

Appendix: “Preventing and Responding to Dissent: The Observational Challenges of Explaining Strategic Domestic Conflict”

Introduction

The supplementary material presented in this document provides additional details about the models presented in the paper “Preventing and Responding to Dissent: The Observational Challenges of Explaining Strategic Domestic Conflict.” The main article makes reference to the materials contained here. The Stata code necessary to implement the models will be made publicly available here upon publication: REDACTED.

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1 Main Results & Summary Statistics

Tables 1 and 2 show the results as reported in the manuscript.

Table 1 about here.

Table 2 about here.

Table 3 shows descriptive statistics of each of the measures used in our main analyses.

Table 3 about here.

2 Robustness Checks in Africa

Figures 1, 2, and 3 show the effect of mobilized dissent on government repression across multiple specifications of ordinary least squares (OLS) regression and negative binomial (NB) regression models.

Figures 1, 2, and 3 about here.

Figures 4 and 5 show the effect of rainfall on mobilized dissent and government repression using OLS regression and NB regression, respectively.

Figures 4 and 5 about here.

Figures 6, 7, and 8 show the robustness of our results to the inclusion of controls for country population.

Figures 6, 7, and 8 about here.

Figures 9, 10, and 11 show the robustness of our results to the inclusion of controls for country wealth.

Figures 9, 10, and 11 about here.

Figures 12, 13, and 14 show the robustness of our results to using a measure of total rain as our main instrument.

Figures 12, 13, and 14 about here.

Figures 15, 16, and 17 show the robustness of our results to dropping the measure of annual percentage of rainfall as an instrument.

Figures 15, 16, and 17 about here.

Figures 18, 19, and 20 show the robustness of our results to dropping the measure of urbanization.

Figures 18, 19, and 20 about here.

Figures 21, 22, and 23 show the robustness of our results to using the Polity IV measure of democracy.

Figures 21, 22, and 23 about here.

Figures 24 and 25 show the robustness of our results to using a measure of freedom of speech (CIRI 2010) instead of latent democracy.

Figures 24 and 25 about here.

Figure 26 shows the robustness of our split sample results to using a latent democracy cutpoint of 0.5 rather than 0.

Figure 26 about here.

Figures 27, 28, and 29 show the robustness of our results to the inclusion of fixed effects in our models.

Figures 27, 28, and 29 about here.

Figures 30, 31, and 32 show the robustness of our results to using a measure of dissent events that only includes violent events.

Figures 30, 31, and 32 about here.

Figures 33, 34, and 35 show the robustness of our results to using a measure of dissent events that only includes nonviolent events.

Figures 33, 34, and 35 about here.

Figures 36 and 37 show the balance of each of our covariates and that our results are robust to matching prior to IV analysis.

Figure 36 and 37 about here.

3 Robustness Checks in the United States

Figure 38 shows the effect of mobilized dissent on government repression using OLS and NB regression models.

Figure 38 about here.

Figure 39 shows the robustness of our results to using a measure of total rain as our main instrument.

Figures 39 about here.

Figure 40 shows the robustness of our main models to dropping the measure of annual percentage of rainfall as an instrument.

Figure 40 about here.

Figure 41 shows the robustness of our results to dropping the measure of urbanization.

Figure 41 about here.

Figure 42 shows the robustness of our results to aggregating to the state-month.

Figure 42 about here.

Figure 43 shows the robustness of our results to aggregating to the state-month.

Figure 43 about here.

Figures 44 and 45 show the balance of each of our covariates and that our results are robust to matching prior to IV analysis.

Figure 44 and 45 about here.

Table 1: The Effect of Mobilized Dissent on State Repression in African Province-Days

	1	2	3(a)	3(b)	4(a)	4(b)
	Neg. Binomial (no instrument)	IV Regression (Basic Model)	Non-Democracies	IV Regression Democracies	Matched IV Regression Non-Democracies	Regression Democracies
Second Stage: The Effect of Dissent on Repression						
Mobilized Dissent	3.792* (0.052)	-0.087 (0.100)	0.010 (0.058)	0.271* (0.068)	-0.028 (0.056)	0.254* (0.069)
Urbanization	-14.136* (1.132)	-0.009* (0.001)	-0.009* (0.000)	-0.006* (0.000)	-0.008* (0.001)	-0.006* (0.001)
Constant	-6.194* (0.010)	0.003* (0.000)	0.003* (0.000)	0.002* (0.000)	0.003* (0.000)	0.002* (0.000)
First Stage: Instrumenting Mobilized Dissent						
Rainfall (ln)	—	-0.000* (0.000)	-0.000* (0.000)	0.000* (0.000)	-0.000* (0.000)	0.000* (0.000)
% Annual Rainfall	—	0.026* (0.004)	0.037* (0.005)	-0.025* (0.007)	0.036* (0.004)	-0.021* (0.009)
Urbanization	—	-0.007* (0.000)	-0.007* (0.000)	-0.005* (0.001)	-0.006* (0.001)	-0.004* (0.001)
Constant	—	0.003* (0.000)	0.003* (0.000)	0.003* (0.000)	0.003* (0.000)	0.003* (0.000)
Model Statistics						
<i>N</i>	6,189,005	6,083,070	4,824,337	1,258,733	4,928,996	1,323,033
Log-likelihood	-92,958.831	—	—	—	—	—
F-Test of Excluded Instruments	—	28.09 (0.000)	70.26 (0.000)	73.68 (0.000)	92.41 (0.000)	69.05 (0.000)
Cragg-Donald Wald F-Statistic	—	31.84	87.40	58.35	92.41	69.05
Sargan-Hansen J-Statistic (χ^2 <i>p</i> -value)	—	3.488 (0.062)	0.938 (0.333)	0.190 (0.663)	0.892 (0.345)	0.469 (0.494)

NOTES: * $p < 0.05$ in two-tailed tests with robust standard errors reported beneath coefficients in parentheses. Parentheses on instrument statistics report their respective *p*-values. All analyses were estimated using Stata 13.1.

Table 2: The Effect of Mobilized Dissent on State Repression in US State-Days

	1	2	3
	Neg. Binomial (no instrument)	IV Regression (Basic Model)	IV Regression (Matched Model)
Second Stage: The Effect of Dissent on Repression			
Mobilized Dissent	6.130* (0.079)	0.397* (0.088)	0.459* (0.118)
Urbanization	0.000 (0.002)	-0.000 (0.000)	-0.000 (0.000)
Constant	-7.868 (0.161)	0.008 (0.005)	0.012 (0.007)
First Stage: Instrumenting Mobilized Dissent			
Rainfall (ln)	—	0.001* (.000)	0.001* (0.000)
% Annual Rainfall	—	-0.000* (0.000)	-0.000 (0.000)
Urbanization	—	0.001* (0.000)	0.001* (0.000)
Constant	—	-0.057* (0.001)	-0.059* (0.001)
<u>Model Statistics</u>			
N	700,435	699,610	703,622
Log-likelihood	-11,862.43	—	—
F-Test of Excluded Instruments	—	23.39 (0.000)	13.86 (0.000)
Cragg-Donald Wald F-Statistic	—	26.33	13.86
Sargan-Hansen J-Statistic (χ^2 p -value)	—	4.200 (0.040)	0.263 (0.608)

NOTES: * $p < 0.05$ in two-tailed tests with robust standard errors reported beneath coefficients in parentheses. Parentheses on instrument statistics report their respective p -values.

Table 3: Descriptive Statistics

	Obs.	<i>African Province-Days</i>			
		Mean	Std. Dev.	Min	Max
Government Repression	6,841,800	0.006	0.072	0	4
Mobilized Dissent	6,841,800	0.006	0.092	0	8
Urbanization	6,189,005	0.013	0.054	0	0.78
Democracy	6,766,414	-0.287	0.496	-2.112	2.262
Rainfall (ln)	6,854,754	0.169	1.193	-10.127	5.608
% Annual Rainfall	6,091,103	0.003	0.008	0	0.897
	Obs.	<i>US State-Days</i>			
		Mean	Std. Dev.	Min	Max
Government Repression	946,080	0.007	0.134	0	18
Mobilized Dissent	946,080	0.018	0.181	0	17
Urbanization	700,515	67.422	14.665	32.2	94.4
Rainfall (ln)	946,080	0.958	1.735	-4.060	6.502
% Annual Rainfall	944,919	1.684	7.731	0	100

Linear regression

Number of obs = 6189805
F(2,6189802) = 4444.30
Prob > F = 0.0000
R-squared = 0.0929
Root MSE = .04758

represscount	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
dissentcount	.2333649	.0029233	79.83	0.000	.2276354 .2390944
urban_mean	-.0066725	.0001391	-47.96	0.000	-.0069452 -.0063999
_cons	.0018346	.0000181	101.40	0.000	.0017992 .0018701

(a) OLS

Negative binomial regression

Dispersion = mean
Log pseudolikelihood = -92958.831

Number of obs = 6189005
Wald chi2(2) = 5411.04
Prob > chi2 = 0.0000

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
dissentcount	3.792172	.0521182	72.76	0.000	3.690022 3.894322
urban_mean	-14.13599	1.131687	-12.49	0.000	-16.35405 -11.91792
_cons	-6.193683	.0102237	-605.82	0.000	-6.213721 -6.173645
/lnalpha	1.113054	.0445313			1.025775 1.200334
alpha	3.04364	.1355373			2.789255 3.321226

(b) Negative Binomial

Figure 1: Effect of Dissent on Repression Base Model (No Instrument)

Linear regression

Number of obs = 6172560
F(4,6172555) = 2369.86
Prob > F = 0.0000
R-squared = 0.0942
Root MSE = .04761

represscount	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
dissentcount	.2092415	.0037877	55.24	0.000	.2018178 .2166652
latent_democracy	.0007259	.0000324	22.38	0.000	.0006623 .0007895
democracydissent	-.0701571	.007046	-9.96	0.000	-.0839671 -.0563471
urban_mean	-.0006087	.0001388	-49.42	0.000	-.0071328 -.0005886
_cons	.0020932	.0000233	89.97	0.000	.0020476 .0021388

(a) OLS

Negative binomial regression

Dispersion = mean
Log pseudolikelihood = -92744.986

Number of obs = 6172560
Wald chi2(4) = 6550.23
Prob > chi2 = 0.0000

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
dissentcount	3.407667	.0407023	71.61	0.000	3.392212 3.503122
latent_democracy	.3389218	.0163086	20.78	0.000	.3069576 .370886
democracydissent	-.8608818	.0581816	-14.80	0.000	-.9749156 -.7468479
urban_mean	-14.31401	1.165004	-12.29	0.000	-16.59737 -12.03064
_cons	-6.083693	.0109794	-554.10	0.000	-6.105213 -6.062174
/lnalpha	1.090371	.0408146			1.010376 1.170366
alpha	2.975377	.1214388			2.746632 3.223172

(b) Negative Binomial

Figure 2: Effect of Dissent on Repression Interactive Model (No Instrument)

Linear regression

Number of obs = 4848449
F(2,4848446) = 3807.54
Prob > F = 0.0000
R-squared = 0.1029
Root MSE = .04804

represscount	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
dissentcount	.2427046	.0032287	75.17	0.000	.2363763 .2490328
urban_mean	-.00701	.0001693	-41.40	0.000	-.0073419 -.0066781
_cons	.0018493	.0000205	90.06	0.000	.0018091 .0018896

(a) OLS (Low Democracy)

Linear regression

Number of obs = 1340556
F(2,1340553) = 695.51
Prob > F = 0.0000
R-squared = 0.0544
Root MSE = .04578

represscount	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
dissentcount	.1885137	.006717	28.07	0.000	.1753487 .2016787
urban_mean	-.0059431	.0002359	-25.19	0.000	-.0064055 -.0054806
_cons	.0017943	.0000384	46.75	0.000	.0017191 .0018695

(b) OLS (High Democracy)

Negative binomial regression

Dispersion = mean
Log pseudolikelihood = -73992.143

Number of obs = 4848449
Wald chi2(2) = 5230.37
Prob > chi2 = 0.0000

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
dissentcount	3.858264	.0542371	71.14	0.000	3.751961 3.964567
urban_mean	-12.68146	.9436884	-13.44	0.000	-14.53106 -10.83186
_cons	-6.188791	.0113128	-547.06	0.000	-6.210964 -6.166618
/lnalpha	1.165481	.0413368			1.084463 1.2465
alpha	3.207466	.1325864			2.95785 3.478148

(c) Negative Binomial (Low Democracy)

Negative binomial regression

Dispersion = mean
Log pseudolikelihood = -18904.835

Number of obs = 1340556
Wald chi2(2) = 1286.72
Prob > chi2 = 0.0000

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
dissentcount	3.434464	.0950622	35.83	0.000	3.246578 3.622351
urban_mean	-49.96583	32.50859	-1.54	0.124	-113.6815 13.74984
_cons	-6.177972	.0383983	-160.89	0.000	-6.253231 -6.102712
/lnalpha	.7284277	.1643598			.4062884 1.050567
alpha	2.07182	.340524			1.501235 2.859272

(d) Negative Binomial (High Democracy)

Figure 3: Effect of Dissent on Repression Split Model (No Instrument)

Linear regression						
Number of obs = 6172560						
F(3,6172556) = 148.34						
Prob > F = 0.0000						
R-squared = 0.0000						
Root MSE = .06531						
dissentcount	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
lograin	-.000001	.0000228	-3.55	0.000	-.0001257	-.0000363
urban_mean	-.0063749	.0003068	-20.78	0.000	-.0069762	-.0057735
latent_democracy	-.000029	.0000523	-0.55	0.580	-.0001314	.0000735
_cons	.0032564	.0000337	96.74	0.000	.0031905	.0033224

(a) OLS

Negative binomial regression		Number of obs	=	6172560		
Dispersion	= mean	Wald chi2(3)	=	141.76		
Log pseudolikelihood	= -122297.55	Prob > chi2	=	0.0000		
dissentcount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
lograin	-.0238253	.0067929	-3.51	0.000	-.0371393	-.0105114
urban_mean	-3.327203	.2902809	-11.46	0.000	-3.896143	-2.758263
latent_democracy	-.0139848	.0173861	-0.80	0.421	-.048861	.0208914
_cons	-5.724246	.0106541	-537.28	0.000	-5.745128	-5.703365
/lnalpha	4.84244	.0173906			4.808355	4.876525
alpha	126.7784	2.204757			122.5299	131.1741

(b) Negative Binomial

Figure 4: Effect of Rain on Mobilized Dissent

Linear regression						Number of obs = 6172560	
						F(3,6172556) = 913.00	
						Prob > F = 0.0000	
						R-squared = 0.0001	
						Root MSE = .05002	

(a) OLS

Negative binomial regression			Number of obs	=	6172560
Dispersion = mean			Wald chi2(3)	=	333.94
Log pseudolikelihood = -107173.61			Prob > chi2	=	0.0000
represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
lograin	.0128948	.0063179	2.04	0.041	.0005121 .0252776
urban_mean	-13.44935	1.14655	-11.73	0.000	-15.69654 -11.20215
latent_democracy	.1992433	.0146695	13.58	0.000	.1704916 .2279951
_cons	-5.854251	.0099982	-585.53	0.000	-5.873848 -5.834655
/lnalpha	-.0521412	.3243139			-.687748 .5835024
alpha	.9491949	.3078371			.5026885 1.792305

(b) Negative Binomial

Figure 5: Effect of Rain on Government Repression

First-stage regressions

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
 Statistics robust to heteroskedasticity

Total (centered) SS = 26322.03442

Total (uncentered) SS = 26385

Residual SS = 26318.3256

Number of obs = 6083070

F(4,6083065) = 118.07

Prob > F = 0.0000

Centered R2 = 0.0001

Uncentered R2 = 0.0025

Root MSE = .06578

dissentcount	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
urban_mean	-.006066	.000309	-19.63	0.000	-.0066715 -.0054604
pop_sum	-3.73e-10	1.13e-11	-33.03	0.000	-3.95e-10 -3.51e-10
lograin	-.0001806	.0000258	-7.00	0.000	-.0002311 -.00013
rainannualpct	.0275666	.004113	6.70	0.000	.0195052 .0355281
_cons	.0036662	.0000338	108.35	0.000	.0035999 .0037325

Included instruments: urban_mean pop_sum lograin rainannualpct

F test of excluded instruments:
 F(2,6083065) = 31.99
 Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:
 F(2,6083065) = 31.99
 Prob > F = 0.0000

(a) First Stage

IV (2SLS) estimation

Estimates efficient for homoskedasticity only

Statistics robust to heteroskedasticity

Total (centered) SS

=

15445.98779

Total (uncentered) SS

=

15485

Residual SS

=

15757.34425

Number of obs =

6083070

F(3,6083066) =

734.0

Prob > F =

0.0000

Centered R2 =

-0.0202

Uncentered R2 =

-0.0176

Root MSE =

.0509

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
dissentcount	-.0244013	.0007229	-0.27	0.788	-.202215 .1534123
urban_mean	-.0080111	.0005776	-13.87	0.000	-.0091432 -.0068789
pop_sum	-3.83e-10	3.51e-11	-10.93	0.000	-4.52e-10 -3.15e-10
_cons	.0031371	.0003372	9.30	0.000	.0024761 .003798

Underidentification test (Kleibergen-Paap rk LM statistic):

Chi-sq(2) P-val =

64.144

0.0000

Weak identification test (Cragg-Donald Wald F statistic):

(Kleibergen-Paap rk Wald F statistic):

36.223

31.988

Stock-Yogo weak ID test critical values:

10% maximal IV size

15% maximal IV size

20% maximal IV size

25% maximal IV size

19.93

11.59

8.75

7.25

Source: Stock-Yogo (2005). Reproduced by permission.

NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments):

Chi-sq(1) P-val =

2.330

0.1269

Instrumented:

dissentcount

Included instruments:

urban_mean pop_sum

Excluded instruments:

lograin rainannualpct

(b) Second Stage

Figure 6: Effect of Dissent on Repression Base Model (Population Control)

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6074672
F(6,6074665) = 77.62
Prob > F = 0.0000
Centered R2 = 0.0001
Uncentered R2 = 0.0025
Root MSE = .06582

Total (centered) SS = 26321.94737
Total (uncentered) SS = 26385
Residual SS = 26318.12326

dissentcount	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
urban_mean	-.0061352	.0003098	-19.80	0.000	-.0067425	-.005528
pop_sum	-3.77e-10	1.13e-11	-33.41	0.000	-3.99e-10	-3.55e-10
latent_democracy	.0001954	.0000539	3.63	0.000	.0000898	.0003009
lograin	-.0001357	.0000288	-4.70	0.000	-.0001922	-.0000791
democracyrain	.0001568	.00004	3.92	0.000	.0000783	.0002353
rainannualpct	.0280373	.0041309	6.79	0.000	.0195409	.0361338
_cons	.0037454	.00004	93.60	0.000	.0036669	.0038238

Included instruments: urban_mean pop_sum latent_democracy lograin democracyrain rainannualpct

F test of excluded instruments:

F(3,6074665) = 27.62

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(2,6074665) = 14.32

Prob > F = 0.0000

(a) First Stage

First-stage regression of democracydissent:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6074672
F(6,6074665) = 725.46
Prob > F = 0.0000
Centered R2 = 0.0012
Uncentered R2 = 0.0024
Root MSE = .0339

Total (centered) SS = 6989.800687
Total (uncentered) SS = 6997.615165
Residual SS = 6981.100524

democracydissent	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
urban_mean	.0012204	.0001424	8.57	0.000	.0009413 1.0014994
pop_sum	1.39e-10	4.05e-12	34.39	0.000	1.31e-10 1.47e-10
latent_democracy	.0026011	.0000406	64.09	0.000	.0025215 .0026806
lograin	.0001152	.0000103	11.19	0.000	.0000095 .0001354
democracyrain	.0000262	.0000294	0.89	0.374	-.0000315 .0000838
rainannualpct	-.0125962	.0022472	-5.61	0.000	-.0170006 -.0081919
_cons	-.0003683	.0000148	-24.86	0.000	-.0003973 -.0003393

Included instruments: urban_mean pop_sum latent_democracy lograin democracyrain rainannualpct

F test of excluded instruments:

F(3,6074665) = 43.44

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(2,6074665) = 20.95

Prob > F = 0.0000

(b) First Stage

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6074672
F(5,6074666) = 509.36
Prob > F = 0.0000
Centered R2 = -.0030
Uncentered R2 = -.0005
Root MSE = .0505

Total (centered) SS = 15445.93385
Total (uncentered) SS = 15485
Residual SS = 15492.02915

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
dissentcount	.1451669	.1423827	1.02	0.308	-.133898	.4242318
democracydissent	.3014798	.2831325	1.06	0.287	-.2534497	.8564093
urban_mean	-.0075111	.0000395	-11.75	0.000	-.0087644	-.0062578
pop_sum	-3.79e-10	3.25e-11	-11.66	0.000	-4.43e-10	-3.15e-10
latent_democracy	-.0000425	.0007622	-0.06	0.956	-.0015363	.0014513
_cons	.0029105	.0004565	6.38	0.000	.0020159	.0038052

Underidentification test (Kleibergen-Paap rk LM statistic): 15.084

Chi-sq(2) P-val = 0.0005

Weak identification test (Cragg-Donald Wald F statistic): 11.421

(Kleibergen-Paap rk Wald F statistic): 5.029

Stock-Yogo weak ID test critical values: 10% maximal IV size 13.43

15% maximal IV size 8.18

20% maximal IV size 6.40

25% maximal IV size 5.45

Source: Stock-Yogo (2005). Reproduced by permission.

NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 1.296

Chi-sq(1) P-val = 0.2549

Instrumented: dissentcount democracydissent

Included instruments: urban_mean pop_sum latent_democracy

Excluded instruments: lograin democracyrain rainannualpct

(c) Second Stage

Figure 7: Effect of Dissent on Repression Interactive Model (Population Control)

First-stage regressions

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 4824337
F(4,4824332) = 120.69
Prob > F = 0.0000
Centered R2 = 0.0001
Uncentered R2 = 0.0025
Root MSE = .06719

Total (centered) SS = 21785.00202
Total (uncentered) SS = 21838
Residual SS = 21782.37638

dissentcount	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
urban_mean	-.0069118	.0003452	-20.02	0.000	-.0075884	-.0062351
pop_sum	-2.77e-10	1.33e-11	-20.90	0.000	-3.03e-10	-2.51e-10
lograin	-.0003677	.0000312	-11.79	0.000	-.0004289	-.0003066
rainannualpct	.0375144	.0047411	7.91	0.000	.028222	.0458068
_cons	.0036605	.0000377	97.05	0.000	.0035865	.0037344

Included instruments: urban_mean pop_sum lograin rainannualpct

F test of excluded instruments:

F(2,4824332) = 73.17

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(2,4824332) = 73.17

Prob > F = 0.0000

(a) First Stage (Low Democracy)

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 4824337
F(3,4824333) = 551.63
Prob > F = 0.0000
Centered R2 = 0.0315
Uncentered R2 = 0.0340
Root MSE = .05004

Total (centered) SS = 12474.93778
Total (uncentered) SS = 12507
Residual SS = 12081.37569

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
dissentcount	.0402062	.0561287	0.72	0.474	-.0698041	.1502164
urban_mean	-.0078213	.0004355	-17.96	0.000	-.0086748	-.0069678
pop_sum	-4.26e-10	1.89e-11	-22.58	0.000	-4.63e-10	-3.89e-10
_cons	.0029853	.0002087	14.30	0.000	.0025762	.0033943

Underidentification test (Kleibergen-Paap rk LM statistic): 146.678
Chi-sq(2) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 90.846
(Kleibergen-Paap rk Wald F statistic): 73.167

Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93
15% maximal IV size 11.59
20% maximal IV size 8.75
25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.

NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 0.746
Chi-sq(1) P-val = 0.3876

Instrumented: dissentcount

Included instruments: urban_mean pop_sum

Excluded instruments: lograin rainannualpct

(b) Second Stage (Low Democracy)

First-stage regressions

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 1258733
F(4,1258728) = 40.31
Prob > F = 0.0000
Centered R2 = 0.0006
Uncentered R2 = 0.0028
Root MSE = .06002

Total (centered) SS = 4536.812326
Total (uncentered) SS = 4547
Residual SS = 4534.313502

dissentcount	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
urban_mean	-.0045717	.0006291	-7.27	0.000	-.0058047	-.0033387
pop_sum	-7.24e-10	2.07e-11	-34.95	0.000	-7.65e-10	-6.84e-10
lograin	-.0004317	.0000398	-10.85	0.000	-.0005337	-.0003007
rainannualpct	-.0196083	.0065496	-2.99	0.003	-.0324452	-.0067714
_cons	.0038864	.0000779	49.88	0.000	.0037337	.0040391

Included instruments: urban_mean pop_sum lograin rainannualpct

F test of excluded instruments:

F(2,1258728) = 59.20

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(2,1258728) = 59.20

Prob > F = 0.0000

(c) First Stage (High Democracy)

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 1258733
F(3,1258729) = 240.87
Prob > F = 0.0000
Centered R2 = 0.0407
Uncentered R2 = 0.0430
Root MSE = .04758

Total (centered) SS = 2971.001674
Total (uncentered) SS = 2978
Residual SS = 2850.009378

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
dissentcount	.2832516	.0752076	3.77	0.000	.1358474 .4306557
urban_mean	-.0059953	.0004134	-14.50	0.000	-.0068056 -.005185
pop_sum	1.02e-10	5.71e-11	1.78	0.075	-1.02e-11 2.14e-10
_cons	.0015015	.0002943	5.10	0.000	.0009247 .0020783

Underidentification test (Kleibergen-Paap rk LM statistic): 118.358
Chi-sq(2) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 47.605
(Kleibergen-Paap rk Wald F statistic): 59.201

Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93
15% maximal IV size 11.59
20% maximal IV size 8.75
25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.

NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 0.262
Chi-sq(1) P-val = 0.6086

Instrumented: dissentcount

Included instruments: urban_mean pop_sum

Excluded instruments: lograin rainannualpct

(d) Second Stage (High Democracy)

Figure 8: Effect of Dissent on Repression Split Model (Population Control)

First-stage regressions

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 4739303
F(4,4739298) = 105.17
Prob > F = 0.0000
Centered R2 = 0.0001
Uncentered R2 = 0.0029
Root MSE = .07016

dissentcount	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
urban_mean	-.0067088	.0003732	-17.98	0.000	-.0074403	-.0059773
wdi_gdp	-5.88e-15	3.00e-16	-19.13	0.000	-6.49e-15	-5.28e-15
lograin	-.0003272	.0000318	-10.29	0.000	-.0003895	-.0002649
rainannualpct	.0398442	.0053689	7.42	0.000	.0293214	.050367
_cons	.0040727	.000042	97.07	0.000	.0039905	.0041549

Included instruments: urban_mean wdi_gdp lograin rainannualpct

F test of excluded instruments:

F(2,4739298) = 56.33

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(2,4739298) = 56.33

Prob > F = 0.0000

(a) First Stage

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 4739303
F(3,4739299) = 996.67
Prob > F = 0.0000
Centered R2 = 0.0759
Uncentered R2 = 0.0787
Root MSE = .05382

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
dissentcount	.1484718	.0662324	2.24	0.025	.0186586	.2782849
urban_mean	-.0086656	.0004811	-18.01	0.000	-.0096086	-.0077226
wdi_gdp	-7.42e-15	4.31e-16	-17.23	0.000	-8.27e-15	-6.58e-15
_cons	.003098	.0002727	11.36	0.000	.0025635	.0036325

Underidentification test (Kleibergen-Paap rk LM statistic): 112.833
Chi-sq(2) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 66.494
(Kleibergen-Paap rk Wald F statistic): 56.334
Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93
15% maximal IV size 11.59
20% maximal IV size 8.75
25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.

NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 0.002
Chi-sq(1) P-val = 0.9625

Instrumented: dissentcount

Included instruments: urban_mean wdi_gdp

Excluded instruments: lograin rainannualpct

(b) Second Stage

Figure 9: Effect of Dissent on Repression Base Model (Wealth Control)

First-stage regressions

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 4739303
F(6,4739296) = 77.15
Prob > F = 0.0000
Centered R2 = 0.0001
Uncentered R2 = 0.0029
Root MSE = .07016

Total (centered) SS = 23329.81089
Total (uncentered) SS = 23395
Residual SS = 23327.34582

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
dissentcount					
urban_mean	-.00676	.0003743	-18.06	0.000	-.0074937 -.0060264
wdi_gdp	-5.88e-15	3.06e-16	-19.21	0.000	-6.48e-15 -5.28e-15
latent_democracy	.0000611	.0000681	0.90	0.370	-.0000724 .0001946
lograin	-.0002345	.0000372	-6.31	0.000	-.0003074 -.0001617
democracyrain	.0002913	.0000507	5.75	0.000	.0001992 .0003907
rainannualpct	.0400315	.0053667	7.46	0.000	.0295129 .0505581
_cons	.0040974	.0000582	81.63	0.000	.0039999 .0041958

Included instruments: urban_mean wdi_gdp latent_democracy lograin democracyrain rainannualpct

F test of excluded instruments:
F(3,4739296) = 53.57
Prob > F = 0.0000
Angrist-Pischke multivariate F test of excluded instruments:
F(2,4739296) = 13.75
Prob > F = 0.0000

(a) First Stage

First-stage regression of democracydissent:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 4739303
F(6,4739296) = 658.71
Prob > F = 0.0000
Centered R2 = 0.0014
Uncentered R2 = 0.0027
Root MSE = .03602

Total (centered) SS = 6150.455389
Total (uncentered) SS = 6166.686092
Residual SS = 6150.10045

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
democracydissent					
urban_mean	.0013361	.000172	7.77	0.000	.0009991 .0016732
wdi_gdp	1.58e-16	1.41e-16	1.12	0.262	-1.18e-16 4.35e-16
latent_democracy	.003095	.0000587	61.03	0.000	.0029956 .0031944
lograin	.0001489	.0000131	11.37	0.000	.0001232 .0001745
democracyrain	-.0000155	.0000352	-0.44	0.659	-.0000644 .0000534
rainannualpct	-.0155238	.0029758	-5.22	0.000	-.0213563 -.0096914
_cons	-.0002152	.0000282	-10.67	0.000	-.0002547 -.0001757

Included instruments: urban_mean wdi_gdp latent_democracy lograin democracyrain rainannualpct

F test of excluded instruments:
F(3,4739296) = 51.89
Prob > F = 0.0000
Angrist-Pischke multivariate F test of excluded instruments:
F(2,4739296) = 14.18
Prob > F = 0.0000

(b) First Stage

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 4739303
F(5,4739297) = 370.75
Prob > F = 0.0000
Centered R2 = -0.0724
Uncentered R2 = -0.0691
Root MSE = .05798

Total (centered) SS = 14857.55712
Total (uncentered) SS = 14904
Residual SS = 15933.73467

	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
represscount					
dissentcount	.4865265	.1730991	2.81	0.005	.1472585 .8257945
democracydissent	.7406401	.4300172	1.72	0.085	-.1021782 1.583458
urban_mean	-.0075655	.0007031	-10.76	0.000	-.0089435 -.0061874
wdi_gdp	-5.41e-15	9.84e-16	-5.50	0.000	-7.34e-15 -3.49e-15
latent_democracy	-.0014411	.0013448	-1.07	0.284	-.0040769 .0011946
_cons	.002176	.0006282	3.46	0.001	.0009448 .0034072

Underidentification test (Kleibergen-Paap rk LM statistic): 12.057
Chi-sq(2) P-val = 0.0024

Weak identification test (Cragg-Donald Wald F statistic): 8.004
(Kleibergen-Paap rk Wald F statistic): 4.020
Stock-Yogo weak ID test critical values: 10% maximal IV size 13.43
15% maximal IV size 8.18
20% maximal IV size 6.40
25% maximal IV size 5.45

Source: Stock-Yogo (2005). Reproduced by permission.
NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 0.581
Chi-sq(1) P-val = 0.4459

Instrumented: dissentcount democracydissent
Included instruments: urban_mean wdi_gdp latent_democracy
Excluded instruments: lograin democracyrain rainannualpct

(c) Second Stage

Figure 10: Effect of Dissent on Repression Interactive Model (Wealth Control)

First-stage regressions

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 3753792
F(4,3753787) = 123.92
Prob > F = 0.0000
Centered R2 = 0.0001
Uncentered R2 = 0.0030
Root MSE = .07183

Total (centered) SS = 19367.94361
Total (uncentered) SS = 19424
Residual SS = 19365.86435

dissentcount	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
urban_mean	-.0075436	.0004168	-18.10	0.000	-.0083606	-.0067267
wdi_gdp	-3.29e-15	4.11e-16	-8.02	0.000	-4.10e-15	-2.49e-15
lograin	-.0005524	.0000387	-14.28	0.000	-.0006282	-.0004766
rainannualpct	.0497961	.0062573	7.96	0.000	.037532	.0620601
_cons	.0041231	.0000494	83.50	0.000	.0040263	.0042199

Included instruments: urban_mean wdi_gdp lograin rainannualpct

F test of excluded instruments:
F(2,3753787) = 102.31
Prob > F = 0.0000
Angrist-Pischke multivariate F test of excluded instruments:
F(2,3753787) = 102.31
Prob > F = 0.0000

(a) First Stage (Low Democracy)

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 985511
F(3,985507) = 325.37
Prob > F = 0.0000
Centered R2 = 0.0362
Uncentered R2 = 0.0389
Root MSE = .05213

Total (centered) SS = 2779.163618
Total (uncentered) SS = 2787
Residual SS = 2678.508525

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
dissentcount	.1229459	.0071772	1.41	0.158	-.0479182	.29381
urban_mean	-.0083085	.0005462	-15.21	0.000	-.009379	-.0072379
wdi_gdp	-1.18e-14	1.23e-15	-9.56	0.000	-1.42e-14	-9.38e-15
_cons	.0031394	.0003437	9.13	0.000	.0024657	.003813

Underidentification test (Kleibergen-Paap rk LM statistic): 85.479
Chi-sq(2) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 39.472
(Kleibergen-Paap rk Wald F statistic): 42.747
Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93
15% maximal IV size 11.59
20% maximal IV size 8.75
25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.
NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 0.011
Chi-sq(1) P-val = 0.9172

Instrumented: dissentcount
Included instruments: urban_mean wdi_gdp
Excluded instruments: lograin rainannualpct

(c) First Stage (High Democracy)

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 3753792
F(3,3753788) = 669.13
Prob > F = 0.0000
Centered R2 = 0.0795
Uncentered R2 = 0.0025
Root MSE = .05442

Total (centered) SS = 12078.27349
Total (uncentered) SS = 12117
Residual SS = 11117.7841

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
dissentcount	.1342187	.0478952	2.80	0.005	.0403379	.2280835
urban_mean	-.0091322	.0004273	-21.37	0.000	-.0099696	-.0082947
wdi_gdp	-5.98e-15	3.25e-16	-18.40	0.000	-6.62e-15	-5.34e-15
_cons	.0031428	.0001987	15.82	0.000	.0027533	.0035322

Underidentification test (Kleibergen-Paap rk LM statistic): 204.823
Chi-sq(2) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 130.153
(Kleibergen-Paap rk Wald F statistic): 102.305
Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93
15% maximal IV size 11.59
20% maximal IV size 8.75
25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.
NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 0.005
Chi-sq(1) P-val = 0.9430

Instrumented: dissentcount
Included instruments: urban_mean wdi_gdp
Excluded instruments: lograin rainannualpct

(b) Second Stage (Low Democracy)

First-stage regressions

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 985511
F(4,985506) = 32.55
Prob > F = 0.0000
Centered R2 = 0.0005
Uncentered R2 = 0.0030
Root MSE = .06338

Total (centered) SS = 3961.430304
Total (uncentered) SS = 3971
Residual SS = 3959.252001

dissentcount	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
urban_mean	-.0056752	.0007778	-7.30	0.000	-.0071997	-.0041508
wdi_gdp	-1.37e-14	2.93e-16	-46.62	0.000	-1.43e-14	-1.31e-14
lograin	.0004376	.0000488	8.97	0.000	.000342	.0005332
rainannualpct	-.0078622	.0000709	-0.97	0.330	-.0236809	.0079565
_cons	.0038358	.0000818	46.88	0.000	.0036754	.0039961

Included instruments: urban_mean wdi_gdp lograin rainannualpct

F test of excluded instruments:
F(2,985506) = 42.75
Prob > F = 0.0000
Angrist-Pischke multivariate F test of excluded instruments:
F(2,985506) = 42.75
Prob > F = 0.0000

(d) Second Stage (High Democracy)

Figure 11: Effect of Dissent on Repression Split Model (Wealth Control)

```

First-stage regressions
-----
First-stage regression of dissentcount:
OLS estimation
-----

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6083070
F( 3,6083066) = 160.72
Prob > F = 0.0000
Centered R2 = 0.0000
Uncentered R2 = 0.0024
Root MSE = .06578

Total (centered) SS = 26322.03442
Total (uncentered) SS = 26385
Residual SS = 26321.1526

dissentcount |      Coef.   Robust Std. Err.      t    P>|t|     [95% Conf. Interval]
-----+-----
urban_mean | -.0066864   .0003095   -21.61   0.000   -.007293   -.0060798
rainnonnull_mean | -.0000249   7.27e-06    -3.43   0.001   -.0000391   -.0000107
rainannualpct | .025025    .0047322     5.29   0.000   .0157501   .0343
_cons | .0032832   .00003     109.42   0.000   .0032244   .003342

Included instruments: urban_mean rainnonnull_mean rainannualpct

F test of excluded instruments:
F( 2,6083066) = 13.98
Prob > F = 0.0000
Angrist-Pischke multivariate F test of excluded instruments:
F( 2,6083066) = 13.98
Prob > F = 0.0000

```

(a) First Stage

```

IV (2SLS) estimation
-----

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6083070
F( 2,6083067) = 1174.14
Prob > F = 0.0000
Centered R2 = -0.0493
Uncentered R2 = -0.0467
Root MSE = .05162

Total (centered) SS = 15445.98779
Total (uncentered) SS = 15485
Residual SS = 16207.61232

represscount |      Coef.   Robust Std. Err.      z    P>|z|     [95% Conf. Interval]
-----+-----
dissentcount | -.0555035   .1535171    -0.36   0.718   -.3563914   .2453844
urban_mean | -.0007007   .0010326    -0.50   0.000   -.0100045   -.00067568
_cons | .0028204   .0005071     5.56   0.000   .0018265   .0038144

Underidentification test (Kleibergen-Paap rk LM statistic):
Chi-sq(2) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic):
(Kleibergen-Paap rk Wald F statistic):
Stock-Yogo weak ID test critical values: 10% maximal IV size 14.000
15% maximal IV size 13.983
20% maximal IV size 19.93
25% maximal IV size 11.59
Source: Stock-Yogo (2005). Reproduced by permission.
NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments):
Chi-sq(1) P-val = 0.0317

Instrumented: dissentcount
Included instruments: urban_mean
Excluded instruments: rainnonnull_mean rainannualpct

```

(b) Second Stage

Figure 12: Effect of Dissent on Repression Base Model (Total Rain)

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6074672
F(5,6074666) = 96.93
Prob > F = 0.0000
Centered R2 = 0.0000
Uncentered R2 = 0.0024
Root MSE = .06582

Total (centered) SS = 26321.94737
Total (uncentered) SS = 26385
Residual SS = 26321.05026

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
urban_mean	-.0067229	.0003107	-21.64	0.000	-.0073318 -.006114
latent_democracy	.0000554	.0000569	0.97	0.331	-.0000562 .000167
rainnonnull_mean	-.0000223	7.41e-06	-3.02	0.003	-.0000368 -.7.02e-06
democracyfullrain	.0000119	.0000111	1.07	0.286	-9.92e-06 .0000337
rainannualpct	.0256223	.0047625	5.38	0.000	.016288 .0349565
_cons	.0033085	.0000366	90.42	0.000	.0032368 .0033802

Included instruments: urban_mean latent_democracy rainnonnull_mean
democracyfullrain rainannualpct

F test of excluded instruments:

F(3,6074666) = 9.89

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(2,6074666) = 2.53

Prob > F = 0.0800

(a) First Stage

First-stage regression of democracydissent:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6074672
F(5,6074666) = 898.95
Prob > F = 0.0000
Centered R2 = 0.0012
Uncentered R2 = 0.0023
Root MSE = .0339

Total (centered) SS = 6989.00687
Total (uncentered) SS = 6997.615165
Residual SS = 6981.529627

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
urban_mean	.0014582	.000143	10.20	0.000	.0011779 .0017384
latent_democracy	.0026482	.0000441	60.05	0.000	.0025618 .0027347
rainnonnull_mean	.0000153	3.62e-06	4.22	0.000	8.20e-06 .0000224
democracyfullrain	1.89e-06	6.99e-06	0.27	0.786	-.0000118 .0000156
rainannualpct	-.0110722	.0026859	-4.12	0.000	-.0163364 -.005808
_cons	-.0002136	.0000135	-15.87	0.000	-.00024 -.0001872

Included instruments: urban_mean latent_democracy rainnonnull_mean
democracyfullrain rainannualpct

F test of excluded instruments:

F(3,6074666) = 6.43

Prob > F = 0.0002

Angrist-Pischke multivariate F test of excluded instruments:

F(2,6074666) = 3.55

Prob > F = 0.0287

(b) First Stage

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6074672
F(4,6074667) = 660.21
Prob > F = 0.0000
Centered R2 = -0.0269
Uncentered R2 = -0.0243
Root MSE = .0511

Total (centered) SS = 15445.93385
Total (uncentered) SS = 15485
Residual SS = 15861.80018

	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
represscount					
dissentcount	.0105866	.3634101	0.03	0.977	-.7016841 .7228574
democracydissent	.182923	.8283198	0.12	0.901	-1.520554 1.7264
urban_mean	-.0006474	.0014338	-6.03	0.000	-.0114577 -.0050371
latent_democracy	.0003553	.0022238	0.16	0.873	-.0040032 .0047138
_cons	.0028523	.0010535	2.71	0.007	.0007075 .0049171

Underidentification test (Kleibergen-Paap rk LM statistic): 3.545
Chi-sq(2) P-val = 0.1699

Weak identification test (Cragg-Donald Wald F statistic): 1.677
(Kleibergen-Paap rk Wald F statistic): 1.181

Stock-Yogo weak ID test critical values: 10% maximal IV size 13.43
15% maximal IV size 8.18
20% maximal IV size 6.40
25% maximal IV size 5.45

Source: Stock-Yogo (2005). Reproduced by permission.
NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 6.865
Chi-sq(1) P-val = 0.0088

Instrumented: dissentcount democracydissent
Included instruments: urban_mean latent_democracy
Excluded instruments: rainnonnull_mean democracyfullrain rainannualpct

(c) Second Stage

Figure 13: Effect of Dissent on Repression Interactive Model (Total Rain)

First-stage regressions

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 4824337
F(3,4824333) = 164.11
Prob > F = 0.0000
Centered R2 = 0.0000
Uncentered R2 = 0.0025
Root MSE = .0672

dissentcount	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
urban_mean	-.0075652	.000346	-21.86	0.000	-.0082434	-.0068871
rainnonnull_mean	-.0000509	8.38e-06	-6.08	0.000	-.0000674	-.0000345
rainannnullpct	.0326277	.0052463	6.22	0.000	.0223452	.0429102
_cons	.0034191	.0000349	97.90	0.000	.0033506	.0034875

Included instruments: urban_mean rainnonnull_mean rainannnullpct

F test of excluded instruments:

F(2,4824333) = 23.56

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(2,4824333) = 23.56

Prob > F = 0.0000

(a) First Stage (Low Democracy)

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 4824337
F(2,4824334) = 666.13
Prob > F = 0.0000
Centered R2 = -0.1817
Uncentered R2 = -0.1787
Root MSE = .05528

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
dissentcount	-.1610436	.1333363	-1.21	0.227	-.4223779	.1002907
urban_mean	-.010111	.0010132	-9.98	0.000	-.0120968	-.0081253
_cons	.0032323	.0004546	7.11	0.000	.0023413	.0041234

Underidentification test (Kleibergen-Paap rk LM statistic): 47.427
Chi-sq(2) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 23.736
(Kleibergen-Paap rk Wald F statistic): 23.560
Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93
15% maximal IV size 11.59
20% maximal IV size 8.75
25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.

NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 2.389
Chi-sq(1) P-val = 0.1222

Instrumented: dissentcount
Included instruments: urban_mean
Excluded instruments: rainnonnull_mean rainannnullpct

(b) Second Stage (Low Democracy)

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 1258733
F(3,1258729) = 44.15
Prob > F = 0.0000
Centered R2 = 0.0001
Uncentered R2 = 0.0023
Root MSE = .06003

dissentcount	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
urban_mean	-.0048051	.000629	-7.64	0.000	-.0060379	-.0035723
rainnonnull_mean	.0001037	.0000122	8.51	0.000	.0000798	.0001276
rainannnullpct	-.0404347	.0070341	-5.75	0.000	-.0542213	-.0266481
_cons	.002805	.0000572	49.07	0.000	.002693	.0029171

Included instruments: urban_mean rainnonnull_mean rainannnullpct

F test of excluded instruments:

F(2,1258729) = 36.38

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(2,1258729) = 36.38

Prob > F = 0.0000

(c) First Stage (High Democracy)

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 1258733
F(2,1258730) = 414.57
Prob > F = 0.0000
Centered R2 = 0.0341
Uncentered R2 = 0.0364
Root MSE = .04775

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
dissentcount	.0733345	.0042137	0.78	0.436	-.111321	.25799
urban_mean	-.006928	.0005064	-13.68	0.000	-.0079206	-.0059354
_cons	.0022497	.0002775	8.11	0.000	.0017057	.0027937

Underidentification test (Kleibergen-Paap rk LM statistic): 73.723
Chi-sq(2) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 23.840
(Kleibergen-Paap rk Wald F statistic): 36.384
Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93
15% maximal IV size 11.59
20% maximal IV size 8.75
25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.

NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 0.744
Chi-sq(1) P-val = 0.3885

Instrumented: dissentcount
Included instruments: urban_mean
Excluded instruments: rainnonnull_mean rainannnullpct

(d) Second Stage (High Democracy)

Figure 14: Effect of Dissent on Repression Split Model (Total Rain)

First-stage regressions

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

		Number of obs = 6189005
		F(2,6189002) = 219.76
		Prob > F = 0.0000
Total (centered) SS	= 26330.00055	Centered R2 = 0.0000
Total (uncentered) SS	= 26392	Uncentered R2 = 0.0024
Residual SS	= 26329.298	Root MSE = .06522

dissentcount	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
urban_mean	-.0063503	.000306	-20.75	0.000	-.0069501 -.0057506
lograin	-.00000801	.0000228	-3.52	0.000	-.0001248 -.0000355
_cons	.0032574	.0000277	117.49	0.000	.0032031 .0033118

Included instruments: urban_mean lograin

F test of excluded instruments:

F(1,6189002) = 12.37

Prob > F = 0.0004

Angrist-Pischke multivariate F test of excluded instruments:

F(1,6189002) = 12.37

Prob > F = 0.0004

(a) First Stage

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

		Number of obs = 6189005
		F(2,6189002) = 469.21
		Prob > F = 0.0000
Total (centered) SS	= 15447.65057	Centered R2 = -0.8164
Total (uncentered) SS	= 15486	Uncentered R2 = -0.8119
Residual SS	= 28059.36128	Root MSE = .06733

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
dissentcount	-.4970473	.2771775	-1.79	0.073	-1.040305 .0462106
urban_mean	-.0113292	.0017796	-6.37	0.000	-.0148171 -.0078412
_cons	.0042032	.0000994	4.67	0.000	.0024403 .0059661

Underidentification test (Kleibergen-Paap rk LM statistic): 12.372
Chi-sq(1) P-val = 0.0004

Weak identification test (Cragg-Donald Wald F statistic): 14.672

(Kleibergen-Paap rk Wald F statistic): 12.372

Stock-Yogo weak ID test critical values: 10% maximal IV size 16.38

15% maximal IV size 8.96

20% maximal IV size 6.66

25% maximal IV size 5.53

Source: Stock-Yogo (2005). Reproduced by permission.

NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 0.000

(equation exactly identified)

Instrumented: dissentcount

Included instruments: urban_mean

Excluded instruments: lograin

(b) Second Stage

Figure 15: Effect of Dissent on Repression Base Model (No Total Rain)

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6172560
F(4,6172555) = 116.52
Prob > F = 0.0000
Centered R2 = 0.0000
Uncentered R2 = 0.0024
Root MSE = .06531

Total (centered) SS = 26329.91559
Total (uncentered) SS = 26392
Residual SS = 26329.05527

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
dissentcount					
urban_mean	-.0063901	.0003069	-20.82	0.000	-.0069916 -.0057887
latent_democracy	-.0000456	.0000522	-0.87	0.383	-.000148 .0000568
lograin	-.0000236	.0000261	-0.91	0.365	-.0000747 .0000275
democracyrain	.0001878	.0000401	4.69	0.000	.0001093 .0002663
_cons	.0032511	.0000336	96.65	0.000	.0031852 .003317

Included instruments: urban_mean latent_democracy lograin democracyrain

F test of excluded instruments:

F(2,6172555) = 17.62

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(1,6172555) = 27.34

Prob > F = 0.0000

(a) First Stage

First-stage regression of democracydissent:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6172560
F(4,6172555) = 1119.46
Prob > F = 0.0000
Centered R2 = 0.0012
Uncentered R2 = 0.0023
Root MSE = .03364

Total (centered) SS = 6994.031906
Total (uncentered) SS = 7001.724043
Residual SS = 6985.766242

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
democracydissent					
urban_mean	.0014747	.0001401	10.52	0.000	.0012 .0017493
latent_democracy	.0026117	.0000401	65.07	0.000	.002533 .0026904
lograin	.0000705	8.19e-06	8.61	0.000	.0000545 .0000866
democracyrain	.0000191	.0000294	0.65	0.515	-.0000385 .0000768
_cons	-.000236	.000012	-19.65	0.000	-.0002595 -.0002124

Included instruments: urban_mean latent_democracy lograin democracyrain

F test of excluded instruments:

F(2,6172555) = 38.38

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(1,6172555) = 55.30

Prob > F = 0.0000

(b) First Stage

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Total (centered) SS = 15447.5484
Total (uncentered) SS = 15486
Residual SS = 19697.09031

Number of obs = 6172560
F(4,6172555) = 443.32
Prob > F = 0.0000
Centered R2 = -0.2751
Uncentered R2 = -0.2719
Root MSE = .05649

	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
represscount					
dissentcount	.1936133	.1862852	1.04	0.299	-.171499 .5587255
democracydissent	.8129177	.3012646	2.70	0.007	.2224498 1.403386
urban_mean	-.0002816	.0010706	-7.74	0.000	-.01038 -.0061832
latent_democracy	-.0015844	.0007059	-2.02	0.044	-.0031246 -.0000441
_cons	.0023406	.0005759	4.06	0.000	.0012119 .0034692

Underidentification test (Kleibergen-Paap rk LM statistic): 28.178
Chi-sq(1) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 15.463

(Kleibergen-Paap rk Wald F statistic): 14.009

Stock-Yogo weak ID test critical values: 10% maximal IV size 7.03

15% maximal IV size 4.58

20% maximal IV size 3.95

25% maximal IV size 3.63

Source: Stock-Yogo (2005). Reproduced by permission.

NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 0.000
(equation exactly identified)

Instrumented: dissentcount democracydissent

Included instruments: urban_mean latent_democracy

Excluded instruments: lograin democracyrain

(c) Second Stage

Figure 16: Effect of Dissent on Repression Interactive Model (No Total Rain)

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 4848449
F(2,4848446) = 273.57
Prob > F = 0.0000
Centered R2 = 0.0001
Uncentered R2 = 0.0025
Root MSE = .06704

Total (centered) SS = 21789.2524
Total (uncentered) SS = 21842
Residual SS = 21788.13765

dissentcount	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
urban_mean	-.0074459	.0003363	-22.14	0.000	-.0081049	-.0067869
lograin	-.0002463	.0000276	-8.92	0.000	-.0003004	-.0001922
_cons	.0034383	.0000327	105.29	0.000	.0033743	.0035023

Included instruments: urban_mean lograin

F test of excluded instruments:

F(1,4848446) = 79.61

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(1,4848446) = 79.61

Prob > F = 0.0000

(a) First Stage (Low Democracy)

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 4848449
F(2,4848446) = 857.14
Prob > F = 0.0000
Centered R2 = -0.0415
Uncentered R2 = -0.0309
Root MSE = .05177

Total (centered) SS = 12476.0921
Total (uncentered) SS = 12508
Residual SS = 12994.44953

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
dissentcount	-.0449381	.0786346	-0.57	0.568	-.1990591	.1091828
urban_mean	-.0091657	.0006218	-14.74	0.000	-.0103843	-.0079471
_cons	.0028241	.0002677	10.55	0.000	.0022995	.0033487

Underidentification test (Kleibergen-Paap rk LM statistic): 79.596
Chi-sq(1) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 99.600

(Kleibergen-Paap rk Wald F statistic): 79.609

Stock-Yogo weak ID test critical values: 10% maximal IV size 16.38

15% maximal IV size 16.38

20% maximal IV size 6.66

25% maximal IV size 5.53

Source: Stock-Yogo (2005). Reproduced by permission.

NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 0.000

(equation exactly identified)

Instrumented: dissentcount

Included instruments: urban_mean

Excluded instruments: lograin

(b) Second Stage (Low Democracy)

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 1340556
F(2,1340553) = 78.98
Prob > F = 0.0000
Centered R2 = 0.0001
Uncentered R2 = 0.0022
Root MSE = .05819

Total (centered) SS = 4540.418113
Total (uncentered) SS = 4550
Residual SS = 4539.917942

dissentcount	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
urban_mean	-.0041055	.0006284	-6.53	0.000	-.0053372	-.0028738
lograin	.0004208	.0000378	11.13	0.000	.0003467	.0004949
_cons	.0026795	.0000514	52.09	0.000	.0025786	.0027803

Included instruments: urban_mean lograin

F test of excluded instruments:

F(1,1340553) = 123.84

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(1,1340553) = 123.84

Prob > F = 0.0000

(c) First Stage (High Democracy)

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 1340556
F(2,1340553) = 349.33
Prob > F = 0.0000
Centered R2 = 0.0418
Uncentered R2 = 0.0439
Root MSE = .04609

Total (centered) SS = 2971.428828
Total (uncentered) SS = 2978
Residual SS = 2847.227203

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
dissentcount	.279285	.0700773	3.99	0.000	.141936 .4166339
urban_mean	-.0055924	.0003659	-15.28	0.000	-.0063096 -.0048752
_cons	.0015466	.0001932	8.01	0.000	.001168 .0019253

Underidentification test (Kleibergen-Paap rk LM statistic): 123.794
Chi-sq(1) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 121.979

(Kleibergen-Paap rk Wald F statistic): 123.845

Stock-Yogo weak ID test critical values: 10% maximal IV size 16.38

15% maximal IV size 8.96

20% maximal IV size 6.66

25% maximal IV size 5.53

Source: Stock-Yogo (2005). Reproduced by permission.

NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 0.000

(equation exactly identified)

Instrumented: dissentcount

Included instruments: urban_mean

Excluded instruments: lograin

(d) Second Stage (High Democracy)

Figure 17: Effect of Dissent on Repression Split Model (No Total Rain)

First-stage regressions

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6091103
F(2,6091100) = 29.44
Prob > F = 0.0000
Centered R2 = 0.0000
Uncentered R2 = 0.0024
Root MSE = .06574

Total (centered) SS = 26322.11746
Total (uncentered) SS = 26385
Residual SS = 26321.82856

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
dissentcount					
lograin	-.0001711	.0000258	-6.63	0.000	-.0002217 -.0001205
rainannualpct	.0268262	.00411	6.53	0.000	.0187708 .0348816
_cons	.0031721	.000028	113.23	0.000	.0031172 .003227

Included instruments: lograin rainannualpct

F test of excluded instruments:

F(2,6091100) = 29.44

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(2,6091100) = 29.44

Prob > F = 0.0000

(a) First Stage

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6091103
F(1,6091101) = 0.37
Prob > F = 0.5457
Centered R2 = -0.0521
Uncentered R2 = -0.0494
Root MSE = .05165

Total (centered) SS = 15446.03924
Total (uncentered) SS = 15485
Residual SS = 16250.04489

	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
represscount					
dissentcount	-.0581908	.0963039	-0.60	0.546	-.2469429 .1305613
_cons	.0027161	.0003102	8.75	0.000	.002108 .0033241

Underidentification test (Kleibergen-Paap rk LM statistic): 59.026
Chi-sq(2) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 33.427
(Kleibergen-Paap rk Wald F statistic): 29.437

Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93
15% maximal IV size 11.59
20% maximal IV size 8.75
25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.

NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 2.941
Chi-sq(1) P-val = 0.0864

Instrumented: dissentcount
Excluded instruments: lograin rainannualpct

(b) Second Stage

Figure 18: Effect of Dissent on Repression Base Model (No Urbanization)

First-stage regressions

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6082340
F(4,6082335) = 20.84
Prob > F = 0.0000
Centered R2 = 0.0000
Uncentered R2 = 0.0024
Root MSE = .06578

Total (centered) SS = 26322.02686
Total (uncentered) SS = 26385
Residual SS = 26321.66787

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
latent_democracy	.0000319	.0000537	0.60	0.552	-.0000732 .0001371
lograin	-.0001171	.0000289	-4.05	0.000	-.0001737 -.0000605
democracyrain	.0001828	.00004	4.57	0.000	.0001044 .0002612
rainannualpct	.0272278	.0041281	6.60	0.000	.019137 .0353187
_cons	.0031876	.0000343	92.99	0.000	.0031204 .0032548

Included instruments: latent_democracy lograin democracyrain rainannualpct

F test of excluded instruments:
F(3,6082335) = 27.67
Prob > F = 0.0000
Angrist-Pischke multivariate F test of excluded instruments:
F(2,6082335) = 15.25
Prob > F = 0.0000

(a) First Stage

First-stage regression of democracydissent:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6082340
F(4,6082335) = 1090.59
Prob > F = 0.0000
Centered R2 = 0.0012
Uncentered R2 = 0.0023
Root MSE = .03388

Total (centered) SS = 6989.810538
Total (uncentered) SS = 6997.615165
Residual SS = 6981.530633

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
democracydissent	.0026531	.000041	64.73	0.000	.0025728 .0027335
latent_democracy	.0001071	.0000103	10.43	0.000	.0000087 .0001273
lograin	.0000151	.0000294	0.51	0.608	-.0000425 .0000726
democracyrain	-.0122437	.0022445	-5.46	0.000	-.0156428 -.0078446
rainannualpct	-.0001782	.0000132	-13.53	0.000	-.000204 -.0001524
_cons					

Included instruments: latent_democracy lograin democracyrain rainannualpct

F test of excluded instruments:
F(3,6082335) = 37.77
Prob > F = 0.0000
Angrist-Pischke multivariate F test of excluded instruments:
F(2,6082335) = 22.64
Prob > F = 0.0000

(b) First Stage

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6082340
F(3,6082336) = 64.13
Prob > F = 0.0000
Centered R2 = -.00695
Uncentered R2 = -.00668
Root MSE = .05212

Total (centered) SS = 15445.9831
Total (uncentered) SS = 15485
Residual SS = 16519.51406

	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
represscount	.252795	.1484827	1.70	0.089	-.0382258 .5438157
dissentcount	.5846616	.3023953	1.93	0.053	-.0080223 1.177345
democracydissent	-.0009656	.0000892	-1.19	0.233	-.0025516 .0006204
latent_democracy	.0028393	.0004348	4.69	0.000	.0011871 .0028915
_cons					

Underidentification test (Kleibergen-Paap rk LM statistic): 15.500
Chi-sq(2) P-val = 0.0004

Weak identification test (Cragg-Donald Wald F statistic): 11.811
(Kleibergen-Paap rk Wald F statistic): 5.168
Stock-Yogo weak ID test critical values: 10% maximal IV size 13.43
15% maximal IV size 8.18
20% maximal IV size 6.40
25% maximal IV size 5.45

Source: Stock-Yogo (2005). Reproduced by permission.
NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 0.951
Chi-sq(1) P-val = 0.3296

Instrumented: dissentcount democracydissent
Included instruments: latent_democracy
Excluded instruments: lograin democracyrain rainannualpct

(c) Second Stage

Figure 19: Effect of Dissent on Repression Interactive Model (No Urbanization)

First-stage regressions

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 4828718
F(2,4828715) = 71.47
Prob > F = 0.0000
Centered R2 = 0.0000
Uncentered R2 = 0.0025
Root MSE = .06717

Total (centered) SS = 21785.05011
Total (uncentered) SS = 21838
Residual SS = 21784.24705

dissentcount	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
lograin	-.0003634	.0000312	-11.64	0.000	-.0004246	-.0003022
rainannualpct	.0372144	.0047409	7.85	0.000	.0279223	.0465065
_cons	.003284	.0000323	101.61	0.000	.0032206	.0033473

Included instruments: lograin rainannualpct

F test of excluded instruments:

F(2,4828715) = 71.47

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(2,4828715) = 71.47

Prob > F = 0.0000

(a) First Stage (Low Democracy)

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 4828718
F(1,4828716) = 0.13
Prob > F = 0.7201
Centered R2 = 0.0166
Uncentered R2 = 0.0192
Root MSE = .0504

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
dissentcount	.0204963	.0572035	0.36	0.720	-.0916204	.1326131
_cons	.0025078	.0001908	13.14	0.000	.0021338	.0028817

Underidentification test (Kleibergen-Paap rk LM statistic): 143.278
Chi-sq(2) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 89.003

(Kleibergen-Paap rk Wald F statistic): 71.470

Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93

15% maximal IV size 11.59

20% maximal IV size 8.75

25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.

NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 0.870

Chi-sq(1) P-val = 0.3508

Instrumented: dissentcount

Excluded instruments: lograin rainannualpct

(b) Second Stage (Low Democracy)

First-stage regressions

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 1262385
F(2,1262382) = 70.56
Prob > F = 0.0000
Centered R2 = 0.0001
Uncentered R2 = 0.0023
Root MSE = .05995

Total (centered) SS = 4536.841799
Total (uncentered) SS = 4547
Residual SS = 4536.438695

dissentcount	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
lograin	.000472	.0000398	11.87	0.000	.0003941	.00055
rainannualpct	-.0238721	.0065108	-3.67	0.000	-.0366331	-.0111111
_cons	.0028393	.0000557	51.01	0.000	.0027303	.0029484

Included instruments: lograin rainannualpct

F test of excluded instruments:

F(2,1262382) = 70.56

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(2,1262382) = 70.56

Prob > F = 0.0000

(c) First Stage (High Democracy)

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 1262385
F(1,1262383) = 12.81
Prob > F = 0.0003
Centered R2 = 0.0493
Uncentered R2 = 0.0515
Root MSE = .0473

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
dissentcount	.2461168	.0607594	3.58	0.000	.1113508	.3808028
_cons	.0016529	.0001974	8.37	0.000	.0012661	.0020398

Underidentification test (Kleibergen-Paap rk LM statistic): 141.021
Chi-sq(2) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 56.007

(Kleibergen-Paap rk Wald F statistic): 70.562

Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93

15% maximal IV size 11.59

20% maximal IV size 8.75

25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.

NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 0.092

Chi-sq(1) P-val = 0.7614

Instrumented: dissentcount

Excluded instruments: lograin rainannualpct

(d) Second Stage (High Democracy)

Figure 20: Effect of Dissent on Repression Split Model (No Urbanization)

First-stage regressions

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6083070
F(3,6083066) = 169.14
Prob > F = 0.0000
Centered R2 = 0.0000
Uncentered R2 = 0.0024
Root MSE = .06578

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
dissentcount					
urban_mean	-.0066174	.0003086	-21.44	0.000	-.0072222 -.0060126
lograin	-.0001659	.0000258	-6.42	0.000	-.0002165 -.0001153
rainannualpct	.0264302	.0041129	6.43	0.000	.0183691 .0344913
_cons	.0032588	.000029	112.22	0.000	.0032019 .0033158

Included instruments: urban_mean lograin rainannualpct

F test of excluded instruments:

F(2,6083066) = 28.09

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(2,6083066) = 28.09

Prob > F = 0.0000

(a) First Stage

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6083070
F(2,6083067) = 1100.84
Prob > F = 0.0000
Centered R2 = -0.0020
Uncentered R2 = -0.0792
Root MSE = .05241

	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
dissentcount	-.0060695	.1003523	-0.07	0.386	-.2836563 .1097173
urban_mean	-.0009906	.0006096	-13.04	0.000	-.0103423 -.0076389
_cons	.0029243	.000332	8.81	0.000	.0022735 .003575

Underidentification test (Kleibergen-Paap rk LM statistic): 56.316
Chi-sq(2) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 31.838

(Kleibergen-Paap rk Wald F statistic): 28.087

Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93

15% maximal IV size 11.59

20% maximal IV size 8.75

25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.

NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 3.488
Chi-sq(1) P-val = 0.0618

Instrumented: dissentcount

Included instruments: urban_mean

Excluded instruments: lograin rainannualpct

(b) Second Stage

Figure 21: Effect of Dissent on Repression Base Model (Polity)

First-stage regressions

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 1609746
F(4,1609741) = 63.36
Prob > F = 0.0000
Centered R2 = 0.0001
Uncentered R2 = 0.0020
Root MSE = .05358

dissentcount	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
p_polity2	-.0000902	6.30e-06	-14.31	0.000	-.0001025	-.0000778
urban_mean	-.0002081	.0005188	-0.40	0.688	-.001225	.0008088
lograin	-3.90e-06	.0000301	-0.13	0.897	-.0000629	.0000551
polityrain	.0000229	3.76e-06	6.11	0.000	.0000156	.0000303
_cons	.0020908	.0000445	47.02	0.000	.0020036	.0021779

Included instruments: p_polity2 urban_mean lograin polityrain

F test of excluded instruments:

F(2,1609741) = 19.25

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(1,1609741) = 17.31

Prob > F = 0.0000

First-stage regression of politydissent:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 1609746
F(4,1609741) = 264.04
Prob > F = 0.0000
Centered R2 = 0.0003
Uncentered R2 = 0.0019
Root MSE = .2537

politydiss~t	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
p_polity2	.0011524	.0000358	32.19	0.000	.0010822	.0012226
urban_mean	-.0060206	.0023538	-2.56	0.011	-.010634	-.0014073
lograin	.0004322	.0001153	3.75	0.000	.0002062	.0006582
polityrain	-.0000667	.0000223	-2.99	0.003	-.0001105	-.000023
_cons	-.0058936	.0001734	-33.99	0.000	-.0062334	-.0055538

Included instruments: p_polity2 urban_mean lograin polityrain

F test of excluded instruments:

F(2,1609741) = 7.89

Prob > F = 0.0004

Angrist-Pischke multivariate F test of excluded instruments:

F(1,1609741) = 13.75

Prob > F = 0.0002

(a) First Stage

(b) First Stage

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 1609746
F(4,1609741) = 34.08
Prob > F = 0.0000
Centered R2 = -6.1383
Uncentered R2 = -6.1124
Root MSE = .1612

represscount	Coef.	Robust		z	P> z	[95% Conf. Interval]	
		Std. Err.					
dissentcount	2.601252	1.100335	2.36	0.018	.4446354	4.757868	
politydissent	.9679271	.2190498	4.42	0.000	.5385974	1.397257	
p_polity2	-.0000803	.0001918	-4.21	0.000	-.0011842	-.0004324	
urban_mean	-.0069758	.0019878	-3.51	0.000	-.0108718	-.0030797	
_cons	.0042745	.0016289	2.62	0.009	.0010819	.0074671	

Underidentification test (Kleibergen-Paap rk LM statistic): 34.664
Chi-sq(1) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 6.150
(Kleibergen-Paap rk Wald F statistic): 17.358

Stock-Yogo weak ID test critical values: 10% maximal IV size 7.03
15% maximal IV size 4.58
20% maximal IV size 3.95
25% maximal IV size 3.63

Source: Stock-Yogo (2005). Reproduced by permission.
NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 0.000
(equation exactly identified)

Instrumented: dissentcount politydissent
Included instruments: p_polity2 urban_mean
Excluded instruments: lograin polityrain

(c) Second Stage

Figure 22: Effect of Dissent on Repression Interactive Model (Polity)

First-stage regressions

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 1542174
F(3,1542170) = 3.53
Prob > F = 0.0141
Centered R2 = 0.0000
Uncentered R2 = 0.0021
Root MSE = .05473

dissentcount	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
urban_mean	.0002706	.0005956	0.45	0.650	-.0008968 .0014379
lograin	-.0001343	.000043	-3.13	0.002	-.0002185 -.0000501
rainannualpct	.0133358	.0002077	1.62	0.104	-.0027511 .0294227
_cons	.0024801	.0000485	51.18	0.000	.0023851 .0025751

Included instruments: urban_mean lograin rainannualpct

F test of excluded instruments:

F(2,1542170) = 4.89

Prob > F = 0.0075

Angrist-Pischke multivariate F test of excluded instruments:

F(2,1542170) = 4.89

Prob > F = 0.0075

(a) First Stage (Low Democracy)

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 4540896
F(2,4540893) = 700.01
Prob > F = 0.0000
Centered R2 = -0.0323
Uncentered R2 = -0.0302
Root MSE = .04669

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
dissentcount	.4617854	.0946744	4.88	0.000	.276227 .6473439
urban_mean	-.0027318	.0008442	-3.24	0.001	-.0043865 -.0010771
_cons	.0005378	.0003368	1.60	0.110	-.0001224 .0011979

Underidentification test (Kleibergen-Paap rk LM statistic): 49.345
Chi-sq(2) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 26.544

(Kleibergen-Paap rk Wald F statistic): 24.558

Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93

15% maximal IV size 11.59

20% maximal IV size 8.75

25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.

NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 9.853

Chi-sq(1) P-val = 0.0017

Instrumented: dissentcount

Included instruments: urban_mean

Excluded instruments: lograin rainannualpct

(b) Second Stage (Low Democracy)

First-stage regressions

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 4540896
F(3,4540892) = 211.33
Prob > F = 0.0000
Centered R2 = 0.0001
Uncentered R2 = 0.0026
Root MSE = .06913

dissentcount	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
urban_mean	-.0007312	.0003598	-24.27	0.000	-.00094363 -.0000261
lograin	-.0001734	.0000312	-5.55	0.000	-.0002347 -.0001122
rainannualpct	.0391575	.0047476	6.35	0.000	.0200523 .0394627
_cons	.0035193	.0000352	99.97	0.000	.0034503 .0035883

Included instruments: urban_mean lograin rainannualpct

F test of excluded instruments:

F(2,4540892) = 24.56

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(2,4540892) = 24.56

Prob > F = 0.0000

(c) First Stage (High Democracy)

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 1542174
F(2,1542171) = 24.22
Prob > F = 0.0000
Centered R2 = -11.4225
Uncentered R2 = -11.3755
Root MSE = .2172

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
dissentcount	-3.500095	1.325293	-2.64	0.008	-6.097622 -.9025679
urban_mean	-.0130755	.0023888	-5.47	0.000	-.0177574 -.0083936
_cons	.0127002	.0032997	3.85	0.000	.0062329 .0191676

Underidentification test (Kleibergen-Paap rk LM statistic): 9.778
Chi-sq(2) P-val = 0.0075

Weak identification test (Cragg-Donald Wald F statistic): 5.556

(Kleibergen-Paap rk Wald F statistic): 4.890

Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93

15% maximal IV size 11.59

20% maximal IV size 8.75

25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.

NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 0.505

Chi-sq(1) P-val = 0.4773

Instrumented: dissentcount

Included instruments: urban_mean

Excluded instruments: lograin rainannualpct

(d) Second Stage (High Democracy)

Figure 23: Effect of Dissent on Repression Split Model (Polity)

First-stage regressions

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 5487516
F(5,5487510) = 114.09
Prob > F = 0.0000
Centered R2 = 0.0001
Uncentered R2 = 0.0026
Root MSE = .06824

Total (centered) SS = 25551.59463
Total (uncentered) SS = 25617
Residual SS = 25550.14605

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
speech	.0003023	.0000552	5.48	0.000	.0001941 .0004104
urban_mean	-.0071859	.0003288	-21.86	0.000	-.0078303 -.0065415
lograin	-.0003037	.0000401	-7.57	0.000	-.0003823 -.000225
speechrain	.0001668	.0000451	3.70	0.000	.0000784 .0002553
rainannualpct	.0327267	.0048033	6.81	0.000	.0233124 .042141
_cons	.0032875	.0000472	69.60	0.000	.003195 .0033801

Included instruments: speech urban_mean lograin speechrain rainannualpct

F test of excluded instruments:

F(3,5487510) = 26.40

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(2,5487510) = 7.97

Prob > F = 0.0003

(a) First Stage

First-stage regression of speechdissent:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 5487516
F(5,5487510) = 644.80
Prob > F = 0.0000
Centered R2 = 0.0014
Uncentered R2 = 0.0028
Root MSE = .06449

Total (centered) SS = 22852.84737
Total (uncentered) SS = 22885
Residual SS = 22820.65056

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
speech	.0041464	.0000734	56.50	0.000	.0040025 .0042902
urban_mean	-.0056607	.0002996	-18.89	0.000	-.0062479 -.0050735
lograin	-.000213	.0000296	-7.19	0.000	-.0002711 -.000155
speechrain	.0002076	.0000608	3.41	0.001	.0000084 .0003267
rainannualpct	.0192838	.0036653	5.26	0.000	.0121 .0264677
_cons	-.0003271	.0000313	-10.44	0.000	-.0003885 -.0002656

Included instruments: speech urban_mean lograin speechrain rainannualpct

F test of excluded instruments:

F(3,5487510) = 21.98

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(2,5487510) = 1.73

Prob > F = 0.1767

(b) First Stage

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 5487516
F(4,5487511) = 365.92
Prob > F = 0.0000
Centered R2 = -1.6939
Uncentered R2 = -1.6866
Root MSE = .08577

Total (centered) SS = 14984.29797
Total (uncentered) SS = 15025
Residual SS = 40366.31209

	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
represscount					
dissentcount	-.784626	.3983402	-1.97	0.049	-1.565358 -.0038936
speechdissent	1.587131	.6717611	2.36	0.018	.2705038 2.903759
speech	-.0032535	.0026769	-1.22	0.224	-.0085001 .0019931
urban_mean	-.005814	.0014701	-3.95	0.000	-.0086954 -.0029326
_cons	.003847	.0015106	2.53	0.011	.0008706 .0068234

Underidentification test (Kleibergen-Paap rk LM statistic): 8.494
Chi-sq(2) P-val = 0.0143

Weak identification test (Cragg-Donald Wald F statistic): 9.062
(Kleibergen-Paap rk Wald F statistic): 2.832
Stock-Yogo weak ID test critical values: 10% maximal IV size 13.43
15% maximal IV size 10.18
20% maximal IV size 6.40
25% maximal IV size 5.45

Source: Stock-Yogo (2005). Reproduced by permission.
NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 0.765
Chi-sq(1) P-val = 0.3817

Instrumented: dissentcount speechdissent
Included instruments: speech urban_mean
Excluded instruments: lograin speechrain rainannualpct

(c) Second Stage

Figure 24: Effect of Dissent on Repression Interactive Model (CIRI)

First-stage regressions

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 2104806
F(3,2104802) = 84.25
Prob > F = 0.0000
Centered R2 = 0.0001
Uncentered R2 = 0.0026
Root MSE = .06767

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
dissentcount					
urban_mean	-.0083842	.0005648	-14.84	0.000	-.0094912 -.0072771
lograin	-.0002297	.0000446	-5.16	0.000	-.0003171 -.0001424
rainannualpct	.0353111	.0082146	4.30	0.000	.0192108 .0514114
_cons	.0034882	.0000518	67.35	0.000	.0033867 .0035897

Included instruments: urban_mean lograin rainannualpct

F test of excluded instruments:
F(2,2104802) = 15.45
Prob > F = 0.0000
Angrist-Pischke multivariate F test of excluded instruments:
F(2,2104802) = 15.45
Prob > F = 0.0000

(a) First Stage (Low Democracy)

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 2104806
F(2,2104803) = 922.12
Prob > F = 0.0000
Centered R2 = -0.1003
Uncentered R2 = -0.0979
Root MSE = .04891

	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
dissentcount	-.0778261	.128438	-0.60	0.552	-.33072 .1766077
urban_mean	-.0056068	.0011227	-0.56	0.000	-.0118072 -.0074065
_cons	.0025527	.000461	5.54	0.000	.0016491 .0034562

Underidentification test (Kleibergen-Paap rk LM statistic): 30.963
Chi-sq(2) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 19.689
(Kleibergen-Paap rk Wald F statistic): 15.452
Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93
15% maximal IV size 11.59
20% maximal IV size 8.75
25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.
NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 3.417
Chi-sq(1) P-val = 0.0645

Instrumented: dissentcount
Included instruments: urban_mean
Excluded instruments: lograin rainannualpct

(b) Second Stage (Low Democracy)

First-stage regressions

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 3085735
F(3,3085731) = 62.96
Prob > F = 0.0000
Centered R2 = 0.0000
Uncentered R2 = 0.0025
Root MSE = .06641

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
dissentcount					
urban_mean	-.0056908	.0004538	-12.54	0.000	-.0065803 -.0048013
lograin	-.0002251	.0000378	-5.95	0.000	-.0002993 -.000151
rainannualpct	.0303569	.0060026	5.06	0.000	.0185921 .0421218
_cons	.0033181	.0000413	80.33	0.000	.0032371 .003399

Included instruments: urban_mean lograin rainannualpct

F test of excluded instruments:
F(2,3085731) = 20.56
Prob > F = 0.0000
Angrist-Pischke multivariate F test of excluded instruments:
F(2,3085731) = 20.56
Prob > F = 0.0000

(c) First Stage (High Democracy)

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 3085735
F(2,3085732) = 120.33
Prob > F = 0.0000
Centered R2 = 0.1066
Uncentered R2 = 0.1081
Root MSE = .03862

	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
dissentcount	-.3153261	.0918996	-3.43	0.001	-.495446
urban_mean	-.0014015	.0005536	-2.53	0.011	-.0024866 -.0003165
_cons	.0006454	.0003066	2.10	0.035	.0000444 .0012464

Underidentification test (Kleibergen-Paap rk LM statistic): 41.284
Chi-sq(2) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 24.365
(Kleibergen-Paap rk Wald F statistic): 20.558
Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93
15% maximal IV size 11.59
20% maximal IV size 8.75
25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.
NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 0.056
Chi-sq(1) P-val = 0.8130

Instrumented: dissentcount
Included instruments: urban_mean
Excluded instruments: lograin rainannualpct

(d) Second Stage (High Democracy)

First-stage regressions

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 296975
F(3,296971) = 100.92
Prob > F = 0.0000
Centered R2 = 0.0002
Uncentered R2 = 0.0039
Root MSE = .08804

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
dissentcount					
urban_mean	-.0133611	.0007734	-17.28	0.000	-.014877 -.0118453
lograin	.0000585	.0001282	5.14	0.000	.00004072 .00009096
rainannualpct	.0108854	.0199073	0.55	0.585	-.0281323 .0499031
_cons	.005438	.0001721	31.60	0.000	.0051006 .0057753

Included instruments: urban_mean lograin rainannualpct

F test of excluded instruments:
F(2,296971) = 15.53
Prob > F = 0.0000
Angrist-Pischke multivariate F test of excluded instruments:
F(2,296971) = 15.53
Prob > F = 0.0000

(e) First Stage (High Democracy)

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 296975
F(2,296972) = 333.68
Prob > F = 0.0000
Centered R2 = -2.6813
Uncentered R2 = -2.6163
Root MSE = .2535

	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
dissentcount	2.614588	.5184826	5.04	0.000	1.598381 3.630795
urban_mean	-.0172821	.0067679	-2.55	0.011	-.030547 -.0040172
_cons	.0040523	.0028182	1.44	0.150	-.0014712 .0095758

Underidentification test (Kleibergen-Paap rk LM statistic): 31.053
Chi-sq(2) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 16.597
(Kleibergen-Paap rk Wald F statistic): 15.535
Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93
15% maximal IV size 11.59
20% maximal IV size 8.75
25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.
NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 26.365
Chi-sq(1) P-val = 0.0000

Instrumented: dissentcount
Included instruments: urban_mean
Excluded instruments: lograin rainannualpct

(f) Second Stage (High Democracy)

First-stage regressions

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Total (centered) SS	=	25634.59325	Number of obs =	5913538
Total (uncentered) SS	=	25696	F(3,5913534) =	175.88
Residual SS	=	25633.4837	Prob > F =	0.0000
			Centered R2 =	0.0000
			Uncentered R2 =	0.0024
			Root MSE =	.06584

dissentcount	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
urban_mean	-.0068064	.0003146	-21.63	0.000	-.0074231	-.0061898
lograin	-.0001979	.0000266	-7.43	0.000	-.0002501	-.0001456
rainannualpct	.0294517	.0041932	7.02	0.000	.0212333	.0376701
_cons	.0032638	.0000295	110.70	0.000	.003206	.0033216

Included instruments: urban_mean lograin rainannualpct

F test of excluded instruments:
F(2,5913534) = 35.55
Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:
F(2,5913534) = 35.55
Prob > F = 0.0000

(a) First Stage (Low Democracy)

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Total (centered) SS	=	15337.43008	Number of obs =	5913538
Total (uncentered) SS	=	15377	F(2,5913535) =	1237.99
Residual SS	=	15840.28416	Prob > F =	0.0000
			Centered R2 =	-0.0328
			Uncentered R2 =	-0.0301
			Root MSE =	.05176

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
dissentcount	-.0389456	.0068135	-0.45	0.654	-.2090969 .1312058
urban_mean	-.0091195	.0006189	-14.73	0.000	-.0103326 -.0079065
_cons	.0028244	.000288	9.81	0.000	.0022599 .0033888

Underidentification test (Kleibergen-Paap rk LM statistic): 71.302
Chi-sq(2) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 41.185
(Kleibergen-Paap rk Wald F statistic): 35.552

Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93
15% maximal IV size 11.59
20% maximal IV size 8.75
25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.
NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 2.882
Chi-sq(1) P-val = 0.0896

Instrumented: dissentcount
Included instruments: urban_mean
Excluded instruments: lograin rainannualpct

(b) Second Stage (Low Democracy)

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Total (centered) SS	=	687.4355461	Number of obs =	169532
Total (uncentered) SS	=	689	F(3,169528) =	29.09
Residual SS	=	687.2854	Prob > F =	0.0000
			Centered R2 =	0.0002
			Uncentered R2 =	0.0025
			Root MSE =	.06367

dissentcount	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
urban_mean	-.0041341	.0014224	-2.91	0.004	-.0069221	-.0013462
lograin	.000697	.0000852	8.18	0.000	.00053	.000864
rainannualpct	-.0073891	.0150238	-6.48	0.000	-.1267554	-.0678627
_cons	.0033421	.0001774	18.84	0.000	.0029944	.0036898

Included instruments: urban_mean lograin rainannualpct

F test of excluded instruments:
F(2,169528) = 42.76
Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:
F(2,169528) = 42.76
Prob > F = 0.0000

(c) First Stage (High Democracy)

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Total (centered) SS	=	107.9311988	Number of obs =	169532
Total (uncentered) SS	=	108	F(2,169529) =	20.37
Residual SS	=	67.49904313	Prob > F =	0.0000
			Centered R2 =	0.3746
			Uncentered R2 =	0.3750
			Root MSE =	.01995

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
dissentcount	.2081133	.0328384	6.34	0.000	.1437512 .2724754
urban_mean	.0001804	.0005178	0.35	0.728	-.0008345 .0011953
_cons	1.56e-06	.0000911	0.02	0.986	-.000177 .0001801

Underidentification test (Kleibergen-Paap rk LM statistic): 89.030
Chi-sq(2) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 16.517
(Kleibergen-Paap rk Wald F statistic): 42.758

Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93
15% maximal IV size 11.59
20% maximal IV size 8.75
25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.
NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 3.439
Chi-sq(1) P-val = 0.0637

Instrumented: dissentcount
Included instruments: urban_mean
Excluded instruments: lograin rainannualpct

(d) Second Stage (High Democracy)

Figure 26: Effect of Dissent on Repression Split Model (Latent Democracy)

First-stage regressions

First-stage regression of dissentcount:

FIXED EFFECTS ESTIMATION

Number of groups = 1063 Obs per group: min = 365
 avg = 5722.5
 max = 8401

OLS estimation

Estimates efficient for homoskedasticity only
 Statistics robust to heteroskedasticity

Number of obs = 6083070
 F(3,6082004) = 15.14
 Prob > F = 0.0000
 Centered R2 = 0.0000
 Uncentered R2 = 0.0000
 Root MSE = .06374

dissentcount	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
urban_mean	-.0059858	.0011374	-5.26	0.000	-.0082151 -.0037565
lograin	.0000522	.0000254	2.05	0.040	2.34e-06 .0001021
rainannualpct	.0095983	.0040053	2.40	0.017	.0017481 .0174486

Included instruments: urban_mean lograin rainannualpct

F test of excluded instruments:

F(2,6082004) = 9.37

Prob > F = 0.0001

Angrist-Pischke multivariate F test of excluded instruments:

F(2,6082004) = 9.37

Prob > F = 0.0001

(a) First Stage

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
 Statistics robust to heteroskedasticity

Number of obs = 6083070
 F(2,6082005) = 28.86
 Prob > F = 0.0000
 Centered R2 = 0.0502
 Uncentered R2 = 0.0502
 Root MSE = .04647

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
dissentcount	.4101762	.1572388	2.61	0.009	.1019938 .7183587
urban_mean	-.0008239	.0010446	-0.79	0.430	-.0028713 .0012234

Underidentification test (Kleibergen-Paap rk LM statistic): 18.748
 Chi-sq(2) P-val = 0.0001

Weak identification test (Cragg-Donald Wald F statistic): 10.885
 (Kleibergen-Paap rk Wald F statistic): 9.375

Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93
 15% maximal IV size 11.59
 20% maximal IV size 8.75
 25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.

NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 4.846
 Chi-sq(1) P-val = 0.0277

Instrumented: dissentcount

Included instruments: urban_mean

Excluded instruments: lograin rainannualpct

(b) Second Stage

Figure 27: Effect of Dissent on Repression Base Model (Fixed Effects)

First-stage regressions

First-stage regression of dissentcount:

FIXED EFFECTS ESTIMATION

Number of groups = 1063

Obs per group: min = 365
avg = 5714.6
max = 8401

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6074672
F(5,6073604) = 11.52
Prob > F = 0.0000
Centered R2 = 0.0000
Uncentered R2 = 0.0000
Root MSE = .06378

dissentcount	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
latent_democracy	-.0000796	.0001143	-0.70	0.487	-.0003037 .0001446
urban_mean	-.0059889	.0011377	-5.26	0.000	-.0082107 -.003751
lograin	.0000886	.0000277	3.19	0.001	.0000342 .000143
democracyrain	.0001225	.0000403	3.04	0.002	.0000436 .0002014
rainannualpct	.0098386	.0040237	2.45	0.014	.0019522 .017725

Included instruments: latent_democracy urban_mean lograin democracyrain rainannualpct

F test of excluded instruments:

F(3,6073604) = 9.81

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(2,6073604) = 4.49

Prob > F = 0.0112

(a) First Stage

First-stage regression of democracydissent:

FIXED EFFECTS ESTIMATION

Number of groups = 1063

Obs per group: min = 365
avg = 5714.6
max = 8401

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6074672
F(5,6073604) = 476.08
Prob > F = 0.0000
Centered R2 = 0.0009
Uncentered R2 = 0.0009
Root MSE = .0335

democracydissent	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
latent_democracy	.0040015	.0000838	47.77	0.000	.0038373 .0041657
urban_mean	.0019897	.0005364	3.71	0.000	.0009384 .003041
lograin	-8.16e-06	.000011	-0.74	0.457	-.0000297 .0000134
democracyrain	-3.44e-06	.00003	-0.11	0.909	-.0000623 .0000554
rainannualpct	-.003777	.0022345	-1.69	0.091	-.0081566 .0006026

Included instruments: latent_democracy urban_mean lograin democracyrain rainannualpct

F test of excluded instruments:

F(3,6073604) = 2.71

Prob > F = 0.0433

Angrist-Pischke multivariate F test of excluded instruments:

F(2,6073604) = 0.59

Prob > F = 0.5543

(b) First Stage

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6074672
F(4,6073605) = 4.60
Prob > F = 0.0010
Centered R2 = -0.9144
Uncentered R2 = -0.9144
Root MSE = .06602

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
dissentcount	.8768002	.4722165	1.86	0.063	-.0487272 1.802328
democracydissent	1.8817	1.733241	1.09	0.278	-1.51539 5.278791
latent_democracy	-.0077187	.0069152	-1.12	0.264	-.0212723 .0058348
urban_mean	-.0017298	.0018643	-0.93	0.353	-.0053838 .0019241

Underidentification test (Kleibergen-Paap rk LM statistic): 1.757
Chi-sq(2) P-val = 0.4154

Weak identification test (Cragg-Donald Wald F statistic): 0.858
(Kleibergen-Paap rk Wald F statistic): 0.586

Stock-Yogo weak ID test critical values: 10% maximal IV size 13.43
15% maximal IV size 8.18
20% maximal IV size 6.40
25% maximal IV size 5.45

Source: Stock-Yogo (2005). Reproduced by permission.
NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 1.147
Chi-sq(1) P-val = 0.2842

Instrumented: dissentcount democracydissent
Included instruments: latent_democracy urban_mean
Excluded instruments: lograin democracyrain rainannualpct

(c) Second Stage

Figure 28: Effect of Dissent on Repression Interactive Model (Fixed Effects)

First-stage regressions

First-stage regression of dissentcount:

FIXED EFFECTS ESTIMATION

Number of groups = 994 Obs per group: min = 365
 avg = 4853.5
 max = 8401

OLS estimation

Estimates efficient for homoskedasticity only
 Statistics robust to heteroskedasticity

Number of obs = 4824337
 F(3,4823340) = 12.60
 Prob > F = 0.0000
 Centered R2 = 0.0000
 Uncentered R2 = 0.0000
 Root MSE = 0.06484

dissentcount	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
urban_mean	-.0075379	.0013944	-5.41	0.000	-.010271	-.0048049
lograin	.0000472	.0000304	1.55	0.121	-.0000125	.0001068
rainannulpct	.007811	.0045901	1.70	0.089	-.0011855	.0168074

Included instruments: urban_mean lograin rainannulpct

F test of excluded instruments:
 F(2,4823340) = 4.94
 Prob > F = 0.0071
 Angrist-Pischke multivariate F test of excluded instruments:
 F(2,4823340) = 4.94
 Prob > F = 0.0071

(a) First Stage (Low Democracy)

First-stage regressions

First-stage regression of dissentcount:

FIXED EFFECTS ESTIMATION

Number of groups = 388 Obs per group: min = 365
 avg = 3244.2
 max = 8401

OLS estimation

Estimates efficient for homoskedasticity only
 Statistics robust to heteroskedasticity

Number of obs = 1258733
 F(3,1258342) = 7.90
 Prob > F = 0.0000
 Centered R2 = 0.0000
 Uncentered R2 = 0.0000
 Root MSE = 0.05782

dissentcount	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
urban_mean	-.0068409	.0028453	-2.40	0.016	-.0124176	-.0012641
lograin	.0000324	.0000406	0.80	0.424	-.0000472	.0001121
rainannulpct	.0217194	.0061928	3.51	0.000	.0095817	.0338572

Included instruments: urban_mean lograin rainannulpct

F test of excluded instruments:
 F(2,1258342) = 8.63
 Prob > F = 0.0002
 Angrist-Pischke multivariate F test of excluded instruments:
 F(2,1258342) = 8.63
 Prob > F = 0.0002

(c) First Stage (High Democracy)

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
 Statistics robust to heteroskedasticity

Number of obs = 4824337
 F(2,4823341) = 40.10
 Prob > F = 0.0000
 Centered R2 = 0.0065
 Uncentered R2 = 0.0065
 Root MSE = 0.0453

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
dissentcount	.3833373	.2065925	1.86	0.064	-.0215765	.7882512
urban_mean	-.0018002	.0016375	-1.10	0.272	-.0050097	.0014893

Underidentification test (Kleibergen-Paap rk LM statistic): 9.888
 Chi-sq(2) P-val = 0.0071

Weak identification test (Cragg-Donald Wald F statistic): 6.005
 (Kleibergen-Paap rk Wald F statistic): 4.944
 Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93
 15% maximal IV size 11.59
 20% maximal IV size 8.75
 25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.
 NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 1.214
 Chi-sq(1) P-val = 0.2706

Instrumented: dissentcount
 Included instruments: urban_mean
 Excluded instruments: lograin rainannulpct

(b) Second Stage (Low Democracy)

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
 Statistics robust to heteroskedasticity

Number of obs = 1258733
 F(2,1258343) = 1.13
 Prob > F = 0.3222
 Centered R2 = 0.0298
 Uncentered R2 = 0.0298
 Root MSE = 0.04513

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
dissentcount	.2959503	.1974193	1.50	0.134	-.0909844	.6828849
urban_mean	.0019099	.0016849	1.13	0.257	-.0013925	.0052123

Underidentification test (Kleibergen-Paap rk LM statistic): 17.295
 Chi-sq(2) P-val = 0.0002

Weak identification test (Cragg-Donald Wald F statistic): 6.477
 (Kleibergen-Paap rk Wald F statistic): 8.635
 Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93
 15% maximal IV size 11.59
 20% maximal IV size 8.75
 25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.
 NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 8.568
 Chi-sq(1) P-val = 0.0034

Instrumented: dissentcount
 Included instruments: urban_mean
 Excluded instruments: lograin rainannulpct

(d) Second Stage (High Democracy)

Figure 29: Effect of Dissent on Repression Split Model (Fixed Effects)

First-stage regressions

First-stage regression of violentdissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6083070
F(3,6083066) = 61.30
Prob > F = 0.0000
Centered R2 = 0.0000
Uncentered R2 = 0.0010
Root MSE = .03408

violentdiss~t	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
urban_mean	-.0023089	.0001846	-12.51	0.000	-.0026707 -.0019472
lograin	-.0000469	.0000142	-3.29	0.001	-.0000748 -.000019
rainannualpct	.0115375	.0021462	5.39	0.000	.0073427 .0157322
_cons	.0010909	.000015	72.80	0.000	.0010615 .0011203

Included instruments: urban_mean lograin rainannualpct

F test of excluded instruments:

F(2,6083066) = 14.88

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(2,6083066) = 14.88

Prob > F = 0.0000

(a) First Stage

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6083070
F(2,6083067) = 1258.38
Prob > F = 0.0000
Centered R2 = -0.0200
Uncentered R2 = -0.0174
Root MSE = .05089

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
violentdissentco~t	-.0447039	.256009	-0.17	0.862	-.5476483 .4582406
urban_mean	-.0085143	.000617	-13.80	0.000	-.0097236 -.007305
_cons	.002687	.0002866	9.37	0.000	.0021252 .0032488

Underidentification test (Kleibergen-Paap rk LM statistic): 29.813
Chi-sq(2) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 17.270

(Kleibergen-Paap rk Wald F statistic): 14.875

Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93

15% maximal IV size 11.59

20% maximal IV size 8.75

25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.

NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 4.580

Chi-sq(1) P-val = 0.0324

Instrumented: violentdissentcount

Included instruments: urban_mean

Excluded instruments: lograin rainannualpct

(b) Second Stage

Figure 30: Effect of Dissent on Repression Base Model (Violent Dissent)

First-stage regressions

First-stage regression of violentdissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6074672
F(5,6074666) = 37.07
Prob > F = 0.0000
Centered R2 = 0.0000
Uncentered R2 = 0.0010
Root MSE = .0341

Total (centered) SS = 7065.831415
Total (uncentered) SS = 7073
Residual SS = 7065.69756

violentdissent~t	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
latent_democracy	-9.42e-06	.0000247	-0.38	0.703	-.0000578 .000039
urban_mean	-.0023093	.0001845	-12.52	0.000	-.0026709 -.0019477
lograin	-.0000526	.0000149	-3.54	0.000	-.0000817 -.0000234
democracyrain	-.0000182	.000019	-0.96	0.339	-.0000555 .0000191
rainannulpct	.0115774	.0021501	5.38	0.000	.0073633 .0157914
_cons	.001089	.0000173	63.09	0.000	.0010552 .0011228

Included instruments: latent_democracy urban_mean lograin democracyrain rainannulpct

F test of excluded instruments:
F(3,6074666) = 10.26
Prob > F = 0.0000
Angrist-Pischke multivariate F test of excluded instruments:
F(2,6074666) = 2.91
Prob > F = 0.0542

(a) First Stage

First-stage regression of democracyviolentdissent:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6074672
F(5,6074666) = 276.62
Prob > F = 0.0000
Centered R2 = 0.0003
Uncentered R2 = 0.0009
Root MSE = .01692

Total (centered) SS = 1740.006501
Total (uncentered) SS = 1740.926034
Residual SS = 1739.410113

democracyviole~t	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
latent_democracy	.0006967	.0000197	35.35	0.000	.000658 .0007353
urban_mean	.0010232	.000072	14.22	0.000	.0008822 .0011642
lograin	.0000216	5.25e-06	4.11	0.000	.0000113 .0000319
democracyrain	.000026	.0000148	1.76	0.079	-2.98e-06 .000055
rainannulpct	-.0041005	.0010876	-3.77	0.000	-.0062322 -.0019688
_cons	-.0001462	6.14e-06	-23.80	0.000	-.0001583 -.0001342

Included instruments: latent_democracy urban_mean lograin democracyrain rainannulpct

F test of excluded instruments:
F(3,6074666) = 7.30
Prob > F = 0.0001
Angrist-Pischke multivariate F test of excluded instruments:
F(2,6074666) = 0.94
Prob > F = 0.3911

(b) First Stage

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6074672
F(4,6074667) = 610.13
Prob > F = 0.0000
Centered R2 = -0.0880
Uncentered R2 = -0.0852
Root MSE = .0526

Total (centered) SS = 15445.93385
Total (uncentered) SS = 15485
Residual SS = 16804.599

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
violentdissentco~t	.3321749	.6927944	0.48	0.632	-1.025677 1.690027
democracyviolent~t	1.040068	1.719281	0.61	0.545	-2.320861 4.410597
latent_democracy	-.0000943	.0011956	-0.08	0.937	-.0024376 .0022491
urban_mean	-.0088685	.0006943	-12.77	0.000	-.0102292 -.0075077
_cons	.0026572	.0005348	4.97	0.000	.001609 .0037055

Underidentification test (Kleibergen-Paap rk LM statistic): 3.082
Chi-sq(2) P-val = 0.2142

Weak identification test (Cragg-Donald Wald F statistic): 2.046
(Kleibergen-Paap rk Wald F statistic): 1.027
Stock-Yogo weak ID test critical values: 10% maximal IV size 13.43
15% maximal IV size 8.18
20% maximal IV size 6.40
25% maximal IV size 5.45

Source: Stock-Yogo (2005). Reproduced by permission.
NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 5.224
Chi-sq(1) P-val = 0.0223

Instrumented: violentdissentcount democracyviolentdissent
Included instruments: latent_democracy urban_mean
Excluded instruments: lograin democracyrain rainannulpct

(c) Second Stage

Figure 31: Effect of Dissent on Repression Interactive Model (Violent Dissent)

First-stage regressions

First-stage regression of violentdissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 4824337
F(3,4824333) = 185.05
Prob > F = 0.0000
Centered R2 = 0.0000
Uncentered R2 = 0.0011
Root MSE = .03593

Total (centered) SS = 6229.103752
Total (uncentered) SS = 6236
Residual SS = 6228.861669

violentdiss~t	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
urban_mean	-.0035917	.0001584	-22.67	0.000	-.0039022 -.0032811
lograin	-.0001058	.0000178	-5.93	0.000	-.0001407 -.0000708
rainannualpct	.0166753	.0024919	6.69	0.000	.0117912 .0215594
_cons	.0012144	.0000178	68.39	0.000	.0011796 .0012493

Included instruments: urban_mean lograin rainannualpct

F test of excluded instruments:

F(2,4824333) = 27.53

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(2,4824333) = 27.53

Prob > F = 0.0000

(a) First Stage (Low Democracy)

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 4824337
F(2,4824334) = 947.06
Prob > F = 0.0000
Centered R2 = 0.0352
Uncentered R2 = 0.0377
Root MSE = .04995

Total (centered) SS = 12474.93778
Total (uncentered) SS = 12507
Residual SS = 12035.96748

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
violentdissentco~t	.0044794	.1694835	0.50	0.618	-.2477022 .4166609
urban_mean	-.0085982	.0006405	-13.42	0.000	-.0098537 -.0073428
_cons	.0025795	.0002112	12.22	0.000	.0021657 .0029934

Underidentification test (Kleibergen-Paap rk LM statistic):
Chi-sq(2) P-val = 55.249
0.0000

Weak identification test (Cragg-Donald Wald F statistic):
(Kleibergen-Paap rk Wald F statistic): 35.059
27.534

Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93
15% maximal IV size 11.59
20% maximal IV size 8.75
25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.
NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments):
Chi-sq(1) P-val = 0.769
0.3805

Instrumented: violentdissentcount

Included instruments: urban_mean

Excluded instruments: lograin rainannualpct

(b) Second Stage (Low Democracy)

First-stage regressions

First-stage regression of violentdissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 1258733
F(3,1258729) = 27.44
Prob > F = 0.0000
Centered R2 = 0.0000
Uncentered R2 = 0.0007
Root MSE = .02578

Total (centered) SS = 836.4513841
Total (uncentered) SS = 837
Residual SS = 836.4163772

violentdiss~t	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
urban_mean	.0005688	.0004653	1.22	0.222	-.0003432 .0014809
lograin	.0001412	.0000159	8.90	0.000	.0001101 .0001723
rainannualpct	-.0122424	.002862	-4.28	0.000	-.0178518 -.006633
_cons	.0006668	.0000252	26.42	0.000	.0006173 .0007162

Included instruments: urban_mean lograin rainannualpct

F test of excluded instruments:

F(2,1258729) = 40.12

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(2,1258729) = 40.12

Prob > F = 0.0000

(c) First Stage (High Democracy)

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 1258733
F(2,1258730) = 161.74
Prob > F = 0.0000
Centered R2 = 0.0297
Uncentered R2 = 0.0320
Root MSE = .04786

Total (centered) SS = 2971.001674
Total (uncentered) SS = 2978
Residual SS = 2882.702862

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
violentdissentco~t	.9700631	.2374328	4.09	0.000	.5047035	1.435423
urban_mean	-.007908	.0004426	-17.87	0.000	-.0087755	-.0070404
_cons	.0018321	.0001595	11.48	0.000	.0015195	.0021448

Underidentification test (Kleibergen-Paap rk LM statistic):
Chi-sq(2) P-val = 80.238
0.0000

Weak identification test (Cragg-Donald Wald F statistic):
(Kleibergen-Paap rk Wald F statistic): 24.577
40.119

Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93
15% maximal IV size 11.59
20% maximal IV size 8.75
25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.
NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments):
Chi-sq(1) P-val = 0.256
0.6130

Instrumented: violentdissentcount

Included instruments: urban_mean

Excluded instruments: lograin rainannualpct

(d) Second Stage (High Democracy)

Figure 32: Effect of Dissent on Repression Split Model (Violent Dissent)

First-stage regressions

First-stage regression of nonviolentdissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6083070
F(3,6083066) = 143.85
Prob > F = 0.0000
Centered R2 = 0.0000
Uncentered R2 = 0.0019
Root MSE = .04988

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
nonviolentd~t					
urban_mean	-.0043085	.0002191	-19.67	0.000	-.0047379 -.0038791
lograin	-.000119	.0000178	-6.70	0.000	-.0001538 -.0000642
rainannualpct	.0148928	.0029978	4.97	0.000	.0090171 .0207684
_cons	.002168	.000022	98.48	0.000	.0021248 .0022111

Included instruments: urban_mean lograin rainannualpct

F test of excluded instruments:
F(2,6083066) = 24.86
Prob > F = 0.0000
Angrist-Pischke multivariate F test of excluded instruments:
F(2,6083066) = 24.86
Prob > F = 0.0000

(a) First Stage

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6083070
F(2,6083067) = 1034.42
Prob > F = 0.0000
Centered R2 = -.01035
Uncentered R2 = -.01007
Root MSE = .05293

	represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
nonviolentdissen~t						
urban_mean		-.1878845	.153864	-1.23	0.220	-.4878844 .1121153
_cons		-.0092272	.0006663	-13.45	0.000	-.0105722 -.0078821
		.0030481	.0003355	9.08	0.000	.0023905 .0037057

Underidentification test (Kleibergen-Paap rk LM statistic): 49.792
Chi-sq(2) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 23.710
(Kleibergen-Paap rk Wald F statistic): 24.864
Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93
15% maximal IV size 11.59
20% maximal IV size 8.75
25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.
NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 2.673
Chi-sq(1) P-val = 0.1021

Instrumented: nonviolentdissentcount
Included instruments: urban_mean
Excluded instruments: lograin rainannualpct

(b) Second Stage

Figure 33: Effect of Dissent on Repression Base Model (Nonviolent Dissent)

First-stage regressions

First-stage regression of nonviolentdissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6074672
F(5,6074666) = 94.17
Prob > F = 0.0000
Centered R2 = 0.0000
Uncentered R2 = 0.0019
Root MSE = .04992

Total (centered) SS = 15136.29928
Total (uncentered) SS = 15184
Residual SS = 15135.76588

nonviolentdiss~t	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
latent_democracy	.0000632	.0000444	1.43	0.154	-.000237 -.0001501
urban_mean	-.004353	.0002204	-19.75	0.000	-.0047851 -.003921
lograin	-.0000579	.0000206	-2.81	0.005	-.0000983 -.0000175
democracyrain	.0002061	.0000321	6.43	0.000	.0001433 .000269
rainannulpct	.0152744	.0030116	5.07	0.000	.0093718 .021177
_cons	.0021935	.0000278	79.02	0.000	.0021391 .0022479

Included instruments: latent_democracy urban_mean lograin democracyrain rainannulpct

F test of excluded instruments:
F(3,6074666) = 31.84
Prob > F = 0.0000
Angrist-Pischke multivariate F test of excluded instruments:
F(2,6074666) = 18.33
Prob > F = 0.0000

(a) First Stage

First-stage regression of democrynnonviolentdissent:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6074672
F(5,6074666) = 729.37
Prob > F = 0.0000
Centered R2 = 0.0010
Uncentered R2 = 0.0018
Root MSE = .02672

Total (centered) SS = 4340.846171
Total (uncentered) SS = 4344.218962
Residual SS = 4336.336965

democrynno~sent	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
latent_democracy	.0019568	.0000334	58.65	0.000	.0018914 .0020222
urban_mean	.0003919	.000107	3.66	0.000	.0001823 .0006016
lograin	.0000843	7.82e-06	10.77	0.000	.0000689 .0000996
democracyrain	-.0000114	.0000233	-0.49	0.627	-.0000571 .0000344
rainannulpct	-.0000577	.0017306	-4.66	0.000	-.0114495 -.0046658
_cons	-.000051	.0000112	-4.57	0.000	-.0000729 -.0000292

Included instruments: latent_democracy urban_mean lograin democracyrain rainannulpct

F test of excluded instruments:
F(3,6074666) = 45.20
Prob > F = 0.0000
Angrist-Pischke multivariate F test of excluded instruments:
F(2,6074666) = 37.90
Prob > F = 0.0000

(b) First Stage

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 6074672
F(4,6074667) = 554.97
Prob > F = 0.0000
Centered R2 = -0.0083
Uncentered R2 = -0.0855
Root MSE = .0526

Total (centered) SS = 15445.93385
Total (uncentered) SS = 15485
Residual SS = 16809.4619

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
nonviolentdiss~t	.3178847	.1704486	1.86	0.062	-.0161883 .6519578
democrynnonv~sent	.743647	.3330834	2.23	0.026	.0909723 1.396322
latent_democracy	-.0000519	.000062	-1.29	0.198	-.0021495 .0004456
urban_mean	-.0074902	.0006655	-11.25	0.000	-.0087946 -.0061858
_cons	.0022027	.0003638	6.05	0.000	.0014896 .0029157

Underidentification test (Kleibergen-Paap rk LM statistic): 19.346
Chi-sq(2) P-val = 0.0001

Weak identification test (Cragg-Donald Wald F statistic): 15.266
(Kleibergen-Paap rk Wald F statistic): 6.451
Stock-Yogo weak ID test critical values: 10% maximal IV size 13.43
15% maximal IV size 8.19
20% maximal IV size 6.40
25% maximal IV size 5.45

Source: Stock-Yogo (2005). Reproduced by permission.
NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 0.838
Chi-sq(1) P-val = 0.3599

Instrumented: nonviolentdissentcount democrynnonviolentdissent
Included instruments: latent_democracy urban_mean
Excluded instruments: lograin democracyrain rainannulpct

(c) Second Stage

Figure 34: Effect of Dissent on Repression Interactive Model (Nonviolent Dissent)

First-stage regressions

First-stage regression of nonviolentdissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 4824337
F(3,4824333) = 111.67
Prob > F = 0.0000
Centered R2 = 0.0019
Uncentered R2 = 0.0019
Root MSE = .04924

Total (centered) SS = 11696.34121
Total (uncentered) SS = 11718
Residual SS = 11695.79853

nonviolentd-t	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
urban_mean	-.0038297	.0002724	-14.06	0.000	-.0043637	-.0032958
lograin	-.0002545	.0000284	-12.48	0.000	-.0002945	-.0002145
rainannualpct	.0203068	.0033992	5.97	0.000	.0136445	.0269691
_cons	.002161	.0000246	87.90	0.000	.0021128	.0022092

Included instruments: urban_mean lograin rainannualpct

F test of excluded instruments:

F(2,4824333) = 77.87

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(2,4824333) = 77.87

Prob > F = 0.0000

(a) First Stage (Low Democracy)

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 4824337
F(2,4824334) = 912.95
Prob > F = 0.0000
Centered R2 = 0.0005
Uncentered R2 = 0.0031
Root MSE = .05084

Total (centered) SS = 12474.93778
Total (uncentered) SS = 12507
Residual SS = 12468.133

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
nonviolentdissen~t	.0012143	.0041575	0.01	0.988	-.1637313	.16616
urban_mean	-.0088988	.0003826	-23.26	0.000	-.0096488	-.0081489
_cons	.0026815	.0001838	14.59	0.000	.0023213	.0038417

Underidentification test (Kleibergen-Paap rk LM statistic): 155.893

Chi-sq(2) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 77.479

(Kleibergen-Paap rk Wald F statistic): 77.871

Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93

15% maximal IV size 11.59

20% maximal IV size 8.75

25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.

NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 0.952

Chi-sq(1) P-val = 0.3292

Instrumented: nonviolentdissentcount

Included instruments: urban_mean

Excluded instruments: lograin rainannualpct

(b) Second Stage (Low Democracy)

First-stage regressions

First-stage regression of nonviolentdissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 1258733
F(3,1258729) = 95.34
Prob > F = 0.0000
Centered R2 = 0.0001
Uncentered R2 = 0.0019
Root MSE = .05227

Total (centered) SS = 3439.991974
Total (uncentered) SS = 3446
Residual SS = 3439.610092

nonviolentd<t		Robust Std. Err.	t	P> t	[95% Conf. Interval]	
urban_mean	-.0055715	.0003721	-14.97	0.000	-.0063008	-.0048423
lograin	.0003424	.0000355	9.65	0.000	.0002729	.0004119
rainannualpct	-.0127363	.0057483	-2.22	0.027	-.0240028	-.0014697
_cons	.0022551	.0000503	44.85	0.000	.0021565	.0023536

Included instruments: urban_mean lograin rainannualpct

F test of excluded instruments:

F(2,1258729) = 47.25

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(2,1258729) = 47.25

Prob > F = 0.0000

(c) First Stage (High Democracy)

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 1258733
F(2,1258730) = 311.12
Prob > F = 0.0000
Centered R2 = -0.0558
Uncentered R2 = -0.0533
Root MSE = .04992

Total (centered) SS = 2971.001674
Total (uncentered) SS = 2978
Residual SS = 3136.800893

represscount	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
nonviolentdissen~t	.3667358	.0979608	3.74	0.000	.1747361	.5587355
urban_mean	-.005306	.0005885	-9.02	0.000	-.0064595	-.0041525
_cons	.0016336	.0002224	7.35	0.000	.0011978	.0020694

Underidentification test (Kleibergen-Paap rk LM statistic): 94.445

Chi-sq(2) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 41.013

(Kleibergen-Paap rk Wald F statistic): 47.246

Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93

15% maximal IV size 11.59

20% maximal IV size 8.75

25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.

NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 0.566

Chi-sq(1) P-val = 0.4520

Instrumented: nonviolentdissentcount

Included instruments: urban_mean

Excluded instruments: lograin rainannualpct

(d) Second Stage (High Democracy)

Figure 35: Effect of Dissent on Repression Split Model (Nonviolent Dissent)

```
. imb urban_mean pop_sum wdi_gdp, treatment(raintreatment);
```

Multivariate L1 distance: .26230053

Univariate imbalance:

	L1	mean	min	25%	50%	75%	max
urban_mean	.06117	-.00437	0	0	0	0	0
pop_sum	.06781	1.8e+05	0	39600	69168	1.8e+05	0
wdi_gdp	.18834	-1.7e+10	0	8.7e+08	-2.0e+09	-3.1e+10	0

(a) Balance Pre-Match

```
. cem urban_mean pop_sum wdi_gdp, tr(raintreatment);
(using the scott break method for imbalance)
```

Matching Summary:

Number of strata: 146
Number of matched strata: 121

	0	1
All	5006260	1848494
Matched	4488162	1848494
Unmatched	518098	0

Multivariate L1 distance: .23162046

Univariate imbalance:

	L1	mean	min	25%	50%	75%	max
urban_mean	.04699	-.00073	0	0	0	0	.
pop_sum	.06412	23651	0	34701	46728	9927	.
wdi_gdp	.14303	-1.4e+10	0	9.6e+08	-8.8e+09	-5.7e+10	.

(b) Balance Post-Match

Figure 36: Balance Statistics (CEM)

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics consistent for homoskedasticity only

Number of obs = 6252030
F(2,6252027) = 153.33
Prob > F = 0.0000
Centered R2 = -0.1590
Uncentered R2 = -0.1560
Root MSE = .05458

	represscount	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
dissentcount		-.1518992	.1049829	-1.45	0.148	-.357662 .0538635
urban_mean		-.0086431	.0007506	-11.52	0.000	-.0101142 -.007172
_cons		.0031432	.0003469	9.06	0.000	.0024632 .0038232

Underidentification test (Anderson canon. corr. LM statistic): 61.718
Chi-sq(2) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 30.859

Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93
15% maximal IV size 11.59
20% maximal IV size 8.75
25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.

Sargan statistic (overidentification test of all instruments): 3.829
Chi-sq(1) P-val = 0.0504

Instrumented: dissentcount
Included instruments: urban_mean
Excluded instruments: lograin rainannualpct

(a) First Stage

First-stage regressions

First-stage regression of dissentcount:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics consistent for homoskedasticity only

Number of obs = 6252030
F(3,6252026) = 58.49
Prob > F = 0.0000
Centered R2 = 0.0000
Uncentered R2 = 0.0024
Root MSE = .06618

	dissentcount	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
urban_mean		-.0057833	.0005399	-10.56	0.000	-.0067615 -.004645
lograin		-.0001595	.0000235	-6.80	0.000	-.0002055 -.0001135
rainannualpct		.0258339	.0038605	6.69	0.000	.0182675 .0334004
_cons		.0032538	.0000285	114.13	0.000	.0031979 .0033096

Included instruments: urban_mean lograin rainannualpct

F test of excluded instruments:
F(2,6252026) = 30.86
Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:
F(2,6252026) = 30.86
Prob > F = 0.0000

(b) First Stage

Figure 37: Effect of Dissent on Repression (After CEM Matching)

Linear regression

Number of obs = 700435
F(2,700432) = 746.21
Prob > F = 0.0000
R-squared = 0.2488
Root MSE = .11486

	anypolice	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
protest		-.3526603	.0106238	33.20	0.000	-.331838 .3734825
urban		-.0000827	.0000135	-6.12	0.000	-.0001092 -.0000562
_cons		.0056683	.0008187	6.92	0.000	.0040636 .007273

(a) OLS

Negative binomial regression

Dispersion = mean
Log pseudolikelihood = -11862.43

Number of obs = 700435
Wald chi2(2) = 22237.04
Prob > chi2 = 0.0000

	anypolice	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
protest		6.129748	.0461739	132.75	0.000	6.039249 6.220247
urban		.0003652	.0015371	0.24	0.812	-.0026476 .0033779
_cons		-7.867724	.1031638	-76.26	0.000	-8.069921 -7.665526

	/lnalpha	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
/lnalpha		2.484537	.0224478	110.78	0.000	2.44054 2.528534
alpha		11.99557	.2692739	44.55	0.000	11.47924 12.53512

(b) Negative Binomial

Figure 38: Effect of Dissent on Repression Base Model (No Instrument)

First-stage regression of protest:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 699560
F(3,699556) = 1264.81
Prob > F = 0.0000
Centered R2 = 0.0077
Uncentered R2 = 0.0184
Root MSE = .187

Total (centered) SS = 24650.60497
Total (uncentered) SS = 24920
Residual SS = 24461.23239

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
protest					
urban	.0011217	.0000182	61.53	0.000	.001086 .0011575
VALUE	.000037	9.71e-06	3.81	0.000	.000018 .000056
annualrainpct	.000019	.0000347	0.55	0.584	-.000049 .000087
_cons	-.0564063	.0010744	-52.50	0.000	-.0585121 -.0543005

Included instruments: urban VALUE annualrainpct

F test of excluded instruments:

F(2,699556) = 8.72

Prob > F = 0.0002

Angrist-Pischke multivariate F test of excluded instruments:

F(2,699556) = 8.72

Prob > F = 0.0002

(a) First Stage

IV (2SLS) estimation

Estimates efficient for homoskedasticity only

Statistics robust to heteroskedasticity

Number of obs = 699560
F(2,699557) = 412.13
Prob > F = 0.0000
Centered R2 = 0.2197
Uncentered R2 = 0.2219
Root MSE = .1171

Total (centered) SS = 12290.60835
Total (uncentered) SS = 12325
Residual SS = 9590.246212

	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
anypolice					
protest	.2318084	.1534415	1.51	0.131	-.0689315 .5325482
urban	.0000532	.0001736	0.31	0.759	-.0002871 .0003935
_cons	-.001127	.0087059	-0.13	0.897	-.0181903 .0159363

Underidentification test (Kleibergen-Paap rk LM statistic): 17.495
Chi-sq(2) P-val = 0.0002

Weak identification test (Cragg-Donald Wald F statistic): 6.637

(Kleibergen-Paap rk Wald F statistic): 8.721

Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93

15% maximal IV size 11.59

20% maximal IV size 8.75

25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.

NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 3.576

Chi-sq(1) P-val = 0.0586

Instrumented: protest

Included instruments: urban

Excluded instruments: VALUE annualrainpct

(b) Second Stage

Figure 39: Effect of Dissent on Repression Base Model (Total Rain)

First-stage regressions

First-stage regression of protest:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 700435
F(2,700432) = 1895.64
Prob > F = 0.0000
Centered R2 = 0.0077
Uncentered R2 = 0.0185
Root MSE = .187

Total (centered) SS = 24671.43169
Total (uncentered) SS = 24941
Residual SS = 24480.72235

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
protest					
urban	.001124	.0000183	61.57	0.000	.0010883 .0011598
lograin	.0008976	.0001355	6.62	0.000	.0006319 .0011632
_cons	-.0570315	.0010877	-52.44	0.000	-.0591633 -.0548998

Included instruments: urban lograin

F test of excluded instruments:

F(1,700432) = 43.86

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(1,700432) = 43.86

Prob > F = 0.0000

(a) First Stage

IV (2SLS) estimation

Estimates efficient for homoskedasticity only

Statistics robust to heteroskedasticity

Number of obs = 700435
F(2,700432) = 430.42
Prob > F = 0.0000
Centered R2 = 0.2487
Uncentered R2 = 0.2508
Root MSE = .1149

Total (centered) SS = 12299.58125
Total (uncentered) SS = 12334
Residual SS = 9240.920695

	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
anypolice					
protest	.3587018	.0026509	3.87	0.000	.1771094 .5402941
urban	-.0000805	.0001051	-0.85	0.395	-.0002955 .0001165
_cons	.006006	.0052861	1.14	0.256	-.0043546 .0163667

Underidentification test (Kleibergen-Paap rk LM statistic): 43.874
Chi-sq(1) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 48.652

(Kleibergen-Paap rk Wald F statistic): 43.858

Stock-Yogo weak ID test critical values: 10% maximal IV size 16.38

15% maximal IV size 8.96

20% maximal IV size 6.66

25% maximal IV size 5.53

Source: Stock-Yogo (2005). Reproduced by permission.

NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 0.000

(equation exactly identified)

Instrumented: protest

Included instruments: urban

Excluded instruments: lograin

(b) Second Stage

Figure 40: Effect of Dissent on Repression Base Model (No Total Rain)

First-stage regressions

First-stage regression of protest:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

		Number of obs =	944867	
		F(2,944864) =	15.37	
		Prob > F =	0.0000	
Total (centered) SS	=	31077.04652	Centered R2 =	0.0000
Total (uncentered) SS	=	31379	Uncentered R2 =	0.0097
Residual SS	=	31075.95068	Root MSE =	.1814

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
protest					
lograin	.0006235	.0001153	5.41	0.000	.0003975 .0008496
annualrainpct	-3.34e-06	.0000277	-0.12	0.904	-.0000576 .0000509
_cons	.0172839	.0002088	82.77	0.000	.0168747 .0176932

Included instruments: lograin annualrainpct

F test of excluded instruments:

F(2,944864) = 15.37

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(2,944864) = 15.37

Prob > F = 0.0000

(a) First Stage

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

		Number of obs =	944867	
		F(1,944865) =	20.52	
		Prob > F =	0.0000	
Total (centered) SS	=	16991.608	Centered R2 =	0.2212
Total (uncentered) SS	=	17037	Uncentered R2 =	0.2233
Residual SS	=	13232.47097	Root MSE =	.1183

	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
anypolice					
protest	.5413658	.1195105	4.53	0.000	.3071296 .7756021
_cons	-.0027466	.0021274	-1.29	0.197	-.0069163 .001423

Underidentification test (Kleibergen-Paap rk LM statistic): 30.753
Chi-sq(2) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 16.659
(Kleibergen-Paap rk Wald F statistic): 15.372

Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93
15% maximal IV size 11.59
20% maximal IV size 8.75
25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.

NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 7.342
Chi-sq(1) P-val = 0.0067

Instrumented: protest
Excluded instruments: lograin annualrainpct

(b) Second Stage

Figure 41: Effect of Dissent on Repression Base Model (No Urbanization)

First-stage regressions

First-stage regression of protest:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

		Number of obs =	23028	
		F(3, 23024) =	158.81	
		Prob > F =	0.0000	
Total (centered) SS	=	197369.6305	Centered R2 =	0.0337
Total (uncentered) SS	=	285569	Uncentered R2 =	0.0723
Residual SS	=	190715.5703	Root MSE =	2.878

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
protest					
urban	.0355441	.0016335	21.76	0.000	.0323424 .0387458
lograin	.2204742	.015311	14.40	0.000	.1904636 .2504848
annualrainpct	-.0016747	.0006527	-2.57	0.010	-.002954 -.0003953
_cons	-2.198563	.1124221	-19.56	0.000	-2.418917 -1.978208

Included instruments: urban lograin annualrainpct

F test of excluded instruments:

F(2, 23024) = 104.98

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(2, 23024) = 104.98

Prob > F = 0.0000

(a) First Stage

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

		Number of obs =	23028	
		F(2, 23025) =	286.98	
		Prob > F =	0.0000	
Total (centered) SS	=	38413.09623	Centered R2 =	0.5553
Total (uncentered) SS	=	39460	Uncentered R2 =	0.5671
Residual SS	=	17084.1755	Root MSE =	.8613

	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
anypolice					
protest	.3272229	.023902	13.69	0.000	.2803759 .37407
urban	-.0016492	.0008555	-1.93	0.054	-.003326 .0008276
_cons	.1291556	.0464596	2.78	0.005	.0380964 .2202148

Underidentification test (Kleibergen-Paap rk LM statistic): 207.667
Chi-sq(2) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 54.630

(Kleibergen-Paap rk Wald F statistic): 104.984

Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93

15% maximal IV size 11.59

20% maximal IV size 8.75

25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.

NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 1.081

Chi-sq(1) P-val = 0.2985

Instrumented: protest

Included instruments: urban

Excluded instruments: lograin annualrainpct

(b) Second Stage

Figure 42: Effect of Dissent on Repression Base Model (No Urbanization)

First-stage regression of protest:

OLS estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 1920
F(3, 1916) = 13959.95
Prob > F = 0.0000
Centered R2 = 0.0528
Uncentered R2 = 0.1053
Root MSE = 28.89

Total (centered) SS = 1687872.925
Total (uncentered) SS = 1786888
Residual SS = 1598680.94

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
protest					
urban	.436232	.0583872	7.47	0.000	.3217229 .550741
lograin	6.098386	.7760387	7.86	0.000	4.576417 7.620356
annualrainpct	-.6016116	.8374991	-16.94	0.000	-.675155 -5280682
_cons	24.51348	8.517286	2.88	0.004	7.809357 41.21761

Warning: estimated covariance matrix of moment conditions not of full rank.
model tests should be interpreted with caution.
Possible causes:
singleton dummy variable (dummy with one 1 and N-1 0s or vice versa)
partial option may address problem.

Included instruments: urban lograin annualrainpct

F test of excluded instruments:

F(2, 1916) = 1250.31

Prob > F = 0.0000

Angrist-Pischke multivariate F test of excluded instruments:

F(2, 1916) = 1250.31

Prob > F = 0.0000

(a) First Stage

IV (2SLS) estimation

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity

Number of obs = 1920
F(2, 1917) = 170.55
Prob > F = 0.0000
Centered R2 = 0.7893
Uncentered R2 = 0.8018
Root MSE = 4.692

Total (centered) SS = 200557.9917
Total (uncentered) SS = 213186
Residual SS = 42261.33959

	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
anypolice					
protest	.3252153	.0203481	15.98	0.000	.2853337 .3650969
urban	-.0190172	.0098197	-1.94	0.053	-.0382635 .0002292
_cons	1.511461	.6016573	2.51	0.012	.3322347 2.690688

Underidentification test (Kleibergen-Paap rk LM statistic): 56.790
Chi-sq(2) P-val = 0.0000

Weak identification test (Cragg-Donald Wald F statistic): 11.817
(Kleibergen-Paap rk Wald F statistic): 1250.306

Stock-Yogo weak ID test critical values: 10% maximal IV size 19.93
15% maximal IV size 11.59
20% maximal IV size 8.75
25% maximal IV size 7.25

Source: Stock-Yogo (2005). Reproduced by permission.
NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.

Hansen J statistic (overidentification test of all instruments): 0.746
Chi-sq(1) P-val = 0.3879

Instrumented: protest

Included instruments: urban

Excluded instruments: lograin annualrainpct

(b) Second Stage

Figure 43: Effect of Dissent on Repression Base Model (No Urbanization)

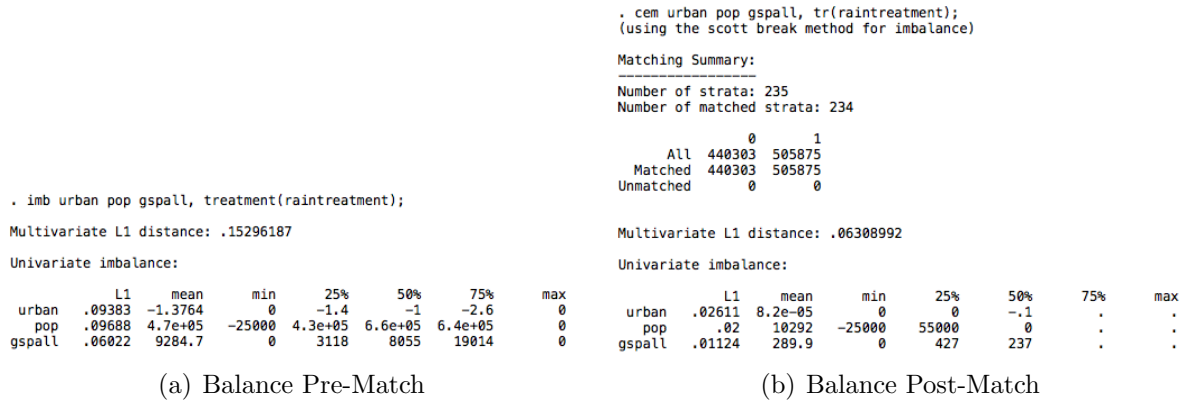


Figure 44: Balance Statistics (CEM)

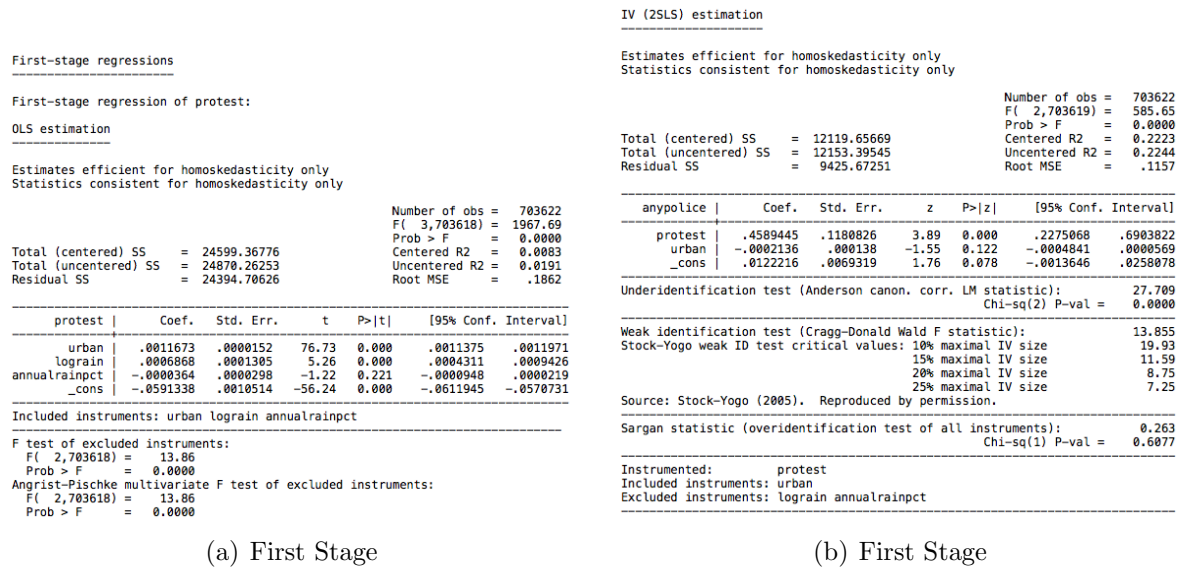


Figure 45: Effect of Dissent on Repression (After CEM Matching)