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34. The full regression estimates underlying the table are reported in Appendix Figure 2. We also report analogous estimates for the 2006 policy change in Appendix Figure 8.
35. Hanlon, *supra* note 15.
36. Using F-statistics to test for equality of treatment among the subgroups, we find marginally significant evidence for difference of treatment for each specification in Column (1), but no statistically significant evidence of treatment for any specification in Column (2).
37. While 1994 estimates in Figure 2 did not distinguish between Walmart stores that were affected by the 1994 policy changes (because they originally were FFLs) and those stores that were not affected, Figure 4's 2006 estimates only include counties that had a Walmart FFL in 2006 and distinguishes between Walmart stores that were affected by the 2006 policy changes (i.e. stopped selling rifles) and those that were not affected. In the Appendix Figure 7, we include analogous specification that test whether counties that had Walmart FFLs in 2006 (rather than those that both had and lost Walmart FFLs) had lower suicide rates than counties that did not have Walmart FFLs prior to the treatment period. These specifications also fail to find robust evidence that the 2006 policy caused a reduction in the suicide rate.
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Appendix

Appendix Figure 1: Full Estimates of Walmart's Decision to Stop Selling Handguns on Suicide Rates

	(1)	(2)	(3)	(4)	(5)
	Firearms Suicide Rate - Had Walmart - No County FE - No Controls	Firearms Suicide Rate - Had Walmart - No County FE - With Controls	Firearms Suicide Rate - Had Walmart - County FE - No Controls	Firearms Suicide Rate - Had Walmart - County FE - With Controls	Non-Firearms Suicide Rate - Had Walmart - County FE - Controls
After 1993 x Had Walmart FFL in 1993	-0.525*** (-5.77)	-0.495*** (-3.77)	-0.525*** (-5.77)	-0.224*** (-2.73)	0.104 (1.27)
After 1993	-0.832*** (-14.01)	0.810*** (6.88)	-0.832*** (-14.01)	-0.137* (-1.82)	0.111 (1.49)
Had Walmart FFL in 1993	1.432*** (4.28)	0.801*** (3.71)			
Number of state gun laws		-0.0728*** (-11.66)		-0.00118 (-0.29)	0.00466 (1.16)
Unemployment rate		-10.02*** (-3.55)		-0.413 (-0.30)	5.845*** (4.29)
Population density (people per sq. mile)		-0.0000525*** (-3.06)		0.0000267 (1.55)	-0.0000941** (-2.22)
Social institutions per 100k residents		-0.000453 (-0.32)		-0.00138 (-1.50)	-0.00181* (-1.82)
Male (%)		54.49*** (8.55)		-3.661 (-0.56)	-2.197 (-0.33)
White (%)		1.444 (1.15)		6.416*** (2.89)	-3.252 (-1.34)
Black (%)		-3.008** (-2.32)		1.906 (0.71)	3.001 (0.86)
Hispanic (%)		-4.970*** (-6.82)		-20.11*** (-13.85)	0.983 (0.60)
People under poverty line (%)		29.90*** (17.16)		11.04*** (8.79)	4.179*** (2.78)
Veterans (%)		37.92*** (10.40)		-1.017 (-0.42)	10.55*** (3.96)
Age 20-64 (%)		-0.809 (-0.26)		-4.558 (-1.40)	34.29*** (10.31)
Age 65+ (%)		7.679*** (2.70)		-1.381 (-0.34)	23.23*** (5.81)
Constant	6.410*** (24.33)	-26.91*** (-7.16)	7.372*** (208.01)	7.031* (1.90)	-16.64*** (-3.82)
N	53,193	45,408	53,193	45,408	45,408
Outcome	Firearms Suicide Rate	Firearms Suicide Rate	Firearms Suicide Rate	Firearms Suicide Rate	Non-Firearms Suicide Rate
County FE	No	No	Yes	Yes	Yes
Controls	No	Yes	No	Yes	Yes

Appendix Figure 2: Full Heterogeneous Treatment Effects for Walmart's 1994 Decision to Stop Selling Handguns

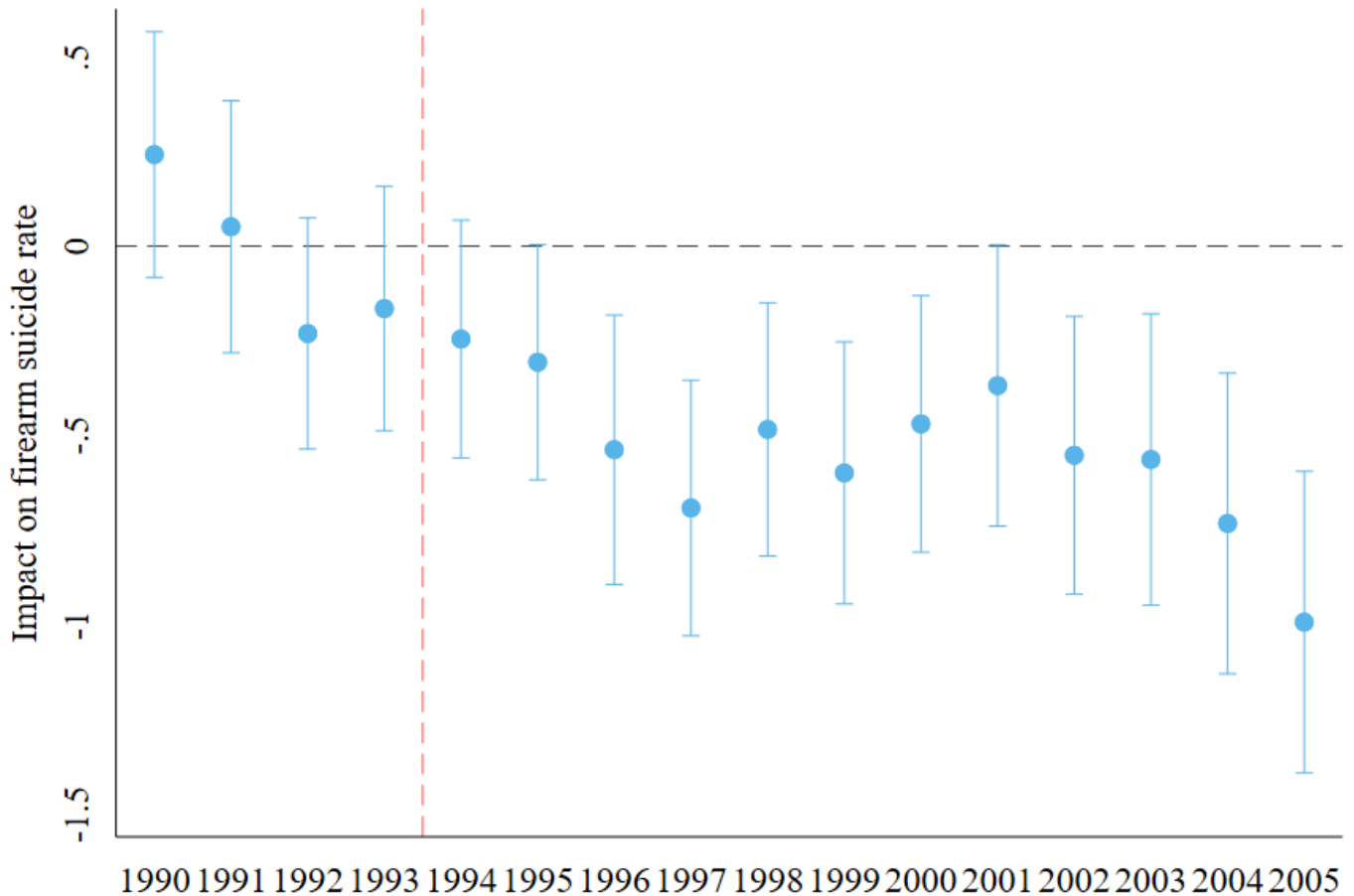
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Urban/rural - had Walmart - no controls	Urban/rural - had Walmart - controls	Social capital - had Walmart - no controls	Social capital - had Walmart - controls	Gun laws - had Walmart - no controls	Gun laws - had Walmart - controls	Waiting periods - had Walmart - no controls	Waiting periods - had Walmart - controls
After 1993 x Had Walmart FFL in 1993	-0.362*** (-3.18)	-0.158 (-1.33)	-0.555*** (-3.84)	-0.252** (-2.27)	-0.432** (-2.05)	-0.573*** (-2.62)	-0.220 (-1.20)	-0.358* (-1.76)
After 1993 x Had Walmart FFL in 1993 x Rural	0.703 (0.71)	1.453 (1.28)						
After 1993 x Had Walmart FFL in 1993 x Large metropolitan	-0.376** (-2.14)	-0.257 (-1.57)						
After 1993 x Had Walmart FFL in 1993 x Bottom tercile of social capital in 1993			-0.108 (-0.50)	-0.117 (-0.64)				
After 1993 x Had Walmart FFL in 1993 x Top tercile of social capital in 1993			0.337 (1.56)	0.136 (0.72)				
After 1993 x Had Walmart FFL in 1993 x Bottom tercile of state gun control laws in 1993					-0.152 (-0.56)	0.490* (1.83)		
After 1993 x Had Walmart FFL in 1993 x Top tercile of state gun control laws in 1993					-0.0539 (-0.22)	0.382 (1.57)		
After 1993 x Had Walmart FFL in 1993 x No state handgun waiting period from 1994-2005							-0.309 (-1.44)	0.0302 (0.14)
After 1993 x Had Walmart FFL in 1993 x Had state handgun waiting period for all years from 1994							-0.265 (-1.03)	0.218 (0.85)
After 1993 x Rural	-0.174 (-0.68)	-0.209 (-0.74)						
After 1993 x Large metropolitan	-0.0952 (-0.78)	0.210* (1.65)						
After 1993 x Bottom tercile of social capital in 1993			-0.109 (-0.78)	0.112 (0.81)				
After 1993 x Top tercile of social capital in 1993			-0.175 (-1.18)	-0.234 (-1.59)				
After 1993 x Bottom tercile of state gun control laws in 1993					-0.0182 (-0.09)	-0.490** (-2.32)		
After 1993 x Top tercile of state gun control laws in 1993					0.0581 (0.35)	-0.0990 (-0.54)		
After 1993 x No state handgun waiting period from 1994-2005							-0.278* (-1.88)	-0.147 (-0.92)
After 1993 x Had state handgun waiting period for all years from 1994-2005							-0.502*** (-2.64)	-0.137 (-0.68)
After 1993	-0.770*** (-8.56)	-0.175 (-1.62)	-0.757*** (-10.51)	-0.0762 (-0.77)	-0.866*** (-5.77)	0.0877 (0.51)	-0.531*** (-4.05)	0.0415 (0.27)
Small metropolitan/Micropolitan	0 (.)	0 (.)						
Number of state gun laws		0.000433 (0.11)		0.000499 (0.13)		0.000234 (0.06)		0.00136 (0.32)
Unemployment rate		-0.00708 (-0.01)		0.0665 (0.05)		0.811 (0.59)		0.234 (0.17)
Population density (people per sq. mile)		0.0000234 (1.46)		0.0000293* (1.78)		0.0000285* (1.75)		0.0000318* (1.92)
Social institutions per 100k residents		-0.00163* (-1.82)		-0.00148 (-1.60)		-0.00178** (-2.02)		-0.00182** (-2.07)
Male (%)		-3.710 (-0.58)		-2.357 (-0.37)		-2.559 (-0.40)		-2.559 (-0.40)
White (%)		7.620*** (3.55)		7.492*** (3.57)		8.171*** (3.76)		7.566*** (3.36)
Black (%)		2.603 (1.00)		2.483 (0.97)		3.736 (1.35)		2.857 (1.03)
Hispanic (%)		-19.70*** (-13.77)		-20.14*** (-14.16)		-19.99*** (-14.21)		-20.22*** (-13.95)
People under poverty line (%)		10.91*** (8.97)		11.00*** (9.06)		10.08*** (7.95)		10.65*** (8.54)
Veterans (%)		-0.892 (-0.41)		-1.468 (-0.63)		-1.782 (-0.78)		-1.588 (-0.68)
Age 20-64 (%)		-2.906 (-0.88)		-3.640 (-1.18)		-2.766 (-0.87)		-3.228 (-1.02)
Age 65+ (%)		-0.286 (-0.07)		-1.194 (-0.30)		0.427 (0.11)		-0.118 (-0.03)
Constant	7.372*** (226.33)	4.776 (1.24)	7.372*** (206.97)	4.825 (1.33)	7.372*** (207.03)	3.642 (0.98)	7.372*** (218.50)	4.539 (1.18)
N	53,193	48,512	53,193	48,512	53,193	48,512	53,193	48,512
Outcome	Firearms Suicide Rate	Firearms Suicide Rate	Firearms Suicide Rate	Firearms Suicide Rate	Firearms Suicide Rate	Firearms Suicide Rate	Firearms Suicide Rate	Firearms Suicide Rate
Total effect on rural counties or bottom tercile	0.341	1.295	-0.663***	-0.369**	-0.585***	-0.082	-0.529***	-0.327***
Total effect on small metropolitan/micropolitan counties or middle tercile	-0.362***	-0.158	-0.555***	-0.252**	-0.432**	-0.573***	-0.220	-0.358*
Total effect on large metropolitan counties or top tercile	-0.738***	-0.415***	-0.217	-0.117	-0.486***	-0.191*	-0.485***	-0.139
County FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	No	Yes	No	Yes	No	Yes	No	Yes

Appendix Figure 3: Full Estimates of Walmart's Decision to Stop Selling Handguns on Homicide Rates

	(1)	(2)	(3)	(4)	(5)
	Firearms Homicide Rate - Had Walmart - No County FE - No Controls	Firearms Homicide Rate - Had Walmart - No County FE - With Controls	Firearms Homicide Rate - Had Walmart - County FE - No Controls	Firearms Homicide Rate - Had Walmart - County FE - With Controls	Non-Firearms Homicide Rate - Had Walmart - County FE - Controls
After 1993 x Had Walmart FFL in 1993	0.382 (0.59)	0.363 (0.55)	0.382 (0.59)	0.553 (1.05)	-0.00376 (-0.03)
After 1993	-2.182*** (-3.79)	-1.978*** (-3.18)	-2.182*** (-3.79)	-0.822* (-1.73)	-0.515*** (-3.91)
Had Walmart FFL in 1993	0.452 (0.40)	0.108 (0.15)			
Number of state gun laws		0.00688 (0.38)		-0.0212 (-1.55)	-0.000567 (-0.11)
Unemployment rate		-1.269 (-0.25)		0.200 (0.05)	-10.63*** (-4.77)
Population density (people per sq. mile)		-0.00000572 (-0.14)		-0.000699* (-1.73)	0.000103 (1.40)
Social institutions per 100k residents		-0.00306 (-1.21)		-0.00276 (-0.59)	-0.00313 (-1.50)
Male (%)		-28.33*** (-3.75)		13.11 (0.75)	16.90** (2.52)
White (%)		-3.157* (-1.90)		6.512 (0.71)	-3.883* (-1.73)
Black (%)		18.96*** (7.54)		19.29 (1.50)	-0.135 (-0.04)
Hispanic (%)		6.096*** (3.12)		-22.27*** (-2.70)	-10.41*** (-6.19)
People under poverty line (%)		25.11*** (4.48)		41.33*** (5.87)	9.871*** (5.98)
Veterans (%)		25.75*** (3.53)		10.11 (1.52)	3.680 (1.55)
Age 20-64 (%)		10.68* (1.69)		27.06** (2.36)	-4.321 (-1.08)
Age 65+ (%)		-5.950 (-1.18)		30.53* (1.89)	9.403** (1.97)
Constant	6.213*** (6.67)	8.884 (1.62)	6.517*** (33.69)	-29.82* (-1.90)	-0.232 (-0.06)
N	53,193	45,408	53,193	45,408	45,408
Outcome	Firearms Homicide Rate	Firearms Homicide Rate	Firearms Homicide Rate	Firearms Homicide Rate	Non-Firearms Homicide Rate
County FE	No	No	Yes	Yes	Yes
Controls	No	Yes	No	Yes	Yes

Appendix Figure 4

DiD Estimates for had any Walmart FFLs vs. had no Walmart FFLs



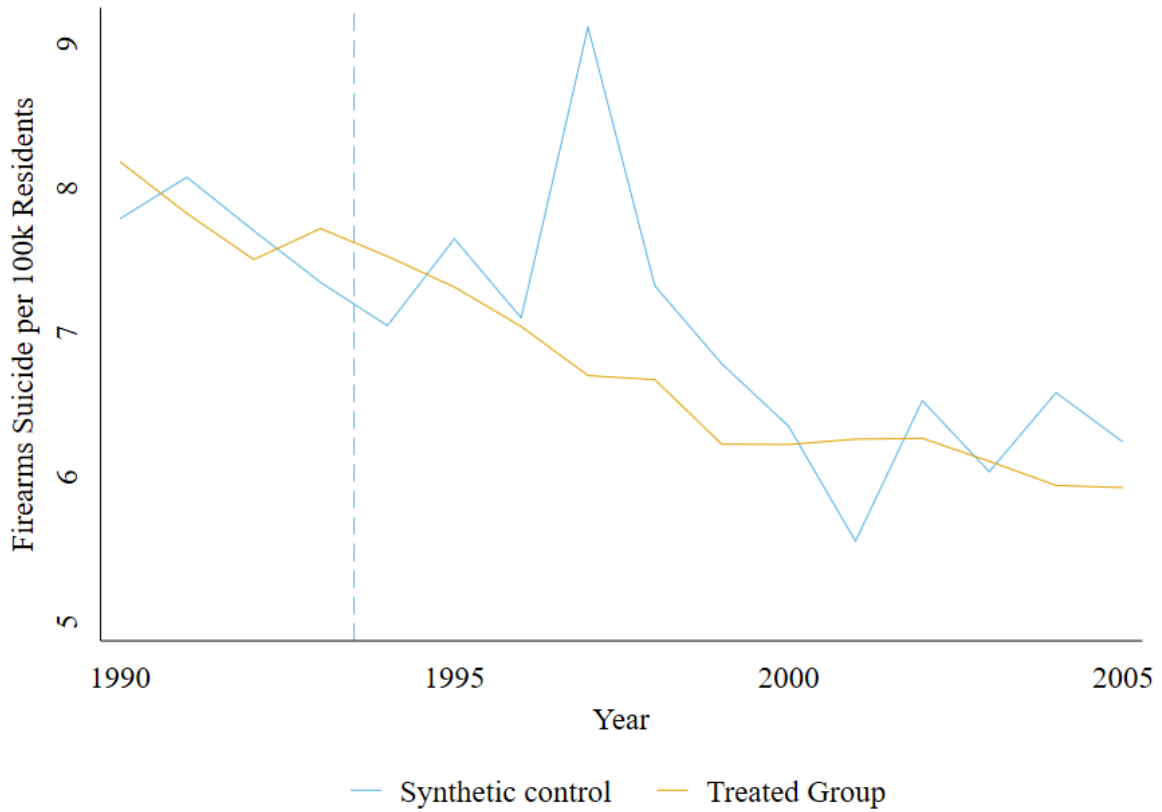
To test the parallel trends assumption underpinning our difference-in-difference framework, Appendix Figure 5 plots the treatment effect for each year of the 1994 analysis. The model presented in Appendix Figure 5 is analogous to Figure 2, Specification (3) with the treatment period dummy variable replaced by year dummy variables. Prior to the policy change, there should be no measured treatment effect and, indeed, there are no significant coefficients prior to the policy's enactment. A joint test of significance finds no evidence that the total pre-policy effect differs from zero. However, we do find significant evidence that the pre-policy year treatment effects are not all equal. Additional tests of the parallel trends assumption are discussed in the Appendix. We also run these tests for models analogous to Figure 2 Specifications (1), (2), and (4). For Specification (1), we find no evidence that the total pre-policy effect differs from zero ($p = 0.86$) or that the pre-policy year treatment effects are not all equal ($p = 0.12$). For Specification (2), we find evidence that the total pre-policy effect differs from zero ($p = .01$) and that the pre-policy year treatment effects are not all equal ($p = .01$). For Specification (4), we find marginal evidence that the total pre-policy effect differs from zero ($p = .09$) and statistically significant evidence that the pre-policy year treatment effects are not all equal ($p = .03$).

Appendix Figure 5: Synthetic Control Results for Firearms Suicide Rate

	Difference Between Treatment Group and Synthetic Control	
	1990 - 1993	1994 - 2005
Treatment Effect (Difference in Firearms Suicide Rate)	0.0790 (0.95)	-0.339*** (-5.85)
N	5,416	16,248

t statistics in parentheses

Appendix Figure 6: Graph of Synthetic Control Estimates for Firearms Suicide Rate

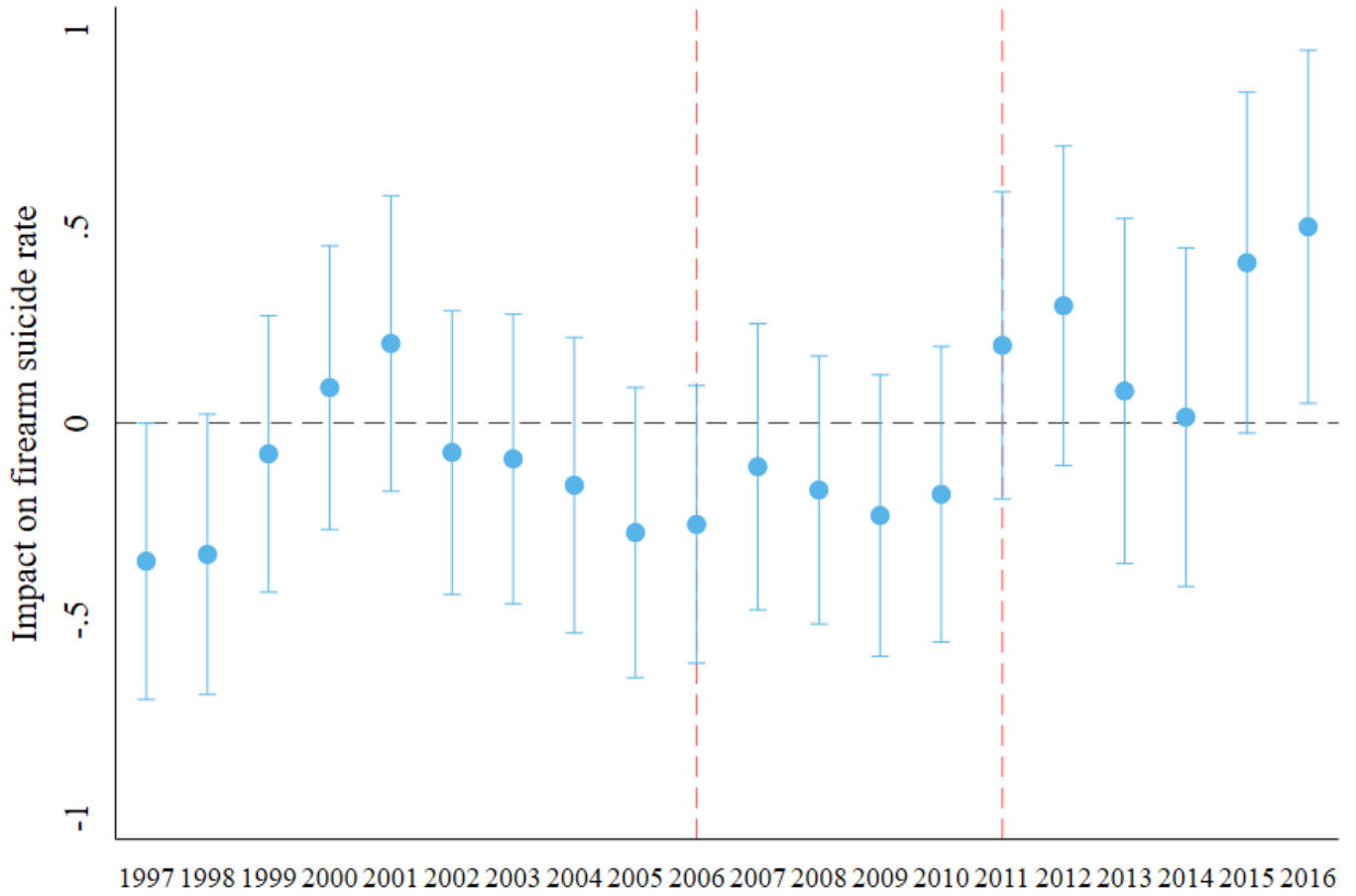


Appendix Figure 7: Estimates of Walmart's Decision to Stop Selling Rifles and Shotguns in Some Stores on Suicide Rates

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
	Firearms Suicide Rate - Had Walmart - No County FE - No Controls	Firearms Suicide Rate - Had Walmart - No County FE - With Controls	Firearms Suicide Rate - Had Walmart - County FE - No Controls	Firearms Suicide Rate - Had Walmart - County FE - With Controls	Non-Firearms Suicide Rate - Had Walmart - County FE - No Controls	Firearms Suicide Rate - Lost Walmart - No County FE - No Controls	Firearms Suicide Rate - Lost Walmart - No County FE - With Controls	Firearms Suicide Rate - Lost Walmart - County FE - No Controls	Firearms Suicide Rate - Lost Walmart - County FE - With Controls	Non-Firearms Suicide Rate - Lost Walmart - County FE - No Controls	Non-Firearms Suicide Rate - Lost Walmart - County FE - With Controls
After 2006 x Had Walmart FFL in 2006	0.187* (1.83)	-0.135 (-1.37)	0.187* (1.83)	0.0385 (0.45)	-0.0762 (-0.74)						
After 2006 x Lost Walmart FFL						-0.547*** (-5.19)	-0.172 (-1.64)	-0.547*** (-5.19)	-0.0722 (-0.82)	-0.121 (-1.48)	
After 2006	0.211*** (2.77)	1.127*** (9.17)	0.211*** (2.77)	0.251*** (3.01)	0.608*** (6.30)	0.843*** (11.46)	0.741*** (6.56)	0.843*** (11.46)	0.346*** (3.73)	0.663*** (8.20)	
Had Walmart FFL in 2006	1.483*** (3.87)	-0.0463 (-0.26)									
Lost Walmart FFL						-2.655*** (-11.98)	-0.912*** (-6.57)				
Number of state gun laws		-0.0878*** (-15.96)		-0.00530 (-1.35)	0.00870** (1.98)		-0.0833*** (-13.93)		-0.00581 (-1.34)	0.0116** (2.33)	
Unemployment rate		-6.365*** (-3.74)		-3.194*** (-3.61)	2.040** (2.07)		-7.877*** (-4.62)		-3.987*** (-4.07)	1.800 (1.58)	
Population density (people per sq. mile)		-0.0000333* (-1.70)		0.0000311 (1.27)	-0.000104*** (-2.80)		-0.000333*** (-3.89)		-0.000654* (-1.80)	-0.000642 (-1.60)	
Social institutions per 100k residents		-0.00343*** (-2.63)		-0.00716*** (-6.74)	-0.00297*** (-2.60)		-0.00752*** (-5.66)		-0.0109*** (-7.65)	-0.00232 (-1.44)	
White (%)		0.170 (0.14)		4.138*** (7.31)	1.996*** (2.58)		-3.540*** (-2.62)		3.078*** (3.84)	1.913** (2.00)	
Black (%)		-6.679*** (-5.31)		2.221 (1.27)	3.100* (1.75)		-7.317*** (-5.34)		1.652 (0.76)	2.806 (1.20)	
Hispanic (%)		-3.934*** (-5.18)		-7.400*** (-5.81)	3.508** (2.36)		-3.230*** (-4.02)		-7.599*** (-4.43)	3.940** (2.14)	
Male (%)		17.55*** (7.68)		4.305*** (3.66)	2.032* (1.77)		11.75*** (4.57)		5.022*** (3.48)	1.215 (0.91)	
People under poverty line (%)		25.90*** (15.66)		5.722*** (4.77)	2.187 (1.57)		19.82*** (11.46)		4.038*** (3.29)	1.942 (1.24)	
Veterans (%)		44.16*** (13.32)		1.626 (0.70)	-6.134*** (-3.00)		30.94*** (10.36)		0.749 (0.28)	-7.657*** (-3.17)	
Age 20-64 (%)		2.872 (0.97)		6.755** (2.34)	20.70*** (7.80)		8.859** (2.32)		9.121** (2.39)	19.54*** (6.22)	
Age 65+ (%)		11.41*** (4.50)		38.71*** (15.57)	37.96*** (16.97)		19.74*** (6.43)		40.44*** (12.78)	35.86*** (13.53)	
Constant	4.893*** (14.26)	-8.165*** (-2.98)	6.090*** (214.43)	-6.680*** (-3.05)	-14.74*** (-7.42)	8.537*** (68.00)	-3.101 (-0.98)	6.377*** (202.49)	-5.655* (-1.78)	-12.83*** (-5.23)	
N	62,680	61,780	62,680	61,780	61,780	34,600	34,400	34,600	34,400	34,400	
Outcome	Firearms Suicide Rate	Firearms Suicide Rate	Firearms Suicide Rate	Firearms Suicide Rate	Non-Firearms Suicide Rate	Firearms Suicide Rate	Firearms Suicide Rate	Firearms Suicide Rate	Firearms Suicide Rate	Non-Firearms Suicide Rate	
County FE	No	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes	
Controls	No	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	

Appendix Figure 9

DiD Estimates for had any Walmart FFLs vs. had no Walmart FFLs



Appendix Figure 10: 2006 Firearms Suicide Partial Treatment Analysis

Estimates of effect full/partial period decrease in Walmart FFLs on changes in firearms suicide rate

	(1)	(2)	(3)	(4)	(5)
	Firearms Suicide Rate - No County FE - No Controls - Partial Treatment	Firearms Suicide Rate - No County FE - With Controls - Partial Treatment	Firearms Suicide Rate - County FE - No Controls - Partial Treatment	Firearms Suicide Rate - County FE - With Controls - Partial Treatment	Non-Firearms Suicide Rate - County FE - With Controls - Partial Treatment
After 2006 x Lost Walmart FFL(s) in 2006 & Gained Walmart FFL(s) Back By 2012 (Partially Treated)	0.0944 (0.63)	0.0277 (0.17)	0.0948 (0.63)	0.0312 (0.20)	0.0497 (0.35)
After 2006 x Lost Walmart FFL(s) in 2006 & Didn't Gain Back By 2012 (Fully Treated)	-0.291*** (-2.90)	0.0338 (0.31)	-0.284*** (-2.81)	0.0333 (0.32)	-0.143 (-1.49)
After 2006	0.121 (1.42)	0.104 (0.93)	0.121 (1.41)	0.318*** (2.93)	0.534*** (5.64)
Didn't Lose Walmart in 2006 (Not Treated)	0 (.)	0 (.)	0 (.)	0 (.)	0 (.)
Lost Walmart FFL(s) in 2006 & Gained Walmart FFL(s) Back By 2012 (Partially Treated)	-0.406* (-1.88)	-0.180 (-1.13)			
Lost Walmart FFL(s) in 2006 & Didn't Gain Back By 2012 (Fully Treated)	-2.945*** (-12.91)	-1.118*** (-6.64)			
Number of state gun laws		-0.0754*** (-12.53)		-0.00724 (-1.10)	0.0104* (1.78)
Unemployment rate		-2.173 (-1.16)		4.544*** (3.62)	4.971*** (3.98)
Population density (people per sq. mile)		-0.000255** (-2.50)		0.000375 (0.70)	0.000238 (0.52)
Social institutions per 100k residents		-0.00652*** (-4.34)		-0.00853** (-2.17)	-0.00342** (-2.20)
Psychiatrists per 100k people		-0.0273*** (-4.60)		-0.000399 (-0.34)	0.00390 (0.58)
Primary care physicians per 100k residents		0.00915** (2.17)		0.00115 (0.22)	0.00866* (1.88)
White (%)		-5.953*** (-2.94)		10.61*** (3.00)	-11.26*** (-4.06)
Black (%)		-7.949*** (-3.95)		8.761* (1.85)	-12.89*** (-3.66)
Hispanic (%)		-2.388*** (-3.27)		-11.56*** (-6.00)	-1.035 (-0.49)
Male (%)		21.92*** (3.27)		7.592 (0.74)	14.54 (1.47)
People under poverty line (%)		17.72*** (9.79)		2.951** (2.07)	3.479** (2.02)
Veterans (%)		31.20*** (8.23)		6.773** (2.26)	0.443 (0.15)
Age 20-64 (%)		14.74*** (3.40)		2.407 (0.46)	17.44*** (4.30)
Age 65+ (%)		19.45*** (5.50)		14.47*** (2.72)	16.65*** (3.03)
Constant	8.537*** (67.98)	-9.935** (-2.25)	6.378*** (51.149)	-9.666 (-1.48)	-4.367 (-0.75)
N	24,204	22,374	24,204	22,374	22,374
Outcome	Firearms Suicide Rate	Firearms Suicide Rate	Firearms Suicide Rate	Firearms Suicide Rate	Non-Firearms Suicide Rate
County FE	No	No	Yes	Yes	Yes
Controls	No	Yes	No	Yes	Yes

t statistics in parentheses

Appendix Figure 11: 2006 Firearms Suicide Years of Treatment Analysis

Estimates of effect of the number of years from 2007-2016 that counties had fewer FFLs than in 2006 on changes in firearms suicide rate

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Firearms Suicide Rate - No County FE - No Controls - Continuous Years	Firearms Suicide Rate - No County FE - With Controls - Continuous Years	Firearms Suicide Rate - County FE - No Controls - Continuous Years	Firearms Suicide Rate - County FE - With Controls - Continuous Years	Non-Firearms Suicide Rate - County FE - With Controls - Continuous Years	Firearms Suicide Rate - No County FE - No Controls - Discrete Years	Firearms Suicide Rate - No County FE - With Controls - Discrete Years	Firearms Suicide Rate - County FE - No Controls - Discrete Years	Firearms Suicide Rate - County FE - With Controls - Discrete Years	Non-Firearms Suicide Rate - County FE - With Controls - Discrete Years
After 2006 x No. of years from 2007-2016 that county had fewer FFLs than in 2006	-0.0856*** (-7.27)	-0.0385*** (-3.28)	-0.0856*** (-7.27)	-0.0220** (-2.42)	-0.0287*** (-3.20)					
After 2006 x 1 year with fewer Walmart FFLs						0.110 (0.46)	-0.209 (-0.95)	0.110 (0.46)	-0.0120 (-0.06)	0.199 (0.78)
After 2006 x 2 years with fewer Walmart FFLs						-0.338*** (-4.37)	-0.832*** (-7.44)	-0.338*** (-4.37)	-1.205*** (-10.79)	0.243*** (2.62)
After 2006 x 3 years with fewer Walmart FFLs						0.528 (1.51)	0.395 (1.01)	0.528 (1.51)	0.577* (1.67)	0.112 (0.26)
After 2006 x 4 years with fewer Walmart FFLs						0.204 (1.35)	0.186 (1.17)	0.204 (1.35)	0.165 (1.06)	0.150 (1.05)
After 2006 x 5 years with fewer Walmart FFLs						0.125 (0.57)	-0.00748 (-0.03)	0.125 (0.57)	0.107 (0.51)	0.214 (1.19)
After 2006 x 6 years with fewer Walmart FFLs						0.198 (1.15)	0.265 (1.38)	0.198 (1.15)	0.380* (1.81)	0.273 (1.15)
After 2006 x 7 years with fewer Walmart FFLs						0.0381 (0.14)	0.148 (0.56)	0.0381 (0.14)	0.0336 (0.14)	0.0293 (0.13)
After 2006 x 8 years with fewer Walmart FFLs						-0.488* (-1.79)	-0.457 (-1.48)	-0.488* (-1.79)	-0.210 (-0.73)	0.120 (0.59)
After 2006 x 9 years with fewer Walmart FFLs						-0.455*** (-2.71)	-0.108 (-0.70)	-0.455*** (-2.71)	0.0247 (0.18)	0.0255 (0.16)
After 2006 x 10 years with fewer Walmart FFLs						-0.742*** (-6.36)	-0.365*** (-3.04)	-0.742*** (-6.36)	-0.189* (-1.93)	-0.247*** (-2.75)
After 2006	1.025*** (14.59)	0.819*** (7.66)	1.025*** (14.59)	0.436*** (4.90)	0.760*** (9.73)	0.839*** (10.84)	0.704*** (6.35)	0.839*** (10.84)	0.346*** (3.56)	0.646*** (7.95)
No. of years from 2007-2016 that county had fewer FFLs than in 2006	-0.338*** (-12.97)	-0.132*** (-7.69)								
Number of state gun laws		-0.0808*** (-14.00)		-0.00587 (-1.36)	0.0115** (2.32)		-0.0790*** (-13.74)		-0.00639 (-1.48)	0.0115** (2.33)
Unemployment rate		-7.547*** (-4.46)		-3.947*** (-4.07)	1.849 (1.63)		-7.891*** (-4.64)		-3.811*** (-3.97)	2.034* (1.83)
Population density (people per sq. mile)		-0.000293*** (-3.70)		-0.000606* (-1.71)	-0.000586 (-1.51)		-0.000281*** (-3.64)		-0.000577* (-1.69)	-0.000537 (-1.46)
Social institutions per 100k residents		-0.00781*** (-5.90)		-0.0107*** (-7.58)	-0.00210 (-1.31)		-0.00795*** (-5.85)		-0.0106*** (-7.65)	-0.00200 (-1.28)
White (%)		-3.790*** (-2.80)		2.880*** (3.56)	1.679* (1.72)		-3.386** (-2.51)		2.771*** (3.43)	1.550 (1.63)
Black (%)		-7.023*** (-5.10)		1.612 (0.74)	2.753 (1.18)		-6.323*** (-4.63)		1.486 (0.69)	2.493 (1.09)
Hispanic (%)		-2.401*** (-3.32)		-7.586*** (-4.46)	3.963** (2.16)		-2.244*** (-3.07)		-7.474*** (-4.43)	4.063** (2.26)
Male (%)		10.81*** (4.27)		5.040*** (3.50)	1.237 (0.93)		10.48*** (4.26)		5.126*** (3.58)	1.313 (1.01)
People under poverty line (%)		17.91*** (10.37)		3.978*** (3.30)	1.867 (1.22)		17.41*** (10.06)		3.790*** (3.19)	1.722 (1.16)
Veterans (%)		29.71*** (10.43)		0.264 (0.10)	-8.233*** (-3.44)		27.333*** (9.62)		-0.191 (-0.07)	-8.840*** (-3.71)
Age 20-64 (%)		10.95*** (2.94)		9.008** (2.38)	19.39*** (6.21)		12.35*** (3.40)		8.733** (2.31)	18.76*** (6.09)
Age 65+ (%)		21.16*** (7.02)		39.75*** (12.57)	35.04*** (13.28)		22.40*** (7.67)		39.52*** (12.47)	34.38*** (13.11)
1 year with fewer Walmart FFLs						1.121* (1.80)	0.926** (2.13)			
2 years with fewer Walmart FFLs						-1.223*** (-10.44)	-1.505*** (-8.40)			
3 years with fewer Walmart FFLs						-0.390 (-0.95)	-0.415 (-1.10)			
4 years with fewer Walmart FFLs						-0.431* (-1.82)	-0.299* (-1.82)			
5 years with fewer Walmart FFLs						0.00314 (0.01)	0.0401 (0.17)			
6 years with fewer Walmart FFLs						-0.927*** (-3.50)	-0.0929 (-0.21)			
7 years with fewer Walmart FFLs						0.00574 (0.01)	-0.0245 (-0.05)			
8 years with fewer Walmart FFLs						-2.082*** (-4.47)	-0.689* (-1.88)			
9 years with fewer Walmart FFLs						-2.519*** (-7.26)	-1.128*** (-5.47)			
10 years with fewer Walmart FFLs						-3.044*** (-12.22)	-1.229*** (-6.86)			
Constant	8.850*** (70.60)	-3.453 (-1.10)	6.377*** (223.24)	-5.377* (-1.71)	-12.50*** (-5.11)	8.374*** (71.45)	-4.594 (-1.50)	6.377*** (234.35)	-5.117 (-1.62)	-11.96*** (-4.95)
N	34,600	34,400	34,600	34,400	34,400	34,600	34,400	34,600	34,400	34,400
Outcome	Firearms Suicide Rate	Firearms Suicide Rate	Firearms Suicide Rate	Firearms Suicide Rate	Non-Firearms Suicide Rate	Firearms Suicide Rate	Firearms Suicide Rate	Firearms Suicide Rate	Firearms Suicide Rate	Non-Firearms Suicide Rate
County FE	No	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes
Controls	No	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes

t statistics in parentheses

Appendix Figure 12: Full Estimates of Walmart's Decision to Stop Selling Rifles and Shotguns in Some Stores on Homicide Rates

	(1)	(2)	(3)	(4)	(5)
	Firearms Homicide Rate - Lost Walmart - No County FE - No Controls	Firearms Homicide Rate - Lost Walmart - No County FE - With Controls	Firearms Homicide Rate - Lost Walmart - County FE - No Controls	Firearms Homicide Rate - Lost Walmart - County FE - With Controls	Non-Firearms Homicide Rate - Lost Walmart - County FE - No Controls
After 2006 x Lost Walmart FFL	-0.260 (-1.17)	-0.326* (-1.69)	-0.260 (-1.17)	0.108 (1.03)	-0.126** (-2.42)
After 2006	-0.0602 (-1.08)	-0.427*** (-3.66)	-0.0602 (-1.08)	-0.141 (-1.32)	0.0188 (0.36)
Lost Walmart FFL	1.783*** (4.56)	0.526*** (2.99)			
Number of state gun laws		-0.00212 (-0.20)		0.0195* (1.96)	0.0000545 (0.01)
Unemployment rate		-5.369** (-2.10)		-11.40*** (-4.78)	-0.862 (-1.62)
Population density (people per sq. mile)		0.000735*** (7.13)		-0.00161** (-2.19)	-0.000151 (-0.32)
Social institutions per 100k residents		-0.000457 (-0.20)		-0.0128*** (-2.89)	-0.000711 (-0.81)
White (%)		-1.892 (-1.16)		8.060*** (3.59)	0.955 (1.18)
Black (%)		14.01*** (7.74)		29.06*** (6.10)	6.563*** (3.73)
Hispanic (%)		0.786 (0.64)		-4.956 (-1.41)	-5.013*** (-3.78)
Male (%)		-9.266*** (-2.77)		-5.658** (-2.37)	-4.506*** (-5.06)
People under poverty line (%)		21.00*** (7.64)		6.196* (1.90)	-1.200 (-1.62)
Veterans (%)		5.644 (1.48)		-6.918** (-2.13)	2.799* (1.83)
Age 20-64 (%)		-7.433* (-1.70)		9.438 (1.54)	-5.140** (-2.11)
Age 65+ (%)		-3.119 (-0.85)		15.07*** (4.42)	-1.647 (-0.94)
Constant	2.911*** (29.46)	9.508** (2.48)	4.362*** (49.77)	-5.930 (-1.23)	6.803*** (3.10)
N	34,600	34,400	34,600	34,400	34,400
Outcome	Firearms Homicide Rate	Firearms Homicide Rate	Firearms Homicide Rate	Firearms Homicide Rate	Non-Firearms Homicide Rate
County FE	No	No	Yes	Yes	Yes
Controls	No	Yes	No	Yes	Yes

t statistics in parentheses

Data:

2002-2016 FFL listings

FFLs listings are updated by Bureau of Alcohol, Tobacco, Firearms and Explosive (ATF) on a monthly basis. FFL listings for January of 2014-2016 were downloaded from the ATF website:

<https://www.atf.gov/firearms/listing-federal-firearms-licensees>

FFL listings from 2002-2013 were received from the ATF through a Freedom of Information Act (FOIA) request. Data prior to 2002 was not available. The months provided through the FOIA request are February 2002, October 2003, May 2004, March 2005, January 2006, February 2007, January 2008, January 2009, January 2010, January 2011, January 2012, and January 2013.

The decline in the number of Walmart FFLs presented in Figure 1 appears to take place over two years. We believe that this is an artifact of the fact that some Walmart locations that stopped selling firearms in 2006 did not cancel their license to sell firearms and rather allowed the license to lapse sometime after February 2007.

Walmart store opening data

Data on store openings were gathered by Holmes (2011) and are available at

<http://users.econ.umn.edu/~holmes/data/WalMart/index.html>

Census Bureau

Intercensal estimates of race, age, gender, and ethnicity are used for 1990-2010. For 2011-2014, these variables come from the 2010-2014 ACS 5-year estimates. For 2015-2018, these variables come from the 2014-2018 ACS 5-year estimates.

Poverty rates for the entire period come from the Census Small Area Income and Poverty Estimates (SAIPE) Program.

Land area estimates used to determine population density are provided by Census geographic files.

Bureau of Labor Statistics (BLS)

Unemployment rates for the entire period come from the BLS.

County Business Patterns (CBP)

Using CBP data, we create a measure of social capital equal to the total number of recreational, personal services, religious, civil, and professional institutions per 100,000 residents. The dataset recorded institutions using SIC codes prior to 1998 and used NAICS codes from 1998 onward.

Our measure of social capital includes the SIC codes 72**, 79**, 84**, 86**, 0752, 4493, 4899, 6512, 6531, 6553, 6732, 7383, 7384, 7389, 7521, 8399, and 8999, as well as the NAICS codes 71****, 812***, and 813***.

Gun control laws

Data on gun control laws is sourced from Everytown for Gun Safety, as described in Siegel et al. (2017). Data is only available at the state level.

Area Health Resources Files (AHRF)

The share of residents that are veterans, the number of primary care physicians per 100,000 residents, and the number of psychiatrists per 100,000 residents for the entire period are sourced from the AHRF.

Data on the share of uninsured individuals is not available for much of the analyzed period, so it is not used as a control. We do use the share of uninsured individuals in 2005 as part of the 2006 heterogeneous treatment analysis.

Department of Agriculture

For the heterogeneous treatment effect analysis, we use rural-urban continuum codes (RUCC) created by the Department of Agriculture in order to separate out large metropolitan, small metropolitan, micropolitan, and rural counties. RUCC codes from 1993 (based on the 1990 Census) are used in the 1994 analysis and RUCC codes from 2003 (based off the 2000 Census) are used in the 2006 analysis.

RUCC codes 0 and 1 are classified as large metropolitan areas, codes 2 and 3 as small metropolitan areas, codes 4 through 7 as micropolitan areas, and codes 8 and 9 as rural.