

State	Sales/ Checks	Violent Crime	Murder	Robbery	Rape	Agg Assault	Property Crime	Burglary	Larceny	Vehicle	Homicide	Firearm Homicide
Alabama	0.0619*	-0.0037	-0.0099	-0.0214*	-0.0143*	0.0025	-0.0156*	-0.0048	-0.0183*	-0.0287*	-0.0094*	-0.0001
Alaska	0.0501*	0.0069*	-0.0121	-0.0097	-0.0042	0.005	-0.0241*	-0.0304*	-0.0200*	-0.0459*	-0.0114	-0.0129
Arizona	0.0388*	-0.0224*	-0.0312*	-0.0327*	0.0125*	-0.0244*	-0.0423*	-0.0332*	-0.0339*	-0.1036*	-0.0400*	-0.0431*
Arkansas	0.0236*	0.0071	-0.0048	-0.0074	0.0232*	0.0064	-0.0052	0.0079	-0.0086*	-0.0237*	0.0012	0.0072
California	0.0382*	-0.0311*	-0.0265*	-0.0218*	-0.0234*	-0.0382*	-0.0194*	-0.0144*	-0.0182*	-0.0299*	-0.0227*	-0.0252*
Colorado	0.0287*	-0.0092*	-0.0219*	-0.0205*	-0.0007	-0.0111*	-0.0328*	-0.0313*	-0.0303*	-0.0527*	-0.0106*	-0.0123
Connecticut	0.0841*	-0.0202*	0.0004	-0.0204*	-0.0088	-0.0240*	-0.0292*	-0.0304*	-0.0249*	-0.0570*	-0.0005	0.0106
Delaware	0.0516*	-0.0188*	0.0504*	-0.0100	-0.0507*	-0.0220*	-0.0129*	-0.0010	-0.0100*	-0.0761*	0.0454*	0.0455*
Florida	0.0816*	-0.0387*	-0.0032	-0.0399*	-0.0365*	-0.0407*	-0.0331*	-0.0335*	-0.0269*	-0.0836*	0.0002	0.0176*
Georgia	0.0177	-0.0210*	-0.0206*	-0.0220*	-0.0161*	-0.0230*	-0.0208*	-0.0067	-0.0220*	-0.0464*	-0.0148*	-0.0065
Hawaii	0.0556*	0.0042	-0.0376*	-0.0135*	-0.0148*	0.0158*	-0.0359*	-0.0405*	-0.0330*	-0.0476*	-0.0285*	-0.0622
Idaho	0.0264*	-0.0127*	-0.0052	-0.0275*	-0.0092	-0.0150*	-0.0364*	-0.0296*	-0.0372*	-0.0522*	-0.0202	-0.0203
Illinois	0.0680*	-0.0372*	-0.0208*	-0.0334*	-0.0195*	-0.0437*	-0.0292*	-0.0355*	-0.0329*	-0.0709*	-0.0193*	-0.0101*
Indiana	0.0905*	0.0002	-0.0159*	-0.0014	-0.0084*	0.0003	-0.0157*	-0.0071	-0.0151*	-0.0417*	-0.0106*	-0.0030
Iowa	0.0345*	-0.0012	0.0055	-0.0147*	0.0084	-0.0025	-0.0273*	-0.0125*	-0.0315*	-0.0291*	0.0087	0.0153
Kansas	0.0480*	-0.0058	-0.0190	-0.0344*	0.0004	-0.0018	-0.0260*	-0.0228*	-0.0283*	-0.0122	-0.0172*	-0.0123
Kentucky	0.1949*	-0.0181*	-0.0129*	-0.0013	-0.0079	-0.0360*	-0.0077*	-0.0056	-0.0060*	-0.0325*	-0.0031	0.0012
Louisiana	0.0456*	-0.0206*	-0.0093	-0.0261*	-0.0232*	-0.0202*	-0.0228*	-0.0137*	-0.0207*	-0.0701*	-0.0044	0.0012
Maine	0.0449*	0.0125*	0.0212*	0.0201*	0.0119*	0.0031	-0.0135*	-0.0143*	-0.0117*	-0.0460*	0.0261*	-0.0018
Maryland	0.0335*	-0.0388*	-0.0208*	-0.0331*	-0.0253*	-0.0449*	-0.0352*	-0.0308*	-0.0259*	-0.0738*	-0.0234*	-0.0241*
Massachusetts	0.0845*	-0.0156*	-0.0034	-0.0096	-0.0092*	-0.0192*	-0.0223*	-0.0153*	-0.0136*	-0.0926*	-0.0086	0.0086
Michigan	0.0245*	-0.0181*	-0.0088*	-0.0266*	-0.0145*	-0.0202*	-0.0364*	-0.0229*	-0.0337*	-0.0765*	-0.0091*	-0.0044
Minnesota	0.0624*	-0.0130*	-0.0285*	-0.0150*	-0.0311*	-0.0114*	-0.0253*	-0.0243*	-0.0229*	-0.0527*	-0.0190*	-0.0063
Mississippi	0.0203*	-0.0184*	-0.0092	-0.0214*	-0.0302*	-0.0181*	-0.0228*	-0.0109*	-0.0234*	-0.0664*	-0.0034	0.0052
Missouri	0.0723*	-0.0092*	0.0088	-0.0222*	0.0062	-0.0081*	-0.0236*	-0.0136*	-0.0231*	-0.0461*	0.0074	0.0192*
Montana	0.0323*	-0.0010	0.0135	-0.0249*	0.0264*	-0.0041	-0.0216*	-0.0081*	-0.0254*	-0.0078	-0.0094	-0.0221
Nebraska	0.0357*	-0.0178*	0.0005	-0.0185*	-0.0273*	-0.0336*	-0.0224*	-0.0270*	-0.0348*	-0.0364*	0.0128	0.0308*
Nevada	0.0504*	0.0074	-0.0322*	-0.0134	-0.0143*	0.0220*	-0.0323*	-0.0130*	-0.0316*	-0.0642*	-0.0298*	-0.0314*
New Hampshire	0.0782*	0.0283*	-0.0180	0.0178*	0.0040	0.0361*	-0.0009	-0.0019	0.0032	-0.0595*	-0.0133	0.0031
New Jersey	0.0610*	-0.0271*	0.0058	-0.0233*	-0.0312*	-0.0323*	-0.0326*	-0.0251*	-0.0264*	-0.0835*	-0.0097	0.0249*
New Mexico	0.0307*	-0.0183*	-0.0200	-0.0256*	-0.0015	-0.0208*	-0.0199*	-0.0136*	-0.0218*	-0.0264*	-0.0174*	-0.0131*
New York	0.0537*	-0.0247*	-0.0308*	-0.0362*	-0.0130	-0.0199*	-0.0262*	-0.0372*	-0.0169*	-0.0963*	-0.0422*	-0.0280*
North Carolina	0.0434*	-0.0297*	-0.0240*	-0.0421*	-0.0279*	-0.0261*	-0.0296*	-0.0262*	-0.0282*	-0.0621*	-0.0254*	-0.0220*
North Dakota	0.0565*	0.1002*	0.0766*	0.0663*	0.0366*	0.1252*	-0.0073*	0.0073	-0.0123*	0.0086	0.0163*	-0.0225
Ohio	0.0588*	-0.0107*	0.0028	-0.0134*	-0.0130*	-0.0114*	-0.0202*	-0.0056	-0.0204*	-0.0668*	0.0157*	0.0313*
Oklahoma	0.0509*	-0.0111*	-0.0033	-0.0011	-0.0096*	-0.0161*	-0.0229*	-0.0129*	-0.0269*	-0.0224*	0.0107*	0.0180*
Oregon	0.0342*	-0.0233*	-0.0002	-0.0291*	-0.0190*	-0.0259*	-0.0359*	-0.0389*	-0.0334*	-0.0506*	-0.0037	-0.0043
Pennsylvania	0.0432*	-0.0176*	-0.0014	-0.0219*	-0.0126*	-0.0184*	-0.0194*	-0.0128*	-0.0143*	-0.0820*	-0.0035	0.0054
Rhode Island	0.0644*	-0.0136*	-0.0212	-0.0254*	-0.0242*	-0.0100*	-0.0272*	-0.0156*	-0.0240*	-0.0701*	-0.0237*	-0.0420*
South Carolina	0.0536*	-0.0362*	-0.0052	-0.0408*	-0.0198*	-0.0386*	-0.0190*	-0.0164*	-0.0185*	-0.0298*	-0.0037	0.0076
South Dakota	0.0555*	0.0542*	0.0553*	0.0277*	0.0174*	0.0669*	-0.0102*	-0.0092	-0.0118*	0.0071	0.0140	0.0525
Tennessee	0.0601*	-0.0130*	-0.0159*	-0.0271*	-0.0223*	-0.0094*	-0.0230*	-0.0202*	-0.0180*	-0.0720*	-0.0123*	-0.0065
Texas	0.0432*	-0.0250*	-0.0249*	-0.0236*	-0.0186*	-0.0286*	-0.0288*	-0.0257*	-0.0271*	-0.0501*	-0.0180*	-0.0098*
Utah	0.1130*	-0.0110*	-0.0146	-0.0173*	-0.0124*	-0.0155*	-0.0296*	-0.0322*	-0.0300*	-0.0221*	-0.0219*	-0.0069
Vermont	0.0347*	0.0080	-0.0196	0.0030	-0.0101	0.0130	-0.0253*	-0.0172	-0.0251*	-0.0794*	0.0036	NA
Virginia	0.0518*	-0.0328*	-0.0236*	-0.0424*	-0.0247*	-0.0342*	-0.0270*	-0.0267*	-0.0231*	-0.0734*	-0.0314*	-0.0263*
Washington	0.0776*	-0.0173	-0.0135	-0.0146	-0.0304	-0.0182	-0.0244	-0.0131	-0.0245	-0.0432*	-0.0102	-0.0043
West Virginia	0.0400*	0.0130	0.0021	0.0021	0.0083	0.0035	-0.0077	-0.0037	-0.0053	-0.0461*	0.0013	-0.0055
Wisconsin	0.0514*	0.0162*	-0.0059	0.0023	-0.0005	0.0245*	-0.0244*	-0.0136*	-0.0254*	-0.0413*	-0.0101	-0.0061
Wyoming	0.0352*	-0.0162*	0.0056	-0.0297*	-0.0142	-0.0187*	-0.0352*	-0.0336*	-0.0361*	-0.0249*	0.0104	0.0048
District of Columbia	0.2897*	-0.0181*	-0.0722*	-0.0050	0.0007	-0.0311*	-0.0168*	-0.0402*	0.0022	-0.0746*	-0.0605*	-0.0670*
Significant Increase	50 (98.0%)	6 (11.8%)	4 (7.8%)	4 (7.8%)	7 (13.7%)	6 (11.8%)	0	0	0	0	5 (9.8%)	7 (13.7%)
Trend Increase	1 (2.0%)	6 (11.8%)	9 (17.6%)	4 (7.8%)	6 (11.8%)	7 (13.7%)	0	2 (3.9%)	2 (3.9%)	2 (3.9%)	9 (17.6%)	12 (23.5%)
Significant Decrease	0	34 (66.7%)	18 (35.3%)	34 (66.7%)	27 (52.9%)	34 (66.7%)	47 (92.2%)	38 (74.5%)	47 (92.2%)	47 (92.2%)	22 (43.1%)	12 (23.5%)
Trend Decrease	0	5 (9.8%)	20 (39.2%)	9 (17.6%)	11 (21.6%)	4 (7.8%)	4 (7.8%)	11 (21.6%)	2 (3.9%)	2 (3.9%)	15 (29.4%)	19 (37.2%)

Supplemental Table 1. Estimates for State Level trends in variables over study period from 1999-2015 using generalized linear modeling.

*=p<0.05

Regression Results using GEE for State Data (Exchangeable Structure)

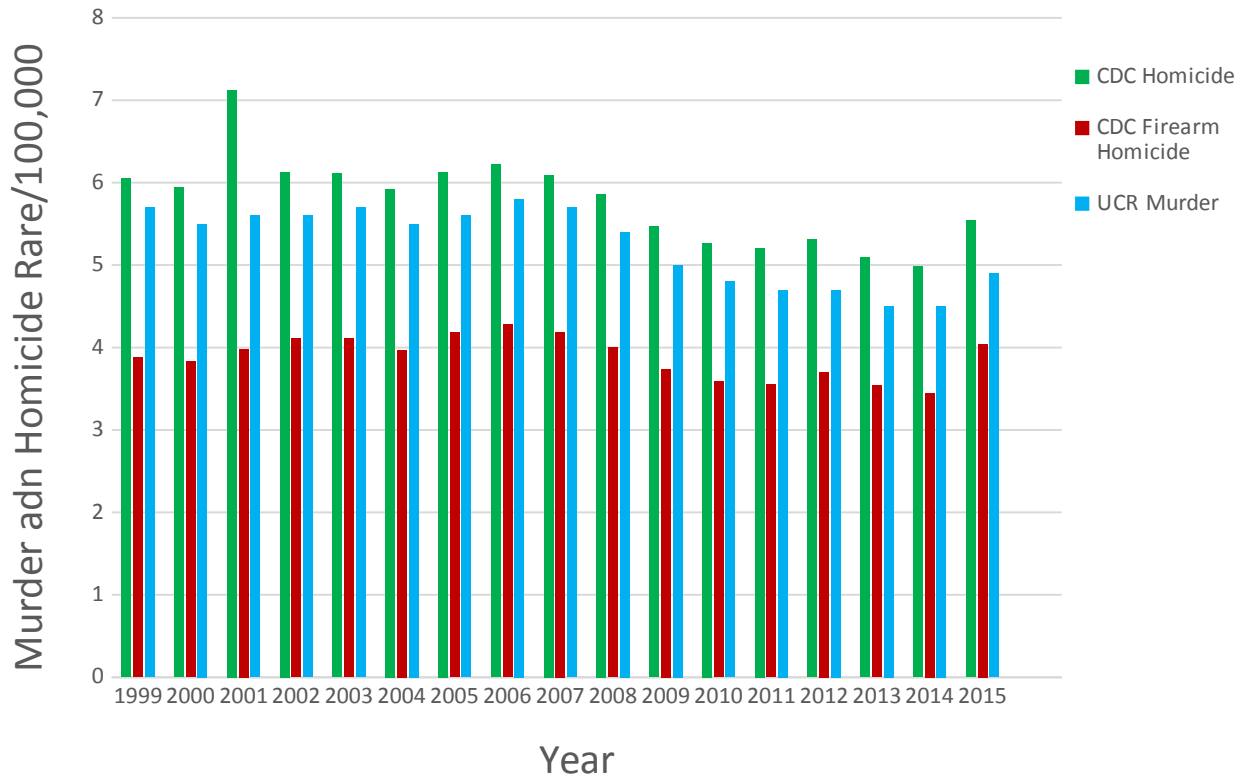
Outcome (log Rate)	Estimate	Std Error	Wald	p	QIC
UCR Violent Crime	-0.0105	0.0186	-0.57	0.571	833
UCR Murder	-0.1104	0.0576	-1.92	0.055	841
UCR Robbery	0.0418	0.0174	2.40	0.016*	832
UCR Rape	-0.0041	0.0211	-0.19	0.847	834
UCR Aggravated Assault	-0.0392	0.0298	-1.32	0.188	834
UCR Property Crime	0.0169	0.0178	0.95	0.342	838
UCR Burglary	-0.0368	0.0307	-1.20	0.230	844
UCR Larceny	0.0528	0.0182	2.90	0.004*	838
UCR Vehicle Theft	-0.0465	0.0363	-1.28	0.201	836
CDC Homicide	-0.0907	0.0477	-1.90	0.057	831
CDC Firearm Homicide	-0.0858	0.0630	-1.36	0.173	758

Regression Results using GEE for State Data (Independence Structure)

Outcome (log Rate)	Estimate	Std Error	Wald	p	QIC
UCR Violent Crime	-0.0105	0.0186	-0.57	0.571	833
UCR Murder	-0.1104	0.0576	-1.92	0.055	841
UCR Robbery	0.0418	0.0174	2.40	0.016*	832
UCR Rape	-0.0041	0.0211	-0.19	0.847	834
UCR Aggravated Assault	-0.0392	0.0298	-1.32	0.188	834
UCR Property Crime	0.0169	0.0178	0.95	0.342	838
UCR Burglary	-0.0368	0.0306	-1.20	0.230	844
UCR Larceny	0.0528	0.0182	2.90	0.004*	838
UCR Vehicle Theft	-0.0465	0.0363	-1.28	0.201	836
CDC Homicide	-0.0907	0.0477	-1.90	0.058	831
CDC Firearm Homicide	-0.0858	0.0630	-1.36	0.173	758

Supplemental Table 2. Regression results using generalized estimating equations (GEEs) using exchangeable and independence correlation structures for association of NICS background checks with reported measures of crime using state level data from 1999-2015

Murder and Homicide Rates over Study Period



Log National Rates by Study Year

