

Case selection

In the text, we discuss the historical experience of a handful of districts in our sample. Rather than cherry-picking cases for examination, we systematically select districts that satisfy various criteria. In doing so, we draw upon a recent literature that provides various recommendations for case selection following statistical analysis (e.g., Lieberman 2005; Gerring 2007; Seawright and Gerring 2008; Fearon and Laitin 2010; Dunning 2012, ch. 7; Seawright 2016). We follow three principles discussed in this literature. First, because we are interested in identifying causal mechanisms that drive a robust empirical relationship, we choose cases that are “on the regression line.” Second, because we want to be able to observe these mechanisms at work, we select cases that take “extreme” values on the determinant of interest—in this case, unrest. Third, we focus on variation that is not explained by covariates of limited theoretical interest.

Figure A1 illustrates our approach. Using our baseline model with serfdom as instrument (Column 2 in Table 2), we derive an added-variable (adjusted partial residual) plot from the second stage of our instrumental-variables regression. This plot illustrates the relationship between (instrumented) unrest and peasant representation in district *zemstvo* assemblies after partialing out the effect of covariates, thus satisfying our third criterion. We then select the two cases with lowest and highest unrest, respectively, that are not outliers in the “residual” regression. As depicted, these are Koz’modem’ianskii and Iadrinskii districts in Kazan province and Solikamskii and Permskii districts in Perm province.³⁵

³⁵The only observation with a more extreme value of unrest is Moscow, in the far northwest corner of the plot. As discussed above, the negative relationship between unrest and representation is robust to dropping Moscow and St. Petersburg districts from the sample.

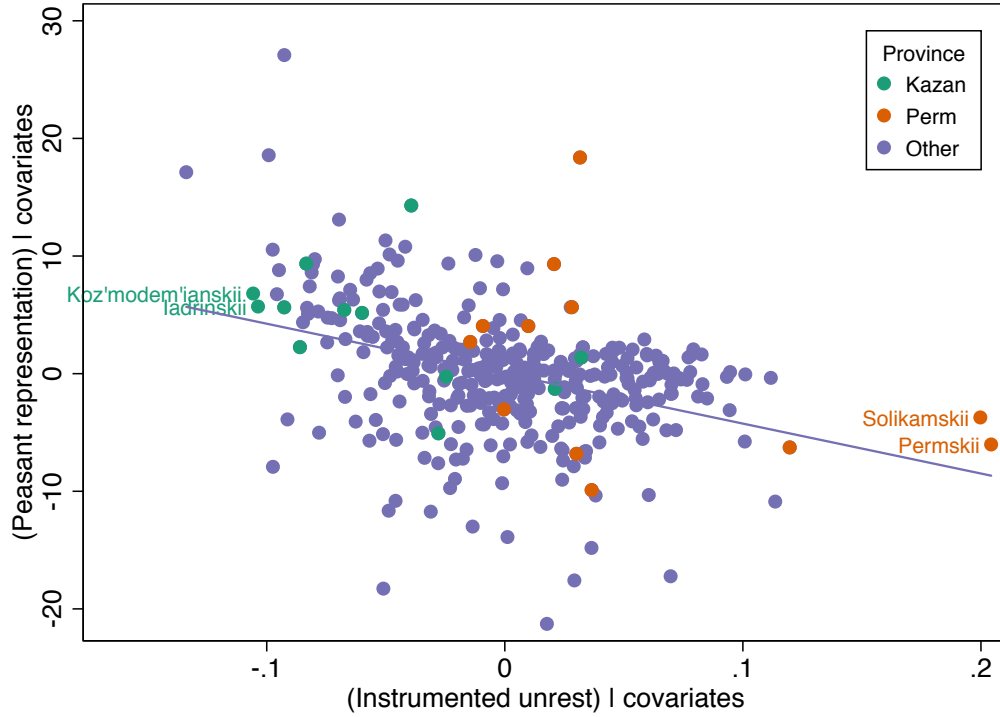


Figure A1: Cases are selected for close examination from an added-variable plot corresponding to Column 2 in Table 2. (Colorblind-safe figure.)

In drawing on the historical record of these cases, it is important to ensure that peasant representation is not driven by idiosyncratic factors. In principle, for example, greater representation may have been provided to peasants in predominantly Muslim Kazan than in Orthodox Perm. Contra this hypothesis, the added-variable plot is nearly identical if we condition on share of the population that is Orthodox, and in any event Koz'modem'ianskii and Iadrinskii districts (located in contemporary Chuvashia) are overwhelmingly Orthodox. More generally, given that the four cases happens to fall in two provinces, it may be that there is something distinctive about Kazan and Perm. As Figure A1 illustrates, however, there is substantial variation within each province in both (residualized) unrest and peasant representation, and the within-province correlation between these two variables for Kazan ($r = -0.48$) and Perm ($r = -0.41$) is quite similar to that for the sample as a whole ($r = -0.39$).

References

- Dunning, Thad. 2012. *Natural Experiments in the Social Sciences: A Design-Based Approach*. New York: Cambridge University Press.
- Fearon, James D. and David D. Laitin. 2010. "Integrating Qualitative and Quantitative Methods." In Janet Box-Steffensmeier, Henry F. Brady, and David Colier, eds., *The Oxford Handbook of Political Methodology*. Oxford, UK: Oxford University Press.
- Gerring, John. 2007. "Is There a (Viable) Crucial-Case Method?" *Comparative Political Studies*. 40(3):231–253.
- Lieberman, Evan. 2005. "Nested Analysis as a Mixed-Method Strategy for Comparative Research." *American Political Science Review*. 99(3):435–452.
- Seawright, Jason. 2016. "The Case for Selecting Cases That are Deviant or Extreme on the Independent Variable." *Sociological Methods and Research*. Forthcoming.
- Seawright, Jason and John Gerring. 2008. "Case Selection Techniques in Case Study Research: A Menu of Qualitative and Quantitative Options." *Political Research Quarterly*. 61(2):294–308.

Table A1: *Zemstvo* status, effective peasant representation, and unrest

	(1) OLS	(2) IV (serfdom)	(3) IV (relig. polar.)	(4) Tobit	(5) Tobit (serfdom)	(6) Tobit (relig. polar.)
Frequency of unrest	-0.018 (0.545)	-3.010* (1.810)	-5.807* (3.106)	-11.476* (6.381)	-177.774*** (35.100)	-276.611*** (62.841)
Distance from Moscow	-0.726** (0.308)	-1.423*** (0.532)	-1.937** (0.854)	-36.368*** (4.001)	-67.267*** (8.680)	-82.553*** (13.966)
Fertile soil	0.486** (0.202)	0.622*** (0.248)	0.664 (0.418)	18.060*** (2.856)	24.842*** (4.439)	25.593*** (6.002)
Urban population (log)	-0.054 (0.065)	0.064 (0.091)	0.195* (0.111)	-5.068*** (0.891)	-1.740 (1.568)	0.619 (2.105)
Total population (log)	0.106 (0.225)	0.441 (0.330)	0.690 (0.455)	11.286*** (2.998)	25.160*** (4.703)	33.876*** (7.840)
Provincial capital	-0.831 (2.197)	0.424 (3.347)	0.734 (4.667)	0.497 (3.519)	-7.746 (5.680)	-13.649* (7.880)
Observations	50	50	49	491	488	476
Uncensored observations				365	365	361
Left-censored observations				126	123	115

Notes: In Columns 1–3, the dependent variable is an indicator for whether a province has a *zemstvo*, with a linear probability model estimated on provincial averages. Observe that Provincial capital has a different meaning in these regressions, implicitly measuring the number of districts in a province. In Columns 4–6, the dependent variable is “effective” peasant representation, whereby districts that do not have *zemstva* are given a value of zero for peasant representation, with a Tobit model estimated on the sample of *zemstvo* and non-*zemstvo* districts. The pre-reform proportion of serfs in the district population is used as an instrument in the models in Columns 2 and 5, and religious polarization is used as an instrument in Columns 3 and 6. Heteroskedasticity-robust standard errors for all specifications in parentheses. Significance levels: *** = 0.01, ** = 0.05, * = 0.10.

Table A2: Peasant representation and unrest: IV (serfdom), first-stage results

	(2)	(3)	(4)	(5)	(6)	(8)
Serfdom	0.278*** (0.039)	0.185*** (0.023)	0.193*** (0.025)	0.186*** (0.043)	0.221*** (0.044)	0.261*** (0.039)
Distance from Moscow	-0.058* (0.030)	0.007 (0.019)	0.010 (0.020)	-0.087*** (0.032)	-0.144** (0.068)	-0.055* (0.030)
Fertile soil	0.067*** (0.019)	0.039*** (0.012)	0.030** (0.012)	0.045** (0.020)	0.038 (0.040)	0.067*** (0.019)
Urban population (log)	0.019*** (0.005)	0.007*** (0.002)	0.006* (0.003)	0.012*** (0.004)	-0.011 (0.010)	0.019*** (0.005)
Total population (log)	0.086*** (0.016)	0.032*** (0.009)	0.031*** (0.010)	0.065*** (0.015)	0.099*** (0.018)	0.095*** (0.017)
Provincial capital	-0.032 (0.026)	0.026* (0.015)	0.019 (0.016)	-0.022 (0.027)	0.013 (0.031)	-0.035 (0.026)
Rural schools, 1860 (log)						-0.019** (0.009)
R-squared	0.303	0.245	0.232	0.190	0.534	0.312

Notes: Column numbers refer to the corresponding column in Table 2. Significance levels: *** = 0.01, ** = 0.05, * = 0.10.

Table A3: Peasant representation and unrest (large events): OLS and IV (serfdom)

	(1) OLS	(2) IV	(3) IV	(4) IV	(5) IV	(6) Spatial IV	(7) IV
Frequency of unrest	-8.833*** (2.810)	-63.766*** (12.284)			-68.811*** (16.489)	-50.873*** (11.356)	-70.333*** (14.204)
Frequency of unrest (TsGAOR)			-117.056*** (28.728)				
Frequency of unrest (1851-60)				-172.107** (69.727)			
Distance from Moscow	0.455 (1.270)	-4.326** (1.863)	-3.491 (2.146)	-11.060* (6.301)	-1.165 (4.578)	-3.323 (2.456)	-4.074** (1.907)
Fertile soil	1.204 (0.819)	3.656*** (1.173)	3.982** (1.558)	3.088 (2.324)	4.190* (2.208)	2.122 (1.665)	3.932*** (1.259)
Urban population (log)	-2.619*** (0.440)	-2.204*** (0.523)	-2.360*** (0.599)	-2.134*** (0.659)	-3.366*** (0.902)	-2.088*** (0.469)	-2.155*** (0.528)
Total population (log)	5.124*** (1.092)	6.563*** (1.154)	5.726*** (1.270)	8.451*** (2.434)	6.664*** (1.906)	5.227*** (1.411)	7.426*** (1.286)
Provincial capital	-3.004** (1.275)	-2.167 (1.482)	-1.849 (1.896)	-0.342 (2.788)	0.441 (1.864)	-2.385* (1.388)	-2.208 (1.501)
Rural schools, 1860 (log)							-1.395** (0.638)
First-stage F -stat		63.199	27.353	7.371	29.822		52.876
Spatial-disturbance parameter ρ						0.072*** (0.008)	

Notes: The dependent variable is percentage of seats statutorily allocated to peasant communities in the district *zemstvo* assembly. Frequency of unrest in all specifications measured using data on “large” events only. The pre-reform proportion of serfs in the district population is used as an instrument in the models in Columns 2–7. The model in Column 5 includes provincial fixed effects. Column 6 is an IV model with spatial autoregressive disturbances, implemented using `spivreg` in Stata, that uses an inverse-distance spatial weighting matrix. The sample in all regressions is 365 districts in European Russia. Heteroskedasticity-robust standard errors for all specifications in parentheses. Kleibergen-Paap rk Wald F statistic reported for first-stage F -stat. Significance levels: *** = 0.01, ** = 0.05, * = 0.10.

Table A4: Peasant representation and unrest: IV (serfdom), additional results

	(1) IV	(2) Spatial IV	(3) IV	(4) IV	(5) IV
Frequency of unrest		-30.283*** (6.832)	-41.744*** (8.660)	-39.806*** (7.955)	-45.956*** (9.916)
Intensity of unrest	-0.138*** (0.025)				
Distance from Moscow	-5.534*** (1.832)	-4.367* (2.436)	-2.664 (5.244)	-6.470*** (2.122)	-8.463*** (2.610)
Fertile soil	1.704 (1.038)	2.899** (1.384)	6.266*** (1.771)	4.130*** (1.256)	5.623*** (1.700)
Urban population (log)	-2.273*** (0.511)	-2.287*** (0.535)	-1.656*** (0.502)	-2.010*** (0.589)	-4.940*** (0.617)
Total population (log)	2.407* (1.243)	7.271*** (1.335)	6.659*** (1.330)	7.545*** (1.184)	11.471*** (1.562)
Provincial capital	-5.053*** (1.375)	-4.502*** (1.432)	-4.959*** (1.536)	-5.442*** (1.611)	-0.260 (1.724)
Emancipation land norm					0.287 (0.466)
First-stage F -stat	51.439		43.615	48.976	34.274
Spatial-disturbance parameter (ρ)		0.059 (0.014)			

Notes: The dependent variable is percentage of seats statutorily allocated to peasant communities in the district *zemstvo* assembly. The pre-reform proportion of serfs in the district population is used as an instrument in all models. Column 2 is an IV model with spatial autoregressive disturbances, implemented using `spivreg` in Stata, that uses a queen contiguity spatial weighting matrix. The model in Column 3 includes latitude, longitude, and their squares. The sample is 365 districts in European Russia in all regressions but Column 4, which excludes Moscow and St. Petersburg districts, and Column 5, which is 336 districts. Heteroskedasticity-robust standard errors for all specifications (including Column 2) in parentheses. Kleibergen-Paap rk Wald F statistic reported for first-stage F -stat. Significance levels: *** = 0.01, ** = 0.05, * = 0.10.

Table A5: Peasant representation and unrest: Additional robustness checks

	(1) IV (serfdom)	(2) IV (polarization)	(3) IV (serfdom)	(4) IV (polarization)	(5) IV (serfdom)	(6) IV (serfdom)
Frequency of unrest (Time-weighted)	-32.663*** (6.329)	-22.991* (11.879)				
Frequency of unrest			-44.279*** (9.808)	-24.254 (17.077)	-115.345*** (24.425)	-41.407*** (8.760)
Frequency of unrest ²					129.718*** (42.598)	
Distance from Moscow	-6.630*** (2.143)	-4.438 (3.179)	-6.884*** (2.033)	-4.009 (2.863)	-8.020*** (2.251)	-7.775*** (2.370)
Fertile soil	4.150*** (1.268)	2.996* (1.670)	4.524*** (1.376)	3.215** (1.577)	5.386*** (1.237)	3.654*** (1.396)
Urban population (log)	-1.937*** (0.592)	-2.181*** (0.536)	-3.413*** (1.173)	-3.511*** (1.043)	-1.456** (0.641)	-1.751*** (0.565)
Total population (log)	8.128*** (1.235)	7.321*** (1.632)	10.326*** (1.522)	8.773*** (2.033)	7.503*** (1.279)	9.074*** (1.319)
Provincial capital	-5.267*** (1.650)	-4.588*** (1.579)	-3.211 (2.323)	-2.726 (1.957)	-5.838*** (1.691)	-4.979*** (1.655)
Obruk share					-0.009 (0.020)	
Observations	365	361	343	340	365	333
First-stage F -stat	57.215	17.290	32.763	11.552	2.993	41.115

Notes: The dependent variable is percentage of seats statutorily allocated to peasant communities in the district *zemstvo* assembly. Columns 1 and 2 use time-weighted frequency of unrest, where events in year t are given a weight of $\frac{(t-1851+1)}{91}$ rather than $\frac{1}{13}$. Columns 3 and 4 exclude districts with zero disturbances during 1851–1863. Column 6 uses the share of serfs whose obligations were exclusively *obrok* (quitrent) in 1858. The pre-reform proportion of serfs in the district population is used as an instrument in the models in Columns 1, 3, 5, and 6; religious polarization is used as an instrument in Columns 2 and 4. Heteroskedasticity-robust standard errors for all specifications in parentheses. Kleibergen-Paap rk Wald F statistic reported for first-stage F -stat. Significance levels: *** = 0.01, ** = 0.05, * = 0.10.

Table A6: Peasant representation and unrest (income shocks removed)

	(1) IV (serfdom)	(2) IV (polarization)	(3) IV (serfdom)	(4) IV (polarization)
Frequency of unrest (income shocks removed)	-26.486** (11.050)	-12.336 (10.368)	-19.927*** (5.338)	-12.473 (8.340)
Distance from Moscow	-2.793 (2.593)	-0.770 (2.414)	-0.146 (2.153)	1.015 (2.273)
Fertile soil	2.730 (1.889)	1.453 (1.396)	3.086** (1.435)	2.282* (1.381)
Urban population (log)	-1.566* (0.808)	-2.200*** (0.661)	-2.578*** (0.795)	-2.963*** (0.764)
Total population (log)	3.443** (1.584)	4.456*** (1.375)	4.606*** (1.752)	5.127*** (1.563)
Provincial capital	-4.187 (2.616)	-3.557** (1.663)	-2.466 (2.085)	-2.139 (1.899)
Observations	365	361	317	314
First-stage F -stat	16.505	12.339	26.040	10.324

Notes: The dependent variable is percentage of seats statutorily allocated to peasant communities in the district *zemstvo* assembly. Frequency of unrest in Columns 1–4 is obtained by first predicting peasant disturbances in district i and year t using the price of rye in district i 's province in year t and then averaging the residuals from this regression across the period. The sample in Columns 3 and 4 is restricted to those districts above the 50th latitude, as wheat had become the dominant grain crop in southern latitudes by the mid-nineteenth century. The pre-reform proportion of serfs in the district population is used as an instrument in the models in Columns 1 and 3, and religious polarization is used as an instrument in Columns 2 and 4. Heteroskedasticity-robust standard errors for all specifications in parentheses. Kleibergen-Paap rk Wald F statistic reported for first-stage F -stat. Significance levels: *** = 0.01, ** = 0.05, * = 0.10.

Table A7: Peasant representation and unrest: IV (religious polarization), first-stage results

	(1)	(2)	(3)	(4)	(5)	(7)
Religious polarization	0.120*** (0.032)	0.062*** (0.024)	0.059** (0.024)	0.078** (0.033)	0.066 (0.040)	0.131** (0.051)
Distance from Moscow	-0.243*** (0.027)	-0.112*** (0.018)	-0.109*** (0.017)	-0.209*** (0.026)	-0.266*** (0.068)	-0.242*** (0.028)
Fertile soil	0.079*** (0.021)	0.046*** (0.013)	0.038*** (0.013)	0.052** (0.021)	0.045 (0.043)	0.079*** (0.021)
Urban population (log)	0.019*** (0.005)	0.007** (0.003)	0.006* (0.003)	0.012** (0.005)	-0.016 (0.011)	0.019*** (0.006)
Total population (log)	0.071*** (0.016)	0.022** (0.009)	0.022** (0.011)	0.054*** (0.015)	0.088*** (0.020)	0.069*** (0.017)
Provincial capital	-0.052* (0.029)	0.014 (0.018)	0.005 (0.018)	-0.035 (0.029)	0.010 (0.032)	-0.052* (0.029)
Orthodox						0.025 (0.065)
R-squared	0.234	0.149	0.120	0.154	0.502	0.234

Notes: Column numbers refer to the corresponding column in Table 3. Significance levels: *** = 0.01, ** = 0.05, * = 0.10.

Table A8: Peasant representation and unrest (large events): IV (religious polarization)

	(1) IV	(2) IV	(3) IV	(4) IV	(5) Spatial IV	(6) IV
Frequency of unrest	-62.904* (35.642)			-143.598 (137.324)	-44.476 (29.690)	-65.492 (46.704)
Frequency of unrest (TsGAOR)		-106.172 (67.619)				
Frequency of unrest (1851-60)			-149.901 (129.332)			
Distance from Moscow	-4.474 (3.514)	-3.147 (3.232)	-9.918 (9.626)	-11.564 (19.948)	-3.051 (3.760)	-4.778 (5.098)
Fertile soil	3.422* (2.011)	3.458 (2.224)	2.468 (2.582)	5.236 (4.275)	1.661 (2.107)	3.537 (2.446)
Urban population (log)	-2.234*** (0.530)	-2.418*** (0.573)	-2.256*** (0.675)	-4.182** (2.046)	-2.159*** (0.437)	-2.216*** (0.578)
Total population (log)	6.694*** (1.524)	5.825*** (1.380)	8.138*** (2.995)	9.753* (5.423)	5.340*** (1.856)	6.771*** (1.609)
Provincial capital	-2.115 (1.599)	-1.909 (1.956)	-0.492 (3.479)	3.892 (7.346)	-2.472* (1.439)	-2.081 (1.706)
Orthodox						-0.351 (5.495)
First-stage F -stat	6.934	5.435	1.774	1.192		6.072
Spatial-disturbance parameter ρ					0.070*** (0.010)	

Notes: The dependent variable is percentage of seats statutorily allocated to peasant communities in the district *zemstvo* assembly. Frequency of unrest in all specifications measured using data on “large” events only. Religious polarization is used as an instrument in all models. The model in Column 4 includes provincial fixed effects. Column 5 is an IV model with spatial autoregressive disturbances, implemented using `spivreg` in Stata, that uses an inverse-distance spatial weighting matrix. The sample in all regressions is 361 districts in European Russia. Heteroskedasticity-robust standard errors for all specifications in parentheses. Kleibergen-Paap rk Wald F statistic reported for first-stage F -stat. Significance levels: *** = 0.01, ** = 0.05, * = 0.10.

Table A9: Peasant representation and unrest: IV (religious polarization), additional results

	(1) IV	(2) Spatial IV	(3) IV	(4) IV
Frequency of unrest		-17.001* (10.177)	-35.453* (18.281)	-34.415** (17.226)
Intensity of unrest	-0.104* (0.053)			
Distance from Moscow	-3.998 (2.992)	-1.952 (2.846)	-2.451 (5.063)	-5.494 (3.755)
Fertile soil	1.344 (1.046)	1.828 (1.501)	5.923*** (1.885)	3.596** (1.776)
Urban population (log)	-2.391*** (0.468)	-2.467*** (0.452)	-1.780*** (0.496)	-2.131*** (0.578)
Total population (log)	3.151** (1.375)	6.491*** (1.619)	6.482*** (1.552)	7.239*** (1.795)
Provincial capital	-4.559*** (1.454)	-3.918*** (1.230)	-4.738*** (1.490)	-5.150*** (1.625)
First-stage F -stat	16.659		10.801	14.291
Spatial-disturbance parameter (ρ)		0.072 (0.017)		

Notes: The dependent variable is percentage of seats statutorily allocated to peasant communities in the district *zemstvo* assembly. Religious polarization is used as an instrument in all models. Column 2 is an IV model with spatial autoregressive disturbances, implemented using `spivreg` in Stata, that uses a queen contiguity spatial weighting matrix. The model in Column 3 includes latitude, longitude, and their squares. The sample in all regressions but Column 4, which excludes Moscow and St. Petersburg districts, is 361 districts in European Russia. Heteroskedasticity-robust standard errors for all specifications (including Column 2) in parentheses. Kleibergen-Paap rk Wald F statistic reported for first-stage F -stat. Significance levels: *** = 0.01, ** = 0.05, * = 0.10.

Table A10: Peasant representation and unrest: Overidentification

	(1) IV	(2) IV	(3) IV	(4) IV	(5) IV	(6) Spatial IV
Frequency of unrest	-39.065*** (7.069)				-50.027*** (11.507)	-32.686*** (6.510)
Frequency of unrest (Large events)		-60.538*** (10.419)				
Frequency of unrest (TsGAOR)			-59.423*** (10.632)			
Frequency of unrest (1851-60)				-58.339*** (14.144)		
Distance from Moscow	-6.649*** (2.015)	-4.264** (1.751)	-4.093** (1.674)	-9.417*** (3.096)	-4.822 (5.253)	-5.581** (2.570)
Fertile soil	3.590*** (1.260)	3.314*** (1.127)	2.753** (1.089)	3.546** (1.744)	4.788* (2.674)	2.636 (1.727)
Urban population (log)	-1.964*** (0.542)	-2.253*** (0.508)	-2.363*** (0.557)	-1.991*** (0.566)	-3.450*** (1.089)	-1.902*** (0.490)
Total population (log)	8.063*** (1.209)	6.637*** (1.171)	6.567*** (1.148)	8.472*** (1.415)	9.332*** (2.282)	6.636*** (1.336)
Provincial capital	-4.997*** (1.574)	-2.151 (1.459)	-2.671* (1.592)	-4.979** (1.940)	-2.264 (2.004)	-4.646*** (1.407)
First-stage F -stat	37.540	45.476	36.318	13.120	14.704	
Spatial-disturbance parameter ρ						0.034*** (0.009)
Hansen J statistic	0.160	0.005	0.048	0.069	0.118	
(p -value)	0.689	0.942	0.826	0.793	0.731	

Notes: The dependent variable is percentage of seats statutorily allocated to peasant communities in the district *zemstvo* assembly. Religious polarization and the pre-reform proportion of serfs in the district population are used as instruments in all models. The model in Column 5 includes provincial fixed effects. Column 6 is an IV model with spatial autoregressive disturbances, implemented using `spivreg` in Stata, that uses an inverse-distance spatial weighting matrix. The sample in all regressions is 361 districts in European Russia. Heteroskedasticity-robust standard errors for all specifications in parentheses. Kleibergen-Paap rk Wald F statistic reported for first-stage F -stat. Significance levels: *** = 0.01, ** = 0.05, * = 0.10.

Table A11: Unrest and redistribution: Additional results I

	(1) IV (serfdom) $\alpha = .10$	(2) IV (serfdom) $\alpha = .50$	(3) IV (polarization)	(4) IV (polarization) $\alpha = .10$	(5) IV (polarization) $\alpha = .25$	(6) IV (polarization) $\alpha = .50$
Frequency of unrest	-4.911** (2.322)	-0.735* (0.404)	0.536 (0.454)	7.769 (5.472)	2.947 (2.114)	1.340 (0.999)
Frequency of unrest × No <i>zemstvo</i>	-18.484*** (6.219)	-2.683*** (0.986)	-0.480 (0.861)	-10.693 (15.595)	-3.884 (5.740)	-1.615 (2.465)
No <i>zemstvo</i>	6.250*** (1.838)	0.930*** (0.291)	0.179 (0.225)	3.742 (4.125)	1.367 (1.517)	0.575 (0.650)
Distance from Moscow	-1.108* (0.657)	-0.166 (0.110)	0.122 (0.089)	1.911* (1.024)	0.719* (0.399)	0.321* (0.191)
Fertile Soil	-0.329 (0.355)	-0.051 (0.059)	-0.046 (0.045)	-0.762 (0.553)	-0.285 (0.213)	-0.126 (0.100)
Urban population (log)	0.216*** (0.070)	0.037*** (0.012)	0.001 (0.008)	-0.034 (0.108)	-0.011 (0.041)	-0.003 (0.019)
Total population (log)	0.580 (0.457)	0.058 (0.077)	-0.092* (0.050)	-1.052 (0.719)	-0.412 (0.271)	-0.198 (0.122)
Provincial capital	-0.089 (0.394)	0.016 (0.068)	0.072** (0.037)	0.760* (0.410)	0.301* (0.161)	0.149* (0.078)
Observations	488	488	476	476	476	476
First-stage <i>F</i> -stat	26.209	26.209	6.457	6.457	6.457	6.457

Notes: The dependent variable in Columns 1, 2, and 4–6 is redistribution, defined using the Cobb-Douglas procedure described in the text for specified α . The dependent variable in Column 3 is change in number of rural schools from 1860 to 1880, normalized by rural population in 1883. The pre-reform proportion of serfs in the district population is used as an instrument in the models in Columns 1–2, whereas religious polarization is used as an instrument in Columns 3–6, in each case alone and in interaction with an indicator for no *zemstvo*. Frequency of unrest is calculated using data from 1851–63 (i.e., before creation of the *zemstvo*). Heteroskedasticity-robust standard errors for all specifications in parentheses. Kleibergen-Paap rk Wald *F* statistic reported for first-stage *F*-stat. Significance levels: *** = 0.01, ** = 0.05, * = 0.10. For Columns 1 and 2, 488 observations, of which 365 with *zemstva*. For Columns 3–6, 476 observations, of which 361 with *zemstva*.

Table A12: Unrest and redistribution: Additional results II

	(1) IV	(2) IV	(3) IV	(4) IV	(5) IV	(6) IV	(7) IV	(8) IV
	Baseline frequency of unrest		Large events		TsGAOR		1851–60	
	Schools	C-D	Schools	C-D	Schools	C-D	Schools	C-D
Frequency of unrest	−0.060 (0.174)	−0.616 (0.882)	−0.085 (0.247)	−0.870 (1.245)	−0.082 (0.238)	−0.841 (1.204)	−0.387 (0.327)	−3.326 (2.171)
Frequency of unrest × No <i>zemstvo</i>	−1.871*** (0.602)	−15.017*** (4.243)	−1.876*** (0.596)	−15.063*** (4.208)	−1.878*** (0.594)	−15.084*** (4.193)	−4.161** (1.819)	−33.505*** (14.449)
No <i>zemstvo</i>	0.604*** (0.173)	4.700*** (1.220)	0.605*** (0.171)	4.712*** (1.211)	0.605*** (0.171)	4.712*** (1.209)	0.766** (0.306)	6.012** (2.426)
Distance from Moscow	0.017 (0.046)	0.084 (0.257)	0.021 (0.037)	0.131 (0.204)	0.022 (0.036)	0.133 (0.202)	−0.062 (0.075)	−0.563 (0.536)
Fertile soil	−0.034 (0.028)	−0.243 (0.178)	−0.033 (0.031)	−0.224 (0.188)	−0.034 (0.028)	−0.242 (0.177)	−0.117* (0.071)	−0.913 (0.567)
Urban population (log)	0.008 (0.005)	0.034 (0.031)	0.008 (0.005)	0.030 (0.029)	0.008 (0.005)	0.029 (0.029)	0.005 (0.008)	0.009 (0.063)
Total population (log)	−0.037 (0.030)	−0.001 (0.160)	−0.039 (0.030)	−0.028 (0.162)	−0.039 (0.030)	−0.028 (0.163)	0.019 (0.055)	0.451 (0.413)
Provincial capital	0.057* (0.030)	0.148 (0.179)	0.060** (0.030)	0.176 (0.177)	0.060** (0.030)	0.173 (0.179)	0.067 (0.050)	0.229 (0.403)
First-stage <i>F</i> -stat	28.449	28.449	28.997	28.997	31.076	31.076	4.220	4.220

Notes: The sample excludes Orenburg, Astrakhan, and Arkhangel'sk, plus Ismail'skii district in Bessarabia, leaving the contiguous districts in right-bank Ukraine, Belorussia, and the Baltics in the “no *zemstvo*” set. The dependent variable in Columns 1, 3, 5, and 7 is change in number of rural schools from 1860 to 1880, normalized by rural population in 1883. The dependent variable in Columns 2, 4, 6, and 8 is redistribution, defined using the Cobb-Douglas procedure described in the text for $\alpha = 0.25$. The pre-reform proportion of serfs in the district population and its interaction with an indicator for no *zemstvo* are used as instruments in all models. Frequency of unrest is calculated using data from 1851–63 (i.e., before creation of the *zemstvo*) for all columns but Columns 7–8, which use 1851–60. Heteroskedasticity-robust standard errors for all specifications in parentheses. Kleibergen-Paap rk Wald *F* statistic reported for first-stage *F*-stat. Significance levels: *** = 0.01, ** = 0.05, * = 0.10. For all regressions, 471 observations, of which 365 with *zemstvo*.