

# Appendix

## Car Dependency Index:

Variables were based on satisfaction with respondents' bus, rail, active travel, and walking infrastructure. All use the same scale which asked respondents to rate satisfaction from 1 – 5, with 1 being very satisfied and 5 being very dissatisfied. Those who answered “Don’t know” or “Prefer not to answer” were excluded from analysis. All variables were equally weighted, and included:

Variable code	Question
NTmsat_B01ID:	<i>Overall, how satisfied or dissatisfied are you with train services?</i>
RelTrain_B01ID:	<i>How satisfied or dissatisfied are you with the reliability of trains?</i>
FrqTrain_B01ID:	<i>How satisfied or dissatisfied are you with the frequency of trains?</i>
NSatServ_B01ID:	<i>How satisfied or dissatisfied are you with local bus services?</i>
NReliBus_B01ID:	<i>How satisfied or dissatisfied are you with the reliability of local buses?</i>
NFrqBus_B01ID:	<i>How satisfied or dissatisfied are you with the frequency of local buses?</i>
Ncyclane_B01ID:	<i>How satisfied or dissatisfied are you with provision for cycling in your local area?</i>
WalkProv_B01ID:	<i>How satisfied or dissatisfied are you with provision for walking in your local area?</i>

Primary analysis only included respondents that said they were “neither satisfied or dissatisfied”, “fairly satisfied”, or “very satisfied” in response to at least one of the above variables, or with motorways, major A roads, and local roads (“SRNRdSat\_B01ID” and “LocRdSat\_B01ID”).

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## Statistical tables showing effect of car dependency on loneliness indicators

### 1. Indicator: Lonely

VARIABLE	ESTIMATE	STD. ERROR	T-VALUE	P-VALUE
INTERCEPT	3.213	0.280	11.45	< 2e-16
CAR DEPENDENCY INDEX	-0.161	0.017	-9.23	< 2e-16
INDIVIDUAL INCOME	-0.093	0.017	-5.55	2.96e-08
SEX	0.111	0.026	4.32	1.59e-05
AGE	-0.039	0.009	-4.45	8.53e-06
MARITAL STATUS	0.206	0.009	22.19	< 2e-16
EDUCATION ATTAINMENT	0.065	0.028	2.37	0.0179
RURAL-URBAN CLAS.	0.017	0.014	1.15	0.2508

## 2. Indicator: Isolated

VARIABLE	ESTIMATE	STD. ERROR	T-VALUE	P-VALUE
INTERCEPT	2.236	0.143	15.68	< 2e-16
CAR DEPENDENCY INDEX	-0.071	0.009	-8.02	1.16e-15
INDIVIDUAL INCOME	-0.057	0.009	-6.71	2.05e-11
SEX	~0.000	0.013	-0.04	0.972
AGE	-0.026	0.004	-5.96	2.60e-09
MARITAL STATUS	0.073	0.005	15.39	< 2e-16
EDUCATION ATTAINMENT	0.063	0.014	4.50	7.01e-06
RURAL-URBAN CLAS.	0.010	0.007	1.43	0.154

## 3. Indicator: Left Out

VARIABLE	ESTIMATE	STD. ERROR	T-VALUE	P-VALUE
INTERCEPT	1.930	0.138	14.03	< 2e-16
CAR DEPENDENCY INDEX	-0.079	0.009	-9.31	< 2e-16
INDIVIDUAL INCOME	-0.060	0.008	-7.25	4.35e-13
SEX	0.015	0.013	1.16	0.245
AGE	-0.017	0.004	-4.01	6.16e-05
MARITAL STATUS	0.069	0.005	15.17	< 2e-16
EDUCATION ATTAINMENT	0.037	0.013	2.77	0.0056
RURAL-URBAN CLAS.	0.005	0.007	0.71	0.477

## 4. Indicator: Lack Companionship

VARIABLE	ESTIMATE	STD. ERROR	T-VALUE	P-VALUE
INTERCEPT	1.709	0.142	12.03	< 2e-16
CAR DEPENDENCY INDEX	-0.050	0.009	-5.66	1.56e-08
INDIVIDUAL INCOME	-0.052	0.009	-6.13	8.93e-10
SEX	0.010	0.013	0.76	0.450
AGE	-0.004	0.004	-0.85	0.396
MARITAL STATUS	0.121	0.005	25.68	< 2e-16
EDUCATION ATTAINMENT	0.042	0.014	2.98	0.0029
RURAL-URBAN CLAS.	~0.001	0.007	0.13	0.898