

Online supplement to
**“Using Virtual Accessibility and Physical Accessibility as Joint Predictors of Activity-
Travel Behavior”**

by Patrícia S. Lavieri, Qichun Dai, and Chandra R. Bhat (corresponding author)

TABLE 1 Descriptive statistics of VAM and PAM variables

VAM		
Variable	Count	%
Internet Availability		
Yes	2,988	90.0
No	331	10.0
Occupation types		
Managerial and professional occupations	1428	43.0
Routine, manual, intermediate occupations	1891	57.0
PAM		
Variable	Count	%
Travel time to nearest rail station		
6 mins or less	232	7.0
7–13 mins	362	10.9
14–26 mins	876	26.4
27–43 mins	544	16.4
44 mins +	1,3205	39.3
Travel time to nearest shopping center		
15 minutes or less	1,792	54.0
16 - 20 minutes	568	17.1
21 - 30 minutes	528	15.9
31 - 40 minutes	146	4.4
41 - 60 minutes	219	6.6
60 minutes +	66	2.0
Travel time to nearest hospital		
15 minutes or less	734	22.1
16 - 20 minutes	478	14.4
21 - 30 minutes	803	24.2
31 - 40 minutes	329	9.9
41 - 60 minutes	733	22.1
60 minutes +	242	7.3

TABLE 2 Socio-demographic characteristics

Variable	Count	%	Variable	Count	%
Gender			House Type		
Female	2,319	69.9	Detached	753	22.7
Male	1,000	30.1	Semi-detached	1,080	32.5
Age			Townhome	973	29.3
17–29 years old	395	11.9	Apartment/Flat	501	15.1
30–39 years old	772	23.3	Other	12	0.4
40–49 years old	982	29.6	Household Tenure Status		
50 - 59 years	838	25.2	Owns/buying	2,369	71.3
60 years +	332	10.0	Rents	928	28.0
Presence of Children			Other	22	0.7
Yes	1,152	34.7	Household Income		
No	2,167	65.3	Less than £25,000	1,002	30.2
Employment Status			£25,000 to £49,999	1,224	36.9
Full Time	2,121	63.9	£50,000 and over	1,093	32.9
Part Time	1,198	36.1	Residential Location		
Employment Type			Metropolitan	944	28.4
Self-employed	312	9.4	Non-metropolitan	2375	71.6
Employee	3,007	90.6			
Education					
No Degree	2267	68.3			
Degree	1052	31.7			

TABLE 3 Descriptive statistics of the indicators of PALSAC

Variable	Count	%
Ease to commute without car		
Very difficult	853	25.7
Quite difficult	495	14.9
Neither easy nor difficult	139	4.2
Fairly easy	571	17.2
Very easy	1,261	38.0
Ease to shop without car		
Very difficult	308	9.3
Quite difficult	930	28.0
Neither easy nor difficult	261	7.9
Fairly easy	610	18.4
Very easy	1,210	36.4
Rating of quality of pavement		
Quite poor	523	15.8
Fairly poor	547	16.5
Neither poor/good	523	15.8
Fairly good	1,505	45.3
Quite good	221	6.6
Rating of quality of bicycle lanes		
Quite poor	1,149	34.7
Fairly poor	456	13.7
Neither poor/good	747	22.5
Fairly good	752	22.7
Quite good	214	6.4

Table 4 Thresholds and constants of PALSC indicators and loadings of latent variables on indicators

PALSC Indicators	Threshold 2		Threshold 3		Threshold 4		Constant		Latent variable loading	
	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat
Ease to commute without a car	--	--	0.587	21.01	1.386	33.34	1.078	17.49	0.852	27.13
Ease to shop without a car	0.818	24.59	1.095	29.82	2.050	41.70	1.536	26.72	0.715	24.67
Rating of quality of pavement	0.552	23.76	0.967	35.17	2.534	54.77	1.037	35.88	0.138	5.22
Rating of quality of bicycle lanes	0.366	20.80	0.971	35.36	1.961	43.60	0.434	15.51	0.203	7.40

-- “ not statistically significant

Table 5 Thresholds of ordinal PAG outcomes

PALSC Indicators	Threshold 2		Threshold 3		Threshold 4	
	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat
Average duration of mandatory activity episodes	0.747	20.31	1.364	32.31	2.036	44.02
Average duration of maintenance activity episodes	0.893	31.00	1.813	45.00	n/a	n/a
Average duration of discretionary activity episodes	1.039	32.79	1.730	44.64	n/a	n/a
Motorized vehicle availability	1.481	29.62	3.941	34.04	n/a	n/a
Average number of trips per tour	1.127	36.09	1.826	43.61	n/a	n/a

“n/a” not applicable