

## SUPPLEMENTAL INFORMATION

### Survey approach

The questions were posed as part of an online omnibus survey scripted and hosted by Yonder Data Solutions<sup>1</sup>. Respondents who took part in the survey are members of the YLive Community panel which is Yonder's proprietary panel to which respondents have signed up to take part in market-research surveys. The sampling method used is quota-based. Respondents on the panel are profiled by demographic data they provide when they sign up to/during their membership of the panel and these are used to target requests in order to achieve the necessary sample requirements, in this case a nationally representative sample. Respondents who fit the demographics used in targeting are then picked at random and invited to take part in the survey.

### Survey questions

We submitted four custom questions for the survey (below). In addition, Yonder asked a series of socio-demographic questions addressing attributes such as gender, education, income etc.

The analysis in this paper is based on answers to Q2. It draws on respondents' answers to Q1.

**Q1. Thinking about your immediate neighbourhood, by which we mean the area within a ten-minute walk from your home, which of the following apply?**

- It's an area with traffic restrictions e.g. some roads are closed to through traffic
- It's an area with other traffic measures e.g. a 20mph zone, traffic calming
- It's an area with no particular traffic restrictions or measures

**Q2. Thinking again about your immediate neighbourhood we'd like to know whether you'd be prepared to accept an increase in everyday journey times for drivers e.g. journeys to work, school or to run errands, as a result of traffic restrictions that had wider benefits.**

**In each case please choose the level of additional journey time you'd find acceptable if you were making an everyday journey by car:**

- a) If restrictions would result in a 25% reduction of NO<sub>2</sub> (a type of air pollution) in the area
- b) If restrictions would result in a 25% reduction in the volume of greenhouse gases emitted by vehicles in the area

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<sup>1</sup> <https://yonderdatasolutions.com/>

- c) If restrictions would result in a 25% reduction in the number of vehicles driving on the roads in the area
  - d) If restrictions would result in a 25% increase in the number of journeys local people take on foot or by bicycle
- No delay is acceptable
  - Up to 2 minutes
  - Up to 5 minutes
  - Up to 10 minutes
  - More than 10 minutes

**Q3. To what extent do you agree or disagree with the following statements:**

- a) Climate change is a significant issue for society
  - b) People like me have a responsibility to take action to address climate change
  - c) Petrol and diesel vehicles globally make a significant contribution to climate change
  - d) My own petrol or diesel vehicle use makes a significant contribution to climate change
  - e) Government, rather than individuals, has a responsibility to take action to address climate change
- Strongly agree
  - Agree
  - Disagree
  - Strongly disagree
  - Don't know/not applicable

**Q4. Who do you think should get to make decisions about traffic restrictions and other traffic measures? Please select the group you think should have the most influence on the decision.**

- Local residents working together with the local authority - traffic restrictions should balance national goals and local knowledge/ preferences
- The national government - traffic restrictions should be in line with national policy
- Local authority officers/staff - traffic restrictions should balance national policy with local conditions
- Local councillors - traffic restrictions should be decided by local elected representatives who know about local conditions and preferences
- Local residents via a referendum or vote - traffic restrictions should be based on the preferences of local residents
- Other, please specify

## Weighting

The data are weighted to nationally representative targets. Targets for quotas and weights are taken from the PAMCo survey<sup>2</sup>, a random-probability face-to-face survey conducted annually with 35,000 adults in the UK. These were used until the latest instalment of Census data (2021) became fully available.

## Sample characteristics and representativeness

The table below presents a demographic and geographical summary of the survey sample. It presents the unweighted and weighted counts and proportions of respondents belonging to different demographic and geographical categories. The final column outlines the percent of the England and Wales population belonging to each category taken from 2021 census data<sup>3</sup>. As respondents are aged 18+, where possible, the stated England and Wales figures are also the percent of the population aged 18+. However, for many variables, this was not possible, and the percent of the whole population has been used instead. Note that the table excludes survey respondents in Scotland and Northern Ireland, as up-to-date census data are not available for these nations.

Overall, even prior to using weights, the sample was generally quite representative of the England and Wales population – a reflection of the quota sampling method. In some cases, the use of weights makes the sample more representative on that particular characteristic; in others it does the opposite. The reason for this inconsistency is because the targets for the weights were taken not from the 2021 Census, but from the PAMCo survey. Had the 2021 Census data been available at the time of the survey, this would have been used to generate targets for weights.

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<sup>2</sup> <https://pamco.ipsos.com/>

<sup>3</sup> Office for National Statistics (2023) 2021 aggregate Census data. Nomis. Retrieved from: [https://www.nomisweb.co.uk/sources/census\\_2021](https://www.nomisweb.co.uk/sources/census_2021)

<b>Variable</b>	<b>Category</b>	<b>Count</b>	<b>Weighted count</b>	<b>Percent of sample</b>	<b>Weighted percent</b>	<b>Percent England and Wales</b>
Age groups	18-24	195	201	10.6	10.9	10.5
	25-34	298	327	16.2	17.8	17.1
	35-44	287	282	15.6	15.3	16.4
	45-54	316	322	17.2	17.5	16.8
	55-64	293	271	16.0	14.8	15.9
	65+	446	434	24.3	23.6	23.4
Gender	Male	875	894	47.7	48.7	48.4
	Female	960	943	52.3	51.3	51.6
Ethnic group	White	1552	1569	85.5	86.3	81.7
	Asian	126	120	6.9	6.6	9.3
	Black	59	58	3.3	3.2	4.0
	Mixed	65	59	3.6	3.3	2.9
	Other	13	12	0.7	0.7	2.1
Qualifications	None, Primary, Secondary	983	1000	54.7	55.6	65.2
	Degree or higher	813	800	45.3	44.4	34.8
Relationship status	Married/civil partnership	794	801	43.4	43.7	44.4
	Never married/civil partnership	799	810	43.7	44.2	37.9
	Separated/divorced	168	156	9.2	8.5	11.3
	Widowed	67	64	3.7	3.5	6.1
Tenure	Owned - mortgage	500	511	27.2	27.8	29.7
	Owned outright	659	734	35.9	40.0	32.8
	Private rent/Rent free	380	256	20.7	13.9	17.1
	Social/HA rent	296	335	16.1	18.2	20.3
Sexuality	Heterosexual	1619	1622	92.8	92.6	89.4
	Gay/lesbian	56	54	3.2	3.1	1.5
	Bisexual	70	75	4.0	4.3	1.3
Household car ownership	0	335	322	18.3	17.5	23.3
	1	927	916	50.5	49.8	41.3
	2 or more	573	599	31.2	32.6	35.4
Region	North East	87	85	4.7	4.6	4.4
	North West	239	230	13.0	12.5	12.4
	Yorks and Humber	173	172	9.4	9.4	9.2
	West Mids	167	178	9.1	9.7	10.0
	East Mids	152	149	8.3	8.1	8.2
	Wales	109	97	5.9	5.3	5.2
	East	172	193	9.4	10.5	10.6
	London	288	273	15.7	14.9	14.8
	South East	286	282	15.6	15.3	15.6
	South West	162	178	8.8	9.7	9.6

## Model specifications

For each “benefit”, we have specified three regression models, which are outlined below. In this analysis, we have executed the models on the four “benefits” separately. This allows us to test whether the demographic predictors of accepting delays are the similar across the four. In each model, the dependent variable is binomial, coded “Yes” or “No” in reference to accepting a delay in return for the “benefit”.

- 1) All variables: this model uses a wide range of socio-demographic and geographical variables as predictor variables. Variables are only removed from the model on evidence of multicollinearity (as tested by correlation coefficients and Variance Inflation Scores). This model does not include geographical region as an explanatory variable.
- 2) Best-fit: this model is the ‘best-fit’ model, as measured by the Akaike Information Criteria (AIC). This model is specified differently for each one of the “benefits”, depending on which combination of explanatory variables fits the data best. This model does not include geographical region as an explanatory variable.
- 3) ML random intercept (L2 = Region): this model includes the same explanatory variables as the Best-fit model. However, it is specified with these variables as level 1 variables and the addition of region as a level 2 variable. That is, the model specified is a multi-level, random-intercept model in which the random effect of the clustering variable (region) is incorporated. This model is executed as it reflects the hierarchical nature of the data in which individuals are nested within regions.

## Model results

The following four tables present results of the regression modelling for each of the “benefits” in turn.

	<i>Dependent variable:</i>		
	<b>Delay acceptable: 25% reduction in the number of vehicles driving on the roads in the area</b>		
	ML random intercept (L2 = Region)	Best-fit	All variables
Education: in full-time (ref: none, primary, sec)	1.090 (0.743)	1.088 (0.741)	1.175 (0.763)
<b>Education: degree or higher</b>	<b>0.431*** (0.129)</b>	<b>0.429*** (0.128)</b>	<b>0.402** (0.142)</b>
<b>Traffic scheme: yes (ref: no)</b>	<b>0.364** (0.126)</b>	<b>0.362** (0.125)</b>	<b>0.411** (0.132)</b>
<b>Car ownership: 1 (ref: 0)</b>	-0.295 (0.185)	-0.293 (0.184)	<b>-0.445* (0.205)</b>
<b>Car ownership: 2+</b>	<b>-0.495* (0.194)</b>	<b>-0.493* (0.193)</b>	<b>-0.696** (0.229)</b>
<b>Gender: woman (ref: man)</b>	<b>0.258* (0.125)</b>	<b>0.257* (0.125)</b>	<b>0.289* (0.130)</b>
Age: 35-54 (ref: 18-34)			0.107 (0.180)
Age: 55-64			0.221 (0.235)
Age: 65+			0.455 (0.251)
Ethnicity: Asian (ref: White)			-0.012 (0.277)
Ethnicity: Black			-0.508 (0.357)
Ethnicity: Mixed			0.268 (0.401)
Ethnicity: Other			-0.146 (0.672)
Social grade: B (ref: A)			0.010 (0.284)
Social grade: C1			0.054 (0.275)
Social grade: C2			-0.191 (0.289)
Social grade: D			0.006 (0.320)
Social grade: E			-0.454 (0.323)
Tenure: own - mortgage (ref: own outright)			0.329 (0.187)
Tenure: social/HA rent			0.027 (0.207)
Tenure: private rent			0.382 (0.222)
Tenure: rent free			0.320 (0.479)
Sexuality: gay/lesbian (ref: heterosexual)			-0.313 (0.340)
Sexuality: bisexual			0.639 (0.416)
Relationship: single (ref: married/civil partner)			-0.135 (0.183)
Relationship: co-habiting			0.029 (0.207)
Relationship: separated/divorced			0.065 (0.255)
Relationship: widowed			-0.623 (0.324)
Children: yes (ref: no)			-0.086 (0.175)
Disability/Long-term illness: yes (ref: no)			-0.052 (0.160)
Area: small town and fringe (ref: urban 10k+)			-0.0002 (0.148)
Area: village			0.160 (0.190)
Area: hamlet/isolated dwelling			-0.355 (0.358)
Intercept	1.318*** (0.194)	1.317*** (0.193)	1.240** (0.425)
Observations	1,794	1,794	1,794
Log Likelihood	-826.415	-826.419	-812.296
Akaike Inf. Crit.	1,668.829	1,666.839	1,692.592
Bayesian Inf. Crit.	1,712.767		

Note:

\*p<0.05\*\*p<0.01\*\*\*p<0.001

Dependent variable:

**Delay acceptable: 25% increase in the number of journeys local people take on foot or by bicycle**

	ML random intercept (L2 = Region)	Best-fit	All variables
Education: in full-time (ref: none, primary, sec)	1.352 (0.744)	1.347 (0.743)	1.418 (0.764)
<b>Education: degree or higher</b>	<b>0.538*** (0.125)</b>	<b>0.530*** (0.124)</b>	<b>0.496*** (0.136)</b>
<b>Gender: woman (ref: man)</b>	<b>0.420*** (0.120)</b>	<b>0.417*** (0.120)</b>	<b>0.494*** (0.124)</b>
Area: small town and fringe (ref: urban 10k+)	-0.026 (0.142)	-0.002 (0.137)	0.018 (0.143)
Area: village	-0.298 (0.173)	-0.261 (0.164)	-0.180 (0.176)
<b>Area: hamlet/isolated dwelling</b>	<b>-0.930** (0.326)</b>	<b>-0.899** (0.321)</b>	<b>-0.804* (0.337)</b>
Sexuality: gay/lesbian (ref: heterosexual)	-0.263 (0.304)	-0.263 (0.304)	-0.415 (0.320)
Sexuality: bisexual	0.743 (0.406)	0.752 (0.406)	0.789 (0.416)
Age: 35-54 (ref: 18-34)			0.102 (0.173)
Age: 55-64			0.154 (0.224)
Age: 65+			0.426 (0.239)
Ethnicity: Asian (ref: White)			-0.069 (0.267)
<b>Ethnicity: Black</b>			<b>-0.856** (0.331)</b>
Ethnicity: Mixed			0.043 (0.367)
Ethnicity: Other			-0.445 (0.613)
Social grade: B (ref: A)			-0.009 (0.276)
Social grade: C1			0.003 (0.266)
Social grade: C2			-0.366 (0.278)
Social grade: D			-0.218 (0.303)
Social grade: E			-0.436 (0.312)
Tenure: own - mortgage (ref: own outright)			0.327 (0.179)
Tenure: social/HA rent			-0.045 (0.195)
Tenure: private rent			0.325 (0.211)
Tenure: rent free			0.028 (0.434)
Relationship: single (ref: married/civil partner)			0.056 (0.177)
Relationship: co-habiting			0.053 (0.195)
Relationship: separated/divorced			-0.194 (0.225)
Relationship: widowed			-0.181 (0.335)
Children: yes (ref: no)			-0.104 (0.167)
Car ownership: 1 (ref: 0)			-0.209 (0.190)
<b>Car ownership: 2+</b>			<b>-0.450* (0.213)</b>
Disability/Long-term illness: yes (ref: no)			-0.141 (0.150)
Traffic scheme: yes (ref: no)			0.186 (0.126)
Intercept	0.996*** (0.131)	0.977*** (0.123)	1.043* (0.405)
Observations	1,794	1,794	1,794
Log Likelihood	-887.785	-888.078	-872.422
Akaike Inf. Crit.	1,795.570	1,794.156	1,812.845
Bayesian Inf. Crit.	1,850.492		

Note:

\*p<0.05\*\*p<0.01\*\*\*p<0.001

Dependent variable:

**Delay acceptable: 25% reduction in the volume of greenhouse gases emitted by vehicles in the area**

	ML random intercept (L2 = region)	Best-fit	All variables
Education: in full-time (ref: none, primary, sec)	21.116 (181.019)	15.140 (456.868)	15.277 (444.282)
<b>Education: degree or higher</b>	<b>0.460*** (0.132)</b>	<b>0.447*** (0.130)</b>	<b>0.446** (0.145)</b>
<b>Gender: woman (ref: man)</b>	<b>0.523*** (0.129)</b>	<b>0.514*** (0.129)</b>	<b>0.568*** (0.134)</b>
<b>Traffic scheme: yes (ref: no)</b>	<b>0.290* (0.129)</b>	<b>0.270* (0.127)</b>	<b>0.317* (0.135)</b>
Children: yes (ref: no)	-0.231 (0.142)	-0.234 (0.142)	-0.108 (0.176)
Age: 35-54 (ref: 18-34)			0.242 (0.179)
<b>Age: 55-64</b>			<b>0.509* (0.242)</b>
<b>Age: 65+</b>			<b>0.685** (0.256)</b>
Ethnicity: Asian (ref: White)			-0.029 (0.279)
<b>Ethnicity: Black</b>			<b>-0.894** (0.341)</b>
Ethnicity: Mixed			-0.209 (0.360)
Ethnicity: Other			-0.221 (0.674)
Social grade: B (ref: A)			-0.105 (0.295)
Social grade: C1			-0.080 (0.286)
Social grade: C2			-0.340 (0.301)
Social grade: D			-0.230 (0.328)
Social grade: E			-0.581 (0.338)
Tenure: own - mortgage (ref: own outright)			0.255 (0.191)
Tenure: social/HA rent			-0.093 (0.208)
<b>Tenure: private rent</b>			<b>0.550* (0.234)</b>
Tenure: rent free			0.476 (0.519)
Sexuality: gay/lesbian (ref: heterosexual)			-0.389 (0.343)
Sexuality: bisexual			0.770 (0.445)
Relationship: single (ref: married/civil partner)			-0.012 (0.186)
Relationship: co-habiting			0.065 (0.209)
Relationship: separated/divorced			0.133 (0.267)
Relationship: widowed			-0.327 (0.355)
Car ownership: 1 (ref: 0)			-0.355 (0.207)
<b>Car ownership: 2+</b>			<b>-0.479* (0.232)</b>
Disability/Long-term illness: yes (ref: no)			0.105 (0.169)
Area: small town and fringe (ref: urban 10k+)			-0.044 (0.151)
Area: village			0.163 (0.198)
Area: hamlet/isolated dwelling			-0.497 (0.369)
Intercept	1.029*** (0.138)	1.036*** (0.126)	1.037* (0.435)
Observations	1,794	1,794	1,794
Log Likelihood	-800.450	-801.497	-781.189
Akaike Inf. Crit.	1,614.900	1,614.994	1,630.378
Bayesian Inf. Crit.	1,653.346		

Note:

\*p<0.05\*\*p<0.01\*\*\*p<0.001

Dependent variable:

	Delay acceptable: 25% reduction of NO <sub>2</sub> in the area		
	ML random intercept (L2 = region)	Best-fit	All variables
<b>Gender: woman (ref: man)</b>	<b>0.499*** (0.130)</b>	<b>0.495*** (0.129)</b>	<b>0.534*** (0.134)</b>
Education: in full-time (ref: none, primary, sec)	1.040 (0.748)	0.987 (0.745)	1.153 (0.765)
<b>Education: degree or higher</b>	<b>0.443*** (0.134)</b>	<b>0.417** (0.132)</b>	<b>0.449** (0.146)</b>
<b>Children: yes (ref: no)</b>	<b>-0.305* (0.143)</b>	<b>-0.308* (0.143)</b>	-0.275 (0.176)
<b>Traffic scheme: yes (ref: no)</b>	<b>0.262* (0.130)</b>	0.230 (0.128)	<b>0.271* (0.135)</b>
Sexuality: gay/lesbian (ref: heterosexual)	-0.478 (0.321)	-0.460 (0.320)	-0.555 (0.334)
Sexuality: bisexual	0.633 (0.437)	0.654 (0.436)	0.717 (0.443)
Car ownership: 1 (ref: 0)	-0.211 (0.189)	-0.169 (0.186)	-0.330 (0.208)
<b>Car ownership: 2+</b>	<b>-0.413* (0.199)</b>	-0.370 (0.196)	<b>-0.534* (0.231)</b>
Age: 35-54 (ref: 18-34)			0.114 (0.180)
Age: 55-64			0.387 (0.243)
<b>Age: 65+</b>			<b>0.542* (0.258)</b>
Ethnicity: Asian (ref: White)			-0.157 (0.266)
Ethnicity: Black			-0.330 (0.368)
Ethnicity: Mixed			-0.098 (0.371)
Ethnicity: Other			-0.575 (0.615)
Social grade: B (ref: A)			-0.128 (0.293)
Social grade: C1			-0.125 (0.284)
Social grade: C2			-0.371 (0.298)
Social grade: D			-0.072 (0.331)
Social grade: E			-0.522 (0.339)
Tenure: own - mortgage (ref: own outright)			0.305 (0.191)
Tenure: social/HA rent			-0.076 (0.210)
<b>Tenure: private rent</b>			<b>0.551* (0.234)</b>
Tenure: rent free			0.265 (0.482)
Relationship: single (ref: married/civil partner)			-0.060 (0.186)
Relationship: co-habiting			0.181 (0.215)
Relationship: separated/divorced			0.091 (0.267)
Relationship: widowed			-0.360 (0.355)
Disability/Long-term illness: yes (ref: no)			0.152 (0.170)
Area: small town and fringe (ref: urban 10k+)			0.204 (0.153)
Area: village			0.177 (0.193)
Area: hamlet/isolated dwelling			-0.401 (0.367)
Intercept	1.350*** (0.207)	1.322*** (0.197)	1.122** (0.434)
Observations	1,794	1,794	1,794
Log Likelihood	-796.881	-798.481	-784.051
Akaike Inf. Crit.	1,615.763	1,616.962	1,636.102
Bayesian Inf. Crit.	1,676.177		

Note:

\*p<0.05\*\*p<0.01\*\*\*p<0.001

## A note on terms

We acknowledge that using the word “**benefit**” to describe potential impacts of traffic restrictions presupposes that these impacts are positive or would be viewed as positive. We considered using a more neutral term in the text but concluded that we should persist with “benefit” because the survey questions used this word.

We use the term “**social grade**” in the main text. This is a British classification system based on occupation, originally created by the National Readership Survey<sup>4</sup>. It has six categories: *Higher managerial, administrative and professional; Intermediate managerial, administrative and professional; Supervisory, clerical and junior managerial, administrative and professional; Skilled manual workers; Semi-skilled and unskilled manual workers; and State pensioners, casual and lowest grade workers, unemployed with state benefits only.*

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<sup>4</sup> <https://nrs.co.uk/nrs-print/lifestyle-and-classification-data/social-grade/>