



progressive

The City of Edinburgh Council
Low Emission Zone
Awareness and understanding
Final Report
June 2022





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Introduction

Background

Low Emissions Zones (LEZs) are designed to improve air quality by reducing harmful emissions from road traffic. Access to a low emission zone is restricted for the most polluting vehicles, which in turn improves the air quality and helps protect the health both within and beyond the zone.

Local authorities, in partnership with the Scottish Government have introduced LEZs in Glasgow, Edinburgh, Dundee and Aberdeen on 31 May 2022. Scotland's LEZs are designed to discourage non-complaint vehicles from driving within the zones, and penalty charges will be issued for those that do not comply. This differs to other restrictions, such as England's Clean Air Zones and London's LEZ that allow entry to their zones if a daily access charge is paid by drivers.

To help those who may have the most difficulty in adapting to the LEZs, Transport Scotland have provided funds including – the Low Emission Support Fund and the Retrofit Support Fund – which are delivered by Energy Saving Trust (EST).

The Low Emission Support Fund is available to low-income households and micro-businesses and is there to help recycle older, more polluting vehicles to reduce harmful emissions. The Retrofit Support Fund supports micro-businesses to upgrade their vehicles to the minimum standards required to be compliant with the LEZs. Grants were available to support the cost of retrofitting engines or exhausts on taxis, vans and HGVs to Euro 6/VI standard. The Bus Emission Abatement Retrofit (BEAR) grant funding supports bus operators with engine and exhaust retrofitting.

The Edinburgh LEZ was introduced on 31 May 2022. There is a two-year grace period before any penalty charges (fines) are issued, from 1 June 2024. Transport Scotland has supported local communications and currently (May 2022) is running a national campaign to raise awareness of the benefits of LEZs

The City of Edinburgh Council undertook research to help it understand views towards LEZ from individuals driving in Edinburgh. Findings from the research will provide insights that will help shape future local engagement and communications campaigns. In addition, the research will inform the developing monitoring and evaluation approach of its LEZ locally and best practice/findings will be shared with Scotland's other LEZ cities, nationally. Finally, the research will help to inform local policy development in relation to LEZ structures, and to inform the development of other demand management projects (e.g. road user charging).

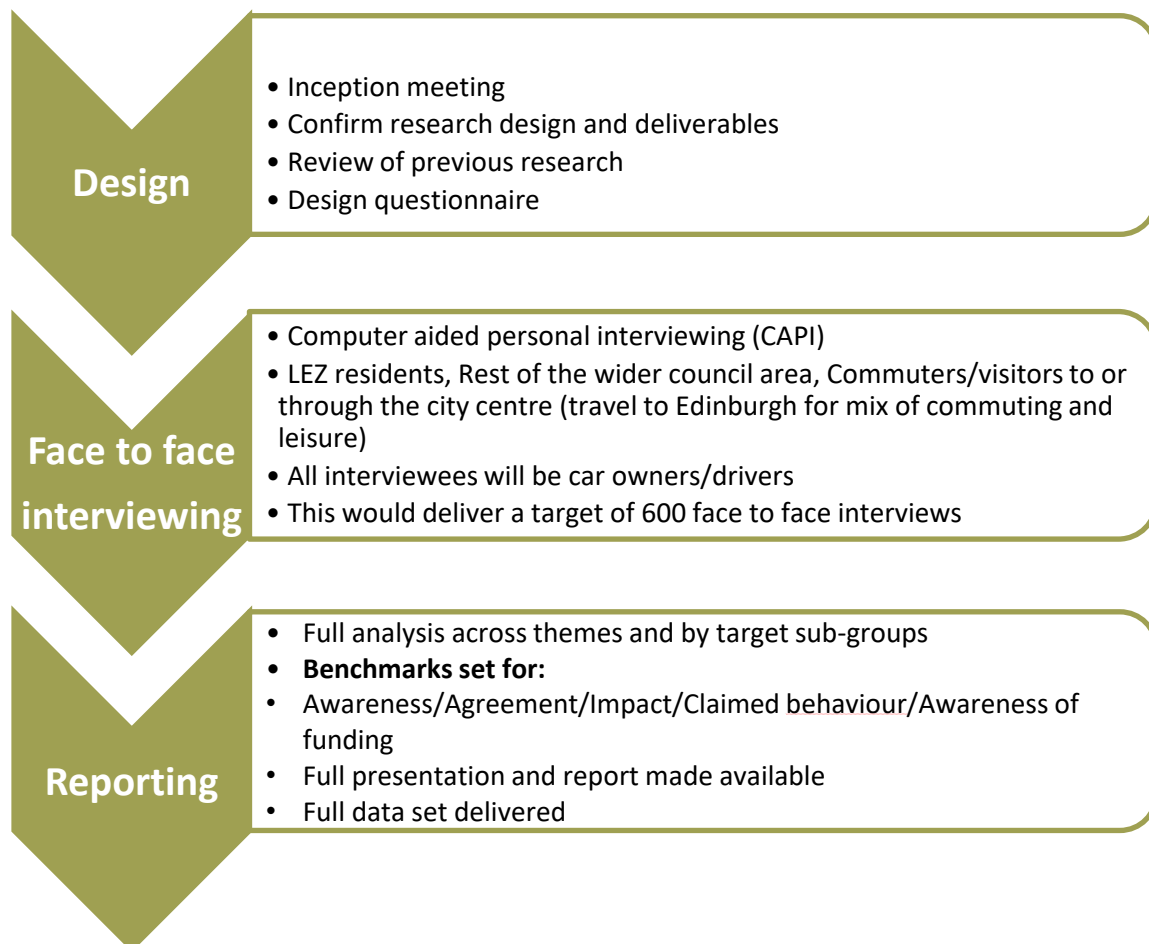
The detailed objectives of this research were as follows:

- Measure awareness/understanding of scheme
- Agreement with Proposed Scheme
- Measure awareness/understanding of the impact and benefits
- Impact to vehicles owners/understanding if their vehicles meet the minimum standards
- Behaviour change because of LEZ
- Awareness of funding support

Method Overview

The figure below summarises the survey approach.

Figure 1



Inception meeting

The first task was a detailed inception meeting, attended by Sarah Ainsworth and Valerie Strachan from Progressive, and George King and Jacqueline Allan from The City of Edinburgh Council ('the Council'). This ensured an effective working relationship between the partners on the project. The meeting allowed us to review and refine the research methodology, agree outputs and provide an opportunity for knowledge sharing. Key points discussed at the meeting included:

- A review of the objectives of the research and how the findings will be used
- A detailed review of the proposed method and sampling approach
- Identification and refinement of practical matters, such as the administration of the survey
- Discussion of the draft questionnaire, with reference to past online survey tools
- Agreement of timings and reporting requirements
- Establishment of clear reporting lines and project reporting protocols.

Fieldwork

Sample

A target sample of 635 interviews was achieved. This comprised the following:

- 114 interviews with LEZ residents (those living within the LEZ boundary). Must be car owners/ company car drivers
- 262 interviews with residents of the wider Council area (living outwith the LEZ boundary). Must be car owners/ company car drivers
- 259 interviews with visitors / commuters to the city centre from elsewhere in Scotland. Must be car owners/ company car drivers.

Quota controls guided the sample selection for this study. This means that statistically precise margins of error or significance testing are not appropriate, as the sampling type is non-probability. The margins of error outlined below are therefore indicative, based on an equivalent probability sample.

The overall sample size of 635 provides a dataset with an approximate margin of error of between $\pm 0.77\%$ and $\pm 3.89\%$, calculated at the 95% confidence level (market research industry standard). Each sub sample of 250 provides a dataset with an approximate margin of error of between $\pm 1.23\%$ and $\pm 6.20\%$. Each sub sample of 100 provides a dataset with an approximate margin of error of between $\pm 1.95\%$ and $\pm 9.80\%$.

We are confident that the achieved sample provides a good representation of the target population.

Face-to-face interviewing

All interviews were undertaken by Progressive's team of field interviewers who were supervised throughout the process by our regional supervisor and our field managers. All interviews were undertaken under our strict quality control procedures – in accordance with ISO 20252.

Given the ongoing situation regarding the coronavirus pandemic at the time of interviewing, our interviewers worked in a way that was compliant with COVID regulations, COVID safe and reassured respondents, including:

- Interviews conducted outside in-street rather than in home or otherwise indoors
- Interviewers maintained social distancing during interviews
- Interviewers were supplied with cleaning spray for iPads, and stylus pens rather than using a touchpad
- Respondents were asked screening questions as to whether they, or anyone in their household, has any COVID symptoms. Those that respond in the affirmative were not asked to take part in an interview.
- Interviewers were encouraged to take lateral flow tests before going out to work.
- If any interviewer started to experience symptoms of COVID, they were instructed to inform the field supervisor and stop working immediately. None of our interviewers did experience symptoms.
- Interviewers were fully briefed and kept abreast of local COVID restriction levels and any changes to that during fieldwork.
- All the above measures were included in the briefing and printed information interviewers receive prior to fieldwork.

Fieldwork ran from 6th May to 29th May 2022. Throughout fieldwork we conducted regular checks on the data to ensure a consistently high standard of quality across our interviewing team. All interviewers' work was individually checked and if there were any concerns, interviewers were to be contacted to be provided further guidance and/or training. There were no concerns raised during this research exercise.

All interviewers' work was also subject to back-checking, whereby a minimum of 10% of respondents were contacted by telephone or emailed by our head office fieldwork team to check data accuracy for key questions and to ensure that the respondent was satisfied that the survey was conducted professionally and courteously. There were no concerns raised during this research exercise.

Questionnaire design

The questionnaire was developed in conjunction with the client. We recommend it being a maximum of 12 minutes in length in the end the average time was 14 minutes. Despite this, respondents were engaged enough in the subject matter to complete the survey.

Sample plan

We completed 635 face-to-face on-street interviews using Computer Aided Personal Interviewing (CAPI). This provided a robust mix of interviews with:

- people living within the LEZ;
- Edinburgh citizens who may travel into or through the LEZ for work, leisure or some other reason; and
- visitors to the city, who may travel into the LEZ.

All respondents were screened to ensure that they owned or had access to a vehicle for their personal use. A table of interviewer locations can be found in the appendix.

Data processing and analysis

Quota controls guided the sample selection for this study. This means that statistically precise margins of error or significance testing are not appropriate, as the sampling type is non-probability. The margins of error outlined below are therefore indicative, based on an equivalent probability sample.

Our data processing department undertook a number of quality checks on the data to ensure its validity and integrity. Responses were checked to ensure that interviewer and location were identifiable. Any errors or omissions detected at this stage were referred back to the field department, who re-contacted interviewers to check. No errors were identified at this stage.

A computer edit of the data prior to analysis involved both range and inter-field checks. Any further inconsistencies identified at this stage were investigated by reference back to the raw data on the questionnaire.

Where 'other' type questions were used, the responses to these were checked against the parent question for possible up-coding.

Responses to open-ended questions were sense checked and grouped using a code-frame and analysed by theme. Progressive's data processing and analysis programme (SNAP) was set up on order to provide the client with useable and comprehensive data. Crossbreaks were discussed with the client in order to ensure that all information needs were met.

Sample profile

Quota controls were used to guide the selection on place of residence with the aim of achieving a sub-sample of 100 residents living within the LEZ zone, 250 living in Edinburgh but outwith the zone and 250 visitors and commuters to the city centre. We controlled the sample to ensure an approximate even mix of gender. The following sample was achieved. See tables 1 and 2.

Table 1. Place of residence

Residence (Edinburgh residents)	No.	%
City Centre	114	18%
Another part	262	41%
Rest of Scotland	259	41%
Base	635	100%

Base (all) 635

Table 2. Gender

Gender	No.	%
Male	317	50%
Female	316	50%
Other	1	0%
PNTS	1	0%
Base	635	100%

Base (all) 635

Those from the rest of Scotland came from West Lothian (11%), Midlothian (6%), Fife (3%). Falkirk (3%), East Lothian (3%) Clackmannanshire (1%) and Elsewhere (14%) which covered eleven different local Authorities, the main ones being: Scottish Borders, North Lanarkshire, Stirling, Glasgow City, and South Lanarkshire.

Age had loose quota controls imposed to ensure an approximate even spread across the sample. No quotas were placed on Socio Economic Groups (SEG). We have grouped respondents by higher SEG ABC1 and lower SEG C2DE and Prefer Not To Say (PNTS). See tables 3 & 4.

Table 3. Age

Age	No.	%
18-34 years	200	31%
35-54 years	221	35%
55-74 years	204	32%
75+ years	10	2%
Base	635	100%

Base (all) 635

Table 4. SEG

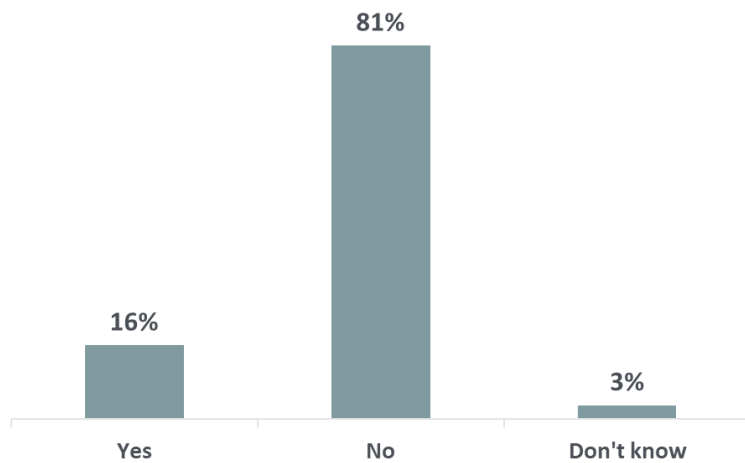
SEG	No.	%
ABC1	433	68%
C2DE	198	31%
PNTS	4	1%
Base	635	100%

Base (all) 635

Observations of sample profile

We asked respondents if they had previously taken part in the council’s consultations on the LEZ. It is interesting to note that the majority had not and so this research presents the views largely of those not previously heard or recorded. The main reason given for not taking part in previous consultations was a lack of awareness. It should be noted that using this method of research ensured that the sample was randomly selected and eliminates any bias inherent in a self-selecting sample whose views may not be typical of the general public.

Sample chart 1.

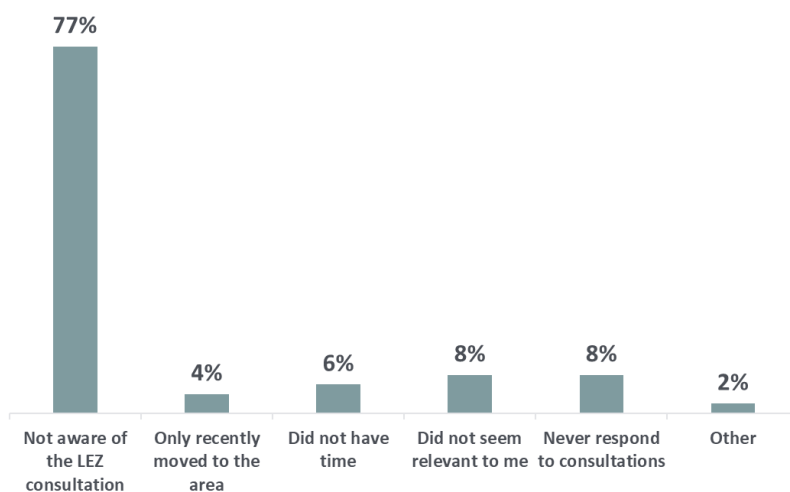


- THOSE SAYING YES**
- City centre residents (39% vs 19%) other part of Edinburgh
 - In favour of LEZ (22% vs 6%) opposed of LEZ
 - Those that travel every day higher completion than all other travel frequencies
 - Informed (36% vs 2%) uninformed

Q19: Did you participate in either of the Council’s previous consultations on the LEZ, undertaken online in 2019 and 2020?

Base 635

Sample chart 2.



- REASONS WHY NOT**
- Public transport users scored lower than both active travellers and car users, for ‘not aware of LEZ consultation’ (66% vs 75% vs 79%)
 - Those that travel everyday scored lower than those that travel weekends only and other mix of days for ‘not aware of LEZ consultation’ (62% vs 86% vs 83%)

Base (those who did not take part in consultation) 515

Q20: Why did you not take part in the consultation?

Summary and conclusions

Reaching the under-represented

Fieldwork was undertaken between 6th May to 29th May 2022. A target sample of 635 interviews was achieved using Computer Aided Personal Interviewing (CAPI). This provided a robust mix of interviews with:

- people living within the LEZ boundary;
- Edinburgh citizens who may travel into or through the LEZ for work, leisure or some other reason; and
- visitors to the city, who may travel into the LEZ.

All respondents were screened to ensure that they owned or had access to a vehicle for their personal use. We are confident that the achieved sample provides a good representation of the target population.

We asked respondents if they had previously taken part in the council's consultations on the LEZ. It is interesting to note that the majority had not and so this research presents the views largely of those not previously heard or recorded.

Travel behaviour

The majority of those living outwith the city centre claimed to visit for leisure, shopping or some other kind of cultural or family event. The second most mentioned reason was work. This was followed by appointments such as school drops or medical.

When city centre residents were asked what activities they do within the city centre the majority claimed to visit for leisure, shopping or some other kind of cultural or family event. The second most mentioned reason was set appointments such as school drop offs or medical appointments and the third most often mentioned reason was for work.

It should be born in mind that all respondents to the survey were screened on the basis of having access to a vehicle for their own personal use. The profiles of those who are most likely to frequently use active travel, public transport and the car are the same and mirror the profile of those who travel into the city every day. They are more likely to be:

- Aged 18 – 34 more than other age groups
- Edinburgh residents more than those who live outwith Edinburgh
- City centre residents more than those who live in other parts of Edinburgh
- Informed about LEZ rather than uninformed

Awareness and understanding

General awareness of LEZ was high with nearly two fifths saying they were informed. Those living outwith the wider Council area and who travel less frequently into the city centre were less informed than those living within the LEZ or the rest of Edinburgh or than frequent travellers into the city centre.

Awareness of the boundary was also fairly high with just under a third claiming to understand it prior to being interviewed. City centre residents were better informed about the boundary as were those who travelled into the city centre every day.

Awareness of operational issues such as contributing to air quality, not needing an electric car, operating 24 hours a day, automatic number plate recognition, the grace period and access for blue badge holder and motorbikes was also fairly high.

Those who tended to be better informed were:

- City centre residents
- residents
- Frequent travellers into the city centre
- Those in favour of LEZ
- Those in Socio Economic Group ABC1

Consideration should be given to informing those who live outwith the wider council area, those who travel infrequently into the city centre and those in lower Socio Economic Group C2DE. It may be difficult to inform those who are less in favour of LEZ as they may be resistant to taking in any information connected to the scheme.

Awareness and understanding of penalty charges is the issue respondents were least informed about. Findings highlight the need to make clear the difference between entry and penalty charges in all communications. There is also a need to build awareness that the fine doubles for repeated breaches and the amount for penalty charges.

Support for LEZ

The majority of drivers/respondents, two thirds, said they were in favour of LEZ with a third strongly in favour of LEZ. Only one in seven were opposed to the scheme.

Respondents were asked to rate their awareness of the impacts of the LEZ scheme. They were then asked to rank the importance of those issues. Interestingly levels of awareness for the issues fell in very similar order to the importance respondents placed on them

A significant proportion of drivers (75-81%) in Edinburgh considered the following topics important for people in the City:

- Protecting public health
- Reducing air pollution from vehicles
- Reducing carbon emissions from vehicles, to reach the City's net zero 2030 target
- Making the city centre more attractive and people-focused (by reducing traffic)
- Benefits of the LEZ extended to areas that low emission vehicles travel through

Findings suggest that communication on protecting public health could be dialled up as this is the top ranked issue in terms of importance but third in line for awareness. Communications on Support the city's efforts to make city centre more people-focused, rather than vehicle focused could also be dialled up as this is fourth in line of importance but ranked fifth in awareness. Acceleration of the uptake of lower emission vehicles is the least known about and the least of importance to people.

Compliance (perceived versus actual)

Over two thirds, consider their vehicles definitely meet the standards. A further one in six think their vehicles probably comply. Only one in fourteen think they do not meet the standards. Of those whose cars met the standard over a third claimed to have replaced their car in the last two years. City centre residents were more likely to state that their vehicle complies when compared to their counterparts which suggests that polluting vehicles are more likely to come from outwith the LEZ boundary. Actual compliance rates are close to perceived compliance rates, suggesting awareness of Euro standards is generally good across the driving population in Edinburgh.

Behaviour change

A third said they would make no change. Those who are more likely to make no changes are those who already use active travel such as walking and cycling and wealthier car owners whose vehicles comply to low emissions. The main reason given for making no change was their car meets the new standard.

Unsurprisingly city centre residents were more amenable than those living outwith the LEZ to walk more. Public transport users were open to walking more and increasing their use of public transport. Frequent travellers into the city centre were more likely than infrequent travellers to consider upgrading their vehicles.

Very few said they would avoid the city centre or not travel to Edinburgh anymore. The few people who said they would avoid the city centre or not travel to Edinburgh at all tended more likely to be those living in the rest of Scotland (opposed to the wider council area residents), infrequent travellers in the city centre, those who claim to be opposed to the LEZ and those in lower SEG C2DE.

Conclusions

Whilst overall awareness is high more needs to be done to inform residents of the wider council area about the details of the scheme and more could be done to inform those who live outwith the wider council area.

High levels of support for the scheme exist with drivers who live within the LEZ and Edinburgh. Policies designed around clean air, protecting the public health and making the city centre an attractive place to be are considered important.

The majority of vehicles of residents in the wider council area state that their vehicle meets the standards which suggests that polluting vehicles are more likely to come from outwith the LEZ boundary.

A third said they would make no change but the majority of those own cars that comply, use active travel or public transport.

One of the most frequently made comments in the final section of the survey was from those who voiced their opinion on being in favour of a reduction in traffic in the city centre.

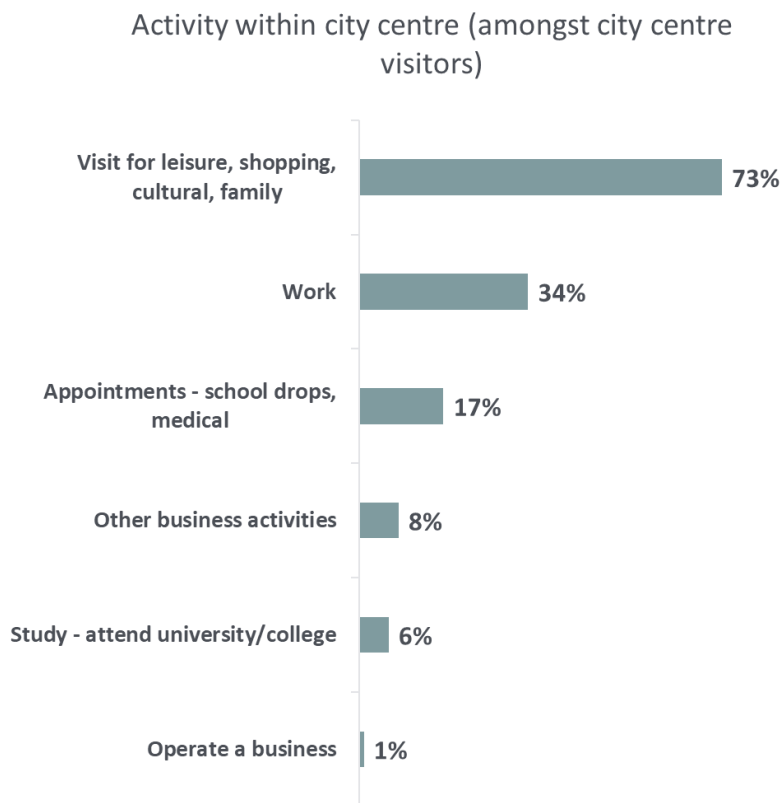
These findings set a useful benchmark against which to measure the success of further communications initiatives and to inform policy development.

Travel behaviour

Reason for travel into the city centre

Those who live outwith Edinburgh city centre were asked why they visit the city centre. The majority claimed to visit for leisure, shopping or some other kind of cultural or family event. The second most mentioned reason was work. This was followed by appointments such as school drops or medical. See chart 1.

Chart 1. What city centre visitors do



Base (Scottish residents living out with Edinburgh city centre) 521

SQ5: Which of the following describes why you visit Edinburgh city centre? centre boundary?

Those who travel at weekends only (95%) more likely than those who travel a mix of days (78%), every day (71%) or weekday/part week (44%) to visit for leisure reasons.

Those more likely to work and study within the city centre were:

- Men more likely than women (48% vs 39%)
- Those aged 18-54 more likely than those aged 55+ (48% vs 36%)
- ABC1s more likely than C2DEs (47% vs 36%)
- Those who travel every day (68%) or weekdays/part week (72%) more likely than those who travel weekends only (3%) or other mix of days (33%)

When asked as well as living in the city centre which, if any, of the following do you do within the city centre boundary the majority claimed to visit for leisure, shopping or some other kind of cultural or family event. The second most mentioned reason was set appointments such as school drop offs or medical appointments and the third most often mentioned reason was for work. See chart 2.

Chart 2. What city centre residents do



Base (Scottish residents living in Edinburgh city centre) 114 (Multicoded question)

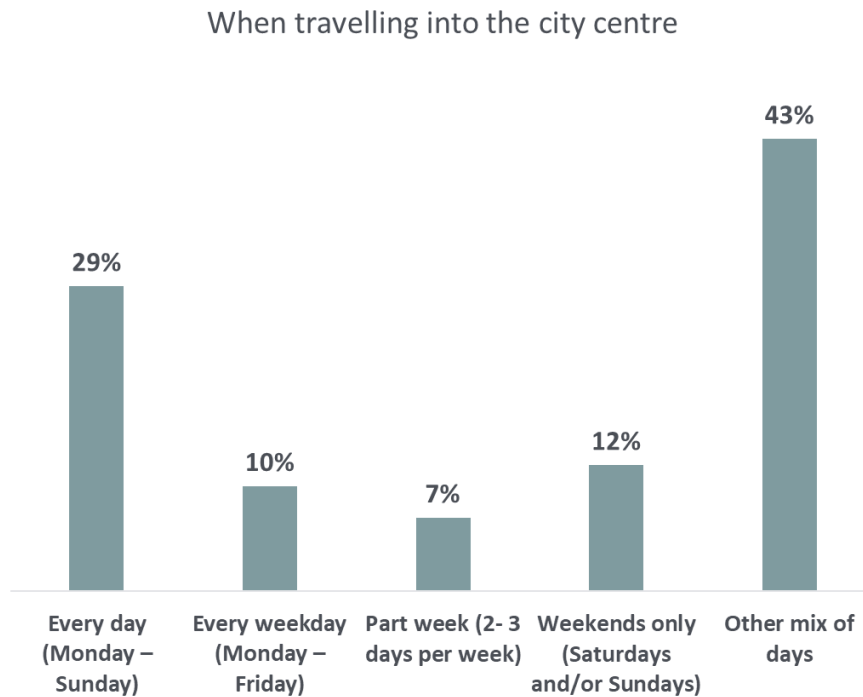
SQ6: As well as living in the city centre which, if any, of the following do you do within the city

Men are slightly more likely than women to work or study in the city centre (65% vs 47%). Those aged 18-54 more likely than those aged 55-74 (71% vs 37%) to work or study come in the city centre.

Frequency and mode of travel into the city centre

When asked when do you normally travel to, from or around the city centre, two fifths said ‘another mix of days’, while just under a third said every day and a tenth each said weekends only and every weekday. See chart 3.

Chart 3. Normal travel days



Q2. When do you normally tend to travel to, from or around the city centre, for personal and/or business reasons?

Base: (all) 635 (Single coded question)

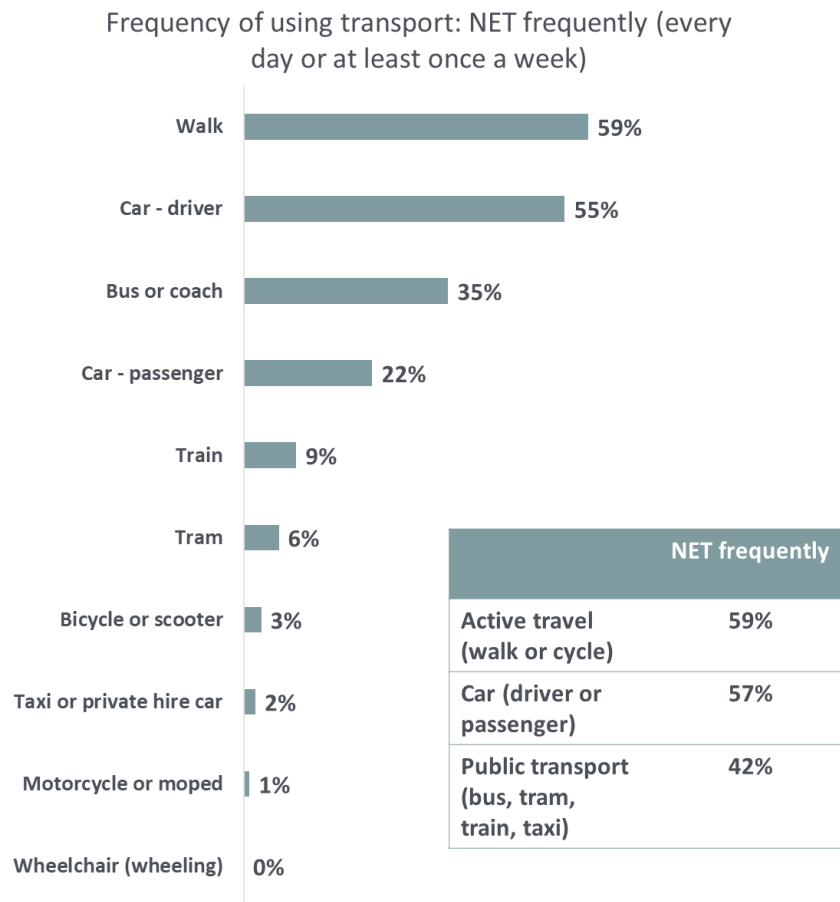
Predictably those who live in the city centre were more likely to travel around the city centre every day than those who live in another part of Edinburgh (61% vs 32%). Edinburgh residents were more likely than non-Edinburgh residents (41% vs 12%) to travel around the city centre every day. Those in the youngest age group were more likely to travel around the city centre (aged 18-34 = 39%) (35-54 = 26%) or (55-74 = 24%).

Those more likely to travel weekdays or part of a week tended to be in the higher SEG, ABC1s more likely than C2DEs (18% vs 12%).

Those more likely to travel weekends only were more likely to be non-Edinburgh residents than Edinburgh residents (20% vs 7%).

Respondents were asked how often they use various modes of travel. Walking was the mode most frequently used followed by car driving, bus or coach and car as a passenger. Because we interviewed respondents who have access to a car there was very little difference in the sub-groups by mode of travel. See chart 4.

Chart 4. Frequent travel mode



Base: (all) 635 (Single coded question)

Q1. Currently how often do you use the following modes of transport to travel around, or to and from Edinburgh's city centre

It should be born in mind that all respondents to the survey were screened on the basis of having access to a vehicle for their own personal use. The profiles of those who are most likely to frequently use active travel, public transport and the car are the same and mirror the profile of those who travel into the city every day. They are more likely to be:

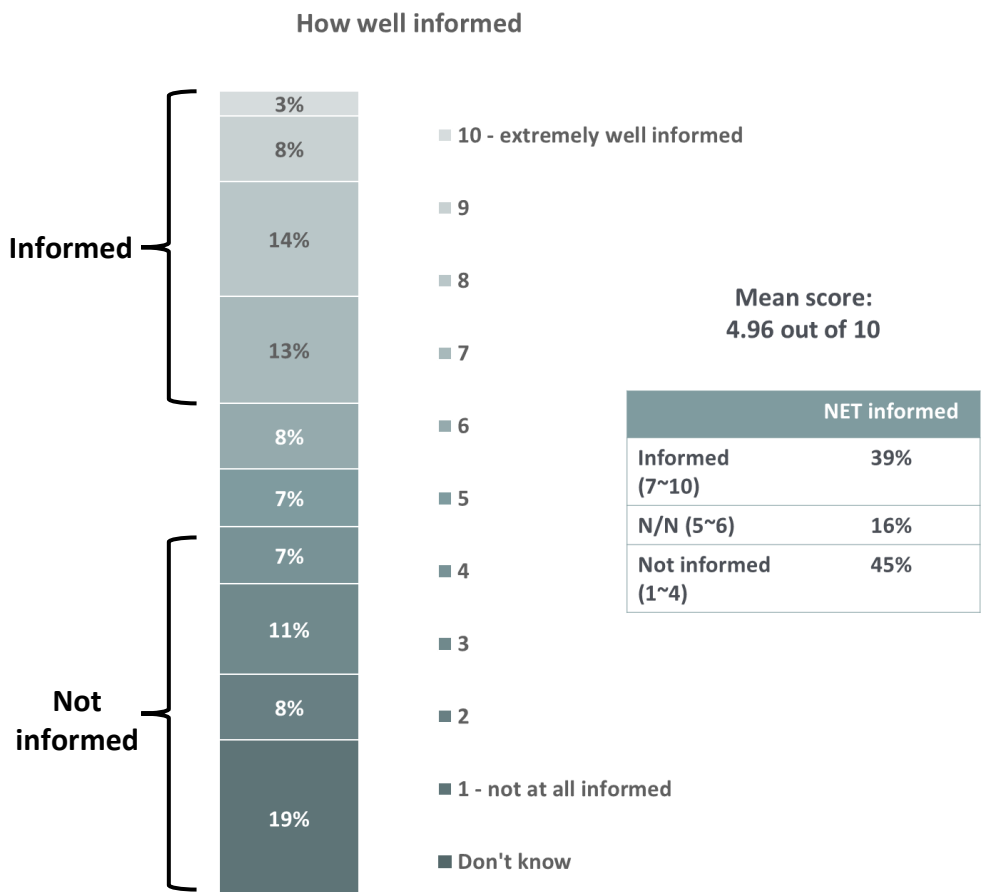
- Aged 18 – 34 more than other age groups
- Edinburgh resident more that those who live outwith Edinburgh
- City centre residents more likely than those who live in other parts of Edinburgh
- Informed about LEZ rather than uninformed

The one difference in the profile of those frequently using different modes of travel is that active travel and public transport users are more likely to be strongly in favour of LEZ than somewhat in favour or opposed. While car users are more likely to be in favour that opposed, they do not demonstrate the same strength of being in favour of LEZ, in that those who are strongly in favour are matched in number by those who are somewhat in favour.

Awareness and understanding

When asked how well informed about the Low Emission Zone for Edinburgh City Centre would you say you were before this interview today nearly two fifths said they were informed. One in six were neither informed nor uninformed and nearly half were uninformed. Responses were rated on a scale of one to ten. Ten being extremely well informed one being not informed. Claimed levels of being informed were quite high and it could be that because this was an asked statement respondents had overstated the degree to which they felt informed. However, these results are consistent with findings from questions that were asked by use of self-completion questions and therefore less prone to overstatement. See chart 5.

Chart 5. Informed about LEZ



Base: (all) 635 (Single coded question)

Q3. Tell me, how well informed about the Low Emission Zone for Edinburgh City Centre would you say you were before this interview today

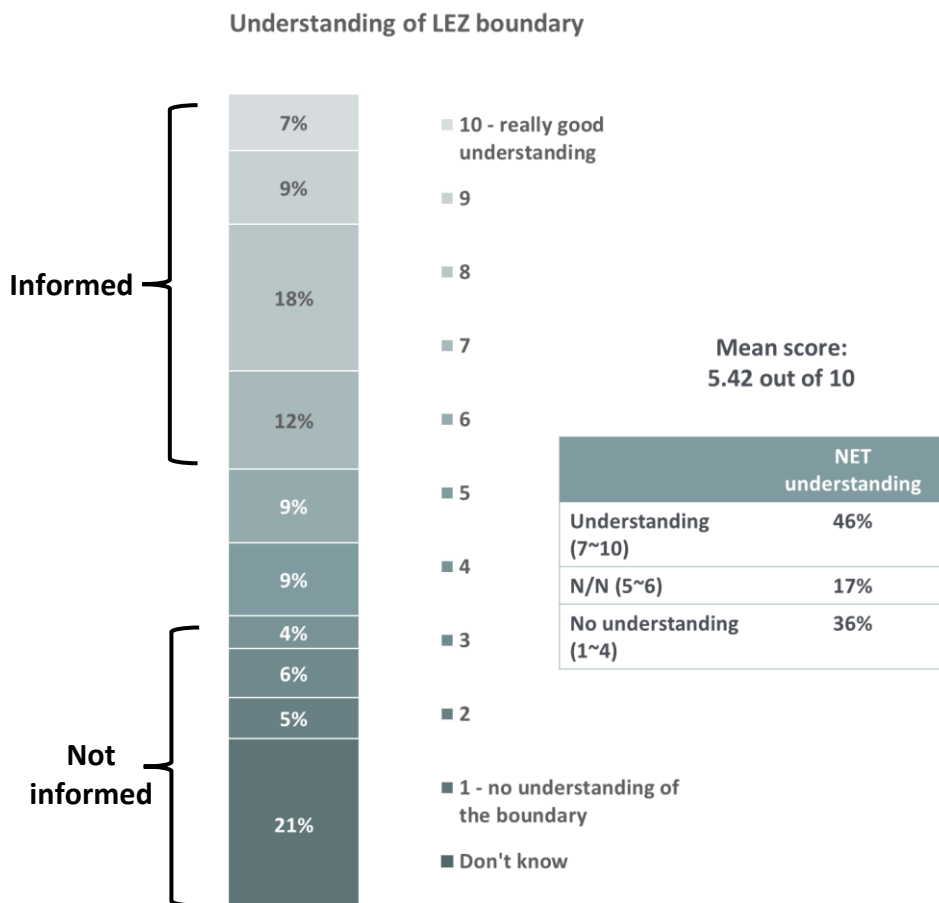
Those who tended to be more informed were as follows:

- Men more likely to be informed than women (42% vs 35%)

- ABC1s more likely to be informed than C2DEs (41% vs 33%) (90% level sig)
- Edinburgh residents considerably more informed than the rest of Scotland (56% vs 14%)
- Those who travel every day were more informed than weekday/part week, weekends, and other mix of days travellers (59% vs 42% vs 16% vs 30%)
- Those who live in the Edinburgh city centre more informed than those living in other parts of Edinburgh (68% vs 50%)

Respondents were asked about how good their general understanding was of the Edinburgh LEZ boundary before the interview had taken place. Just over a third claimed to be informed, one in ten were neither informed nor uninformed and nearly half were not informed. Responses were rated on a scale of one to ten: 1 being really good understanding, and 10 being no understanding. See chart 6.

Chart 6. Informed about LEZ boundary



Base: (all) 635 (Single coded question)

Q4. How good was your understanding of the Edinburgh LEZ boundary before this interview today?

Those who tended to be more informed were as follows:

- City centre residents showed more understanding than those living in other parts of Edinburgh (80% vs 61%)
- Public transport users showed more understanding than both active travellers and car users (64% vs 51% vs 52%)
- Those who travel everyday showed more understanding than all other travel frequencies

The survey then showed respondents various statements describing how the LEZ will work in Edinburgh City Centre and asked them asked to rate how well informed they felt about each. These statements were self-completion and therefore less prone to overstatement. Responses were rated on a scale of one to ten. One being not at all informed, and ten extremely well informed. Respondents were better informed about issues connected to air quality and achieving net zero. The table below presents the operational issues in order of being informed.

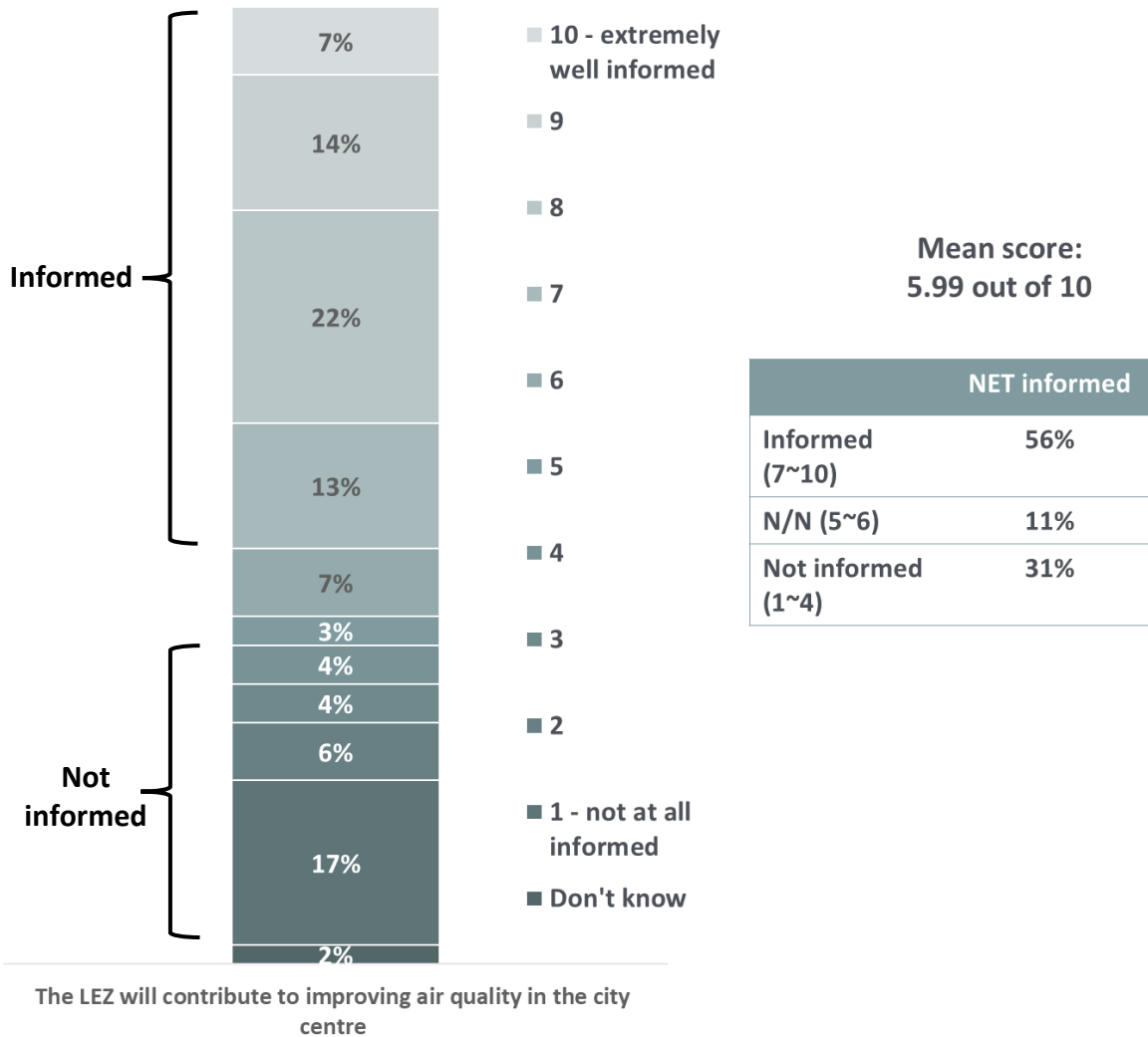
Table 6. Level of being informed

	Net informed
The LEZ will contribute to improving air quality in the city centre	56%
The LEZ will contribute to improving air quality across the whole city	54%
The LEZ will help the city achieve its net zero 2030 climate change target	51%
You do not need to have an electric car to drive into the LEZ, modern petrol and diesel cars will usually also meet the LEZ minimum standards	50%
The LEZ will be in operation 24 hours a day, all year round (including public holidays)	48%
Automatic number plate recognition cameras will be used to identify the vehicles which do not comply with the LEZ minimum standard	48%
Residents and visitors to the city will have a grace period of two years, from 31 st May 2022, to prepare	43%
Drivers with a Blue Badge will be exempt from LEZ penalty notices (fines).	38%
Motorbikes and mopeds are allowed to drive in the LEZ	34%

Levels of awareness were fairly high across all issues although there is still work to be done to better inform people. The following analysis shows that groups who were consistently better informed lived in the city centre or Edinburgh, travelled within the city centre on a daily basis, used public transport and were in favour of the LEZ initiative.

The following charts give more detail on the levels of how well informed respondents felt on each of the nine operational issues tested.

Chart 7. Informed about air quality in the city centre



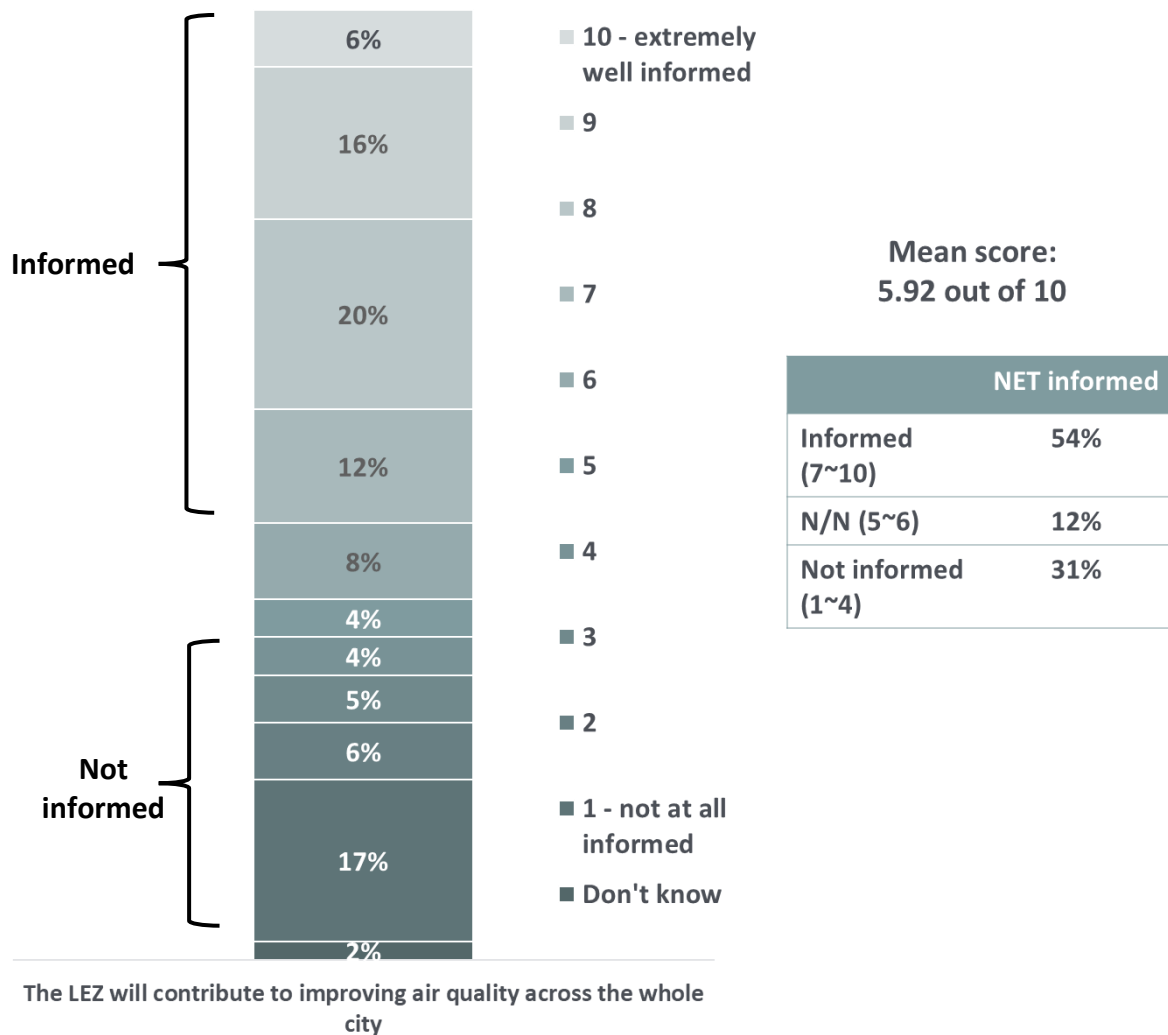
Base: All (635)

Q5. Please tell me how informed you were of how the LEZ would operate before this interview today

Those who tended to be better informed on this issue were:

- ABC1s were more informed than C2DEs (61% vs 47%)
- Edinburgh residents were more informed than the rest of Scotland (74% vs 31%)
- Those living in the city centre were more informed than those living in other parts of Edinburgh (82% vs 71%)
- Those in favour of the LEZ were more informed than those opposed (70% vs 29%)
- Public transport users were more informed than active travellers and car users (70% vs 62% vs 59%)
- Those who travel everyday were more informed compared to weekends only and other mix of day travellers (72% vs 29% vs 51%)

Chart 8. Informed about air quality across the whole city



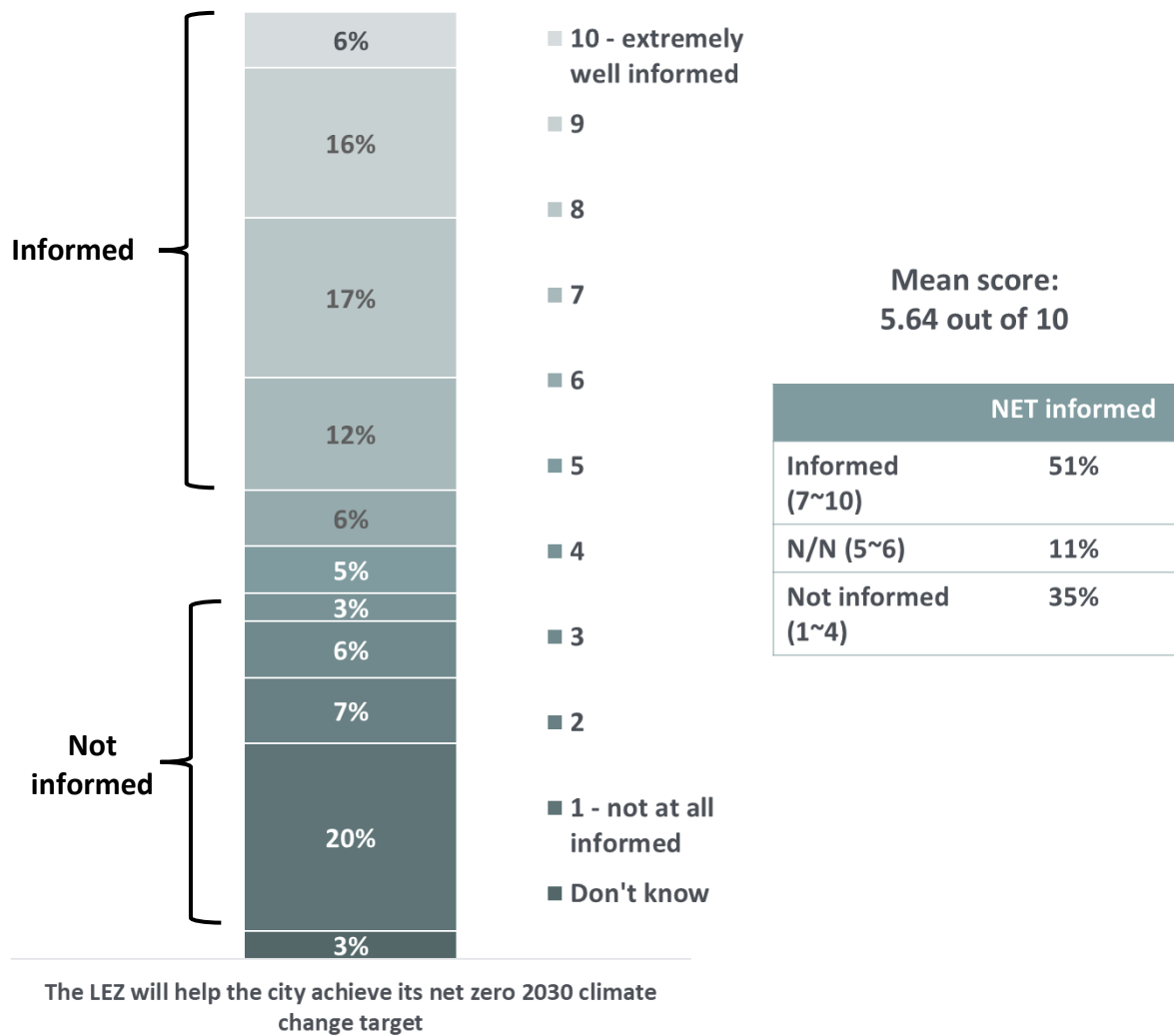
Base: All (635)

Q5. Please tell me how informed you were of how the LEZ would operate before this interview today

As with the air quality in the city centre, those who tended to be better informed on this issue were:

- ABC1s were more informed than C2DEs (60% vs 43%)
- Edinburgh residents were more informed than the rest of Scotland (73% vs 28%)
- City centre residents were more informed than those living in other parts of Edinburgh (81% vs 69%)
- Those in favour of the LEZ were more informed than those opposed (68% vs 31%)
- Public transport users were more informed than active travellers and car users (70% vs 62% vs 59%)

Chart 9. Informed about achieving net zero



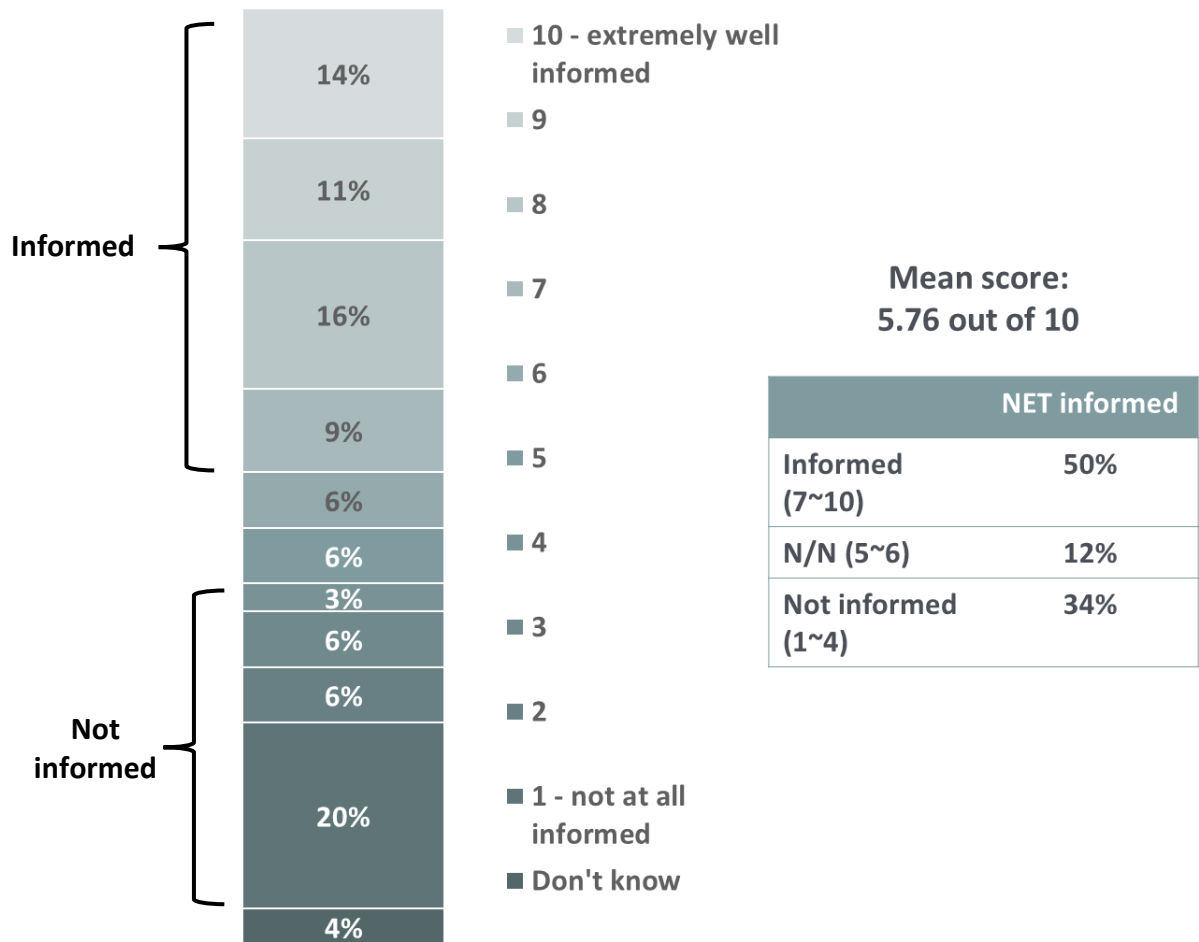
Base: All (635)

Q5. Please tell me how informed you were of how the LEZ would operate before this interview today

As with other issues those who tended to be better informed on this issue were:

- ABC1s were slightly more informed than C2DEs (54% vs 45%) (90% level sig)
- Edinburgh residents were more informed than the rest of Scotland (69% vs 25%)
- Those in favour of the LEZ were more informed than those opposed (63% vs 33%)
- Public transport users were more informed than active travellers and car users (66% vs 55% vs 55%)
- Those who travel every day were more informed than weekday/part week, weekends, and other mix of days travellers (70% vs 55% vs 31% vs 43%)

Chart 10. Informed about not needing an electric car



You do not need to have an electric car to drive into the LEZ, modern petrol and diesel cars will usually also meet the LEZ minimum standards

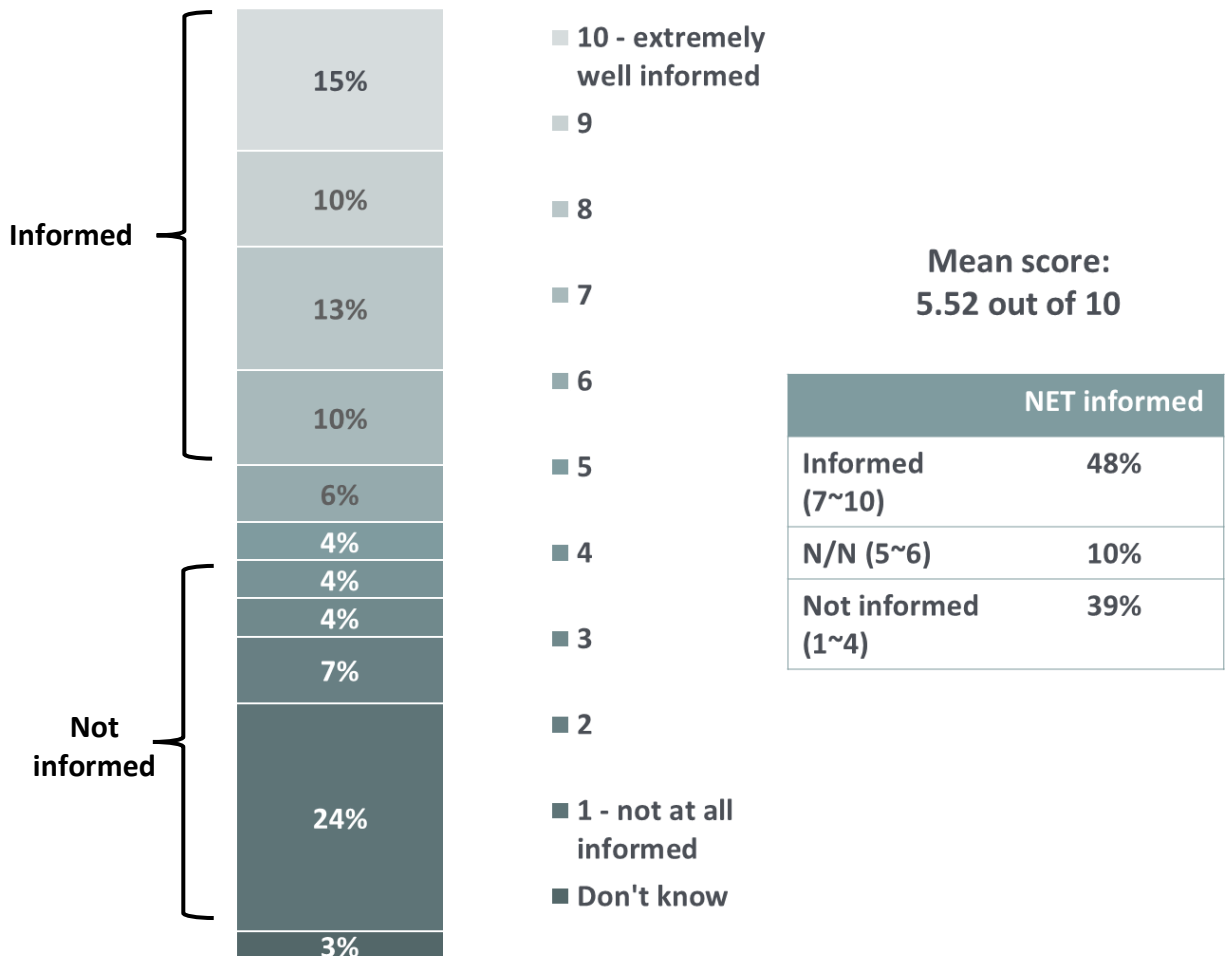
Base: All (635)

Q5. Please tell me how informed you were of how the LEZ would operate before this interview today

As with other issues those who tended to be better informed on this issue were:

- ABC1s were more informed than C2DEs (55% vs 39%)
- City centre residents were more informed than those who live in other parts of Edinburgh (82% vs 64%)
- Those in favour of the LEZ were more informed than those opposed (63% vs 35%)
- Those who travel every day were more informed than weekday/part week, weekends, and other mix of days travellers (72% vs 51% vs 21% vs 42%)

Chart 11. Informed about being in operation 24 hours a day



The LEZ will be in operation 24 hours a day, all year round (including public holidays)

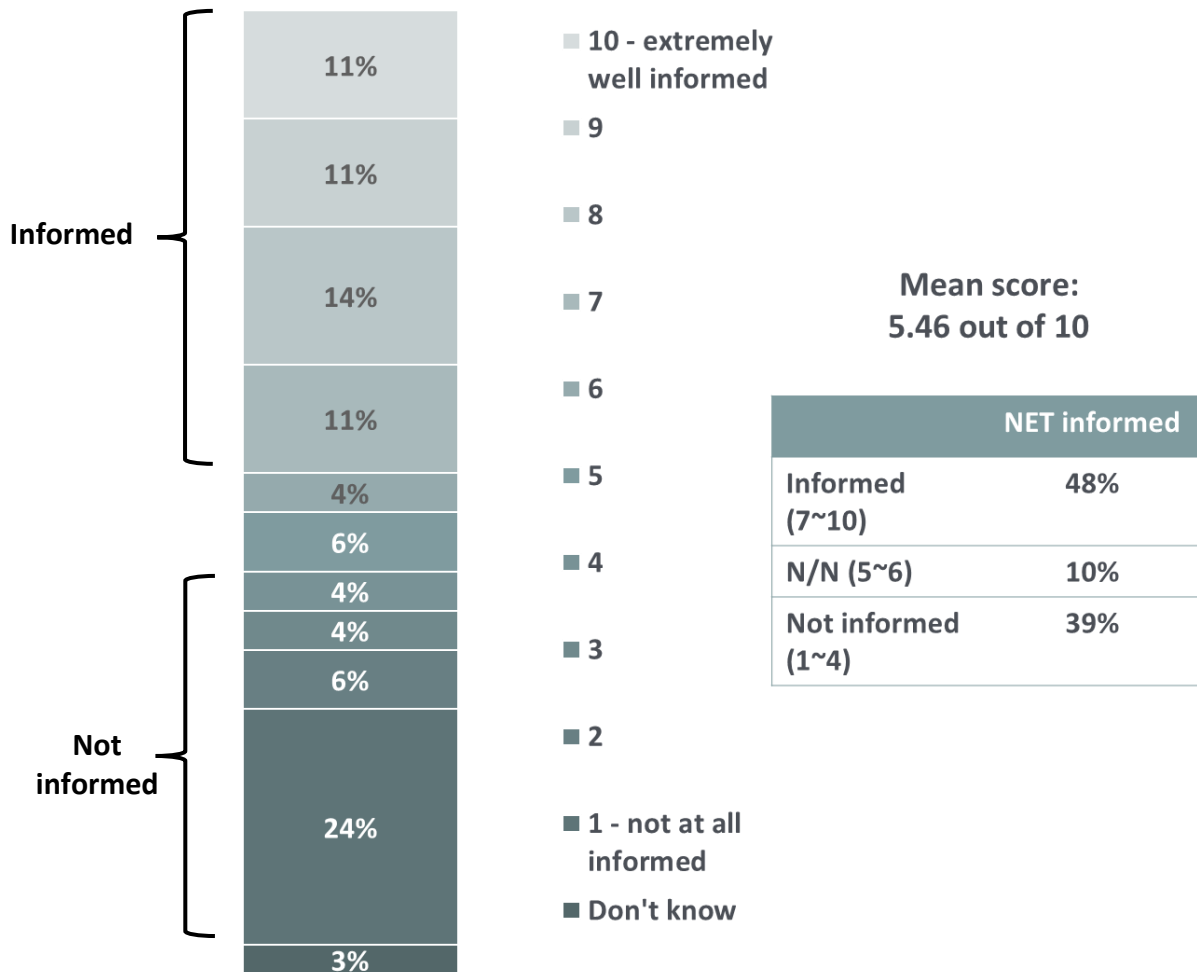
Base: All (635)

Q5. Please tell me how informed you were of how the LEZ would operate before this interview today

As with other issues tested, those who were more informed tended to be:

- ABC1s were more informed than C2DEs (51% vs 40%)
- Edinburgh residents were more informed than those living in the rest of Scotland (66% vs 20%)
- City centre residents were slightly more informed than those living in other parts of Edinburgh (73% vs 63%) (90% level sig)
- Those in favour of the LEZ were more informed than those opposed (59% vs 32%)
- Those who travel every day were more informed than weekday/part week, weekends, and other mix of days travellers (65% vs 47% vs 21% vs 44%)

Chart 12. Informed about number plate recognition cameras



Automatic number plate recognition cameras will be used to identify the vehicles which do not comply with the LEZ minimum standard

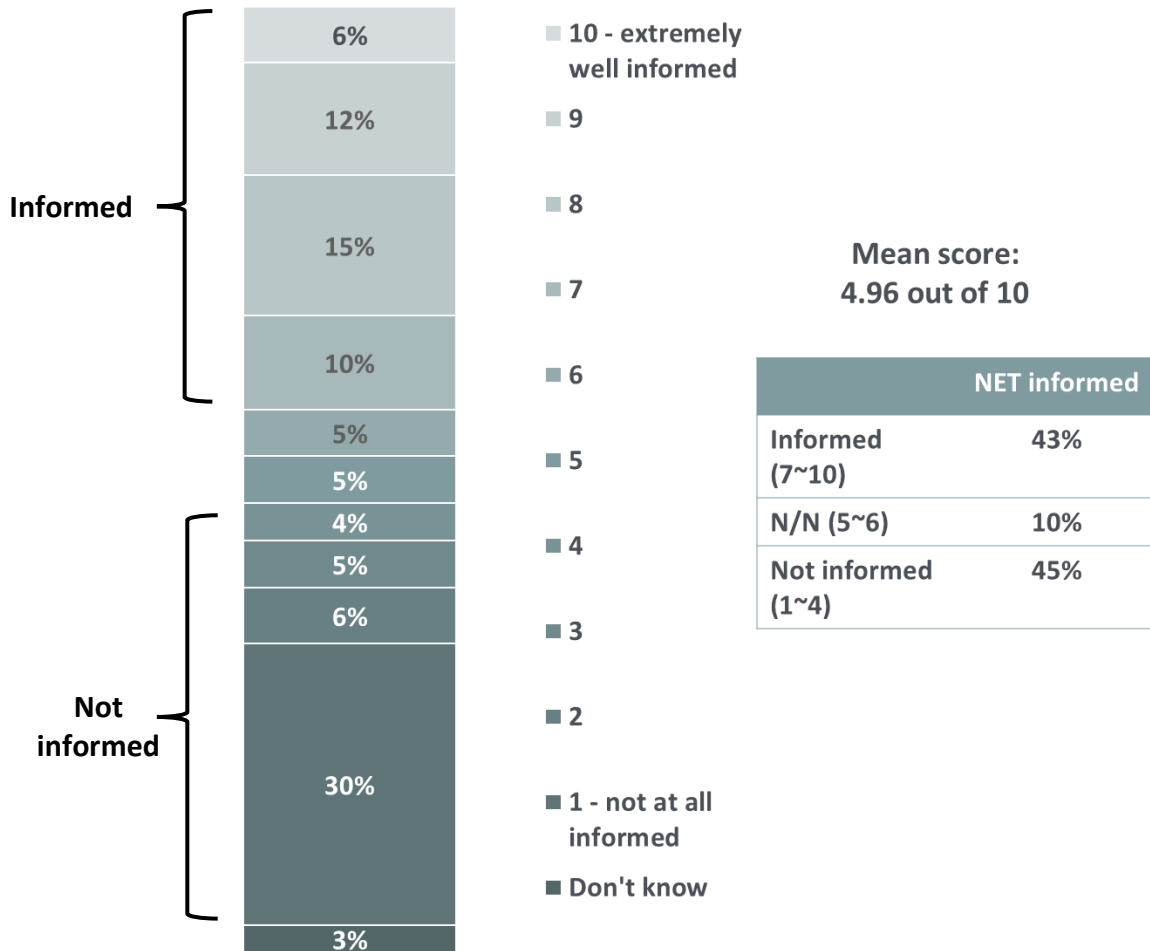
Base: All (635)

Q5. Please tell me how informed you were of how the LEZ would operate before this interview today

There were similarities in the groups who were informed on this issue as with others. They tended to be higher SEG, Edinburgh residents, frequent travellers into the zone, in favour of the LEZ and understood the boundary.

- 55-74 year olds were more informed than those aged 35-54 years old (54% vs 44%)
- ABC1s were slightly more informed than C2DEs (50% vs 42%) (90% level sig)
- Edinburgh residents were more informed than those from the rest of Scotland (67% vs 20%)
- Those in favour of the LEZ were more informed than those opposed (60% vs 34%)
- Those who travel every day were more informed than weekday/part week, weekends, and other mix of days travellers (66% vs 45% vs 25% vs 43%)

Chart 13. Informed about grace period



Residents and visitors to the city will have a grace period of two years, from 31st May 2022, to prepare their vehicles to comply with the LEZ minimum standards, before any penalty charges (fines) will be issued

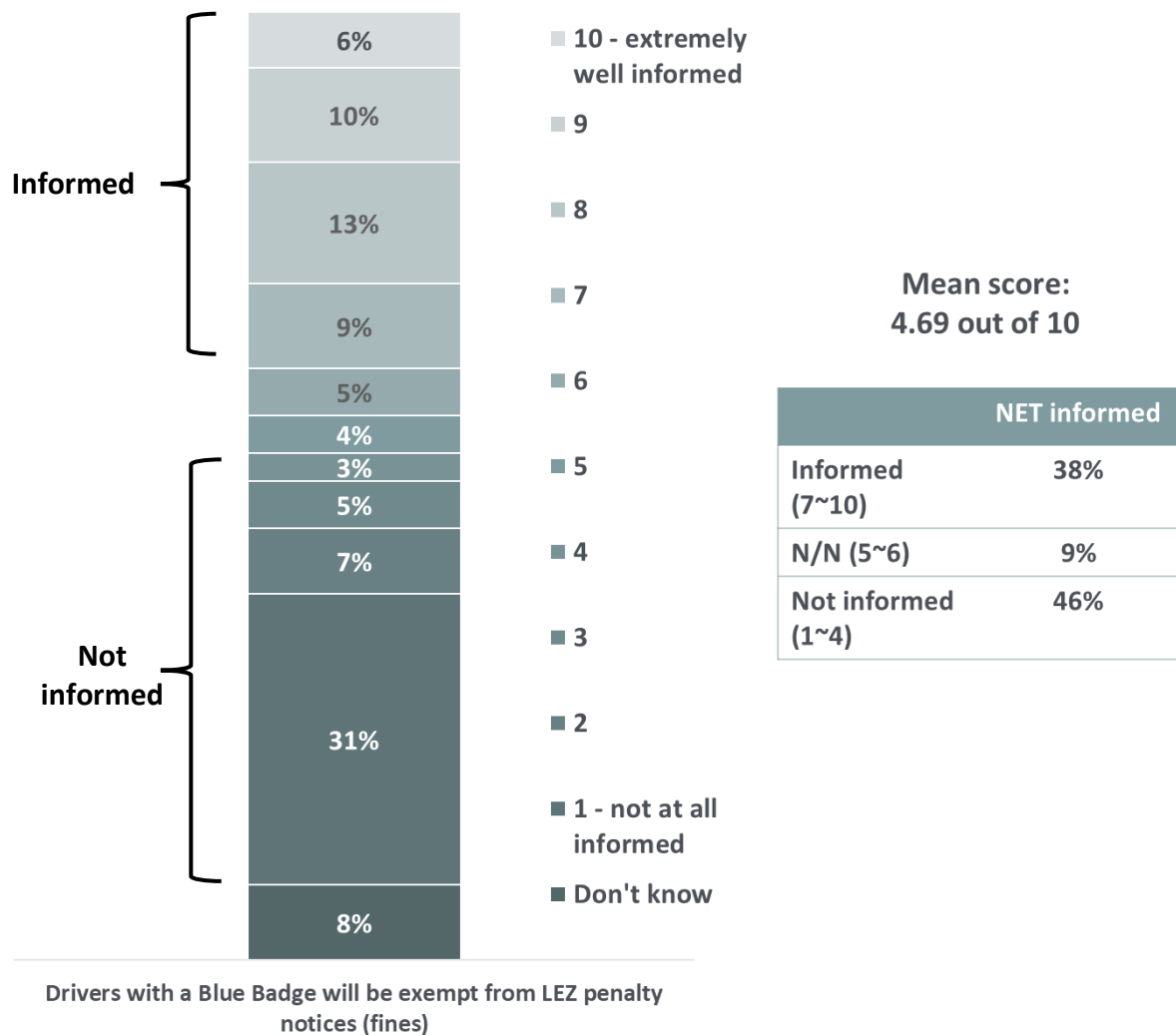
Base: All (635)

Q5. Please tell me how informed you were of how the LEZ would operate before this interview today

As with other facts those who tended to be more informed included:

- Those aged 55-74 years old were slightly more informed than those aged 35-54 years old (49% vs 39%) (90% level sig)
- Edinburgh residents were more informed than those from the rest of Scotland (63% vs 14%)
- City centre residents were slightly more informed than those living in other parts of Edinburgh (69% vs 60%)
- Those in favour of LEZ were more informed than those opposed (52% vs 26%) (90% level sig)
- Public transport users were more informed than active travellers and car users (59% vs 49% vs 50%)
- Those who travel every day were more informed than weekday/part week, weekends, and other mix of days travellers (66% vs 45% vs 22% vs 32%)

Chart 14. Informed about blue badge drivers



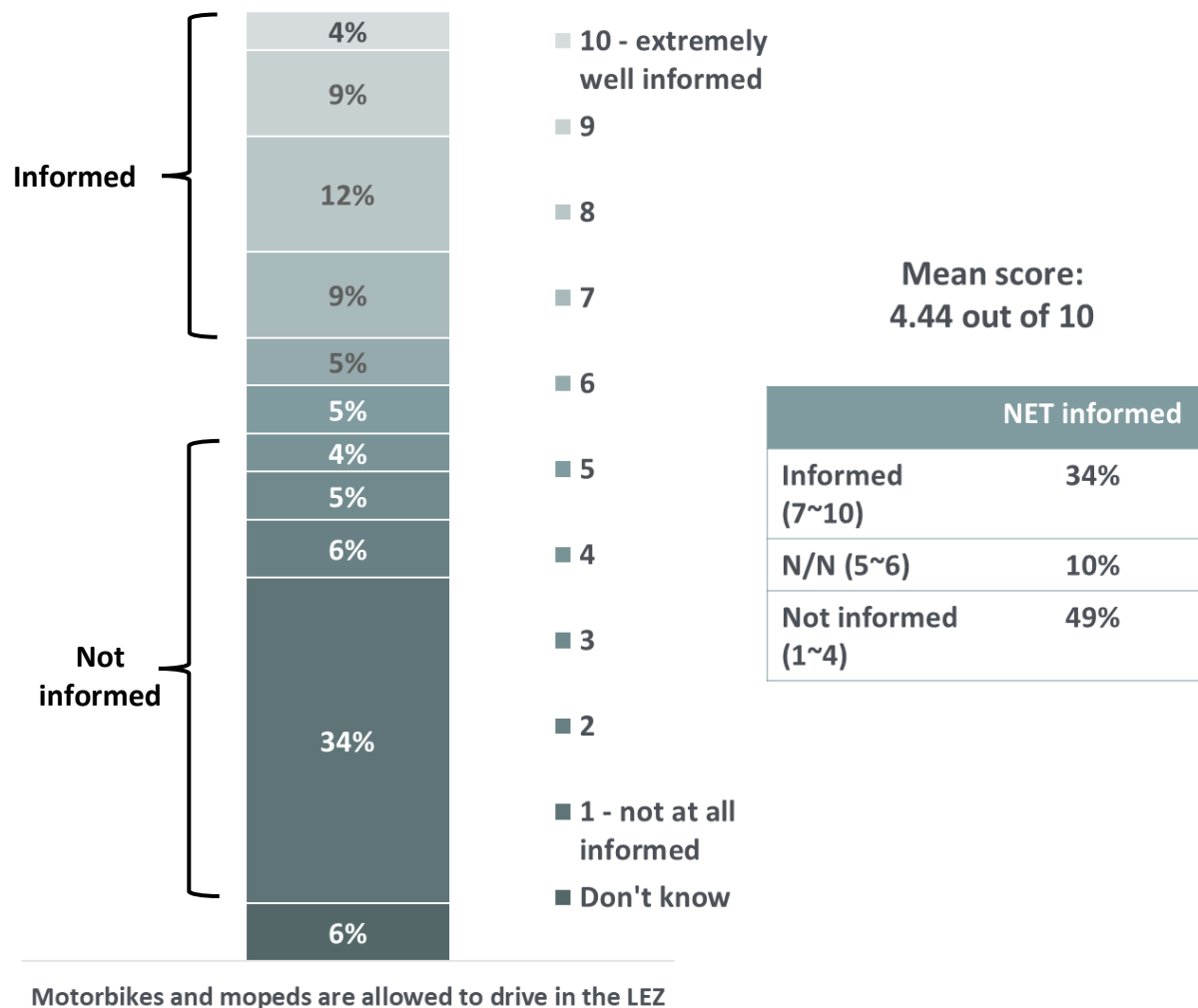
Base: All (635)

Q5. Please tell me how informed you were of how the LEZ would operate before this interview today

As seen across other issues those who were more informed fell into similar sub-groups:

- Those aged 55-74 years old were more informed than those aged 35-54 years old (44% vs 30%)
- Edinburgh residents were more informed compared to the rest of Scotland (55% vs 12%)
- Those in favour of the LEZ were more informed than those opposed (48% vs 19%)
- Public transport users were more informed than active travellers and car users (55% vs 45% vs 45%)
- Those who travel everyday were more informed compared to those who travel weekends only and other mix of days (58% vs 22% vs 24%)
- Blue badge holders were more likely to be informed than non-blue badge holders (59% vs 37%)

Chart 15. Informed about motorbikes and mopeds



Base: All (635)

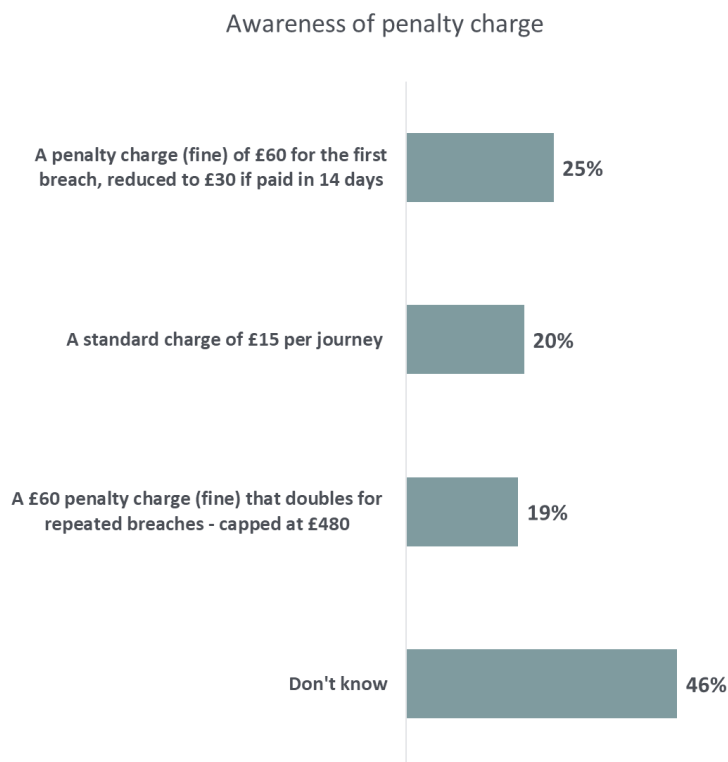
Q5. Please tell me how informed you were of how the LEZ would operate before this interview today

City centre residents, those in favour of the LEZ, public transport users and everyday visitors were the most informed:

- Edinburgh residents were more informed than those from the rest of Scotland (51% vs 10%)
- City centre residents were more informed than those living in other parts of Edinburgh (61% vs 46%)
- Those in favour of the LEZ were more informed compared to those opposed (44% vs 18%)
- Public transport users were more informed than both active travellers and car users (50% vs 41% vs 39%)
- Those who travel every day were more informed than weekday/part week, weekends, and other mix of days travellers (55% vs 38% vs 19% vs 23%)

The final awareness question was about penalty charges. This was also a self-completion question designed to mitigate the possibility of overclaiming or interviewer compliance. This is the issue that people are the least well informed about with only a quarter of respondents saying they were informed about the penalty charge for the first breach. While the second statement is not factually correct, one in five claimed to be aware of the standard charge of £15 per journey and. This understanding may have been built on the basis of reading suggestions of this in the press. This finding highlights the need to make clear the difference between entry and penalty charges in all communications. Just one in five were aware that the fine doubles for repeated breaches. Almost half said they didn't know what the penalty charge would be.

Chart 16. Awareness of penalty charges



Base: All (635)

Q6. Which of the following, as far as you are aware, best describes the penalty charge set for non-compliant cars and vans that drive into an LEZ?

A similar profile of people were more aware of penalty issues as were aware of other issues.

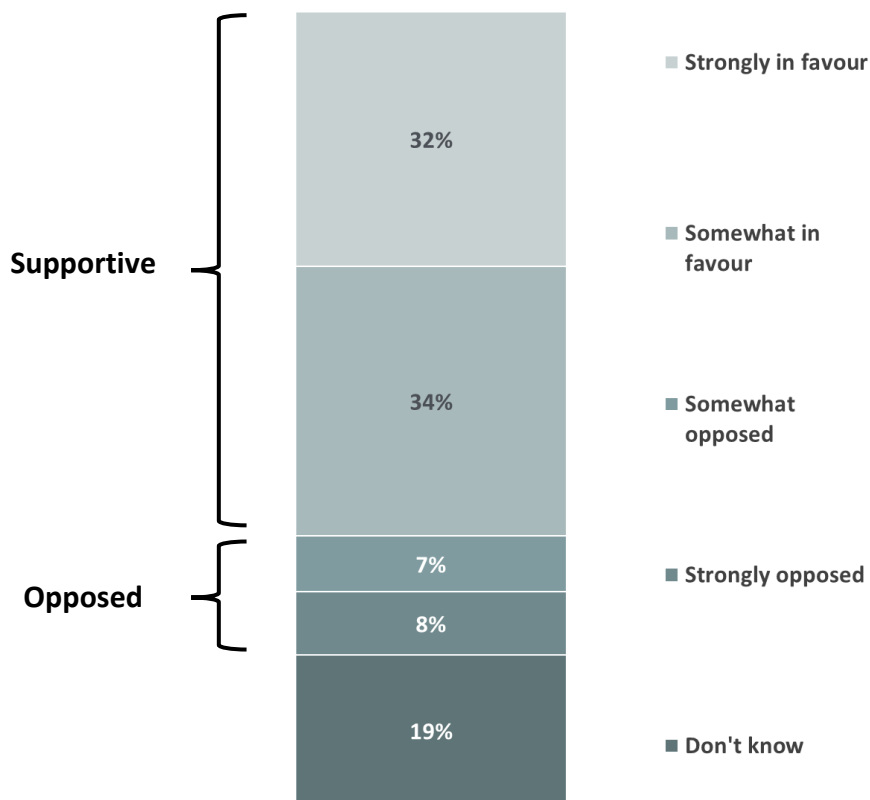
- Edinburgh residents were more likely to select all three statements than residents from the rest of Scotland including the statement claiming a standard charge of £15 per journey
- Those in favour of the LEZ were more aware of all penalty charges compared to those who opposed including the statement claiming a standard charge of £15 per journey
- Those who travel everyday were more to say there would be a standard charge of £15 per journey compared to weekends only travellers' (29% vs 14%) an understanding that will need to be corrected

Support for LEZ

Overall support

Respondents were questioned on whether they were in favour of the LEZ. The majority, two thirds, said they were in favour with a third strongly in favour of LEZ. Only one in seven were opposed to the scheme and just under one in five were undecided. See chart 17.

Chart 17. Support for LEZ



Base: All (635)

Q7. Tell me, to what extent are you in favour of the City Centre LEZ?

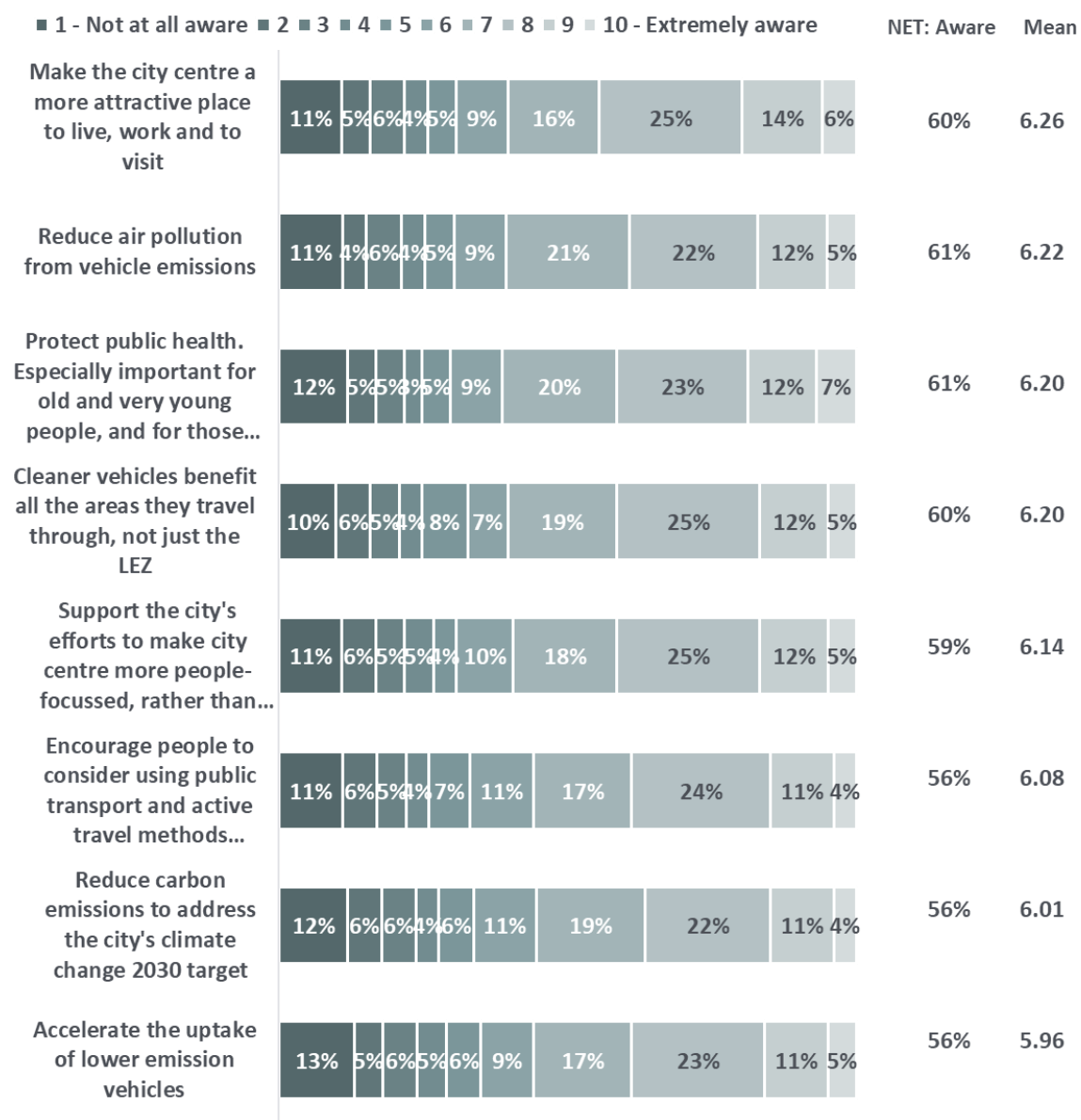
Women, those in older age groups, higher SEG, city centre residents and those who travel in and around the city centre on a daily basis were more in favour as detailed below:

- Women were slightly more in favour than men (69% vs 63%) (90% level sig)
- Those aged 55-74 years old were more in favour than those aged 18-34 years old (73% vs 60%)
- ABC1s more in favour than C2DEs (70% vs 58%)
- Edinburgh residents were more in favour than the rest of Scotland (77% vs 51%)
- City centre residents were more in favour than residents in rest of Edinburgh (85% vs 73%)
- Those who travel daily were more in favour than weekends only visitors (76% vs 42%)

Awareness and importance of the impacts of LEZ

Respondents were asked to rate their awareness of the impacts of the LEZ scheme. They were then asked to rank the importance of those issues. Interestingly levels of awareness for the issues fell in very similar order to the importance respondents placed on them. Charts 18 and 19 illustrate the detail of findings. These findings suggest that communication on Protect public health could be dialled up as this is the top ranked issue in terms of importance but third in line for awareness. Communications on Support the city’s efforts to make city centre more people-focused, rather than vehicle focused could also be dialled up as this is fourth in line of importance but ranked fifth in awareness. Acceleration of the uptake of lower emission vehicles is the least know about and the least of importance to people.

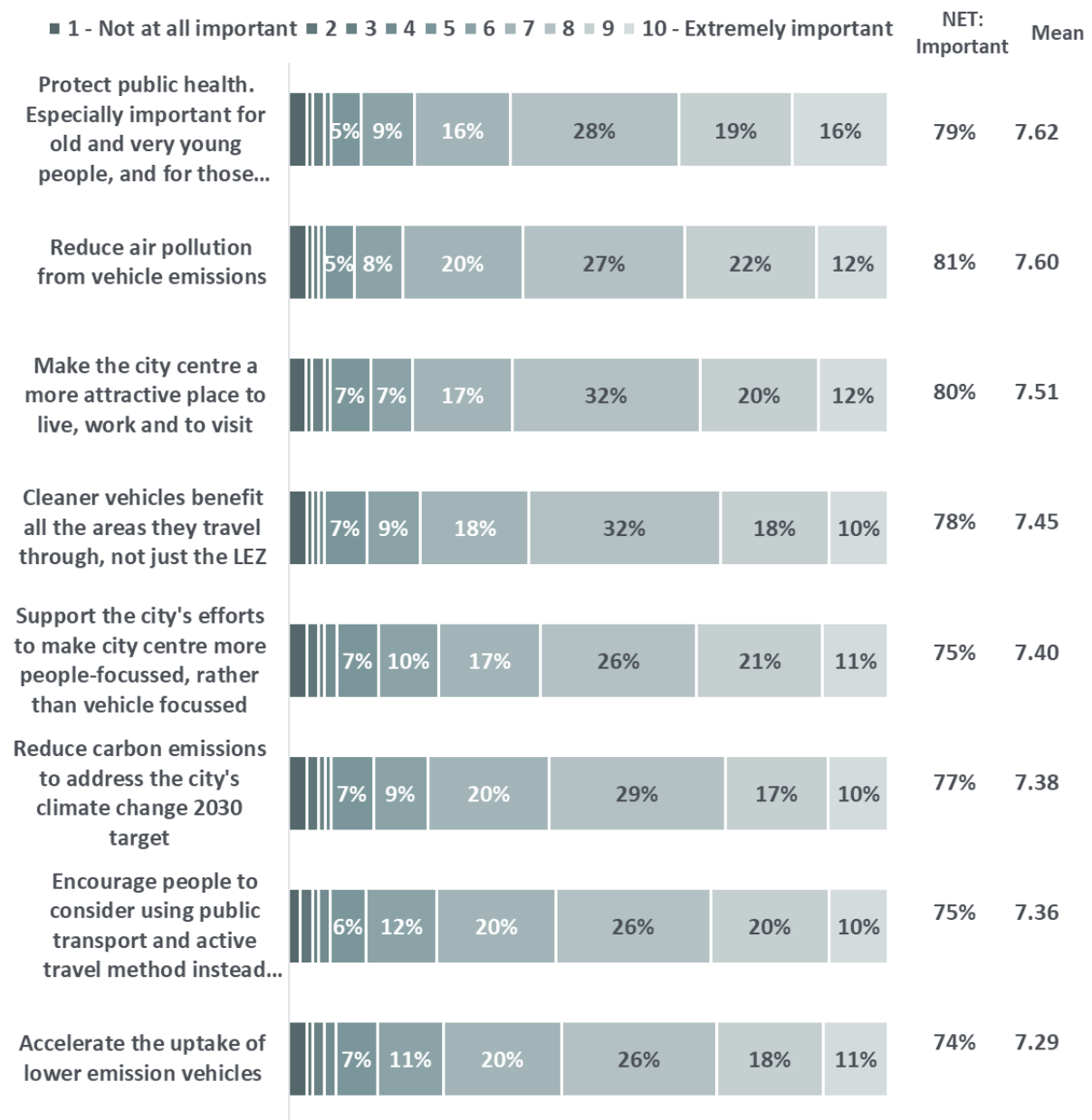
Chart 18. Awareness of impacts



Base: All (635)

Q8. How aware of these impacts of Low Emission Zones would you say you are?

Chart 19. Importance of impacts



Base: All (635)

Q9. And thinking of each of these impacts in turn, how important or unimportant would you say they will be for the people of Edinburgh?

A full breakdown of the differences across sub-groups (where they existed) can be found in appendix A.

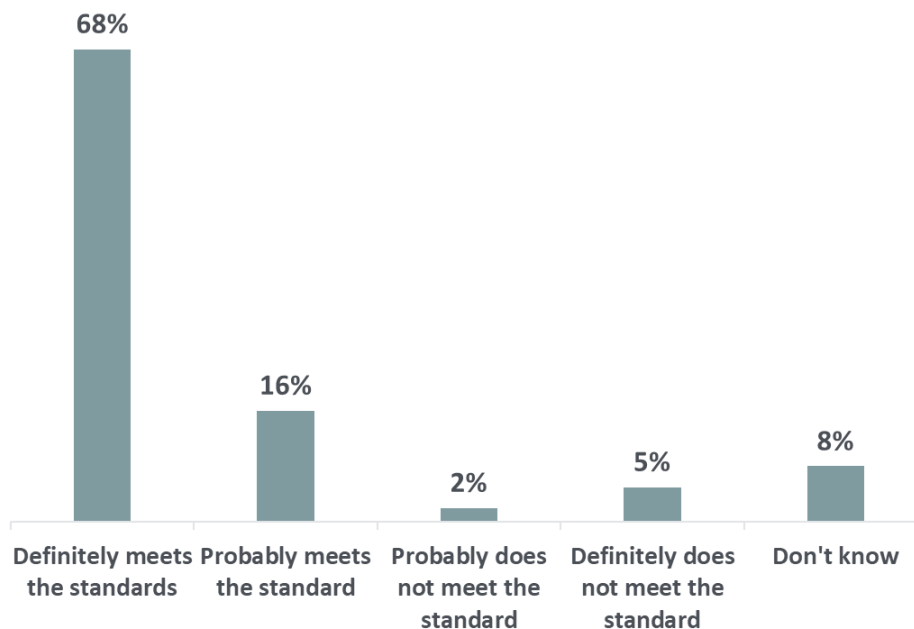
Behaviour change

The final section of the survey focuses on the status of respondents' current cars, whether they have replaced them in recent years and if so why. It continues with a set of questions designed to determine the likely changes respondents intend to make and when they intend to make them.

Status of current vehicle

The following chart illustrates that the majority, over two thirds, consider their vehicles definitely meet the standards. A further one in six think their vehicles probably comply. Only one in fourteen think they do not meet the standards. See chart 20.

Chart 20. Status of current vehicle



Base: All who own a car or have company vehicle (631)

Q10. To the best of your knowledge, does your current vehicle meet the LEZ's minimum standards?

Those in higher SEG and city centre residents were more likely to comply when compared to their counterparts which suggests that polluting vehicles are more likely to come from outwith the LEZ boundary.

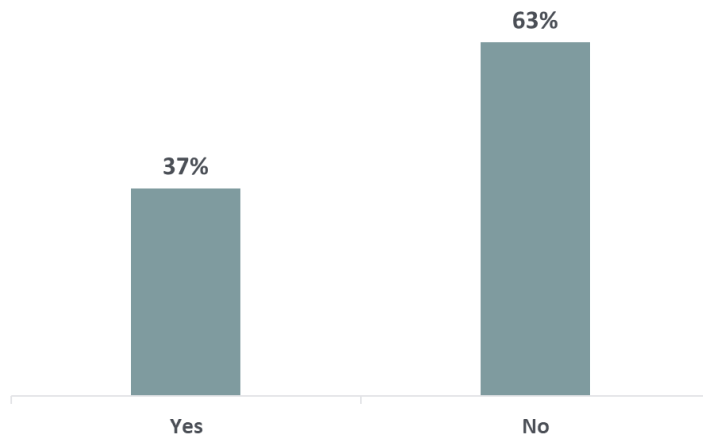
- ABC1s definitely meeting the standards was higher than C2DEs (73% vs 60%)
- City centre residents definitely meeting the standards was higher than those in other parts of Edinburgh (84% vs 67%)

Perception of compliance is close to the actual compliance as measured by Automatic Number Plate Recognition (ANPR) survey conducted by Scottish Environment Protection Agency (SEPA) in Edinburgh which shows that overall car compliance was 78.4% (94.4% petrol; 48% Diesel) in 2022.

While the two surveys are conducted by different means and have very different sample sizes this serves as a useful broad comparison.

Of those whose cars met the standard over a third claimed to have replaced their car in the last two years. See chart 21.

Chart 21. Replaced in last 2 years



Base: All who have compliant cars (533)

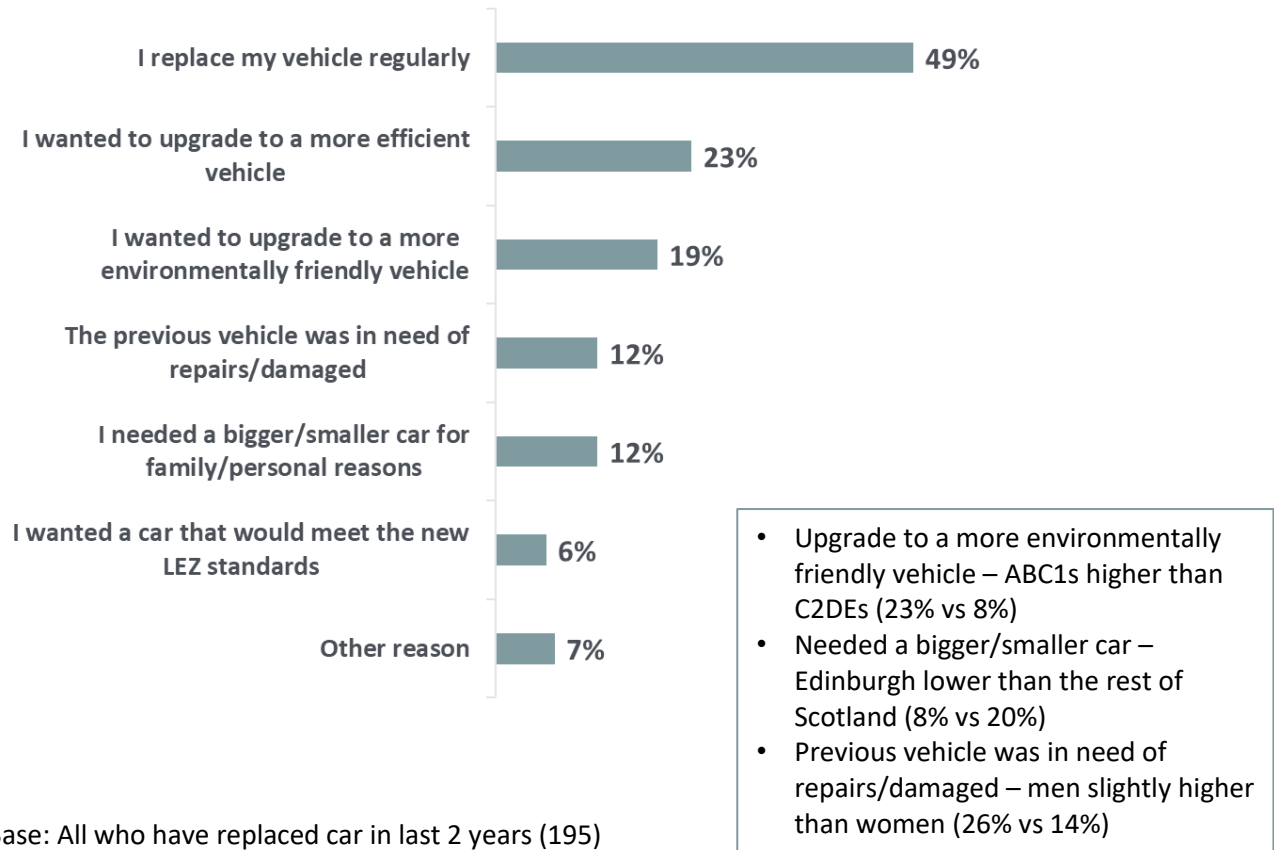
Q11. Have you replaced your vehicle in the last two years?

Women, city centre residents and those who travel in the city centre on a daily basis were more likely than their counterparts to have changed their car in the last two years.

- Women significantly higher than men (41% vs 32%)
- City centre residents higher than those in other parts of Edinburgh (52% vs 33%)
- Those that travel every day significantly higher than all other less frequent travellers

When asked why they had change their cars the most often mentioned reason was because vehicles are changed regularly anyway. Nearly a quarter said they wanted to have a more efficient vehicle and nearly one in five wanted to be more environmentally friendly.

Chart 22. Why replaced



Base: All who have replaced car in last 2 years (195)

Q12: Which of the following best describes why you replaced your vehicle in the last two years?

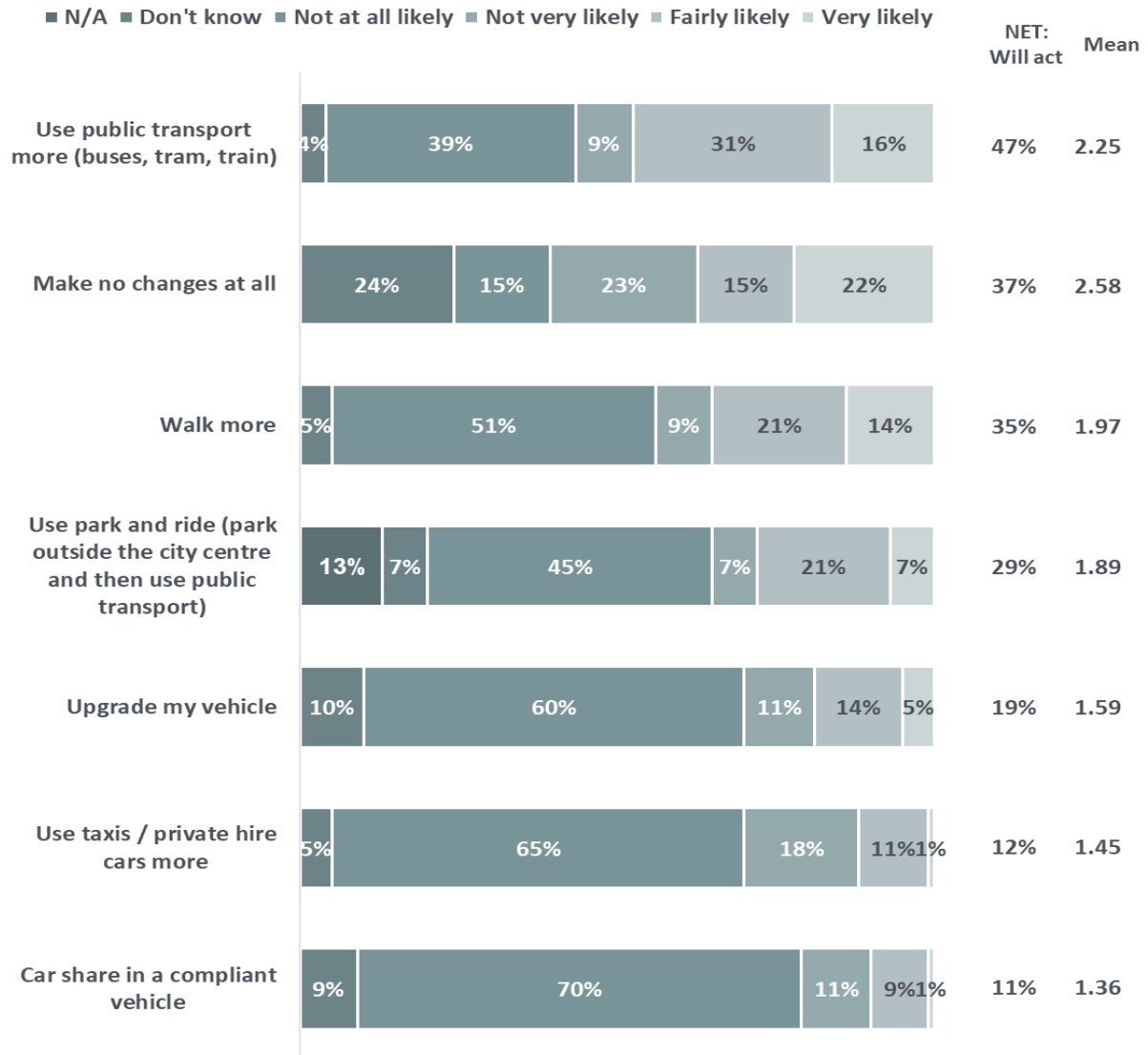
Actions planned as a consequence of LEZ

Respondents were asked what types of actions, if any, they thought might take as a consequence of the implementation of the LEZ. They could select more than one action, where relevant. The most popular planned actions in response to the introduction of LEZ were to:

- Use public transport, nearly half said they would do this
- A third said they would walk more
- Just over a quarter said they would use park and ride
- Just under one in five said they would upgrade their vehicle
- Just over one in ten said they would use taxis more and a similar proportion said they would car share.

However, over a third claimed they would make no changes. See chart 23.

Chart 23. Planned actions



Q13: How likely are you to take the following actions as a consequence of the introduction of the City Centre LEZ?

Base: All who answered the question as this one was optional (531 - 635)

A full sub group analysis for this question can be found in the appendices a quick overview of this is as follows. Those who are more likely to make no changes are those who already use active travel such as walking and cycling.

Wealthier car owners are less likely to act. This is probably because their cars are likely to meet the standards. Unsurprisingly city centre residents are more amenable than those living outwith the LEZ boundary to walk more.

Those currently using public transport are open to using it more and increasing the amount they walk. Weekend travellers are more likely than those who travel into the city centre every day to use Park and ride. This could be tied into a need of convenience for everyday travellers.

Frequent travellers in the city centre are more likely than infrequent travellers to consider upgrading their vehicles. Increase in use of taxis and private hire is likely to be driven by those in lower SEG, Edinburgh residents (oppose to those living in the rest of Scotland) and infrequent travellers into the city centre. Young people were more in favour of car share than older people.

Less popular actions included:

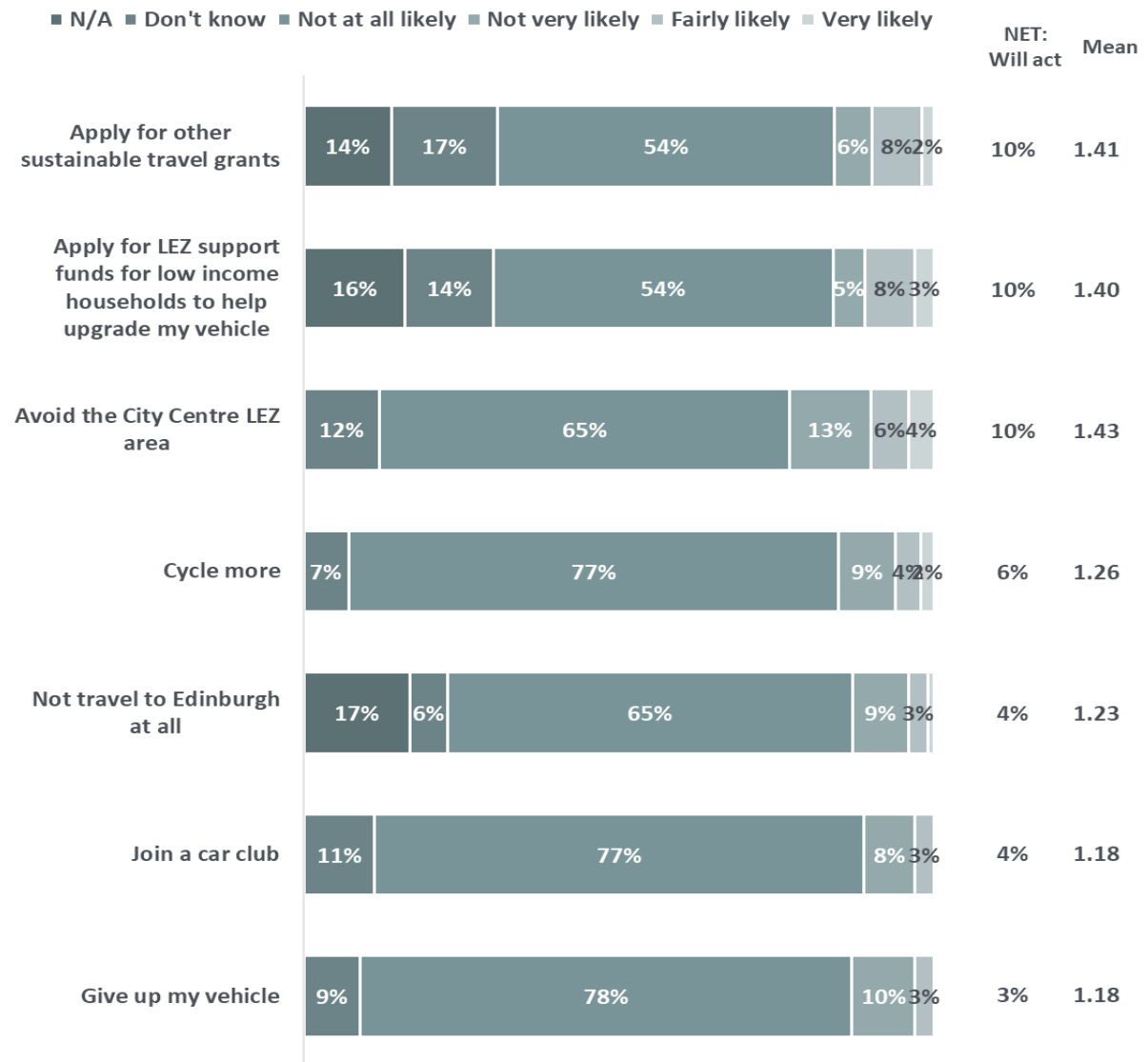
- Apply for sustainable travel grant
- Apply for LEZ support funds
- Avoid the city centre
- Cycle more
- Not travel to Edinburgh anymore
- Joining a car club
- Give up my vehicle

A full sub group analysis for this question can be found in the appendices a quick overview of this is as follows. Edinburgh residents and frequent travellers in the city centre were more likely than those living outwith Edinburgh to apply for sustainable travel grants and LEZ support funds.

The few people who said they would avoid the city centre or not travel to Edinburgh at all tended more likely to be those living in the rest of Scotland (opposed to wider council residents), infrequent travellers in the city centre, those who claim to be opposed to the LEZ and those in lower SEG C2DE.

See chart 23, planned actions cont:

Chart 23. Planned actions cont:



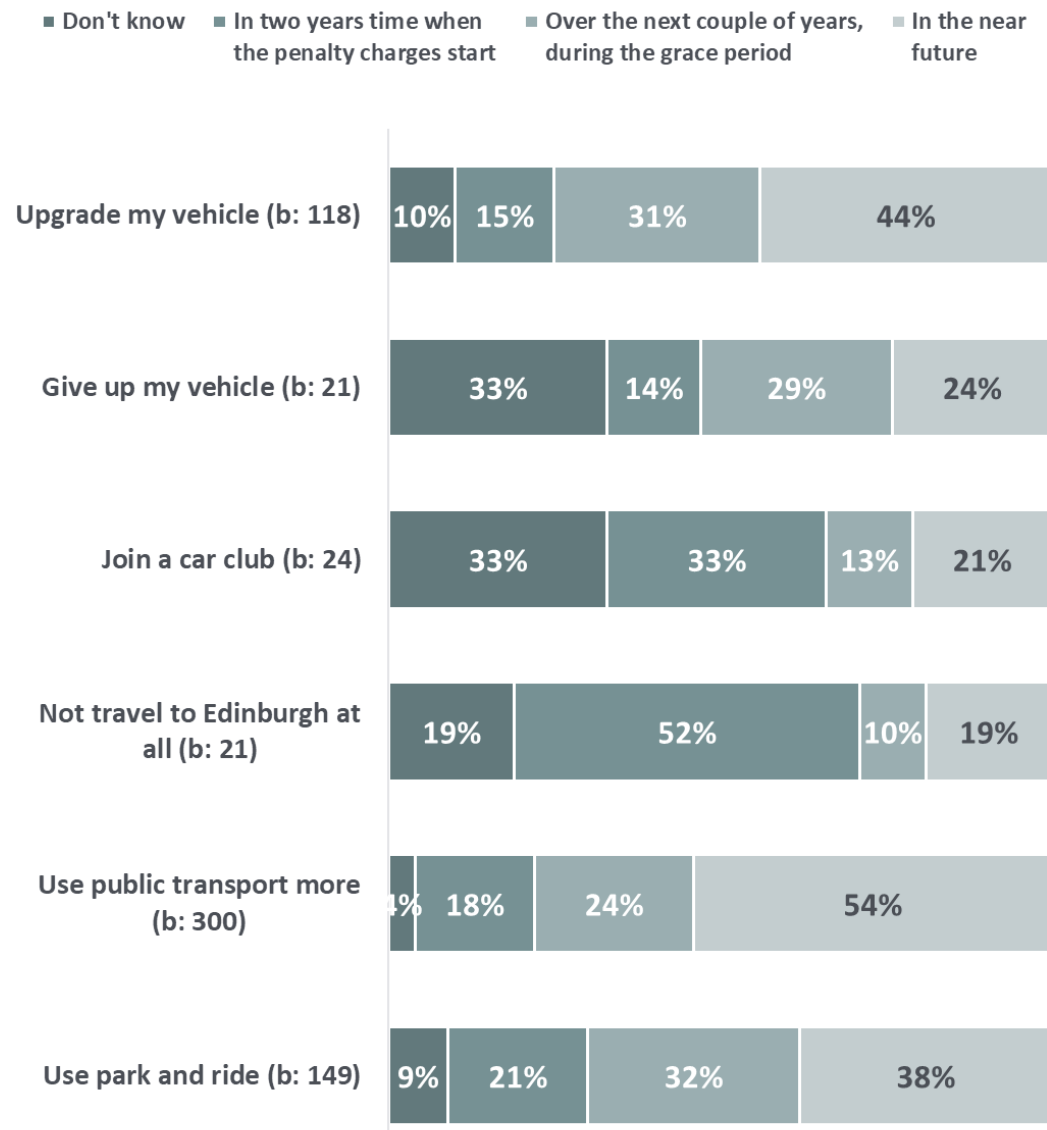
Base: All who answered the question as this one was optional (531 - 635)

Q13: How likely are you to take the following actions as a consequence of the introduction of the City Centre LEZ?

Time of planned change

Respondents were asked how soon they might start to make the changes they expect to make in light of the introduction of the LEZ. With the exception of those who say they will start using public transport more often, most expect to postpone making changes, at least for a while. See chart 24.

Chart 24. Time of planned change



Base: All who intend to change

Q14: How soon do you intend to make these changes?

Differences that occur across the time periods and with various sub-groups are documented below.

Upgrade my vehicle:

- Women more likely to upgrade during the grace period than men (41% vs 22%)

Use public transport more:

- Edinburgh residents more likely to use in the near future and in two years times when the penalties start, compared to the rest of Scotland

- Those in favour of the LEZ are more likely to use in the near future compared to those opposed (63% vs 28%)
- Those who travel on weekdays/part week are more likely to use in the near future compared to weekends only, and other mix of days travellers (69% vs 38% vs 49%)

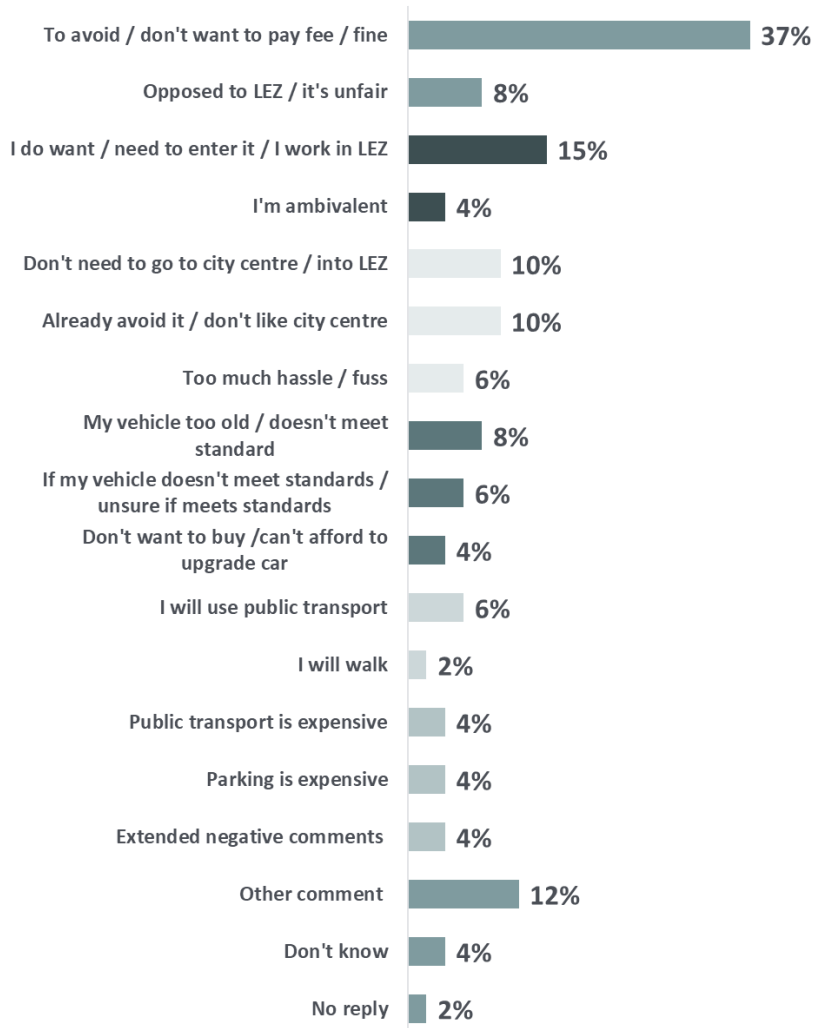
Use park and ride:

- Edinburgh residents more likely to use over the grace period compared to the rest of Scotland (43% vs 23%)

Reasons for making or avoiding change

The few who said they would avoid the city centre once the LEZ was introduced were asked why and given an open text box to explain their thinking. The base number to this question was fairly low with only 52 saying they would avoid the city centre and so the table below should be read with caution. The main reason given was to avoid the fine.

Chart 25. Reasons for avoiding City Centre

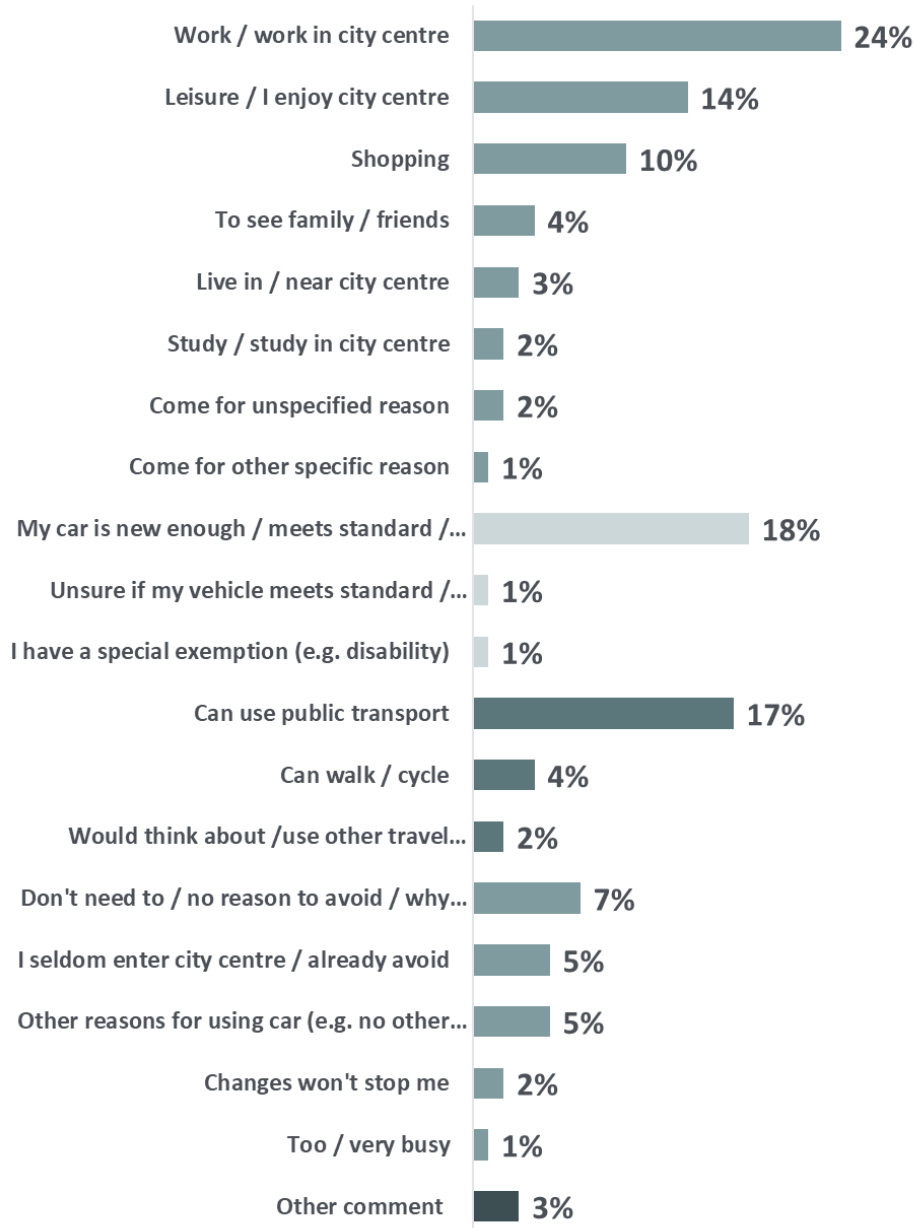


Q15: You said it was likely you would avoid the City Centre LEZ area – why is that?

Base: All who intend to avoid the City Centre (52)

A much larger proportion (405 respondents) said it was unlikely they would avoid the City Centre after the LEZ was introduced. When asked why that was the case the biggest mention was because they work in the City Centre this was followed by other mentions of reasons to be in the City Centre. Some said their car was new enough not to worry about the LEZ, other said they could use public transport. Reasons given are illustrated in the chart 26.

Chart 26. Reasons for not avoiding City Centre

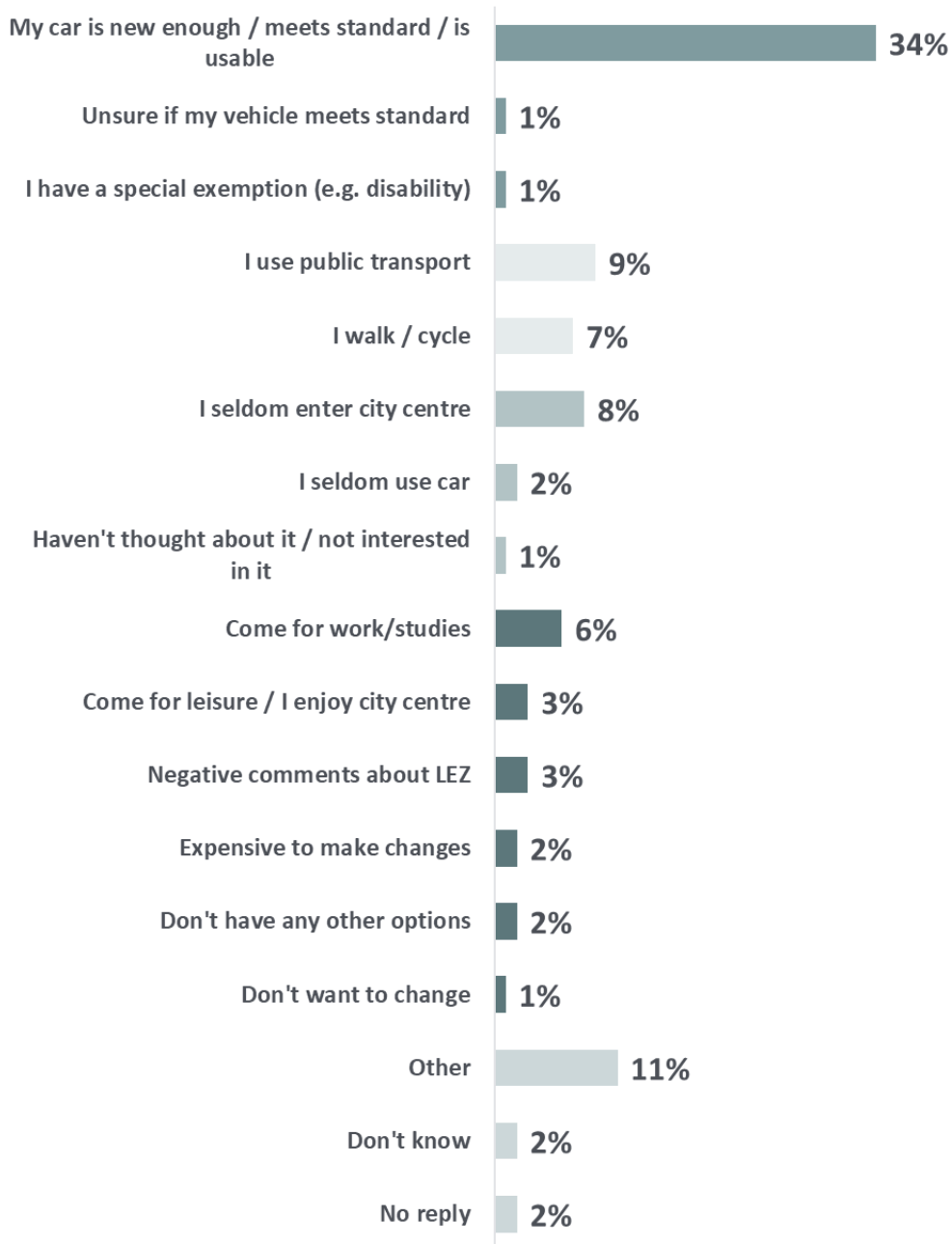


Base: All who live outwith the city centre and intend not to avoid the City Centre (405)

Q16: You said it was likely you would not avoid the City Centre LEZ area – why is that?

Those who claimed they would make no change (235 respondents) as a consequence of LEZ were asked why. The main reason given is their car meets the new standard. They were given an open text box to explain their thinking. All responses are illustrated below in chart 27.

Chart 27. Reasons for not making change

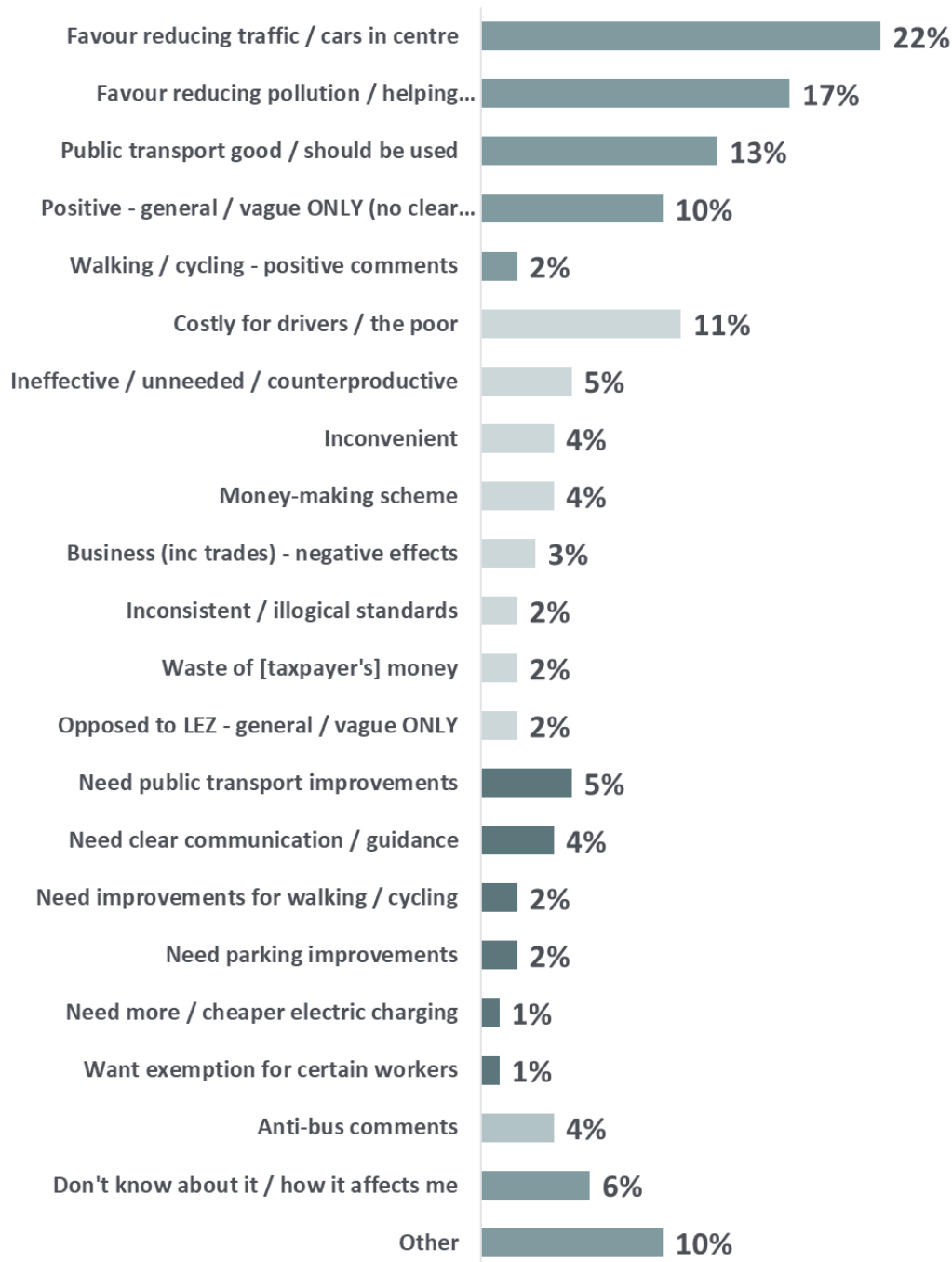


Base: All who intend not to make change (235)

Q17: You said it was likely you would make no changes at all as a consequence of the City Centre LEZ – why is that?

One of the final questions put to respondents was an invite to make any final comments. The majority chose not to make any comments. Those who did make comments were fairly evenly split across positive supportive comments and comments about the negative impact of the LEZ. **One of the most frequently made comments was from those who voiced their opinion on being in favour of a reduction in traffic in the city centre.**

Chart 28. Final comments



Base: 298 (all who made a comment)

Q18.Do you have any final comments you would like to make on the forthcoming Edinburgh City Centre Low Emission Zone?

Appendix A: Additional data tables and sub groups

Interviewer locations were all on public footways and in close proximity to the following locations:

Location	No.	%
Edinburgh Waverley station/New Street	80	13%
Thistle parking/Semple Street car parks	81	13%
Omni Centre	91	14%
NCP Castle Terrace	78	12%
Princes Exchange	70	11%
Q-Park Quartermile	86	14%
NCP Grindlay Street	69	11%
NCP Edinburgh Holyrood Road	80	13%
Base	635	100%

Sub-group analysis for Q8.

How aware of these impacts of Low Emission Zones would you say you are?

Make the city centre more attractive

- ABC1s were more aware than C2DEs (65% vs 51%)
- Edinburgh residents were more aware than the rest of Scotland (78% vs 35%)

Reduce air pollution vehicle emissions

- Those aged 55-74 years old more aware than 18-34 year olds (67% vs 56%)
- Public transport users more aware than car users (70% vs 62%)

Protect public health...

- ABC1s were more aware than C2DEs (64% vs 54%)
- Those in favour were more aware than those opposed (76% vs 27%)
- Public transport users more aware than car users (71% vs 63%)

Cleaner vehicles benefit all...

- Those aged 55-74 years old more aware than 18-34 year olds (68% vs 54%)
- City centre residents were more aware than those in other parts of Edinburgh (82% vs 71%)
- Those that travel every day were more aware than those who only travel on weekends and other mix of days (72% vs 47% vs 55%)

Support city centres effort to make

- Those aged 55-74 years old were more aware than 18-34 year olds (63% vs 53%)
- City centre residents were more aware than those living in other parts of Edinburgh (83% vs 70%)
- Those that travel every day were more aware than less frequent travellers

Encourage people to consider using...

- Edinburgh residents more aware than the rest of Scotland (73% vs 32%)
- Public transport users more aware than both active travellers and car users (68% vs 59% vs 58%)
- Those that travel every day were more aware than weekday/part week, weekends only, and other mix of days travellers (74% vs 53% vs 45% vs 49%)

Reduce carbon emissions 2030

- Edinburgh residents more aware than the rest of Scotland (71% vs 35%)
- Those in favour were aware than those opposed (70% vs 29%)
- Public transport users more aware than car users (66% vs 57%)
- Those that travel every day more aware than weekday/part week, weekends only, and other mix of days travellers (73% vs 58% vs 40% vs 49%)

Accelerate the uptake of low emission vehicles

- ABC1s were more aware than C2DEs (60% vs 46%)
- Edinburgh residents were more aware than the rest of Scotland (72% vs 32%)
- Those in favour were more aware than those opposed (70% vs 29%)
- Public transport users more aware than car users (67% vs 58%)
- Those that travel every day were more aware than weekday/part week, weekends only, and other mix of days travellers (68% vs 54% vs 44% vs 52%)

Sub-group analysis for Q9.

And thinking of each of these impacts in turn, how important or unimportant would you say they will be for the people of Edinburgh?

Protect public health...

- ABC1s scored higher importance than C2DEs (81% vs 75%)
- Edinburgh residents thought it to be more important than the rest of Scotland (86% vs 69%)
- Those that travel every day scored higher importance than weekend only, and other mix of days travellers (86% vs 69% vs 77%)

Reduce air pollution from vehicle emissions

- Edinburgh residents scored higher importance than the rest of Scotland (87% vs 72%)
- Those that travel everyday scored higher importance than those that travel weekends only, and other mix of days (90% vs 68% vs 79%)

Make the city centre more attractive

- Women scored higher importance than men (84% vs 75%)
- Those aged 55-74 years old scored higher importance than 18-34 year olds (85% vs 77%)
- Edinburgh residents scored higher importance than the rest of Scotland (86% vs 71%)
- Weekends only travellers scored lower than both everyday, and weekday/part week travellers (69% vs 85% vs 83%)

Cleaner vehicles benefit all areas

- ABC1s scored higher importance than C2DEs (81% vs 73%)
- Edinburgh residents scored higher importance than the rest of Scotland (87% vs 66%)

Support the city's efforts to make...

- ABC1s scored higher importance than C2DEs (79% vs 67%)
- City centre residents scored higher importance than those in other parts of Edinburgh (89% vs 80%)
- Those who travel only on the weekends scored lower importance than all other traveller frequencies

Reduce carbon emissions 2030

- Those aged 55-74 years old scored higher importance than 18-34 year olds (82% vs 72%)
- ABC1s scored higher importance than C2DEs (79% vs 71%)
- Edinburgh residents scored higher than the rest of Scotland (84% vs 66%)
- Those that travel everyday scored higher than both weekend only, and other mix of days travellers (84% vs 66% vs 75%)

Encourage people to consider using public transport

- Edinburgh residents scored higher than the rest of Scotland (81% vs 65%)
- Public transport users scored higher importance than both active travellers and car users (85% vs 76% vs 74%)
- Those that travel every day scored higher on importance than those that travel on weekends only (88% vs 65%)

Accelerate the uptake of low emission vehicles

- ABC1s scored higher importance than C2DEs (76% vs 68%)
- Edinburgh residents scored higher than the rest of Scotland (81% vs 63%)
- Those that travel everyday scored higher importance than weekends only travellers (79% vs 62%)

Sub-group analysis for Q13.

How likely are you to take the following actions as a consequence of the introduction of the city centre LEZ?

Use public transport more

- Women more likely to take an action than men (51% vs 43%)
- Public transport users more likely to act than active travellers and car users (52% vs 43% vs 43%)
- Those travelling on weekdays/part week more likely to act than every day travellers (56% vs 42%)

Make no changes at all

- Those aged 55-74 years old more likely to make no change than 18-34 year olds (43% vs 33%)
- ABC1s were more likely to make no change than C2DEs (41% vs 29%)
- 'Very likely' – active travellers significantly higher than public transport users (24% vs 17%) to make no change

Walk more

- City centre residents more likely to act than those in other parts of Edinburgh (51% vs 33%)
- Those in favour more likely to act than those opposed (40% vs 23%)
- Public transport users more likely to act than car users (46% vs 37%)

Use park and ride

- Weekends only travellers more likely to act compared to those that travel everyday (51% vs 21%)

Upgrade my vehicle

- Those in favour more likely to act than those opposed (21% vs 14%)
- Weekday/part of the week travellers are more likely to act than those that travel on weekends only (33% vs 9%)

Use taxis/private hire cars

- C2DEs are slightly more likely to act than ABC1s (16% vs 11%)
- Edinburgh residents are more likely to act than the rest of Scotland (15% vs 9%)
- Those that travel every day and weekdays/part weeks are more likely to act than those who travel on the weekends only (17% vs 15% vs 4%)

Car share

- Those aged 18-34 years old are more likely to act than 35-54 year olds (15% vs 7%)

Apply for other sustainable travel grants

- Edinburgh residents more likely to act than the rest of Scotland (13% vs 6%)
- Active travellers more likely to take no action compared to public transport users (56% vs 46%)
- Those who travel during weekdays/part week more likely to take no action compared to all other travel frequencies

Sub-group analysis for Q13 cont:

How likely are you to take the following actions as a consequence of the introduction of the city centre LEZ?

Apply for LEZ support funds

- Women more likely to take no action compared to men (64% vs 56%)
- Those aged 18-34 years old more likely to act than 35-54 year olds (16% vs 7%)
- City centre residents more likely to act than those in other parts of Edinburgh (20% vs 11%)
- The rest of Scotland will not act compared to Edinburgh (66% vs 55%)
- Active travellers more likely to not act compared to public transport users (56% vs 47%)
- Those that travel during weekends only, and other mix of days will not act compared to weekdays/part week travellers (68% vs 64% vs 46%)

Avoid the city centre LEZ

- C2DEs more likely to act than ABC1s (15% vs 8%)
- Edinburgh residents more likely to not act than the rest of Scotland (83% vs 72%)
- Those opposed to the LEZ more likely to act than those in favour (27% vs 5%)
- Those that travel everyday more likely to not act than weekdays/part week, and weekends only travellers (84% vs 71% vs 70%)

Cycle more

- Women more likely to not act compared to men (90% vs 83%)
- Those aged 35-54 years old more likely to act than 55-74 year olds (9% vs 3%)

Not travel to Edinburgh at all

- Those aged 35-54 and 55-74 years old more likely to not act than those aged 18-34 (79% vs 77% vs 62%)
- C2DEs more likely to act than ABC1s (7% vs 3%)
- Those opposed to the LEZ more likely to act than those in favour (11% vs 2%)
- Those who travel on a mix of days more likely to not act than every day and, weekday/part week travellers (80% vs 68% vs 61%)

Join a car club

- Those aged 55-74 years old more likely to say they will not act compared to 18-34 year olds (89% vs 81%)
- Rest of Scotland more likely to answer 'not at all likely' than Edinburgh (81% vs 74%)
- Those that travel during weekdays/part week more likely they will not act compared to all other travel frequencies
- Those with no understanding on the boundary more likely to answer 'not at all likely' than those with an understanding (82% vs 74%)

Give up my vehicle

- Those that travel weekends only more likely to answer 'not very likely' compared to all other travel frequencies

Appendix B: Questionnaire

City of Edinburgh Council

LEZ City Centre Research

Final Post Script - 27.04.22

Good morning/afternoon, I am [NAME] from Progressive, an independent market research company which is carrying out a survey on behalf of the City of Edinburgh Council about the new Low Emission Zone. This comes into effect in June 2022 and will affect vehicles driving within the city centre. The interview will take about [12] minutes to complete. Would you like to take part?

Outcome:

	CODE	ROUTE
Yes	1	Continue
No	2	CLOSE

Before I start, I just need to give you a few details about the research. This survey may include collecting information about you such as your age or gender, but you do not have to answer these questions if you prefer not to. Your personal details will not be passed to the Council or to any other third parties.

You are free to withdraw at any stage of the research, including withdrawing permission after the survey to use the information you provided. I can give you contact details for Progressive at the end of the interview if you would like.

REASSURE IF NECESSARY:

The survey is completely confidential, in accordance with the Market Research Society Code of Conduct. The answers you give in the survey will be combined with answers from other people who have taken part to give overall survey findings. No one will be able to identify you individually from the data.

I have a copy of Progressive's privacy statement if you would like to read it.

Consent

Are you happy to continue with the survey?

	CODE	ROUTE
Yes	1	Continue
No	2	CLOSE

SQ1: Interviewer location

	CODE
Edinburgh Waverley Station / New Street	1

Thistle parking / Semple Street car parks	2
Omni Centre	3
NCP Castle Terrace	4
Princes Exchange	5
Q-Park Quartermile	6
NCP Grindley Street	7
NCP Edinburgh, Holyrood Road	8
Other city centre - specify	9

SQ2: Do you own or have access to a vehicle for your personal use?

	CODE	ROUTE
Yes, I have my own car or van	1	CONTINUE
Yes, I have a company car	2	CONTINUE
Yes, I have a motorcycle or moped	3	CONTINUE
Yes, I am a member of the City Car Club	4	CONTINUE
No, none of the above	5	CLOSE

SQ3: Where do you live?

	CODE	ROUTE
Edinburgh	1	SQ4
Clackmannanshire	2	SQ5
East Lothian	3	
Falkirk	4	
Fife	5	
Midlothian	6	
West Lothian	7	
Elsewhere in Scotland	8	SQ3a
Outside Scotland	9	Close

ASK IF SQ3 = 8

SQ3a: Which local authority area do you live in? [ABEL – could you decide if a drop down list or showing the full alphabetical list would work better)

	CODE	ROUTE
Aberdeen City	1	SQ5 but track
Aberdeenshire	2	
Angus	3	
Argyll & Bute	4	
Dumfries & Galloway	5	
Dundee City	6	
East Ayrshire	7	
East Dunbartonshire	8	
East Renfrewshire	9	
Comhairle nan Eilean Siar (Western Isles)	10	
Glasgow City	11	
Highland	12	
Inverclyde	13	
Moray	14	
North Ayrshire	15	

North Lanarkshire	16	
Orkney Islands	17	
Perth & Kinross	18	
Renfrewshire	19	
Scottish Borders	20	
Shetland Islands	21	
South Ayrshire	22	
South Lanarkshire	23	
Stirling	24	
West Dunbartonshire	25	

Ask if SQ3 = 1

SQ4 Please look at this map [Show LEZ boundary map]. Which of the following best describes where you live?

	CODE
I live in Edinburgh City Centre	1
I live in another part of Edinburgh	2



ASK IFSQ4=2

SQ4a: What is the first part of your post code?

ASK IF SQ3 = 2~8 OR SQ4 = 2

SHOW MAP OF THE CITY CENTRE AREA

SQ5: Which of the following describes why you visit Edinburgh city centre? Select all that apply

	CODE	
Work	1	
Operate a business	2	
Other business activities, for example attend meetings, make deliveries, etc	3	
Study - attend university or college	4	
Visit for leisure, shopping, cultural, family, etc.	5	
Appointments – school drops, medical, etc.	6	
Other – specify	7	
I never visit the city centre	8	CLOSE

ASK IF SQ4 = 1

SHOW MAP OF THE CITY CENTRE AREA

SQ6: As well as living in the city centre which, if any, of the following do you do within the city centre boundary? *Select all that apply*

	CODE
Work	1
Operate a business	2
Other business activities, for example attend meetings, make deliveries, etc	3
Study - attend university or college	4

Visit for leisure, shopping, cultural, family, etc.	5
Appointments – school drops, medical, etc.	6
Other – specify	7
None of these	8

Survey Questions

Travel behaviour

ASK ALL

1. Currently how often do you use the following modes of transport to travel around, or to and from Edinburgh's city centre, for personal and/or business reasons? Please choose from: every day, at least once a week, at least once a month, less often, never but could if I chose to, or I don't have this option.

SINGLE CODE/RANDOMISE

	Every day	At least once a week	At least once a month	Less than once a month	Never, but could if I chose to	I don't have this option/ NA
Walk	1	2	3	4	5	6
Wheelchair (wheeling)	1	2	3	4	5	6
Bicycle or scooter	1	2	3	4	5	6
Bus or coach	1	2	3	4	5	6
Motorcycle or moped	1	2	3	4	5	6
Car – driver	1	2	3	4	5	6
Car – passenger	1	2	3	4	5	6
Tram	1	2	3	4	5	6
Taxi or private hire car	1	2	3	4	5	6
Train	1	2	3	4	5	6

2. When do you normally tend to travel to, from or around the city centre, for personal and/or business reasons?

SINGLE CODE

	Code
Every day (Monday – Sunday)	1
Every weekday (Monday – Friday)	2
Part week (2- 3 days per week)	3
Weekends only (Saturdays and/or Sundays)	4
Other mix of days	5

Low Emission Zones (LEZs) are to be introduced in Edinburgh, Glasgow, Aberdeen and Dundee. All four local authorities, together with the Scottish Government agree that more needs to be done to tackle air pollution on their roads.

The LEZs work by restricting the most polluting vehicles' access to key streets – or areas – in these cities. Any vehicles that do not meet the minimum emission standards set for the LEZ may not be

driven within the zone. If a non-compliant vehicle does enter the zone, the registered keeper will be liable to pay a penalty charge (a type of fine).

The LEZ in Edinburgh will operate across the whole of the City Centre from the 31st May 2022. People will be given a grace period of two years to prepare before the enforcement stage – that is before any penalty charges are issued - begins on 1st June 2024.

Awareness of the scheme

3. Tell me, how well informed about the Low Emission Zone for Edinburgh City Centre would you say you were before this interview today? Please score this using a scale out of ten, where 1 is not at all informed, and 10 is extremely well informed.

SINGLE CODE

	Code
Not at all informed	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
Extremely well informed	10
Don't know	11

INTERVIEWER– SHOW MAP OF LEZ BOUNDARY [as before]

4. This map shows the boundary of the LEZ. It will cover Edinburgh City Centre. How good was your understanding of the Edinburgh LEZ boundary before this interview today? Again, could you score this out of ten, where 1 means no understanding of the boundary, and 10 means a really good understanding

SINGLE CODE

	Code
No understanding of the boundary	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
Really good understanding	10
Don't know	11

5. The following statements describe how the LEZ will work in Edinburgh City Centre. Please tell me how informed you were of how the LEZ would operate before this interview today. If you could use a scale of 1 to 10, with 1 being not at all informed, and 10 extremely well informed.

SINGLE CODE/RANDOMISE

	1: Not at all informed	2	3	4	5	6	7	8	9	10: Extremely well informed	DK
You do not need to have an electric car to drive into the LEZ, modern petrol and diesel cars will usually also meet the LEZ minimum standards	1	2	3	4	5	6	7	8	9	10	11
Motorbikes and mopeds are allowed to drive in the LEZ	1	2	3	4	5	6	7	8	9	10	11
The LEZ will be in operation 24 hours a day, all year round (including public holidays)	1	2	3	4	5	6	7	8	9	10	11
Automatic number plate recognition cameras will be used to identify the vehicles which do not comply with the LEZ minimum standard	1	2	3	4	5	6	7	8	9	10	11
Residents and visitors to the city will have a grace period of two years, from 31 st May 2022, to prepare their vehicles to comply with the LEZ minimum standards, before any penalty charges (fines) will be issued	1	2	3	4	5	6	7	8	9	10	11
Drivers with a Blue Badge will be exempt from LEZ penalty notices (fines).	1	2	3	4	5	6	7	8	9	10	11
The LEZ will contribute to improving air quality in the city centre	1	2	3	4	5	6	7	8	9	10	11
The LEZ will contribute to improving air quality across the whole city	1	2	3	4	5	6	7	8	9	10	11
The LEZ will help the city achieve its net zero 2030 climate change target	1	2	3	4	5	6	7	8	9	10	11

6. The penalty regime for LEZs in Scotland is set nationally by the Scottish Government. Local councils do not have powers to amend this. Which of the following, as far as you are aware, best describes the penalty charge set for non-compliant cars and vans that drive into an LEZ?

MULTICODE

	Code
A standard charge of £15 per journey	1
A penalty charge (fine) of £60 for the first breach, reduced to £30 if paid in 14 days	2
A £60 penalty charge (fine) that doubles for repeated breaches – capped at £480	3
Don't know <i>*Exclusive</i>	4

INTERVIEWER NOTE: ONCE THEY HAVE ANSWERED THE QN YOU CAN CONFIRM THAT THE CHARGE WILL BE £60 FOR THE INITIAL BREACH (£30 IF THEY PAY WITHIN 14 DAYS), AND WILL DOUBLE FOR SUBESQUENT BREACHES, UP TO £480. AFTER 90 DAYS, IF THERE HAVE BEEN NO FURTHER BREACHES, IT GOES BACK TO £60 AGAIN. HIGHER PENALTY CHARGES ARE APPLIED TO BUSES AND COACHES.

Support for LEZ

7. As I mentioned earlier, Edinburgh's LEZ comes into force on the 31st May 2022 and from 1st June 2024 vehicles using the city centre will have to comply with the LEZ minimum standards. Tell me, to what extent are you in favour of the City Centre LEZ?

SINGLE CODE

	Code
Strongly in favour	1
Somewhat in favour	2
Somewhat opposed	3
Strongly opposed	4
Don't know	5

Benefits of the LEZ

ASK ALL

8. The following are some of the benefits for the city that will come from the introduction of the LEZ. How aware of these impacts of Low Emission Zones would you say you are? Please use a scale of 1 to 10, with 1 being not at all aware, and 10 extremely aware.

SINGLE CODE/RANDOMISE

	1: Not at all aware	2	3	4	5	6	7	8	9	10: Extremely aware
Reduce air pollution from vehicle emissions	1	2	3	4	5	6	7	8	9	10
Reduce carbon emissions to address the city's	1	2	3	4	5	6	7	8	9	10

climate change 2030 target										
Make the city centre a more attractive place to live, work and to visit	1	2	3	4	5	6	7	8	9	10
Accelerate the uptake of lower emission vehicles	1	2	3	4	5	6	7	8	9	10
Cleaner vehicles benefit all the areas they travel through, not just the LEZ	1	2	3	4	5	6	7	8	9	10
Encourage people to consider using public transport and active travel methods instead of driving	1	2	3	4	5	6	7	8	9	10
Protect public health. Especially important for old and very young people, and for those with existing heart and lung conditions.	1	2	3	4	5	6	7	8	9	10
Support the city's efforts to make city centre more people-focused, rather than vehicle focused	1	2	3	4	5	6	7	8	9	10

9. And thinking of each of these impacts in turn, how important or unimportant would you say they will be for the people of Edinburgh? Please use a scale of 1 to 10, with 1 being not at all important, and 10 extremely important.

	1: Not at all important	2	3	4	5	6	7	8	9	10: Extremely important
Reduce air pollution from vehicle emissions	1	2	3	4	5	6	7	8	9	10
Reduce carbon emissions to address the city's climate change 2030 target	1	2	3	4	5	6	7	8	9	10
Make the city centre a more attractive place to live, work and to visit	1	2	3	4	5	6	7	8	9	10
Accelerate the uptake of lower emission vehicles	1	2	3	4	5	6	7	8	9	10
Cleaner vehicles benefit all the areas they travel through, not just the LEZ	1	2	3	4	5	6	7	8	9	10
Encourage people to consider using public	1	2	3	4	5	6	7	8	9	10

transport and active travel methods instead of driving										
Protect public health. Especially important for old and very young people, and for those with existing heart and lung conditions.	1	2	3	4	5	6	7	8	9	10
Support the city's efforts to make city centre more people-focused, rather than vehicle focused	1	2	3	4	5	6	7	8	9	10

Behaviour change

ASK IF SQ2 = 1, 2, 3

All with car, motorbike, scooter

10. To the best of your knowledge, does your current vehicle meet the LEZ's minimum standards?

	Code
Definitely meets the standard	1
Probably meets the standard	2
Probably does not meet the standard	3
Definitely does not meet the standard	4
Don't know	5

INTERVIEWER NOTE: Rough guide: if asked the current minimum standard is Euro 4 for petrol cars/vans (generally vehicles registered after 2006) and Euro 6 for diesel cars/vans (generally those registered after Sept 2015) All motorbikes, scooters comply.

ASK IF Q10 =1,2

All that meet the standard

11. Have you replaced your vehicle in the last two years?

	Code
Yes	1
No	2

ASK IF Q11 = 1

All that have replaced their vehicle

12. Which of the following best describes why you replaced your vehicle in the last two years?

Select all that that apply

RANDOMISE

	Code
I replace my vehicle regularly	1
The previous vehicle was in need of repairs/damaged/etc	2
I wanted to upgrade to a more environmentally friendly vehicle	3

I wanted to upgrade to a more efficient vehicle	4
I needed a bigger/smaller car for family/personal reasons	5
I wanted a car that would meet the new LEZ standards	6
Other reason – specify <i>*Fixed * Open</i>	7

ASK AS NOTED IN FIRST COLUMN

13. How likely are you to take the following actions as a consequence of the introduction of the City Centre LEZ?

RANDOMISE

		Very likely	Fairly likely	Not very likely	Not at all likely	Don't know	NA
ALL	a. Upgrade my vehicle	1	2	3	4	5	
ALL	b. Give up my vehicle	1	2	3	4	5	
ALL	c. Join a car club	1	2	3	4	5	
ALL	d. Car share in a compliant vehicle	1	2	3	4	5	
SQ3=2~8, SQ4=2	e. Avoid the City Centre LEZ area	1	2	3	4	5	
SQ3=2~8,	f. Not travel to Edinburgh at all	1	2	3	4	5	NA
ALL	g. Walk more	1	2	3	4	5	
ALL	h. Cycle more	1	2	3	4	5	
ALL	i. Use public transport more (buses, tram, train)	1	2	3	4	5	
ALL	j. Use taxis / private hire cars more	1	2	3	4	5	
SQ3=2~8, SQ4=2	k. Use park and ride (park outside the city centre and then use public transport)	1	2	3	4	5	NA
ALL	l. Apply for LEZ support funds for low income households to help upgrade my vehicle	1	2	3	4	5	NA
ALL	m. Apply for other sustainable travel grants	1	2	3	4	5	NA
ALL	n. Make no changes at all <i>*Fixed</i>	1	2	3	4	5	

ASK IF Q13 a, b, c, f, i, k = 1,2 FILTER AND TEXTSUB AS APPROPRIATE

14. You said you would be likely to make changes as a consequence of the LEZ: how soon do you think you might make these changes? As soon as the LEZ is introduced or by June 2024 when the fixed penalties will be charged for vehicles that do not comply.

SINGLE CODE FOR EACH CONSEQUENCE

In the near future	Over the next couple of years, during	In two years' time, when the penalty charges start	Don't know
--------------------	---------------------------------------	--	------------

	the grace period			
Upgrade my vehicle	1	2	3	4
Give up my vehicle	1	2	3	4
Join a car club	1	2	3	4
Not travel to Edinburgh at all	1	2	3	4
Use public transport more (buses, tram, train)	1	2	3	4
Use park and ride (park outside the city centre and then use public transport)	1	2	3	4

ASK IF Q13 e = 1,2

15. You said it was likely you would avoid the City Centre LEZ area – why is that? – OPEN

ASK IF Q13 e = 3,4

16. You said it was unlikely you would avoid the City Centre LEZ area – why is that? – OPEN

ASK IF Q13 n = 1,2

17. You said it was likely you would make no changes at all as a consequence of the City Centre LEZ – why is that? – OPEN

18. Do you have any final comments you would like to make on the forthcoming Edinburgh City Centre Low Emission Zone? OPEN

19. Did you participate in either of the Council’s previous consultations on the LEZ, undertaken online in 2019 and 2020?

	Code
Yes	1
No	2
Don’t know	3

ASK IF Q19 =2

20. Why did you not take part in the consultation? DO NOT PROMPT, SELECT ALL THAT APPLY

	Code
Not aware of the LEZ consultation	1
Only recently moved to the area	2
Did not have time	3
Did not seem relevant to me	4
Never respond to consultations	5
Other - specify	6

Classification

The final few questions are for classification purposes....

21. Are you a...?

SINGLE CODE	Code
Man (including trans man)	1
Woman (including trans woman)	2
Other	3
Prefer not to say	4

22. How old are you? QUANTITY VARIABLE

Prefer not to say

ASK IF Q22 = PNTS

23. Which of the following age groups are you in?

SINGLE CODE	Code
18-24	1
25-34	2
35-44	3
45-54	4
55-64	5
65-74	6
75+	7
Prefer not to say	8

24. Which of the following groups does the Chief Income Earner in your household belong to?

The Chief Income Earner is the person in the household with the largest income, regardless of how this income is obtained. If the Chief Income Earner is retired and has an occupational pension, please select according to the previous occupation. If the Chief Income Earner is not in paid employment and has been out of work for less than 6 months, please select according to previous occupation.

SINGLE CODE	Code
Semi or unskilled manual worker (e.g. manual jobs that require no special training, park keeper, non-HGV driver, shop assistant etc.)	1
Skilled manual worker (e.g. skilled bricklayer, carpenter, plumber, painter, bus driver, HGV driver, unqualified assistant teacher, pub/bar worker, etc.)	2
Supervisory or clerical/ junior managerial/ professional/ administrator (e.g. office worker, student doctor, foreman with 25+ employees, sales person, student teachers etc.)	3
Intermediate managerial/ professional/ administrative (e.g. newly qualified (under 3 years) doctor/solicitor, board director small organisation, middle manager in large organisation, principal officer in Civil Service/local government etc.)	4

Higher managerial/ professional/ administrative (e.g. established doctor, solicitor, board director in large organisation (200+ employees), top level civil servant/ public service employee, head teacher, etc.)	5
Student	6
Retired and living on state pension only	7
Unemployed (for over 6 months) or not working due to long term sickness	8
Prefer not to say	9

25. Do you have a physical or mental health condition or illness lasting or expected to last 12 months or more?

SINGLE CODE	Code
Yes	1
No	2
Don't know	3
Prefer not to say	4

ASK IF Q25 =1

26. Does this condition or illness affect you in any of the following areas?

MULTICODE	Code
Vision (e.g. blindness or partial sight)	1
Hearing (e.g. deafness or partial hearing)	2
Mobility (e.g. walking short distances or climbing stairs)	3
Dexterity (e.g. lifting or carrying objects, using a keyboard)	4
Learning or understanding or concentrating	5
Memory	6
Mental health	7
Stamina or breathing or fatigue	8
Socially or behaviourally (e.g. associated with autism, attention deficit disorder or Aspergers' syndrome)	9
Other (specify)	10
None of the above	11
Prefer not to say	12

ASK ALL

27. Do you have a Blue Badge?

SINGLE CODE	Code
Yes	1
No	2
Don't know	3
Prefer not to say	4

BACK-CHECKING:



As part of our quality control procedures we aim to re-contact 20% of respondents to confirm their satisfaction with the interview and that details were recorded correctly. Could we please use your email address or telephone number for these purposes?
[Collect contact details as usual]

OUTRO:

Thank you for taking part in this research survey.

You have the right to access the information you have provided in this survey, and to withdraw consent to process this information after taking part. We will only hold your personal details for a limited time, usually a month after the end of the project. If you decide you want to withdraw consent, here is the information you need in order to let us know [HAND OUT THANK YOU LEAFLET].

I can give you contact details for Progressive if you would like.

Appendix C: Technical appendix

Method

Quantitative

1. The data was collected by survey
2. The target group for this research study was people living in, travelling to and through the Edinburgh LEZ area. All had to be car owners living within Scotland.
3. The sample type was non-probability. Respondents were selected using a stratified random sampling technique, where interviewers worked to specified quota controls on key sample criteria (sex and age), and selected respondents randomly within these quotas.
4. The target sample size was 600 and the final achieved sample size was 635. The reason for the difference between these two samples was to achieve a good spread of age and sex across the three sub-samples.
5. Fieldwork was undertaken between May 6th to 29th 2022.
6. Quota controls guided the sample selection for this study. This means that statistically precise margins of error or significance testing are not appropriate, as the sampling type is non-probability. The margins of error outlined below are therefore indicative, based on an equivalent probability sample.
7. The overall sample size of 635 provides a dataset with an approximate margin of error of between $\pm 0.77\%$ and $\pm 3.89\%$, calculated at the 95% confidence level (market research industry standard). Each sub sample of 250 provides a dataset with an approximate margin of error of between $\pm 1.23\%$ and $\pm 6.20\%$. Each sub sample of 100 provides a dataset with an approximate margin of error of between $\pm 1.95\%$ and $\pm 9.80\%$.
8. This response rate is typical for a survey of this kind.
9. *We are confident that the achieved sample provides a good representation of the target population*
10. In total, 13 interviewers worked on data collection.
11. Interviews lasted 14 minutes.
12. Each interviewer's work was validated as per the requirements of the international standard ISO 20252. Validation was achieved by re-contacting (by telephone or email) a minimum of 10% of the sample to check profiling details and to re-ask key questions from the survey. Where telephone details were not available re-contact may have been made by post. All interviewers working on the study were subject to validation of their work.
13. All research projects undertaken by Progressive comply fully with the requirements of ISO 20252, the GDPR and the MRS Code of Conduct.

Data processing and analysis

14. Quota controls guided the sample selection for this study. This means that statistically precise margins of error or significance testing are not appropriate, as the sampling type is non-probability. The margins of error outlined below are therefore indicative, based on an equivalent probability sample.
15. The overall sample size of 635 provides a dataset with an approximate margin of error of between $\pm 0.77\%$ and $\pm 3.89\%$, calculated at the 95% confidence level (market research industry standard). Each sub sample of 250 provides a dataset with an approximate margin of error of between $\pm 1.23\%$ and $\pm 6.20\%$. Each sub sample of 100 provides a dataset with an approximate margin of error of between $\pm 1.95\%$ and $\pm 9.80\%$.

16. Our data processing department undertook a number of quality checks on the data to ensure its validity and integrity. Responses were checked to ensure that interviewer and location were identifiable. Any errors or omissions detected at this stage were referred back to the field department, who re-contacted interviewers to check.
17. A computer edit of the data prior to analysis involved both range and inter-field checks. Any further inconsistencies identified at this stage were investigated by reference back to the raw data on the questionnaire.
18. Where 'other' type questions were used, the responses to these were checked against the parent question for possible up-coding.
19. Responses to open-ended questions were sense checked and grouped using a code-frame and analysed by theme. A SNAP programme was set up in order to provide the client with useable and comprehensive data. Crossbreaks were discussed with the client in order to ensure that all information needs are met.