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Supplementary Materials

State Right to Refuse Medication Laws and Procedures: Impact on Homicide and Suicide

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Supplementary Materials

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Table S1.

Effect of Right to Refuse Laws on Assaults			
	(1)	(2)	(3)
Voluntarily Committed Patients Only	-0.02399 (0.07234)	-0.04268 (0.06723)	-0.03625 (0.07048)
Request for Refusal Subject to Review	0.00733 (0.04979)	-0.01821 (0.05045)	. .
Real Beer Tax	.	0.11362 (0.12663)	0.11612 (0.12586)
Psychologists per capita	.	0.00518 (0.00430)	0.00521 (0.00428)
Mandatory Duty Requirement	.	0.01055 (0.04650)	0.01157 (0.04678)
Minimum Stay Requirement	.	0.00036† (0.00017)	0.00036† (0.00017)
Maximum Stay Requirement	.	0.00001 (0.00005)	0.00001 (0.00005)
Proportion Black	.	-2.78009 (1.97495)	-2.81486 (1.95027)
Infant Mortality Rate	.	0.00029† (0.00014)	0.00028† (0.00014)
Prisoners per capita	.	0.08834 (0.08877)	0.08550 (0.08987)
Urbanization Rate	.	0.77451 (1.46157)	0.77602 (1.45983)
Proportion of Adults Aged 13 to 24	.	-1.00081 (2.87023)	-0.98066 (2.92252)
Proportion of Adults Aged 25 to 44	.	-0.87482 (2.23082)	-0.95363 (2.23382)
Proportion of State Senate Democrat	.	0.02098 (0.03579)	0.01838 (0.03559)
Proportion of State House Democrat	.	-0.00888 (0.11262)	-0.00976 (0.11166)
Institutionalization Rate	.	0.01230‡ (0.00432)	0.01218‡ (0.00440)
	<i>Fixed Effects</i>	X	X
	<i>Controls</i>		X
Sample Size	1479	1479	1479
R Squared	0.92	0.92	0.92

Notes: Each column represents a unique regression. Each observation is at the state-year level. The dependent variable is the natural log of the assault rate and the standard errors are

clustered at the state level. In addition to the controls listed, each table includes state and year fixed effects. The reference group in each regression are those states that have no laws dictating which classes of patients can request or refuse medication. [^] p<0.10 [†] p<0.05 [‡] p<0.01

Table S2.

Effect of Right to Refuse Laws on Violent Crime			
	(1)	(2)	(3)
Voluntarily Committed Patients Only	-0.01710 (0.05880)	-0.01015 (0.05571)	0.00951 (0.05923)
Request for Refusal Subject to Review	-0.04521 (0.04430)	-0.05569 (0.04030)	. .
Real Beer Tax	.	-0.10554 (0.12222)	-0.09791 (0.13442)
Psychologists per capita	.	0.00928‡ (0.00359)	0.00938‡ (0.00379)
Mandatory Duty Requirement	.	0.03445 (0.03886)	0.03757 (0.03921)
Minimum Stay Requirement	.	0.00018 (0.00014)	0.00017 (0.00015)
Maximum Stay Requirement	.	0.00000 (0.00004)	0.00000 (0.00004)
Proportion Black	.	-2.84866† (1.29793)	-2.95498† (1.40424)
Infant Mortality Rate	.	0.00029‡ (0.00012)	0.00028‡ (0.00012)
Prisoners per capita	.	0.01711 (0.07121)	0.00844 (0.07203)
Urbanization Rate	.	0.87292 (1.15476)	0.87753 (1.15690)
Proportion of Adults Aged 13 to 24	.	-1.72264 (2.71040)	-1.66103 (2.83620)
Proportion of Adults Aged 25 to 44	.	-0.98963 (1.76765)	-1.23063 (1.76273)
Proportion of State Senate Democrat	.	0.06546† (0.03223)	0.05752^ (0.03243)
Proportion of State House Democrat	.	-0.15197 (0.09486)	-0.15467^ (0.09465)
Institutionalization Rate	.	0.00998‡ (0.00368)	0.00962‡ (0.00379)
	<i>Fixed Effects</i>	X	X
	<i>Controls</i>		X
Sample Size	1479	1479	1479
R Squared	0.94	0.95	0.95

Notes: Each column represents a unique regression. Each observation is at the state-year level. The dependent variable is the natural log of the assault rate and the standard errors are

clustered at the state level. In addition to the controls listed, each table includes state and year fixed effects. The reference group in each regression are those states that have no laws dictating which classes of patients can request or refuse medication. [^] p<0.10 [†] p<0.05 [‡] p<0.01

Table S3.

Effect of Right to Refuse Laws on Burglaries				
	(1)	(2)	(3)	
Voluntarily Committed Patients Only	-0.08004 [^]	-0.03748	0.01365	
	(0.04797)	(0.04220)	(0.04716)	
Request for Refusal Subject to Review	-0.16556 [‡]	-0.14480 [‡]	.	
	(0.06442)	(0.04643)	.	
Real Beer Tax	.	-0.50267 [‡]	-0.48282 [‡]	
	.	(0.15299)	(0.18677)	
Psychologists per capita	.	0.00414	0.00439	
	.	(0.00422)	(0.00491)	
Mandatory Duty Requirement	.	0.05286	0.06097 [^]	
	.	(0.03468)	(0.03715)	
Minimum Stay Requirement	.	0.00010	0.00009	
	.	(0.00013)	(0.00017)	
Maximum Stay Requirement	.	0.00004	0.00004	
	.	(0.00004)	(0.00004)	
Proportion Black	.	-2.57768 [^]	-2.85411 [^]	
	.	(1.33071)	(1.65260)	
Infant Mortality Rate	.	0.00005	0.00002	
	.	(0.00012)	(0.00014)	
Prisoners per capita	.	-0.14867 [^]	-0.17124 [‡]	
	.	(0.07672)	(0.07959)	
Urbanization Rate	.	-0.29749	-0.28550	
	.	(0.78581)	(0.82972)	
Proportion of Adults Aged 13 to 24	.	0.27558	0.43576	
	.	(2.54865)	(2.88458)	
Proportion of Adults Aged 25 to 44	.	-0.99144	-1.61806	
	.	(1.15518)	(1.33450)	
Proportion of State Senate Democrat	.	0.05824 [^]	0.03759	
	.	(0.03277)	(0.03481)	
Proportion of State House Democrat	.	-0.08038	-0.08738	
	.	(0.08724)	(0.09605)	
Institutionalization Rate	.	-0.00021	-0.00115	
	.	(0.00336)	(0.00339)	
	<i>Fixed Effects</i>	X	X	X
	<i>Controls</i>		X	X
Sample Size		1479	1479	1479
R Squared		0.88	0.90	0.90

Notes: Each column represents a unique regression. Each observation is at the state-year level. The dependent variable is the natural log of the assault rate and the standard errors are

clustered at the state level. In addition to the controls listed, each table includes state and year fixed effects. The reference group in each regression are those states that have no laws dictating which classes of patients can request or refuse medication. [^] p<0.10 [†] p<0.05 [‡] p<0.01

Table S4.

Effect of Right to Refuse Laws on Robberies			
	(1)	(2)	(3)
Voluntarily Committed Patients Only	-0.04462 (0.06319)	-0.00562 (0.04717)	0.03339 (0.05226)
Request for Refusal Subject to Review	-0.10934 [^] (0.06614)	-0.11046 [†] (0.05186)	. .
Real Beer Tax	.	-0.37435 [†] (0.17471)	-0.35921 [^] (0.20103)
Psychologists per capita	.	0.01717 [‡] (0.00710)	0.01736 [†] (0.00772)
Mandatory Duty Requirement	.	0.05471 (0.04623)	0.06091 (0.04653)
Minimum Stay Requirement	.	-0.00005 (0.00034)	-0.00006 (0.00038)
Maximum Stay Requirement	.	0.00000 (0.00005)	0.00000 (0.00005)
Proportion Black	.	-2.86279 [^] (1.61173)	-3.07367 [^] (1.80963)
Infant Mortality Rate	.	0.00016 (0.00013)	0.00013 (0.00014)
Prisoners per capita	.	-0.11475 (0.08446)	-0.13196 (0.08865)
Urbanization Rate	.	0.57265 (1.10809)	0.58180 (1.16071)
Proportion of Adults Aged 13 to 24	.	-3.19537 (2.97778)	-3.07316 (3.30212)
Proportion of Adults Aged 25 to 44	.	-0.84023 (2.08381)	-1.31825 (2.19828)
Proportion of State Senate Democrat	.	0.13297 [‡] (0.05010)	0.11721 [†] (0.05095)
Proportion of State House Democrat	.	-0.36151 [‡] (0.09983)	-0.36686 [‡] (0.10252)
Institutionalization Rate	.	0.01562 [‡] (0.00534)	0.01491 [‡] (0.00576)
	<i>Fixed Effects</i>	X	X
	<i>Controls</i>		X
Sample Size	1479	1479	1479
R Squared	0.94	0.95	0.95

Notes: Each column represents a unique regression. Each observation is at the state-year level. The dependent variable is the natural log of the assault rate and the standard errors are

clustered at the state level. In addition to the controls listed, each table includes state and year fixed effects. The reference group in each regression are those states that have no laws dictating which classes of patients can request or refuse medication. [^] p<0.10 [†] p<0.05 [‡] p<0.01

Table S5.

Effect of Right to Refuse Laws on Assaults		
	(1)	(2)
Voluntarily Committed Patients Only	-0.00795 (0.08873)	-0.01878 (0.07840)
Judicial Review of Competency and Medication	0.02432 (0.13435)	-0.00709 (0.13023)
Independent Review of Competency and Medication	-0.02731 (0.06438)	-0.08293 (0.05860)
Independent Review of Medication	0.02319 (0.06702)	0.01906 (0.06637)
Competency Review Prior to Commitment	-0.07523 (0.10207)	-0.11037 (0.09335)
Real Beer Tax	.	0.10355 (0.12604)
Psychologists per capita	.	0.00432 (0.00450)
Mandatory Duty Requirement	.	0.01256 (0.04528)
Minimum Stay Requirement	.	0.00040† (0.00018)
Maximum Stay Requirement	.	0.00000 (0.00005)
Proportion Black	.	-3.38218^ (2.00907)
Infant Mortality Rate	.	0.00032† (0.00014)
Prisoners per capita	.	0.10230 (0.08605)
Urbanization Rate	.	0.84888 (1.47261)
Proportion of Adults Aged 13 to 24	.	-0.91379 (2.75902)
Proportion of Adults Aged 25 to 44	.	-0.92675 (2.22076)
Proportion of State Senate Democrat	.	0.02312 (0.03608)
Proportion of State House Democrat	.	-0.00567 (0.11094)
Institutionalization Rate	.	0.01206‡ (0.00428)

	<i>Fixed Effects</i>	X	X
	<i>Controls</i>		X
Sample Size		1479	1479
R Squared		0.92	0.92

Notes: Each column represents a unique regression. Each observation is at the state-year level. The dependent variable is the natural log of the homicide rate and the standard errors are clustered at the state level. In addition to the controls listed, each table includes state and year fixed effects. The reference group in each regression are those states that have no laws dictating which classes of patients can request or refuse medication. ^ p<0.10 † p<0.05 ‡ p<0.01

Table S6.

Effect of Right to Refuse Laws on Violent Crimes		
	(1)	(2)
Voluntarily Committed Patients Only	-0.00725 (0.07173)	0.00621 (0.06379)
Judicial Review of Competency and Medication	-0.03855 (0.10705)	-0.08068 (0.11403)
Independent Review of Competency and Medication	-0.08885 [^] (0.04882)	-0.12612 [‡] (0.04765)
Independent Review of Medication	-0.01984 (0.06995)	-0.00223 (0.04686)
Competency Review Prior to Commitment	-0.04721 (0.08438)	-0.07668 (0.07973)
Real Beer Tax	.	-0.12981 (0.09750)
Psychologists per capita	.	0.00839 [†] (0.00397)
Mandatory Duty Requirement	.	0.03820 (0.03831)
Minimum Stay Requirement	.	0.00021 (0.00014)
Maximum Stay Requirement	.	-0.00001 (0.00004)
Proportion Black	.	-3.50013 [‡] (1.40280)
Infant Mortality Rate	.	0.00033 [‡] (0.00011)
Prisoners per capita	.	0.03912 (0.06850)
Urbanization Rate	.	0.90848 (1.16454)
Proportion of Adults Aged 13 to 24	.	-1.79984 (2.65945)
Proportion of Adults Aged 25 to 44	.	-0.91755 (1.82160)
Proportion of State Senate Democrat	.	0.06988 [†] (0.03073)
Proportion of State House Democrat	.	-0.14897 [^] (0.09120)
Institutionalization Rate	.	0.00958 [‡] (0.00371)

	<i>Fixed Effects</i>	X	X
	<i>Controls</i>		X
Sample Size		1479	1479
R Squared		0.94	0.95

Notes: Each column represents a unique regression. Each observation is at the state-year level. The dependent variable is the natural log of the homicide rate and the standard errors are clustered at the state level. In addition to the controls listed, each table includes state and year fixed effects. The reference group in each regression are those states that have no laws dictating which classes of patients can request or refuse medication. ^ p<0.10 † p<0.05 ‡ p<0.01

Table S7.

Effect of Right to Refuse Laws on Burglaries		
	(1)	(2)
Voluntarily Committed Patients Only	-0.08253 [^] (0.04981)	-0.04214 (0.04564)
Judicial Review of Competency and Medication	-0.16440 (0.12135)	-0.15949 (0.10804)
Independent Review of Competency and Medication	-0.21406 [†] (0.09482)	-0.23496 [‡] (0.04395)
Independent Review of Medication	-0.13570 (0.09169)	-0.08872 [^] (0.05152)
Competency Review Prior to Commitment	0.00948 (0.07462)	0.02226 (0.07755)
Real Beer Tax	.	-0.54827 [‡] (0.14320)
Psychologists per capita	.	0.00271 (0.00407)
Mandatory Duty Requirement	.	0.05662 [^] (0.03435)
Minimum Stay Requirement	.	0.00010 (0.00014)
Maximum Stay Requirement	.	0.00004 (0.00004)
Proportion Black	.	-3.13926 [†] (1.42441)
Infant Mortality Rate	.	0.00009 (0.00011)
Prisoners per capita	.	-0.11929 (0.07706)
Urbanization Rate	.	-0.35553 (0.80835)
Proportion of Adults Aged 13 to 24	.	0.51075 (2.68988)
Proportion of Adults Aged 25 to 44	.	-0.82101 (1.15867)
Proportion of State Senate Democrat	.	0.06706 [†] (0.02959)
Proportion of State House Democrat	.	-0.07531 (0.08025)
Institutionalization Rate	.	-0.00103 (0.00352)

	<i>Fixed Effects</i>	X	X
	<i>Controls</i>		X
Sample Size		1479	1479
R Squared		0.88	0.91

Notes: Each column represents a unique regression. Each observation is at the state-year level. The dependent variable is the natural log of the homicide rate and the standard errors are clustered at the state level. In addition to the controls listed, each table includes state and year fixed effects. The reference group in each regression are those states that have no laws dictating which classes of patients can request or refuse medication. ^ p<0.10 † p<0.05 ‡ p<0.01

Table S8.

Effect of Right to Refuse Laws on Homicides		
	(1)	(2)
Voluntarily Committed Patients Only	-0.04213 (0.07101)	0.00141 (0.04890)
Judicial Review of Competency and Medication	-0.23736 [^] (0.12820)	-0.30051 [†] (0.14827)
Independent Review of Competency and Medication	-0.16440 [^] (0.08503)	-0.15247 (0.09929)
Independent Review of Medication	-0.02121 (0.07686)	-0.00862 (0.03101)
Competency Review Prior to Commitment	-0.01623 (0.07500)	-0.04089 (0.07652)
Real Beer Tax	.	-0.42209 [‡] (0.17401)
Psychologists per capita	.	0.01723 [‡] (0.00612)
Mandatory Duty Requirement	.	0.06475 (0.04461)
Minimum Stay Requirement	.	-0.00003 (0.00034)
Maximum Stay Requirement	.	0.00000 (0.00005)
Proportion Black	.	-3.62395 [†] (1.70899)
Infant Mortality Rate	.	0.00021 (0.00013)
Prisoners per capita	.	-0.07569 (0.08894)
Urbanization Rate	.	0.55717 (1.14498)
Proportion of Adults Aged 13 to 24	.	-4.41406 (2.80033)
Proportion of Adults Aged 25 to 44	.	-0.38674 (1.95948)
Proportion of State Senate Democrat	.	0.13958 [‡] (0.04810)
Proportion of State House Democrat	.	-0.36347 [‡] (0.09964)
Institutionalization Rate	.	0.01530 [‡] (0.00529)

	<i>Fixed Effects</i>	X	X
	<i>Controls</i>		X
Sample Size		1479	1479
R Squared		0.94	0.96

Notes: Each column represents a unique regression. Each observation is at the state-year level. The dependent variable is the natural log of the homicide rate and the standard errors are clustered at the state level. In addition to the controls listed, each table includes state and year fixed effects. The reference group in each regression are those states that have no laws dictating which classes of patients can request or refuse medication. ^ p<0.10 † p<0.05 ‡ p<0.01