

S4 Table. Results of county-level 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.

Variable	Univariable models			Multivariable model		Multivariable model with ecology			
	Coefficient, SE	P value	R ² value of model	Coefficient, SE	P value	Coefficient, SE	P value		
Percent of housing units vacant	0.2610, 0.0392	<0.0001	0.5035	0.2377, 0.0418	<0.0001	0.1640, 0.0396	<0.0001		
Percent of population living below the poverty line	0.0690, 0.0462	0.1350	0.4951						
Percent of population classified as white non-Hispanic	0.2131, 0.0516	<0.0001	0.5027						
Percent of population with a bachelors degree or higher	-0.1427, 0.0380	0.0002	0.5004						
Percent of population unemployed	0.1709, 0.0574	0.0029	0.4958						
Per capita number of property crimes	-0.1649, 0.0396	<0.0001	0.5031	-0.1261, 0.0415	0.0024				
Density of white-tailed deer								0.3199, 0.0462	<0.0001
Percent cover of forests								0.4793, 0.0489	<0.0001
Conditional estimated R² value of model				0.5732		0.5728			

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