

Technical Appendix A: Additional Model Information and Outlier Testing

All models used in this paper take the same general form, as they are both generalized linear models with a link function. The general equation for all these models is shown in Equation 1 below:

$$Y_n = \exp(\beta_0 + \beta_p X_{n,p} + \beta_b X_{n,b}) \quad (\text{Eq. 1})$$

Where:

- Y_n = Predicted value for respondent n . For the gamma model of VMT this value represents VMT, for the logit models these values represents the odds ratio
- n = Respondents
- β_0 = Base Case/Intercept
- β_p = Coefficient for person characteristic p
- p = Person characteristic variables
- $X_{n,p}$ = Value of person characteristic p for respondent n
- β_b = Coefficient for built environment characteristic b
- b = Built environment variables
- $X_{n,b}$ = Value of built environment characteristic b for respondent n

Though, models of the full sample without a built environment control take on the following form:

$$Y_n = \exp(\beta_0 + \beta_p X_{n,p} + \beta_r X_{n,r}) \quad (\text{Eq. 2})$$

Where:

- Y_n = Predicted value for respondent n . For the gamma model of VMT this value represents VMT, for the logit models these values represents the odds ratio
- n = Respondents
- β_0 = Base Case/Intercept
- β_p = Coefficient for person characteristic p
- p = Person characteristic variables
- $X_{n,p}$ = Value of person characteristic p for respondent n
- β_b = Coefficient for rural definition r
- r = Rural status
- $X_{n,r}$ = Is equal to 1 if for respondent n lives in rural area and 0 if respondent n does not

While Equations 1 and 2 represent the model equations, we discuss our results in the paper as Average Marginal Effects (AMEs) and Average Conditional Effects (ACEs), their formulation is shown in Equation 3 below:

$$\mu_b = \frac{1}{N} \sum_{i=1}^n \frac{\partial}{\partial v} Y_n \quad (\text{Eq. 3})$$

Where:

- μ_b = AME/ACE for variable b . AME for continuous predictor variables and ACE for categorical predictor variables
- N = Number of respondents
- n = Vector of respondents
- v = Vector of independent variables p , b , and r
- Y_n = Predicted value for respondent n

We also performed outlier testing in our VMT models to see if the inclusion of “super-commuters” (which we achieved by including those who drove up to 300 miles on the travel day). To do this, we looked at Cook’s Distances to see if there

were any data points that had a large amount of leverage in the model and introduced a lot of error. We adopted a conservative threshold of 0.5, meaning participants that have a Cook's Distance greater than 0.5 are having an unreasonably large impact on the model. Across all our VMT models the highest Cook's Distance we observed was 0.0065, which indicates that no one data point or outlier had an adverse effect on our modeled results.

Technical Appendix B: Additional Tables

Table B1: Summary statistics of urban/rural samples using the expansive rural definition

Categorical variables	Urban N = 73,538		Rural N = 36,053	
	Sample %	Weighted %	Sample %	Weighted %
Race and Ethnicity				
Non-Hispanic White	73	57	87	81
Non-Hispanic Black	9	15	5	8
Hispanic (all races)	9	18	4	8
Other race, multiple, or unknown	9	10	4	4
Age				
22-35	18	27	12	20
36-50	23	28	18	26
51-69	41	34	47	39
70+	18	11	23	14
Employed ¹	62	69	54	64
Education				
High school or less	18	22	29	34
Some college	28	29	33	34
Bachelor's or more	54	49	38	32
Household Income				
<\$35,000	25	30	32	36
\$35,000 - \$74,999	30	29	33	32
\$75,000 - \$125,000	25	23	23	21
>\$125,000	20	18	12	11
Two or more adults ¹	66	69	71	75
Children in home ¹	25	36	22	38
Vehicle access: fully equipped ¹	83	72	88	83
Female ¹	54	53	53	50
Transit access ¹	46	59	7	5
Auto user (≥ 1 motorized trip) ¹	91	86	94	95
Auto reliant (all utilitarian trips are motorized) ¹	78	72	83	84
Active traveler (≥ 1 bike/ped utilitarian trip) ¹	10	14	6	5
Continuous variables	Sample Mean (SD)	Weighted Mean (SD)	Sample Mean (SD)	Weighted Mean (SD)
Regional access (Jobs within 45 min. drive)	114132 (132114)	145639 (167793)	11096 (17599)	11795 (18581)
Local access ((Households + jobs / acres))	8.7 (30)	14 (48)	1.0 (3.1)	0.3 (2.3)
Local job diversity (8-job entropy measure)	0.6 (0.2)	0.6 (0.2)	0.6 (0.2)	0.5 (0.2)
VMT on travel day	31 (38)	30 (37)	40 (45)	40 (44)

¹ Variable is binary.

Table B2: Estimated Average Marginal Effects (AMEs) and Average Conditional Effects (ACEs) for Motorized Reliance Logit Model, Restrictive Definition

Term/Model Info	Full Model (BE) Estimate (95% CI)	Full Model (No BE) Estimate (95% CI)	Urban Model Estimate (95% CI)	Rural Model Estimate (95% CI)
Personal Characteristics				
2+ Adults	0.077 (0.072 – 0.083)***	0.099 (0.094 – 0.105)***	0.086 (0.080 – 0.092)***	0.030 (0.020 – 0.039)***
Race and Ethnicity (Base: Non-Hispanic White)				
Hispanic (all races)	0.008 (0.001 – 0.014)*	-0.004 (-0.011 – 0.003)	0.010 (0.003 – 0.018)**	-0.011 (-0.031 – 0.010)
Non-Hispanic Black	-0.009 (-0.016 – -0.002)*	-0.008 (-0.015 – -0.001)*	-0.012 (-0.020 – -0.004)**	0.004 (-0.010 – 0.018)
Other race, multiple, or unknown	-0.008 (-0.014 – -0.001)*	-0.019 (-0.026 – -0.011)***	-0.007 (-0.014 – 0.001)	-0.007 (-0.024 – 0.010)
Has Child in Home	0.022 (0.017 – 0.027)***	0.031 (0.026 – 0.036)***	0.020 (0.015 – 0.026)***	0.012 (0.004 – 0.021)**
Education (Base: Less Than HS)				
College or More	-0.030 (-0.035 – -0.024)***	-0.041 (-0.047 – -0.036)***	-0.029 (-0.036 – -0.023)***	-0.028 (-0.037 – -0.019)***
Some College	0.006 (0.001 – 0.012)*	0.002 (-0.003 – 0.007)	0.008 (0.002 – 0.015)**	-0.002 (-0.010 – 0.005)
Income (Base: Less than \$35,000)				
\$35,000-\$74,999	0.026 (0.021 – 0.031)***	0.027 (0.022 – 0.032)***	0.032 (0.026 – 0.038)***	0.006 (-0.003 – 0.014)
\$75,000-\$125,000	0.007 (0.001 – 0.013)*	0.006 (-0.001 – 0.012)	0.010 (0.002 – 0.017)**	0.001 (-0.010 – 0.011)
\$125,000+	-0.024 (-0.032 – -0.016)***	-0.031 (-0.039 – -0.023)***	-0.027 (-0.036 – -0.018)***	-0.007 (-0.020 – 0.006)
Age (Base (22-35))				
36-50	0.012 (0.005 – 0.019)***	0.022 (0.015 – 0.029)***	0.013 (0.006 – 0.021)***	-0.004 (-0.016 – 0.008)
51-69	0.028 (0.021 – 0.034)***	0.043 (0.037 – 0.049)***	0.033 (0.026 – 0.040)***	-0.006 (-0.017 – 0.006)
70+	0.067 (0.060 – 0.074)***	0.083 (0.076 – 0.090)***	0.077 (0.068 – 0.085)***	0.014 (0.001 – 0.027)*
Female	0.010 (0.006 – 0.014)***	0.010 (0.006 – 0.014)***	0.011 (0.006 – 0.015)***	0.007 (0.001 – 0.013)*
Non-Fully Vehicle Equipped	0.210 (0.202 – 0.218)***	0.257 (0.248 – 0.266)***	0.229 (0.220 – 0.238)***	0.085 (0.067 – 0.103)***
Employed	0.003 (-0.002 – 0.008)	-0.001 (-0.005 – 0.004)	0.009 (0.003 – 0.015)**	-0.013 (-0.021 – -0.006)***
Built Environment and Rural Classification				
Is Rural		0.046 (0.041 – 0.050)***		
Local Access	-0.026 (-0.027 – -0.024)***		-0.041 (-0.043 – -0.038)***	-0.006 (-0.008 – -0.003)***
Regional Access	0.010 (0.008 – 0.012)***		0.009 (0.007 – 0.011)***	0.008 (0.005 – 0.011)***
Local Job Diversity	-0.014 (-0.024 – -0.004)**		-0.019 (-0.030 – -0.007)**	-0.030 (-0.047 – -0.012)***
Has Access to Transit	-0.040 (-0.045 – -0.035)***		-0.034 (-0.040 – -0.029)***	0.004 (-0.017 – 0.024)
Model Fit Info				
N	99403	99403	77843	21560
AIC	62827	64806	52730	9607
Tjur R2	0.149	0.120	0.168	0.019

Note. *** p < 0.001, ** p < 0.01, * p < 0.05

Table B3: Estimated Average Marginal Effects (AMEs) and Average Conditional Effects (ACEs) for Active Traveler Logit Model, Restrictive Definition

Term/Model Info	Full Model (BE) Estimate (95% CI)	Full Model (No BE) Estimate (95% CI)	Urban Model Estimate (95% CI)	Rural Model Estimate (95% CI)
Personal Characteristics				
2+ Adults	-0.060 (-0.065 – -0.055)***	-0.079 (-0.084 – -0.074)***	-0.066 (-0.072 – -0.060)***	-0.027 (-0.036 – -0.018)***
Race and Ethnicity (Base: Non-Hispanic White)				
Hispanic (all races)	-0.013 (-0.019 – -0.006)***	-0.006 (-0.012 – 0.001)	-0.016 (-0.023 – -0.009)***	0.004 (-0.014 – 0.022)
Non-Hispanic Black	-0.015 (-0.021 – -0.009)***	-0.019 (-0.025 – -0.013)***	-0.016 (-0.023 – -0.009)***	-0.013 (-0.025 – -0.002)*
Other race, multiple, or unknown	-0.003 (-0.009 – 0.004)	0.005 (-0.002 – 0.011)	-0.005 (-0.012 – 0.002)	0.006 (-0.009 – 0.022)
Has Child in Home	-0.011 (-0.016 – -0.007)***	-0.020 (-0.024 – -0.015)***	-0.009 (-0.015 – -0.004)***	-0.007 (-0.015 – 0.001)
Education (Base: Less Than HS)				
College or More	0.039 (0.034 – 0.044)***	0.048 (0.043 – 0.052)***	0.039 (0.033 – 0.045)***	0.034 (0.026 – 0.041)***
Some College	0.004 (-0.001 – 0.008)	0.007 (0.002 – 0.011)**	0.002 (-0.004 – 0.007)	0.010 (0.003 – 0.016)**
Income (Base: Less than \$35,000)				
\$35,000-\$74,999	-0.019 (-0.024 – -0.014)***	-0.020 (-0.025 – -0.015)***	-0.023 (-0.028 – -0.017)***	-0.005 (-0.013 – 0.003)
\$75,000-\$125,000	-0.003 (-0.008 – 0.003)	-0.003 (-0.009 – 0.003)	-0.004 (-0.011 – 0.002)	0.001 (-0.009 – 0.010)
\$125,000+	0.021 (0.014 – 0.028)***	0.024 (0.017 – 0.032)***	0.023 (0.015 – 0.031)***	0.008 (-0.004 – 0.020)
Age (Base (22-35))				
36-50	-0.012 (-0.018 – -0.006)***	-0.021 (-0.027 – -0.014)***	-0.013 (-0.020 – -0.006)***	-0.002 (-0.013 – 0.009)
51-69	-0.024 (-0.030 – -0.018)***	-0.037 (-0.043 – -0.031)***	-0.029 (-0.035 – -0.022)***	0.003 (-0.008 – 0.014)
70+	-0.055 (-0.061 – -0.049)***	-0.069 (-0.075 – -0.062)***	-0.062 (-0.069 – -0.054)***	-0.015 (-0.027 – -0.004)**
Female	-0.005 (-0.009 – -0.002)**	-0.005 (-0.009 – -0.002)**	-0.007 (-0.011 – -0.003)**	0.003 (-0.002 – 0.009)
Non-Fully Vehicle Equipped	-0.141 (-0.149 – -0.133)***	-0.181 (-0.189 – -0.173)***	-0.152 (-0.161 – -0.144)***	-0.057 (-0.073 – -0.041)***
Employed	-0.009 (-0.014 – -0.005)***	-0.007 (-0.011 – -0.002)**	-0.014 (-0.019 – -0.009)***	0.004 (-0.003 – 0.010)
Built Environment and Rural Classification				
Is Rural		-0.039 (-0.043 – -0.035)***		
Local Access	0.024 (0.022 – 0.025)***		0.036 (0.034 – 0.038)***	0.005 (0.003 – 0.008)***
Regional Access	-0.012 (-0.014 – -0.011)***		-0.012 (-0.014 – -0.011)***	-0.007 (-0.010 – -0.005)***
Local Job Diversity	0.016 (0.007 – 0.025)***		0.021 (0.011 – 0.032)***	0.019 (0.004 – 0.035)*
Has Access to Transit	0.031 (0.027 – 0.036)***		0.028 (0.023 – 0.033)***	-0.001 (-0.019 – 0.018)
Model Fit Info				
N	99403	99403	77843	21560
AIC	55693	57329	47361	8060
Tjur R2	0.102	0.077	0.114	0.016

Note. *** p < 0.001, ** p < 0.01, * p < 0.05

Table B4: Estimated Average Marginal Effects (AMEs) and Average Conditional Effects (ACEs) for Gamma Model of VMT, Expansive Definition

Term/Model Info	Full Model (BE) Estimate (95% CI)	Full Model (No BE) Estimate (95% CI)	Urban Model Estimate (95% CI)	Rural Model Estimate (95% CI)
Personal Characteristics				
2+ Adults	0.166 (-0.447 – 0.779)	1.664 (1.075 – 2.254)***	0.040 (-0.657 – 0.738)	0.725 (-0.480 – 1.929)
Race and Ethnicity (Base: Non-Hispanic White)				
Hispanic (all races)	2.477 (1.444 – 3.510)***	1.131 (0.145 – 2.116)*	2.111 (1.034 – 3.188)***	3.145 (0.523 – 5.767)*
Non-Hispanic Black	2.604 (1.571 – 3.637)***	2.638 (1.615 – 3.660)***	2.341 (1.240 – 3.441)***	2.903 (0.484 – 5.322)*
Other race, multiple, or unknown	0.362 (-0.611 – 1.335)	-0.601 (-1.541 – 0.338)	-0.331 (-1.328 – 0.666)	3.219 (0.583 – 5.854)*
Has Child in Home	0.987 (0.287 – 1.686)**	1.726 (1.028 – 2.425)***	1.024 (0.240 – 1.807)*	1.334 (-0.116 – 2.783)
Education (Base: Less Than HS)				
College or More	3.239 (2.548 – 3.930)***	2.465 (1.780 – 3.150)***	3.493 (2.688 – 4.298)***	2.697 (1.405 – 3.990)***
Some College	2.283 (1.598 – 2.968)***	2.115 (1.430 – 2.800)***	2.457 (1.637 – 3.277)***	2.295 (1.069 – 3.522)***
Income (Base: Less than \$35,000)				
\$35,000-\$74,999	5.623 (4.990 – 6.257)***	5.628 (5.000 – 6.256)***	5.305 (4.570 – 6.040)***	6.424 (5.228 – 7.620)***
\$75,000-\$125,000	7.994 (7.223 – 8.764)***	7.865 (7.105 – 8.626)***	7.128 (6.258 – 7.997)***	10.078 (8.543 – 11.613)***
\$125,000+	9.687 (8.751 – 10.624)***	9.203 (8.290 – 10.116)***	8.260 (7.244 – 9.277)***	13.154 (11.100 – 15.207)***
Age (Base (22-35))				
36-50	0.097 (-0.763 – 0.957)	0.851 (0.016 – 1.686)*	0.117 (-0.818 – 1.052)	0.294 (-1.579 – 2.168)
51-69	-0.620 (-1.416 – 0.176)	0.636 (-0.135 – 1.408)	-0.422 (-1.289 – 0.444)	-0.539 (-2.297 – 1.219)
70+	-4.209 (-5.155 – -3.263)***	-3.007 (-3.903 – -2.084)***	-4.026 (-5.077 – -2.975)***	-4.157 (-6.159 – -2.156)***
Female	-3.094 (-3.600 – -2.589)***	-3.084 (-3.584 – -2.583)***	-3.101 (-3.681 – -2.522)***	-2.825 (-3.804 – -1.846)***
Non-Fully Vehicle Equipped	7.300 (6.668 – 7.933)***	8.857 (8.260 – 9.453)***	6.800 (6.100 – 7.500)***	7.956 (6.595 – 9.317)***
Employed	4.758 (4.170 – 5.346)***	4.521 (3.939 – 5.103)***	5.288 (4.622 – 5.953)***	3.125 (1.980 – 4.270)***
Built Environment and Rural Classification				
Is Rural		11.335 (10.721 – 11.948)***		
Local Access	-0.095 (-0.101 – -0.089)***		-0.096 (-0.106 – -0.086)***	-0.081 (-0.089 – -0.073)***
Regional Access	-0.010 (-0.016 – -0.003)**		0.011 (0.002 – 0.021)*	-0.019 (-0.029 – -0.008)***
Local Job Diversity	-0.032 (-0.069 – 0.006)		-0.026 (-0.074 – 0.021)	-0.045 (-0.106 – 0.016)
Has Access to Transit	-0.897 (-1.531 – -0.264)**		-0.845 (-1.523 – -0.167)*	-2.690 (-4.571 – -0.808)**
Model Fit Info				
N	108462	108462	72810	35652
AIC	976118	977868	641848	334041
Null/Residual Deviance	131410/122478	131410/124181	84996/79815	44620/42484
Gamma Dispersion Parameter	1.465	1.435	1.555	1.294

Note. *** p < 0.001, ** p < 0.01, * p < 0.05

Table B5: Estimated Average Marginal Effects (AMEs) and Average Conditional Effects (ACEs) for Auto User Logit Model, Expansive Definition

Term/Model Info	Full Model (BE) Estimate (95% CI)	Full Model (No BE) Estimate (95% CI)	Urban Model Estimate (95% CI)	Rural Model Estimate (95% CI)
Personal Characteristics				
2+ Adults	0.040 (0.036 – 0.045)***	0.054 (0.049 – 0.058)***	0.045 (0.040 – 0.050)***	0.019 (0.012 – 0.025)***
Race and Ethnicity (Base: Non-Hispanic White)				
Hispanic (all races)	0.005 (0.000 – 0.011)*	-0.002 (-0.007 – 0.004)	0.007 (0.001 – 0.013)*	0.009 (-0.001 – 0.020)
Non-Hispanic Black	-0.008 (-0.013 – -0.003)**	-0.008 (-0.014 – -0.003)**	-0.011 (-0.018 – -0.005)***	0.000 (-0.01 – 0.010)
Other race, multiple, or unknown	-0.010 (-0.016 – -0.005)***	-0.017 (-0.022 – -0.011)***	-0.009 (-0.015 – -0.003)**	-0.009 (-0.021 – 0.003)
Has Child in Home	0.024 (0.021 – 0.028)***	0.028 (0.025 – 0.032)***	0.021 (0.016 – 0.026)***	0.021 (0.016 – 0.027)***
Education (Base: Less Than HS)				
College or More	-0.003 (-0.007 – 0.001)	-0.010 (-0.014 – -0.005)***	0.003 (-0.003 – 0.009)	-0.010 (-0.017 – -0.004)**
Some College	0.008 (0.004 – 0.012)***	0.005 (0.001 – 0.009)**	0.013 (0.007 – 0.018)***	0.000 (-0.006 – 0.005)
Income (Base: Less than \$35,000)				
\$35,000-\$74,999	0.027 (0.023 – 0.031)***	0.027 (0.023 – 0.031)***	0.031 (0.026 – 0.036)***	0.021 (0.015 – 0.027)***
\$75,000-\$125,000	0.014 (0.009 – 0.019)***	0.013 (0.008 – 0.017)***	0.018 (0.012 – 0.025)***	0.009 (0.001 – 0.017)*
\$125,000+	-0.008 (-0.014 – -0.001)*	-0.012 (-0.019 – -0.006)***	-0.007 (-0.015 – 0.001)	0.001 (-0.009 – 0.012)
Age (Base (22-35))				
36-50	0.001 (-0.004 – 0.007)	0.006 (0.001 – 0.012)*	0.000 (-0.006 – 0.007)	-0.003 (-0.013 – 0.007)
51-69	0.009 (0.004 – 0.013)***	0.016 (0.011 – 0.021)***	0.009 (0.004 – 0.015)**	0.000 (-0.009 – 0.009)
70+	0.028 (0.022 – 0.033)***	0.035 (0.030 – 0.041)***	0.029 (0.023 – 0.036)***	0.015 (0.005 – 0.024)**
Female	0.012 (0.009 – 0.015)***	0.011 (0.008 – 0.014)***	0.012 (0.008 – 0.016)***	0.009 (0.004 – 0.014)***
Non-Fully Vehicle Equipped	0.178 (0.170 – 0.185)***	0.211 (0.203 – 0.219)***	0.191 (0.182 – 0.200)***	0.108 (0.095 – 0.120)***
Employed	0.012 (0.009 – 0.016)***	0.010 (0.007 – 0.014)***	0.014 (0.010 – 0.019)***	0.011 (0.006 – 0.016)***
Built Environment and Rural Classification				
Is Rural		0.012 (0.009 – 0.016)***		
Local Access	-0.012 (-0.013 – -0.011)***		-0.026 (-0.028 – -0.024)***	-0.004 (-0.005 – -0.002)***
Regional Access	0.004 (0.003 – 0.006)***		-0.001 (-0.003 – 0.001)	0.007 (0.005 – 0.010)***
Local Job Diversity	-0.002 (-0.009 – 0.006)		-0.005 (-0.014 – 0.005)	-0.013 (-0.025 – -0.001)*
Has Access to Transit	-0.022 (-0.025 – -0.018)***		-0.008 (-0.013 – -0.004)***	-0.026 (-0.036 – -0.015)***
Model Fit Info				
N	109591	109591	73538	36053
AIC	49790	50678	34645	14451
Tjur R2	0.136	0.120	0.183	0.048

Note. *** p < 0.001, ** p < 0.01, * p < 0.05

Table B6: Estimated Average Marginal Effects (AMEs) and Average Conditional Effects (ACEs) for Motorized Reliance Logit Model, Expansive Definition

Term/Model Info	Full Model (BE) Estimate (95% CI)	Full Model (No BE) Estimate (95% CI)	Urban Model Estimate (95% CI)	Rural Model Estimate (95% CI)
Personal Characteristics				
2+ Adults	0.077 (0.072 – 0.083)***	0.101 (0.095 – 0.106)***	0.085 (0.078 – 0.091)***	0.051 (0.042 – 0.059)***
Race and Ethnicity (Base: Non-Hispanic White)				
Hispanic (all races)	0.008 (0.001 – 0.014)*	-0.004 (-0.011 – 0.004)	0.009 (0.001 – 0.017)*	0.008 (-0.005 – 0.021)
Non-Hispanic Black	-0.009 (-0.016 – -0.002)*	-0.006 (-0.013 – 0.001)	-0.016 (-0.025 – -0.008)***	0.009 (-0.003 – 0.021)
Other race, multiple, or unknown	-0.008 (-0.014 – -0.001)*	-0.018 (-0.025 – -0.011)***	-0.008 (-0.016 – 0.000)	0.002 (-0.012 – 0.015)
Has Child in Home	0.022 (0.017 – 0.027)***	0.031 (0.026 – 0.035)***	0.019 (0.013 – 0.025)***	0.017 (0.010 – 0.025)***
Education (Base: Less Than HS)				
College or More	-0.030 (-0.035 – -0.024)***	-0.041 (-0.046 – -0.035)***	-0.026 (-0.033 – -0.019)***	-0.033 (-0.041 – -0.025)***
Some College	0.006 (0.001 – 0.012)*	0.002 (-0.003 – 0.007)	0.011 (0.004 – 0.019)**	-0.003 (-0.010 – 0.004)
Income (Base: Less than \$35,000)				
\$35,000-\$74,999	0.026 (0.021 – 0.031)***	0.028 (0.023 – 0.033)***	0.034 (0.027 – 0.040)***	0.014 (0.006 – 0.021)***
\$75,000-\$125,000	0.007 (0.001 – 0.013)*	0.007 (0.001 – 0.014)*	0.009 (0.002 – 0.017)*	0.006 (-0.004 – 0.015)
\$125,000+	-0.024 (-0.032 – -0.016)***	-0.028 (-0.036 – -0.020)***	-0.028 (-0.038 – -0.019)***	-0.006 (-0.019 – 0.006)
Age (Base (22-35))				
36-50	0.012 (0.005 – 0.019)***	0.022 (0.014 – 0.029)***	0.013 (0.005 – 0.021)**	0.004 (-0.008 – 0.016)
51-69	0.028 (0.021 – 0.034)***	0.043 (0.037 – 0.050)***	0.031 (0.023 – 0.038)***	0.013 (0.002 – 0.024)*
70+	0.067 (0.060 – 0.074)***	0.083 (0.076 – 0.090)***	0.075 (0.066 – 0.083)***	0.043 (0.031 – 0.054)***
Female	0.010 (0.006 – 0.014)***	0.010 (0.006 – 0.014)***	0.009 (0.004 – 0.014)***	0.012 (0.006 – 0.017)***
Non-Fully Vehicle Equipped	0.210 (0.202 – 0.218)***	0.259 (0.250 – 0.268)***	0.230 (0.220 – 0.240)***	0.132 (0.117 – 0.147)***
Employed	0.003 (-0.002 – 0.008)	0.000 (-0.005 – 0.004)	0.008 (0.002 – 0.014)*	-0.003 (-0.010 – 0.004)
Built Environment and Rural Classification				
Is Rural		0.036 (0.031 – 0.040)***		
Local Access	-0.026 (-0.027 – -0.024)***		-0.046 (-0.048 – -0.043)***	-0.011 (-0.013 – -0.009)***
Regional Access	0.010 (0.008 – 0.012)***		0.005 (0.003 – 0.008)***	0.011 (0.008 – 0.013)***
Local Job Diversity	-0.014 (-0.024 – -0.004)**		-0.017 (-0.029 – -0.004)**	-0.028 (-0.043 – -0.013)***
Has Access to Transit	-0.040 (-0.045 – -0.035)***		-0.029 (-0.035 – -0.023)***	-0.032 (-0.043 – -0.020)***
Model Fit Info				
N	99403	99403	67056	32347
AIC	62827	64864	45988	16310
Tjur R2	0.149	0.120	0.178	0.060

Note. *** p < 0.001, ** p < 0.01, * p < 0.05

Table B7: Estimated Average Marginal Effects (AMEs) and Average Conditional Effects (ACEs) for Active Traveler Logit Model, Expansive Definition

Term/Model Info	Full Model (BE) Estimate (95% CI)	Full Model (No BE) Estimate (95% CI)	Urban Model Estimate (95% CI)	Rural Model Estimate (95% CI)
Personal Characteristics				
2+ Adults	-0.060 (-0.065 – -0.055)***	-0.081 (-0.086 – -0.076)***	-0.064 (-0.070 – -0.058)***	-0.043 (-0.051 – -0.036)***
Race and Ethnicity (Base: Non-Hispanic White)				
Hispanic (all races)	-0.013 (-0.019 – -0.006)***	-0.005 (-0.012 – 0.002)	-0.015 (-0.023 – -0.007)***	-0.011 (-0.023 – 0.001)
Non-Hispanic Black	-0.015 (-0.021 – -0.009)***	-0.019 (-0.025 – -0.014)***	-0.015 (-0.023 – -0.008)***	-0.015 (-0.025 – -0.004)**
Other race, multiple, or unknown	-0.003 (-0.009 – 0.004)	0.005 (-0.002 – 0.011)	-0.004 (-0.011 – 0.003)	-0.003 (-0.015 – 0.009)
Has Child in Home	-0.011 (-0.016 – -0.007)***	-0.019 (-0.024 – -0.015)***	-0.008 (-0.014 – -0.002)*	-0.012 (-0.019 – -0.005)***
Education (Base: Less Than HS)				
College or More	0.039 (0.034 – 0.044)***	0.048 (0.043 – 0.053)***	0.036 (0.029 – 0.043)***	0.041 (0.034 – 0.048)***
Some College	0.004 (-0.001 – 0.008)	0.007 (0.002 – 0.011)**	-0.001 (-0.007 – 0.006)	0.010 (0.004 – 0.016)***
Income (Base: Less than \$35,000)				
\$35,000-\$74,999	-0.019 (-0.024 – -0.014)***	-0.021 (-0.025 – -0.016)***	-0.023 (-0.029 – -0.017)***	-0.011 (-0.018 – -0.004)**
\$75,000-\$125,000	-0.003 (-0.008 – 0.003)	-0.004 (-0.010 – 0.002)	-0.004 (-0.011 – 0.004)	-0.004 (-0.013 – 0.005)
\$125,000+	0.021 (0.014 – 0.028)***	0.023 (0.016 – 0.030)***	0.024 (0.015 – 0.033)***	0.006 (-0.005 – 0.018)
Age (Base (22-35))				
36-50	-0.012 (-0.018 – -0.006)***	-0.021 (-0.027 – -0.014)***	-0.013 (-0.020 – -0.005)**	-0.008 (-0.020 – 0.003)
51-69	-0.024 (-0.030 – -0.018)***	-0.038 (-0.044 – -0.032)***	-0.026 (-0.033 – -0.019)***	-0.016 (-0.027 – -0.006)**
70+	-0.055 (-0.061 – -0.049)***	-0.069 (-0.076 – -0.062)***	-0.058 (-0.067 – -0.050)***	-0.042 (-0.053 – -0.031)***
Female	-0.005 (-0.009 – -0.002)**	-0.005 (-0.009 – -0.001)**	-0.005 (-0.010 – 0.000)*	-0.004 (-0.009 – 0.001)
Non-Fully Vehicle Equipped	-0.141 (-0.149 – -0.133)***	-0.184 (-0.192 – -0.175)***	-0.149 (-0.158 – -0.140)***	-0.098 (-0.111 – -0.084)***
Employed	-0.009 (-0.014 – -0.005)***	-0.007 (-0.011 – -0.002)**	-0.014 (-0.019 – -0.008)***	-0.003 (-0.010 – 0.003)
Built Environment and Rural Classification				
Is Rural		-0.026 (-0.030 – -0.022)***		
Local Access	0.024 (0.022 – 0.025)***		0.040 (0.037 – 0.042)***	0.011 (0.009 – 0.012)***
Regional Access	-0.012 (-0.014 – -0.011)***		-0.010 (-0.013 – -0.008)***	-0.010 (-0.012 – -0.007)***
Local Job Diversity	0.016 (0.007 – 0.025)***		0.019 (0.007 – 0.031)**	0.022 (0.009 – 0.036)**
Has Access to Transit	0.031 (0.027 – 0.036)***		0.024 (0.019 – 0.029)***	0.027 (0.017 – 0.038)***
Model Fit Info				
N	99403	99403	67056	32347
AIC	55693	57446	41209	14189
Tjur R2	0.102	0.076	0.119	0.052

Note. *** p < 0.001, ** p < 0.01, * p < 0.05

Technical Appendix C: Expansive Rural Definition Built Environment Marginal Effect Graphic

Figure C1. Model results for BE variables. Plots illustrate 95% confidence intervals of AMEs (for regional access, local access, and local job diversity) and ACEs (for access to transit) using the expansive definition of rural.

