



Living in Lancashire Survey

Electric vehicles

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1. Executive summary

This wave of Living in Lancashire asked a number of questions about electric vehicles.

The fieldwork began on 5 June and was sent by email or by post to all 3,361 members of the panel. A reminder was sent on 24 June and the fieldwork ended on 10 July 2015. In total, 1,999 questionnaires were returned, giving an overall response rate of 59%.

1.1. Key findings

- Around nine out of ten respondents (88%) are qualified to drive or intend to learn to drive in future.
- Nearly all respondents who are qualified to drive (98%) say that they don't own an electric vehicle.
- Over half of respondents who are qualified to drive or intend to learn (56%) agree that they don't really know anything about electric vehicles.
- The majority of respondents who are qualified to drive or intend to learn say that it is likely that they won't get an electric vehicle next time they buy a vehicle: around two-fifths (41%) say they definitely won't and a third (33%) say they probably won't buy one next time they buy a vehicle. However, one in twenty (5%) say that it is likely that they will buy an electric vehicle next time they buy a vehicle. Around a fifth (22%) say that they don't know how likely it is that they will buy an electric vehicle the next time they buy a vehicle.
- Around a fifth of respondents who are qualified to drive or intend to learn (18%) say they will likely buy an electric vehicle in the next ten years. Around two-fifths (38%) say that they don't know how likely it is that they will buy an electric vehicle in the next ten years and around two-fifths (43%) say they won't likely buy an electric vehicle in the next ten years.
- Around a third of respondents who are qualified to drive or intend to learn (35%) say that if they were to buy an electric vehicle they would buy one to use as their main car. Around a quarter of respondents (24%) say they would buy one to use as a second car for local journeys.
- Around three-fifths of respondents who are qualified to drive or intend to learn agree that there aren't enough places to recharge electric vehicles (59%) and around half of these respondents agree they wouldn't/don't have anywhere practical to recharge an electric vehicle (48%).
- Three in ten respondents who are qualified to drive or intend to learn (30%) agree that electric vehicles are practical for everyday use.
- Two-thirds of respondents who are qualified to drive or intend to drive (66%) agree that electric vehicles appeal to them because they are environmentally friendly.

1.2. Conclusions and recommendations

The findings from this research show that most respondents are not well informed about electric vehicles, with women being less likely to be informed about them.

It also found that more informed respondents are more likely to say that they will buy an electric vehicle in future. This suggests that being uninformed about electric vehicles is a potential barrier to intending to purchase one in future.

The findings also suggests that the lack of recharging points are an issue, especially for more informed respondents, as they are more likely to agree that there aren't enough recharging points for electric vehicles.

Future research could investigate if providing people with more/better information about electric vehicles would make them more likely to buy an electric vehicle in future, and if so what types of information would be most effective. Future research could also investigate if increasing the number of recharging points for electric vehicles would increase the number of people willing to purchase an electric vehicle.

Finally, it is recommended that the findings in this report are considered by transport planning and that they inform future work in Lancashire concerning electric vehicles.

2. Introduction

Lancashire County Council has run Living in Lancashire since August 2001 (formerly known as Life in Lancashire). A panel of people who live in Lancashire is contacted on a regular basis to seek their views on a range of county council related subjects. Panel members are voluntary participants in the research and they receive no incentives for completion.

The panel has been designed to be a representative cross-section of Lancashire's population. The results for each survey are weighted in order to reflect the demographic profile of the county's population.

The panel provides access to a sufficiently large sample of the population so that reliable results can be reported at a county wide level. It also allows for analysis at different sub-area and sub-group levels.

Each wave of Living in Lancashire is themed. Firstly, it enables sufficient coverage on a particular topic to be able to provide insight into that topic. And secondly, it comes across better to the residents completing the questionnaires if there is a clear theme (or 2-3 clear themes) within each survey.

The panel is refreshed periodically. New members are recruited to the panel and some current members are retired on a random basis. This means that the panel remains fresh and is not subject to conditioning ie the views of panel members become too informed with county council services to be representative of the population as a whole.

3. Research objectives

The objective of this survey is to look at people's views on electric vehicles. Questions looked specifically at:

- how knowledgeable respondents think they are about electric vehicles;
- how likely respondents are to buy an electric vehicle in future; and
- perceptions of electric vehicle ownership.

4. Methodology

This wave of Living in Lancashire was sent to 3,361 members of the panel on 5 June. A reminder was sent on 24 June and the fieldwork ended on 10 July 2015.

The survey was conducted through a postal questionnaire and an online version of the same questionnaire. The postal questionnaire was sent to 2,260 members and the online questionnaire was emailed to 1,101 members.

In total, 1,999 questionnaires were returned, giving an overall response rate of 59%. A number of panel members returned the survey without completing it explaining that they felt it didn't apply to them because they felt they couldn't answer any of the questions in the section of the questionnaire about physical activity because of age or because of a disability – the topic may therefore have had a detrimental effect on the response rate and this should be taken into account when considering the findings.

The data set is weighted by age, ethnicity and district to reflect the Lancashire overall population, and figures are based on all respondents unless otherwise stated. The weighted responses have been scaled to match the effective response of 1,195, which is the equivalent size of the data if it had not been weighted and was a perfect random sample.

4.1. Limitations

The table below shows the sample tolerances that apply to the results in this survey. Sampling tolerances vary with the size of the sample as well as the percentage results.

Number of respondents	50/50 + / -	30/70 + / -	10/90 + / -
100	10%	9%	6%
200	7%	6%	4%
500	4%	4%	3%
1,000	3%	3%	2%
2,000	2%	2%	1%

On a question where 50% of the people in a sample of 2,000 respond with a particular answer, the chances are 95 out of 100 that the answer would be between 48% and 52% (ie +/- 2%), versus a complete coverage of the entire Lancashire population using the same procedure.

The following table shows what the percentage differences between two samples on a statistic must be greater than, to be statistically significant.

Size of sample A	Size of sample B	50/50 + / -	30/70 + / -	10/90 + / -
100	100	14%	13%	8%
100	200	12%	11%	7%
500	2,000	5%	4%	3%
2,000	2,000	3%	3%	2%

(Confidence interval at 95% certainty for a comparison of two samples)

For example, where the size of sample A and sample B is 2,000 responses in each and the percentage result in each group you are comparing is around 50% in each category, the difference in the results needs to be more than 3% to be statistically significant. This is to say that the difference in the results of the two groups of people is not due to chance alone and is a statistically valid difference (eg of opinion, service usage).

For each question in the survey, comparisons have been made between different sub-groups of respondents (eg age, gender, disability, ethnicity, geographic area) to look for statistically significant differences in opinion. Statistically valid differences between sub-groups are described in the main body of the report.

In charts or tables where responses do not add up to 100%, this is due to multiple responses or computer rounding.

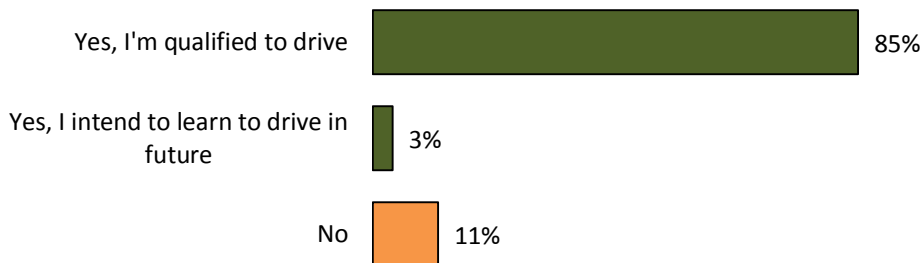
5. Main research findings

This wave of Living in Lancashire asked respondents a number of questions about electric vehicles. Electric vehicles were defined as a car/van that solely uses electric motors (ie not a hybrid engine).

First, respondents were asked if they are qualified, or intend to learn, to drive.

Around nine out of ten respondents (88%) are qualified to drive or intend to learn to drive in future.

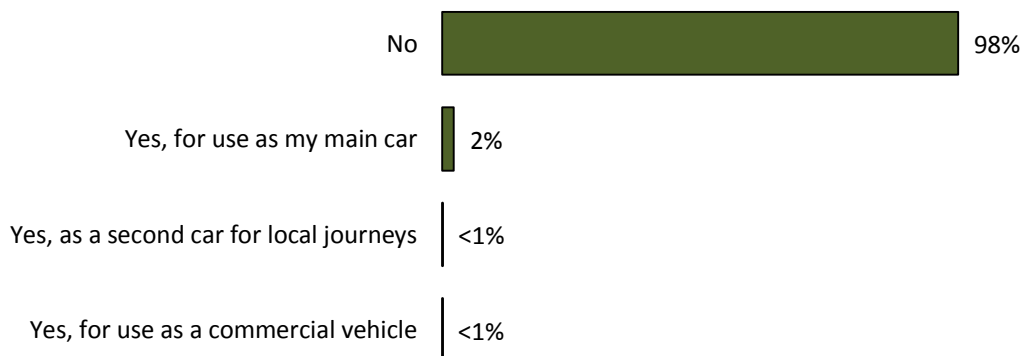
Chart 1 - Are you qualified to drive or do you intend to learn to drive in future?



Base: all respondents (unweighted 1,945, weighted 1,239)

Respondents who are qualified to drive were then asked if they own an electric vehicle. Nearly all of these respondents (98%) say that they don't own an electric vehicle.

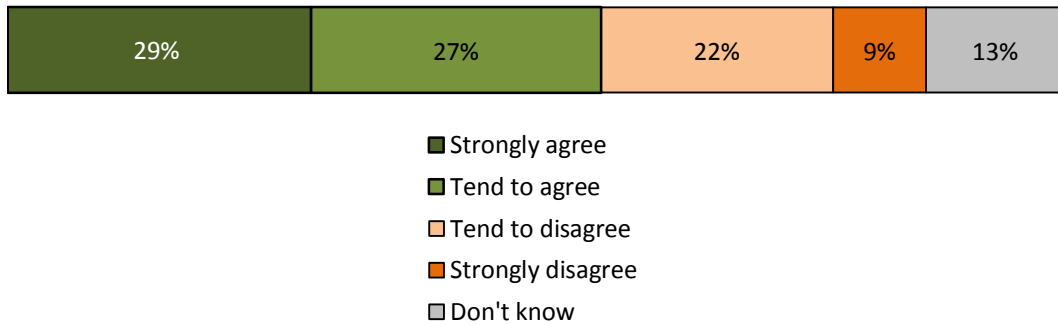
Chart 2 - Do you own an electric vehicle?



Base: respondents who are qualified to drive (unweighted 1,641, weighted 1,048)

Over half of respondents who are qualified to drive or intend to learn (56%) agree that they don't really know anything about electric vehicles.

Chart 3 - How strongly do you agree or disagree with the following statement? I don't really know anything about electric vehicles



Base: respondents who are qualified to drive or intend to learn to drive (unweighted 1652, weighted 1,071)

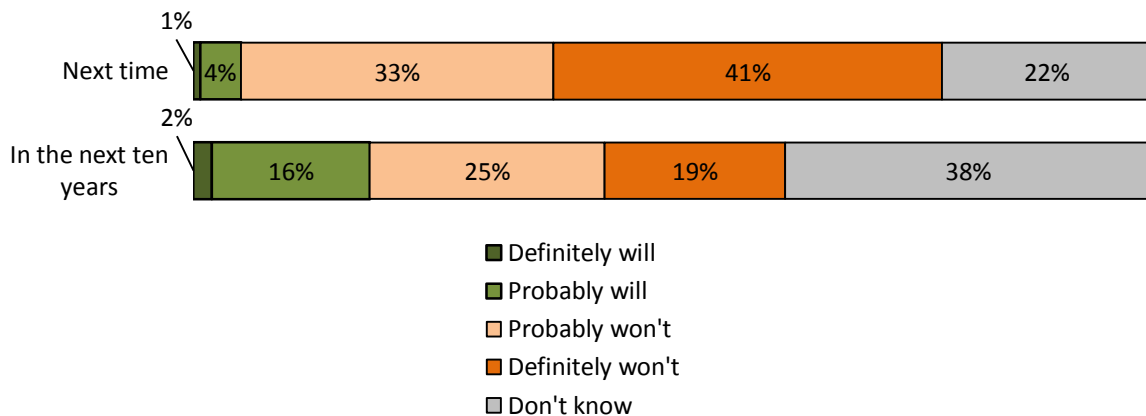
Female respondents are more likely to agree that they don't really know anything about electric vehicles (64%).

Respondents who are qualified to drive or intend to learn to drive were then asked how likely it is that they will buy an electric vehicle the next time they buy a vehicle, and in the next ten years.

The majority of these respondents say that it is likely that they won't get an electric vehicle next time they buy a vehicle: around two-fifths (41%) say they definitely won't get an electric vehicle and a third (33%) say they probably won't buy one next time they buy a vehicle. However, one in twenty respondents (5%) say that it is likely that they will buy an electric vehicle next time they buy a vehicle. With around a fifth of respondents (22%) saying that they don't know how likely it is that they will buy an electric vehicle the next time they buy a vehicle.

A larger proportion of respondents who are qualified to drive or intend to learn to drive say they are likely to buy an electric vehicle in the next ten years. Around a fifth of these respondents (18%) say they likely will buy an electric vehicle in the next ten years and around two-fifths (38%) say that they don't know how likely it is that they will buy an electric vehicle in the next ten years. Around two-fifths (43%) say it's likely that they won't buy an electric vehicle in the next ten years.

Chart 4 - How likely is it that you will buy an electric vehicle ... ?



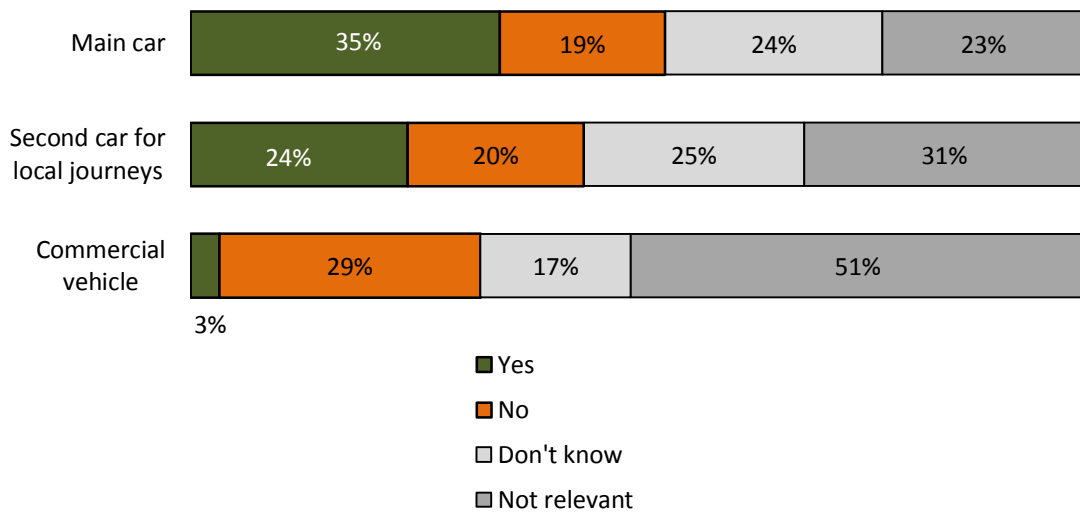
Base: respondents who are qualified to drive or intend to learn to drive (unweighted 1,624, weighted 1,064)

Respondents who say they are informed about electric vehicles are more likely to say they will buy one the next time they buy a vehicle (19% of respondents who strongly disagree that they don't know anything about electric vehicles say they definitely or probably will buy one next time they buy a vehicle), and are more likely to say they will buy one in the next ten years (36% of these respondents will likely buy one in the next ten years).

Respondents who are qualified to drive or intend to learn were then asked what they would use it for, if they were to buy an electric vehicle.

Around a third of respondents (35%) say they would buy one to use as their main car. Around a quarter of respondents (24%) say they would buy one to use as a second car for local journeys.

Chart 5 - If you would buy an electric vehicle, would you buy one for use as a...?



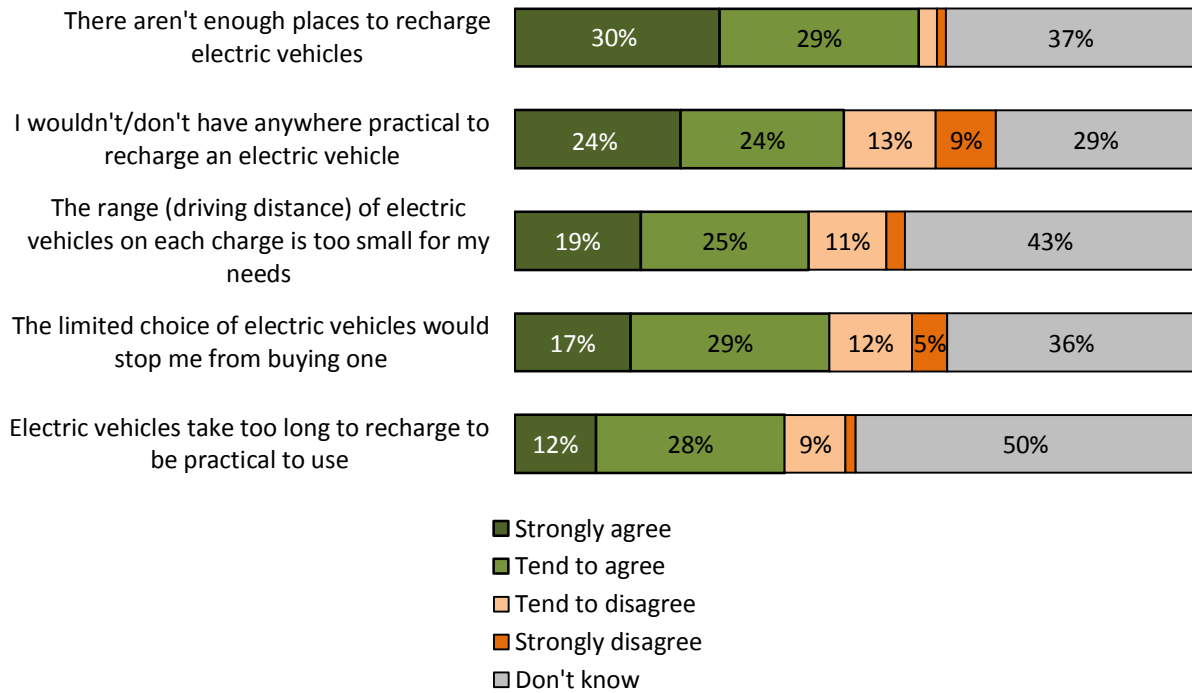
Base: respondents who are qualified to drive or intend to learn to drive (unweighted 1,518-1,156, weighted 1,003-796)

Respondents who are qualified to drive or intend to learn were then asked how strongly they agree or disagree with several statements about electric vehicles. Some of the statements were phrased so they were negative about electric vehicles and some of the statements were phrased so they were positive about electric vehicles.

Around three-fifths of respondents (59%) agree that there aren't enough places to recharge electric vehicles and around half (48%) agree that they wouldn't/don't have anywhere practical to recharge an electric vehicle.

For each statement a large proportion of respondents say they don't know. For example, half of respondents (50%) say they don't know if electric vehicles take too long to recharge to be practical to use.

Chart 6 - How strongly do you agree or disagree with the following statements?



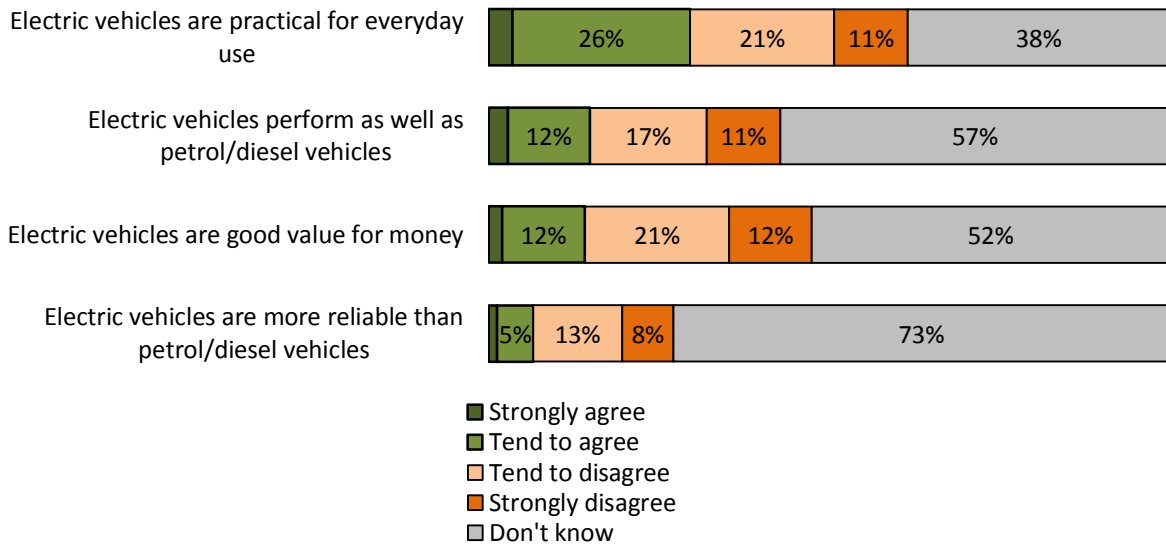
Base: respondents who are qualified to drive or intend to learn (unweighted 1,620-1,606, weighted 1,064-1,056)

Male respondents are more likely to say that the range of electric vehicles on each charge is too small for their needs (59%).

Respondents who say they are informed about electric vehicles are more likely to say there aren't enough places to recharge electric vehicles (82% of respondents who disagree that they don't really know anything about electric vehicles agree that there aren't enough places to recharge electric vehicles).

Three in ten respondents (30%) agree that electric vehicles are practical for everyday use. Again, for each statement a large proportion of respondents say they don't know.

Chart 7 - How strongly do you agree or disagree with the following statements?



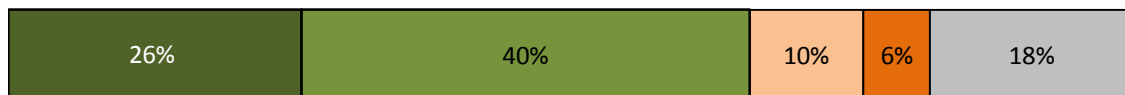
Base: respondents who are qualified to drive or intend to learn (unweighted 1,620-1,606, weighted 1,064-1,056)

Female respondents are more likely to say that they don't know if electric vehicles are good value for money (65%), if they are practical for everyday use (49%), or if electric vehicles perform as well as petrol/diesel vehicles (73%).

Respondents who say they are more informed about electric vehicles are split about whether or not they are practical for everyday use (47% of respondents who disagree that they don't really know anything about electric vehicles agree that they are practical for everyday use while 49% disagree).

Two-thirds of respondents who are qualified to drive or intend to drive (66%) agree that electric vehicles appeal to them because they are environmentally friendly.

Chart 8 - How strongly do you agree or disagree with the following statement? The fact that electric vehicles are environmentally friendly appeals to me



- Strongly agree
- Tend to agree
- Tend to disagree
- Strongly disagree
- Don't know

Base: respondents who are qualified to drive or intend to drive (unweighted 1,615, weighted 1,062)

6. Conclusions and recommendations

The findings from this research show that most respondents are not well informed about electric vehicles, with women being less likely to be informed about them.

It also found that more informed respondents are more likely to say that they will buy an electric vehicle in future. This suggests that being uninformed about electric vehicles is a potential barrier to intending to purchase one in future.

The findings also suggests that the lack of recharging points are an issue, especially for more informed respondents, as they are more likely to agree that there aren't enough recharging points for electric vehicles.

Future research could investigate if providing people with more/better information about electric vehicles would make them more likely to buy an electric vehicle in future, and if so what types of information would be most effective. Future research could also investigate if increasing the number of recharging points for electric vehicles would increase the number of people willing to purchase an electric vehicle.

Finally, it is recommended that the findings in this report are considered by transport planning and that they inform future work in Lancashire concerning electric vehicles.

7. Appendix 1: Socio-economic group definitions

These groups are based on Market Research Society definitions and on the respondent. They are graded as A, B, C1, C2, D and E.

Group A

- Professional people, very senior managers in business or commerce or top-level civil servants.
- Retired people, previously grade A, and their widows.

Group B

- Middle management executives in large organisations, with appropriate qualifications.
- Principal officers in local government and civil service.
- Top management or owners of small business concerns, educational and service establishments.
- Retired people, previously grade B, and their widows.

Group C1

- Junior management, owners of small establishments, and all others in non-manual positions.
- Jobs in this group have very varied responsibilities and educational requirements.
- Retired people, previously grade C1, and their widows.

Group C2

- All skilled manual workers, and those manual workers with responsibility for other people.
- Retired people, previously grade C2, with pensions from their job.
- Widows, if receiving pensions from their late partner's job.

Group D

- All semi-skilled and unskilled manual workers, and apprentices and trainees to skilled workers.
- Retired people, previously grade D, with pensions from their late job.
- Widows, if receiving pensions from their late partner's job.

Group E

- All those entirely dependent on the state long term, through sickness, unemployment, old age or other reasons.
- Those unemployed for a period exceeding six months (otherwise classified on previous occupation).
- Casual workers and those without a regular income.