

**S7 Table. Results of county-level subset analyses using general linear mixed modeling to quantify associations between the incidence of human monocytic ehrlichiosis with six racial/ethnic and socioeconomic variables (socioeconomic variables) and two ecological variables. Subset analyses were limited to the subset of the 2,695 counties included in the full analyses in which *Amblyomma americanum*, the primary tick vector for human monocytic ehrlichiosis, is presumed to be established or reported [31].**

Variable	Univariable models			Multivariable model		Multivariable model with ecology	
	Coefficient, SE	P value	R <sup>2</sup> value of model	Coefficient, SE	P value	Coefficient, SE	P value
Percent of housing units vacant	0.2728, 0.0492	<0.0001	0.5921	0.2195, 0.0481	<0.0001	0.1720, 0.0472	0.0003
Percent of population living below the poverty line	0.0733, 0.0585	0.2100	0.5854				
Percent of population classified as white non-Hispanic	0.3788, 0.0629	<0.0001	0.5988	0.2362, 0.0662	0.0004	0.1840, 0.0629	0.0034
Percent of population with a bachelors degree or higher	-0.2076, 0.0479	<0.0001	0.5904				
Percent of population unemployed	0.1096, 0.0673	0.1030	0.5865				
Per capita number of property crimes	-0.2770, 0.0485	<0.0001	0.5996	-0.1780, 0.0512	0.0005		
Density of white-tailed deer						0.2104, 0.0570	0.0002
Percent cover of forests						0.4331, 0.0587	<0.0001
<b>Conditional estimated R<sup>2</sup> value of model</b>				0.6083		0.6479	

	Not included in model
	Included but not significant in final (reduced) model