Appendices

Appendix A

Table A. Tested controlling independent variables and data sources

Independent Variables	Source/Description	Acronym	Farrell et al. (2014) Crime Drop Hypotheses[1]
MSA Dissimilarity Index	U.S. Census via Brown University (2010)	MDISSIM10	14.) Civilizing process
MSA Gini Coefficient	U.S. Census ACS 2015 5-Yr Estimates (B19083)	MGINI15	14.) Civilizing process
City Family Poverty Rate	U.S. Census ACS 2015 5-Yr Estimates (S1701)	CPOVR15	1.) Strong economy; 10) Consumer confidence
City Labor Force Participation Rate	U.S. Census ACS 2015 5-Yr Estimates (DP03)	CLFPR15	1.) Strong economy; 10.) Consumer confidence 13.) Changing demography
City Proportion Population Aged 15-29	U.S. Census ACS 2015 5-Yr Estimates (DP05)	C15-29AGE15	13.) Changing demography
City Proportion Population Aged 65+	U.S. Census ACS 2015 5-Yr Estimates (DP05)	CAGE65PLUS15	13.) Changing demography
City Unemployment Rate	U.S. Census ACS 2015 5-Yr Estimates (DP03)	CUNEMP15	1.) Strong economy; 10.) Consumer confidence
City Proportion Population Age 25+ BS Degree	U.S. Census ACS 2015 5-Yr Estimates (DP02)	CEDUBS15	13.) Changing demography
City Proportion Employed in Manufacturing	U.S. Census ACS 2015 5-Yr Estimates (DP03)	CPMAN15	13.) Changing demography
MSA Per Capita Exports	International Trade Administration (2015)	PCEXP15	13.) Changing demography
MSA Per Capita GDP	Bureau of Economic Analysis (2015)	PCGDP15	1.) Strong economy; 10.) Consumer confidence
City Police Officers/100,000 Pop.	FBI Uniform Crime Reports (2015)	CPDOFF/CPOP15	7.) More police; 15.) Improved security
City Violent Crime Clearance Rate	FBI UCR via Vera Institute of Justice (2015a)	VCCR15	6.) Police strategies; 15.) Improved security
City Murder Clearance Rate	FBI UCR via Murder Accountability Project (2015)	MCR15	6.) Police strategies; 15.) Improved security
City Population	U.S. Census ACS 2015 Estimates (DP05)	CPOP15	13.) Changing demography
City High School Dropout Rate	U.S. Census ACS 2015 5-Yr Estimates (DP02)	CHSDO15	14.) Civilizing process
City Proportion Foreign Born	U.S. Census ACS 2015 5-Yr Estimates (DP02)	CPFORBORN15	9.) Immigration
City Proportion Single Head of Family Household	U.S. Census ACS 2015 5-Yr Estimates (DP02)	CPFAMSHH10	14.) Civilizing process
City Mean Household Income	U.S. Census ACS 2015 5-Yr Estimates (DP03)	CMEANHHI15	1.) Strong economy; 10.) Consumer confidence
City Minimum Wage	U.S. Census ACS 2015 5-Yr Estimates	CMINWAGE15	13.) Changing demography
County (primary) Prema-ture Deaths/100,000 Pop.	Univ. of Wis. Population Health Inst. (2015)	COPREMDEATH15	14.) Civilizing process
County (primary)Yrs. Pot. Life Lost/100,000 Pop.	Univ. of Wis. Population Health Inst. (2015)	COYPLL15	14.) Civilizing process

Independent Variables	Source/Description	Acronym	Farrell et al. (2014) Crime Drop Hypotheses[1]
County (primary) Frequent Mental Stress	Univ. of Wis. Population Health Inst. (2015)	MENTAL15	14.) Civilizing process
County (primary) Excessive Drinking/100,000 Pop.	Univ. of Wis. Population Health Inst. (2015)	ALCOHOL15	14.) Civilizing process
County (primary) Housing Problems/100,000 Pop.	Univ. of Wis. Population Health Inst. (2015)	HOUSING15	14.) Civilizing process
City Full Vacancy Rate	U.S. Census ACS 2015 5-Yr Estimates (B25002,4)	CFVR15	13.) Changing demography
City Short Term Vacancy Rate	U.S. Census ACS 2015 5-Yr Estimates (B25002,4)	CSTVR15	13.) Changing demography
City Other Vacancy Rate	U.S. Census ACS 2015 5-Yr Estimates (B25002,4)	COVR15	13.) Changing demography
City Gang Trajectory – 4 Dummy Categories	Howell et al. (2011)	GANGTRAJ1…	11.) Declining hard drug markets
U.S. Regions – North, South, East, West	U.S. Census Regional Categories	NORTHEAST…	14.) Civilizing process
Guns Rights State Rankings – 6 Dummy Cat.	Cato Institute (2021)	GUNRT1…	4.) Gun control laws
State Concealed Carry Law – Restrictions or None	GAO (2012)	CONCCARWEAP15	2.) Concealed weapons laws
No. Lead Water Service Lines/100k Pop.(state)	Natural Resources Defense Council (2021)	LEAD15	12.) Lead poisoning / cleaner air
EPA Air Quality Index	U.S. EPA (2015)	EPAAQIMED	12.) Lead poisoning / cleaner air
2006 UA Mean Concentration NO2	Clark et al. (2014)	UMNO2	12.) Lead poisoning / cleaner air
2006 UA NO2 Low-Income Nonwhite Less-High Income White Areas	Clark et al. (2014)	UMNO2DIF	12.) Lead poisoning / cleaner air
2015 City Annual Mean Temperature	National Oceanic & Atmos. Adm (2015) Time and Date AS (1985-2015)	CAVGTEMP15	
1882 – 1980 Legitimate Violence Index Score	Baron and Strauss (1988)	LVIS	14.) Civilizing process
2015 Primary County Incarceration Rate	Vera Institute of Justice (2015b)	INCARC15	5.) Imprisonment
2012 Proportion Very, Moderately, Not Religious	Newport (2012)	HIREL, MODREL, NOTREL	13.) Changing demographics
2015 MSA Regional Price Parity	Bureau of Economic Analysis (2015)	MARPP15	1.) Strong economy; 10.) Consumer confidence
2015 MSA Per Capita Real Personal Income	Bureau of Economic Analysis (2015)	MAPCRPI15	1.) Strong economy; 10.) Consumer confidence
2015 Death Penalty	Death Penalty Information Center (2025)	DEATH15	3.) Capital punishment
2015 Internet	U.S. Census ACS 2015 1-year Estimates (S2802)	INTERNET15	16.) The Internet
2015 Smartphone	U.S. Census ACS 2015 1-year Estimates (B28001)	SMARTPHONE15	17.) Phone guardianship
2015 Abortion	State abortion policy review (Nash et al., 2016)	ABORTION15	8.) Legalization of abortion
2015 All Parents in Family in Labor Force with Children 6-17 Years of Age	U.S. Census ACS 2015 5-Yr Estimates (DP03)	ALLPARWRK15	13.) Changing demography

Note: The numbered crime drop hypotheses in column 4 replicate Table 2 in Farrell et al. (2014). These show categorical associations with the tested variables. The independent variables tested in this table cover a multitude of conditions that directly or indirectly measure human welfare. The majority relate to motivation, opportunities, and guardianship in accordance with 17 hypotheses for declining crime rates by Farrell et al. (2014) and others (Cohen and Felson, 1979; Baumer and Wolff, 2014; Baumer et al., 2018; Tcherni-Buzzeo, 2018). These independent variables can also be categorized by domain in accordance with Lattimore et al. (1997): macro – demographic patterns, economic conditions; micro – drug use and drug markets, gun availability, gang activity; and criminal justice – policing, incarceration.

Appendix B

Table B. Sample primary cities

No.	Primary City	No.	Primary City	No.	Primary City
1	Akron, OH	50	Green Bay, WI	99	Phoenix, AZ
2	Albany-Schenectady-Troy, NY	51	Greensboro-High Point, NC	100	Pittsburgh, PA
3	Albuquerque, NM	52	Greenville, SC	101	Portland, ME
4	Allentown-Bethlehem, PA	53	Harrisburg, PA	102	Portland, OR
5	Amarillo, TX	54	Hartford, CT	103	Port St. Lucie,FL
6	Anchorage, AK	55	Houston, TX	104	Providence, RI
7	Ann Arbor, MI	56	Huntsville, AL	105	Provo-Orem, UT
8	Atlanta, GA	57	Indianapolis, IN	106	Raleigh, NC
9	Austin, TX	58	Jackson, MS	107	Reno, NV
10	Bakersfield, CA	59	Jacksonville, FL	108	Richmond, VA
11	Baltimore, MD	60	Kansas City, MO	109	Riverside-San Bernardino-Ontario, CA
12	Baton Rouge, LA	61	Killeen, TX	110	Rochester, NY
13	Beaumont, TX	62	Knoxville, TN	111	Rockford, IL
14	Birmingham, AL	63	Lafayette, LA	112	Sacramento, CA
15	Boise City, ID	64	Lakeland, FL	113	Salem, OR
16	Boston, MA	65	Lancaster, PA	114	Salinas, CA
17	Bridgeport-Stamford-Norwalk, CT	66	Lansing, MI	115	Salt Lake City, UT
18	Buffalo, NY	67	Laredo, TX	116	San Antonio, TX
19	Cape Coral-Fort Myers, FL	68	Las Vegas, NV	117	San Diego, CA
20	Charleston-North Charleston, SC	69	Lexington, KY	118	San Francisco--Oakland, CA
21	Charlotte, NC	70	Lincoln, NE	119	San Jose, CA
22	Chattanooga, TN-GA	71	Little Rock, AR	120	Santa Rosa, CA
23	Chicago, IL	72	Los Angeles, CA	121	Savannah, GA
24	Cincinnati, OH	73	Louisville, KY	122	Scranton--Wilkes-Barre--Hazleton, PA
25	Clarksville, TN-KY	74	Lubbock, TX	123	Seattle, WA
26	Cleveland, OH	75	Madison, WI	124	Shreveport, LA
27	Colorado Springs, CO	76	Manchester-Nashua, NH	125	Sioux Falls, SD
28	Columbia, SC	77	McAllen-Edinburg, TX	126	South Bend, IN-MI
29	Columbus, GA	78	Memphis, TN	127	Spokane-Spokane Valley, WA
30	Columbus, OH	79	Miami, FL	128	Springfield, MA
31	Corpus Christi, TX	80	Milwaukee, WI	129	Springfield, MO
32	Dallas--Fort Worth--Arlington, TX	81	Minneapolis--St. Paul, MN	130	St. Louis, MO
33	Dayton, OH	82	Mobile, AL	131	Stockton, CA
34	Deltona-Daytona Beach-Ormond Beach, FL	83	Modesto, CA	132	Syracuse, NY
35	Denver--Aurora, CO	84	Montgomery, AL	133	Tallahassee, FL
36	Des Moines, IA	85	Myrtle Beach-North Myrtle Beach-Conway, SC	134	Tampa, FL
37	Detroit, MI	86	Nashville, TN	135	Toledo, OH
38	Durham, NC	87	New Haven, CT	136	Tucson, AZ
39	El Paso, TX	88	New Orleans, LA	137	Tulsa, OK
40	Erie, PA	89	New York, NY	138	Urban Honolulu, HI
41	Eugene, OR	90	North Port-Sarasota-Bradenton, FL	139	Vallejo-Fairfield, CA
42	Evansville, IN	91	Ogden, UT	140	Virginia Beach-Norfolk-Newport News, VA
43	Fayetteville, NC	92	Oklahoma City, OK	141	Visalia, CA
44	Flint, MI	93	Omaha, NE	142	Washington, DC
45	Fort Collins, CO	94	Orlando, FL	143	Wichita, KS
46	Fort Wayne, IN	95	Oxnard-Thousand Oaks-Ventura, CA	144	Winston-Salem, NC
47	Fresno, CA	96	Palm Bay-Melbourne-Titusville, FL	145	Worcester, MA
48	Gainesville, FL	97	Peoria, IL	146	York, PA
49	Grand Rapids, MI	98	Philadelphia, PA	147	Youngstown-Warren-Boardman, OH

Appendix C

Control Variables Expanded Discussion

Studies have shown positive correlations, some causal, between home vacancies/ foreclosures and violent crime rates. (e.g., Cui & Walsh, 2015; Ellen et al., 2013). Thus, a control variable for other vacancy rates (i.e., long-term) in primary cities was retained in the violent crime models. Savage (2014) has outlined studies showing the positive association between single-parent households and violent crime. Hannon (2005) summarized literature regarding the strong positive relationship between neighborhood resource deprivation/poverty and violent crime, consistent with social disorganization theory. The data gathered for other vacancy rates, proportion of single-parent households, and poverty rates for the 147 observations showed Pearson correlation coefficients between them of more than 0.70. They were combined together as a single independent variable (ln of each added together) to alleviate multicollinearity and elevated variance inflation factor concerns.

There is a positive relationship between violent crime and premature death of both violent offenders (Doherty & Green, 2022) and populations living in affected neighborhoods (Fredrick, 2018). Thus, primary county premature deaths per 100,000 population was also used as an independent variable to capture further impacts of the aforementioned stressors and others related to poor human health.

Ray and Jones (2023) have shown a consistent inverse association between crime and the age of offenders. Consequently, a control variable was used for the numbers of primary city populations aged 65 and above per 100,000 primary city population. Nagin (2013) demonstrated the positive relationship between certainty of apprehension due in part to hot spots policing (the focus of law enforcement in high-crime districts) in addition to higher police officer numbers. Thus, a control variable was used for murder clearance rates. The final control variable used was MSA regional price parity data (proportion of overall national price level) to depict differences in cost of living and the known association with crime (Rosenfeld et al., 2019; Rosenfeld & Austin, 2023).

Appendix D

Similar to Table 2, Table D displays results of other models. Three suburbanization independent variables were found to have statistically significant ($p<0.10$) relationships with murder rate and had the following elasticities: population within 1.6 km (1 mi) of primary city center per 100,000 metropolitan area population (-0.09, exogenous), primary city population per 100,000 UA population (-0.13, endogenous), and UA standard population density (0.22, exogenous) (columns D1-D3). Four other suburbanization independent variables (all exogenous) were not found to have statistically significant relationships with murder rate: primary city standard population density, primary city vehicles per square km, UA road km per 100,00 primary city population, and UA per capita transit ridership (columns D4-D7).

Table D. OLS regression models of 2015 primary city murder rate – single land use/transport independent variable (N=147)

Independent Variables	**(D1)**	**(D2)**	**(D3)**	**(D4)**	**(D5)**	**(D6)**	**(D7)**
Primary City Other Vacancy Rate + Poverty Rate + Single Head Family Household Rate	0.482* (0.043)	0.449* (0.050)	0.484* (0.043)	0.510* (0.046)	0.493* (0.045)	0.467* (0.047)	0.495* (0.043)
Primary County Premature Death	1.312* (0.242)	1.485* (0.244)	1.380* (0.238)	1.300* (0.265)	1.412* (0.272)	1.430* (0.241)	1.391* (0.242)
Age 65+ per 100K Population	-0.364* (0.175)	-0.427* (0.176)	-0.437* (0.176)	-0.384* (0.176)	-0.392* (0.176)	-0.414* (0.176)	-0.397* (0.178)
(non-ln) Primary City Murder Clearance Rate	-5.78e-06* (1.70e-06)	-5.92e-06* (1.70e-06)	-5.89e-06* (1.70e-06)	-5.86e-06* (1.73e-06)	-5.61e-06* (1.73e-06)	-5.87e-06* (1.71e-06)	-5.67e-06* (1.72e-06)
Metro Area Regional Price Parity	0.444* (0.088)	0.448* (0.088)	0.565* (0.096)	0.518* (0.092)	0.484* (0.093)	0.490* (0.485)	0.498* (0.096)
Land Use/Transport Variable (see Notes)	-0.086** (0.047)	-0.131** (0.078)	0.220** (0.127)	-0.060 (0.069)	0.014 (0.116)	0.084 (0.065)	-0.010 (0.046)
Intercept	-19.403* (2.500)	-18.777* (2.703)	-18.716 (2.696)	-20.343* (2.496)	-21.300* (2.770)	-21.023* (2.325)	-21.034 (2.370)
R^2	0.772	0.772	0.772	0.768	0.767	0.770	0.767
F-ratio	79.15	78.80	78.94	77.33	76.79	77.98	76.82
RMSE	0.427	0.428	0.428	0.431	0.432	0.430	0.432

Note: Standard errors in parentheses; *p<0.05; **p<0.10; Gray shading depicts suburbanization variables.

D1. population within 1.6 km (1 mi) of primary city center per 100,000 metropolitan area population (exogenous; primary county premature death endogenous). Other models of populations at 3.2-14.5 km (2-9 mi) were not statistically significant.

D2. primary city population / 100,000 UA population (endogenous)

D3. UA standard population density (exogenous)

D4. primary city standard population density (exogenous)

D5. primary city vehicles per square km (exogenous)

D6. UA road km per 100,00 primary city population (exogenous)

D7. UA per capita transit ridership (exogenous)

Appendix E

Similar to Table 3, Table E displays results of other models. Groupings of UA freeway lane km per primary city 100,000 population with either UA per capita VKT, UA average annual hours of delay per auto commuter, or primary city vehicles per 100,000 city population as one variable identified statistically significant elasticities ($p<0.05$) ranging from 0.13 to 0.14 (columns E1 through E3). UA Per capita VKT was the dominant transportation independent variable with an elasticity of 0.35 ($p<0.05$) when tested with UA freeway lane km per primary city 100,000 population as separate variables in the same model (column E4). Metropolitan weighted population density was dominant when modeled as a separate suburbanization independent variable (elasticity -0.14, $p<0.05$) with a combination of transportation measures (elasticity -0.10, $p<0.10$) (UA freeway lane km per primary city 100,000 population + UA per capita VKT + primary city vehicles per 100,000 population) (column E5). Primary city population increase per 100,000 from commuting was not statistically significant when other suburbanization measures were included in the models (columns E6 and E7).

Table E. OLS regression models of 2015 primary city murder rate – multiple land use/transport independent variables (N=147)

Independent Variables	**(E1)**	**(E2)**	**(E3)**	**(E4)**	**(E5)**	**(E6)**	**(E7)**
Primary City Other Vacancy Rate + Poverty Rate + Single Head Family HH Rate	0.448* (0.045)	0.436* (0.046)	0.572* (0.052)	0.471* (0.048)	0.477* (0.044)	0.489* (0.043)	0.459* (0.045)
Primary County Premature Death	1.414* (0.235)	1.442* (0.234)	0.823* (0.216)	1.321* (0.243)	1.304* (0.235)	1.255* (0.237)	1.562* (0.264)
Age 65+ per 100K Population	-0.433* (0.173)	-0.398* (0.171)	-0.306* (0.180)	-0.433* (0.172)	-0.475* (0.170)	-0.451* (0.170)	-0.531* (0.172)
(non-ln) Primary City Murder Clearance Rate	-5.95e-06* (1.68e-06)	-5.81e-06* (1.67e-06)	-6.95e-06* (1.72e-06)	-5.86e-06* (1.67e-06)	-6.30e-06* (1.65e-06)	-5.98e-06* (1.63e-06)	-5.98e-06* (1.65e-06)
Metro Area Regional Price Parity	0.475* (0.084)	0.380* (0.091)	0.775* (0.166)	0.508* (0.086)	0.632* (0.106)	0.564* (0.109)	0.668* (0.103)
1st Land Use/Transport Variable (see Notes E1-E7)	0.126* (0.049)	0.140* (0.048)	0.134* (0.050)	0.056 (0.068)	-0.143* (0.070)	-0.238* (0.068)	-0.250* (0.076)
2ndLand Use/Transport Variable (see Notes E1-E7)	- -	- -	- -	0.345* (0.157)	0.097** (0.052)	0.007* (0.003)	0.244* (0.129)
3rd Land Use/Transport Variable (see Notes E1-E7)	- -	- -	- -	- -	- -	0.048 (0.074)	0.102 (0.071)
Intercept	-20.549* (2.294)	-20.775* (2.274)	-28.682 (3.537)	-20.781* (2.290)	-20.078* (2.502)	-18.269* (2.461)	-21.733* (2.695)
R^2	0.778	0.780	0.762	0.781	0.787	0.796	0.791
F-ratio	81.58	82.79	74.77	70.81	73.39	67.44	65.22
RMSE	0.423	0.420	0.437	0.421	0.415	0.407	0.413

Note: Standard errors in parentheses; *p<0.05; **p<0.10; Gray shading depicts suburbanization variables; †Primary city per capita household income used instead as a control variable as indicated below.

E1. (UA freeway lane km per primary city 100,000 population + UA per capita VKT) (all exogenous); Models using UA freeway lane km per 100,000 population at 1.6-14.5 (1-9 mi) increments + UA per capita VKT all showed comparable elasticities and statistical significance)(all endogenous).

E2. (UA freeway lane km per primary city 100,000 population + average annual hours delay per auto commuter) (all exogenous)

E3. (UA area freeway lane km per primary city 100,000 population + UA per capita VKT + primary city vehicles per 100,000 population) (all exogenous)†

E4. UA area freeway lane km per primary city 100,000 population + (2nd) UA per capita VKT (all exogenous); Models using UA freeway lane km per 100,000 population at 1.6-14.5 (1-9 mi) increments (all endogenous) + UA per capita VKT (all exogenous) all showed comparable elasticities and statistical significance).

E5. metropolitan weighted population density + (2^{nd}) (UA freeway lane km per primary city 100,000 population + UA per capita VKT + primary city vehicles per 100,000 population) (all exogenous)

E6. metropolitan weighted population density + (2^{nd}) average annual hours delay per auto commuter (non-ln) + (3^{rd}) primary city population increase per 100,000 from commuting (3^{rd} endogenous)

E7. metropolitan weighted population density + (2^{nd}) primary city vehicles per square km + (3rd) primary city population increase per 100,000 from commuting (3rd endogenous)

Appendix F

Table F shows metropolitan area weighted population density as the sole suburbanization independent variable adding predictive strength of about 4% (column F1). Other models absent this independent variable showed UA freeway lane km per primary city 100,000 population and UA per capita VKT adding about 2% to 4% predictive strength either individually or together as combined independent variables (columns F2-F4). UA freeway lane km per primary city 100,000 population and UA average annual hours of delay per auto commuter combined as the sole transportation independent variable resulted in predictive strength of about 5% (column F5).

Table F. Contribution strength of independent variables to R^2

Independent Variables	**(F1)**	**(F2)**	**(F3)**	**(F4)**	**(F5)**	**(F6)**
Primary City Other Vacancy Rate + Poverty Rate + Single Head Family Household Rate	0.234 59.5%	0.145 50.3%	0.222 59.9%	0.155 51.0%	0.142 52.6%	0.181 55.2%
Primary County Premature Death	0.045 11.5%	0.060 20.7%	0.046 12.4%	0.058 18.9%	0.060 22.1%	0.047 14.4%
Age 65+ per 100K Population	0.011 2.8%	0.009 3.3%	0.010 2.6%	0.010 3.3%	0.009 3.2%	0.012 3.6%
Primary City Murder Clearance Rate (non-ln)	0.021 5.4%	0.020 6.8%	0.019 5.1%	0.020 6.6%	0.019 7.1%	0.022 6.7%
Metro Area Regional Price Parity	0.067 17.0%	0.048 16.7%	0.061 16.5%	0.051 16.8%	0.027 10.1%	0.054 16.5%
1st Land Use/Transport Variable (see Notes F1-F6)	0.015 3.8%	0.006 2.3%	0.013 3.5%	0.011 3.5%	0.013 4.9%	0.006 1.9%
2nd Land Use/Transport Variable (see Notes F1-F6)	- -	- -	- -	- -	- -	0.005 1.6%
3rd Land Use/Transport Variable (see Notes F1-F6)	- -	- -	- -	- -	- -	- -
Total R^2 Individual Independent Variable Contribution	0.393 100%	0.289 100%	0.370 100%	0.305 100%	0.269 100%	0.328 100%
Remaining Contributions of all Independent Variables Combined	0.389 50%	0.485 63%	0.410 53%	0.473 61%	0.511 65%	0.459 58%
R^2 Total	0.782	0.773	0.780	0.778	0.780	0.787

F1. Table 2, Column 1: metropolitan weighted population density

F2. Table 2, Column 2: UA freeway lane km per primary city 100,000 population

F3. Table 2, Column 3: per capita VKT

F4. Table E, Column E1: (UA freeway lane km per primary city 100,000 population + per capita VKT)

F5. Table E, Column E2: (UA freeway lane km per primary city 100,000 population + average annual hours delay per auto commuter)

F6. Table E, Column E5: metropolitan weighted population density + (2nd) (UA freeway lane km per primary city 100,000 population + UA per capita VKT + primary city vehicles per 100,000 population)

Appendix G

Table G. Quantile regression models of 2015 primary city violent crime rate (N=147)

	OLS	Quantile								
Model	**Mean**	**0.10**	**0.20**	**0.30**	**0.40**	**Median**	**0.60**	**0.70**	**0.80**	**0.90**
(G1)	0.122*	0.197	0.100	0.115	0.083	0.177*	0.144*	0.195*	0.142	0.064
	(0.061)	(0.138)	(0.094)	(0.099)	(0.083)	(0.072)	(0.072)	(0.071)	(0.098)	(0.098)
(G2)	0.126*	0.169**	0.110	0.112	0.188*	0.186*	0.146*	0.179*	0.115	0.049
	(0.049)	(0.089)	(0.083)	(0.070)	(0.065)	(0.054)	(0.061)	(0.060)	(0.080)	(0.066)
(G3)	0.140*	0.166**	0.109	0.150**	0.167	0.160*	0.164*	0.141*	0.111**	0.108
	(0.048)	(0.094)	(0.084)	(0.084)	(0.063)	(0.057)	(0.054)	(0.063)	(0.066)	(0.067)
(G4a)	-0.308*	-0.382*	-0.340*	-0.346*	-0.293*	-0.285*	-0.284*	-0.286*	-0.239*	-0.155
	(0.073)	(0.117)	(0.141)	(0.125)	(0.102)	(0.093)	(0.083)	(0.093)	(0.098)	(0.100)
(G4b)	0.007*	0.014*	0.008**	0.007**	0.005	0.005	0.005**	0.006**	0.005	0.001
	(0.002)	(0.004)	(0.005)	(0.004)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
(G5a)	-0.143*	-0.238*	-0.158	-0.111	-0.199*	-0.139	-0.175*	-0.106	-0.099	-0.006
	(0.070)	(0.120)	(0.120)	(0.097)	(0.088)	(0.089)	(0.083)	(0.080)	(0.106)	(0.115)
(G5b)	0.097**	0.070	0.095	0.095	0.099	0.141*	0.097	0.138*	0.108	0.077
	(0.052)	(0.088)	(0.088)	(0.071)	(0.065)	(0.065)	(0.061)	(0.059)	(0.078)	(0.088)

Note: Standard errors in parentheses; *p<0.05; **p<0.10.

G1. Table 2, Column 2: UA freeway lane km per primary city 100,000 population

G2. Appendix E, Column E1: (UA freeway lane km per primary city 100,000 population + per capita VKT)

G3. Appendix E, Column E2: (UA freeway lane km per primary city 100,000 population + average annual hours delay per auto commuter)

G4. Table 3, Column 1: (a) metropolitan weighted population density + (b) average annual hours delay per auto commuter (non-ln) + (c) primary city vehicles per square km; Note: Suburbanization variable (c) was not statistically significant at any quantile and is not displayed.

G5. Appendix E, Column E5: (a) metropolitan weighted population density + (b) (UA freeway lane km per primary city 100,000 population + UA per capita VKT + primary city vehicles per 100,000 population)

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