in 1926			-0.199***		-0.299***	
			(0.058)		(0.063)	
Constant	37.112***	37.112***	16.505***	13.125***	24.419***	18.936***
	(8.576)	(8.576)	(2.746)	(2.241)	(3.816)	(2.964)
N	28	28	70	70	86	88
R-sq	0.69	0.69	0.32	0.28	0.09	0.00

Note: Robust standard errors are in parentheses : *** p<0.01, ** p<0.05, * p<0.1. OLS based on the variables determined as relevant by LASSO. In column 1, 3 and 5 we use absolute values of coefficient to determine the penalty, while in the other columns we use the square root.

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TABLE: Dependent Variable: Lights per capita (ln)

Panel A: 1939

	(1) ln(Light per capita)	(2) ln(Light per capita)	(3) ln(Light per capita)	(4) ln(Light per capita)
Enemies in 1939 (%)	0.043***	0.044***	0.042*	0.040
	(0.010)	(0.013)	(0.024)	(0.023)
N	28	26	26	24
R-sq	0.38	0.41	0.44	0.40

Panel B: 1941

	(1) ln(Light per capita)	(2) ln(Light per capita)	(3) ln(Light per capita)	(4) ln(Light per capita)
Enemies in 1941 (%)	0.027***	0.026***	0.020**	0.023**
	(0.007)	(0.007)	(0.010)	(0.010)
N	70	68	68	64
R-sq	0.14	0.15	0.17	0.21

Panel C: 1952

	(1) ln(Light per capita)	(2) ln(Light per capita)	(3) ln(Light per capita)	(4) ln(Light per capita)
Enemies in 1952 (%)	0.026***	0.023***	0.021***	0.021***
	(0.006)	(0.007)	(0.006)	(0.006)
N	88	85	85	76
R-sq	0.24	0.29	0.44	0.35

Robust standard errors in parenthesis, and * stands for statistical significance at the 10% level, ** at the 5% level and *** at the 1% percent level. In column 1 the results of the first row of Table 29 are shown. In column 2 we account for country FE and in column 3 we additionally account for forestry, population density and urbanisation. In column 4 we just keep Russia.

TABLE: Dependent Variable: Lights per capita (ln)

Panel A: Share of Enemies of the People

	All Gulags			Gulags (>2 years)		
	(1)	(2)	(3)	(4)	(5)	(6)
Enemies (%)	1.559***	0.819**	0.925**	1.252**	0.728*	0.925*
	(0.470)	(0.402)	(0.411)	(0.501)	(0.437)	(0.506)
N	423	423	386	238	238	217
R-sq	0.34	0.44	0.41	0.31	0.43	0.40

Panel B: Dummy Variable

	All Gulags			Gulags (>2 years)		
	(1)	(2)	(3)	(4)	(5)	(6)
Enemies (=1)	0.296*	0.141	0.163	0.090	0.030	0.079
	(0.178)	(0.162)	(0.171)	(0.210)	(0.189)	(0.199)
N	423	423	386	238	238	217
R-sq	0.33	0.43	0.41	0.29	0.42	0.39
Total prisoners	Y	Y	Y	Y	Y	Y
Country FE	Y	Y	Y	Y	Y	Y
Geography	N	Y	Y	N	Y	Y
Gulag activity	N	Y	Y	N	Y	Y

Conley standard errors in parenthesis, and * stands for statistical significance at the 10% level, ** at the 5% level and *** at the 1% percent level. In column 1-3 we use the full sample of Gulags. In column 4-6 we use only Gulags which remained active for more than 2 years. In column 1 and 4 we present the results with country fixed effects as well as the the total number of prisoners. In column 2 and 5 we control for additional geographical variables as well as dummies indicating the main economic activities of Gulags. In column 3 and 6 we focus only on Russia, using the full-control specification of column 2 and 5.

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TABLE: Dependent Variable: Revenues per employee (ln)

Panel A: Share of Enemies of the People

	All Gulags			Gulags (>2 years)		
	(1)	(2)	(3)	(4)	(5)	(6)
Enemies (%)	0.990**	1.373***	1.864***	1.117**	1.824***	2.189***
	(0.471)	(0.407)	(0.465)	(0.486)	(0.419)	(0.487)
N	2645	2645	1735	2323	2323	1614
R-sq	0.66	0.67	0.16	0.62	0.62	0.16

Panel B: Dummy Variable

	All Gulags			Gulags (>2 years)		
	(1)	(2)	(3)	(4)	(5)	(6)
Enemies (=1)	0.355***	0.308***	0.305***	0.407***	0.357***	0.316***
	(0.098)	(0.069)	(0.076)	(0.103)	(0.066)	(0.080)
N	2645	2645	1735	2323	2323	1614
R-sq	0.67	0.67	0.16	0.62	0.63	0.16
Total prisoners	Y	Y	Y	Y	Y	Y
Country FE	Y	Y	Y	Y	Y	Y
Industry FE	Y	Y	Y	Y	Y	Y
Geography	N	Y	Y	N	Y	Y
Gulag activity	N	Y	Y	N	Y	Y

Standard errors in parenthesis clustered by geographic exposure to *enemies*, and * stands for statistical significance at the 10% level, ** at the 5% level and *** at the 1% percent level. In column 1-3 we use the full sample of Gulags. In column 4-6 we use only Gulags which remained active for more than 2 years. In column 1 and 4 we present the results with country and industry fixed effects as well as the the number of prisoners (ln). In column 2 and 5 we control for additional geographical variables as well as dummies indicating the main economic activities of Gulags. In column 3 and 6 we focus only on Russia, using the full-control specification of column 2 and 5.

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TABLE: Dependent Variable: Value Added per employee (ln)

Panel A: Share of Enemies of the People

	All Gulags			Gulags (>2 years)		
	(1)	(2)	(3)	(4)	(5)	(6)
Enemies (%)	0.598	1.176**	1.633***	0.656	1.560***	1.985***
	(0.444)	(0.472)	(0.542)	(0.460)	(0.513)	(0.557)
N	1848	1848	1337	1657	1657	1255
R-sq	0.67	0.67	0.25	0.61	0.62	0.26

Panel B: Dummy Variable

	All Gulags			Gulags (>2 years)		
	(1)	(2)	(3)	(4)	(5)	(6)
Enemies (=1)	0.296***	0.222**	0.240**	0.330***	0.254***	0.249**
	(0.110)	(0.096)	(0.100)	(0.118)	(0.098)	(0.104)
N	1848	1848	1337	1657	1657	1255
R-sq	0.67	0.67	0.25	0.62	0.62	0.25
Total prisoners	Y	Y	Y	Y	Y	Y
Country FE	Y	Y	Y	Y	Y	Y
Industry FE	Y	Y	Y	Y	Y	Y
Geography	N	Y	Y	N	Y	Y
Gulag activity	N	Y	Y	N	Y	Y

Standard errors in parenthesis clustered by geographic exposure to *enemies*, and * stands for statistical significance at the 10% level, ** at the 5% level and *** at the 1% percent level. In column 1-3 we use the full sample of Gulags. In column 4-6 we use only Gulags which remained active for more than 2 years. In column 1 and 4 we present the results with country and industry fixed effects as well as the the number of prisoners (ln). In column 2 and 5 we control for additional geographical variables as well as dummies indicating the main economic activities of Gulags. In column 3 and 6 we focus only on Russia, using the full-control specification of column 2 and 5.

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Table: Dependent Variable: Average wages (ln)

Panel A: Share of Enemies of the People

	All Gulags			Gulags (>2 years)		
	(1)	(2)	(3)	(4)	(5)	(6)
Enemies (%)	0.236	0.762*	0.960*	0.439	0.600	0.699
	(0.480)	(0.422)	(0.522)	(0.621)	(0.452)	(0.574)
N	2588	2588	1531	1723	1723	1141
R-sq	0.74	0.75	0.09	0.64	0.65	0.10

Panel B: Dummy Variable

	All Gulags			Gulags (>2 years)		
	(1)	(2)	(3)	(4)	(5)	(6)
Enemies (=1)	0.233*	0.087	0.150	0.270**	0.106	0.103
	(0.120)	(0.090)	(0.107)	(0.137)	(0.099)	(0.126)
N	2588	2588	1531	1723	1723	1141
R-sq	0.74	0.75	0.09	0.64	0.65	0.10
Total prisoners	Y	Y	Y	Y	Y	Y
Country FE	Y	Y	Y	Y	Y	Y
Industry FE	Y	Y	Y	Y	Y	Y
Geography	N	Y	Y	N	Y	Y
Gulag activity	N	Y	Y	N	Y	Y

Standard errors clustered by geographic exposure to *enemies*, and * stands for statistical significance at the 10% level, ** at the 5% level and *** at the 1% percent level. In column 1-3 we use the full sample of Gulags. In column 4-6 we use only Gulags active for more than 2 years. In column 1 and 4 we present the results with country and industry fixed effects as well as the the number of prisoners (ln)]. In column 2 and 5 we control for additional geographical variables as well as dummies indicating the main economic activities of Gulags. In column 3 and 6 we focus only on Russia, using the full-control specification.

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TABLE: Dependent Variable: Years of Education

Panel A: Share of Enemies of the People

	All Gulags			Gulags (>2 years)		
	(1)	(2)	(3)	(4)	(5)	(6)
Enemies (%)	0.931	1.595*	3.466***	1.108	1.676	3.986***
	(0.781)	(0.933)	(1.030)	(0.790)	(1.139)	(1.030)
N	985	985	549	856	856	520
R-sq	0.13	0.15	0.09	0.11	0.12	0.10

Panel B: Dummy Variable

	All Gulags			Gulags (>2 years)		
	(1)	(2)	(3)	(4)	(5)	(6)
Enemies (=1)	0.572***	0.597***	0.728***	0.635***	0.644***	0.775***
	(0.199)	(0.173)	(0.180)	(0.213)	(0.195)	(0.183)
N	985	985	549	856	856	520
R-sq	0.14	0.15	0.09	0.12	0.13	0.10
Total prisoners	Y	Y	Y	Y	Y	Y
Country FE	Y	Y	Y	Y	Y	Y
Industry FE	Y	Y	Y	Y	Y	Y
Geography	N	Y	Y	N	Y	Y
Gulag activity	N	Y	Y	N	Y	Y

Standard errors in parenthesis clustered by geographic exposure to *enemies*, and * stands for statistical significance at the 10% level, ** at the 5% level and *** at the 1% percent level. In column 1-3 we use the full sample of Gulags. In column 4-6 we use only Gulags which remained active for more than 2 years. In column 1 and 4 we present the results with country and industry fixed effects as well as the the number of prisoners (ln). In column 2 and 5 we control for additional geographical variables as well as dummies indicating the main economic activities of Gulags. In column 3 and 6 we focus only on Russia, using the full-control specification of column 2 and 5.

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TABLE: Dependent Variable: > 13 Years of Education Dummy

Panel A: Share of Enemies of the People

	All Gulags			Gulags (>2 years)		
	(1)	(2)	(3)	(4)	(5)	(6)
Enemies (%)	0.321	0.623***	0.854**	0.417*	0.623**	1.012***
	(0.211)	(0.202)	(0.342)	(0.229)	(0.270)	(0.367)
N	985	985	549	856	856	520
R-sq	0.15	0.17	0.11	0.10	0.13	0.10

Panel B: Dummy Variable

	All Gulags			Gulags (>2 years)		
	(1)	(2)	(3)	(4)	(5)	(6)
Enemies (=1)	0.087	0.115***	0.145***	0.116**	0.126***	0.151***
	(0.055)	(0.044)	(0.055)	(0.059)	(0.048)	(0.057)
N	985	985	549	856	856	520
R-sq	0.15	0.17	0.10	0.11	0.13	0.09
Total prisoners	Y	Y	Y	Y	Y	Y
Country FE	Y	Y	Y	Y	Y	Y
Industry FE	Y	Y	Y	Y	Y	Y
Geography	N	Y	Y	N	Y	Y
Gulag activity	N	Y	Y	N	Y	Y

Standard errors in parenthesis clustered by geographic exposure to *enemies*, and * stands for statistical significance at the 10% level, ** at the 5% level and *** at the 1% percent level. In column 1-3 we use the full sample of Gulags. In column 4-6 we use only Gulags which remained active for more than 2 years. In column 1 and 4 we present the results with country and industry fixed effects as well as the the number of prisoners (ln). In column 2 and 5 we control for additional geographical variables as well as dummies indicating the main economic activities of Gulags. In column 3 and 6 we focus only on Russia, using the full-control specification of column 2 and 5.

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Table: Dependent Variable: Tertiary Education (Dummy=1)

Panel A: Share of Enemies of the People

	All Gulags			Gulags (>2 years)		
	(1)	(2)	(3)	(4)	(5)	(6)
Enemies (%)	0.585*	0.350	0.798**	0.778*	0.852**	1.800***
	(0.337)	(0.252)	(0.313)	(0.404)	(0.413)	(0.340)
N	822	822	224	573	573	198
R-sq	0.35	0.39	0.52	0.40	0.44	0.55

Panel B: Dummy Variable

	All Gulags			Gulags (>2 years)		
	(1)	(2)	(3)	(4)	(5)	(6)
Enemies (=1)	0.182***	0.131**	0.079	0.201***	0.142**	0.102
	(0.061)	(0.059)	(0.081)	(0.060)	(0.070)	(0.093)
N	822	822	224	573	573	198
R-sq	0.36	0.39	0.51	0.40	0.44	0.52
Total prisoners	Y	Y	Y	Y	Y	Y
Country FE	Y	Y	Y	Y	Y	Y
Industry FE	Y	Y	Y	Y	Y	Y
Geography	N	Y	Y	N	Y	Y
Gulag activity	N	Y	Y	N	Y	Y

Standard errors in parenthesis clustered by geographic exposure to *enemies*, and * stands for statistical significance at the 10% level, ** at the 5% level and *** at the 1% percent level. In column 1-3 we use the full sample of Gulags. In column 4-6 we use only Gulags which remained active for more than 2 years. In column 1 and 4 we present the results with country fixed and occupation fixed effects, gender, age and age squared of the household head as well as the the number of prisoners (ln). In column 2 and 5 we control for additional geographical variables as well as dummies indicating the main economic activities of Gulags. In column 3 and 6 we focus only on Russia, using the full-control specification of column 2 and 5.

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TABLE: The education persistence of enemies

	(1) Mother's education	(2) Mother's education	(3) Mother's education	(4) Mother's education	(5) Mother's education	(6) Mother's education
Enemy grandparents	0.580***	0.475***	0.398***			
	(0.086)	(0.075)	(0.076)			
Enemy relatives				0.233***	0.239***	0.183***
				(0.073)	(0.062)	(0.065)
Income			0.160***			0.162***
			(0.019)			(0.019)
Female		-0.068***	-0.067**		-0.071***	-0.069***
		(0.026)	(0.026)		(0.026)	(0.026)
Age		-0.038***	-0.036***		-0.038***	-0.036***
		(0.001)	(0.001)		(0.001)	(0.001)
N	18782	18782	15536	18782	18782	15536
R-sq	0.05	0.23	0.33	0.04	0.22	0.33

Notes: Robust standard errors in parenthesis with * standing for statistical significance at the 10% level, ** at the 5% level and *** at the 1% percent level. Data is from LiTS 3, ex-Soviet countries only. Country fixed effects and controls for latitude and longitude included in all regressions. Observations weighted by survey sampling weights.

TABLE: The education persistence of enemies

	(1) Father's education	(2) Father's education	(3) Father's education	(4) Father's education	(5) Father's education	(6) Father's education
Enemy grandparents	0.483***	0.401***	0.291***			
	(0.090)	(0.080)	(0.080)			
Enemy relatives				0.211***	0.212***	0.213***
				(0.074)	(0.066)	(0.070)
Income			0.166***			0.166***
			(0.021)			(0.021)
Female		-0.062**	-0.063**		-0.065**	-0.064**
		(0.027)	(0.028)		(0.027)	(0.028)
Age		-0.032***	-0.029***		-0.032***	-0.029***
		(0.001)	(0.001)		(0.001)	(0.001)
N	18244	18244	15064	18244	18244	15064
R-sq	0.04	0.17	0.27	0.04	0.17	0.27

Notes: Robust standard errors in parenthesis with * standing for statistical significance at the 10% level, ** at the 5% level and *** at the 1% percent level. Data is from LiTS 3, ex-Soviet countries only. Country fixed effects and controls for latitude and longitude included in all regressions. Observations weighted by survey sampling weights.

TABLE: The education persistence of enemies

	(1) Education	(2) Education	(3) Education	(4) Education	(5) Education	(6) Education
Enemy grandparents	0.337***	0.302***	0.219***			
	(0.075)	(0.075)	(0.077)			
Enemy relatives				0.285***	0.276***	0.219***
				(0.068)	(0.066)	(0.065)
Income			0.218***			0.217***
			(0.019)			(0.019)
Female		-0.007	0.017		-0.008	0.017
		(0.025)	(0.026)		(0.025)	(0.026)
Age		-0.010***	-0.007***		-0.010***	-0.007***
		(0.001)	(0.001)		(0.001)	(0.001)
N	19594	19594	16076	19594	19594	16076
R-sq	0.04	0.06	0.16	0.04	0.06	0.16

Notes: Robust standard errors in parenthesis with * standing for statistical significance at the 10% level, ** at the 5% level and *** at the 1% percent level. Data is from LiTS 3, ex-Soviet countries only. Country fixed effects and controls for latitude and longitude included in all regressions. Observations weighted by survey sampling weights.

TABLE: The income effect of enemies

	(1) Income	(2) Income	(3) Income	(4) Income	(5) Income	(6) Income
Enemy grandparents	0.168***	0.128***	0.086**			
	(0.044)	(0.043)	(0.043)			
Enemy relatives				0.142***	0.136***	0.095**
				(0.040)	(0.038)	(0.037)
Female		-0.061***	-0.064***		-0.061***	-0.064***
		(0.018)	(0.018)		(0.018)	(0.018)
Age		-0.010***	-0.009***		-0.010***	-0.009***
		(0.001)	(0.001)		(0.001)	(0.001)
Education			0.129***			0.129***
			(0.006)			(0.006)
N	16076	16076	16076	16076	16076	16076
R-sq	0.89	0.89	0.90	0.89	0.89	0.90

Notes: Robust standard errors in parenthesis with * standing for statistical significance at the 10% level, ** at the 5% level and *** at the 1% percent level. Data is from LiTS 3, ex-Soviet countries only. Country fixed effects and controls for latitude and longitude included in all regressions. Observations weighted by survey sampling weights.