Social Model 1 Model 2 Model 3 Model 4 **Determinant** IRR Ρ IRR Ρ IRR Ρ IRR Ρ (95% CI) value (95% CI) value (95% CI) value (95% CI) value County level 1.12 0.003 1.11 0.002 1.12 < 0.001 1.10 0.001 Gini coefficient (1.04, 1.20)(1.04, 1.19)(1.05, 1.19)(1.04, 1.16)(0.1 unit) 0.92 0.12 0.94 0.24 Community ----(0.82, 1.02)(0.84, 1.04) social capital (1 unit) 0.84 0.01 0.01 0.85 Institutional ----(0.73, 0.96) (0.74, 0.96)social capital (1 unit) Social mobility --0.78 < 0.001 ----(0.69, 0.88)(5 units) CZ level 1.03 0.55 1.01 0.88 1.00 0.96 1.00 0.94 Racial (0.94, 1.12) (0.91, 1.11)(0.90, 1.10)(0.91, 1.10) segregation (0.1 unit) 1.07 0.39 0.44 1.03 0.76 1.08 Income --(0.91, 1.28)(0.90, 1.29)(0.86, 1.23)segregation (0.05 unit) State and local level < 0.001 < 0.001 0.97 0.56 0.27 0.83 0.83 0.94 Welfare (0.79, 0.87)(0.79, 0.86)(0.86, 1.09)(0.83, 1.05)spending (\$250) 1.04 1.13 0.34 1.19 0.22 0.95 0.72 0.64 Education (0.90, 1.57)(0.89, 1.21)(0.88, 1.43)(0.73, 1.24)spending (\$250) 0.83 0.07 0.81 0.83 Protection 0.04 0.86 0.17 0.06 (0.67, 0.99)(0.70, 1.06)(0.68, 1.01)(0.68, 1.01) spending (\$250) CT level 0.005 0.005 0.01 1.01 1.01 1.01 1.01 0.03 Percent (1.00, 1.02)(1.00, 1.02)(1.00, 1.02)(1.00, 1.02)unemployed (1%) 1.03 < 0.001 < 0.001 < 0.001 1.03 < 0.001 1.03 1.03 Percent on cash (1.02, 1.04)(1.02, 1.04)(1.02, 1.04)(1.02, 1.04)assistance (1%) Percent in 1.02 < 0.001 1.02 < 0.001 1.02 < 0.001 1.02 <0.001 (1.01, 1.03)(1.02, 1.03)(1.02, 1.03)(1.01, 1.03)poverty (1%) 0.9997 <0.001 0.9997 <0.001 0.9997 < 0.001 0.9997 < 0.001 (Percent in (0.9996. (0.9996. (0.9996. (0.9997. $poverty)^2$ (1%) 0.9998) 0.9998) 0.9998) 0.9998)Percent males 1.03 < 0.001 1.03 < 0.001 1.03 < 0.001 1.03 < 0.001 (1.02, 1.04)(1.02, 1.04)(1.02, 1.04)(1.02, 1.04)living alone (1%)

<u>S14 Table</u>. Social determinants and the total number of firearm-related non-mass homicide incidents at the CT level in the contiguous US, 2015.

IRR (95% CI) and *p*-values are derived from multivariate-adjusted negative binomial regression models and correspond to a unit change as shown above in parentheses. All models are adjusted for state fixed effects, total state and local spending, and state gun control policy indicators for concealed carry weapon carry laws, requirements for gun dealers to report records to the state, and state background check laws. At the CZ level, all models are adjusted for median household income, percentage black, and an indicator variable for whether the CZ corresponded to an urban area. At the county level, all models are adjusted for median household income, percentage black, population density, and property crime rate. At the CT level, all models are adjusted for median household income, (median household income)², percentage with high school education)², percentage black, (percentage black)², percentage male, percentage age 20-34 years, (percentage age 20-34 years)², total population in the year 2012, and (total population in the year 2012)². CI, confidence interval; CT, census tract; CZ, commuting zone; IRR, incidence rate ratio.