Dadansoddi ar gyfer Polisi

YMCHWIL GYMDEITHASOL
Y LLYWODRAETH

GSR

GOVERNMENT SOCIAL RESEARCH

Analysis for Policy

Llywodraeth Cymru
Welsh Government

www.cymru.gov.uk

Ymchwil gymdeithasol
Social research

Number: 32/2014

National Survey for Wales, 2012-13
People's views about their local area

National Survey for Wales, 2012-13: People's views about their local area

Matt Barnes, Zsolt Kiss, Carl Cullinane, Alison Park

NatCen Social Research

For further information please contact:
Lisa Walters
Knowledge and Analytical Services
Welsh Government
Cathays Park
Cardiff
CF10 3NQ
Tel: 029 2082 6685
Email: lisa.walters@wales.gsi.gov.uk

Welsh Government Social Research, 23 May 2014
ISBN 978-1-4734-1389-4

Table of contents

Acknowledgements

This report was commissioned by the Knowledge and Analytical Services division within the Welsh Government. The report has benefitted greatly from the support and guidance provided by Lisa Walters, Siobhan Evans and Chris McGowan. The authors are also grateful for comments provided by others at the Welsh Government.

At NatCen Social Research, Jenny Chanfreau recoded the raw data, David Hussey and Kevin Pickering provided further statistical advice. Sam Clemens commented on the final report and Sean Willmott designed the graphics.

Executive summary

Introduction

An important dimension of happiness is the nature of the community people live in. Understanding how people feel about their local area - how safe they feel and levels of belonging – helps provide an insight into people's wellbeing. Positive feelings of community can also facilitate mutual aid and support between people, including mechanisms to reduce crime such as neighbourhood watch schemes.

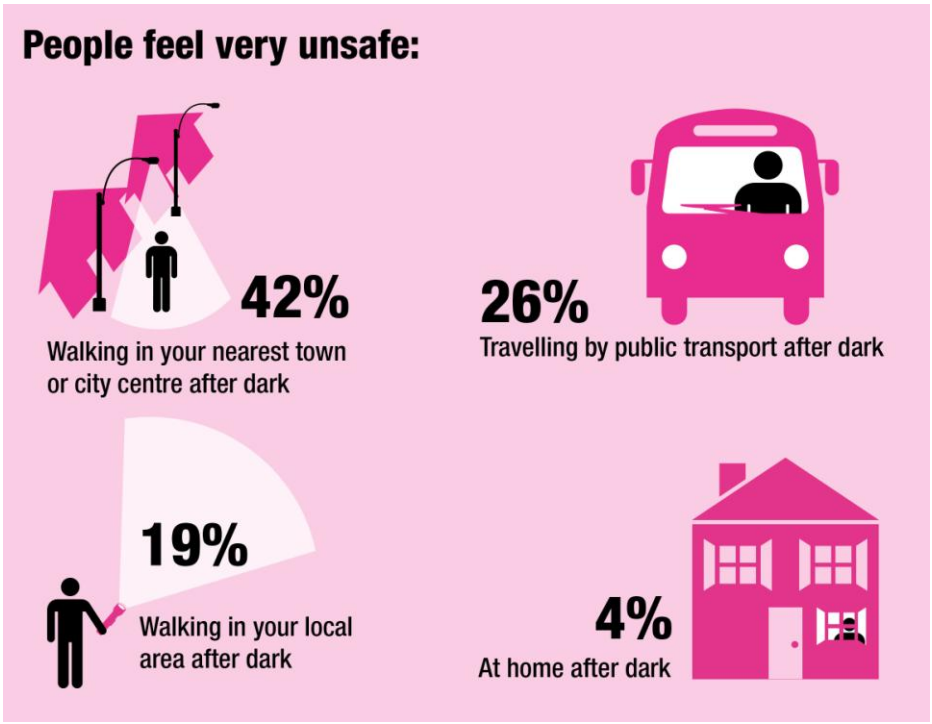
Methods

The main aim of this report is to explore which factors best explain how people feel about their local area. It uses analysis of results from the 2012-13 National Survey for Wales. The survey asks people how safe they feel and levels of belonging, as well as demographic, health and attitudinal information.

A key aim of the analysis is to identify predictors of how people feel about their local area. It is important to qualify that this analysis does not explicitly identify causality and that these associations could operate in either direction, for example feelings of safety in the local area could drive how safe people feel at home, or vice-versa – and some associations could in fact be caused by a third unobserved factor.

Key findings

The overall picture, as reported in May 2013, is that the majority of people feel safe in the different situations asked about. However, feelings of safety and belonging vary according to where people live, their attitudes and their characteristics.



Feelings of safety and belonging were often linked to factors found at a geographical level, for example people in more urban areas were generally more likely to feel unsafe and to feel that they did not belong to the local area. Those most likely to feel unsafe were females, those living in an area with no violent crime[1], older people, those living in an area with a high number of burglaries and those who feel the area is not safe for children to play outside.

However levels of feeling unsafe and the factors that predict this did vary according to context. For example, people were most likely to feel unsafe when walking in the nearest town or city after dark, and this tended to be females, older people and those with negative views of the area. People were much less likely to feel unsafe at home, but those who did were more likely to have poor health and to be younger. Feeling dissatisfied with the local area was an important predictor of feeling unsafe in a variety of situations, suggesting that the psychology of feeling unsafe is a key predictor.

[1] This finding is counter-intuitive and worthy of further investigation. However, such investigations are beyond the scope of this report.

Again, people in urban areas were most likely to feel that they did not belong to the local area. The strongest predictor of lacking a sense of belonging was feeling very dissatisfied with the local area. Lacking feelings of neighbourliness was another strong predictor of a person feeling that they did not belong to an area.

These findings are relevant to a number of policy areas. The Welsh Government is committed to creating safer communities through reductions in anti-social behaviour and crime, including the fear of crime. People's perceptions of safety are linked to their views of the local area, so as well as reducing crime and anti-social behaviour, improving people's views about their area is likely to help make people feel safer. Having more cohesive communities is also linked to perceptions of safety, so policies that encourage communities to come together and get to know each other are also likely to increase feelings of safety, and belonging.

This report provides information that may prove to be useful in the planning of community support services, including the emergency services and those who ensure safety on public transport. This report may also provide information that may be useful the Welsh Government's Tackling Poverty Action Plan, Communities First Agenda, Resilient Communities, Welfare Reform Agenda, and Children's Rights Agenda. It may also be of interest to local authorities and the Police.

1. Introduction

Understanding how people feel about their local area - how safe they feel and levels of belonging - is important for a number of reasons. It is linked to well-being, with an important dimension of happiness being the nature of the community people live in (Layard, 2005). Indeed, recent analysis of the National Survey for Wales found a link between well being and people's perceptions of social cohesion and feelings of safety in Wales (Chanfreau at al, 2014[2]).

Positive feelings about the community can also facilitate mutual aid and support between people. For example, people who feel a strong connection with their local area often set up informal mechanisms to reduce crime, such as neighbourhood watch schemes. Looking out for other people and generally engaging with others in your area can increase levels of social capital - and much research has shown this to be positive for people's life chances (Putnam, 1995). Fear of crime impacts on levels of neighbourliness, with people less likely to trust each other and feeling wary of leaving their homes to engage with others.

One of the Welsh Government's sources of information on this topic is the National Survey for Wales.

1.1 About the National Survey for Wales

The Welsh Government is committed to making sure its decisions and actions take into account the views of people in Wales. The National Survey for Wales is a key source of robust information on people's views about a wide range of issues. The survey covers topics such as local area and safety, public services (e.g. health, education, and transport), and wellbeing.

The survey involves annual face-to-face interviews with a representative sample of 14,500 people aged 16 and over across Wales (around 600 in each of the 22 local authorities). It has run continuously from January 2012, and the first full results (based on interviews carried out between April 2012 and March 2013) were published in May 2013.

The aims of the survey are to help the Welsh Government to:

- monitor trends in the concerns and needs of people in Wales;
- assess views and experiences of public services;
- identify areas or groups that would benefit from extra support; and
- make decisions and target resources based on sound evidence.

1.2 Aims of this report

This report goes beyond descriptive statistics to explore in more detail what factors affect feelings of safety and belonging in Wales. The analysis used in

[2] Chanfreau, J., Cullinane, C., Calcutt, E., and McManus, S. (2014) *Wellbeing in Wales: Secondary analysis of the National Survey for Wales 2012-13*, Cardiff: Welsh Government

this report makes full use of the richness of the results from the National Survey to test which factors explain why people feel unsafe or do not feel they belong to their local area.

The analysis controls for differences in the characteristics of respondents (such as age, health and employment status) and their local area (e.g. whether it is urban or rural, and the level of deprivation). This is a powerful technique which allows us to look at the separate effect of each factor on the results, while taking account of other factors that may affect the results.[3]

The factors we looked at were[4]:

- **Personal characteristics**: age; gender; education; religion; marital status; health of respondent; when they worked last; keeping up with bills[5], ACORN[6]; well-being; ethnic identity (Welsh language speaker; country of birth)

- **Household characteristics**: number of adults and children living in the household; tenure; type of dwelling

- **Area characteristics**: interviewer's assessment of safety in the area[7]; urban / rural; WIMD community safety score; WIMD deprivation score

- **Access**: ease of getting to a hospital; use of a car

- **Household safety**: security feature at entrance of house/flat; presence of deliberate damage to property; presence of smoke alarm in house; internet access

- **Safety**: harassment; levels of burglary and violent crime

- **Respondent's connection with local area**: belonging; neighbourliness; area maintenance; area diversity; whether they think people treat each other with respect

Understanding which factors predict people's feelings about their local area is very useful in generating information that the Welsh Government could use to modify policy and potentially increase levels of safety and a sense of belonging. For example, the analysis will show how levels of belonging vary between local areas and subgroups of the population, such as ethnic groups and people of different ages. This can help to determine the types of people

[3] However, it does not allow us to conclude that a particular variable definitely 'causes' differences in results between different groups.
[4] Not all factors were tested in each model as some were assumed to have no theoretical connection to the safety or belonging measure. A list of all the specific variables included in all models will be made available in the methodological appendix.
[5] Keeping up bill and credit cards payments was used as a proxy for income given that income was not measured in the 2012-13 NSW.
[6] ACORN stands for 'A Classification of Residential Neighbourhoods'
[7] A small number of variables we propose to include as explanatory variables are based on interviewer responses and assessments.

who may benefit from targeted policies to increase safety and community integration.

1.3 The local area: measurement

The National Survey measures how people view their local area in terms of how safe they feel and their levels of belonging. It uses the questions:

"*How safe or unsafe would you feel if you were in the following situations?*"
i) At home after dark
ii) Walking in your local area after dark
iii) Walking in your nearest town or city centre after dark
iv) Travelling by public transport after dark"

With the following answer options:
- Very safe
- Fairly safe
- Fairly unsafe
- Very unsafe
- Don't know/No opinion

"*I'm now going to ask you how you feel about your local area. When answering, please consider your local area to be the area within 15-20 minutes walking distance from your home. To what extent would you agree or disagree that you belong to your local area*?"

With the following answer options:
- Strongly agree
- Tend to agree
- Neither agree nor disagree
- Tend to disagree
- Strongly disagree

Headline results from the National Survey, released in May 2013 showed that:
- 81% of people said they felt safe walking in their local area after dark.
- People living in the most deprived areas were more likely than people living in the least deprived areas to feel unsafe after dark.
- 67% of people living in the most deprived areas felt safe walking in their local area after dark, compared with 87% of people living in the least deprived areas.
- 65% of women felt safe on public transport after dark, compared with 84% of men.
- Older people also felt less safe on public transport after dark than younger people. 83% of 16-24 year olds felt safe on public transport after dark compared with 63% of people over 75[8].

[8] National Survey for Wales: Headline results, April 2012– March 2013

2 Feelings of safety in different situations (a composite measure of safety)

This section combines feelings of safety across the four situations asked about to create a general measure of safety. It uses all four of the questions in the survey that asked people how safe they felt in a range of situations.

"How safe or unsafe would you feel if you were in the following situations?"
i) At home after dark
ii) Walking in your local area after dark
iii) Walking in your nearest town or city centre after dark
iv) Travelling by public transport after dark"

With the following answer options:
- Very safe
- Fairly safe
- Fairly unsafe
- Very unsafe
- Don't know/No opinion

Responses to the four questions were combined to form an index. The index created a safety score by adding together a person's responses to the four questions, where 'very safe' scored a 0 through to 'very unsafe' which scored 3. Hence a higher score on the index indicated greater levels of feeling unsafe - the index ranged from 0 (feel very safe in all four situations) to 12 (feel very unsafe in all four situations). This section explores this general measure of safety with a focus on people feeling unsafe.

2.1 The predictors of feeling unsafe

We carried out analysis to identify the predictors that explain the variation in people feeling unsafe. Given that the aim is to discover the predictors that are most important in explaining feeling unsafe, an analytical technique was used which highlighted those characteristics which have a statistically significant and independent relationship with feeling unsafe when other predictors were taken into account[9].

We found that there were a large number of predictors of feeling unsafe across the four situations. These were significant even when taking the other predictors into account. Predictors that suggest a person is more likely to feel unsafe are:

[9] However, as discussed in the Appendix 1, demographic variables were included in all regressions.

Individual characteristics:

- Feels anxious[10]
- Has low levels of life satisfaction
- Is religious[11]
- Has financial difficulties
- Is not in work
- Can not understand Welsh
- Lives in a detached house
- Has lower educational qualifications
- Has experienced discrimination
- Does not think people are treated with respect
- Is older
- Is female

Area characteristics

- Lives in an area with high number of burglaries
- Does not think the area is safe for children to play outside
- Does not trust people in the neighbourhood
- Is very dissatisfied with the local area[12]
- Thinks there is graffiti and vandalism in the local area
- Feels that they do not belong to the local area
- Lives in an urban area
- Lives in an area with no violent crimes[11]

Figure 2.1

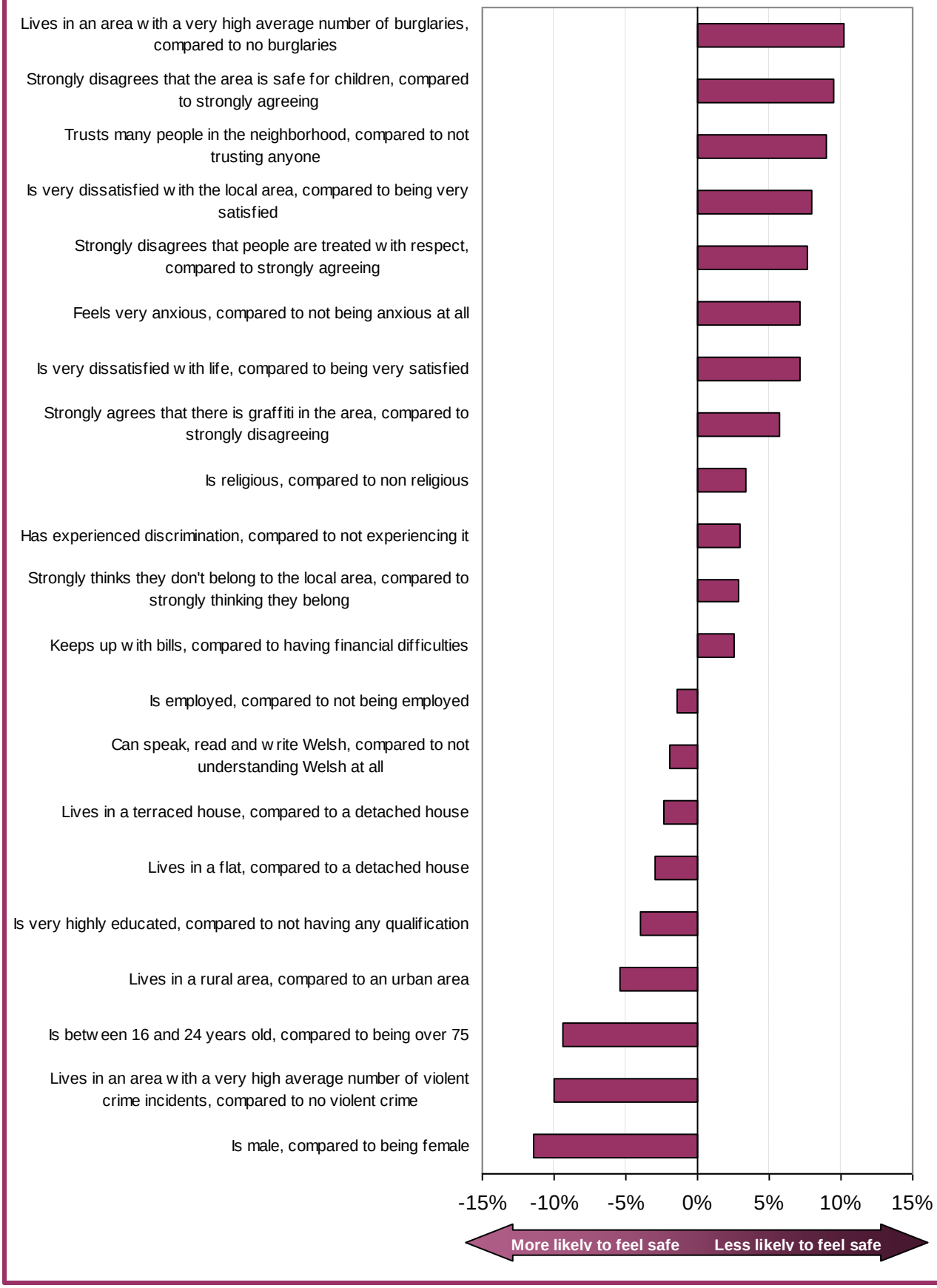
[10] From question Q16 “On a scale where nought is 'not at all anxious' and 10 is 'completely anxious', overall, how anxious did you feel yesterday?”
[11] From question Q99 “What is your religion?”, which differentiates any religion from ‘No religion’.
[12] From question Q17 “How satisfied are you with the area where you live?”, from 0 ‘Not at all satisfied’ to 10 ‘Completely satisfied’.

presents the results of the analysis graphically, indicating the change in likelihood of feeling unsafe for people with different predictors (for example, for females compared to males). The strongest predictors of feeling unsafe were being female, living in an area with no violent crime[13], being older, living in an area with a high number of burglaries and feeling the area is unsafe for children to play outside. People with these characteristics were around 10 percentage points more likely to feel unsafe than those with the opposite characteristic.

[13] This finding is counter-intuitive and worthy of further investigation. However, such investigations are beyond the scope of this report.

Figure 2.1: Drivers of *Feeling unsafe*

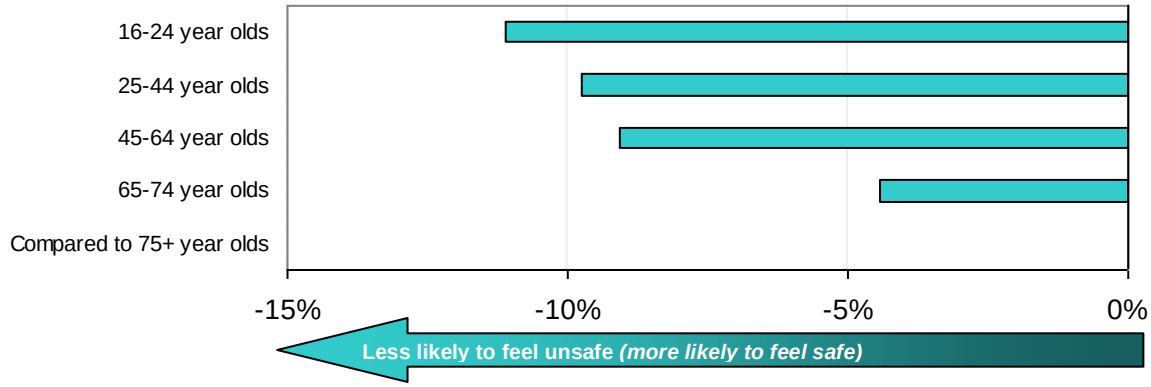
Change in the likelihood of feeling unsafe if a person:



Taking a closer look at the demographic characteristics linked to feeling unsafe, we can see that older people were the most likely to feel unsafe. Figure 2.2 shows the change in probability of feeling unsafe for people in each age category, compared to people aged 75 and older (while controlling for all the other predictors listed in Figure 2.1). This shows that 16-24 year olds were about 11 percentage points more likely to feel safe than people aged 75 and older. Likewise 25-44 and 45-64 year olds were about 9 percentage points more likely to feel safe at home compared to people aged 75 and older. People aged 65-74 were significantly more likely to feel safe than those over 75 years; but the percentage difference was only 4 percentage points.

Figure 2.2: The effect of age on feeling unsafe

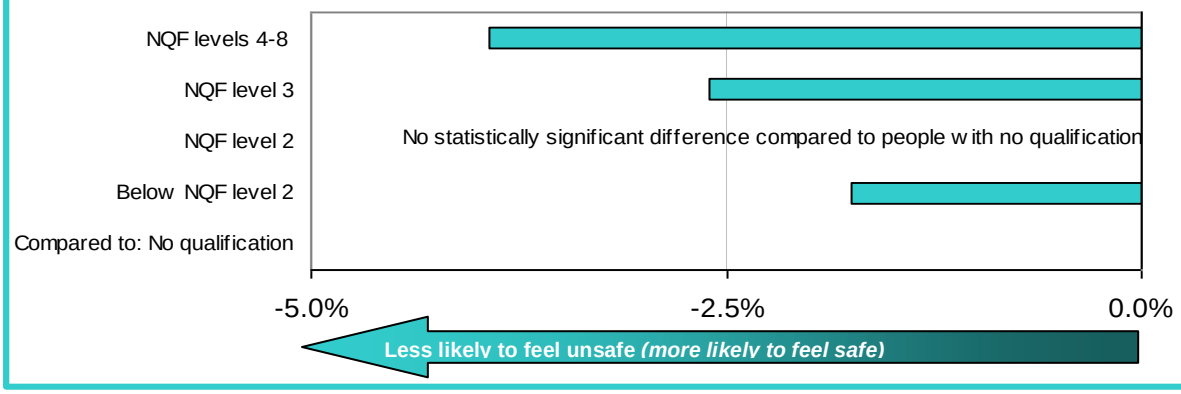
Change in the likelihood of feeling unsafe when compared to over 75s



People tended to feel less safe if they had lower qualifications or no qualifications. The percentage difference in feeling safe between those with qualifications and those without was not as great as the difference that age had on feeling safe. People with higher level educational qualifications (NQF Levels 4-8) were the most likely to feel safe, however the percentage difference between them and people with no qualifications was only around 4 percentage points.

Figure 2.3: The effect of education on feeling unsafe

Change in the likelihood of feeling unsafe when compared to people with no qualification



2.2 Conclusions

There are a large number of individual and area characteristics which contribute to how safe people feel in the four places asked about (at home, their local area, nearest town and on public transport). The strongest predictors of feeling unsafe in all four places were; being female, being older, living in an area with a high number of burglaries and feeling the area is not safe for children to play outside. People living in an area with high rates of violent crime were more likely to feel safe, which may be a reflection of greater awareness of crime prevention measures. However this finding is counter-intuitive and worthy of further investigation - but such investigations are beyond the scope of this report.

Clearly there are different ways to define feeling unsafe and the index used in this section sought to combine various different situations: feeling unsafe at home, in the local area, in the nearest town and on public transport. It is not necessarily the case that the same types of people feel unsafe in each of these four situations. Hence the following chapters explore each of the situations separately, beginning with feeling unsafe at home.

3. Feelings of safety at home after dark

The National Survey asked people how safe they felt at home after dark.

"*How safe or unsafe would you feel if you were in the following situations - At home after dark?*" - Very safe - Fairly safe - Fairly unsafe - Very unsafe - Don't know/No opinion

This section looks at those who said they felt fairly or very unsafe at home after dark (referred to simply as 'feel unsafe').

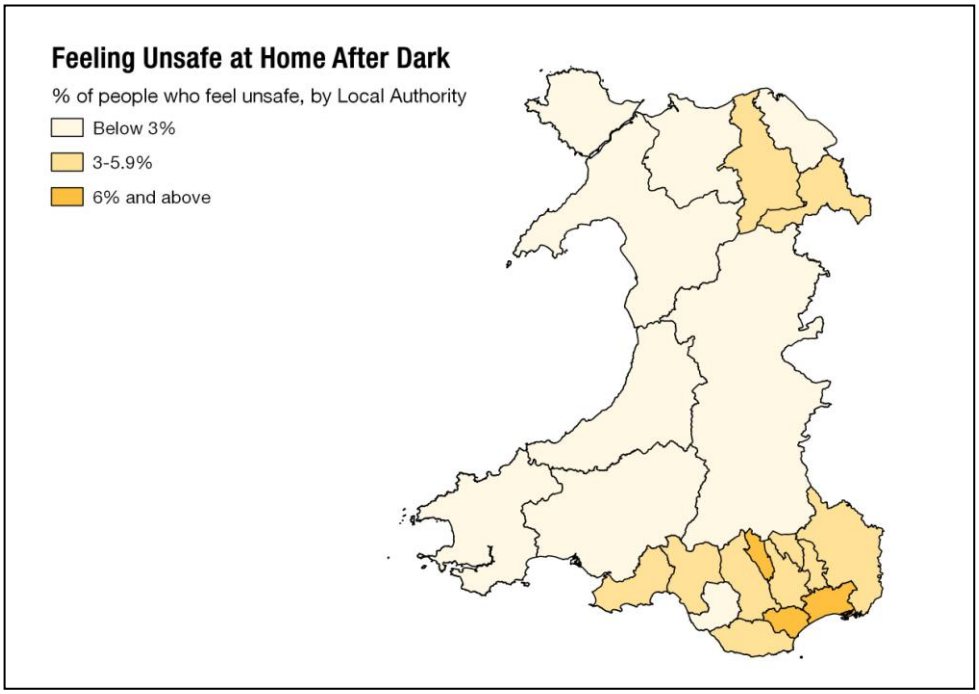
3.1 Geographical distribution

The vast majority of people (96%) felt safe at home after dark. Although only a minority (4%) felt unsafe at home after dark, rates did vary according to the local authority people live in. Rates of feeling unsafe at home after dark are *highest* in:

- Cardiff (8% feel unsafe)
- Newport (7%)
- Merthyr Tydfil (6%)

Rates of feeling unsafe at home after dark are *lowest* in:

- Isle of Anglesey (1% feel unsafe)
- Powys (1%)
- Pembrokeshire (2%)



3.2 The predictors of feeling unsafe at home

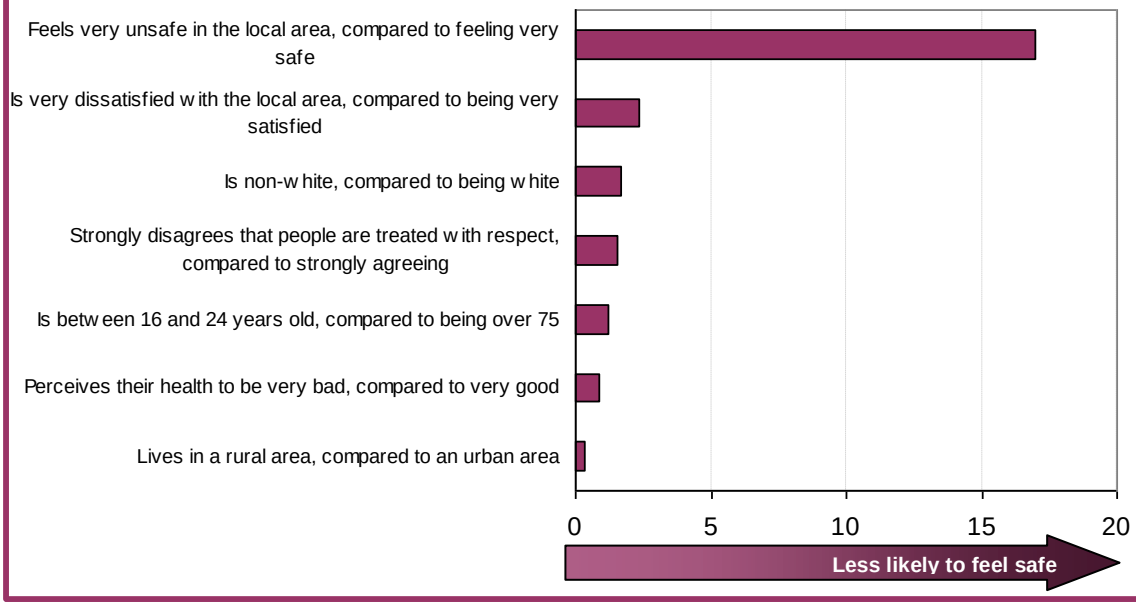
We carried out analysis to pinpoint the predictors of feeling unsafe at home. These relationships hold even after taking other factors into account. Predictors that suggest a person is likely to feel unsafe at home after dark are:

- Feeling unsafe in the local area
- Being dissatisfied with the local area
- Feeling people do not treat others with respect
- Having declining health
- Being younger
- Being non-white
- Living in an urban area

The strongest predictor of feeling unsafe at home was feeling unsafe in the local area. People who feel very unsafe in the local area were 17 percentage points more likely to feel unsafe at home compared to people who feel very safe in the local area. Feeling unsafe in the local area has an association with feeling unsafe at home which is 7 times larger than the next strongest association (satisfaction with the local area).

Figure 3.1: Drivers of *feeling unsafe at home after dark*

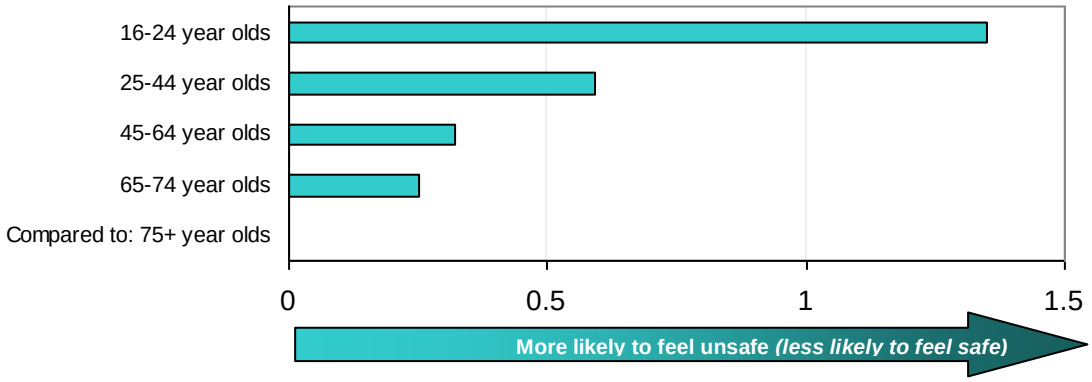
Percentage point change in the probability of feeling unsafe if a person:



Looking more closely at demographic characteristics shows that people were more likely to feel unsafe at home after dark the younger they were (compared to over 75s). The figure 3.2 shows the change in probability of feeling unsafe for people in each age category compared to people aged 75 and older (while controlling for all other predictors listed above). For example, 16-24 year olds were about 1.3 percentage points less likely to feel safe at home compared to people aged 75 and older. Likewise 25-44 year olds were about 0.6 percentage points less likely to feel safe at home compared to people aged 75 and older.

Figure 3.2: The effect of age on feeling unsafe at home after dark

The change in the probability of feeling unsafe when compared to over 75s



The analysis above focused separately on the relationship between each predictor and feeling unsafe (allowing for the influence of other predictors). People with more than one of these predictors will have an increased probability of feeling unsafe.

It is possible to predict how likely it is for people with particular characteristics to feel unsafe at home after dark. This is calculated using the predictors of feeling unsafe that were identified in figure 3.1. Overall, the probability of a typical, or average, person feeling unsafe at home after dark is 1%.

The probability of a typical person feeling unsafe at home after dark	**1%**

In table 3.1 we use demographic variables which were shown to be significant in the regression model to illustrate what the probabilities of feeling unsafe are for people with different socio-demographic characteristics. The table uses three key predictors: rurality, how safe they feel in local area and ethnicity [14]. These three characteristics were found to be the greatest predictors, among all socio-demographic characteristics, in the analysis reported above.

People's probability of feeling unsafe will vary according to which combination of key predictors they have. The analysis holds all other predictors constant, which allows for these combined probabilities to be compared. For example,

[14] For further information on the choice of variables please consult section A1.2 – *Effect sizes and presentation* in Appendix 1.

people who feel very unsafe in the local area and live in a rural area and are non-white have a 32% chance of feeling unsafe at home. Likewise, people who feel very unsafe in the local area and live in an urban area and are non-white had a 46% chance of feeling unsafe at home – their probability was higher because they had three characteristics, each of which have an independent association with an increased risk of feeling unsafe.

Table 3.1 The probability of feeling unsafe at home after dark for distinct groups of people

Societal characteristics			Probability of feeling unsafe at home
Safety in the local area	**Urban vs. Rural**	**Ethnicity**	
Very safe	Urban	White	0%
Very safe	Urban	Non-white	1%
Very safe	Rural	White	0%
Very safe	Rural	Non-white	0%
Fairly safe	Urban	White	1%
Fairly safe	Urban	Non-white	3%
Fairly safe	Rural	White	1%
Fairly safe	Rural	Non-white	2%
Fairly unsafe	Urban	White	5%
Fairly unsafe	Urban	Non-white	14%
Fairly unsafe	Rural	White	3%
Fairly unsafe	Rural	Non-white	9%
Very unsafe	Urban	White	20%
Very unsafe	Urban	Non-white	46%
Very unsafe	Rural	White	12%
Very unsafe	Rural	Non-white	32%

3.3 Conclusions

Although only a minority of people feel unsafe at home after dark, rates of feeling unsafe vary according to where people live, their attitudes and their socio-demographic characteristics. Living in an urban area is a predictor of feeling unsafe and consequently rates of feeling unsafe are highest in areas such as Cardiff and Newport.

The strongest predictor of feeling unsafe at home after dark is feeling very unsafe in the local area. Other predictors of feeling unsafe at home after dark include being dissatisfied with the local area, having declining health, being younger and being non-white. These latter predictors, which describe the socio-demographic characteristics of individuals, could be used to target safety policies. Hence people who have more than one of these predictors, such as younger, non-white people, have a higher probability of feeling unsafe at home than average and may warrant particular policy attention.

4 Feelings of safety in the local area after dark

The National Survey asked people how safe they felt walking in their local area after dark.

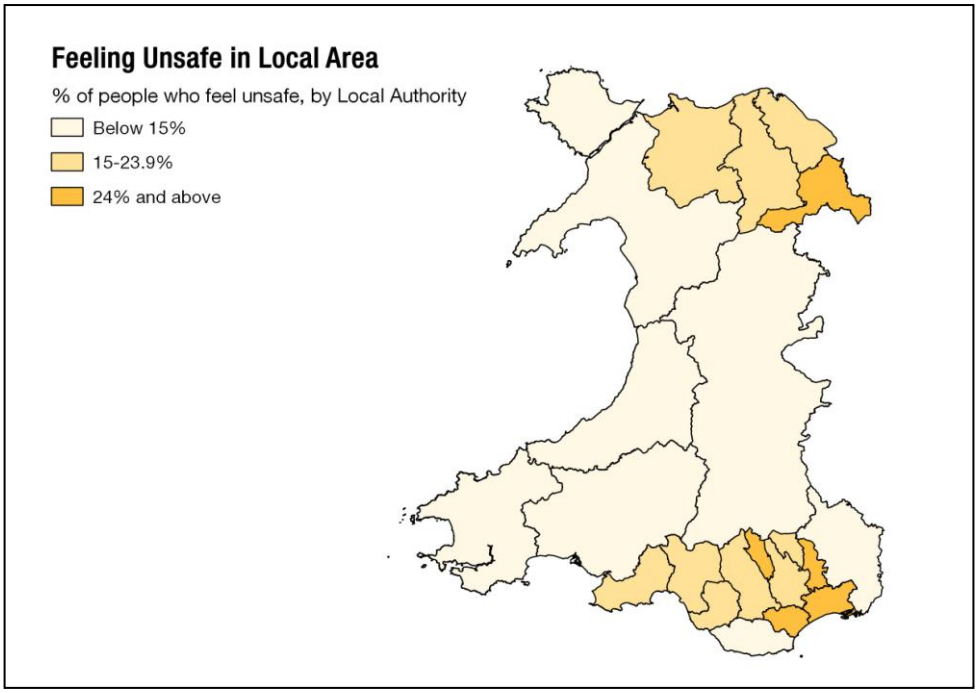
"*How safe or unsafe would you feel if you were in the following situations - Walking in your local area after dark?*"
- Very safe
- Fairly safe
- Fairly unsafe
- Very unsafe
- Don't know/No opinion

This section looks at those who said they felt fairly or very unsafe in their local area after dark (referred to simply as 'feel unsafe').

4.1 Geographical distribution

Rates of feeling unsafe in the local area after dark vary according to where people live. Rates of feeling unsafe in the local area after dark are *highest* in:
- Cardiff (27% feel unsafe)
- Wrexham (26%)
- Merthyr Tydfil (26%)
- Newport (25%)
- Torfaen (25%)

Rates of feeling unsafe in the local area after dark are *lowest* in:
- Ceredigion (11% feel unsafe)
- Gwynedd (11%)
- Pembrokeshire (12%)
- Isle of Anglesey (12%)



4.2 The predictors of feeling unsafe in the local area

There are a large number of predictors of feeling unsafe in the local area. These hold even after taking other factors into account. Predictors that suggest a person is likely to feel unsafe are:

Individual characteristics
- Feels anxious
- Does not understand Welsh
- Is not working
- Has lower educational qualifications
- Is older
- Is female
- Is religious

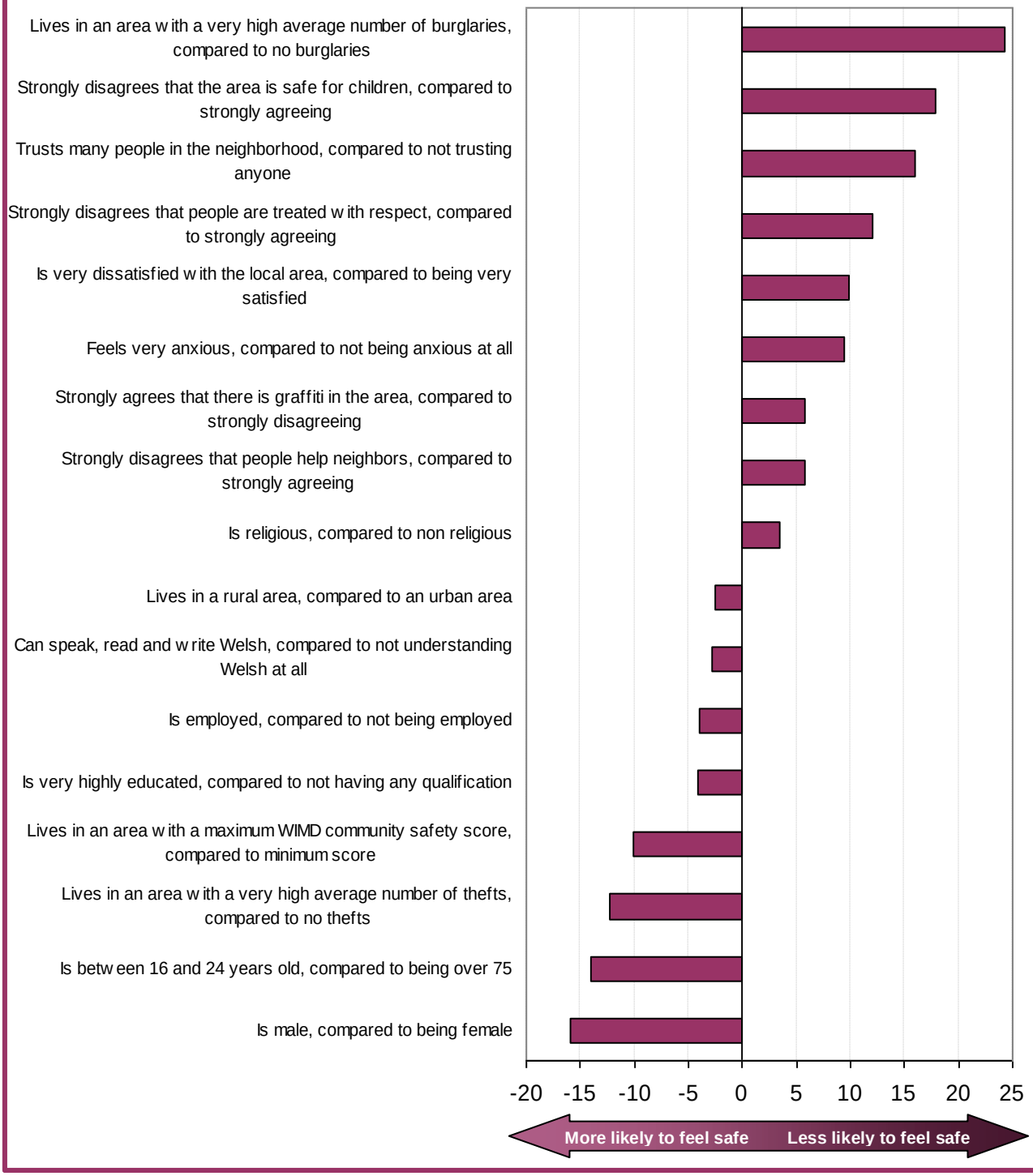
Area characteristics
- Area has high number of burglaries
- Feels area is not safe for children to play outside
- Neighbourhood trust is high
- Feels people do not treat others with respect
- Being dissatisfied with the local area
- Thinks there is graffiti and vandalism in the local area
- Feels people do not help their neighbours
- Lives in an urban area
- The area has a low community safety score
- The area has a low number of thefts

The strongest predictor of feeling unsafe in the local area was living in an area with a high number of burglaries. People living in an area with a high number of burglaries are 24 percentage points more likely to feel unsafe in the local area compared to people living in an area with no burglaries.

Other strong predictors of feeling unsafe in the local area are feeling the area is not safe for children to play outside, high neighbourhood trust and being female. Each has at least a 15 percentage point increase of feeling unsafe compared to the opposite characteristic (i.e. feeling the area is safe for children to play outside, low neighbourhood trust and being male respectively).

Figure 4.1: Drivers of *feeling unsafe walking in the local area after dark*

Percentage point change in the probability of feeling unsafe if a person:



We now consider in more detail two important socio-demographic characteristics that have been shown to have an association with feeling unsafe: age, and education level. Figure 4.2 shows that, people over 75 years were more likely to feel unsafe than younger people. People of working age (16-64 year olds) were the most likely to feel safe.

Figure 4.2: The effect of age on feeling unsafe in the local area after dark

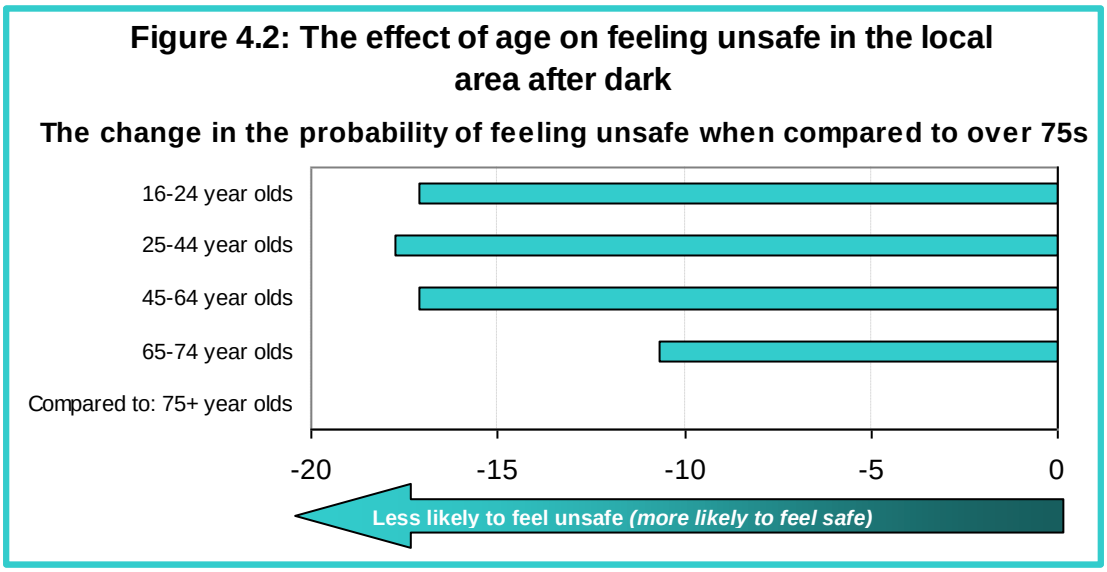
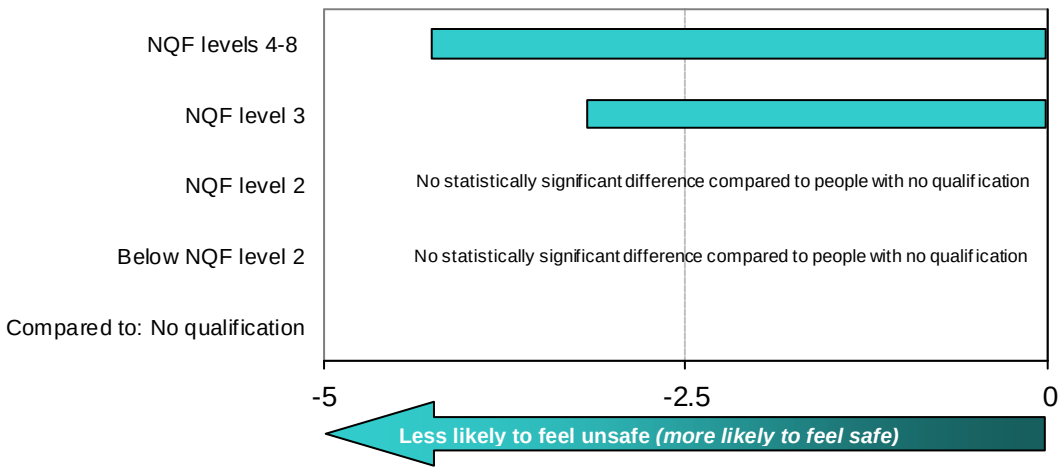


Figure 4.1 showed that people with higher level educational qualifications (NQF Level 4-8) were more likely to feel safe than people with no qualifications. Figure 4.3 below shows the association with education in more detail and shows that same was true for people with NQF level 3 education. There was no significant difference in feeling safe between those with NQF level 2 qualifications and lower and people with no qualifications.

Figure 4.3: The effect of education on feeling unsafe in the local area after dark



All of the significant factors were used to predict how likely it is for people with particular characteristics to feel unsafe walking in the local area after dark. Overall, the probability of a typical, or average, person feeling unsafe walking in the local area after dark is 21%.

The probability of a typical person feeling unsafe walking in the local area after dark	**21%**

Table 4.1 illustrates the predicted probabilities for people with certain combinations of three key socio-demographic characteristics[15] - religion, rurality and gender - and shows that there are groups of people who have a particularly high risk of feeling unsafe. The table shows how the probability of feeling unsafe varies depending on a person's combinations of these characteristics (and holding all other predictors constant). For example, a person who is not religious, lives in a rural area and is male has a 6% chance of feeling unsafe walking in the local area after dark. However, a person who is religious, lives in an urban area and is female sees a four-fold increase to 27%.

Table 4.1 The probability of feeling unsafe walking in the local area after dark for distinct groups of people

Societal characteristics			Probability of feeling unsafe in the local area
Religion	**Urban vs. Rural**	**Gender**	
Religious	Urban	Male	9%
Religious	Urban	Female	27%
Religious	Rural	Male	7%
Religious	Rural	Female	22%
Not religious	Urban	Male	7%
Not religious	Urban	Female	21%
Not religious	Rural	Male	6%
Not religious	Rural	Female	18%

[15] For further information on the choice of variables please consult section A1.2 – *Effect sizes and presentation* in Appendix 1.

4.3 Conclusions

As would be expected, more people feel unsafe walking in the local area after dark than feel unsafe at home after dark. Rates of feeling unsafe walking in the local area vary according to where people live, their attitudes and their socio-demographic characteristics. Living in an urban area is a predictor of feeling unsafe and consequently rates of feeling unsafe are highest in areas such as Cardiff, Wrexham, Merthyr Tydfil and Newport – where around one in four people feel unsafe[16].

There are a large number of predictors of feeling unsafe walking in the local area. The strongest predictor is living in an area with a high number of burglaries. Other strong predictors include feeling the area is not safe for children to play outside, high neighbourhood trust and being female. Hence people who have more than one of these predictors have a higher probability of feeling unsafe at home than average.

Therefore to help people feel safer in their local area, as well as reducing crime, the Welsh Government should try to improve people's perceptions of their local area and encourage communities to come together and get to know each other. In terms of targeting policies on people who are particularly likely to feel unsafe, older females seem an obvious group to target as both characteristics were strong predictors.

[16] Note that these figures compare to findings from the 2012-13 Scottish Crime and Justice Survey, where 72 per cent of those surveyed felt safe walking alone in their local area after dark (an increase from 66 per cent in 2008-09) [Scottish Government (2014) Results from the 2012/13 Scottish Crime and Justice Survey, Edinburgh: Scottish Government]. Likewise, 87% of males and 65% of females felt very of fairly safe walking alone after dark in England and Wales according to the 2011/12 Crime Survey for England and Wales [UK Parliament, 2013 - http://www.publications.parliament.uk/pa/cm201314/cmhansrd/cm130612/text/130612w0001.htm)

5 Feelings of safety walking in nearest town after dark

The National Survey asked people how safe they felt walking in their nearest town or city after dark.

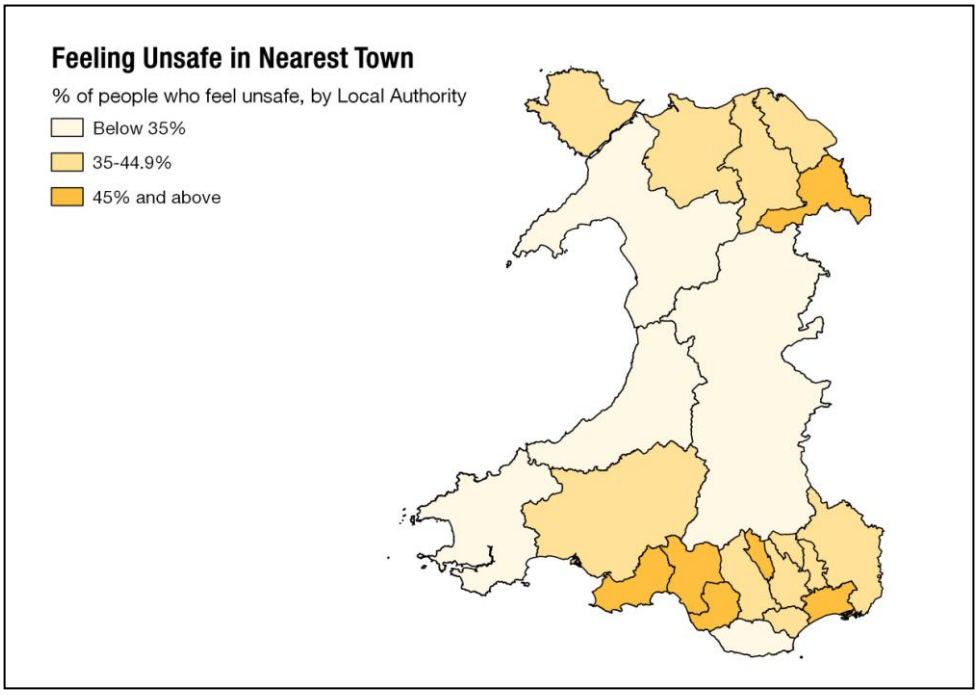
"*How safe or unsafe would you feel if you were in the following situations - Walking in your nearest town or city centre after dark?*"
- Very safe
- Fairly safe
- Fairly unsafe
- Very unsafe
- Don't know/No opinion

This section looks at those who said they felt fairly or very unsafe walking in their nearest town or city centre after dark (referred to simply as 'feel unsafe').

5.1 Geographical distribution

Rates of feeling unsafe in the nearest town or city after dark vary according to where people live. Rates of feeling unsafe in the nearest town or city after dark are *highest* in:
- Newport (67% feel unsafe)
- Bridgend (54%)
- Swansea (53%)

Rates of feeling unsafe in the walking in the nearest town or city after dark are *lowest* in:
- Ceredigion (17%)
- Powys (24%)
- Pembrokeshire (27%)



5.2 The predictors of feeling unsafe in nearest town or city

There are a large number of predictors of feeling unsafe in the nearest town or city after dark. These hold even after taking other factors into account. Predictors that suggest a person is likely to feel unsafe are:

Individual characteristics
- Feels anxious
- Has experienced discrimination
- Has low levels of life satisfaction
- Is religious
- Has Welsh national identity
- Is not working
- Has financial difficulties
- Is white
- Has lower educational qualifications
- Is female
- Is older

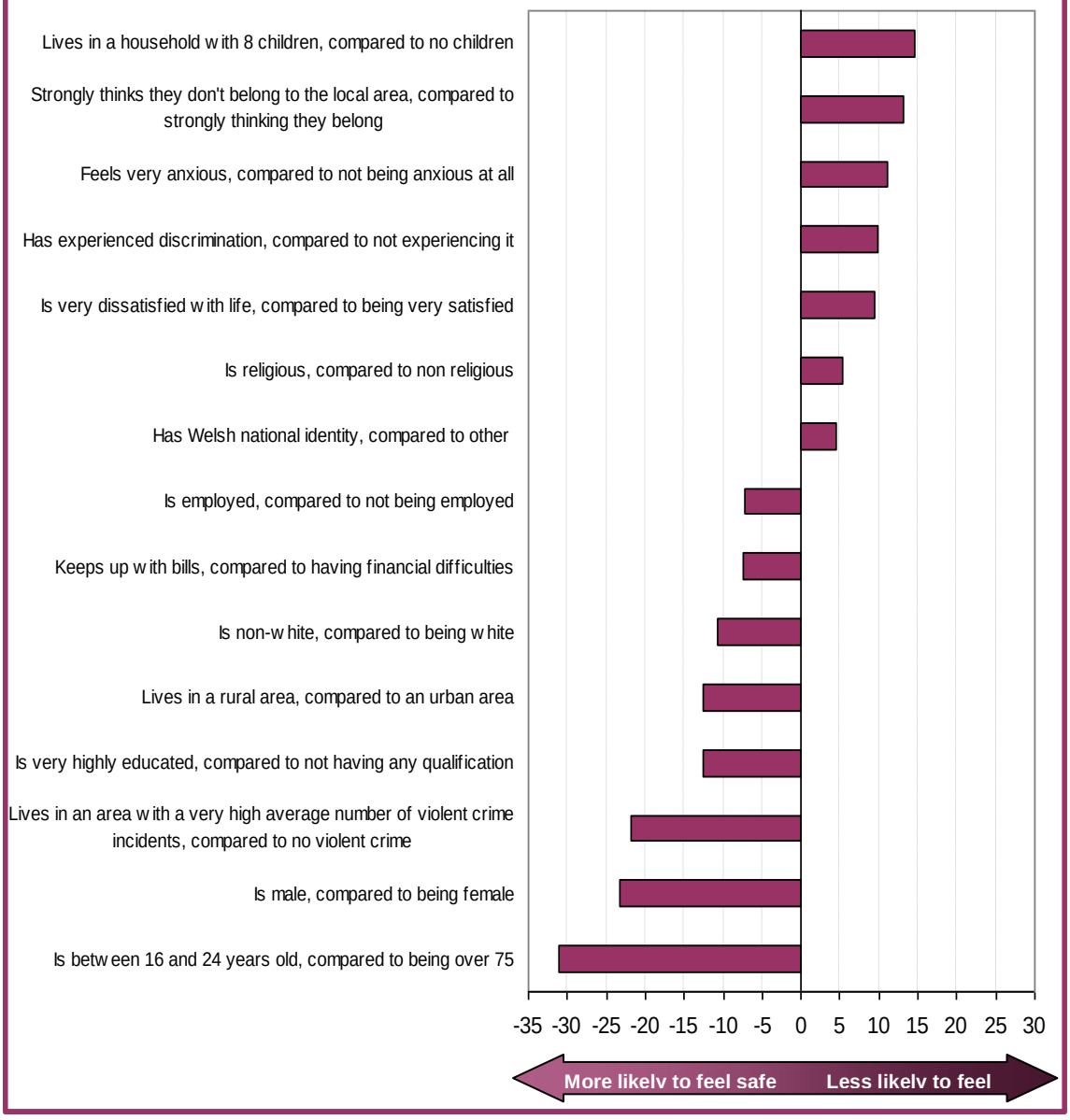
Area characteristics
- Feels that they do not belong to the local area
- Lives in an urban area
- Lives in an area with no violent crime

The strongest predictor of feeling unsafe in the nearest town or city after dark was being older. People aged over 75 were 31 percentage points more likely to feel unsafe than those aged 16-24.

Other strong predictors of feeling unsafe in the nearest town or city were being female and living in an area with no violent crime[17]. Each has at least a 20 percentage point increase of feeling unsafe compared to the opposite characteristic (i.e. living in an area with high violent crime and being male respectively).

[17] This finding is counter-intuitive and worthy of further investigation. However, such investigations are beyond the scope of this report.

Figure 5.1: Drivers of *feeling unsafe walking in a nearby town/city centre after dark*



We now consider in more detail two important socio-demographic characteristics that have been shown to have an association with feeling unsafe: age, and education level. Figure 5.2 shows that, people feel safer the younger they are, with people aged 16-24 the most likely to feel safe walking in a nearby town or city after dark. All age groups were more likely to feel safer than people aged over 75 years, although this difference reduced as people got older.

Figure 5.2: The effect of age on feeling unsafe in a nearby town/city centre after dark

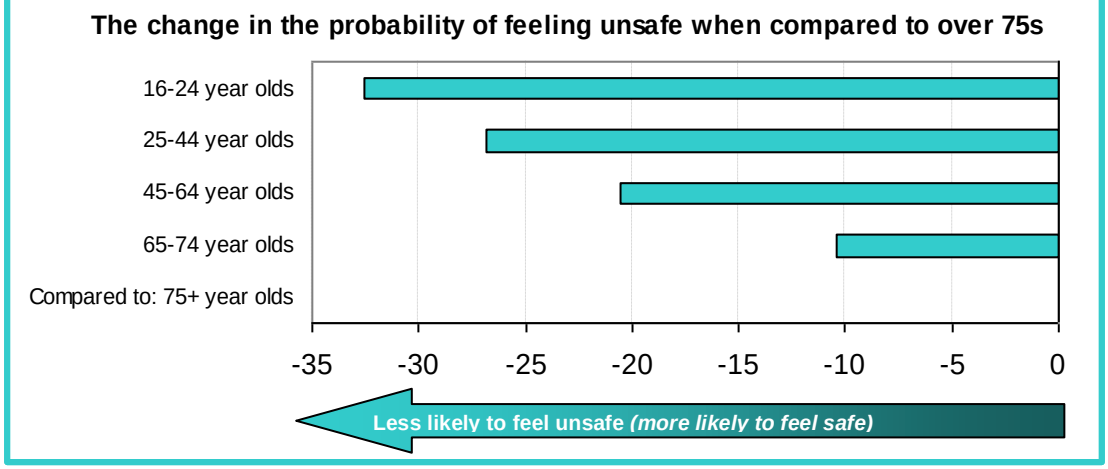
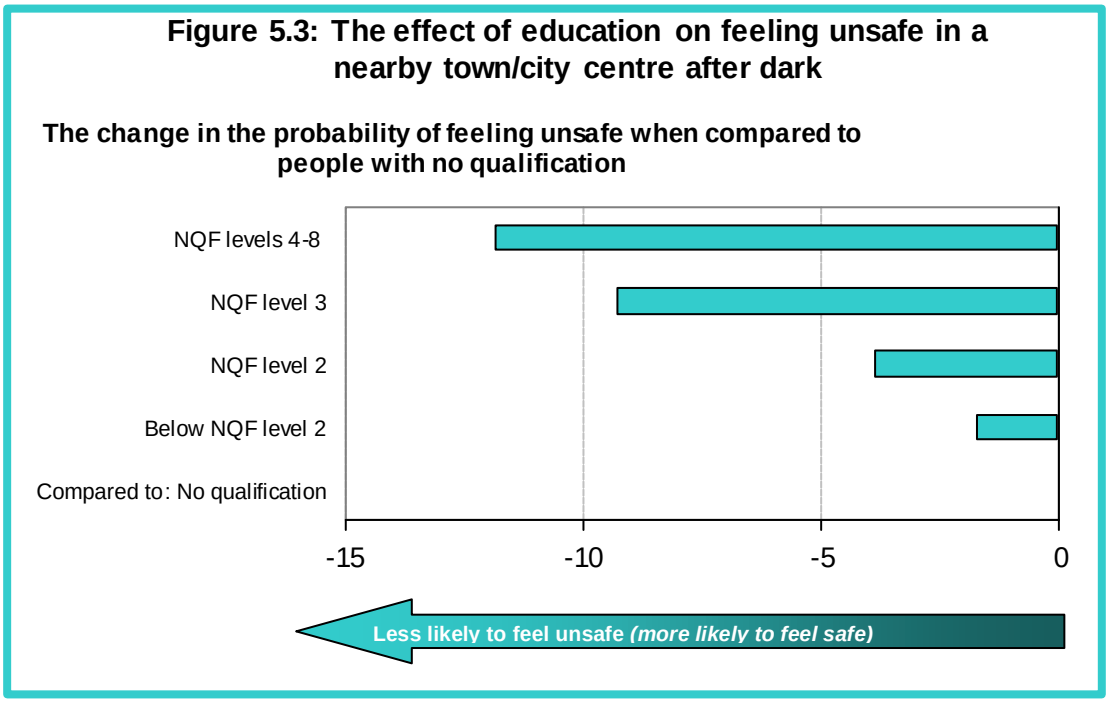


Figure 5.3 shows that a similar relationship existed when looking at qualifications. People with higher level educational qualifications (NQF Level 3 and higher) were the most likely to feel safe, when compared with people with no qualifications. All people with qualifications were more likely to feel safe than people with no qualifications, although this difference reduced as the qualification got lower.

Figure 5.3: The effect of education on feeling unsafe in a nearby town/city centre after dark



It is possible to predict how likely it is for people with particular characteristics to feel unsafe walking in the nearest town or city after dark. Overall, the probability of a typical, or average, person feeling unsafe walking in the nearest town or city after dark is 57%.

The probability of a typical person feeling unsafe walking in a nearby town/city centre after dark	57%

Three strong socio-demographic predictors of feeling unsafe are age, rurality and gender[18]. The table shows how the probability of feeling unsafe varies depending on a person's combinations of these characteristics (and holding all other predictors constant). For example, a male aged 16-24, who lives in a rural area, has a 14% chance of feeling unsafe when walking in the nearest town or city after dark. However, a woman aged 75 or over, who lives in an urban, area sees a five-fold increase to 73%.

Table 5.1 The probability of feeling unsafe walking in a nearby town/city centre after dark, for distinct groups of people

Societal characteristics			Probability of feeling unsafe in a nearby town/city
Age	**Urban vs. Rural**	**Gender**	
16-24	Urban	Male	22%
16-24	Urban	Female	43%
16-24	Rural	Male	14%
16-24	Rural	Female	31%
25-44	Urban	Male	28%
25-44	Urban	Female	51%
25-44	Rural	Male	19%
25-44	Rural	Female	38%
45-64	Urban	Male	35%
45-64	Urban	Female	59%
45-64	Rural	Male	24%
45-64	Rural	Female	46%
65-74	Urban	Male	43%
65-74	Urban	Female	66%
65-74	Rural	Male	31%
65-74	Rural	Female	54%
75+	Urban	Male	51%
75+	Urban	Female	73%
75+	Rural	Male	38%
75+	Rural	Female	62%

[18] For further information on the choice of variables please consult section A1.2 – *Effect sizes and presentation* in Appendix 1.

5.3 Conclusions

More people feel unsafe walking in the nearest town or city centre after dark than feel unsafe in their local area or at home after dark. Rates of feeling unsafe walking in the nearest town or city after dark vary according to where people live, their attitudes and their socio-demographic characteristics. Rates of feeling unsafe are highest in areas such as Newport, Bridgend, Swansea and Merthyr Tydfil – where over half of people feeling unsafe.

There are a large number of predictors of feeling unsafe walking in the nearest town or city after dark. The strongest predictor is age with older people (aged 75 and older) at highest risk of feeling unsafe. Other strong predictors include being female, having negative views of the area and having psychological barriers (low life satisfaction and high levels of anxiety). People who have more than one of these predictors, have an above average probability of feeling unsafe in their nearest town or city centre after dark.

6 Feelings of safety on public transport

The National Survey asked people how safe they felt travelling by public transport after dark.

"*How safe or unsafe would you feel if you were in the following situations - Travelling by public transport after dark*"*?*" - Very safe - Fairly safe - Fairly unsafe - Very unsafe - Don't know/No opinion

This section looks at those who said they felt fairly or very unsafe travelling by public transport after dark (referred to simply as 'feel unsafe').

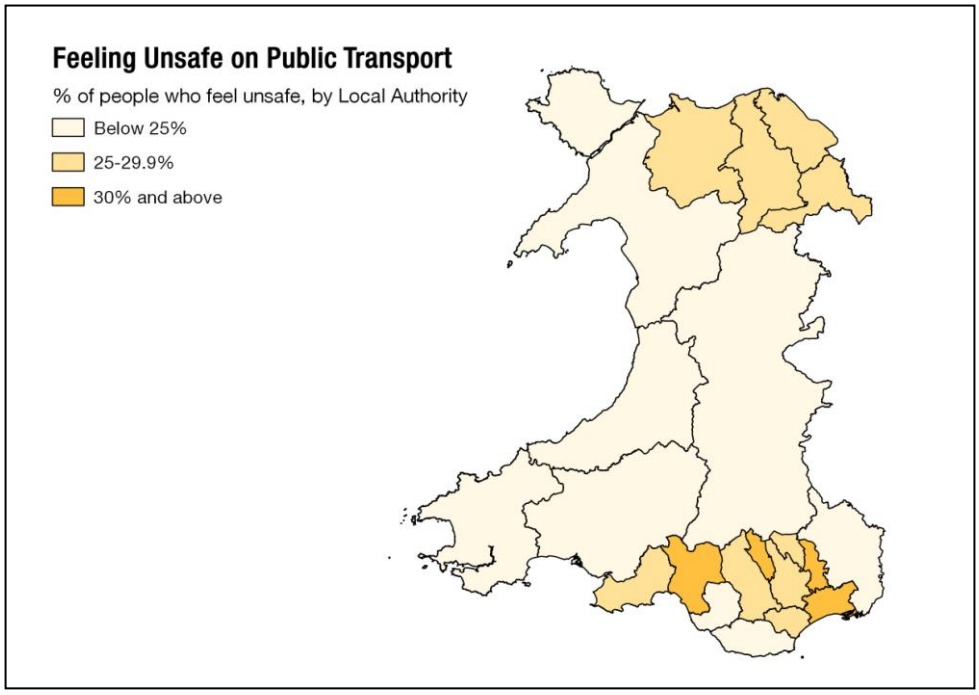
6.1 Geographical distribution

Rates of feeling unsafe travelling by public transport after dark varied according to where people live. Rates of feeling unsafe travelling by public transport after dark were *highest* in:

- Newport (37% feel unsafe)
- Torfaen (31%)
- Neath Port Talbot (31%)

Rates of feeling unsafe in the local area after dark were *lowest* in:

- Pembrokeshire (10%)
- Powys (13%)
- Ceredigion (16%)



6.2 The predictors of feeling unsafe while using public transport

There are a large number of predictors of feeling unsafe using public transport after dark. These hold even after taking other factors into account. Predictors that suggest a person is likely to feel unsafe are:

Individual characteristics
- Feels anxious
- Has low levels of life satisfaction
- Has experienced discrimination
- Uses a car
- Is religious
- Has lower educational qualifications
- Has financial difficulties
- Is female
- Is older

Area characteristics
- Lives in an area with high number of burglaries
- Feels that they do not belong to the local area
- Lives in an urban area

The strongest predictors of feeling unsafe using public transport after dark were living in an area with a high number of burglaries, being female and being older. People with these characteristics were around 20 percentage points more likely to feel unsafe using public transport than those with the opposite characteristic.

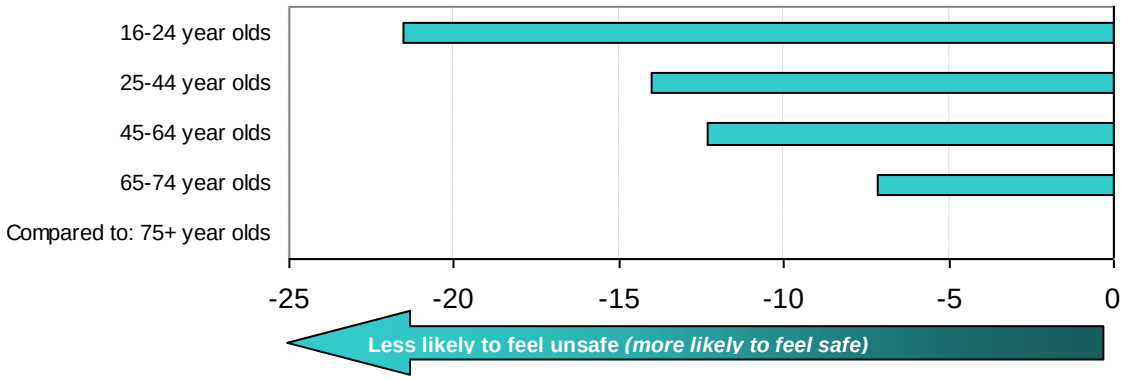
Other strong predictors of feeling unsafe using public transport were low satisfaction with life and lack of belonging to the area, feeling anxious, and living in an urban area.

Figure 6.1: Drivers of *feeling unsafe travelling by public transport after dark*

Once more we, take a closer look at two important socio-demographic characteristics that have been shown to have an association with feeling unsafe: age, and education level. Age is an important predictor of feeling unsafe travelling by public transport after dark. People aged over 75 years were more likely to feel unsafe than younger people. People felt safer the younger they were, with people aged 16-24 the most likely to feel safe.

Figure 6.2: The effect of age on feeling unsafe in public transport after dark

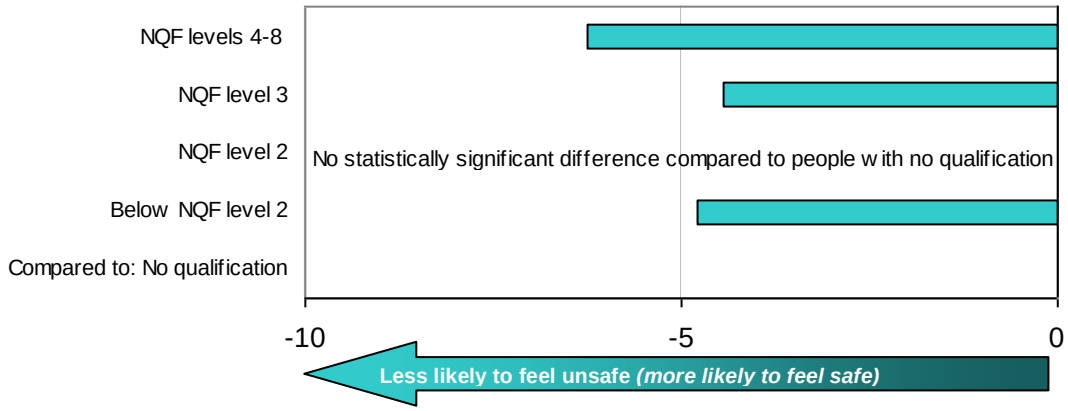
The change in the probability of feeling unsafe when compared to over 75s



Again, people with higher level educational qualifications (NQF Levels 4-8) were the most likely to feel safe compared with people with lower qualifications. Those with level 3 and those below level 2 qualifications were also more likely to feel safe than people with no qualifications.

Figure 6.3: The effect of education on feeling unsafe in public transport after dark

The change in the probability of feeling unsafe when compared to people with no qualification



Overall, the probability of a typical, or average, person feeling unsafe travelling by public transport after dark is 39%.

The probability of a typical person feeling unsafe travelling by public transport after dark	39%

The table below shows how the probability of feeling unsafe varies depending on the combination between three socio-demographic characteristics - age, rurality and gender[19]. It shows that certain combinations of key predictors have a particularly high risk of feeling unsafe using public transport after dark (holding all other predictors constant). For example, a person aged 16-24, who lives in a rural area and is male has a 7% chance of feeling unsafe travelling by public transport after dark. However, a person who is aged 75 or older, who lives in an urban area and is female sees a seven-fold increase to 52%.

Table 6.1 The probability of Feeling unsafe travelling by public transport after dark for distinct groups of people

Societal characteristics			Probability of feeling unsafe in a nearby town/city
Age	**Urban vs. Rural**	**Gender**	
16-24	Urban	Male	11%
16-24	Urban	Female	26%
16-24	Rural	Male	7%
16-24	Rural	Female	17%
25-44	Urban	Male	14%
25-44	Urban	Female	32%
25-44	Rural	Male	9%
25-44	Rural	Female	22%
45-64	Urban	Male	18%
45-64	Urban	Female	38%
45-64	Rural	Male	11%
45-64	Rural	Female	26%
65-74	Urban	Male	22%
65-74	Urban	Female	45%
65-74	Rural	Male	14%
65-74	Rural	Female	32%
75+	Urban	Male	27%
75+	Urban	Female	52%
75+	Rural	Male	18%
75+	Rural	Female	38%

[19] For further information on the choice of variables please consult section A1.2 – *Effect sizes and presentation* in Appendix 1.

6.3 Conclusions

On average, people are slightly more likely to feel unsafe travelling on public transport after dark than walking in their local area after dark, but less likely to feel unsafe on public transport than when they're walking in their nearest town or city after dark. Rates of feeling unsafe vary according to where people live, their attitudes and their socio-demographic characteristics. Rates of feeling unsafe are highest in Newport and then areas such as Neath Port Talbot and Torfaen.

There are a large number of predictors of feeling unsafe using public transport after dark. The strongest predictors were living in an area with a high number of burglaries, being female and being older. Other strong predictors of feeling unsafe using public transport were low satisfaction with life and lack of belonging to the area, feeling anxious and living in an urban area. Hence people who have more than one of these predictors have a higher probability of feeling unsafe than average. This suggests that older females living in urban areas, for example, could warrant targeted policies as they are likely to have higher than average rates of feeling unsafe.

7 Belonging to the Local Area

The National Survey asked people what makes them feel like they belong to their local area. Having and building a local sense of belonging means moving away from a sense of belonging that is based on fixed elements, such as birth place and ethnicity, to an understanding that is more about what people have in common such as civic values and the local facilities they share (DCGL, 2009)[20]. Increased feelings of belongingness can be associated with social cohesion, neighbourliness and positive behaviours - all of which can be beneficial to the individual and the local area more generally.

"*I'm now going to ask you how you feel about your local area. When answering, please consider your local area to be the area within 15-20 minutes walking distance from your home. To what extent would you agree or disagree that you belong to your local area*?"

- Strongly agree
- Tend to agree
- Neither agree nor disagree
- Tend to disagree
- Strongly disagree

This section first maps people who felt they did not belong to an area and then explores factors that predict belonging (those who tended to or strongly agreed that they belong to their local area).

7.1 Geographical distribution

Three quarters (76%) of people in Wales agreed that they belong to their local area[21]. The National Survey asked some other questions to tap into feelings of community cohesion. Three quarters (76%) of people agreed that people in their local area treated each other with respect and consideration and 75% agreed that people in their neighbourhood were willing to help their neighbours.

[20] Department for Communities and Local Government (2009) *Guidance on building a local sense of belonging*, London: DCLG

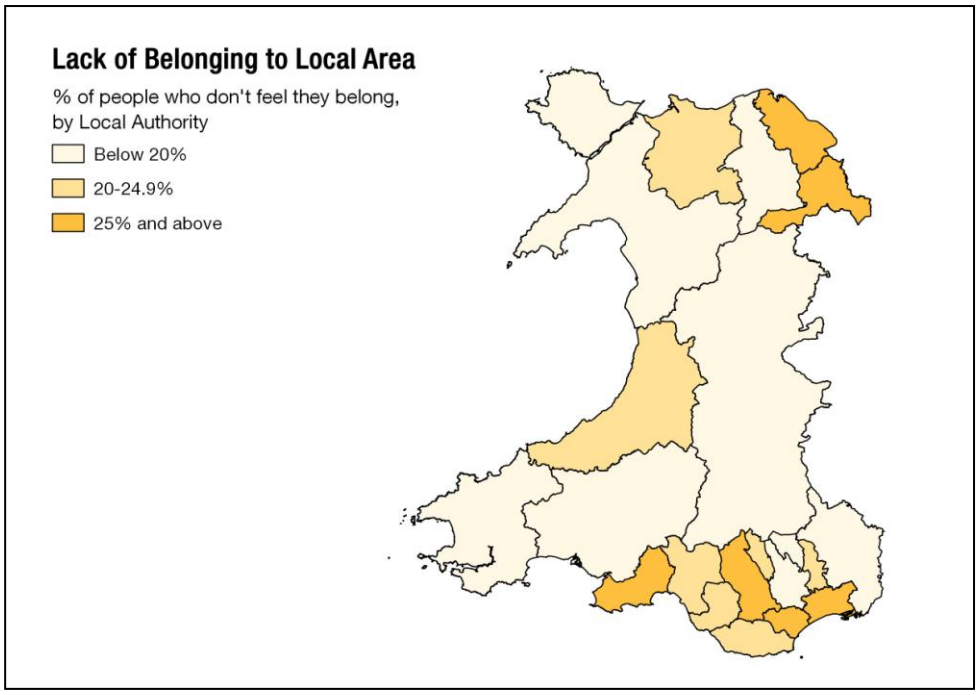
[21] According to recent statistics from Community Life Survey, nearly eight in ten people in England had a strong sense of belonging to their neighbourhood, unchanged from 2010-11 but significantly higher than levels between 2003 and 2007-08 and in 2009-10 [Cabinet Office, 2013Cabinet Office (2013) Community Life Survey: August 2012-Aptil 2013 Statistical Bulletin, London: Cabinet Office]

Rates of feeling that you do not belong to your local area varied according to where people live. People were less likely to feel they belong in:

- Cardiff (36% feel they do not belong)
- Newport (29%)
- Swansea (29%)

People were more likely to feel they belong in:

- Pembrokeshire (17%)
- Powys (17%)



7.2 Insider versus outsider: what predicts belonging?

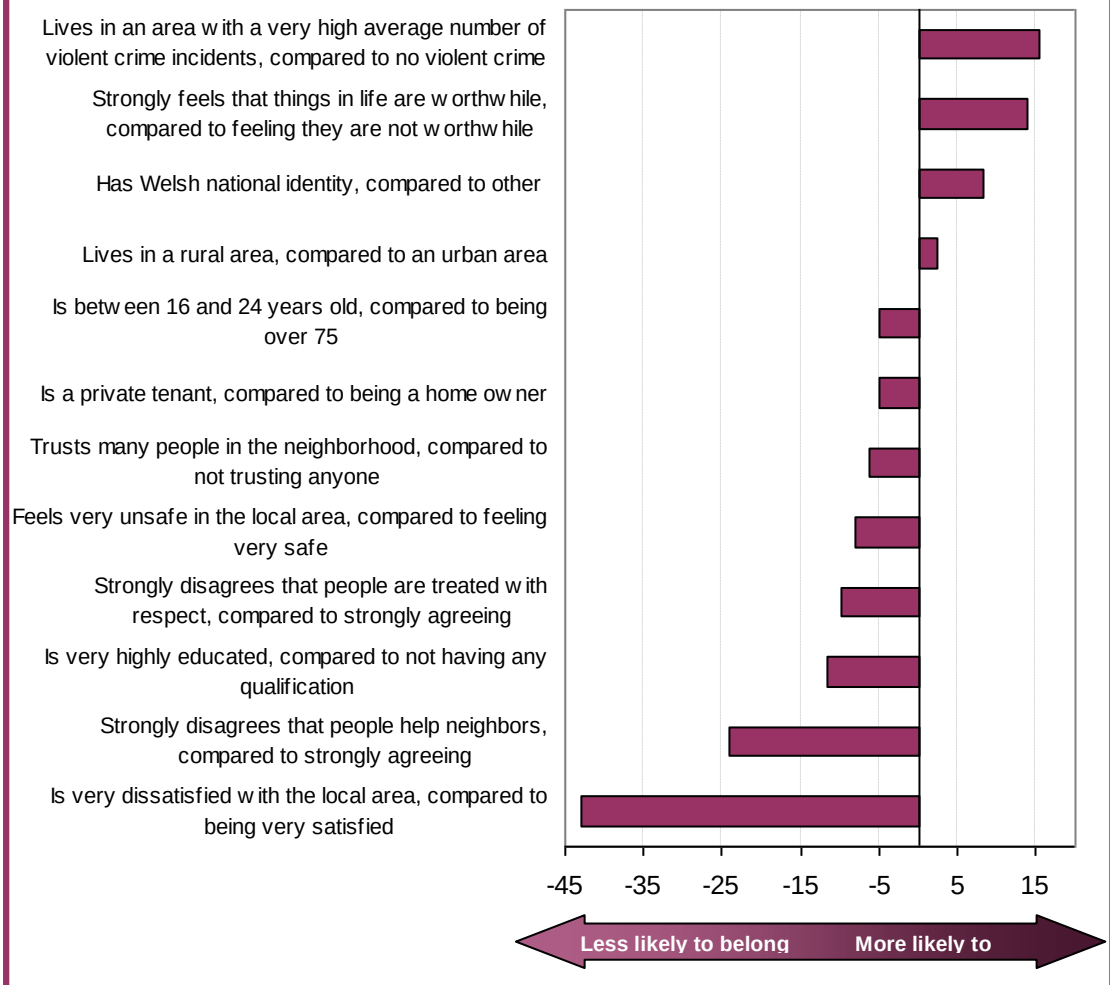
There are a large number of predictors of feelings of belonging. These hold even after taking other factors into account. Predictors that suggest a person feels that they do not belong to an area are:

- Lives in an area with low number of violent crimes
- Feels life is not worthwhile
- Does not have a Welsh identity
- Lives in an urban area
- Is younger
- Is not a home owner
- Does not trust people in the local area
- Does not feel safe in the local area
- Does not feel people are treated with respect in the area

- Has higher educational qualifications
- Does not feel that people help their neighbours
- Is not satisfied with the local area

The strongest predictor of lacking a sense of belonging was feeling very dissatisfied with the local area. People who were very dissatisfied with the local area were 43 percentage points less likely to feel they belonged to their local area than people who were very satisfied with the local area. Lacking feelings of neighbourliness was another strong predictor of a person feeling that they do not belong to an area.

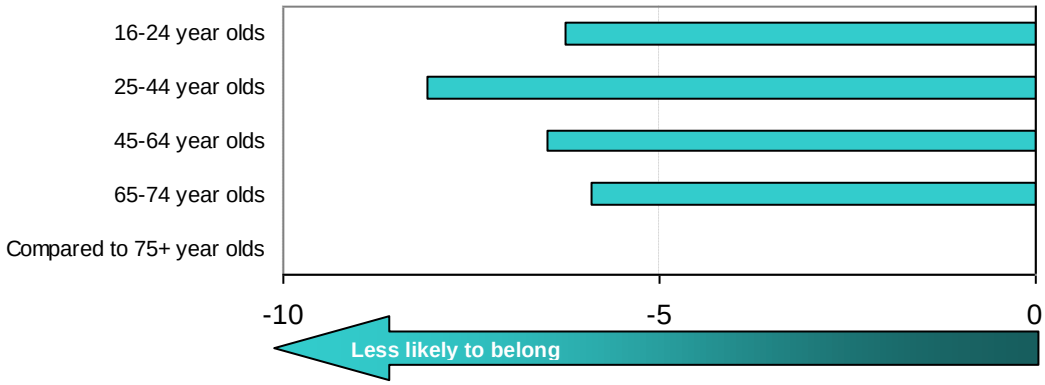
Figure 7.1: Drivers of *belonging to the local area*



The analysis above showed that younger people were less likely than the most elderly to think they belong to their local area. Figure 7.2 explores the relationship between age and belonging in more detail. It shows that people aged 75 years or over were most likely to feel that they belong. People aged 25-44 years were the least likely to feel that they belong.

Figure 7.2: Effect of age on belonging to the local area

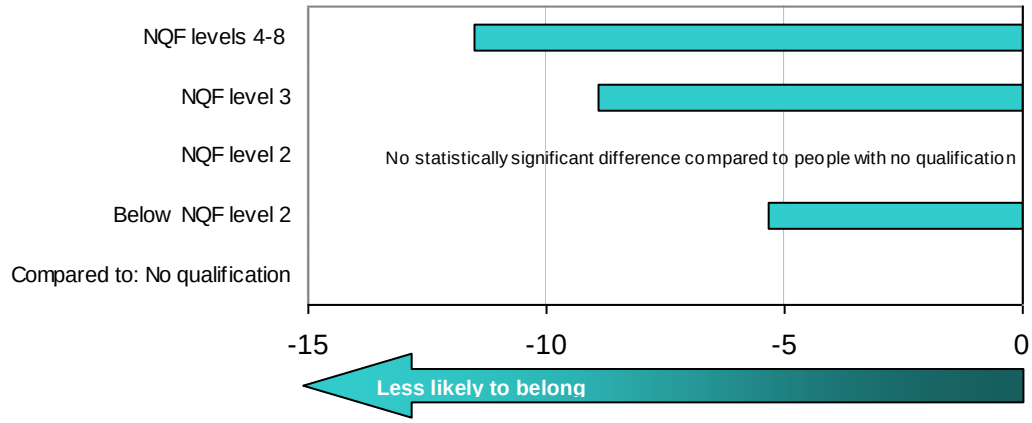
The change in the probability of belonging to the local area when compared to over 75s



People with no educational qualifications were the most likely to feel that they belong to their local area. Feelings of belonging generally reduced the more qualified someone was.

Figure 7.3: Effect of education on belonging to the local area

The change in the probability of belonging to the local area when compared to people with no qualification



Overall, the probability of a typical, or average, person feeling that they do not belong to their local area is 11%.

The probability of a typical person feeling they do not belong to the local area	11%

Three key predictors of belonging are the demographic variables: tenure, rurality and national identity[22]. The table shows how the probability of belonging varies depending on which of these characteristics a person has (and holding all other predictors constant). For example, a person who owns their own home, lives in a rural area and identifies themselves as Welsh has a 12% chance of lacking a sense of belonging. However, a person who is a private tenant, lives in an urban area and does not have a Welsh national identity sees an increase in the probability of feeling they do not belong to 29%.

Table 7.1 The probability of belonging to the local area for distinct groups of people

Societal characteristics			Probability of feeling they don't belong
Private tenant versus home owner	**Urban vs. Rural**	**National identity**	
Private tenant	Urban	Welsh	19%
Private tenant	Urban	Other	29%
Private tenant	Rural	Welsh	17%
Private tenant	Rural	Other	26%
Home owner	Urban	Welsh	14%
Home owner	Urban	Other	23%
Home owner	Rural	Welsh	12%
Home owner	Rural	Other	20%

7.3 Conclusions

Rates of lacking feelings of belonging to the local area vary according to where people live, their attitudes and their socio-demographic characteristics. People in areas such as Pembrokeshire and Powys were most likely to feel they belong to the local area. People in areas such as Cardiff, Newport and Swansea were most likely to feel they do not belong.

There are a large number of predictors of belonging. The strongest predictor of lacking a sense of belonging was feeling very dissatisfied with the local area. Lacking feelings of neighbourliness was another strong predictor of a person feeling that they do not belong to an area.

[22] For further information on the choice of variables please consult section A1.2 – *Effect sizes and presentation* in Appendix 1.

8 Overall conclusions

The main aim of this report is to explore which factors best explain how people feel about their local area. It uses analysis of results from the 2012-13 National Survey for Wales. The survey asks people how safe they feel and levels of belonging, as well as socio-demographic and attitudinal information.

Overall levels of feeling safe and belonging were high. The vast majority (96%) of people felt safe in their home after dark, and three in five (58%) felt safe walking in their nearest town or city after dark. Three quarters (76%) of people felt that they belonged to their local area. But there was still a significant minority of people who feel unsafe in various situations. For example, one in four (26%) did not report feeling safe on public transport after dark and two in five (42%) did not report feeling safe walking in their nearest town or city after dark. In general, those most likely to feel unsafe were female, older people, and those with negative views about the local area – for example, those who are dissatisfied with their local area, think there is graffiti and vandalism in the area or who feel their area is not safe for children to play outside. However levels of feeling unsafe and the factors that predict this did vary according to the situation people feel unsafe in; so whether at home, in the local area, in the nearest city or town, or on public transport. For example, people were most likely to feel unsafe when walking in the nearest town or city after dark, and this tended to be women, older people and those with negative views of the area. People were much less likely to feel unsafe at home, but those who did were more likely to either have poor health and/or to be younger.

As already mentioned, feeling dissatisfied with the local area was an important predictor of feeling unsafe in a variety of situations, suggesting that the psychology of feeling unsafe is a key predictor. People in urban areas were most likely to feel that they did not belong to the local area. Again, the strongest predictor of lacking a sense of belonging was feeling very dissatisfied with the local area. Lacking feelings of neighbourliness was another strong predictor of a person feeling that they did not belong to an area.

Therefore it is not surprising to find that feelings of safety and belonging vary according to where people live. Feelings of safety and belonging were often linked to factors found at a geographical level, for example people in more urban areas were generally more likely to feel unsafe and to feel that they did not belong to the local area.

These findings are relevant to a number of policy areas. The Welsh Government is committed to creating safer communities through reductions in anti-social behaviour and crime, including the fear of crime. People's perceptions of safety are linked to their views of the local area, so as well as reducing crime and anti-social behaviour, improving people's views about their area is likely to help make them feel safer. Having more cohesive communities is also linked to perceptions of safety, so policies that encourage communities to come together and get to know each other are also likely to increase feelings of safety, and belonging. Whilst women and older people

are more likely to feel unsafe, they are not more likely to be victims of crime. This suggests that it may be appropriate to target policies aimed at reducing the fear of crime towards these groups.

Feelings of belonging are important because they involve what people have in common such as civic values and the local facilities they share, rather than fixed elements such as birth place and ethnicity. Increased feelings of belongingness can be associated with social cohesion, neighbourliness and positive behaviours, all of which can be beneficial to the individual and the local area more generally.

This report provides information that may prove to be useful in the planning of community support services, including the emergency services and those who ensure safety on public transport. This report may also provide information that may be useful the Welsh Government's Tackling Poverty Action Plan, Communities First Agenda, Resilient Communities, Welfare Reform Agenda, and Children's Rights Agenda. It may also be of interest to local authorities and the Police.

Finally, there were some counter-intuitive findings that are worthy of further research. These mainly relate to findings that link the administrative data on high rates of violent crime in the area to people feeling safer. Although higher rates of violent crime may lead to greater crime prevention measures - which, when visible to the public, may in turn make people more protected and hence safer – further analysis of this relationship is recommended.

Appendix 1: Methodology

A1.1 Recoding

Both outcome and explanatory variables were extensively tidied up and recoded for the purposes of this analysis. Those who refused to answer a particular question, or those who were otherwise missing, were excluded from any particular regression including that category. Efforts were made however to ensure the largest possible sample sizes for each section of the analysis.

Explanatory variables
In the case of the explanatory variables, the general approach was to code variables as either continuous or binary variables, in order to facilitate interpretation of the final models. For example, several categorical variables were grouped into two categories. In the case of religion, this meant those who were religious in one group, and all others in another group.

Other categorical variables were recoded into several binary variables. In the case of a variable such as tenure, three binary 'dummies' representing owner occupier, private renter and social renter were created, and in the regressions, these were used to interpret the effect of being in each category compared to the reference category, which in this case was owner-occupier. In other cases, such as with economic status, it was decided to use one dummy which compared those in employment versus everyone else.

In other cases, variables were treated as continuous in the regression. Age was grouped into five age categories, and then treated as an ordinal / continuous variable. In the regressions, a difference in the outcome variable by age was interpreted as the difference when jumping from one age category to the next.

Attitudinal questions on a Likert scale (e.g. strongly agree to strongly disagree) were also treated as continuous variables in the regressions.

Outcome variables
It was decided to use logistic regression to model factors associated with feelings of safety. This would produce easier to interpret results. Answers to safety questions in the National Survey for Wales were originally coded into four categories: "Very unsafe", "Fairly unsafe", "Fairly safe" and "Very Safe". For the purposes of logistic regression, the outcome variables were recoded into binary variables, grouping those who felt either very or fairly unsafe together, against those who felt very or fairly safe. Those who refused, or volunteered a 'don't know' answer, were excluded. Those who felt unsafe were coded as 1, and thus the regressions modelled factors associated with *not* feeling safe, as it was judged that the interest of this analysis was to explore the reasons for negative outcomes.

This report not only examines feelings of safety but also tried to explain why people feel they belong. The extent to which people think they belong to the

local area was measured by a question which asked them to state how strongly they agree with the fact that they belong to the local area. The answer option were recorded on a 5 point scale and ranged from 'Strongly agree' to 'Strongly disagree'. We recoded the variable into a dichotomous variable by grouping together people who state they tend to agree and those who said they strongly agree. The second group was formed by the people who did not agree (neither agree nor disagree; tend to disagree and strongly disagree).

A1.2 Multivariate analysis

A multivariate regression approach was taken to assess the relationships between a variety of demographic, attitudinal and behavioural variables on the outcome variables while controlling for other factors. Background demographic variables were chosen to be the same across all regressions, and then a range of other explanatory variables were chosen to include based on the hypothesis that they would be related to the outcome variable.

Before running the regressions, correlations between these explanatory variables were tested, with variables which correlated very highly not included in the same regression. Some variables with correlations over 0.7 were identified. To further ensure relationships between explanatory variables would not undermine the validity of the regressions, they were then tested for multicollinearity (that is, relationships with a range of other variables). Any variables with a VIF (variance inflation factor) above 5 or so would indicate a danger of multicollinearity. This was not found to be the case for any of the regressions.

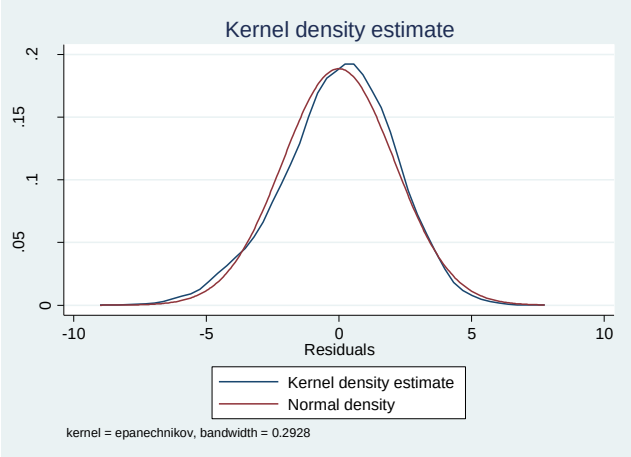
The logistic regressions were performed in Stata (Version 12), using the 'logistic' command using a backwards stepwise approach, and weighted by the sample adult weight[23].

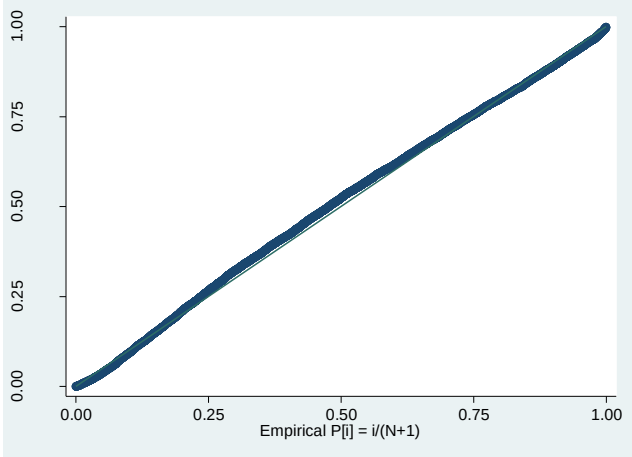
Backwards stepwise regressions use an iterative method, whereby all explanatory variables are included in a model, whereupon variables that don't meet the threshold of significance (in this case a p-value of 0.05) are removed in order of decreasing p-value, with the model re-run each time, until a final model is generated containing only those variables found to have significant relationships with the outcome measure.

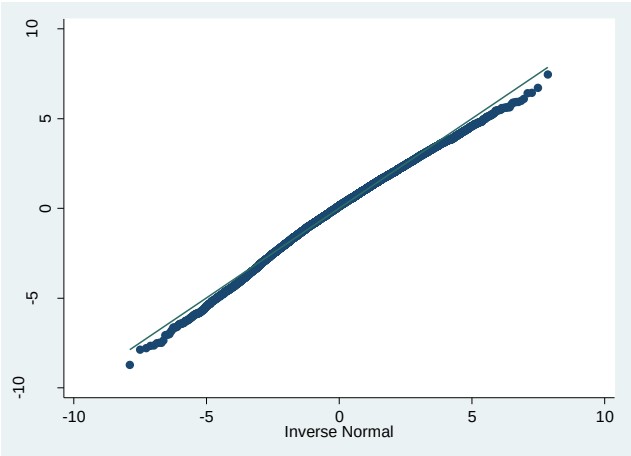
However, it is also possible to 'force' certain variables into the final model regardless of significance, and this was done here for a set range of demographic variables. This was done in order that results across regressions would consistently control for the same background factors. These variables included age, gender, rurality, economic status, educational qualifications, financial struggles, ethnicity, religion and Welsh identity.

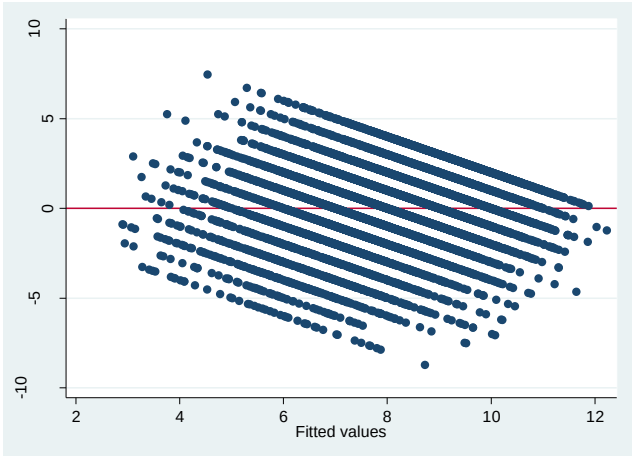
[23] To be able to generate the R Squared coefficient we chose to individually weight each regression by the sample adult weight as opposed to using the automatic 'svy' command in Stata. This also means that sample stratification structure (stratification by LAs) is not modelled. This is appropriate as there are virtually no differences in the Standard Errors between models which take into account the stratification and those who do not.

In addition to the logistic regressions, a linear regression was also conducted on an 'additive index' of safety, which combined safety ratings across several questions (safety at home, safety in local area, safety in nearest town and safety on public transport. The indexed variable was computed by adding up all four variables (and subtracting 4 from the result). Hence, the resulting variables took on values ranging from 0 to 12, where 0 meant that the respondent felt very safe in all four situations and 12 meant he/she felt very unsafe in all situations. This scale was found to have a Cronbach's alpha of 0.785, indicating that it is a good measure of the same concept. The linear regression was performed using the 'regress' command in Stata, and similarly weighted. As this was a linear regression, further regression diagnostics were performed. The data was checked for normality of residuals and heteroskedasticity, and no problems were detected. The test graphs are included below:









Approaches to effect interpretation

There are two general approaches to understanding and presenting the effects the explanatory variables have on the outcome:

1. Classical Regression (logistic regression in this case): the explanatory variables are introduced in the regression as ordinal or continuous variables, in which case the regression coefficients show the impact on the outcome if an explanatory variable increases by 1 unit. Such an approach is very useful when the aim of the regression is to identify a ranking of the explanatory variables in terms of the size of their effect. That is, being able to point out which factor has the biggest effect on the outcome.

2. Dummy variable (logistic) regression: this approach works in a similar way to the one above. However, all ordinal or continuous explanatory variables are recoded into dummy variables which are then entered into the regression. In all cases one would enter a number of dummy variables which equals the number of values the original variable had minus one. The omitted dummy represents the 'reference category'. This means that the regression coefficients now produced indicate how the effect associated with one category of a variable differs compared to the reference category. This is useful in comparing demographic differences (and allows for non-linear effects) within the same variables, but it cannot be used to compare the effect of variables.

To summarise, the first approach indicates which are the primary predictors of an outcome while the second approach indicates how people in different demographic subgroups (e.g. people in different age groups) compare on the outcome. We believe both approaches are necessary to provide the adequate insight, which is why we decided to implement a combination of the two.

In the analysis of each outcome variable we start by running a regression based on the first approach. If this regression identifies age or education[24] (both included as ordinal variables) as significant predictors of the outcome we proceed to apply the second approach, in which we rerun the initial regression but include age and education as dummy variables. We present the results in subsequent tables displayed in Appendix 2.

For each regression, the tables in Appendix 2 include the relevant coefficients (and other measures of effect size – see below) levels of statistical significance, the sample size and the model fit (R squared or Pseudo R squared for logistic regressions). The R Squared coefficient indicates how well each regression model fits the data. In other words, it shows whether the regression contains the appropriate variables that can explain the outcome. The r square ranges from 0 to 1, where 0 indicates a very poor fit and 1

[24] We chose age and education for this exercise given that they are the most likely demographics that might not have linear effects.

indicates a perfect fit. In general the fit of our models is between 0 and 0.5, which for social data is not the least surprising and is deemed acceptable.

Effect size and presentation

To aid the interpretation of the regression results by policy makers without a statistical background we provide several tools.

1. The results of the classical regressions (which include the ordinal and continuous explanatory variables) are presented in a graph (coloured in purple). The graph displays the size of the effect for the variables that were shown to have a statistically significant effect (we use the 95% cut-off). Even though traditionally logistic regression results are interpreted (and reported) in terms of odds ratios, we decided on using a more intuitive method. As such, for each variable we computed the percentage point difference between the probability of the outcome occurring when it is at its highest level (e.g. the probability of feeling unsafe at home for people with high education, levels 4-8) and the probability of the outcome occurring when it is at its lowest level (e.g. the probability of feeling unsafe at home for people with no qualification). The resulting figure indicates the maximum impact the explanatory variable can have on the outcome.

2. If in the initial regression we observe that age or education has a significant effect on the outcome, as mentioned before, we run a dummy variable regression to try to tease out the differences in the outcome that are due to being a member of a specific societal subgroup compared to a reference category. The results are reported in the graphs (coloured in light blue) which display the differences between the different levels of age and education and the respective reference categories. Even though the regressions include an identical set of variables to the original regressions, for ease of interpretation these variables are not included in the graphs. Please see Appendix 2 for the full regression tables.

3. Based on the initial regressions we computed what the probability of a typical individual experiencing the outcome is (e.g. feel unsafe). This probability is computed based on holding all explanatory variables at their *median.* This means that the probability is associated with the most common type of person in Wales (e.g. Welsh national, urban, male, white, aged between 45 and 64, educated to NQF level 2, keeping up well with financial obligations).

4. Finally, once more, based on the initial regressions we also provide a table containing fitted probabilities for specific societal subgroups. The probabilities are computed while all other variables in the regression are held at their mean. This means that the probabilities are comparable between each row of the table. To build the tables we chose from between the demographic variables which the regressions showed to have significant effects on the outcome. A maximum number of three demographic variables were chosen – generally these

were the demographics with the largest effect on the outcome. This section of the analysis is meant to be a ‘profiling’ exercise through which we supply information on distinct social groups - that is why only demographic variables are included.

Appendix 2: Full regression results

Table A.1: OLS Regression results: feeling unsafe in Wales

Independent variables	Description	Beta Coefficient	95% Confidence Interval		Range of predictor	Maximum effect	% change in the outcome
natidwel	National Identity - Welsh	-0.029	-0.146	0.087	1	-0.02948	-0.25%
dvagegrp3	Derived variable - Age group 3	0.286	0.225	0.346	4	1.143394	9.53%
dvethnicity	Derived variable - Ethnicity (White or non-white)	-0.211	-0.682	0.259	1	-0.21127	-1.76%
dvhiqual2	Highest educational qualification	0.119	0.076	0.161	4	0.47533	3.96%
rel	Religion	-0.380	-0.495	-0.265	1	-0.37988	-3.17%
urbrurdum	Urban-Rural classification	0.658	0.530	0.786	1	0.657946	5.48%
working	In paid or unpaid work	0.166	0.032	0.301	1	0.166227	1.39%
finbilcred	Finance - ability to keep up with bills and credit commitments at present	-0.075	-0.146	-0.004	4	-0.30033	-2.50%
gender	Gender	1.368	1.260	1.477	1	1.368468	11.40%
expdiscr	Experienced any discrimination, harassment or abuse in the last 12 months	-0.336	-0.549	-0.122	1	-0.33569	-2.80%
labelong	Local area - belonging to local area	-0.084	-0.151	-0.017	4	-0.3348	-2.79%
lafreegraf	Local area - free from graffiti and vandalism	-0.168	-0.227	-0.108	4	-0.67043	-5.59%
terrace	Semi or terrace	0.279	0.158	0.400	1	0.278697	2.32%
flat	Flat or maisonette	0.366	0.140	0.592	1	0.365924	3.05%
wbsatlife	Well-being - overall satisfaction with life (0-10 scale)	-0.083	-0.119	-0.048	10	-0.83479	-6.96%
larespcons	Local area - people treating each other with respect and consideration	-0.230	-0.305	-0.155	4	-0.91926	-7.66%
lasfechild	Local area - safe for children to play outside	-0.284	-0.339	-0.230	4	-1.13798	-9.48%
latrustpep	Local area - trusting people in the neighbourhood	-0.362	-0.448	-0.276	3	-1.08615	-9.05%
wbanxyest	Well-being - overall anxiety yesterday (0-10 scale)	-0.086	-0.106	-0.066	10	-0.86189	-7.18%
violentcrime	violent crime incidences (% of day-time population)	0.091	0.035	0.146	13.09	1.185101	9.88%
welangabil	Welsh language ability	0.056	0.019	0.094	4	0.225427	1.88%
burglary	burglary incidences (% of dwellings & business addresses)	-0.106	-0.153	-0.059	11.28	-1.19474	-9.96%
wbsat6	Well-being - overall satisfaction with area lived in (0-10 scale)	-0.096	-0.132	-0.061	10	-0.96374	-8.03%
_cons	Intercept	9.449	8.974	9.923	n/a	n/a	n/a
Model fit:	*R squared*	*0.324*					
Base:		*10246*					
	Effect not statistically significant						

Table A.2: OLS Regression results: feeling unsafe in Wales (categorical)

Independent variables	Description	Beta Coefficient	95% Confidence Interval		Range of predictor	Maximum effect	% change in the outcome
natidwel	National Identity - Welsh	-0.026	-0.142	0.090	1	-0.02589	-0.22%
_Idvagegrp3_2	65-74 year olds	0.529	0.325	0.734	1	0.529488	4.41%
_Idvagegrp3_3	45-64 year olds	1.087	0.879	1.295	1	1.08673	9.06%
_Idvagegrp3_4	25-44 year olds	1.171	0.943	1.400	1	1.171477	9.76%
_Idvagegrp3_5	16-24 year olds	1.335	1.065	1.605	1	1.334955	11.12%
Compared to: 75+ year olds		0.000					
dvethnicity	Derived variable - Ethnicity (White or non-white)	-0.182	-0.648	0.284	1	-0.18179	-1.51%
_Idvhiqual2_1	Below NQF level 2	0.209	0.003	0.415	1	0.209124	1.74%
_Idvhiqual2_2	NQF level 2	0.098	-0.075	0.271	1	0.098204	0.82%
_Idvhiqual2_3	NQF level 3	0.313	0.100	0.525	1	0.312818	2.61%
_Idvhiqual2_4	NQF levels 4-8	0.471	0.291	0.652	1	0.471377	3.93%
Compared to: No qualification		0.000					
rel	Religion	-0.394	-0.508	0.280	1	-0.39382	-3.28%
urbrurdum	Urban-Rural classification	0.663	0.535	0.790	1	0.662687	5.52%
working	In paid or unpaid work	0.061	-0.086	0.207	1	0.060771	0.51%
finbilcred	Finance - ability to keep up with bills and credit commitments at present	-0.060	-0.131	0.010	4	-0.24171	-2.01%
gender	Gender	1.377	1.269	1.485	1	1.377123	11.48%
expdiscr	Experienced any discrimination, harassment or abuse in the last 12 months	-0.340	-0.554	-0.127	1	-0.34014	-2.83%
labelong	Local area - belonging to local area	-0.086	-0.153	-0.019	4	-0.34394	-2.87%
lafreegraf	Local area - free from graffiti and vandalism	-0.170	-0.229	-0.111	4	-0.67877	-5.66%
terrace	Semi or terrace	0.289	0.168	0.411	1	0.289057	2.41%
flat	Flat or maisonette	0.385	0.157	0.613	1	0.385009	3.21%
wbsatlife	Well-being - overall satisfaction with life (0-10 scale)	-0.093	-0.128	-0.057	10	-0.92588	-7.72%
larespcons	Local area - people treating each other with respect and consideration	-0.237	-0.312	-0.162	4	-0.94816	-7.90%
lasfechild	Local area - safe for children to play outside	-0.283	-0.337	-0.229	4	-1.13178	-9.43%
latrustpep	Local area - trusting people in the neighbourhood	-0.352	-0.437	-0.267	3	-1.05714	-8.81%
wbanxyest	Well-being - overall anxiety yesterday (0-10 scale)	-0.087	-0.107	-0.067	10	-0.87144	-7.26%
violentcrime	violent crime incidences (% of day-time population)	0.087	0.031	0.143	13.09	1.140045	9.50%
welangabil	Welsh language ability	0.063	0.026	0.101	4	0.253106	2.11%
burglary	burglary incidences (% of dwellings & business addresses)	-0.103	-0.149	-0.057	11.28	-1.16103	-9.68%
wbsat6	Well-being - overall satisfaction with area lived in (0-10 scale)	-0.095	-0.131	-0.060	10	-0.95369	-7.95%
_cons	Intercept	9.450	8.977	9.923			
Model fit:	*R squared*	*0.328*					
Base:		*10246*					
	Effect not statistically significant						

Table A.3: Logistic regression results: feeling unsafe at home after dark					
Independent variables	Description	Odds Ratio	95% Confidence Interval		Percentage point change between maximum and minimum values
lasafe4	Local area - safety walking in local area after dark	4.983	4.063	6.111	17.01%
wbsat6	Well-being - overall satisfaction with area lived in (0-10 scale)	1.190	1.111	1.274	2.34%
dvethnicity	Derived variable - Ethnicity (White or non-white)	3.487	1.621	7.501	1.68%
larespcons	Local area - people treating each other with respect and consideration	1.442	1.231	1.691	1.57%
dvagegrp3	Derived variable - Age group 3	1.466	1.172	1.833	1.20%
genhealth	Health in general	1.267	1.080	1.486	0.84%
urbrurdum	Urban-Rural classification	0.573	0.361	0.909	0.36%
rel	Religion	1.178	0.786	1.768	0.11%
finbilcred	Finance - ability to keep up with bills and credit commitments at present	1.025	0.847	1.241	0.07%
dvhiqual2	Highest educational qualification	0.985	0.875	1.108	-0.04%
gender	Gender	0.919	0.636	1.329	-0.06%
natidwel	National Identity - Welsh	0.852	0.589	1.234	-0.11%
working	In paid or unpaid work	0.678	0.422	1.091	-0.27%
_cons	Intercept	0.000	0.000	0.000	
Model fit:	*Pseudo R squared*	*0.371*			
Base:		*12905*			
	Effect not statistically significant				

Table A.4: Logistic regression results: feeling unsafe at home after dark (categorical)					
Independent variables	Description	Odds Ratio	95% Confidence Interval		Percentage point change between maximum and minimum values
natidwel	National Identity - Welsh	0.846	0.585	1.224	-0.12%
_Idvagegrp3_2	65-74 year olds	1.754	0.974	3.161	0.26%
_Idvagegrp3_3	45-64 year olds	1.949	1.106	3.434	0.32%
_Idvagegrp3_4	25-44 year olds	2.786	1.436	5.405	0.60%
_Idvagegrp3_5	16-24 year olds	4.863	2.082	11.358	1.30%
dvethnicity	Derived variable - Ethnicity (White or non-white)	3.459	1.600	7.477	1.63%
_Idvhiqual2_1	Below NQF level 2	0.917	0.550	1.530	-0.06%
_Idvhiqual2_2	NQF level 2	0.722	0.443	1.177	-0.21%
_Idvhiqual2_3	NQF level 3	1.134	0.645	1.992	0.10%
_Idvhiqual2_4	NQF levels 4-8	0.877	0.553	1.393	-0.09%
rel	Religion	1.173	0.786	1.751	0.11%
urbrurdum	Urban-Rural classification	0.568	0.362	0.894	-0.35%
working	In paid or unpaid work	0.742	0.476	1.157	-0.21%
finbilcred	Finance - ability to keep up with bills and credit commitments at present	1.002	0.833	1.206	0.01%
gender	Gender	0.919	0.640	1.318	-0.06%
genhealth	Health in general	1.288	1.098	1.510	0.90%
wbsat6	Well-being - overall satisfaction with area lived in (0-10 scale)	1.194	1.116	1.277	2.38%
larespcons	Local area - people treating each other with respect and consideration	1.445	1.235	1.692	1.55%
lasafe4	Local area - safety walking in local area after dark	4.932	4.023	6.047	16.43%
_cons	Intercept	0.000	0.000	0.000	
Model fit:	*Pseudo R squared*	*0.372*			
Base:		*12905*			
	Effect not statistically significant				

Table A.5: Logistic regression results: feeling unsafe walking in the local area after dark

Independent variables	Description	Odds Ratio	95% Confidence Interval		Percentage point change between maximum and minimum values
burglary	burglary incidences (% of dwellings & business addresses)	1.132	1.046	1.226	24.32%
lasfechild	Local area - safe for children to play outside	1.373	1.289	1.462	17.93%
latrustpep	Local area - trusting people in the neighbourhood	1.420	1.280	1.575	16.03%
larespcons	Local area - people treating each other with respect and consideration	1.233	1.126	1.349	12.00%
wbsat6	Well-being - overall satisfaction with area lived in (0-10 scale)	1.070	1.029	1.113	9.86%
wbanxyest	Well-being - overall anxiety yesterday (0-10 scale)	1.070	1.044	1.097	9.47%
lafreegraf	Local area - free from graffiti and vandalism	1.115	1.038	1.198	5.84%
lahlpneigh	Local area - people willing to help neighbours	1.114	1.030	1.205	5.80%
dvethnicity	Derived variable - Ethnicity (White or non-white)	1.493	0.892	2.500	5.72%
rel	Religion	1.332	1.128	1.574	3.48%
finbilcred	Finance - ability to keep up with bills and credit commitments at present	0.979	0.899	1.065	-1.09%
natidwel	National Identity - Welsh	0.880	0.751	1.031	-1.62%
urbrurdum	Urban-Rural classification	0.811	0.669	0.983	-2.53%
welangabil	Welsh language ability	0.942	0.892	0.995	-2.84%
working	In paid or unpaid work	0.727	0.617	0.855	-4.00%
dvhiqual2	Highest educational qualification	0.923	0.876	0.972	-4.06%
wimdsafe	Welsh Index of Multiple Deprivation - community safety score	1.000	0.999	1.000	-10.10%
theft	theft incidences (% of day-time population)	0.877	0.789	0.975	-12.26%
dvagegrp3	Derived variable - Age group 3	0.756	0.694	0.824	-14.09%
gender	Gender	0.267	0.229	0.312	-15.88%
_cons	Intercept	0.113	0.060	0.212	
Model fit:	*Pseudo R squared*	*0.219*			
Base:		*11549*			
	Effect not statistically significant				

Table A.6: Logistic regression results: feeling unsafe walking in the local area after dark (categorical)

Independent variables	Description	Odds Ratio	95% Confidence Interval		Percentage point change between maximum and minimum values
natidwel	National Identity - Welsh	0.882	0.754	1.032	-1.50%
_Idvagegrp3_2	65-74 year olds	0.542	0.434	0.676	-10.68%
_Idvagegrp3_3	45-64 year olds	0.320	0.252	0.407	-17.09%
_Idvagegrp3_4	25-44 year olds	0.300	0.225	0.399	-17.73%
_Idvagegrp3_5	16-24 year olds	0.320	0.222	0.461	-17.10%
Compared to: 75+ year olds		0.000			
dvethnicity	Derived variable - Ethnicity (White or non-white)	1.358	0.809	2.280	4.02%
_Idvhiqual2_1	Below NQF level 2	0.834	0.639	1.086	-2.30%
_Idvhiqual2_2	NQF level 2	0.924	0.754	1.134	-1.03%
_Idvhiqual2_3	NQF level 3	0.773	0.596	1.001	-3.17%
_Idvhiqual2_4	NQF levels 4-8	0.699	0.561	0.870	-4.25%
Compared to: No qualification		0.000			
rel	Religion	1.389	1.177	1.639	3.73%
urbrurdum	Urban-Rural classification	0.808	0.671	0.974	-2.44%
working	In paid or unpaid work	0.851	0.710	1.021	-1.90%
finbilcred	Finance - ability to keep up with bills and credit commitments at present	0.952	0.872	1.039	-2.43%
gender	Gender	0.270	0.231	0.314	-14.94%
expdiscr	Experienced any discrimination, harassment or abuse in the last 12 months	1.256	0.975	1.619	2.89%
labelong	Local area - belonging to local area	1.099	1.012	1.192	4.79%
lafreegraf	Local area - free from graffiti and vandalism	1.093	1.017	1.174	4.45%
wimdsafe	Welsh Index of Multiple Deprivation - community safety score	1.000	0.999	1.000	-10.17%
lahlpneigh	Local area - people willing to help neighbours	1.068	0.986	1.157	3.28%
larespcons	Local area - people treating each other with respect and consideration	1.202	1.096	1.318	9.87%
lasfechild	Local area - safe for children to play outside	1.379	1.294	1.469	17.43%
latrustpep	Local area - trusting people in the neighbourhood	1.404	1.265	1.558	14.77%
lawelmain	Local area - well maintained	1.080	1.007	1.159	3.77%
welangabil	Welsh language ability	0.938	0.889	0.990	-2.89%
wbsat6	Well-being - overall satisfaction with area lived in (0-10 scale)	1.056	1.015	1.099	7.31%
privtenant	Tenure - Privately renting tenant	0.875	0.687	1.115	-1.52%
soctenant	Tenure - Social housing tenant	1.169	0.954	1.431	1.91%
wbanxyest	Well-being - overall anxiety yesterday (0-10 scale)	1.071	1.044	1.097	9.05%
_cons	Intercept	0.114	0.063	0.206	
Model fit:	*Pseudo R squared*	*0.226*			
Base:		*12240*			
	Effect not statistically significant				

Table A.7: Logistic regression results: feeling unsafe in a nearby town or city centre after dark

Independent variables	Description	Odds Ratio	95% Confidence Interval		Percentage point change between maximum and minimum values
dvagegrp3	Derived variable - Age group 3	0.723	0.675	0.773	-31.08%
gender	Gender	0.380	0.341	0.424	-23.33%
violentcrime	violent crime incidences (% of day-time population)	0.928	0.883	0.976	-21.89%
dvhiqual2	Highest educational qualification	0.879	0.847	0.913	-12.68%
urbrurdum	Urban-Rural classification	0.593	0.521	0.675	-12.64%
dvethnicity	Derived variable - Ethnicity (White or non-white)	0.636	0.431	0.937	-10.79%
finbilcred	Finance - ability to keep up with bills and credit commitments at present	0.929	0.870	0.991	-7.34%
working	In paid or unpaid work	0.744	0.656	0.844	-7.30%
natidwel	National Identity - Welsh	1.198	1.069	1.342	4.45%
rel	Religion	1.236	1.095	1.396	5.22%
wbsatlife	Well-being - overall satisfaction with life (0-10 scale)	1.038	1.005	1.073	9.34%
expdiscr	Experienced any discrimination, harassment or abuse in the last 12 months	1.486	1.220	1.810	9.87%
wbanxyest	Well-being - overall anxiety yesterday (0-10 scale)	1.046	1.025	1.066	11.05%
labelong	Local area - belonging to local area	1.141	1.074	1.212	13.10%
numchild	Number of children in household (under 16)	1.076	1.011	1.146	14.61%
burglary	burglary incidences (% of dwellings & business addresses)	1.103	1.051	1.157	26.64%
_cons	Intercept	3.356	2.202	5.115	
Model fit:	*Pseudo R squared*	*0.111*			
Base:		*11902*			
	Effect not statistically significant				

Table A.8: Logistic regression results: feeling unsafe in a nearby town or city centre after dark (categorical)					
Independent variables	Description	Odds Ratio	95% Confidence Interval		Percentage point change between maximum and minimum values
natidwel	National Identity - Welsh	1.194	1.066	1.338	4.37%
_Idvagegrp3_2	65-74 year olds	0.650	0.540	0.783	-10.40%
_Idvagegrp3_3	45-64 year olds	0.430	0.355	0.521	-20.71%
_Idvagegrp3_4	25-44 year olds	0.332	0.264	0.418	-26.88%
_Idvagegrp3_5	16-24 year olds	0.254	0.191	0.338	-32.84%
Compared to: 75+ year olds		0.000			
dvethnicity	Derived variable - Ethnicity (White or non-white)	0.631	0.427	0.931	-10.96%
_Idvhiqual2_1	Below NQF level 2	0.931	0.760	1.141	-1.78%
_Idvhiqual2_2	NQF level 2	0.856	0.730	1.004	-3.88%
_Idvhiqual2_3	NQF level 3	0.688	0.567	0.835	-9.27%
_Idvhiqual2_4	NQF levels 4-8	0.618	0.527	0.724	-11.86%
Compared to: No qualification		0.000			
rel	Religion	1.245	1.103	1.405	5.39%
urbrurdum	Urban-Rural classification	0.591	0.519	0.673	-12.71%
working	In paid or unpaid work	0.772	0.676	0.883	-6.38%
finbilcred	Finance - ability to keep up with bills and credit commitments at present	0.925	0.867	0.987	-7.76%
gender	Gender	0.379	0.340	0.423	-23.38%
expdiscr	Experienced any discrimination, harassment or abuse in the last 12 months	1.486	1.221	1.808	9.86%
labelong	Local area - belonging to local area	1.142	1.075	1.213	13.17%
burglary	burglary incidences (% of dwellings & business addresses)	1.101	1.050	1.155	26.34%
numchild	Number of children in household (under 16)	1.072	1.003	1.147	13.90%
wbanxyest	Well-being - overall anxiety yesterday (0-10 scale)	1.046	1.026	1.067	11.17%
violentcrime	violent crime incidences (% of day-time population)	0.929	0.884	0.977	-21.61%
wbsatlife	Well-being - overall satisfaction with life (0-10 scale)	1.041	1.008	1.076	10.09%
_cons	Intercept	2.618	1.754	3.906	
Model fit:	*Pseudo R squared*	*0.112*			
Base:		*11902*			
	Effect not statistically significant				

Table A.9: Logistic regression results: feeling unsafe in public transport after dark					
Independent variables	Description	Odds Ratio	95% Confidence Interval		Percentage point change between maximum and minimum values
natidwel	National Identity - Welsh	0.991	0.870	1.129	-0.17%
dvagegrp3	Derived variable - Age group 3	0.760	0.707	0.816	-20.71%
gender	Gender	0.341	0.300	0.387	-19.57%
urbrurdum	Urban-Rural classification	0.580	0.496	0.678	-9.62%
finbilcred	Finance - ability to keep up with bills and credit commitments at present	0.908	0.842	0.979	-7.75%
dvhiqual2	Highest educational qualification	0.936	0.895	0.979	-5.03%
working	In paid or unpaid work	0.979	0.840	1.142	-0.39%
dvethnicity	Derived variable - Ethnicity (White or non-white)	1.006	0.637	1.589	0.11%
rel	Religion	1.215	1.057	1.397	3.63%
caruse	Use of a car for activities such as visiting local shops or going to the doctor	1.275	1.090	1.493	4.46%
expdiscr	Experienced any discrimination, harassment or abuse in the last 12 months	1.379	1.111	1.713	6.48%
labelong	Local area - belonging to local area	1.138	1.063	1.219	10.43%
wbsatlife	Well-being - overall satisfaction with life (0-10 scale)	1.060	1.021	1.100	11.74%
wbanxyest	Well-being - overall anxiety yesterday (0-10 scale)	1.062	1.039	1.085	12.11%
wbsat6	Well-being - overall satisfaction with area lived in (0-10 scale)	1.073	1.038	1.109	14.60%
numchild	Number of children in household (under 16)	1.105	1.028	1.188	17.37%
burglary	burglary incidences (% of dwellings & business addresses)	1.087	1.036	1.141	20.52%
_cons	Intercept	0.739	0.463	1.180	
Model fit:	*Pseudo R squared*	*0.099*			
Base:		*10761*			
	Effect not statistically significant				

Table A.10: Logistic regression results: feeling unsafe in public transport after dark (categorical)					
Independent variables	Description	Odds Ratio	95% Confidence Interval		Percentage point change between maximum and minimum values
natidwel	National Identity - Welsh	0.990	0.869	1.128	-0.19%
_Idvagegrp3_2	65-74 year olds	0.724	0.591	0.887	-7.13%
_Idvagegrp3_3	45-64 year olds	0.551	0.448	0.679	-12.33%
_Idvagegrp3_4	25-44 year olds	0.506	0.395	0.648	-14.01%
_Idvagegrp3_5	16-24 year olds	0.307	0.223	0.422	-21.54%
Compared to: 75+ year olds		0.000			
dvethnicity	Derived variable - Ethnicity (White or non-white)	1.005	0.638	1.582	0.09%
_Idvhiqual2_1	Below NQF level 2	0.779	0.621	0.976	-4.79%
_Idvhiqual2_2	NQF level 2	0.868	0.722	1.043	-2.76%
_Idvhiqual2_3	NQF level 3	0.797	0.641	0.990	-4.44%
_Idvhiqual2_4	NQF levels 4-8	0.720	0.597	0.870	-6.25%
Compared to: No qualification		0.000			
rel	Religion	1.228	1.069	1.411	3.84%
urbrurdum	Urban-Rural classification	0.583	0.498	0.682	-9.55%
working	In paid or unpaid work	0.962	0.819	1.131	-0.73%
finbilcred	Finance - ability to keep up with bills and credit commitments at present	0.912	0.845	0.983	-7.41%
gender	Gender	0.339	0.299	0.386	-19.67%
caruse	Use of a car for activities such as visiting local shops or going to the doctor	1.280	1.090	1.504	4.54%
expdiscr	Experienced any discrimination, harassment or abuse in the last 12 months	1.396	1.126	1.731	6.75%
labelong	Local area - belonging to local area	1.136	1.061	1.217	10.32%
wbsatlife	Well-being - overall satisfaction with life (0-10 scale)	1.060	1.021	1.101	11.87%
numchild	Number of children in household (under 16)	1.065	0.986	1.150	10.59%
wbanxyest	Well-being - overall anxiety yesterday (0-10 scale)	1.061	1.038	1.085	11.98%
burglary	burglary incidences (% of dwellings & business addresses)	1.087	1.036	1.141	20.54%
wbsat6	Well-being - overall satisfaction with area lived in (0-10 scale)	1.073	1.038	1.109	14.63%
_cons	Intercept	0.582	0.369	0.917	
Model fit:	*Pseudo R squared*	*0.101*			
Base:		*10761*			
	Effect not statistically significant				

Table A.11: Logistic regression results: belonging to the local area					
Independent variables	Description	Odds Ratio	95% Confidence Interval		Percentage point change between maximum and minimum values
natidwel	National Identity - Welsh	1.741	1.517	1.998	8.18%
dvagegrp3	Derived variable - Age group 3	0.916	0.841	0.999	-4.91%
dvethnicity	Derived variable - Ethnicity (White or non-white)	1.281	0.811	2.021	3.20%
dvhiqual2	Highest educational qualification	0.810	0.770	0.852	-11.60%
rel	Religion	1.150	0.989	1.337	1.99%
urbrurdum	Urban-Rural classification	1.184	1.014	1.381	2.31%
working	In paid or unpaid work	0.990	0.835	1.174	-0.13%
finbilcred	Finance - ability to keep up with bills and credit commitments at present	1.014	0.938	1.095	0.77%
gender	Gender	0.973	0.842	1.124	-0.39%
violentcrime	violent crime incidences (% of day-time population)	1.147	1.074	1.226	15.50%
wblifewrth	Well-being - overall extent of feeling that the things done in life are worthwhi	1.089	1.047	1.132	13.95%
lahlpneigh	Local area - people willing to help neighbours	0.704	0.655	0.756	-24.34%
larespcons	Local area - people treating each other with respect and consideration	0.854	0.786	0.928	-9.74%
lasafe4	Local area - safety walking in local area after dark	0.839	0.766	0.919	-7.90%
privtenant	Tenure - Privately renting tenant	0.714	0.575	0.885	-5.13%
soctenant	Tenure - Social housing tenant	1.043	0.835	1.304	0.59%
latrustpep	Local area - trusting people in the neighbourhood	0.880	0.791	0.979	-5.78%
lawelmain	Local area - well maintained	0.937	0.876	1.003	-3.72%
wbsat6	Well-being - overall satisfaction with area lived in (0-10 scale)	0.802	0.773	0.833	-43.12%
_cons	Intercept	22.067	11.838	41.134	
Model fit:	*Pseudo R squared*	*0.161*			
Base:		*12343*			
	Effect not statistically significant				

Table A.12: Logistic regression results: belonging to the local area (categorical)					
Independent variables	Description	Odds Ratio	95% Confidence Interval		Percentage point change between maximum and minimum values
natidwel	National Identity - Welsh	1.723	1.500	1.979	7.99%
_Idvagegrp3_2	65-74 year olds	0.608	0.469	0.788	-5.91%
_Idvagegrp3_3	45-64 year olds	0.584	0.449	0.759	-6.49%
_Idvagegrp3_4	25-44 year olds	0.525	0.392	0.703	-8.09%
_Idvagegrp3_5	16-24 year olds	0.593	0.408	0.863	-6.26%
	Compared to: 75+ year olds	0.000			
dvethnicity	Derived variable - Ethnicity (White or non-white)	1.295	0.820	2.045	3.32%
_Idvhiqual2_1	Below NQF level 2	0.642	0.496	0.831	-5.32%
_Idvhiqual2_2	NQF level 2	0.800	0.640	1.000	-2.47%
_Idvhiqual2_3	NQF level 3	0.506	0.394	0.651	-8.90%
_Idvhiqual2_4	NQF levels 4-8	0.434	0.349	0.540	-11.53%
	Compared to: No qualification	0.000			
rel	Religion	1.146	0.987	1.330	1.93%
urbrurdum	Urban-Rural classification	1.172	1.004	1.368	2.18%
working	In paid or unpaid work	1.037	0.870	1.236	0.51%
finbilcred	Finance - ability to keep up with bills and credit commitments at present	1.004	0.929	1.085	0.23%
gender	Gender	0.965	0.835	1.115	-0.50%
violentcrime	violent crime incidences (% of day-time population)	1.148	1.074	1.226	15.47%
wblifewrth	Well-being - overall extent of feeling that the things done in life are worthwhi	1.089	1.046	1.133	13.88%
lahlpneigh	Local area - people willing to help neighbours	0.703	0.654	0.756	-24.36%
larespcons	Local area - people treating each other with respect and consideration	0.859	0.790	0.933	-9.36%
lasafe4	Local area - safety walking in local area after dark	0.826	0.755	0.905	-8.62%
privtenant	Tenure - Privately renting tenant	0.697	0.561	0.867	-5.50%
soctenant	Tenure - Social housing tenant	1.059	0.849	1.321	0.79%
latrustpep	Local area - trusting people in the neighbourhood	0.875	0.786	0.973	-6.06%
lawelmain	Local area - well maintained	0.940	0.879	1.006	-3.55%
wbsat6	Well-being - overall satisfaction with area lived in (0-10 scale)	0.804	0.774	0.835	-42.63%
_cons	Intercept	28.928	15.615	53.592	
Model fit:	*Pseudo R squared*	*0.165*			
Base:		*12343*			
	Effect not statistically significant				

NatCen Social Research

NatCen Social Research is Britain's leading independent social research institute with around 120 research staff (located in London and Edinburgh). We are a not-for-profit organisation with charitable status, dedicated to making an impact on society and advancing the role of social research in the UK. Our research covers all areas of social policy, and our findings have direct, practical application in terms of understanding social behaviour and informing policy.

Many of the UK's most important social surveys are run by NatCen, including the:
Welsh Health Survey (WHS),
Health Survey for England (HSE),
Scottish Health Survey (SHeS),
British Social Attitudes (BSA),
Scottish Social Attitudes (SSA),
Adult Psychiatric Morbidity Survey (APMS),
National Study of Work-search and Wellbeing (WSWB),
English Longitudinal Survey of Aging (ELSA), and
Understanding Society.

We carry out secondary analysis of our survey datasets, as well as of survey and administrative data collected by others. The analytical methods we use range from summary tabulations to multivariate techniques such as regression, multi-level modelling and latent class analysis. We report findings in a variety of ways, including through substantive reports, short evidence papers, blogs and presentations. We have a dedicated team of interviewers in Wales and regularly carry out Welsh-specific research.

NatCen Social Research
35 Northampton Square
London EC1V 0AX
T 020 7250 1866
www.natcen.ac.uk

A company Limited by Guarantee
Registered in England No.4392418
A Charity registered in England and Wales (1091768) and Scotland (SC038454)