

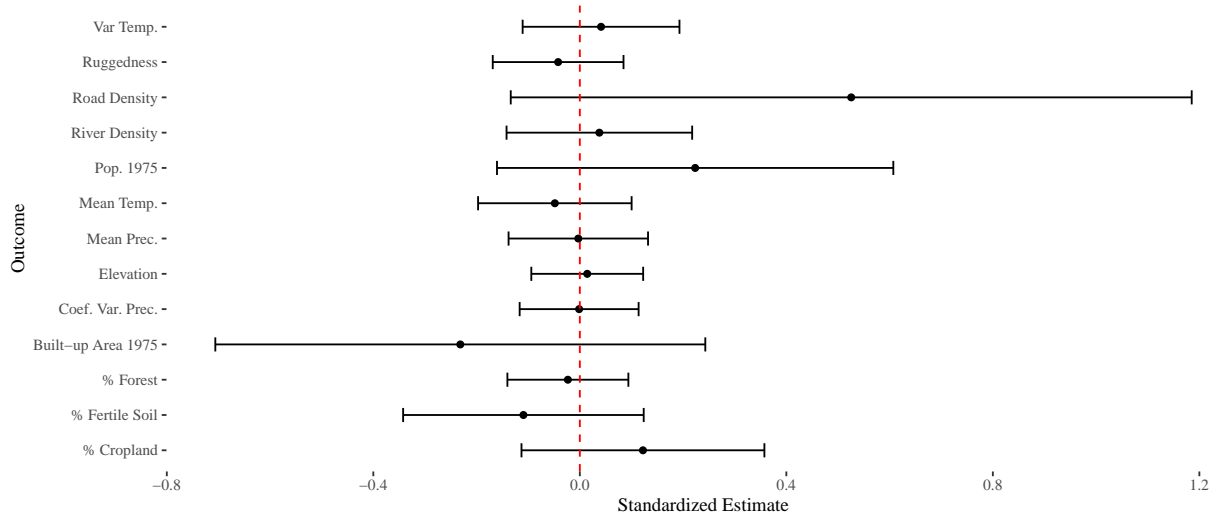
**Online Appendices for “State Terror and Long-run Development”:
Online A-D. See Dataverse Full Appendix for Appendices D-I**

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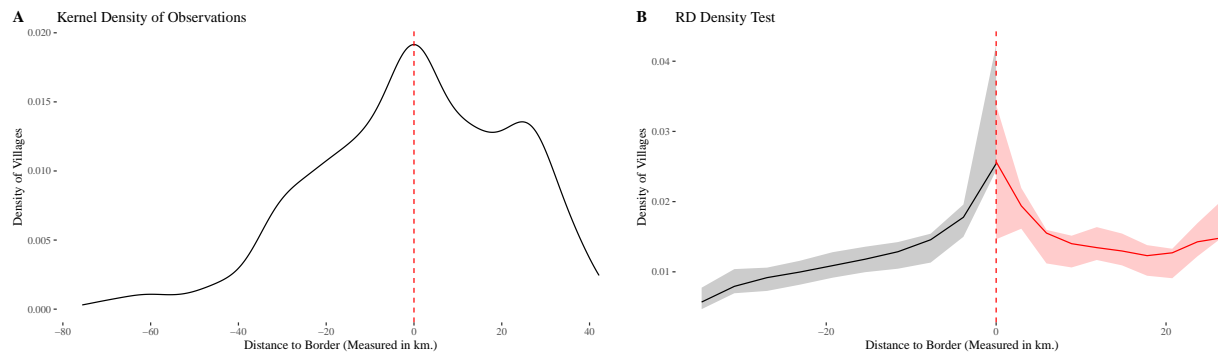
A Identification Checks: Online Appendix

Figure A.1: Balance Tests



Note: Outcomes standardized reported in horizontal axis, vertical axis refers to each respective outcome. Spatial heteroskedasticity and autocorrelation consistent standard errors used to construct equivalence confidence interval (ECI). Equivalence range selected using the sensitivity approach $\epsilon \pm .36\sigma$. Estimates using nonparametric RD within MSE optimal bandwidth, meaning no covariates to report in a tabular format.

Figure A.2: Density Test



Note: Kernel density of observations by running variable in Panel A. Test for discontinuity in density in Panel B showing smoothness of observations at the cutpoint.

B Robustness: Online Appendix

Table B.1: DHS Wealth

	(1)	(2)	(3)
	Levels	Logs	Categories
1 SW	-0.80*** (0.16)	-0.42*** (0.92)	-1.23*** (0.36)
Bandwidth	8.93	9.19	10.32
Effective N	3155	3155	3567

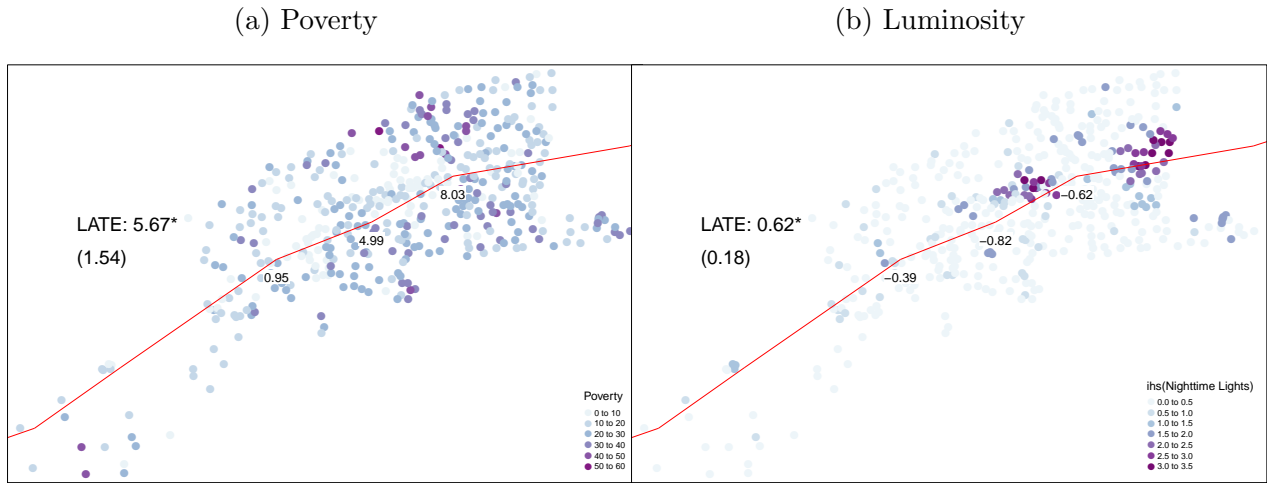
Outcome is the DHS wealth index constructed from the first principal component of household assets. Unit of analysis is the rural individual. Adjusting covariates include gender, age, age squared, and survey wave fixed effects. Column (1) reports the outcome measured in levels, Column (2) reports the natural log of the index, and Column (3) shows the outcome according to categories (quintiles).

Table B.2: Baseline Results: Multidimensional Forcing Variable

Outcome	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	%Poverty				IHS Luminosity			
1 SW	5.45** (1.8)	5.75** (1.85)	6.37*** (1.43)	5.16*** (1.45)	-0.72*** (0.12)	-0.8*** (0.13)	-0.7*** (0.11)	-0.57*** (0.1)
Effective N	334	324	502	484	422	389	452	568
Bandwidth	6.34	5.98	10.99	10.62	8.9	7.95	9.64	12.79
μ Control	20.95	20.95	20.95	20.95	0.43	0.43	0.43	0.43
σ DV	10.55	10.55	10.55	10.55	0.63	0.63	0.63	0.63

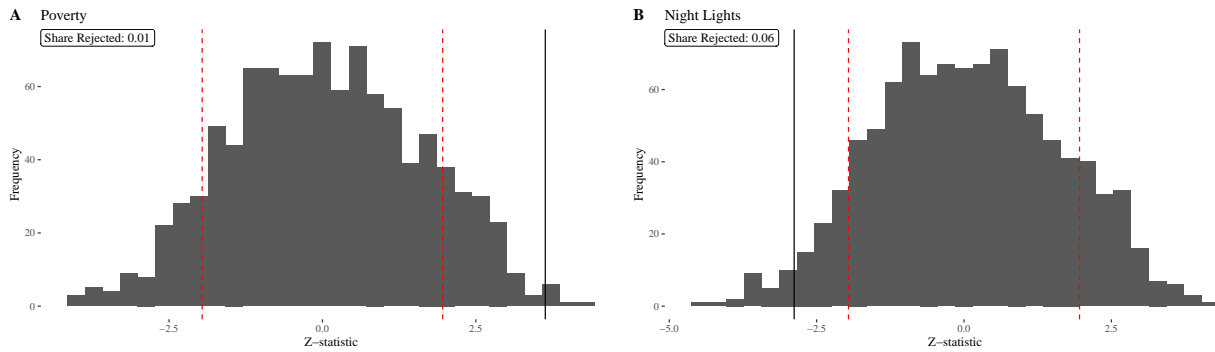
RD results using a polynomial in latitude-longitude space as the forcing variable. Linear forcing variable models latitude and longitude, denoted as x and y , as: $x + y + xy$. Squared model uses: $x + y + xy + x^2 + y^2 + xy^2 + yx^2 + y^2x^2$.

Figure B.1: Treatment Effect Curve



Notes: RD estimates along border points (reported at each particular point) and aggregated LATE (reported in upper left corner). Standard error computed via the bootstrap. Each dot represents a village with associated shading corresponding to level of poverty or luminosity respectively.

Figure B.2: Noise Simulations



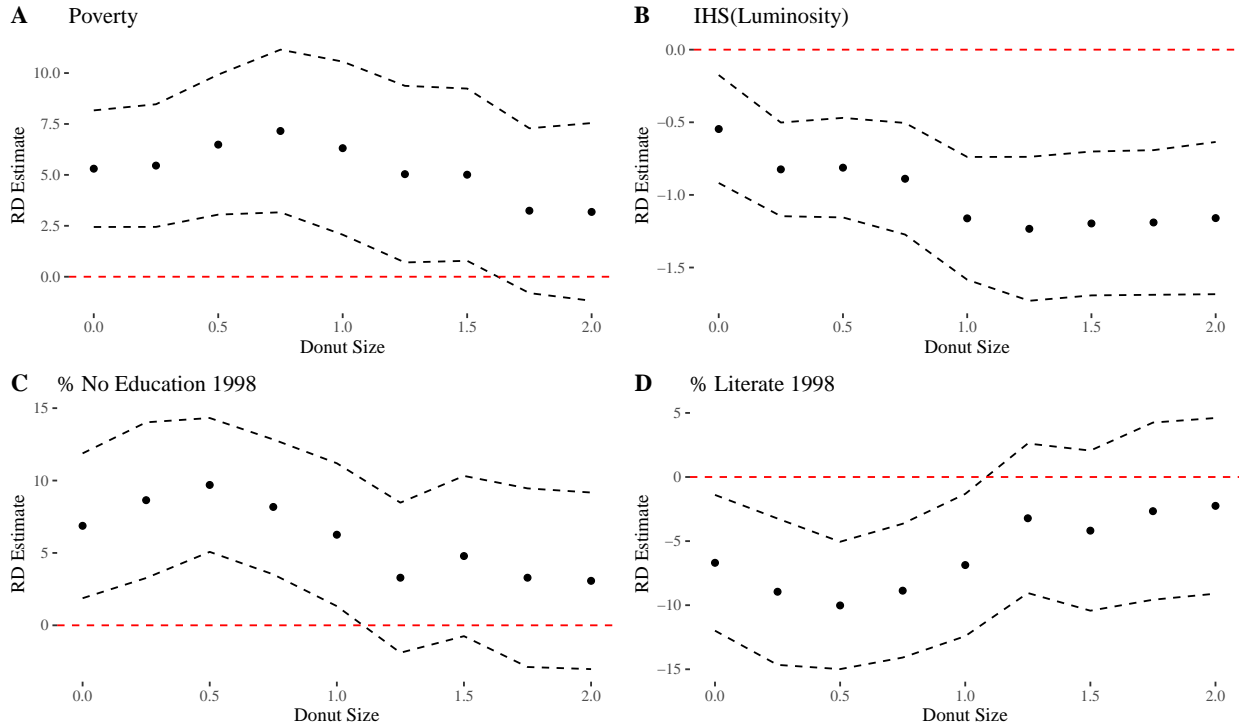
Note: Histograms of z-statistics from CCT robust standard errors. Outcome is simulated spatial noise for each respective outcome. Vertical red line is the z-statistic using the true data. Upper right corner is the proportion of z-statistics from simulations that are more extreme than the estimates from the true data.

Table B.3: Power Analysis:

Kernel	Power Against				
	H0: $\tau = 0$	$0.2*\tau$	$0.5*\tau$	$.8*\tau$	$\tau = \hat{\tau}$
Panel A: Poverty					
Uniform:	.05	.089	0.304	0.638	0.824
Triangular:	.05	0.129	0.532	0.904	0.983
Panel B: Luminosity					
Uniform:	.05	0.145	0.609	0.947	0.994
Triangular:	.05	0.117	0.47	0.854	0.965

Note: Power analysis of nonparametric robust bias-corrected regression discontinuity design for primary outcomes of interest (poverty and luminosity). Each column shows the power of the test against various null hypotheses based on the hypothesized effect size. The column to the furthest to the right reports the power against assuming the effect size detected in the study is the true value of τ , moving to the left the size of τ is decreasing. Power analysis includes border segment fixed effects.

Figure B.3: Excluding Observations Near Threshold



Note: Estimation using CCT nonparametric approach and confidence intervals. Size of donut-hole expands at .25 kilometer increments starting with .5 kilometers. Each estimate drops additional data. Results estimated with nonparametric RD, as such there are no covariates to report.

Table B.4: Sensitivity Analysis

Treatment:	Est.	S.E.	t-value	$R_{Y \sim D \mathbf{X}}^2$	$RV_{q=1}$	$RV_{q=1, \alpha=0.05}$
Outcome: <i>Poverty</i>						
<i>treat</i>	3.486	1.783	1.956	1.2%	10.2%	0%
df = 328	<i>Bound (4x Built Area 1975):</i> $R_{Y \sim Z \mathbf{X}, D}^2 = 9.4\%$, $R_{D \sim Z \mathbf{X}}^2 = 15.2\%$					
Outcome: <i>Luminosity</i>						
1 SW:	-0.574	0.14	-4.113	4.2%	18.9%	10.4%
df = 383	<i>Bound (4x Built Area 1975):</i> $R_{Y \sim Z \mathbf{X}, D}^2 = 28\%$, $R_{D \sim Z \mathbf{X}}^2 = 15.4\%$					
Outcome: <i>Literacy Rate</i>						
1 SW	-7.262	2.648	-2.743	2.4%	14.4%	4.3%
df = 311	<i>Bound (4x Built Area 1975):</i> $R_{Y \sim Z \mathbf{X}, D}^2 = 0\%$, $R_{D \sim Z \mathbf{X}}^2 = 4.2\%$					
Outcome: <i>No Educ.</i>						
1 SW	7.42	2.5	2.968	2.8%	15.7%	5.6%
df = 303	<i>Bound (4x Built Area 1975):</i> $R_{Y \sim Z \mathbf{X}, D}^2 = 1.2\%$, $R_{D \sim Z \mathbf{X}}^2 = 4.7\%$					

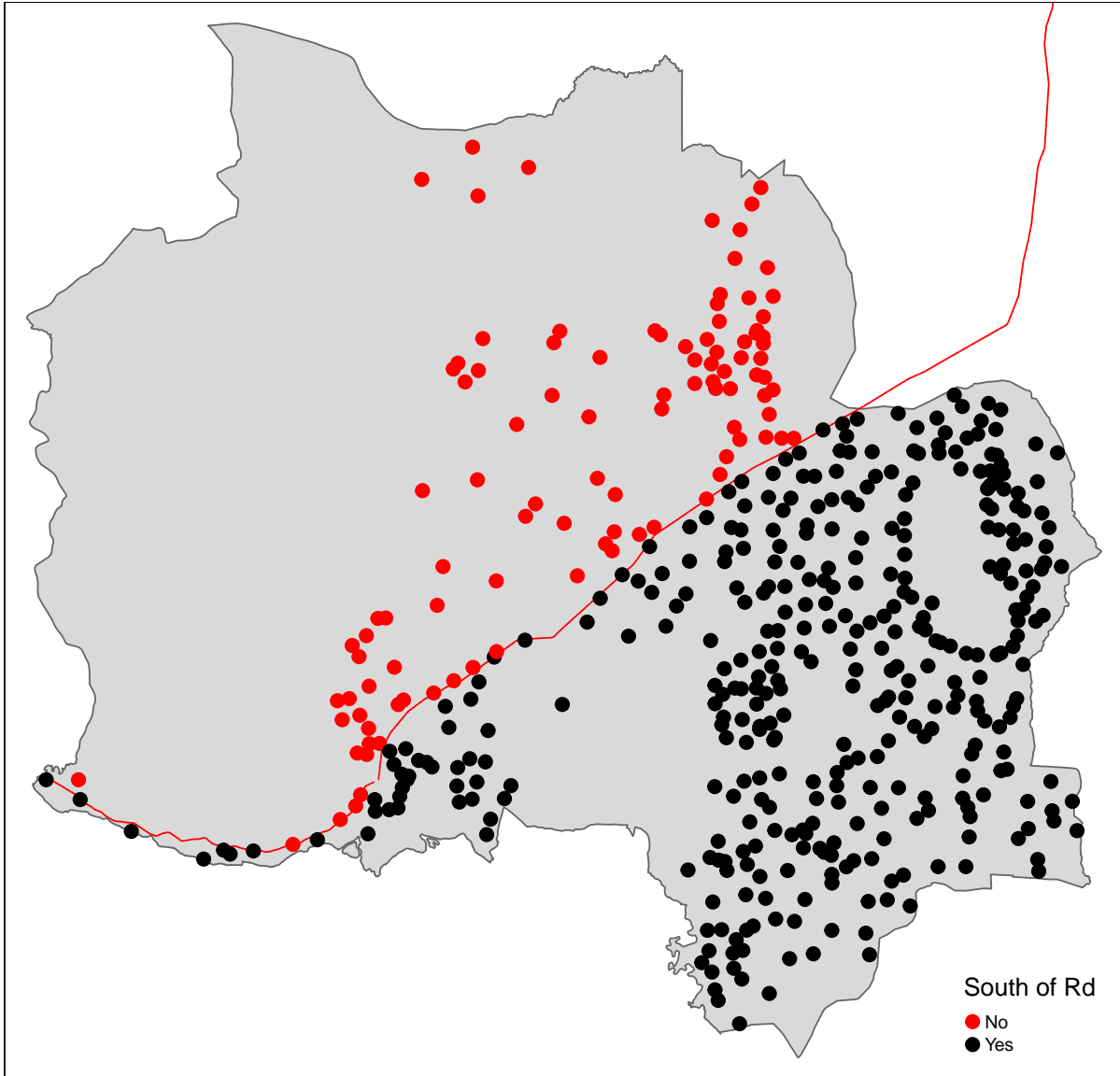
Sensitivity analysis results adjusting for road density and density of built up areas in 2 x 2 kilometer grids surrounding village centers. “Est.” column is the estimate, “S.E.” is the standard error, “t-value” is the t-statistic. $R_{Y \sim D | \mathbf{X}}^2$ reports how much residual variation in treatment exposure unobserved confounder would need to explain in order to erase the effect of treatment conditional on the unobserved confounder explaining all of the left out variance in the outcome of interest. $RV_{q=1}$ is the robustness value for bringing the estimate of Southwest to zero. Unobserved confounders that explain less than the robustness value’s worth of both exposure to the Southwest zone and the outcome of interest are not sufficiently strong to explain away the observed effect.

Table B.5: National Road 3 Placebo: Kampot Province

Outcome	(1)	(2)	(3)	(4)
	Night Lights	Poverty	No Educ.	Literacy
$\mathbb{1}$ South	-0.14 (0.13)	-1.15 (1.48)	-2.61 (2.42)	1.88 (2.69)
Effective N	162	112	134	146
Bandwidth	7831.48	5009.04	6427	6974.87
μ Control	0.28	17.11	53.59	56.79
σ DV	0.5	7.38	12.57	14.2

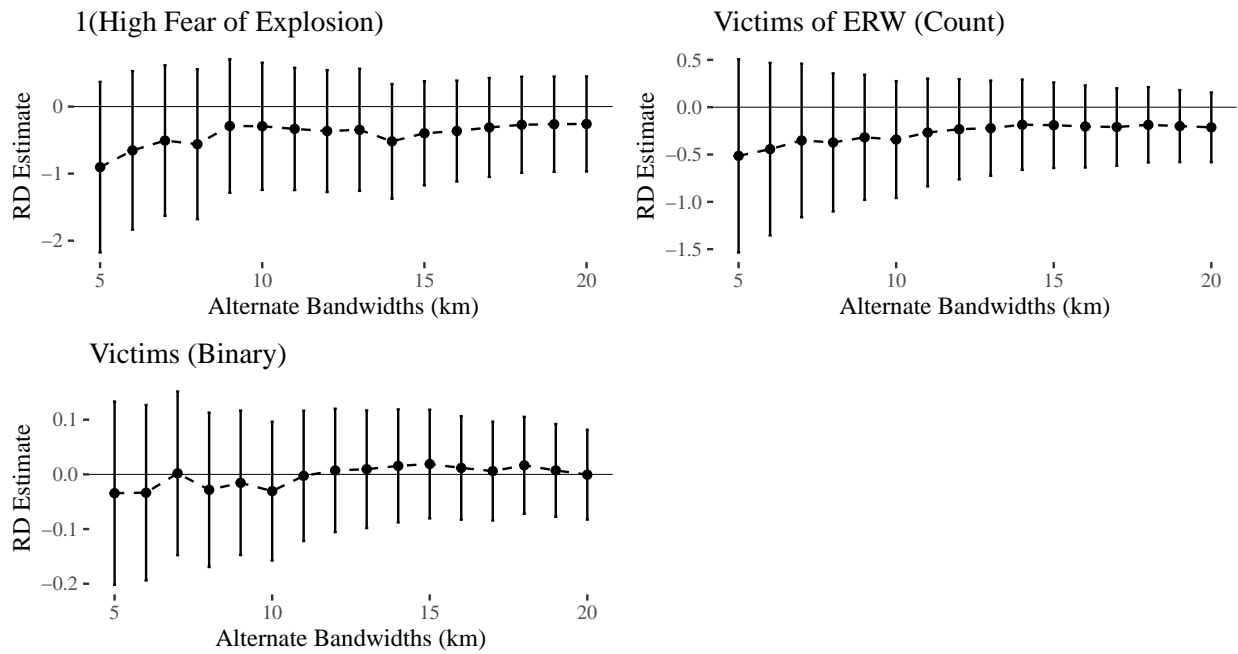
$\mathbb{1}$ South is a binary indicator for a village being South of National Road 3 within Kampot province (See Figure B.4 for reference). All villages within Kampot province, which was entirely in the Southwest Zone during the DK and civil war period (1970-1979).

Figure B.4: Road Placebo: National Highway 3



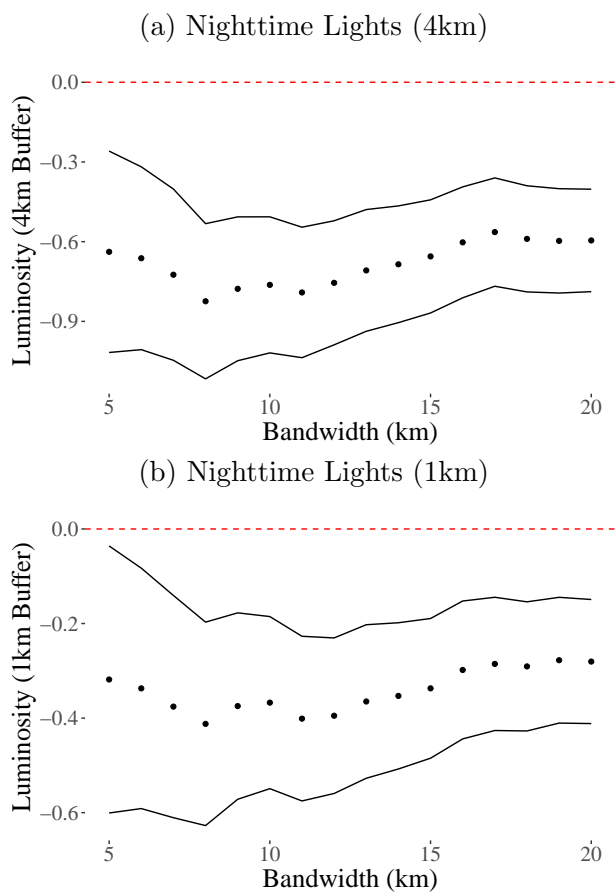
Note: Map showing the province and villages used for the National Highway 3 placebo test.

Figure B.5: Explosive Remnants of War (ERW) and Landmine Exposure: Post 2000



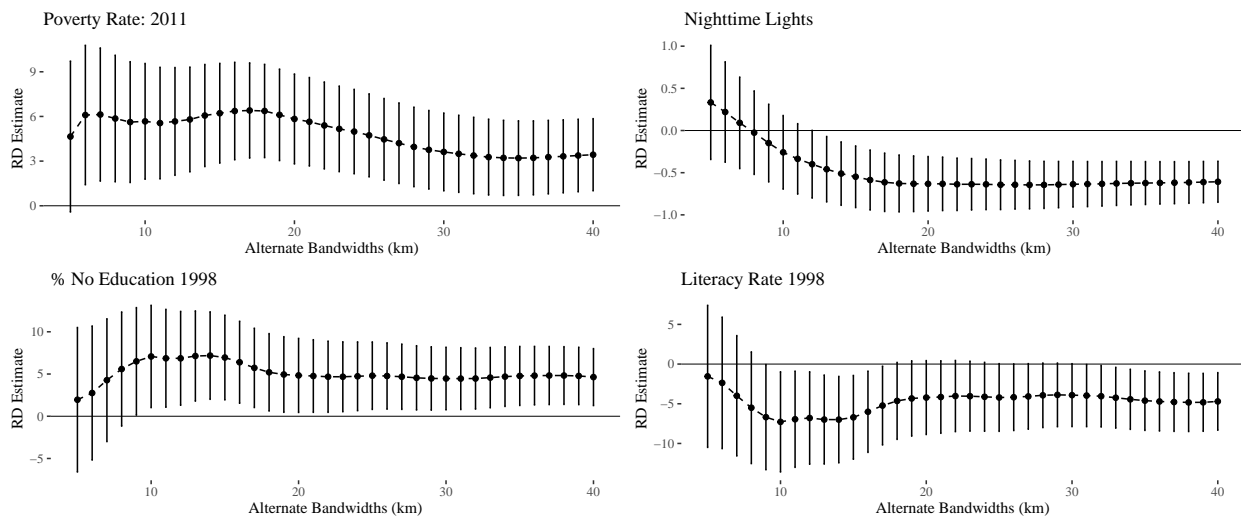
Note: 95% CCT robust confidence intervals shaded around estimates, uniform kernel, alternative bandwidths

Figure B.6: Luminosity: Other Aggregation Grids



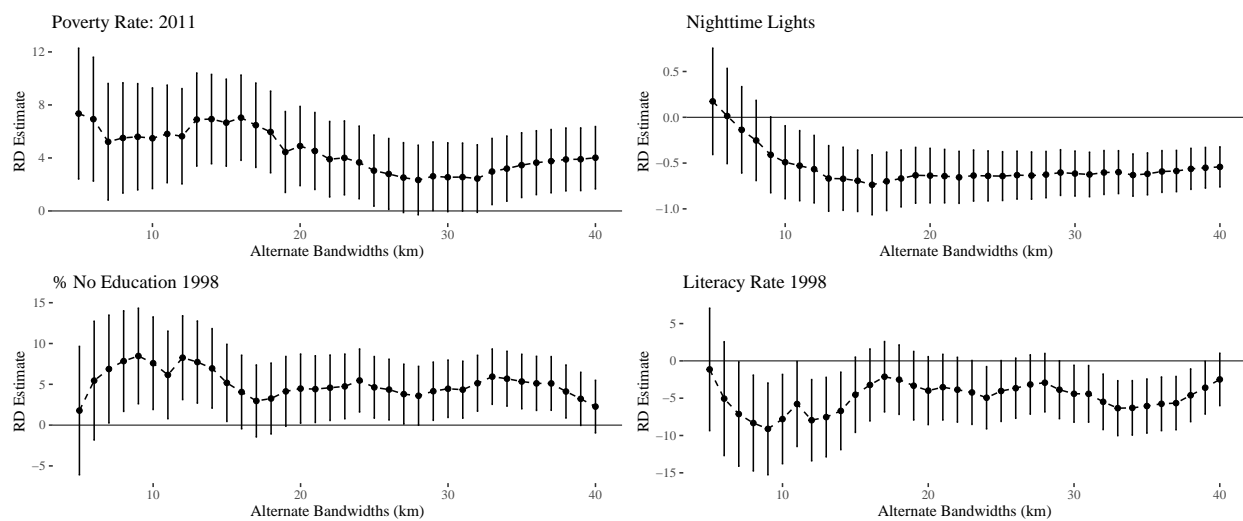
Notes: Semi-parametric RD estimates at alternative bandwidths. Panel A shows the results where a 4 km buffer is created around villages to compute luminosity. Panel B shows results where a narrower 1 km buffer is used to compute luminosity. SHAC standard errors used to construct 95% confidence bands. See Table F9 for full model results.

Figure B.7: Nonparametric RD: Alternative Bandwidths, Triangular Kernel



Note: Estimation using CCT nonparametric approach and confidence intervals at alternative bandwidths with triangular kernel.

Figure B.8: Nonparametric RD: Alternative Bandwidths, Uniform Kernel



Note: Estimation using CCT nonparametric approach and confidence intervals at alternative bandwidths with uniform kernel.

C Alternative Explanations: Online Appendix

Table C.1: Effect of Southwest on Village Development (Covariate Adjusted)

Outcome	(1)	(2)	(3)	(4)
	%Poverty		IHS Luminosity	
SW	3.21 [†] (1.71)	4.36* (2.03)	−0.53*** (0.12)	−0.53*** (0.13)
Effective N	340	505	439	618
Bandwidth	6.58	11.12	9.31	14.37
μ Control	20.95	20.95	0.43	0.43
σ DV	10.55	10.55	0.63	0.63
Segment FE	✓	✓	✓	✓
Dist. Capital Covariate	✓	✓	✓	✓
Pre-DK covariates	✓	✓	✓	✓
Linear	✓	-	✓	-

Note: % Poverty is the count of level 1 and level 2 poverty divided by the number of households per village as measured by IDPoor in 2011. Nighttime lights are the inverse hyperbolic sine of the sum of estimated GDP from luminosity in a 2x2 kilometer grid cell surrounding the village centroid. Estimates include the following pre-DK covariates: distance to the provincial capital, the sum of built up area around the grid cell surrounding the village in 1975, road density in the grid cell surrounding the village. See Table F6 for full model results.

Table C.2: Public Goods Access

Outcome:			
Distance to:	Hospital	School	Commune Center
	(1)	(2)	(3)
1 SW	0.21 (0.34)	-0.00 (0.12)	0.39 (0.55)
N	297	378	365
BW	5.25	7.75	7.54

Notes: See Table 2. Outcomes are village distance to nearest public good (kilometers)

Table C.3: International Migration (Commune)

	(1)	(2)	(3)	(4)
1	0.08 (0.09)	-0.03 (0.24)	0.10 (0.08)	0.07 (0.23)
N.	87	87	87	87
Effective N.	87	87	87	87
District FE	-	-	7.46	7.46

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

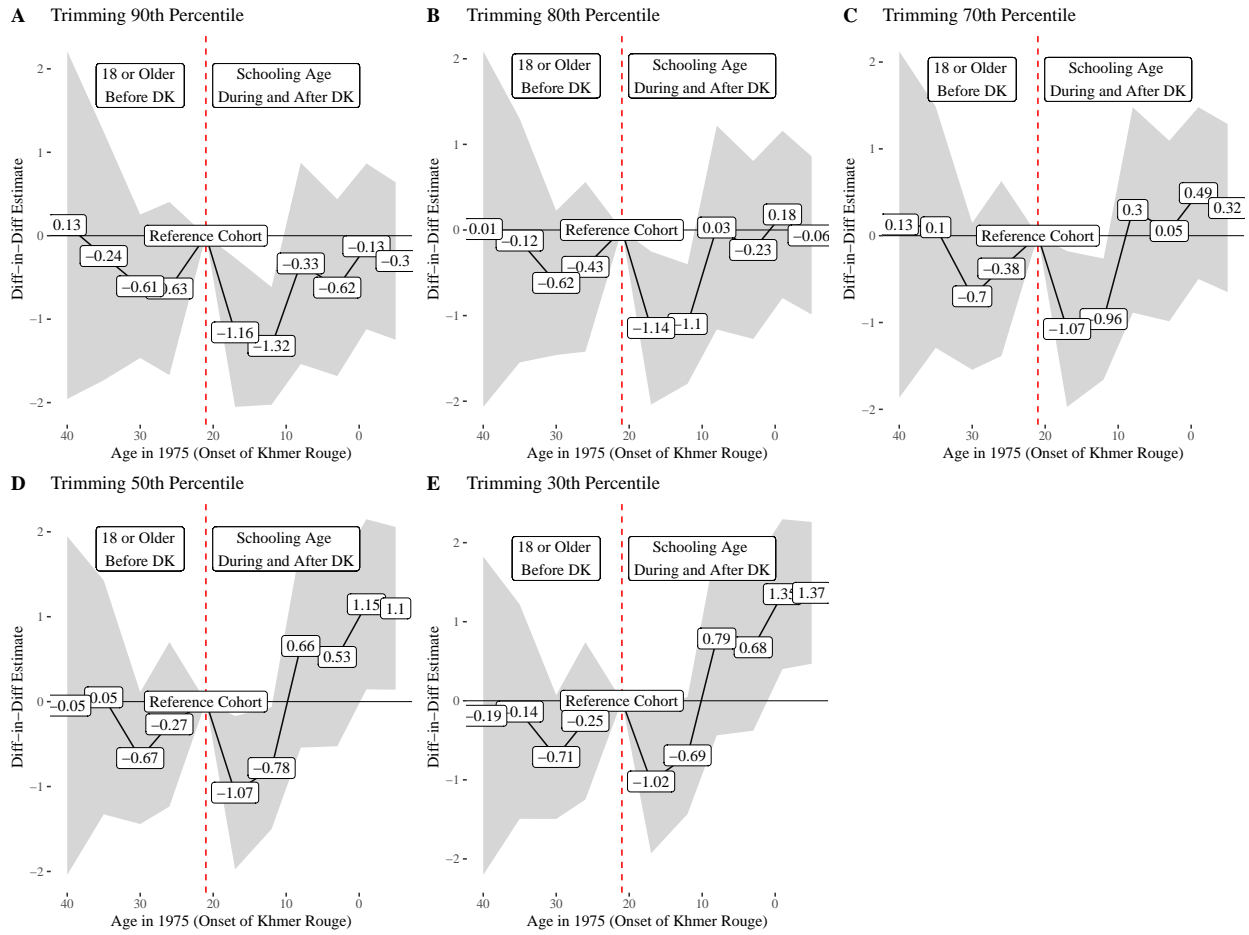
Robust standard errors reported in parentheses. Odd columns use a quadratic of the running variable

Table C.4: Results from Trimming: Wealth

	(1)	(2)	(3)	(4)	(5)	(6)
$x\%$	95	90	85	80	75	70
1SW	-0.77***	-0.71***	-0.62***	-0.50***	-0.37*	-0.21
2	(0.17)	(0.15)	(0.15)	(0.15)	(0.19)	(0.19)
Bandwidth	8996.16	9053.37	9190.09	9621.71	10270.48	10937.85
Total N	13100	13063	12936	12733	12505	12280
Effective N	3152	3138	3103	3148	3352	3388

Note: Outcome is DHS wealth data. Each column drops a percentile of top wealthiest persons in the West zone - e.g. Column (1) drops the top 5% wealthiest from the West zone and retains the bottom 95%, Column (2) drops the top 10% and retains the bottom 90%, ect.

Figure C.1: Event Studies Trimming Upper Education Percentiles



Note: Robust errors clustered at the village. Each panel drops top percentile of schooled persons from the West zone. See Table F11 for full model results.

D Human Capital Mechanism: Online Appendix

Table D.1: Human Capital in 1998: Years of Schooling and Attendance

Outcome	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Yrs Educ.				Attendance Rate			
SW	-1.1** (0.41)	-0.58 (0.39)	-1.1* (0.43)	-0.69 [†] (0.38)	-6.02** (2.15)	-4.64* (2.16)	-7.79** (2.43)	-3.42 (2.29)
Effective N	312	285	442	439	355	313	597	476
Bandwidth	5.78	4.85	9.87	9.66	7.13	5.85	14.27	10.78
μ Control	4.16	4.16	4.16	4.16	30.07	30.07	30.07	30.07
σ DV	1.9	1.9	1.9	1.9	12.8	12.8	12.8	12.8
Segment FE	-	✓	-	✓	-	✓	-	✓
Dist. Capital Covariate	-	✓	-	✓	-	✓	-	✓
Linear	✓	✓	-	-	✓	✓	-	-
Quadratic	-	-	✓	✓	-	-	✓	✓

Note: Yrs. Educ. is the average years of education in a village. Attendance Rate is the share of persons who are enrolled in school below 25 (i.e. schooling aged). *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ See Table F7 for full model results.

Table D.2: Human Capital in 1998: Adjusting for Distance to Schools

Outcome	(1) Literacy Rate	(2)	(3) % No Educ.	(4)	(5) Yrs. Educ.	(6)	(7) Attendance Rate	(8)
1 SW	-4.94* (2.44)	-5.62* (2.71)	4.23* (2.11)	5.15* (2.41)	-0.62† (0.37)	-0.76* (0.37)	-5.14* (2.08)	-4.21† (2.3)
Effective N	302	424	313	430	286	436	313	451
Bandwidth	5343.89	9249.23	5847.32	9352.39	4860.19	9592.27	5843.17	10170.76
μ Control	62.88	62.88	50.48	50.48	4.16	4.16	30.07	30.07
σ DV	17.03	17.03	14.85	14.85	1.9	1.9	12.8	12.8

Note: Literacy Rate is the percentage of persons over 15 who can read write. % No Educ. is the percentage of people who have no schooling. Yrs. Educ. is the average years of education in a village. Attendance Rate is the share of persons who are enrolled in school below 25 (i.e. schooling aged). *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table D.3: School Outcomes

School Outcome	Staff/Student Ratio		Students Per Classroom	
SW	0.28 (0.20)	0.47 (1.08)	0.01 (3.13)	-46.26** (16.47)
N.	495	495	495	495

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

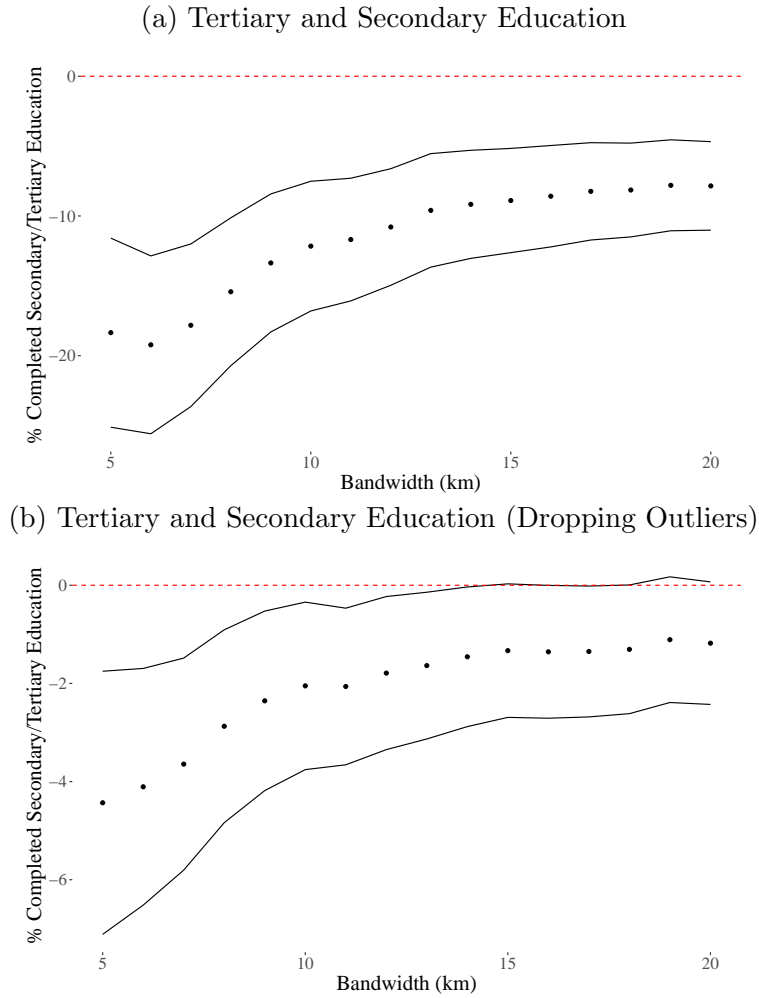
Robust standard errors reported in parentheses. Data collected at the school level. Staff/student ratio is the number of employees in the school divided by the number of students. Students per classroom is the number of students divided by the number of rooms in the school.

Table D.4: Schooling Persistence: 2008 Census

Outcome	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Attendance Rate		Yrs. School		Literacy Rate		% No Educ.	
SW	-1.61 (1.24)	-2.25 [†] (1.23)	-0.13 (0.12)	-0.24 (0.15)	-1.29 (1.89)	-2.27 (2.18)	-0.82** (0.3)	-1.15* (0.47)
Effective N	336	612	294	391	358	569	405	710
Bandwidth	6.48	14.11	5.03	8.04	7.17	12.8	8.49	17.1
μ Control	29.77	29.77	5.16	5.16	75.04	75.04	1.18	1.18
σ DV	6.46	6.46	0.65	0.65	14.07	14.07	2.13	2.13

Note: Unit of analysis is the village. SHAC standard errors reported in parentheses.

Figure D.1: Tertiary and Secondary Education (All Data)



Notes: Parametric RD estimates at alternative bandwidths. Panel A shows results using all villages. Panel B shows results where outlying positive observations (highly educated villages) are dropped from the analysis. Horizontal axis reports different evaluation bandwidths. SHAC standard errors used to construct 95% confidence bands. See Table F11 for full model results.

Table D.5: Education Differences by Gender: 1998 Census

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A: Males	%No Educ. Males				Lit. Rate Males			
SW	6.83** (2.23)	3.98 [†] (2.06)	4.31 [†] (2.39)	3.77 (2.38)	-5.49* (2.25)	-3.23 (2.13)	-5.86* (2.66)	-4.59 [†] (2.49)
Effective N	320	311	624	452	317	321	528	435
Bandwidth	6157.66	5758.35	15246.56	10249.45	6003.24	6214.12	11983.37	9554.23
B: Females	%No Educ. Females				Lit. Rate Females			
SW	8.33** (2.77)	3.81 (2.49)	8.35** (2.95)	4.95 [†] (2.77)	-9.41** (3.18)	-4.53 (3.15)	-10.82** (3.7)	-6.4 [†] (3.42)
Effective N	306	312	507	434	309	279	413	412
Bandwidth	5526.79	5808.96	11714.12	9432.27	5632.18	4690.57	8993.07	8951.34
C: Gap	%No Educ. Gender Gap				Lit. Rate Gender Gap			
SW	3.33 [†] (1.97)	1.64 (1.94)	3.8 [†] (2.13)	2.48 (2.06)	-1.38 (0.85)	-1.2 (0.89)	-1.52 (1)	-1.51 (0.97)
Effective N	310	314	447	460	440	417	611	668
Bandwidth	5658.08	5893.41	10076.75	10401.42	9786.66	9125.82	14902.86	16266.69

RD estimates using education by gender as the outcomes of interest. Panel A studies the rates of no education and literacy by males, and Panel B by females. Panel C studies the gender gap in these outcomes, defined as the difference between human capital rates by group. Overall, I find little to no evidence of differential gender effects.

Table D.6: Placebo Tests: Cohort Analysis

	(1)	(2)	(3)	(4)
SW × 1(DK age ≤ 35)	-0.49 (1.37)			
SW × 1(DK age ≤ 30)		-0.58 (0.81)		
SW × 1(DK age ≤ 25)			0.13 (0.66)	
SW × 1(DK age ≤ 20)				0.42 (1.08)
N.	537	537	537	537
SD DV	3.5	3.5	3.5	3.5
Village FE	✓	✓	✓	✓
Commune by Decade FE	✓	✓	✓	✓
Gender FE	✓	✓	✓	✓
Wave FE	✓	✓	✓	✓

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Note: Village clustered errors reported in parentheses. Outcome is the years of schooling. Sample is individuals who were over 18 years old in 1975, meaning they would have completed schooling before the DK regime began.

Table D.7: Child Health Between Zones by Maternal Education Level

Outcome	(1)	(2)	(3)	(4)
	Health Index	Height/Age	Weight/Age	Weight/Height
Panel A: Mothers with No Education				
1 SW	-2.96**	-1.70	-1.74**	-3.31***
	(0.93)	(1.65)	(0.53)	(0.38)
	[0.79]	[0.84]	[0.68]	[0.39]
N. Individuals	65	45	73	46
N. Clusters	25	17	27	18
Panel B: Mothers with Education				
1 SW	-0.30	0.14	-0.20	-0.84***
	(0.40)	(0.22)	(0.29)	(0.20)
	[0.37]	[0.23]	[0.27]	[0.41]
N. Individuals	233	170	233	170
N. Clusters	38	26	38	26
Controls	✓	✓	✓	✓
SD DV	1.38	1.26	0.99	0.98

Note: Unit of analysis is the 3-5 year old individual from the 2000-2014 DHS survey waves - the children of the generation exposed to the Khmer Rouge. Health index (Column 1) is the first principal component of individual health measures. Height/Age is the standard deviations from the median of individual height for age (stunting), Weight/Age is standard deviations from the median of weight for age (wasting), Weight/Height is standard deviations from the median of weight for height (underweight). Analysis within rural households to maximize comparability. Controls include the age of the mother and its square and survey year fixed effects. Robust standard errors clustered at the survey area reported in parentheses. Panel A studies children with mothers without education. Panel B studies children of mothers with at least some education. Clustered standard errors, clustered by survey area, reported in parentheses. Wild cluster bootstrapped errors in brackets. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ See Table F8 for full model results.

Table D.8: Schooling, Self Employment, and Income

	(1) Self Employment	(2) Income	(3) Income
Years of School	-0.03*** (0.00)		
Age	4.44*** (0.42)	-0.19 (0.92)	1.64 (1.72)
Age ²	-2.75*** (0.41)	1.67* (0.82)	0.69 (1.13)
Rural	0.09** (0.03)	-0.29*** (0.06)	-0.24*** (0.07)
Female	0.00 (0.03)	-0.02 (0.05)	-0.00 (0.06)
Self Employed		-0.51*** (0.06)	-0.86** (0.28)
N.	975	975	975
Adj. R ²	0.23	0.11	0.09
Estimator	OLS	OLS	2SLS

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Labor Force Survey. Unit of analysis is employed working aged (11-59) individuals. Data from 2000-2001 Labor Force Survey. Pr(Self Employed) is scored 1 for persons who are own account workers. Income is individual wages, remuneration, earnings, tips reported from the last month in 10,000 riels, and productivity is riels divided by working hours.