

## **WEB APPENDIX (Not for publication)**

In this web appendix, we present the results from a number of specification checks regarding bandwidths and order of polynomial (Section A1), imposing the same slope on both sides of the RD threshold (Section A2), expressing the outcome (welfare spending per capita in logarithmic form) in levels (Section A3) and as a total (Section A4), using collapsed data (Section A5), graphical evidence of any discontinuities in pre-treatment characteristics at the threshold (Section A6), and histograms over the forcing variables (Section A7).

### **A1. Bandwidths and the order of the polynomial**

In this section, we show the results for bandwidths in the range 20-300 and for a different order of the polynomial of the forcing variable (1<sup>st</sup>-3<sup>rd</sup>). Table A11 shows the results for the forcing variable population in year  $t-1$  while Table A12 displays the results for the forcing variable population in 1918. The results from these tables should be compared to the corresponding tables in the published article, namely Table 3 and Table 5, respectively.

Starting with population in year  $t-1$  as the forcing variable, Table A11 reveals that most of reduced form estimates in Panel A are of similar magnitudes to those estimates in Panel A of Table 3, i.e., 8-10 percent. However, some of the estimates in Table A11 are rather imprecisely measured due to sampling uncertainty and over parameterization of the forcing variable. Importantly, the estimates from local linear regression with smaller bandwidths ( $<100$ ) are almost identical to the estimates allowing for more flexible polynomial specifications and with larger bandwidths ( $>120$ ). Very similar conclusions can also be made about the other results in Table A11, i.e., the first-stage specifications in Panel B and the IV specifications in Panel C, and the corresponding results in Table 3. For example, the IV estimates in panel C from local linear regression with smaller bandwidths ( $<100$ ) are in the same range, i.e.,  $[-0.8, -0.5]$ , as the IV estimates with larger bandwidths ( $>120$ ) and more flexible polynomial specifications. Turning to the results from the other forcing variable, population size in 1918, we can also note that the results published in the article (Table 5) are broadly similar to the results in Table A12 where we allow for more flexible polynomial specifications and larger bandwidths. Thus, we can conclude that the results in the published article are robust to issues about bandwidths and the order of the polynomial

**Table A11. Local estimates from the regression-discontinuity design when the forcing variable is population in year t-1**

Bandwidths	20	40	60	80	100	120	150	200	250	300
Order of the polynomial	<u>Panel A: Reduced form relationship</u>									
Linear	-0.092** (0.037)	-0.093*** (0.028)	-0.101*** (0.031)	-0.114*** (0.029)	-0.089*** (0.027)	-0.083*** (0.025)	-0.072*** (0.025)	-0.078*** (0.029)	-0.064** (0.028)	-0.076*** (0.027)
Quadratic	-0.024 (0.024)	-0.037 (0.024)	-0.078** (0.034)	-0.087** (0.039)	-0.112*** (0.036)	-0.106*** (0.036)	-0.096*** (0.032)	-0.079** (0.032)	-0.087*** (0.030)	-0.074** (0.031)
Cubic	-0.066 (0.059)	-0.050*** (0.015)	-0.048* (0.025)	-0.064 (0.042)	-0.064 (0.044)	-0.089** (0.040)	-0.098** (0.042)	-0.095** (0.039)	-0.093** (0.038)	-0.098*** (0.033)
	<u>Panel B: First-stage relationship</u>									
Linear	0.161*** (0.038)	0.183*** (0.039)	0.167*** (0.038)	0.148*** (0.034)	0.155*** (0.034)	0.168*** (0.035)	0.195*** (0.036)	0.223*** (0.038)	0.274*** (0.039)	0.328*** (0.039)
Quadratic	0.103** (0.046)	0.134*** (0.043)	0.172*** (0.043)	0.172*** (0.044)	0.150*** (0.041)	0.130*** (0.040)	0.137*** (0.039)	0.152*** (0.039)	0.142*** (0.039)	0.149*** (0.040)
Cubic	0.014 (0.030)	0.087** (0.043)	0.138*** (0.043)	0.170*** (0.048)	0.188*** (0.053)	0.186*** (0.049)	0.139*** (0.044)	0.121*** (0.041)	0.137*** (0.041)	0.130*** (0.041)
	<u>Panel C: Wald or IV estimates</u>									
Linear	-0.574** (0.230)	-0.511*** (0.173)	-0.604*** (0.207)	-0.771*** (0.241)	-0.572*** (0.191)	-0.492*** (0.165)	-0.370*** (0.134)	-0.348*** (0.135)	-0.233** (0.101)	-0.230*** (0.083)
Quadratic	-0.234 (0.157)	-0.277 (0.169)	-0.454** (0.196)	-0.504** (0.224)	-0.748*** (0.274)	-0.815** (0.337)	-0.703*** (0.273)	-0.521** (0.227)	-0.610** (0.253)	-0.497** (0.228)
Cubic	-4.565 (10.346)	-0.571*** (0.204)	-0.345** (0.134)	-0.377 (0.240)	-0.340 (0.225)	-0.479** (0.207)	-0.701** (0.320)	-0.781** (0.371)	-0.681** (0.313)	-0.752** (0.322)
Number of municipalities	158	193	232	252	274	296	344	419	483	557
Number of observations	520	1021	1535	2074	2608	3113	3893	5331	6790	8120

Notes: Each entry is a separate local regression with a uniform kernel. All specifications allow for the RD slope to differ across the threshold, include a full set of pre-treatment covariates and a full set of time-fixed effects. The dependent variable in Panels A and C is per capita welfare spending in logarithmic form. The dependent variable in Panel B is an indicator for having direct democracy rather than representative democracy. Panel C is the Wald estimator, the ratio between the reduced form effect and the first-stage estimate. The forcing variable is population in year t-1. See the text for a description of included pre-treatment covariates. Standard errors, clustered at both the municipality level and the running variable, are within parentheses (Cameron et al. 2011). Coefficients significantly different from zero are denoted by the following system: \*10%, \*\*5%, and \*\*\*1%.

**Table A12. Local estimates from the regression-discontinuity design when the forcing variable is population in 1918**

Bandwidths	20	30	40	50	60	100	150	200	250	300
Order of the polynomial	<b>Panel A: Reduced form relationship</b>									
Linear	-0.461** (0.216)	-0.412*** (0.145)	-0.422*** (0.109)	-0.379*** (0.102)	-0.272*** (0.097)	-0.101 (0.089)	-0.117* (0.069)	-0.132** (0.061)	-0.144*** (0.055)	-0.131** (0.053)
Quadratic	-1.442*** (0.309)	-0.582** (0.278)	-0.406* (0.211)	-0.415** (0.172)	-0.276* (0.150)	-0.192 (0.123)	-0.184* (0.102)	-0.167* (0.094)	-0.176** (0.082)	-0.172** (0.074)
Cubic	-0.381 (0.333)	-0.842** (0.356)	-0.875*** (0.298)	-0.483* (0.279)	-0.242 (0.242)	-0.198 (0.183)	-0.215* (0.130)	-0.217* (0.120)	-0.210* (0.109)	-0.206** (0.101)
	<b>Panel B: First-stage relationship</b>									
Linear	0.453*** (0.130)	0.430*** (0.099)	0.422*** (0.102)	0.427*** (0.102)	0.472*** (0.094)	0.527*** (0.094)	0.580*** (0.083)	0.579*** (0.071)	0.538*** (0.060)	0.585*** (0.057)
Quadratic	0.337* (0.184)	0.530*** (0.181)	0.327* (0.172)	0.310** (0.142)	0.303** (0.119)	0.422*** (0.113)	0.446*** (0.111)	0.530*** (0.101)	0.583*** (0.097)	0.516*** (0.088)
Cubic	0.445 (0.394)	0.602*** (0.205)	0.315 (0.239)	0.526** (0.247)	0.332* (0.179)	0.265** (0.133)	0.384*** (0.132)	0.432*** (0.121)	0.460*** (0.112)	0.553*** (0.114)
	<b>Panel C: Wald or IV estimates</b>									
Linear	-1.017 (0.630)	-0.958** (0.453)	-1.000*** (0.370)	-0.886*** (0.315)	-0.577** (0.233)	-0.191 (0.167)	-0.202* (0.122)	-0.228** (0.109)	-0.267** (0.106)	-0.224** (0.092)
Quadratic	-4.282 (2.676)	-1.099 (0.691)	-1.241 (0.968)	-1.336 (0.853)	-0.912 (0.601)	-0.455 (0.291)	-0.413* (0.236)	-0.315* (0.179)	-0.302** (0.147)	-0.333** (0.154)
Cubic	-0.855 (0.817)	-1.398* (0.818)	-2.777 (2.385)	-0.918 (0.768)	-0.729 (0.821)	-0.749 (0.730)	-0.560 (0.364)	-0.504* (0.287)	-0.457* (0.252)	-0.372* (0.191)
Number of municipalities	35	43	54	64	79	131	194	278	352	415
Number of observations	239	295	372	439	544	907	1347	1934	2451	2890

Notes: Each entry is a separate local regression with a uniform kernel. All specifications allow for the RD slope to differ across the threshold, include a full set of pre-treatment covariates and a full set of time-fixed effects. The dependent variable in Panels A and C is per capita welfare spending in logarithmic form. The dependent variable in Panel B is an indicator for having direct democracy rather than representative democracy. Panel C is the Wald estimator, the ratio between the reduced form effect and the first-stage estimate. The forcing variable is population in 1918. See the text for a description of included pre-treatment covariates. Standard errors, clustered at both the municipality level and the running variable, are within parentheses (Cameron et al. 2011). Coefficients significantly different from zero are denoted by the following system: \*10%, \*\*5%, and \*\*\*1%.

## **A2. Imposing the same slope on both sides of the RD threshold**

In this section, we show results from specifications where we impose the restriction of the same slope on both sides of the RD threshold. Table A21 shows the results for the forcing variable population size in  $t-1$  while Table A22 displays the results for the forcing variable population in 1918. Once again, the published results in Tables 3 and 5 are similar to the corresponding results in Tables A21 and A22. As a result, the published results are insensitive to this type of specification of the forcing variable.

**Table A21. Local estimates from the regression-discontinuity design when the forcing variable is population in year t-1**

Bandwidths	20	40	60	80	100	120	150	200	250	300
Order of the polynomial	<u>Panel A: Reduced form relationship</u>									
Linear	-0.089** (0.038)	-0.094*** (0.030)	-0.101*** (0.032)	-0.113*** (0.030)	-0.087*** (0.028)	-0.084*** (0.026)	-0.072*** (0.025)	-0.077*** (0.029)	-0.063** (0.028)	-0.075*** (0.027)
Quadratic	-0.087** (0.034)	-0.092*** (0.028)	-0.101*** (0.031)	-0.114*** (0.030)	-0.089*** (0.027)	-0.083*** (0.025)	-0.073*** (0.025)	-0.078*** (0.029)	-0.064** (0.028)	-0.075*** (0.027)
Cubic	-0.040 (0.027)	-0.041 (0.026)	-0.083** (0.034)	-0.093** (0.036)	-0.113*** (0.033)	-0.101*** (0.033)	-0.088*** (0.029)	-0.078*** (0.029)	-0.079*** (0.030)	-0.070** (0.030)
	<u>Panel B: First-stage relationship</u>									
Linear	0.159*** (0.039)	0.183*** (0.042)	0.169*** (0.040)	0.141*** (0.039)	0.148*** (0.040)	0.172*** (0.041)	0.195*** (0.042)	0.219*** (0.045)	0.260*** (0.046)	0.304*** (0.045)
Quadratic	0.158*** (0.039)	0.180*** (0.041)	0.164*** (0.039)	0.147*** (0.035)	0.156*** (0.035)	0.168*** (0.036)	0.198*** (0.037)	0.228*** (0.039)	0.279*** (0.040)	0.332*** (0.040)
Cubic	0.111** (0.054)	0.144*** (0.046)	0.171*** (0.043)	0.164*** (0.042)	0.143*** (0.040)	0.128*** (0.039)	0.142*** (0.039)	0.169*** (0.040)	0.168*** (0.042)	0.181*** (0.044)
	<u>Panel C: Wald or IV estimates</u>									
Linear	-0.560** (0.234)	-0.511*** (0.172)	-0.598*** (0.199)	-0.797*** (0.252)	-0.588*** (0.199)	-0.485*** (0.160)	-0.370*** (0.134)	-0.352** (0.137)	-0.243** (0.107)	-0.248*** (0.091)
Quadratic	-0.548** (0.216)	-0.512*** (0.176)	-0.612*** (0.212)	-0.772*** (0.240)	-0.572*** (0.189)	-0.493*** (0.164)	-0.366*** (0.131)	-0.344*** (0.132)	-0.229** (0.099)	-0.225*** (0.082)
Cubic	-0.364* (0.209)	-0.287* (0.163)	-0.482** (0.197)	-0.570** (0.227)	-0.791*** (0.272)	-0.790*** (0.304)	-0.622*** (0.226)	-0.460** (0.180)	-0.474** (0.190)	-0.384** (0.169)
Number of municipalities	158	193	232	252	274	296	344	419	483	557
Number of observations	520	1021	1535	2074	2608	3113	3893	5331	6790	8120

Notes: Each entry is a separate local regression with a uniform kernel. All specifications constrain the RD slope to be the same across the threshold, include a full set of pre-treatment covariates and a full set of time-fixed effects. The dependent variable in Panels A and C is per capita welfare spending in logarithmic form. The dependent variable in Panel B is an indicator for having direct democracy rather than representative democracy. Panel C is the Wald estimator, the ratio between the reduced form effect and the first-stage estimate. The forcing variable is population in year t-1. See the text for a description of included pre-treatment covariates. Standard errors, clustered at both the municipality level and the running variable, are within parentheses (Cameron et al. 2011). Coefficients significantly different from zero are denoted by the following system: \*10%, \*\*5%, and \*\*\*1%.

**Table A22. Local estimates from the regression-discontinuity design when the forcing variable is population in 1918**

Bandwidths	20	30	40	50	60	100	150	200	250	300
Order of the polynomial	<u>Panel A: Reduced form relationship</u>									
Linear	-0.457** (0.216)	-0.404*** (0.148)	-0.419*** (0.116)	-0.375*** (0.103)	-0.274*** (0.102)	-0.105 (0.091)	-0.106 (0.073)	-0.126** (0.063)	-0.137** (0.056)	-0.129** (0.053)
Quadratic	-0.450** (0.218)	-0.398*** (0.142)	-0.411*** (0.109)	-0.373*** (0.102)	-0.271*** (0.096)	-0.097 (0.089)	-0.117* (0.070)	-0.130** (0.062)	-0.141** (0.055)	-0.129** (0.053)
Cubic	-1.327*** (0.221)	-0.442* (0.227)	-0.379** (0.182)	-0.398*** (0.147)	-0.280** (0.126)	-0.171 (0.113)	-0.167* (0.093)	-0.152* (0.083)	-0.164** (0.074)	-0.153** (0.067)
	<u>Panel B: First-stage relationship</u>									
Linear	0.438*** (0.134)	0.405*** (0.116)	0.420*** (0.105)	0.419*** (0.106)	0.490*** (0.091)	0.542*** (0.090)	0.593*** (0.074)	0.604*** (0.065)	0.569*** (0.059)	0.598*** (0.057)
Quadratic	0.416*** (0.138)	0.379*** (0.104)	0.415*** (0.107)	0.411*** (0.107)	0.473*** (0.098)	0.528*** (0.095)	0.585*** (0.081)	0.588*** (0.069)	0.550*** (0.058)	0.599*** (0.055)
Cubic	0.341* (0.182)	0.451*** (0.172)	0.333** (0.151)	0.322** (0.127)	0.323*** (0.117)	0.459*** (0.108)	0.485*** (0.101)	0.561*** (0.086)	0.595*** (0.079)	0.543*** (0.073)
	<u>Panel C: Wald or IV estimates</u>									
Linear	-1.043 (0.662)	-0.999** (0.484)	-0.998*** (0.375)	-0.895*** (0.324)	-0.559** (0.228)	-0.194 (0.166)	-0.179 (0.124)	-0.208* (0.107)	-0.241** (0.102)	-0.216** (0.091)
Quadratic	-1.083 (0.733)	-1.051** (0.535)	-0.991*** (0.381)	-0.907*** (0.341)	-0.573** (0.232)	-0.184 (0.168)	-0.200 (0.122)	-0.221** (0.108)	-0.256** (0.104)	-0.215** (0.090)
Cubic	-3.892* (2.315)	-0.979 (0.680)	-1.139 (0.764)	-1.238* (0.670)	-0.866* (0.493)	-0.372 (0.248)	-0.344* (0.195)	-0.270* (0.151)	-0.275** (0.129)	-0.283** (0.129)
Number of municipalities	35	43	54	64	79	131	194	278	352	415
Number of observations	239	295	372	439	544	907	1347	1934	2451	2890

Notes: Each entry is a separate local regression with a uniform kernel. All specifications constrain the RD slope to be the same across the threshold, include a full set of pre-treatment covariates and a full set of time-fixed effects. The dependent variable in Panels A and C is per capita welfare spending in logarithmic form. The dependent variable in Panel B is an indicator for having direct democracy rather than representative democracy. Panel C is the Wald estimator, the ratio between the reduced form effect and the first-stage estimate. The forcing variable is population in 1918. See the text for a description of included pre-treatment covariates. Standard errors, clustered at both the municipality level and the running variable, are within parentheses (Cameron et al. 2011). Coefficients significantly different from zero are denoted by the following system: \*10%, \*\*5%, and \*\*\*1%.

### **A3. Per capita welfare spending**

In this section, we show the results when the dependent variable—per capita welfare spending—is expressed in levels rather than in logarithmic form. Table A31 shows the results for the forcing variable population size in  $t-1$  while Table A32 displays the results for the forcing variable population in 1918. To interpret the estimates in the tables, note that the mean of per capita welfare spending is 6.31. Thus, to get the percentage change, we need to divide the estimates in the tables by 6.31. For example, many of the reduced form estimates in Panel A of Table A31 are about  $-0.6$ , which translates into an effect of about 10 percent ( $-0.6/6.31$ ). This effect is of the same magnitude as the reduced form effect in Panel A of Table 3 in the published article. Thus, the results in the article are robust to expressing per capita welfare spending in logarithmic form or in levels.

*Table A31. Local linear estimates from the regression-discontinuity design when the forcing variable is population at time t-1*

Bandwidths	20	40	60	80	100	120
<u>Panel A: Reduced form relationship</u>						
Reduced form effect (no covariates)	-0.595 (0.508)	-0.606 (0.449)	-0.584 (0.360)	-0.727** (0.316)	-0.451* (0.269)	-0.430* (0.246)
Reduced form effect (including pre-treatment covariates)	-0.415** (0.197)	-0.622** (0.249)	-0.577** (0.259)	-0.667*** (0.242)	-0.505** (0.220)	-0.502** (0.198)
<u>Panel B: First-stage relationship</u>						
First-stage effect (no covariates)	0.140*** (0.030)	0.168*** (0.036)	0.165*** (0.037)	0.143*** (0.034)	0.154*** (0.034)	0.169*** (0.036)
First-stage effect (including pre-treatment covariates)	0.161*** (0.038)	0.183*** (0.039)	0.167*** (0.038)	0.148*** (0.034)	0.155*** (0.034)	0.168*** (0.035)
<u>Panel C: Wald or IV estimates</u>						
Treatment effect (no covariates)	-4.262 (3.823)	-3.612 (2.749)	-3.539 (2.227)	-5.069** (2.365)	-2.937 (1.801)	-2.544* (1.500)
Treatment effect (including pre-treatment covariates)	-2.584** (1.039)	-3.402** (1.419)	-3.463** (1.635)	-4.511** (1.795)	-3.246** (1.503)	-2.984** (1.293)
Number of local governments	158	193	232	252	274	296
Number of observations	520	1,021	1,535	2,074	2,608	3113

Notes: Each entry is a separate local linear regression with a uniform kernel. All specifications allow for the RD slope to differ across the threshold, include a full set of pre-treatment covariates and a full set of time-fixed effects. The dependent variable in Panels A and C is per capita welfare spending. The dependent variable in Panel B is an indicator for having direct democracy rather than representative democracy. Panel C is the Wald estimator, the ratio between the reduced form effect and the first-stage estimate. The forcing variable is population in year t-1. See the text for a description of included pre-treatment covariates. Standard errors, clustered at both the municipality level and the running variable, are within parentheses (Cameron et al. 2011). Coefficients significantly different from zero are denoted by the following system: \*10%, \*\*5%, and \*\*\*1%.



**Table A32. Local linear estimates from the regression-discontinuity design when the forcing variable is population in 1918**

Bandwidths	20	30	40	50	60
<u>Panel A: Reduced form relationship</u>					
Reduced form effect (no covariates)	-1.961 (1.476)	-1.809 (1.209)	-1.502 (1.019)	-1.238 (0.957)	-1.239 (0.873)
Reduced form effect (including pre-treatment covariates)	-1.315 (1.172)	-1.624** (0.773)	-1.818*** (0.583)	-1.469*** (0.558)	-1.083** (0.496)
<u>Panel B: First-stage relationship</u>					
First-stage effect (no covariates)	0.420*** (0.129)	0.319*** (0.114)	0.421*** (0.116)	0.392*** (0.108)	0.452*** (0.106)
First-stage effect (including pre-treatment covariates)	0.453*** (0.130)	0.430*** (0.099)	0.422*** (0.102)	0.427*** (0.102)	0.472*** (0.094)
<u>Panel C: Wald or IV estimates</u>					
Treatment effect (no covariates)	-4.665 (3.721)	-5.673 (3.769)	-3.568 (2.390)	-3.157 (2.395)	-2.739 (1.892)
Treatment effect (including pre-treatment covariates)	-2.902 (2.909)	-3.773* (2.171)	-4.304** (1.829)	-3.437** (1.536)	-2.297** (1.150)
Number of municipalities	35	43	54	64	79
Number of observations	239	295	372	439	544

Notes: Each entry is a separate local linear regression with a uniform kernel. All specifications allow for the RD slope to differ across the threshold, include a full set of pre-treatment covariates and a full set of time-fixed effects. The dependent variable in Panels A and C is per capita welfare spending. The dependent variable in Panel B is an indicator for having direct democracy rather than representative democracy. Panel C is the Wald estimator, the ratio between the reduced form effect and the first-stage estimate. The forcing variable is population in 1918. See the text for a description of included pre-treatment covariates. Standard errors, clustered at both the municipality level and the running variable, are within parentheses (Cameron et al. 2011). Coefficients significantly different from zero are denoted by the following system: \*10%, \*\*5%, and \*\*\*1%.

#### **A4. Total welfare spending**

In this section, we show the results when the dependent variable is expressed as total spending rather than in per capita terms. The outcome variable is still expressed in logarithmic form, however. Table A41 shows the results for the forcing variable population size in  $t-1$  while Table A42 displays the results for the forcing variable population in 1918. The results from these tables should be compared to the corresponding tables in the published article, namely Table 3 and Table 5, respectively. Again, there is little difference between the published results where the outcome variable is expressed in per capita terms and the results presented here.

**Table A41. Local linear estimates from the regression-discontinuity design when the forcing variable is population in year  $t-1$**

Bandwidths	20	40	60	80	100	120
<u>Panel A: Reduced form relationship</u>						
Reduced form effect (no covariates)	-0.104* (0.058)	-0.074 (0.046)	-0.094** (0.042)	-0.118*** (0.037)	-0.084** (0.034)	-0.077** (0.034)
Reduced form effect (including pre-treatment covariates)	-0.088** (0.037)	-0.092*** (0.029)	-0.101*** (0.031)	-0.114*** (0.029)	-0.089*** (0.027)	-0.089*** (0.027)
<u>Panel B: First-stage relationship</u>						
First-stage effect (no covariates)	0.140*** (0.030)	0.168*** (0.036)	0.165*** (0.037)	0.143*** (0.034)	0.154*** (0.034)	0.169*** (0.036)
First-stage effect (including pre-treatment covariates)	0.161*** (0.038)	0.183*** (0.039)	0.167*** (0.038)	0.148*** (0.034)	0.155*** (0.034)	0.168*** (0.035)
<u>Panel C: Wald or IV estimates</u>						
Treatment effect (no covariates)	-0.745* (0.449)	-0.441 (0.285)	-0.568** (0.262)	-0.822*** (0.293)	-0.549** (0.230)	-0.455** (0.209)
Treatment effect (including pre-treatment covariates)	-0.548** (0.234)	-0.505*** (0.176)	-0.607*** (0.208)	-0.773*** (0.242)	-0.571*** (0.192)	-0.488*** (0.165)
Number of local governments	158	193	232	252	274	296
Number of observations	520	1,021	1,535	2,074	2,608	3113

Notes: Each entry is a separate local linear regression with a uniform kernel. All specifications allow for the RD slope to differ across the threshold, include a full set of pre-treatment covariates and a full set of time-fixed effects. The dependent variable in Panels A and C is total welfare spending in logarithmic form. The dependent variable in Panel B is an indicator for having direct democracy rather than representative democracy. Panel C is the Wald estimator, the ratio between the reduced form effect and the first-stage estimate. The forcing variable is population in year  $t-1$ . See the text for a description of included pre-treatment covariates. Standard errors, clustered at both the municipality level and the running variable, are within parentheses (Cameron et al. 2011). Coefficients significantly different from zero are denoted by the following system: \*10%, \*\*5%, and \*\*\*1%.

**Table A42. Local linear estimates from the regression-discontinuity design when the forcing variable is population in 1918**

Bandwidths	20	30	40	50	60
<u>Panel A: Reduced form relationship</u>					
Reduced form effect (no covariates)	-0.498 (0.338)	-0.404 (0.262)	-0.329 (0.222)	-0.274 (0.209)	-0.293 (0.194)
Reduced form effect (including pre-treatment covariates)	-0.396* (0.218)	-0.353** (0.146)	-0.392*** (0.110)	-0.357*** (0.101)	-0.275*** (0.096)
<u>Panel B: First-stage relationship</u>					
First-stage effect (no covariates)	0.420*** (0.129)	0.319*** (0.114)	0.421*** (0.116)	0.392*** (0.108)	0.452*** (0.106)
First-stage effect (including pre-treatment covariates)	0.453*** (0.130)	0.430*** (0.099)	0.422*** (0.102)	0.427*** (0.102)	0.472*** (0.094)
<u>Panel C: Wald or IV estimates</u>					
Treatment effect (no covariates)	-1.184 (0.864)	-1.265 (0.802)	-0.783 (0.517)	-0.700 (0.519)	-0.649 (0.419)
Treatment effect (including pre-treatment covariates)	-0.874 (0.598)	-0.821* (0.426)	-0.928*** (0.350)	-0.834*** (0.297)	-0.582** (0.227)
Number of municipalities	35	43	54	64	79
Number of observations	239	295	372	439	544

Notes: Each entry is a separate local linear regression with a uniform kernel. All specifications allow for the RD slope to differ across the threshold, include a full set of pre-treatment covariates and a full set of time-fixed effects. The dependent variable in Panels A and C is total welfare spending in logarithmic form. The dependent variable in Panel B is an indicator for having direct democracy rather than representative democracy. Panel C is the Wald estimator, the ratio between the reduced form effect and the first-stage estimate. The forcing variable is population in 1918. See the text for a description of included pre-treatment covariates. Standard errors, clustered at both the municipality level and the running variable, are within parentheses (Cameron et al. 2011). Coefficients significantly different from zero are denoted by the following system: \*10%, \*\*5%, and \*\*\*1%.

## **A5. Collapsed data**

In this section, we show the results when the data is collapsed at the local government level when the forcing variable is population size in 1918. The results should be compared to the corresponding results from Table 5 in the published article. There is almost no difference between the two tables.

**Table A51. Local linear estimates from the regression-discontinuity design when the forcing variable is population in 1918**

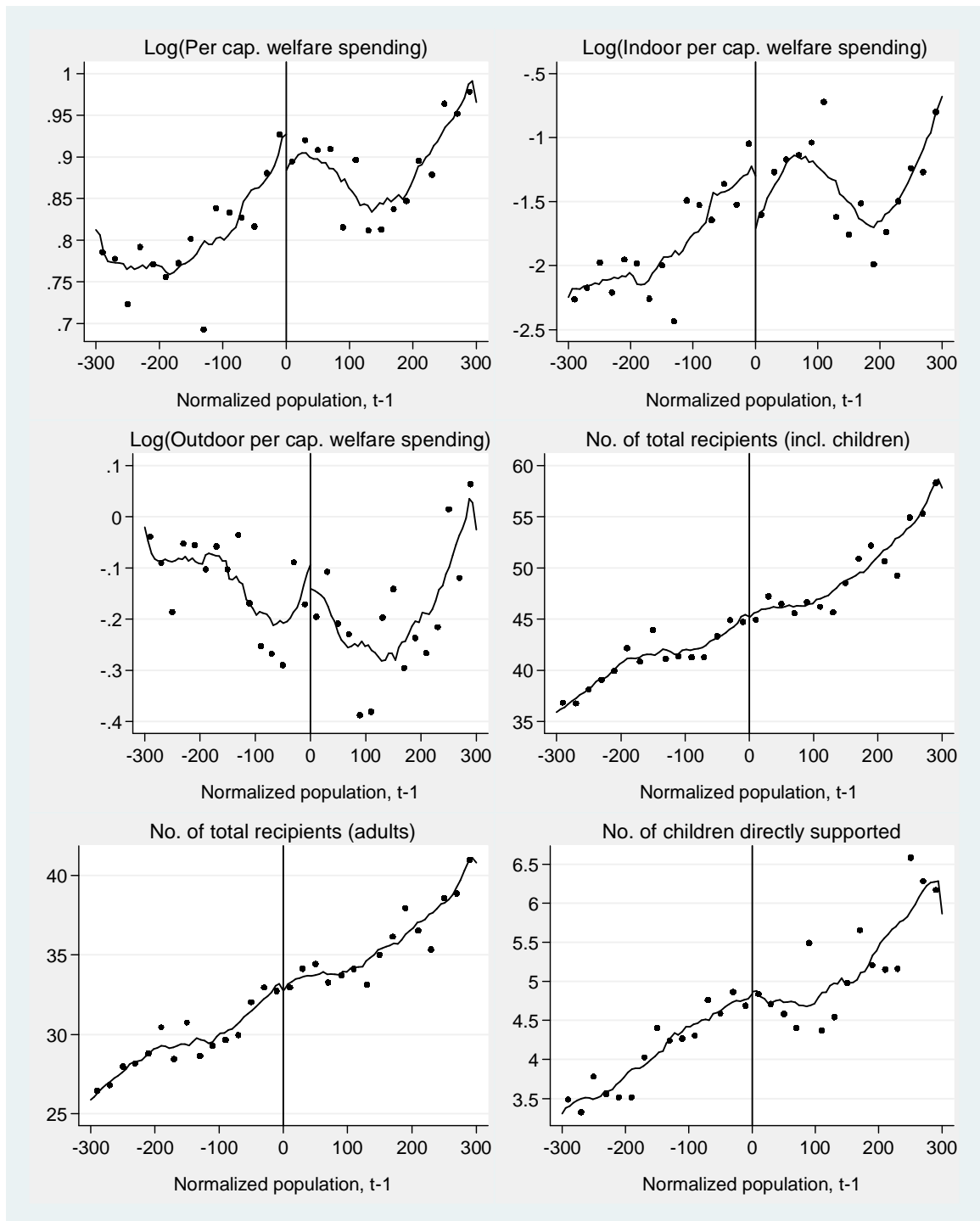
Bandwidths	20	30	40	50	60
<u>Panel A: Reduced form relationship</u>					
Reduced form effect (no covariates)	-0.568* (0.337)	-0.449* (0.258)	-0.355 (0.219)	-0.308 (0.207)	-0.297 (0.190)
Reduced form effect (including pre-treatment covariates)	-0.550** (0.226)	-0.400*** (0.148)	-0.407*** (0.108)	-0.381*** (0.101)	-0.274*** (0.096)
<u>Panel B: First-stage relationship</u>					
First-stage effect (no covariates)	0.417*** (0.129)	0.316*** (0.114)	0.418*** (0.116)	0.391*** (0.108)	0.450*** (0.106)
First-stage effect (including pre-treatment covariates)	0.440*** (0.125)	0.420*** (0.097)	0.404*** (0.101)	0.409*** (0.101)	0.462*** (0.094)
<u>Panel C: Wald or IV estimates</u>					
Treatment effect (no covariates)	-1.362 (0.895)	-1.423* (0.823)	-0.849 (0.520)	-0.789 (0.524)	-0.659 (0.416)
Treatment effect (including pre-treatment covariates)	-1.249* (0.703)	-0.952** (0.469)	-1.008*** (0.381)	-0.931*** (0.334)	-0.593** (0.239)
Number of municipalities	35	43	54	64	79
Number of observations	35	43	54	64	79

Notes: Each entry is a separate local linear regression with a uniform kernel. All specifications allow for the RD slope to differ across the threshold and include a full set of pre-treatment covariates. The dependent variable in Panels A and C is per capita welfare spending in logarithmic form. The dependent variable in Panel B is an indicator for having direct democracy rather than representative democracy. Panel C is the Wald estimator, the ratio between the reduced form effect and the first-stage estimate. The forcing variable is population in 1918. See the text for a description of included pre-treatment covariates. Standard errors, clustered at both the municipality level and the running variable, are within parentheses (Cameron et al. 2011). Coefficients significantly different from zero are denoted by the following system: \*10%, \*\*5%, and \*\*\*1%.

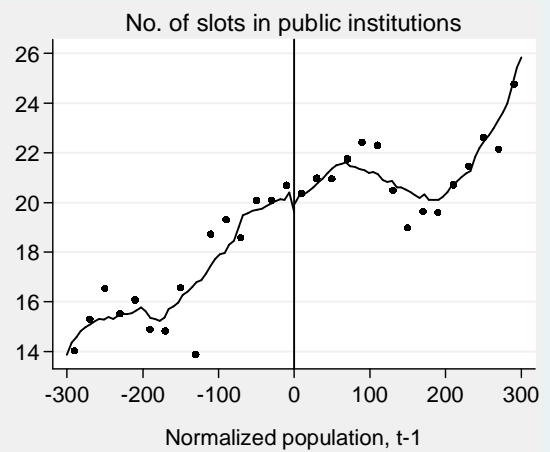
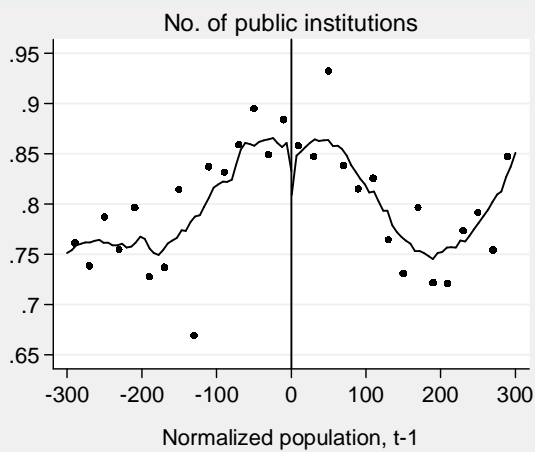
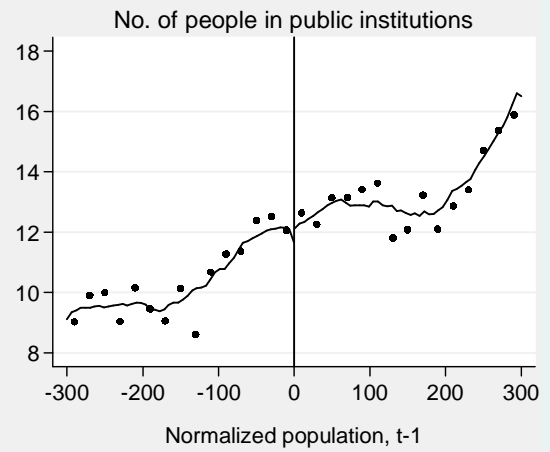
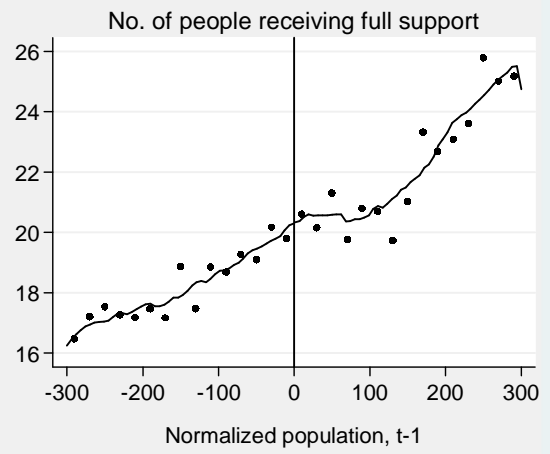
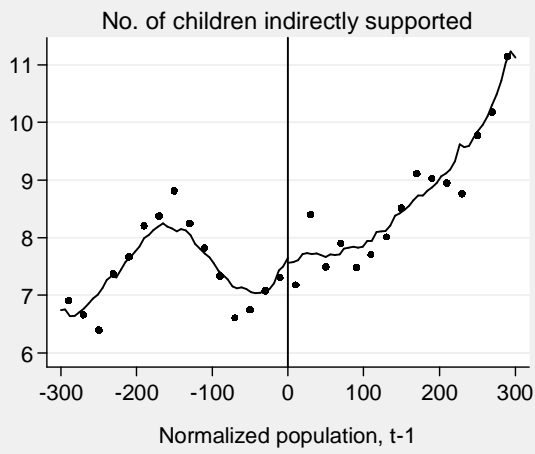
## **A6. Baseline graphs**

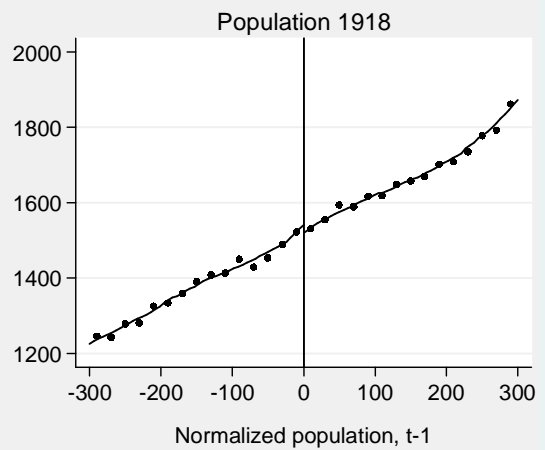
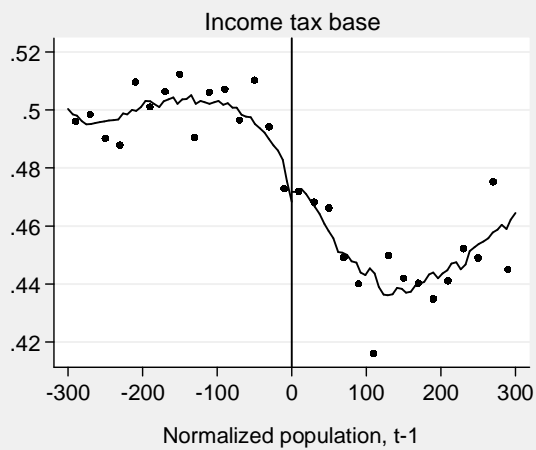
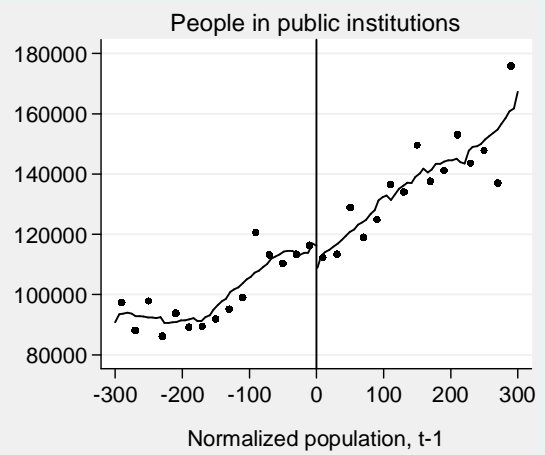
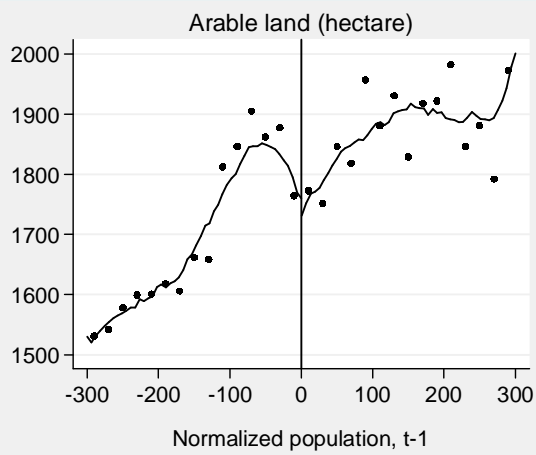
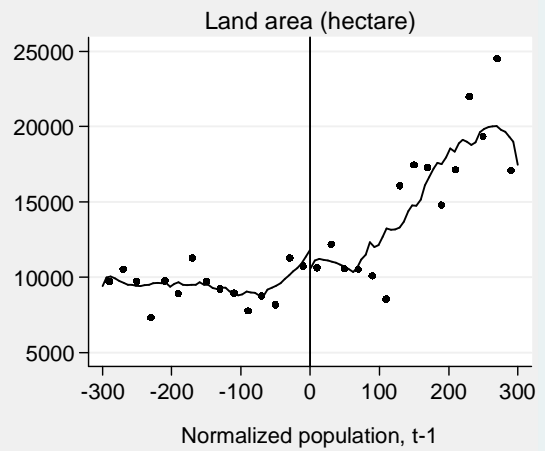
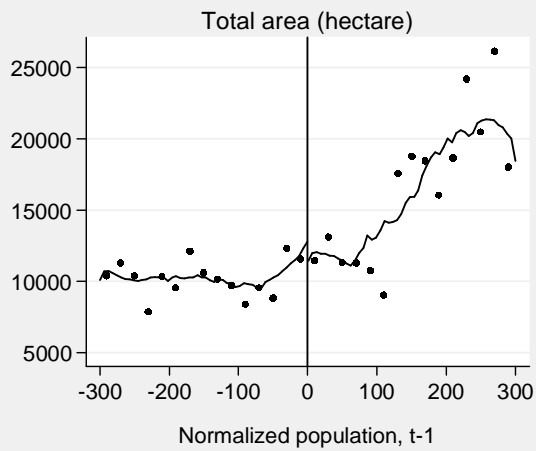
In this section, we show the graphical evidence of any discontinuities in pre-treatment characteristics at the threshold. Few of these graphs show any discontinuities at the treatment threshold.

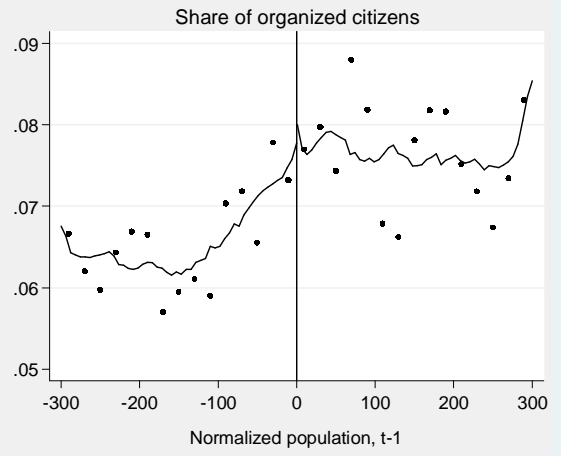
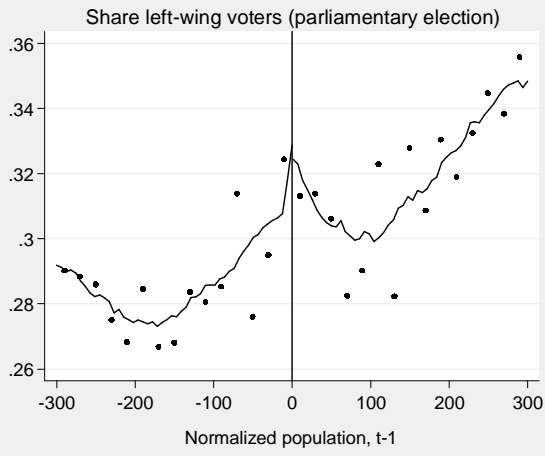
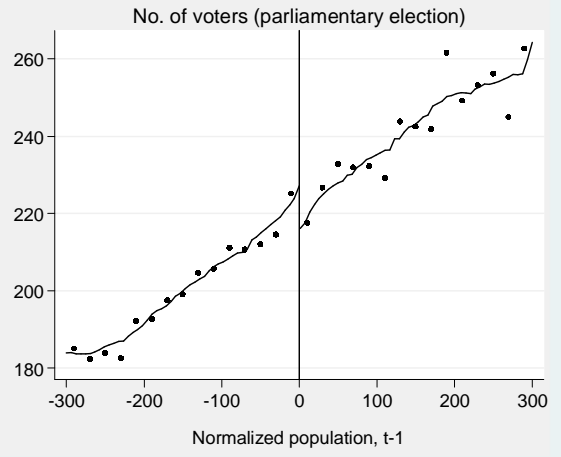
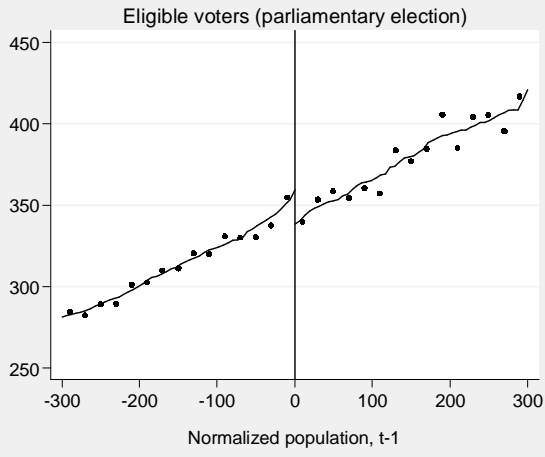
### A61. Graphs when the forcing variable is population in year t-1



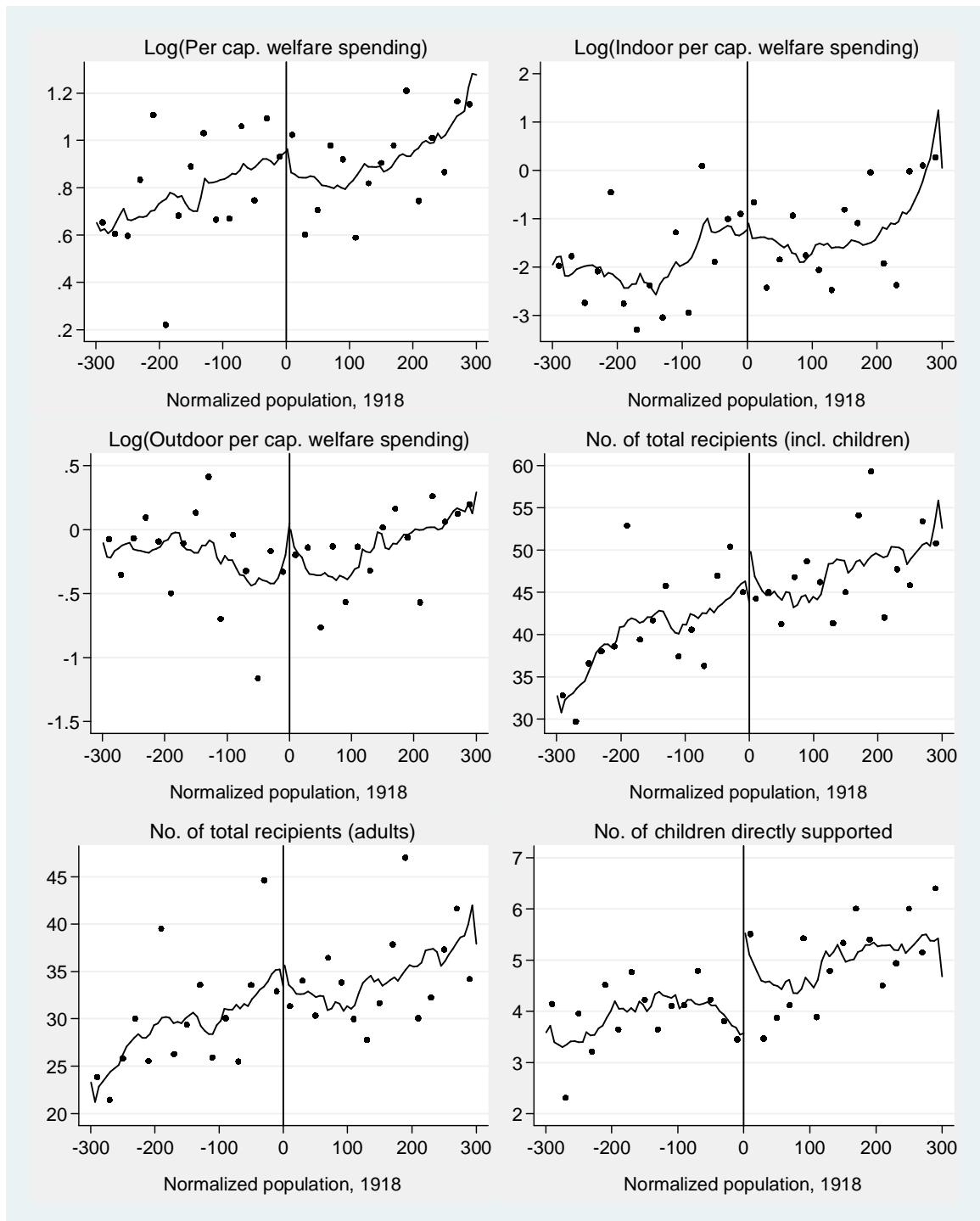


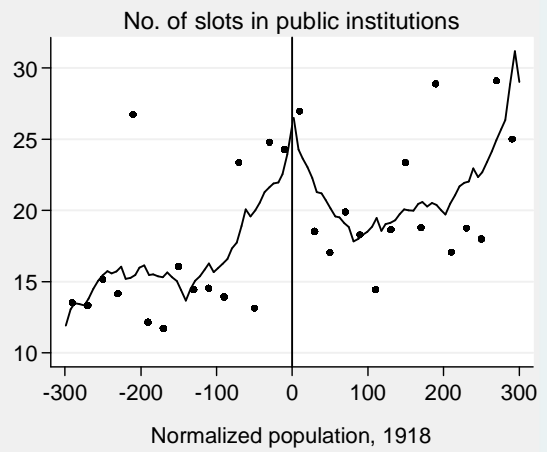
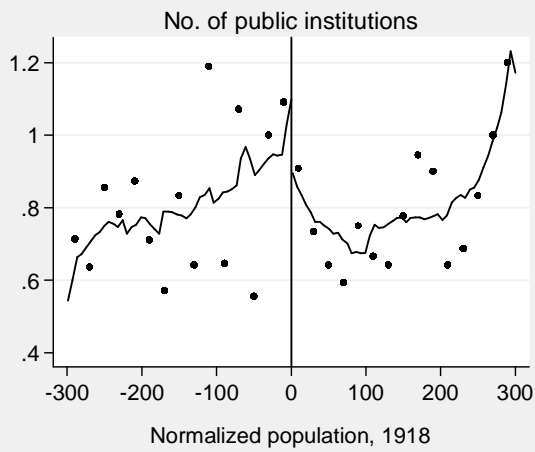
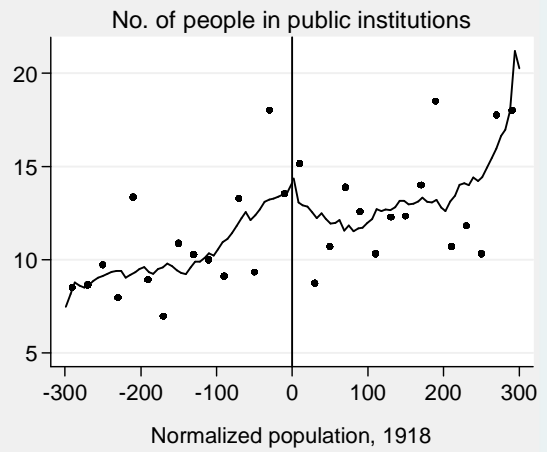
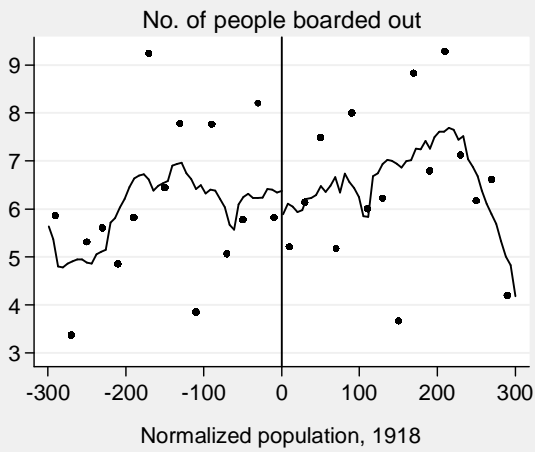
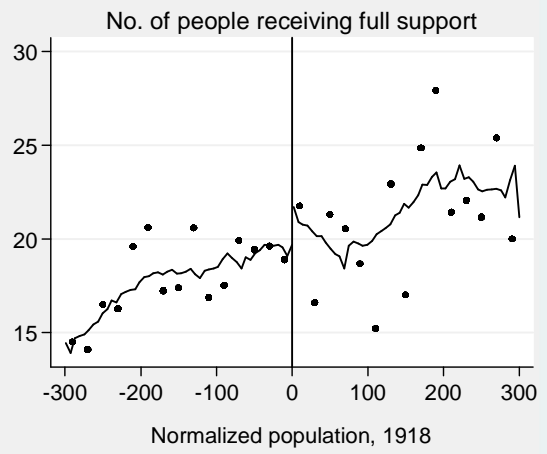
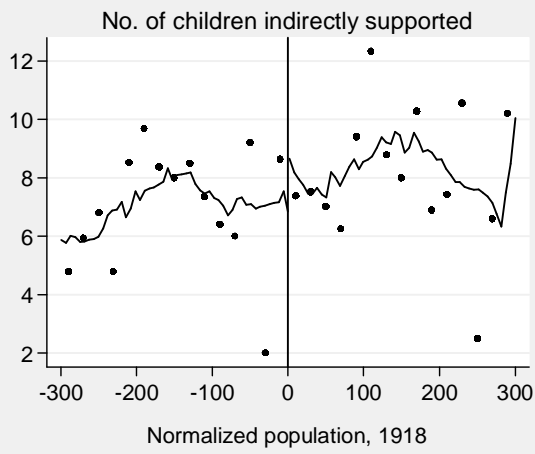


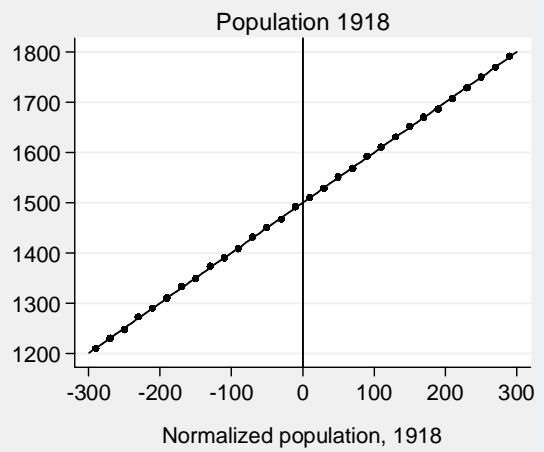
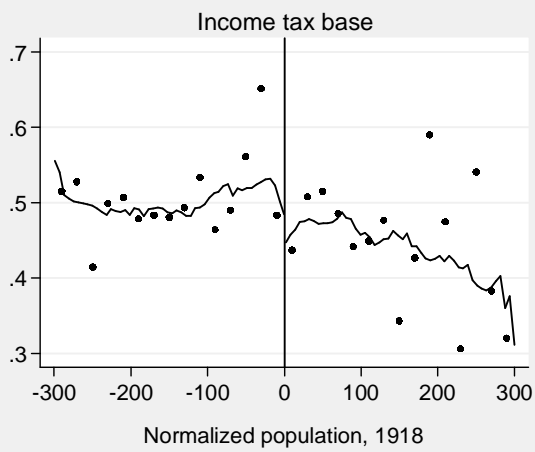
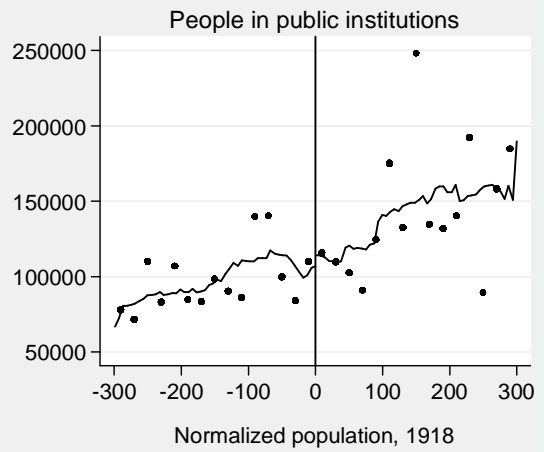
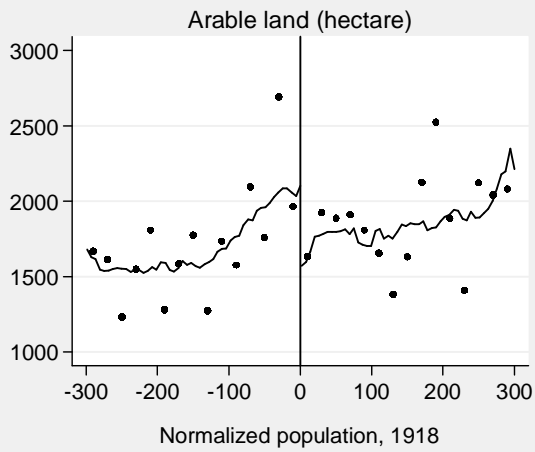
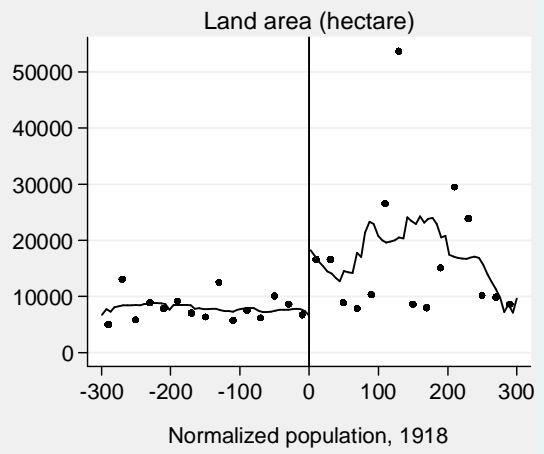
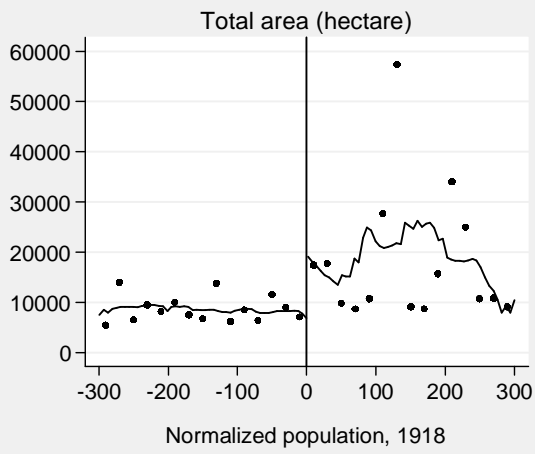


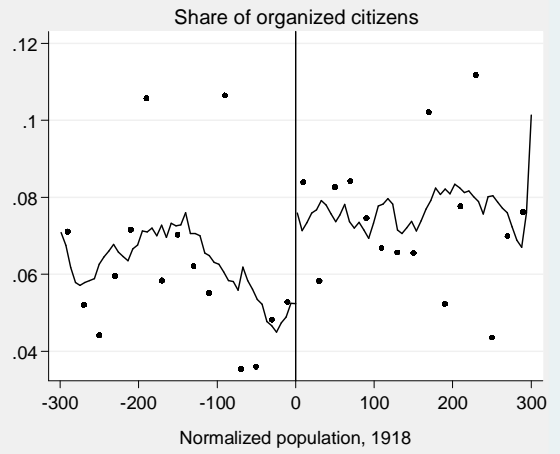
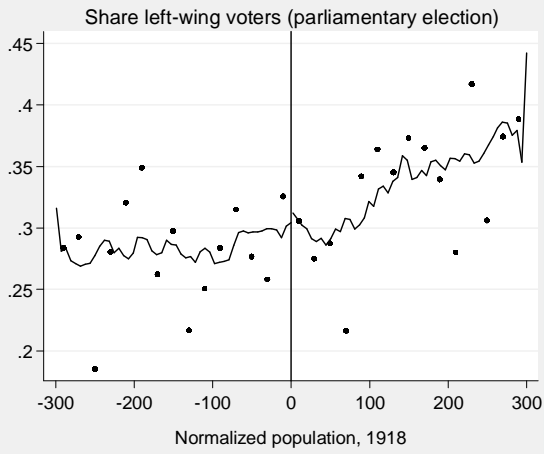
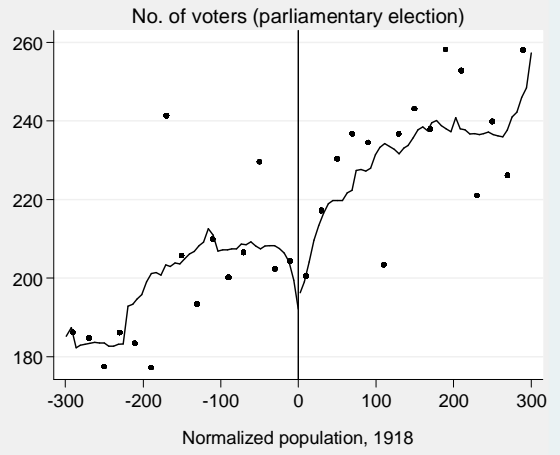
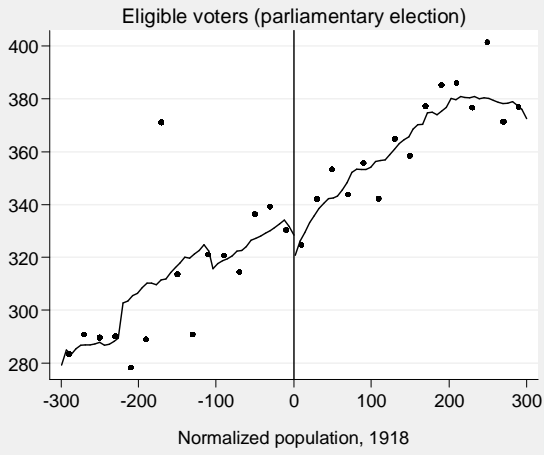


## A62. Graphs when the forcing variable is population in 1918





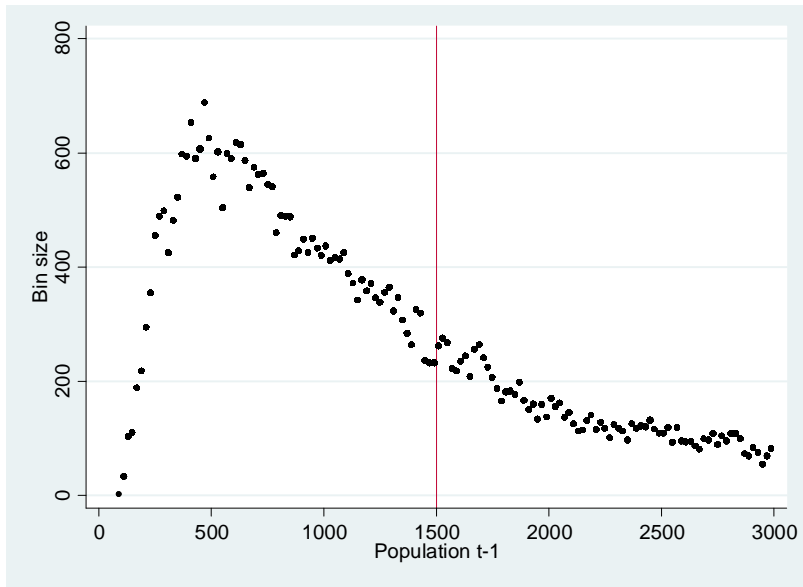




## A7. Histogram of the forcing variables

Here we display the histograms over the forcing variable population in  $t-1$  (Figure A71) and the histograms over the forcing variable population in 1918 (Figure A72).

*Figure A71. Histogram for population in year  $t-1$*



*Figure A72. Histogram for population in 1918*

