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National Survey for Wales, 2012-13
Satisfaction with local authority services

National Survey for Wales, 2012-13: Satisfaction with local authority services

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Executive summary

Introduction

Understanding how people's attitudes to their local areas and local authority services vary is important for a number of reasons, including performance monitoring and identifying areas for future improvements. In addition, it helps us understand how perceptions of local authority services might be improved.

This project explores which factors best explain views about local authority services. It analyses results from the 2012-13 National Survey for Wales. The survey asks people how satisfied they are with local authority services, the maintenance of their local area, and information provided by the local authority, and whether they feel they can influence decisions affecting their local area. The survey also collects information on a wide range of other topics.

In each part of the analysis, we controlled for different variables such as respondents' characteristics, experiences and opinions, and attributes of their local area. This is a powerful technique which allows us to look at the separate effect of each variable on views of local authority services.

A key aim of the analysis is to identify predictors of how people feel about local authority services. It is important to qualify that this analysis does not generally identify causality but finds associations between views and people's other characteristics. These associations could operate in either direction or be explained by a characteristic not covered in the survey.

Key findings

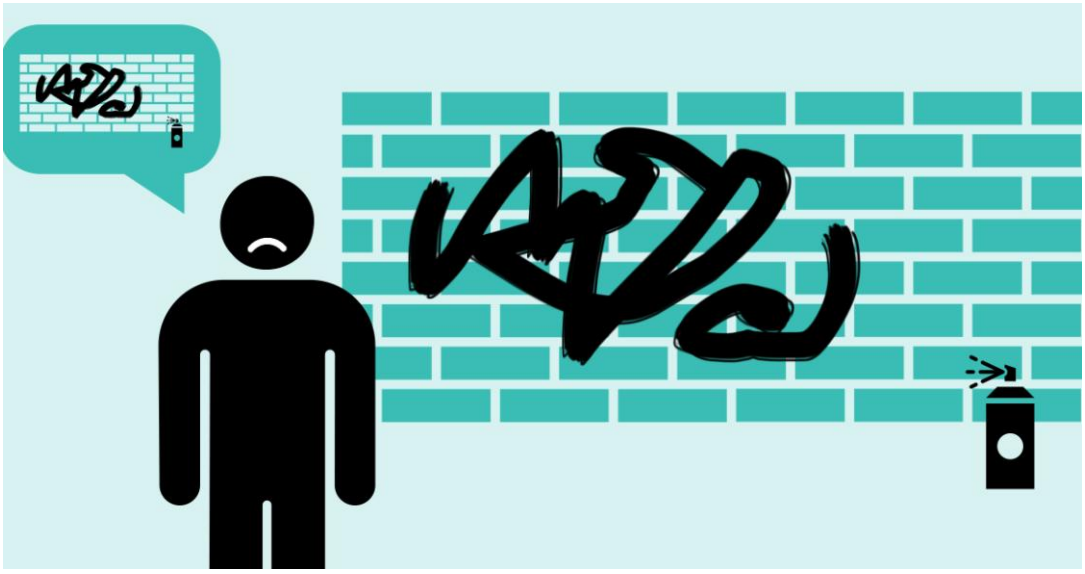
The National Survey included a number of questions about people's views on the services provided by their local authority. Overall 57% said that their local authority provided high quality services. However, nearly one quarter (23%) of people did not think that their local authority provides high quality services and two in five (37%) did not think it is good at letting local people know how well it is performing. One in five (19%) people did not think that their local

area was well maintained. Seven in ten (70%) did not think that they can influence decisions affecting the local area.

We also looked at how much of the variation in these figures is down to which local authority people live in (as opposed to people's individual views and characteristics). In each case, we found that the identity of the local authority only explained a small amount of variation.

	How much is due to the LA people live in?	How much is due to individual attitudes and characteristics?
Satisfaction with local authority services	2%	98%
Views on maintenance of the local area	2%	98%
Views on local authority communication about its performance	1%	99%
People's views on their ability to influence decisions affecting the local area	1%	99%

After controlling for other factors the strongest predictor of feeling that the local area is not well maintained is reporting that there is graffiti or vandalism in the area.



Controlling for other factors, we found that satisfaction with local authority services can be explained by attitudes to the maintenance of the local area – but also by views about local authorities' dissemination of information on their performance. This implies that keeping people informed is key to driving up satisfaction levels.

Young people were particularly likely to feel that the local authority was not good at letting them know how it was performing. This could suggest that the way that communications are delivered may need to be altered for this group. Other potentially vulnerable groups, such as poorer people, the less well educated and older people, were less likely to feel that they could influence decisions. It may be that extra efforts could be made to engage these groups of people.

1 Introduction

Understanding how people's attitudes to their local areas and local authority services vary is important for a number of reasons. Any variation between local authorities may be indicative of the quality of local authority services or of the characteristics of their residents. By undertaking this analysis, we were able to disentangle the impact of these two sets of factors – by determining how far perceptions of local authority services can be explained by the characteristics of the local authority populations and how far they might be attributed to the actual services provided by that local authority.

The analysis will help in monitoring performance, understanding people's views, identifying how views might be improved, and deciding what action to take on the basis of the results.

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 a wide range of 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 people's attitudes to their local areas and local authority services. The analysis used in this report makes full use of the richness of the results from the National Survey by controlling 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.

1.3 The local area: measurement

There are 22 local authorities in Wales, responsible for delivering a wide range of services in their area, including social services, education and housing. In 2012-13, the National Survey included a number of questions about local authority services in Wales to help understand people's views on those services. The measures used in this chapter are:

"To what extent do you agree or disagree with each of the following statements?
…My council provides high quality services
…My local area is well maintained
…My council is good at letting local people know how well it is performing
…I can influence decisions affecting my local area"
- *Strongly agree*
- *Tend to agree*
- *Neither agree nor disagree*
- *Tend to disagree*
- *Strongly disagree*
- *Don't know/no opinion*
- *Refused*

Headline descriptive results for these questions, first published in May 2013, were as follows:

Providing high quality services

- People were asked whether they agreed or disagreed with the statement 'my council provides high quality services'. Overall 57% agreed with the statement; this varied from 42% in Torfaen to 66% in Cardiff.

Local area is well maintained

- 68% of people agreed that their local area was well maintained and 62% agreed that their local area was free from litter and rubbish. This varied by local authority, with 74% of people in the Isle of Anglesey feeling that their local area was free from litter, compared with only 49% of people in Torfaen.
- People who agreed that their local area was well maintained were more satisfied with their local area.
- Those who strongly agreed that their area was well maintained gave a satisfaction score of 9 out of 10 for the area they live in. Those who strongly disagreed that their area was well maintained gave a satisfaction score of 6.2 out of 10 for the area they live in.

Good at letting people know how well it is performing

- People were asked whether they agreed or disagreed with the statement 'my council is good at letting people know how well it is performing'.

Overall, 41% of people agreed with the statement; this varied from 31% in the Isle of Anglesey to 52% in Carmarthenshire.

- Following on from this question, people were asked to what extent they agreed or disagreed with the statement 'I would like more information on how my council is performing'. Overall, 53% of people agreed with the statement. This varied from 44% in Carmarthenshire to 64% in Neath Port Talbot (Welsh Government, 2013[1]).

This report explores the factors that may be driving these views.

We looked at the following factors[2]:

- Personal characteristics: age; gender; education; religion; marital status; health of respondent; when they worked last; whether they can keep up with paying bills[3]; ACORN[4]; wellbeing indicators (Q13 – Q17); 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; urban/ rural; WIMD community safety score; WIMD deprivation score.
- Household safety drivers: presence of deliberate damage to property.
- Area safety drivers: harassment; safety in home; safety in local area; safety in public transport; safety in town/city.
- Respondent's connection with local area: belonging; neighbours; area maintenance; area diversity; community relations – respect.
- Local area maintenance: well maintained; free from litter, graffiti and vandalism; safe for children to play outside; free from heavy traffic.

[1] Welsh Government (2013) National Survey for Wales: Headline results, April 2012– March 2013
[2] Not all factors were tested in each model as some have no theoretical connection to the relevant results.
[3] Keeping up with bills and credit commitments was used as a proxy for income because income was not measured in the 2012-13 National Survey for Wales.
[4] ACORN stands for 'A Classification of Residential Neighbourhoods'.

2 Satisfaction with local authority services

The National Survey asked people how satisfied they felt with local authority services.

"*I'm now going to ask you a few questions about the services provided by (name of local authority). (Name of local authority) runs services including street lighting, road maintenance, parks and leisure facilities, housing refuse collection, and recycling.*

To what extent do you agree or disagree with the following statement: my council provides high quality services."
Strongly agree
Tend to agree
Neither agree nor disagree
Tend to disagree
Strongly disagree

This section explores the views of those who said that they "neither agree nor disagree", "tend to disagree" or "strongly disagree" – termed "dissatisfaction" in the analysis below.

As noted previously, overall 57% of people in Wales said that they were satisfied with local authority services. Interestingly, the equivalent figure for Scotland in 2012, collected through the Scottish Household Survey, was 44%.[5]

2.1 Geographical distribution

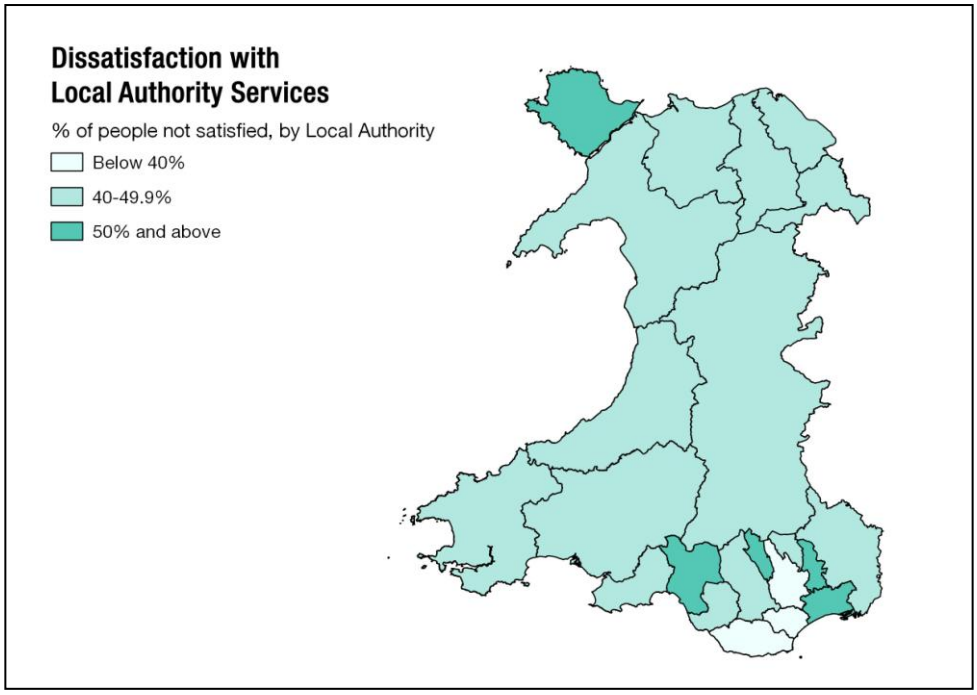
Dissatisfaction with local authority services varies according to the local authorities that people live in. As depicted in the map below, levels of dissatisfaction are highest, standing at 50% or above in:

- Torfaen (58% are dissatisfied);
- Merthyr Tydfil (53% are dissatisfied);
- Neath Port Talbot (53% are dissatisfied); and
- Isle of Anglesey (52% are dissatisfied).

On the other hand levels of dissatisfaction are lowest, falling below 40%, in:

- Cardiff (34%);
- Caerphilly (36%); and
- Vale of Glamorgan (39%)

[5] It should be noted the two surveys employed different methodologies and covered different topics. For more information on Scottish Household Survey results, please see: http://www.scotland.gov.uk/Publications/2013/08/6973/11.



2.2 The predictors of satisfaction with local authority services

Levels of dissatisfaction with local authority services could potentially be influenced by other attitudes, views and experiences about the local authority or local area. In addition a range of socio-demographic characteristics might affect an individual's level of dissatisfaction.

We carried out analysis to identify which factors are most important in explaining dissatisfaction with local authority services, while controlling for a range of other factors.

We found a large number of predictors of individual dissatisfaction with local authority services. As noted above, these relationships hold even after taking other potentially confounding factors into account. Factors that suggest an individual is likely to be dissatisfied with local authority services primarily relate to other attitudes and views about the local authority and the local area, namely:

- Strongly disagreeing that the local area is well maintained, compared to strongly agreeing;
- Strongly disagreeing that the local authority is good at informing people about its performance;
- Being very dissatisfied with the Welsh Government, compared to very satisfied;
- Strongly disagreeing that they can influence local authority decisions, compared to strongly agreeing;
- Strongly agreeing that there is graffiti or vandalism in the area, compared to strongly disagreeing; and
- Feeling very unsafe in a nearby town, compared to feeling very safe.

In addition, a smaller number of attitudes and views regarding the local authority were significantly associated with higher levels of satisfaction with local authority services, namely:

- Not wanting more information about a local authority's performance, compared to wanting more information; and
- Not wanting to be involved in decisions affecting the local area, compared to wanting to be involved.

Wanting more information or involvement is associated with being less satisfied with local authority services. It is not clear from this analysis whether wanting more information / involvement leads to lower satisfaction, or vice versa; we carried out further analysis to investigate this point (see section 2.4 below).

Overall, these relationships suggest that by improving perceptions of specific aspects of the local area, such as how well it is maintained, local authorities might ultimately influence satisfaction levels with their service provision.

A further range of socio-demographic characteristics were associated with higher levels of satisfaction with local authority services:

- Living in a terraced house compared to a detached house;
- Living in a flat, compared to a detached house;
- Keeping up with bills, compared to having financial difficulties; and
- Being non-white, compared to being white.

Some of these differences might be explained by a tendency for those in more disadvantaged socio-economic circumstances to have lower expectations for local authority services – which would consequently be easier for the local authorities to meet. Alternatively, they could be explained by such people making more use of LA services and, hence, being more satisfied with them.

There are four measures of involvement with local authorities: feeling well informed about performance; wanting more information about performance; having influence over decisions; and wanting to be more involved in decisions. The findings suggest that people who do not feel involved or informed, and those who want more information or want to be involved in decision making, are more likely to be dissatisfied with services. A lack of involvement with the local authority may itself either be driven by, or be a cause of, dissatisfaction with its services.

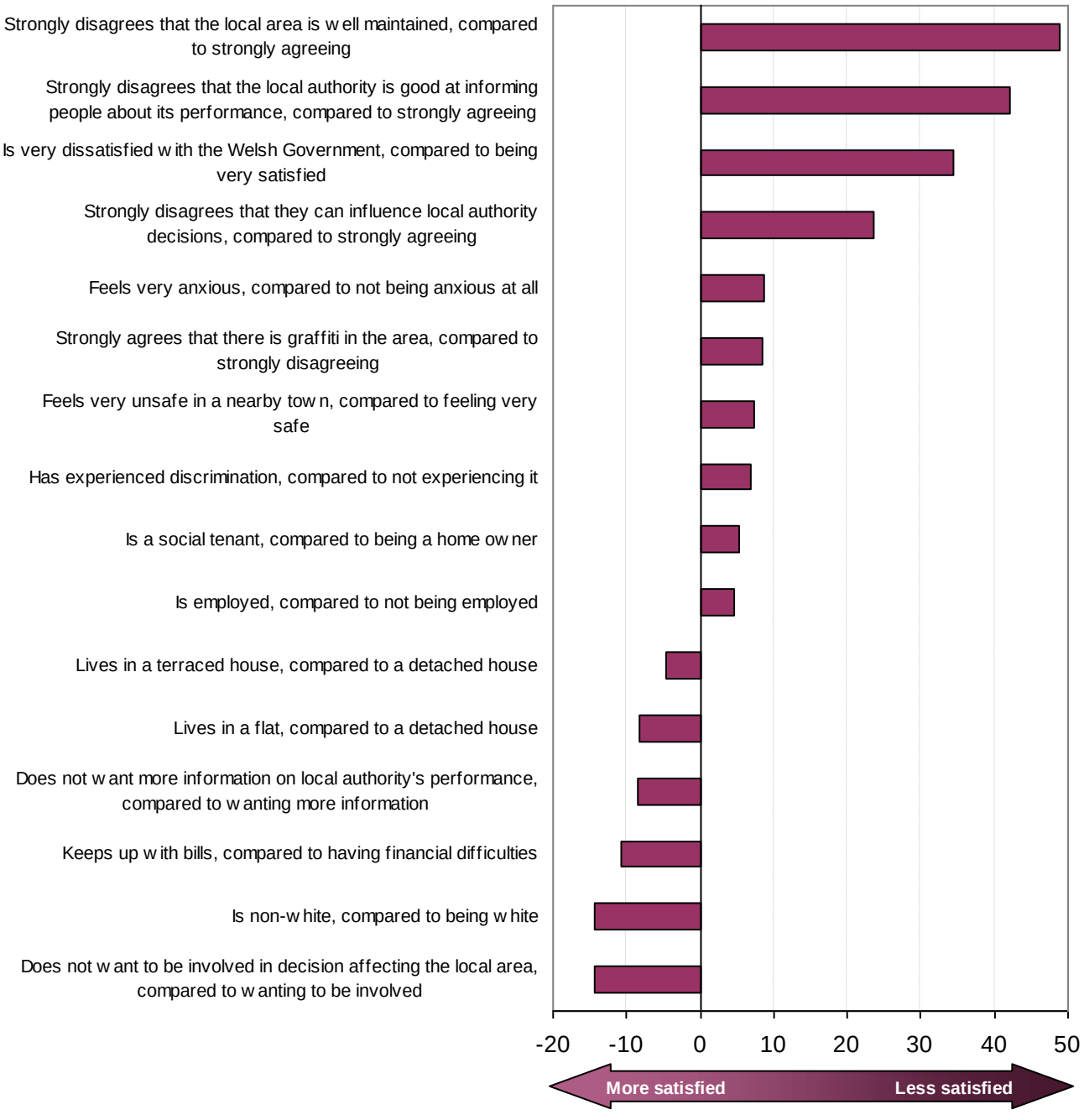
In addition, a range of socio-demographic characteristics and more general attitudes and experiences, not necessarily related to the Local Authority or local area, were associated with higher levels of dissatisfaction, namely:

- Feeling very anxious;
- Having experienced discrimination;
- Being a social tenant; and
- Being employed.

Whilst we cannot be sure of the reasons for the link between employment and higher dissatisfaction, it may be that those who are employed have higher expectations for local authority services, which are more difficult to meet. We can also theorise about the reasoning behind the tenancy finding: being a social tenant might reflect dissatisfaction with housing services.

Figure 2.1: Drivers of being d*issatisfied with local authority services*

Percentage point change in the probability of being dissatsified with local authority services if a person:



As illustrated in Figure 2.1 above, the strongest predictors of being dissatisfied with local authority services were other attitudes and perceptions regarding the performance of the local authority – namely, disagreement with the view that the local area is well maintained and disagreement with the view that the local authority is good at informing people about its performance. This is not surprising given that these attitudes and perceptions, in themselves, could be regarded as a reflection of perceptions of specific local authority services. And previous research by MORI (2008) has found that the two most important factors influencing satisfaction with local authority performance are how well informed people feel about what their local authority does, and whether they feel the it offers good value for money[6].

However, it is interesting to note that the third strongest predictor is levels of dissatisfaction with the Welsh Government – suggesting that, to some degree, this may be being viewed by some respondents as synonymous with local authority service performance. On the other hand, socio-demographic characteristics and other more general attitudes and experiences, not necessarily related to the local authority and local area, have a far lesser impact on levels of dissatisfaction with local authority services.

It is possible to predict how likely it is for an individual with a particular set of characteristics to feel dissatisfied with local authority services. This is calculated using the predictors of feeling dissatisfied that were identified in the above analysis. Overall, the probability of a person who is 'average' on all of the characteristics feeling dissatisfied with local authority services is 37%[7].

The probability of a typical person being dissatisfied with local authority services	**37%**

In the table below we use demographic variables which were shown to be significant in the regression model to illustrate what the probabilities of being dissatisfied are for people with different socio-demographic characteristics. The table uses three key predictors – ability to keep up with bills (to proxy for income), tenure and experience of discrimination[8]. These three characteristics were found to be the greatest predictors, among all socio-demographic characteristics, in the analysis reported above. The analysis

[6] MORI (2008) *The reputation of local government: Literature review to support the my council campaign,* London: Local Government Association

[7] The figure is calculated 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).

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

holds all other predictors constant, which allows for these combined probabilities to be compared.

These predicted probabilities reinforce the findings revealed in Figure 2.1. Individuals who had fallen behind with many bills tended to be more likely to be dissatisfied than those who were keeping up with their bills with no difficulty, when all other characteristics were kept to a constant 'average'. The same is true of social tenants, compared to private tenants or home owners and those who had experienced discrimination compared to those who had not. So, for instance, an individual who possesses the characteristics in relation to these three variables associated with dissatisfaction with local authority services has a predicted probability of being dissatisfied with local authority services of 61%. On the other hand, an individual with an inverted set of characteristics (all associated with lower levels of dissatisfaction) has a predicted probability of being dissatisfied of 38%. This is despite the fact, as noted above, that socio-demographic characteristics have far less explanatory power than do attitudes and experiences relating to the local authority or local area in explaining levels of dissatisfaction with local authority services.

Table 2.1 The probability of being dissatisfied with local authority services for distinct groups of people

Societal characteristics			Probability of being dissatisfied
Ability to keep up with bills	**Tenure type**	**Discrimination**	
Fallen behind with many bills	Social tenant	Experienced discrimination	61%
Fallen behind with many bills	Social tenant	Did not experience discrimination	54%
Fallen behind with many bills	Private tenant or home owner	Experienced discrimination	56%
Fallen behind with many bills	Private tenant or home owner	Did not experience discrimination	49%
Fallen behind with some bills	Social tenant	Experienced discrimination	58%
Fallen behind with some bills	Social tenant	Did not experience discrimination	52%
Fallen behind with some bills	Private tenant or home owner	Experienced discrimination	53%
Fallen behind with some bills	Private tenant or home owner	Did not experience discrimination	46%
Keeping up but constantly struggling	Social tenant	Experienced discrimination	56%
Keeping up but constantly struggling	Social tenant	Did not experience discrimination	49%
Keeping up but constantly struggling	Private tenant or home owner	Experienced discrimination	50%
Keeping up but constantly struggling	Private tenant or home owner	Did not experience discrimination	44%
Keeping up but sometimes struggling	Social tenant	Experienced discrimination	53%

Table 2.1 The probability of being dissatisfied with local authority services for distinct groups of people			
Societal characteristics			Probability of being dissatisfied
Ability to keep up with bills	**Tenure type**	**Discrimination**	
Keeping up but sometimes struggling	Social tenant	Did not experience discrimination	46%
Keeping up but sometimes struggling	Private tenant or home owner	Experienced discrimination	48%
Keeping up but sometimes struggling	Private tenant or home owner	Did not experience discrimination	41%
Keeping up with bills with no difficulty	Social tenant	Experienced discrimination	51%
Keeping up with bills with no difficulty	Social tenant	Did not experience discrimination	43%
Keeping up with bills with no difficulty	Private tenant or home owner	Experienced discrimination	45%
Keeping up with bills with no difficulty	Private tenant or home owner	Did not experience discrimination	38%

2.3 Differences in satisfaction between local authorities

We have seen that both individual level attitudes and views and socio-demographic characteristics have a part to play in predicting individual levels of dissatisfaction with local authority services. However, it was also noted, at the outset, that levels of dissatisfaction vary substantially depending upon the local authority of residence. To disentangle further the ways in which individual level and area level characteristics are associated with, and can explain, levels of dissatisfaction, multi-level modelling was undertaken. We included, at the first level, the range of individual level characteristics discussed above. Level two included the specific local authorities in which respondents were living.

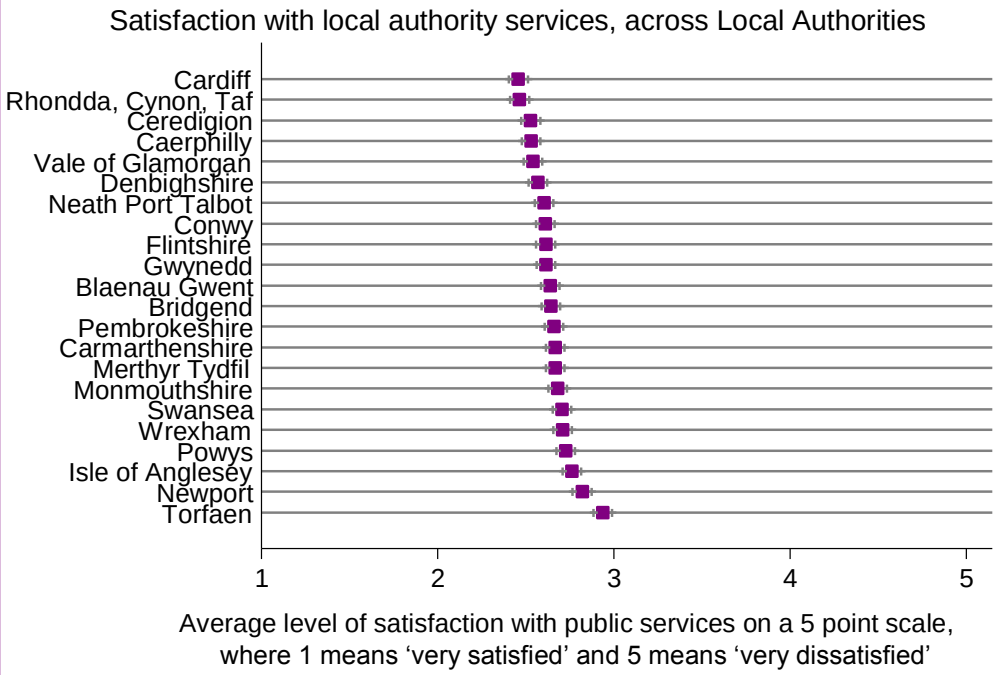
As shown below (Figure 2.2), multi-level modelling found that differences between local authorities accounted for 1.7% of the variation in the levels of satisfaction with local authority services. Given the range of variation in dissatisfaction levels reviewed above in relation to individuals with certain characteristics, attitudes and experiences, the proportion of variance explained is comparatively low. It indicates that less than 2% of the variation in levels of satisfaction is due to which local authority people live in. The majority of the variance presented in section 2.1 is therefore a consequence of variations in people's characteristics and attitudes (rather than which local authority they live in).

1.7%...

… of the variation in 'Satisfaction with local authority services' is due to differences between local authorities

This point is further illustrated in Figure 2.2. The chart depicts satisfaction with local authority services across local authorities, once all individual-level characteristics have been controlled for. It clearly demonstrates that minimal variation in satisfaction levels results from the specific local authority in which respondents lived, once all other relevant characteristics have been controlled for. This suggests that taking action to alter local authority performance on objective measures would potentially have only a small impact on overall satisfaction levels with service provision; although this impact could still make be of substantive importance.

Figure 2.2:



Nevertheless, it is worth exploring what it is about residence in a particular local authority that might be associated with different levels of satisfaction with local authority services. By entering further area-level characteristics into the multi-level model detailed above, it emerged that 29% of the difference between average satisfaction levels can be accounted for by two variables at the local authority level – expenditure on planning and economic development and expenditure on "other" areas[9]. In other words, these two variables alone account for just under a third of the small variation of 1.7% between local authorities.

[9] To try and understand what drives the variation between LAs we included measures of expenditure each LA made in the following areas: education; social services; Council funded housing and housing benefit; local environmental services; roads and transport; libraries, culture, heritage, sport and recreation; planning and economical development; Council tax benefit and administration; other gross revenue expenditure. We did not use performance indicators

What explains the different levels of satisfaction between local authorities?

Expenditure on planning and economic development

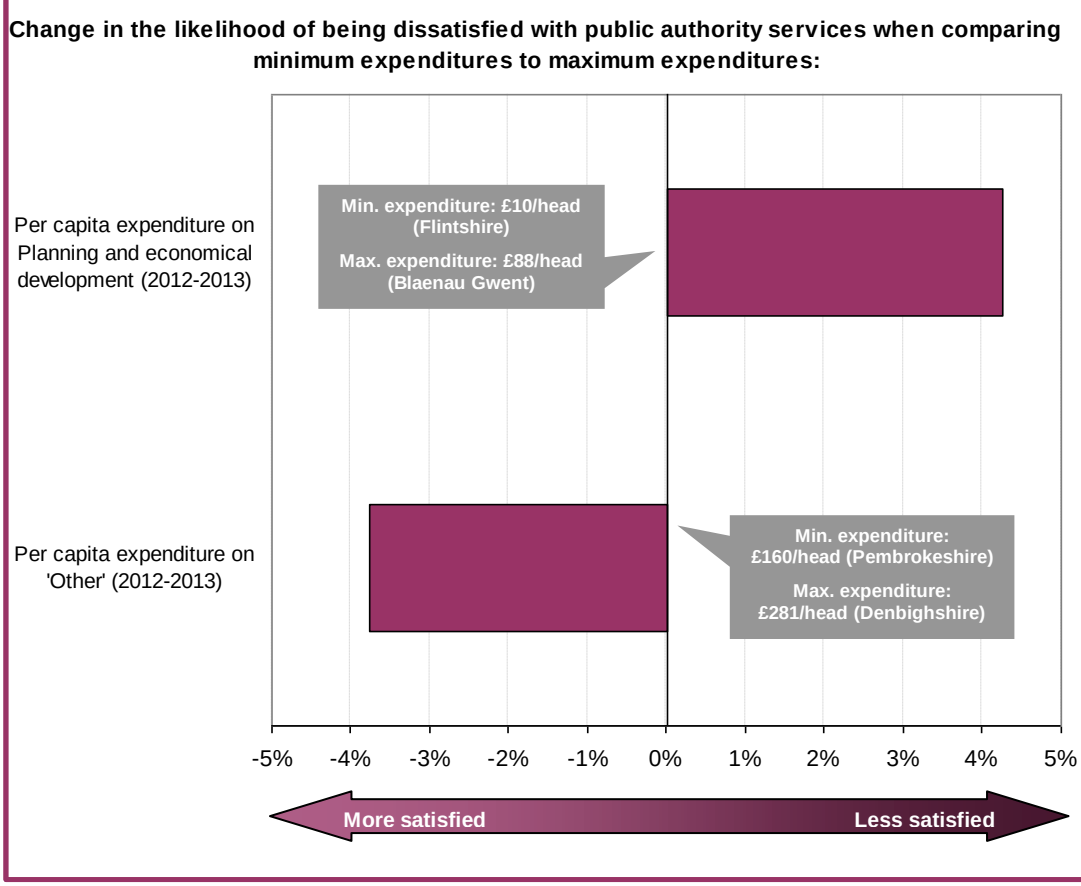
Expenditure on 'other'

Together they explain 29% of the difference between the average level of satisfaction between local authorities*

*** 29% out of the 1.7% discussed earlier**

Figure 2.3 illuminates further the nature and direction of these relationships. We can see that a change from a minimum to maximum expenditure on planning and economic development increases the likelihood of being dissatisfied with local authority services by a maximum of four percentage points. On the other hand, a change from a minimum to a maximum expenditure on 'other' areas has the effect of decreasing the likelihood of being dissatisfied with local authority services by slightly less than four percentage points. In other words, the effect of these two areas of spending are operating in opposite directions, explaining the smaller level of variation which they contribute to explaining in individual levels of satisfaction associated with particular local authorities, as shown in the Figure 2.2.

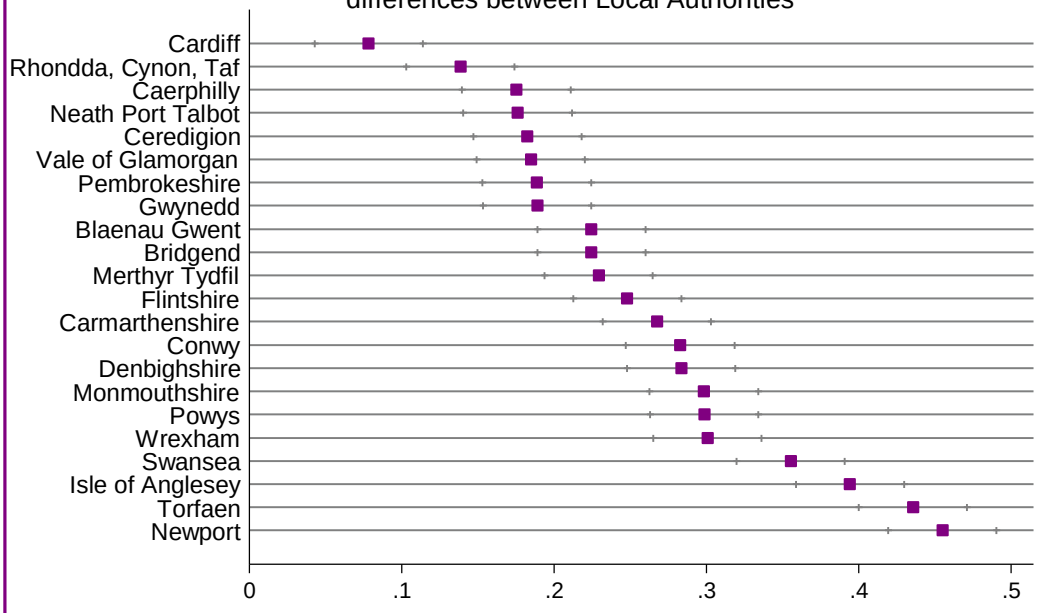
Figure 2.3: The influence Local Authority characteristics have on the level of *dissatisfaction with public authority services*



We saw previously that an individual's view as to whether the local area is well maintained is the strongest predictor of levels of dissatisfaction with local authority services. We explored whether the nature of this relationship is different in different local authorities. The chart below depicts the extent to which views on the maintenance of the local area affect levels of satisfaction with local authority services, once all other relevant predictors have been controlled for.

The level of influence varies to a significant degree – being most pronounced in Newport and Torfaen and much less pronounced in Cardiff. In the former two local authorities, an increase of one unit in satisfaction with the maintenance of the local area is associated with an increase of almost 0.5 of a unit in satisfaction with local authority services. However, in Cardiff, the equivalent increase is 0.1 – about one quarter of the magnitude. This suggests that the impact of perceptions of area maintenance on public satisfaction with local authority services is not consistent across Wales, but varies substantially in different local authorities. This suggests that modifying how people perceive area maintenance will have a higher impact on satisfaction with local authority services in some areas, for example Newport, than others, for example Cardiff.

Figure 2.4: Area maintenance and satisfaction with local authority services, differences between Local Authorities



The extent to which local area maintenance influences satisfaction with public authority services, where 0 means no influence at all and .5 means higher influence

2.4 Satisfaction and local authority performance: which comes first?

Population data from the National Survey published in 2013 indicated that, while 57% of respondents thought that their local authority provided high quality services, 41% thought that it was good at letting them know how it was performing.

A key question emerging from these data is whether dissatisfaction with local authority services is driven by how well the local authority actually communicates with people about its performance, or vice versa. To answer this question, we carried out a particular type of analysis ("path analysis") that can answer this question. In this way, we can determine what might be more effective for a local authority in improving performance in relation to these two questions – improving its service performance or providing more information on that performance. The results are shown below.

As indicated by the green arrow in the chart, after controlling for other factors it is views on whether the local authority is good at letting people know how it is performing that influence levels of satisfaction with local authority services and not vice versa. This suggests that a local authority could improve its performance in relation to both of these measures by better dissemination of information on its performance.

Figure 2.5: Path diagram

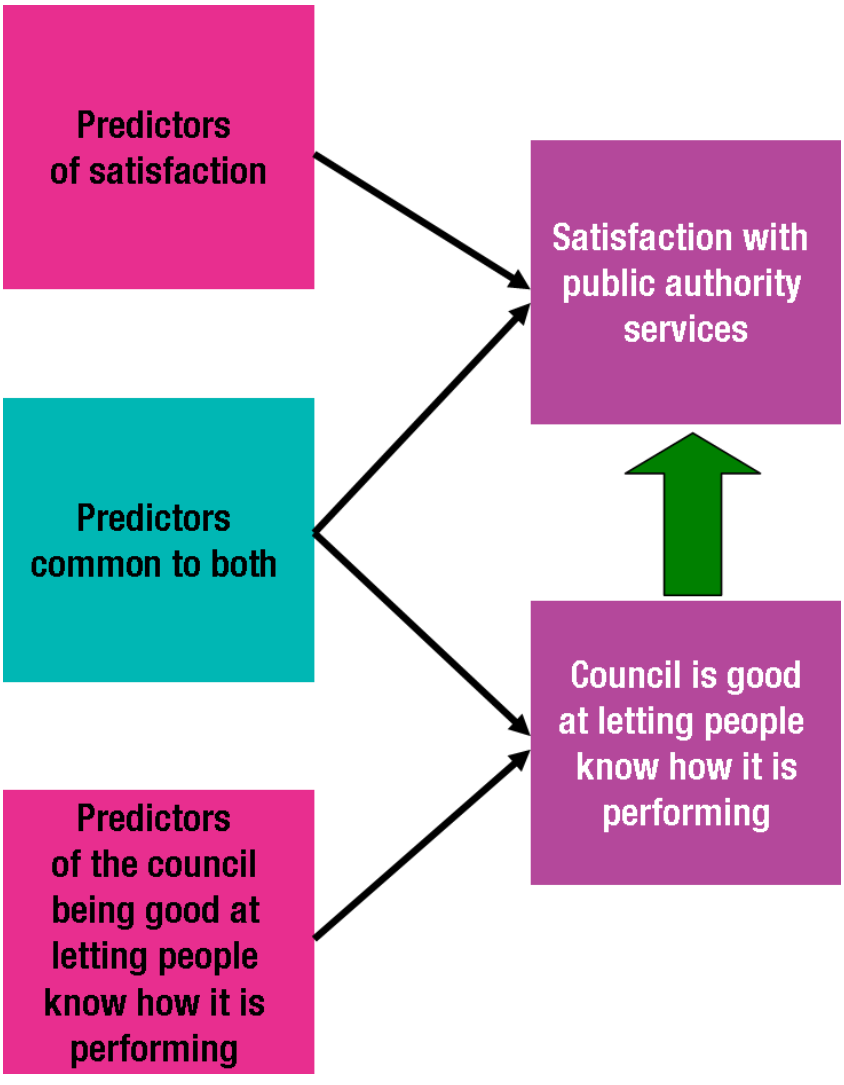


Figure 2.6, below, sets out the variables which were found to be significant predictors. While there is a considerable degree of commonalty in the factors which predict each of the attitudes, there is also a considerable degree of divergence (as indicated by the variables presented in pink).

Figure 2.6: Significant predictors:

Outcome: Satisfaction with public authority services	
Common Predictors	National identity
	Local area maintenance
	Satisfaction with the Welsh Government
	Living in social housing
	Ability to influence decisions affecting the local area
Unique Predictors	Experienced discrimination
	Whether the local area is free of graffiti and vandalism
	Living in a flat vs a detached house
	Living in a terraced house versus a detached house
	Safety in public transport
	Level of happiness
	Ethnicity
	Willingness to be involved in local decisions
	Thinking the council is good at letting people know how it is performing

Outcome: The council is good at letting people know how it is performing	
Common Predictors	National identity
	Local area maintenance
	Satisfaction with the Welsh Government
	Living in social housing
	Ability to influence decisions affecting the local area
Unique Predictors	People treating each other with respect
	Age
	Education
	Religion
	Urban vs rural
	Would like more information about local authority performance

2.5 Conclusion

While we saw at the outset that satisfaction levels with local authority services vary considerably by local authority. Further investigation reveals that aspects of individuals' views on public services (their views on maintenance of the local area, how good their local authority is in communicating about its performance, perceived ability to influence decisions affecting the local area, and satisfaction with the Welsh Government) are key in predicting levels of satisfaction. Socio-demographic characteristics have a smaller role to play.

Once the attitudes and characteristics of their populations have been controlled for, local authorities appear to have only a minimal impact on levels of satisfaction with their services. Looking at the small variation in satisfaction between local authorities, after the other characteristics of the populations have been controlled for, aspects of people's views on public services have a different impact on overall satisfaction in different authorities. For example,

views on local area maintenance have the strongest effect on satisfaction with local authority services in Newport and Torfaen. The effect is much less pronounced in Cardiff. This suggests that modifying how people perceive area maintenance will have a higher impact on satisfaction with local authority services in some authorities than in others.

Finally, we found evidence that better dissemination of information leads to improved satisfaction (and not vice versa). This means that in seeking to improve satisfaction with services local authorities may be best advised to focus on improving the dissemination of information on their performance.

3 Maintenance of the local area

The National Survey included a number of questions about local authority services in Wales. This section focuses on the following question about maintenance of the local area.

"To what extent do you agree or disagree with each of the following statements?
…My local area is well maintained"

- *Strongly agree*
- *Tend to agree*
- *Neither agree nor disagree*
- *Tend to disagree*
- *Strongly disagree*
- *Don't know/no opinion*
- *Refused*

This section explores the views of those who said that they "neither agree nor disagree", "tend to disagree" or "strongly disagree".

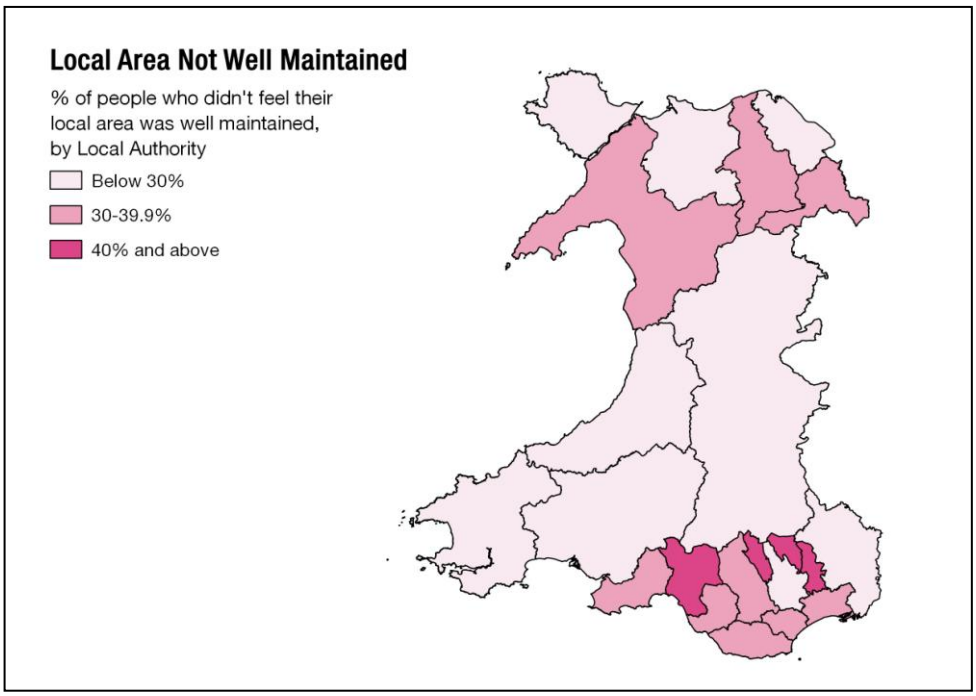
3.1 Geographical distribution

Overall the majority of people in Wales, almost seven in ten (68%), agreed that their local area was well maintained. The percentage of people who did not feel that their local area was well maintained varied by local authority. People were most likely to feel that their local area is not well maintained in:

- Torfaen (45% feel that their local area is not well maintained)
- Merthyr Tydfil (44%)
- Blaenau Gwent (43%)
- Neath Port Talbot (41%)

People were least likely to feel that their local area is not well maintained in:

- Carmarthenshire (23% feel that their local area is not well maintained)
- Pembrokeshire (25%)
- Conwy (25%)
- Monmouthshire (25%)
- Powys (25%)
- Isle of Anglesey (25%)
- Ceredigion (25%)



3.2 The contributing factors to views on local area maintenance

We looked at what factors lead people to feel that the local area is not well maintained.[10]

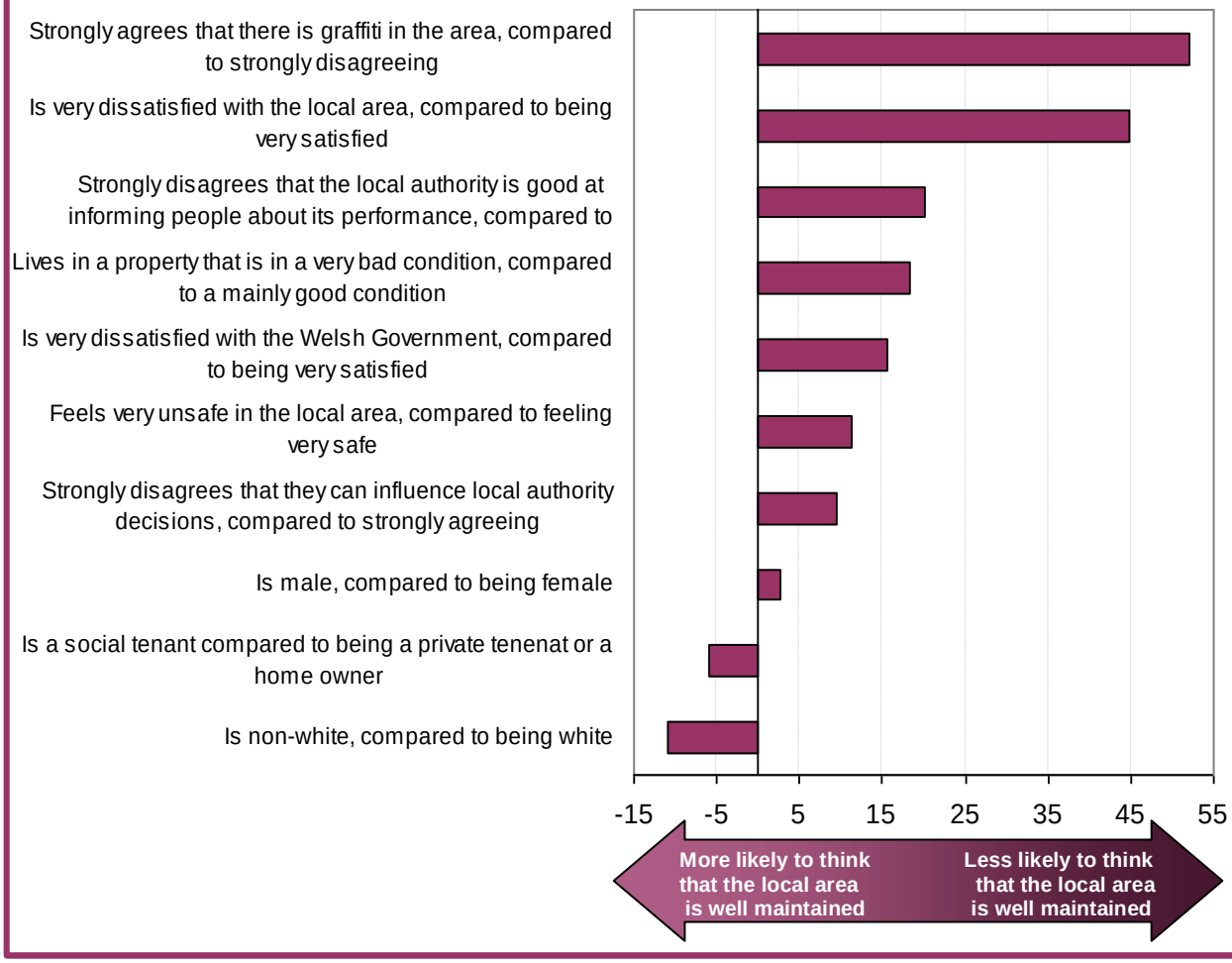
The findings show that there are a number of predictors of feeling that the local area is not well maintained. These relationships hold even after taking other predictors into account. Predictors that suggest a person is likely to feel that the local area is not well maintained are:

- Reporting that there is graffiti and vandalism in the area;
- Feeling dissatisfied with the local area;
- Does not think the local authority is good at informing people of its performance;
- Living in property in bad condition;
- Feeling dissatisfied with the Welsh Government;
- Feeling unsafe in the local area;
- Does not think they can influence local authority decisions;
- Is male;
- Is a private tenant or homeowner; and
- Is white.

[10] Given that the aim is to discover the factors which are most important in explaining these views an inductive, or step-wise, approach was used that retained only the predictors which have a significant relationship with the outcome. This allows the identification of predictors that are related to the predictors when considered simultaneously with the other predictors. More detail is given in Appendix 1.

Figure 3.1: Drivers of *thinking that the local area is not well maintained*

Percentage point change in the probability of thinking that the local area is not well maintained if a person:



The strongest predictors that a person is likely to feel that the local area is not well maintained are feeling that there is graffiti and vandalism in the area and feeling dissatisfied with the local area. For example, people who report that there is graffiti and vandalism in the area were 52 percentage points more likely to feel that the local area is not well maintained compared to people who feel it is.

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

It is possible to predict how likely it is for people with particular characteristics to feel the local area is not well maintained. This is calculated using the predictors that were identified in the above analysis. Overall, the probability of

a typical, or average, person feeling the local area is not well maintained is 23%.[11]

The probability of a typical person thinking that the local area is not well maintained	23%

People's probability of thinking that the local area is not well maintained will vary according to which combination of key predictors they have. This is demonstrated in the table below using three key predictors - tenancy, gender and ethnicity[12]. The analysis holds all other predictors constant, which allows for these combined probabilities to be compared.

For example, non-white females who lived in social-rented housing had a 14% chance of thinking that the local area is not well maintained. However white males who were private renters or owner occupiers have a 32% chance of thinking that the local area is not well maintained – their probability was higher because they had three characteristics that make them more likely to think their area is not well maintained.

Table 3.1 The probability of thinking that the local area is not well maintained among different groups of people

Societal characteristics			Probability of thinking the local area is not well maintained
Social tenant versus private tenant or home owner	**Gender**	**Ethnicity**	
Social tenant	Men	White	26%
Social tenant	Men	Non-white	16%
Social tenant	Women	White	24%
Social tenant	Women	Non-white	14%
Private tenant or home owner	Men	White	32%
Private tenant or home owner	Men	Non-white	20%
Private tenant or home owner	Women	White	29%
Private tenant or home owner	Women	Non-white	18%

3.2 Differences in maintenance between local authorities

We also explored differences in views on maintenance of the local area *between* local authorities.

We found that 2% of the variation in how strongly people disagree with the local area being well maintained is due to differences between local

[11] This means 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).

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

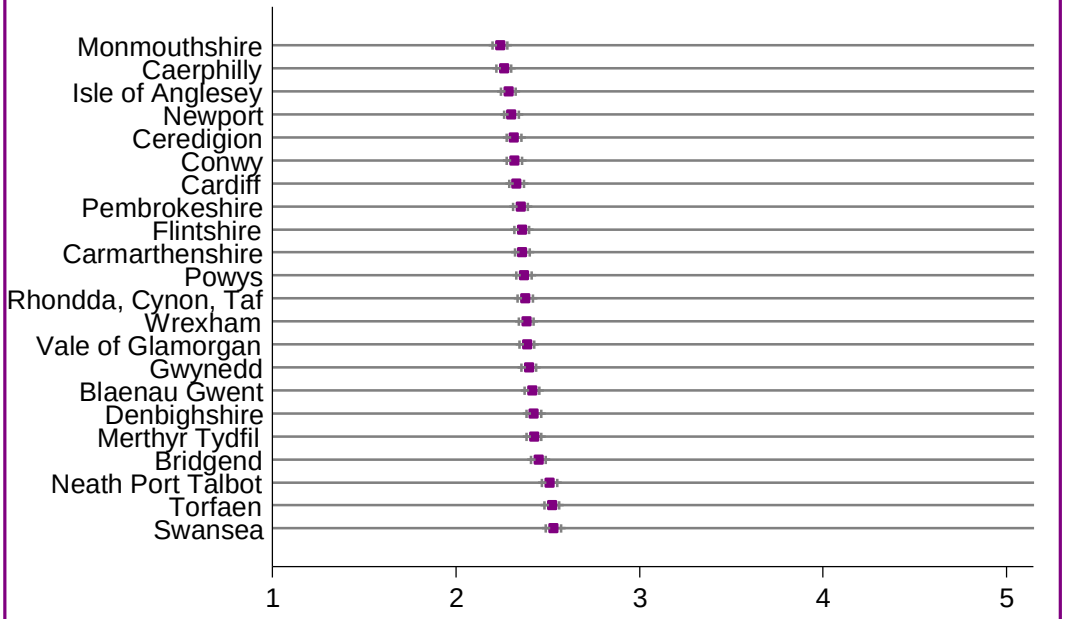
authorities. This indicates that, once the variation between the populations of local authorities were accounted for, the identity of the local authorities themselves explained only around 2% of the variation in people's thoughts on the maintenance levels of the local area. Hence the majority of the variation is clearly a consequence of differences in people's characteristics and attitudes rather than the local authority they live in.

2%...

… of the variation in how 'strongly people disagree with the local area being well maintained' is due to differences between local authorities

This is further illustrated in the chart below, which depicts views on the local area being well maintained across local authorities, once all individual level characteristics have been controlled for. There is only minimal variation in views across local authorities.

Figure 3.2: Local area maintenance, across Local Authorities



Nevertheless, it is worthwhile exploring what it is about residence in a particular local authority that might be associated with different levels of views on local area maintenance. By entering further area-level characteristics into the multi-level model detailed above, it emerged that 20% of the difference

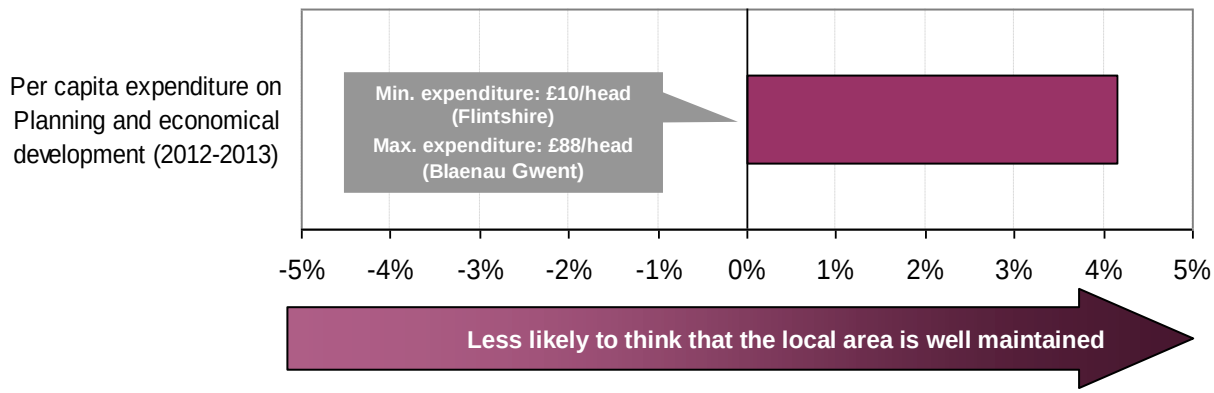
between local authorities can be explained by expenditure on planning and economic development. In other words, this accounts for a fifth of the variation of 2% explained by differences between local authorities alone.

What explains the different levels of assessment of local area maintenance between local authorities?	Explains 20% of the difference between local authorities in terms of people's assessment of maintenance
Expenditure on planning and economic development	

Figure 3.3 below illuminates the nature and direction of this relationship further. It shows that a change from a minimum to maximum expenditure on planning and economic development increases the likelihood of strongly disagreeing that the local area is well maintained by around four percentage points.

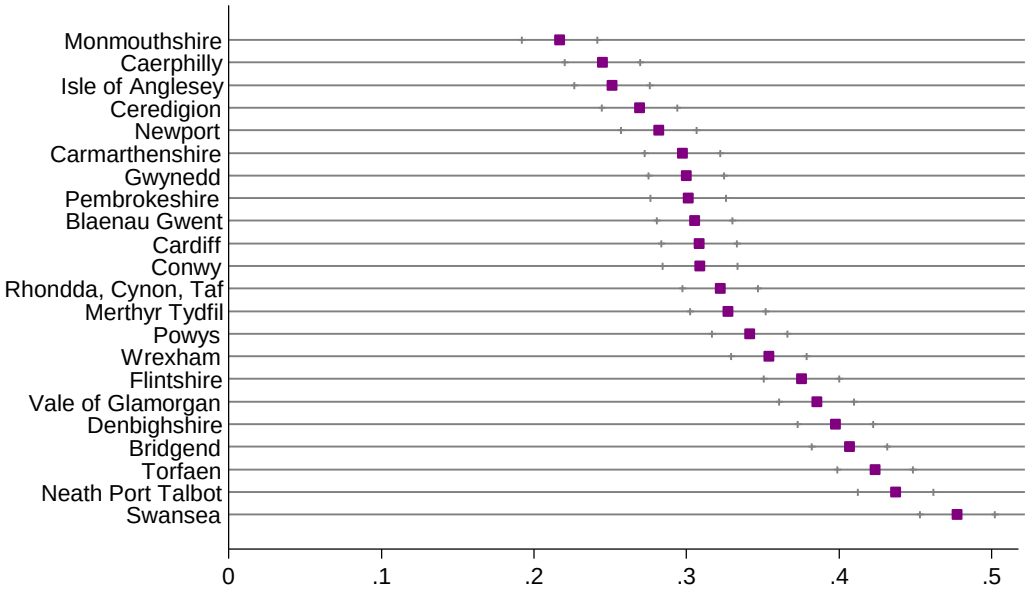
Figure 3.3: The influence Local Authority charateristics have on the *assessment of local area maintenance*

Change in the likelihood of strongly disagreeing with the local area being well maintained when comparing minimum expenditures to maximumm expenditures:



The earlier analysis showed that reporting that there was graffiti and vandalism in the local area was the strongest predictor of thinking the local area is not well maintained. The chart below shows how far these views influence levels of thinking the local area is not well maintained, across local authorities. This level of influence clearly varies to a significant degree in different authorities – being most pronounced in Swansea, and areas such as Neath Port Talbot, Torfaen and Bridgend, and much less pronounced in Cardiff and Rhondda Cynon Taf.

Figure 3.4: Vandalism, graffiti and local area maintenance, differences between Local Authorities



The extent to which the presence of vandalism and graffiti influences the assesment of local area maintenance, where 0 means no influence and .5 means higher influence

3.3 Conclusion

The strongest predictor that a person is likely to feel that the local area is not well maintained is reporting that there is graffiti or vandalism in the area. This is particularly a driving factor in areas such as Swansea, Neath Port Talbot, Torfaen and Bridgend – where rates of feeling the local area is not well maintained were highest. This suggests that local authorities may wish to focus on reducing levels of graffiti and vandalism.

This and other individual characteristics and attitudes, such as being dissatisfied with the local area and thinking that the local authority does not communicate its performance well, explained most of the variation in views on local area maintenance across local authorities. Only around 2% of the variation in views was explained by which local authority people lived in.

4 Local authority performance communication

This section covers the survey results on whether the local authority is good at letting people know how it is performing:

"To what extent do you agree or disagree with each of the following statements?
…My council is good at letting local people know how well it is performing."

- *Strongly agree*
- *Tend to agree*
- *Neither agree nor disagree*
- *Tend to disagree*
- *Strongly disagree*
- *Don't know/no opinion*
- *Refused*

This section focuses primarily on the views of those who said that they "neither agree nor disagree", "tend to disagree" or "strongly disagree" to the above question.

4.1 Geographical distribution

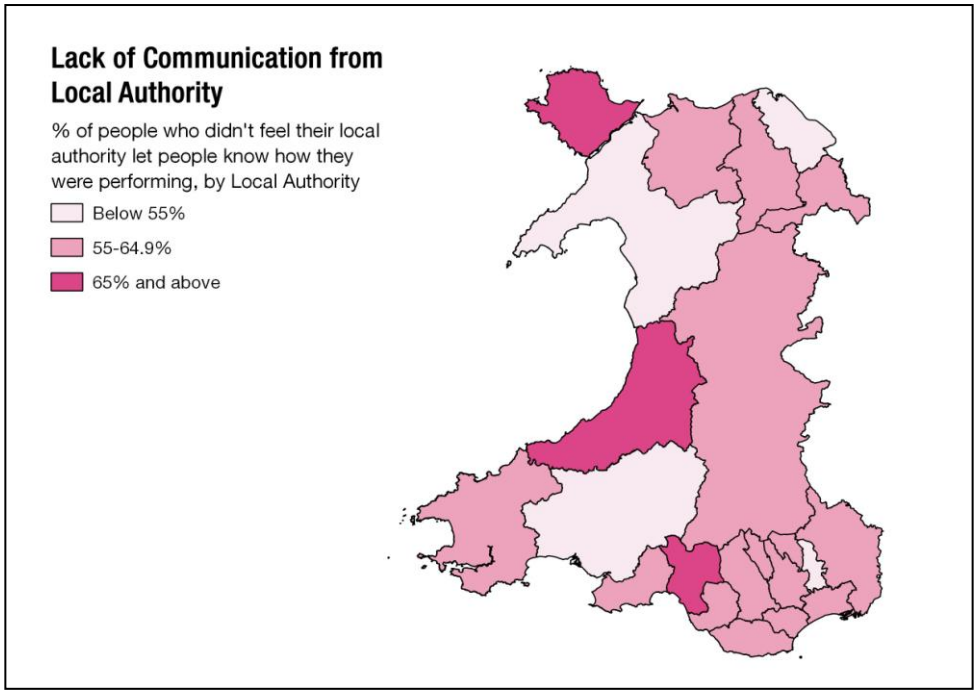
Two in five (41%) people in Wales agreed that their local authority was good at letting people know how it was performing.

The percentage of people who felt that their local authority is not good at communicating its performance varied by geographic region. People in the following areas were most likely to feel that their local authority did not let them know how it was performing:

- Isle of Anglesey (69% feel that their local authority did not let them know how it was performing)
- Neath Port Talbot (69%)
- Ceredigion (69%)

People in the following areas were least likely to feel that their local authority did not let them know how it was performing

- Carmarthenshire (48% feel that their local authority did not let them know how it was performing)
- Flintshire (51%)
- Gwynedd (54%)



4.2 Influences on the perceptions of performance

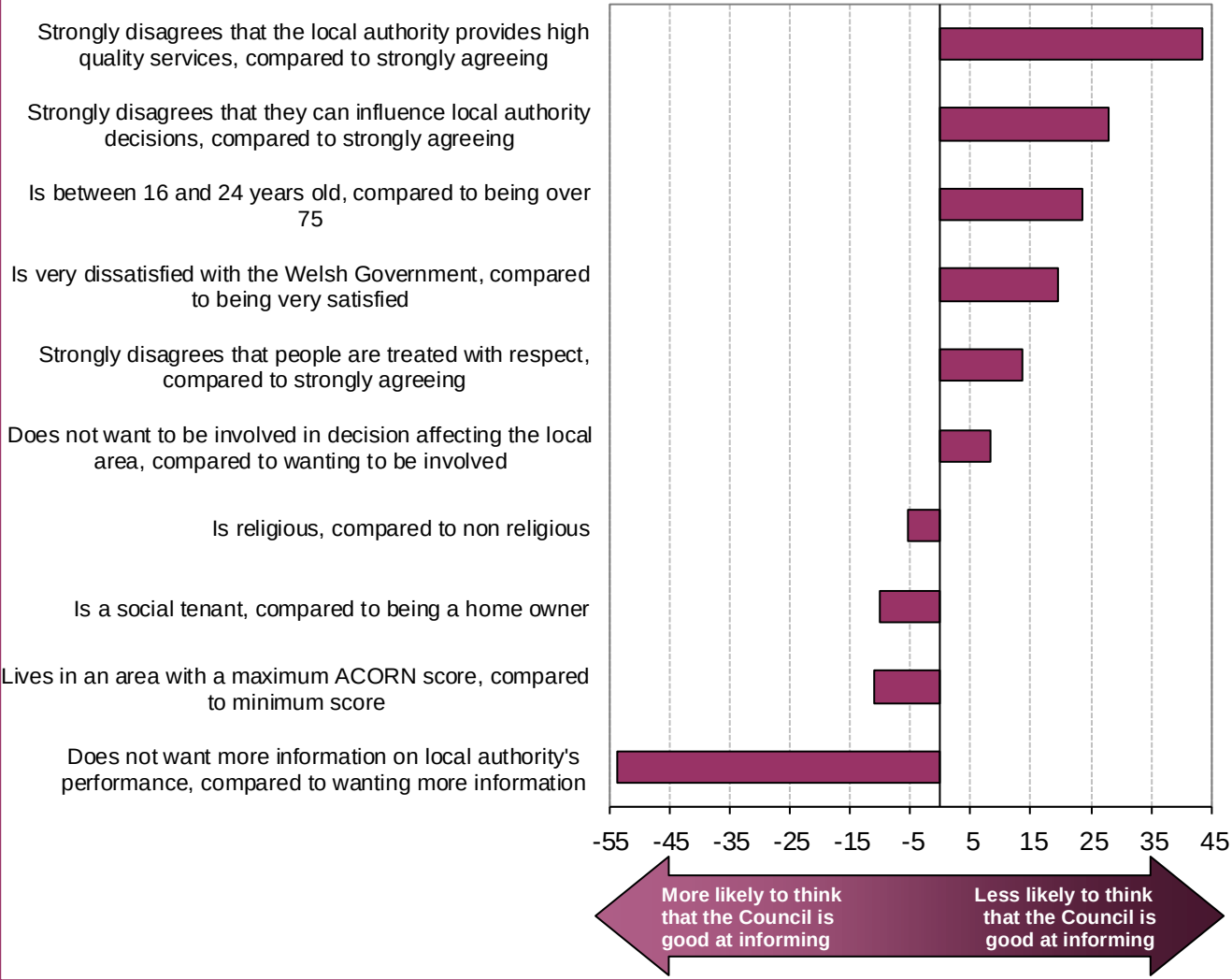
There are a number of predictors of people feeling that their local authority did not let them know how it was performing. These relationships hold even after taking other potentially confounding predictors into account. Predictors that suggest a person thinks that their local authority is not good at letting them know how it was performing are:

- Not thinking that the local authority provides high quality services;
- Not thinking that they can influence local authority decisions;
- Being younger;
- Being dissatisfied with the Welsh Government;
- Feeling people do not treat others with respect;
- Not wanting to be involved with decisions affecting the local area;
- Not being religious;
- Being a home owner;
- Living in an area with a low ACORN score; and
- Wanting more information on local authority's performance.

Unsurprisingly, the strongest predictor of feeling that their local authority did not let them know how it was performing was 'wanting more information on performance'. Other key predictors were not thinking the local authority provides high quality services', people not thinking they can influence local authority decisions, and being younger. This suggests that dissatisfaction with communications may be linked to more general dissatisfaction with local authority performance. There may also be issues with communicating messages to younger adults, perhaps in the way they are delivered.

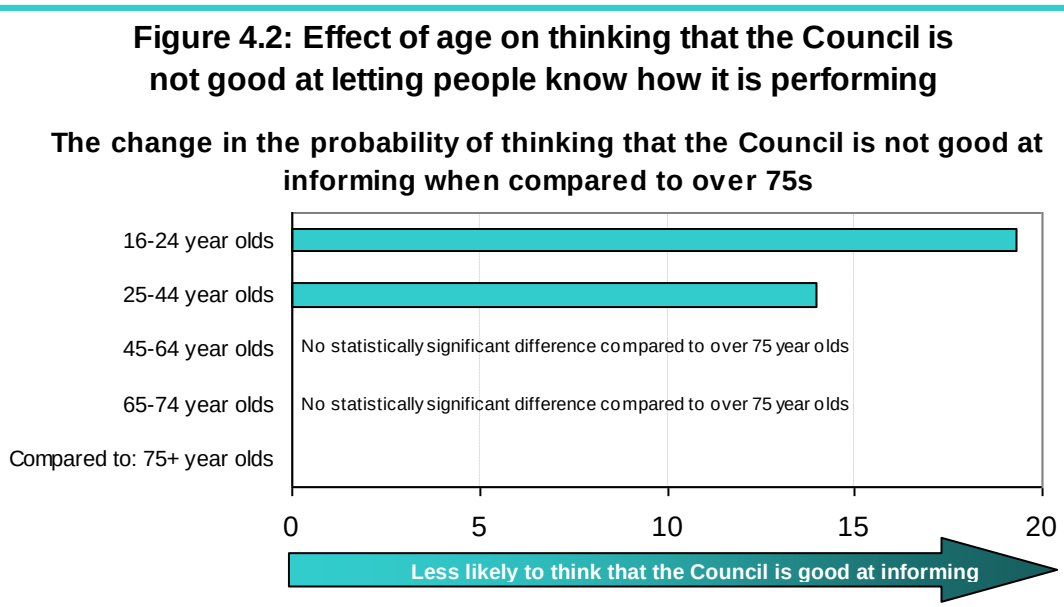
Figure 4.1: Drivers of *thinking that the Council is not good at letting people know how it is performing*

Percentage point change in the probability of thinking that the Council in not good at letting people know how it is performing if a person:



Younger adults, and also middle aged adults (aged 25-44), were less likely (than those aged 75 and older) to think that the local authority is good at communicating performance information. The chart below shows the change in probability of thinking that the local authority is not good at informing 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 19 percentage points less likely than people aged 75 and older to think that the local authority is good at communicating performance information. Likewise 25-44 year olds were about 14 percentage points less likely than people aged 75 and older to think the local authority is good at communicating performance information.

Figure 4.2: Effect of age on thinking that the Council is not good at letting people know how it is performing



The predictors identified in the earlier analysis were used to predict how likely it is for people with particular characteristics to think the local authority is not good at communicating performance information (holding all other predictors constant). Overall, the probability of a typical, or average, person thinking that the local authority is not good at communicating performance information is 64%.[13]

The probability of a typical person thinking that the local authority is not good at letting know how well it performs	**64%**

Certain combinations of key predictors reveal that there are groups of people who have a particularly high risk of thinking that the local authority is not good at communicating how well it performs. The table below presents predicted probabilities for people with different combinations of tenancy and religion – both key predictors of people thinking the local authority is not good at letting them know how it is performing[14]. For example, religious people who live in

[13] This means 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).
[14] For further information on the choice of variables please consult section A1.2 – *Effect sizes and presentation* in Appendix 1. Only two variables were included given that only three demographic

social housing had a 48% chance of thinking the local authority does not communicate well compared to a 63% chance for non-religious people who live in private rented or owned accommodation (holding other predictors constant).

Table 4.1 The probability of thinking that the local authority is not good at letting people know how it is performing for distinct groups of people

Societal characteristics		Probability of thinking that the local authority is not good at informing
Social tenant versus private tenant or home owner	**Religion**	
Social tenant	Religious	48%
Social tenant	Non-religious	53%
Private tenant or home owner	Religious	58%
Private tenant or home owner	Non-religious	63%

4.3 Differences between local authorities

The earlier analysis showed that both people's attitudes and views and their socio-demographic characteristics have a part to play in predicting how good people think the local authority is at letting them know how it is performing. However, it was also noted, at the outset, that these views vary substantially depending upon the local authority of residence; for example people from the Isle of Anglesey, Neath Port Talbot and Ceredigion (69%) were most likely to feel that their local authority did not let them know how it was performing.

We carried out further analysis to disentangle the influence of individual level and area level characteristics that are associated with, and can explain, people's views on local authority communication about its performance. As shown below, this found that differences between local authorities accounted for only 1.3% of the variation in how good people think the local authority is at letting them know how it is performing. This indicates that the identity of the local authorities themselves explained less than 2% of the variance in levels of views on local authority communication – thus, the majority of the variance is clearly a consequence of differences in people's characteristics and attitudes of people rather than the local authority they live in.

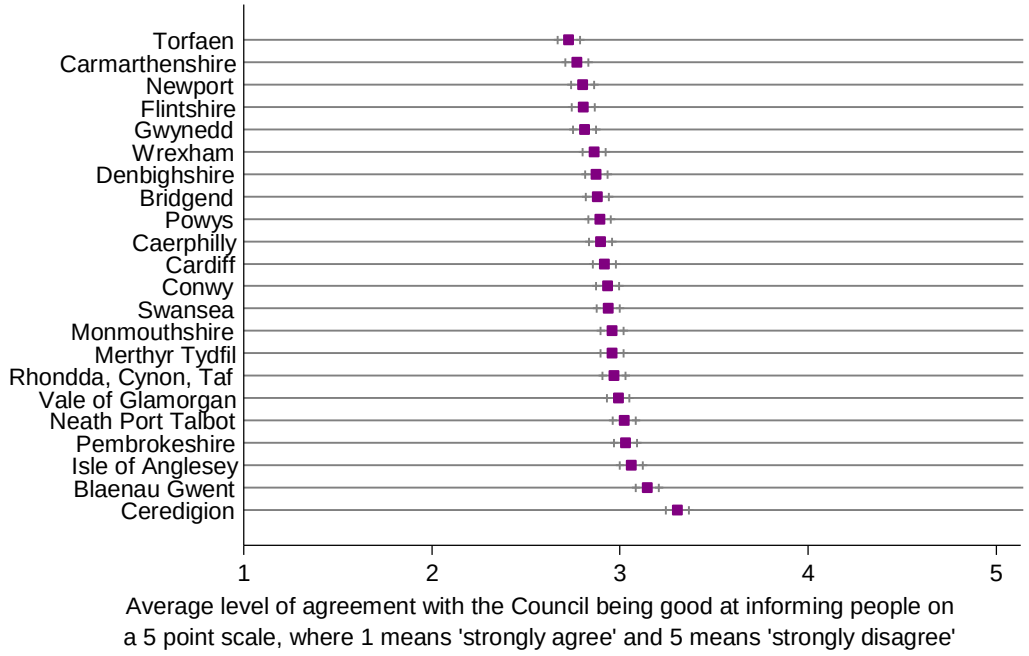
1.3%...

… of the variation in how 'good people think the local authority is at letting them know how it is performing' is due to differences between local authorities

variables were significant in the regression model. 'Age' was omitted as it has non-linear effects, and was discussed separately (see Figure 4.2).

This is further illustrated in the chart below, which depicts how informed people across local authorities feel about their local authority performance, once all individual level characteristics have been controlled for. Clearly, minimal variation results from the specific local authority in which respondents lived.

Figure 4.3: The Council informing people about its performance, across Local Authorities



We explored what might explain these small differences between local authorities, and found that they are not explained by expenditure levels.

What explains the differences between local authorities in how good they are in communicating about performance?

Expenditure levels cannot explain the differences

4.4 Conclusion

Two in five (41%) people in Wales agreed that their local authority was good at letting people know how it was performing. The percentage of people who felt that their local authority was *not* good at communicating its performance varied by geographic region. The highest rates of dissatisfaction were

recorded in areas such as the Isle of Anglesey (where 69% felt that their local authority did not let them know how it was performing), Neath Port Talbot and Ceredigion.

Unsurprisingly, the strongest predictor of feeling that their local authority did not let them know how it was performing was 'wanting more information on performance'. Other key predictors were not thinking the local authority provides high quality services, not thinking they can influence local authority decisions, and being younger. This suggests that dissatisfaction with communications may be linked to more general dissatisfaction with local authority performance.

There may also be issues with communicating messages to younger adults, which suggests that local authorities may wish to consider the way in which communications are delivered. Such communications could be designed differently for certain groups of the population, and be delivered through different means.

Once the variation between the populations of local authorities were accounted for, the identity of the local authorities themselves explained less than 2% of the variance in levels of views on local authority communication – thus, the majority of the variance is clearly a consequence of differences in people's characteristics and attitudes rather than the local authority they live in.

5 Power to influence decisions

The National Survey included a question about influencing decisions about the local area.

"To what extent do you agree or disagree with each of the following statements?
…I can influence decisions affecting my local area."
- *Strongly agree*
- *Tend to agree*
- *Neither agree nor disagree*
- *Tend to disagree*
- *Strongly disagree*
- *Don't know/no opinion*
- *Refused*

This section explores the views of those who said that they "neither agree nor disagree", "tend to disagree" or "strongly disagree" to the above question, in other words, people who do not feel that they could influence decisions affecting their local authority.

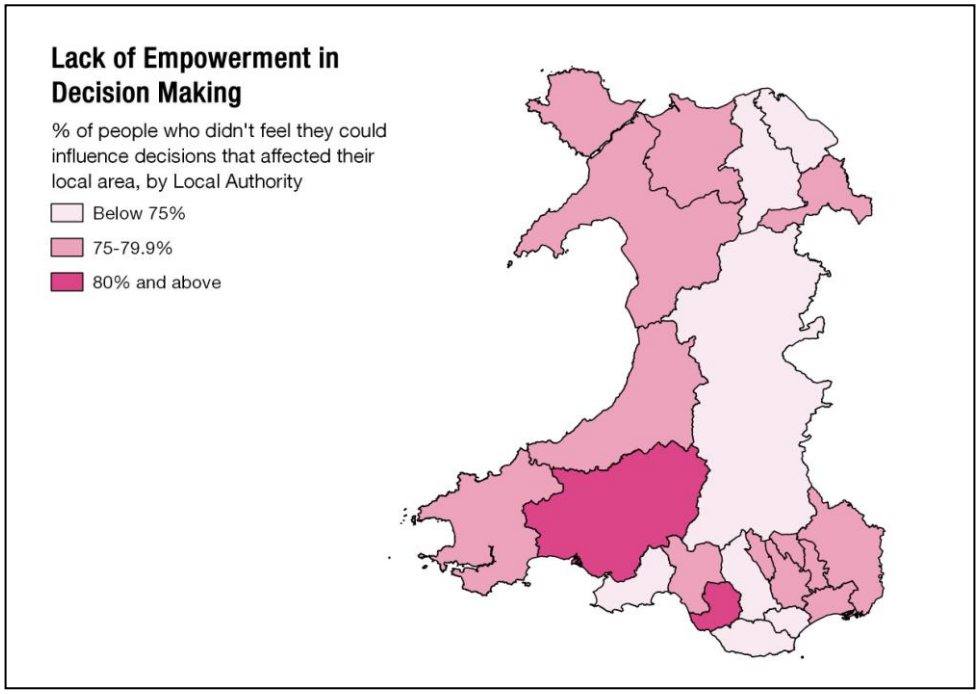
5.1 Geographical distribution

Approximately one quarter (24%) of people in Wales felt that they could influence decisions affecting their local area. The percentage of people who felt that they could *not* influence decisions affecting their local area varies by geographic region. People were least likely to feel that they could influence decisions in the following areas:

- Carmarthenshire (85% feel that they could not influence decisions about their local area)
- Bridgend (81%)

People were most likely to feel that they could influence decisions in the following areas (although, even in these local authorities, the majority still felt that they could not influence decisions):

- Denbighshire (70% feel that they could not influence decisions about their local area)
- Vale of Glamorgan (72%)
- Powys (72%)
- Flintshire (72%)
- Rhondda, Cynon, Taf (72%)



5.2 The predictors of the power to influence

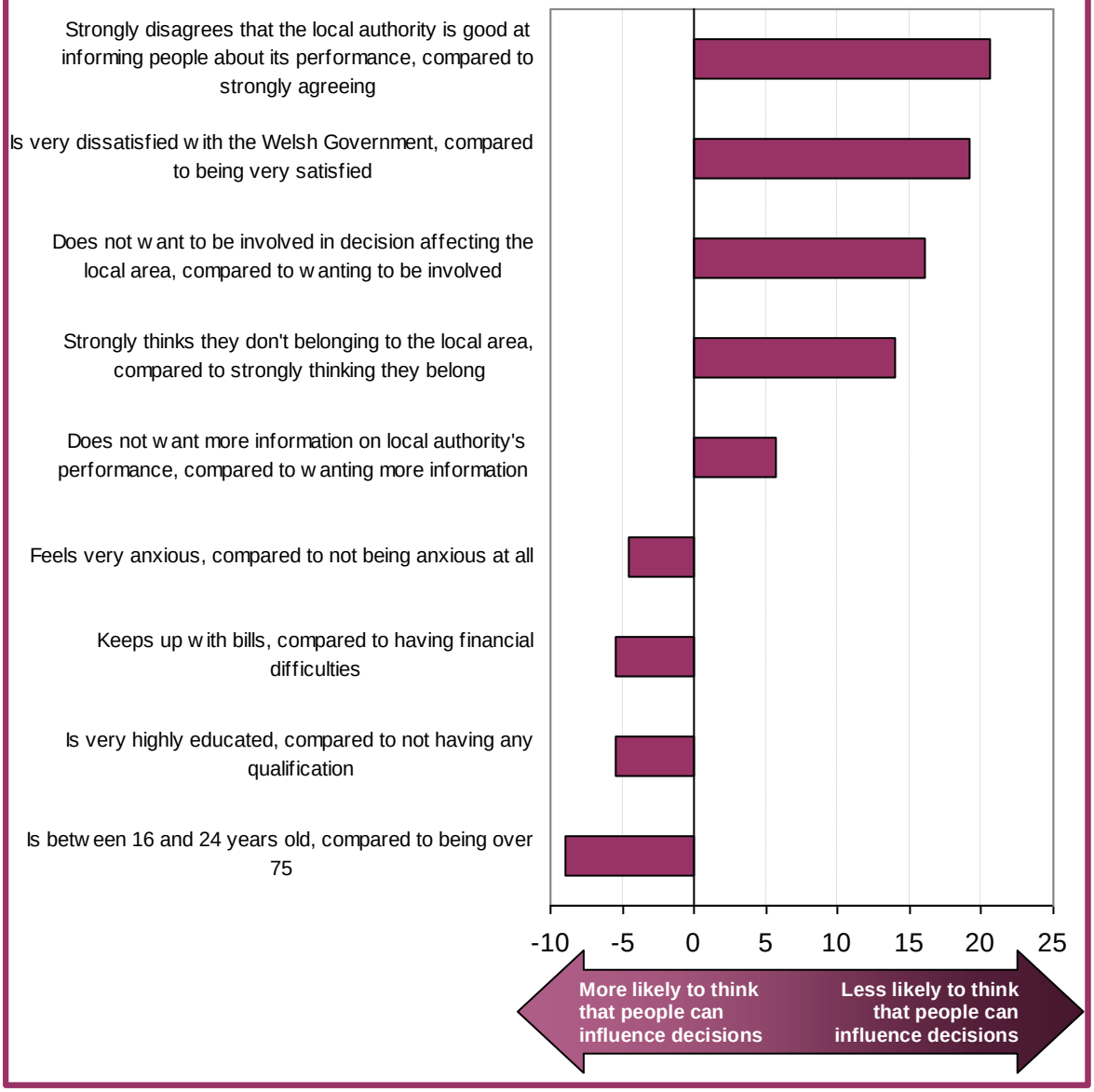
There are a number of predictors of people feeling that they could not influence decisions affecting their local area. These relationships hold even after taking other potentially confounding predictors into account. Predictors that suggest a person is likely to feel that they could not influence decisions affecting their local area are:

- Does not think the local authority is good at informing people about its performance
- Being dissatisfied with the Welsh Government
- Does not want to be involved with decisions affecting the local area
- Does not think they belong to the local area
- Does not want more information on local authority performance
- Does not feel anxious
- Has financial difficulties
- Does not have very high educational qualifications
- Is older

The strongest predictors of feeling that they could not influence decisions affecting their local area were related to negative views about the local authority and the Welsh Government more generally, and having a lack of connection to the local area (some which may be driven by not wanting to be connected). There is also evidence to suggest that certain vulnerable groups, such as poorer people, the less well educated and older people, are less likely to feel they can influence decisions, suggesting that extra efforts could be made to engage these groups of people.

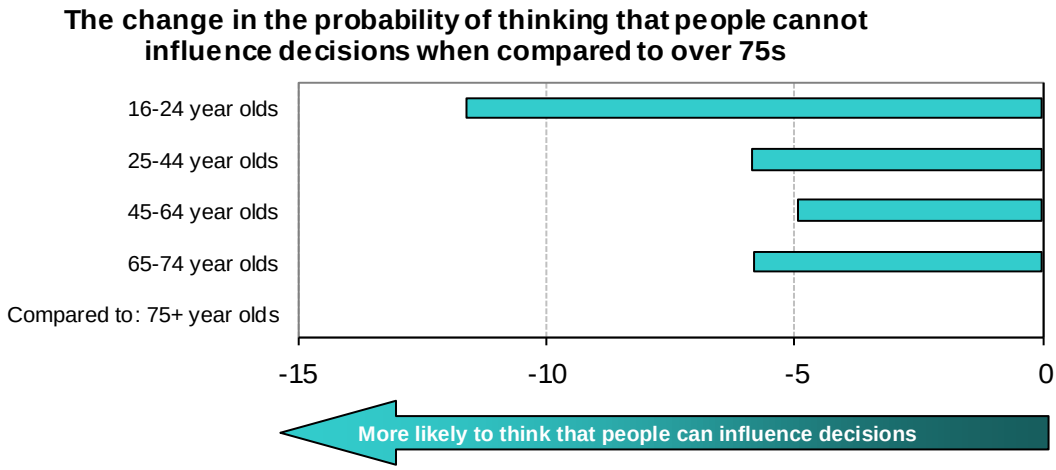
Figure 5.1: The main drivers of *thinking that people cannot influence decisions affecting the local area*

Percentage point change in the probability of thinking that people cannot influence decisions if a person:



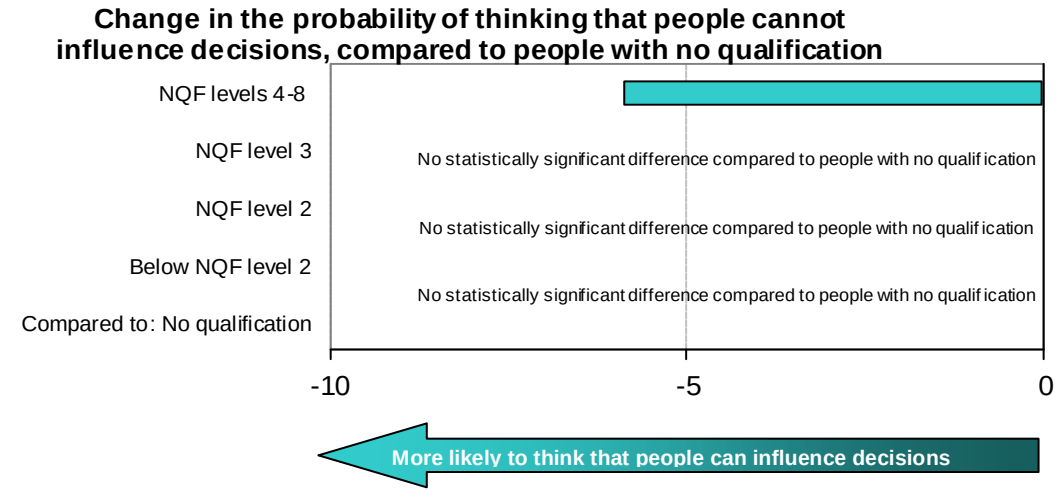
Looking more closely at demographic characteristics confirms that younger adults were much more likely (12 percentage points) than those aged 75 and older to think they could influence decisions affecting their local area. People aged 25-74 years were also more likely than the most elderly to think they could influence decisions, but here the difference was lower (around 5 percentage points).

Figure 5.2: The effect of age on thinking that people cannot influence decisions affecting the local area



In terms of educational qualifications, it was only people with the highest qualifications (NQF levels 4-8) that were more likely to think that they could influence decisions affecting the local area (around 6 percentage points more than people with no qualifications). There was no statistical difference between people with NQF level 3 and lower, and people with no qualifications.

Figure 5.3: Effect of education on thinking that people cannot influence decisions affecting the local area



Overall, the probability of a person who is 'average' on all of the predictors identified above feeling that they cannot influence decisions affecting the local area is 80%.[15]

[15] This means 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).

The probability of a typical person thinking that people cannot influence decisions affecting the local area	**80%**

It is interesting to note that the extent to which a person thinks they can influence decisions affecting the local area seemingly does not vary with socio-demographic indicators (except age and education, as presented above). There is evidence that certain attitudes do affect people's perception of their ability to influence decisions; however, demographic characteristics (age, gender, employment status, etc.) do not seem to have significant effects. Accordingly, we do not provide predicted probabilities for selected groups here.

5.3 Differences between local authorities

We know that people's attitudes and views, and their age and education play a role in predicting how they feel about influencing decisions about the local area. We also know that these feelings can vary according to where people live, with people in Carmarthenshire and Bridgend the most likely to feel that they could not influence decisions about their local area.

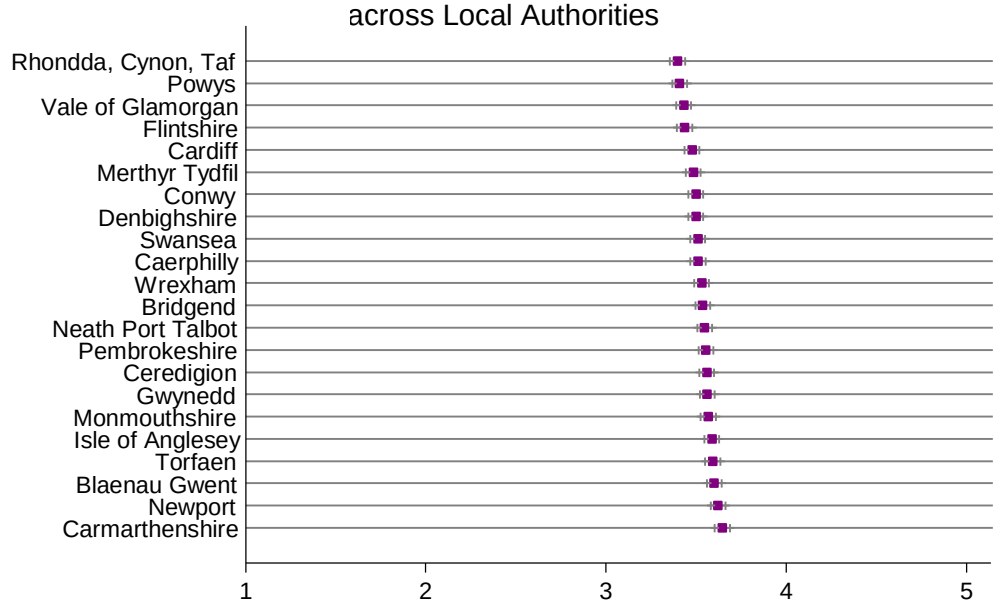
Multi-level modelling was use to disentangle the influences of these individual and area level factors.

This showed that differences between local authorities accounted for only 0.9% of the variation in views on ability to influence decisions. In other words, the identity of the local authorities themselves explained less than 1% of the variation. This means that the majority of the variation is a consequence of the differences in people's characteristics and attitudes rather than the local authority they live in.

0.9%...	**… of the variation in the 'ability to influence decisions affecting the local area' is due to differences between local authorities**

This is further demonstrated in the chart below, which shows very little difference across local authorities once all individual level characteristics have been controlled for.

Figure 5.4 The ability to influence decisions affecting the local area, across Local Authorities



Average level of agreement with 'being able to influence decissions' on a 5 point scale, where 1 means 'strongly agree' and 5 means 'strongly disagree'

5.4 Conclusion

Approximately one quarter (24%) of people in Wales felt that they could influence decisions affecting their local area. The percentage of people who felt that they could *not* influence decisions affecting their local area varies by geographic region, with the highest rates in area such as Carmarthenshire (where 85% felt that they could not influence decisions) and Bridgend.

The strongest predictors of people feeling that they could not influence decisions affecting their local area were related to negative views about the local authority and the Welsh Government more generally, and having a lack of connection to the local area. Some of these views may have been driven by people not wanting to be connected to their local area. However, there was evidence to suggest that certain vulnerable groups, such as poorer people, the less well educated and older people, felt they could not influence decisions. This suggests that extra efforts could be made to engage these groups of people.

Having taken account of how these individual and area level factors differ across local authorities, we found that differences between local authorities per se accounted for very little (less than 1%) of the variation in views on the ability to influence decisions. This means that the majority of the variation is a consequence of the differences in people's characteristics and attitudes rather than the local authority they live in.

6. Conclusion

The main aim of this report is to explore how satisfied people are with local authority services, the maintenance of their local area, how well the local authority communicates on its performance, and whether they can influence decisions affecting their local area. In terms of overall levels, three in five people (57%) agreed that their local authority provides high quality services; seven in ten (68%) people agreed that their local area was well maintained; two in five (41%) agreed that their local authority was good at letting people know how well it is performing; and, one quarter (24%) felt that they could influence decisions affecting their local area.

Satisfaction levels with the quality of services varied considerably by local authority. However, the vast majority of the variation is due to differences in people's individual views and attitudes rather than to the identity of the local authority. The most important factor is other aspects of people's views on public services - socio-demographic characteristics played a smaller role. This was true for all the areas we looked at: overall satisfaction with services, views on maintenance of the local area, views on communication about local authority performance, and perceived ability to influence decisions affecting the local area.

It should not be assumed that other attitudes to public services have the same level of impact on overall satisfaction in all local authorities. For example, views on local area maintenance have the strongest effect on satisfaction with local authority services in Newport and Torfaen. The effect is much less pronounced in Cardiff We also looked at the direction of the relationship between satisfaction with local authority services and views on whether the local authority communicates well on its performance. We found that good communication about performance led to higher satisfaction. Therefore, in seeking to improve satisfaction with services local authorities may wish to focus on improving the dissemination of information on their performance.

Moving on to views about how the local area was maintained, the strongest predictor that a person was likely to feel that the local area is not well maintained was reporting that there is graffiti or vandalism in the area. This suggests that local authorities should focus on reducing levels of graffiti and vandalism, especially that visible to local residents. This, and other individual characteristics and attitudes, such as being dissatisfied with the local area and thinking that the local authority does not communicate its performance well, explained most of the variation in views – again very little was due to differences between local authorities per se.

Unsurprisingly, the strongest predictor of people feeling that their local authority did not let them know how it was performing was wanting more information on performance. Other key predictors were not thinking the local authority provides high quality services, people not thinking they can influence local authority decisions, and being younger. This suggests that

dissatisfaction with communications may be linked to more general dissatisfaction with local authority performance. There may also be issues with communicating messages to younger adults, which suggests that local authorities may wish to consider the best ways of targeting this group.

Finally, the strongest predictors of people feeling that they could not influence decisions affecting their local area were related to negative views about the local authority and the Welsh Government more generally, and having a lack of connection to the local area. Some of these views may have been driven by people not wanting to be connected to their local area. However there was evidence to suggest that certain vulnerable groups, such as poorer people, the less well educated and older people, felt they could not influence decisions. It may be that extra efforts could be made to engage these groups of people.

Appendix 1: Methodology

A1.1 Recoding

Outcome and explanatory variables were extensively tidied up and recoded for the purposes of this analysis. Respondents 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 said they had a religion 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 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 assessments of local authority. This would produce easier to interpret results.

- Satisfaction with local authority services was assessed by measuring how strongly people agreed that their local authority provided high quality services.
- Local area maintenance was assessed by asking people how much they agreed that the local area being well maintained.
- The survey also asked people how much they agreed that the local authority was good at letting people know how it is performing.
- Finally, people were questioned to assess the extent they agree that they were able to influence decisions affecting the local area.

All 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 said they agreed and those who said they strongly agreed. The second group was formed by the people who did not agree (neither agree nor disagree; disagree and strongly disagree). Those who refused, or volunteered a 'don't know' answer, were excluded.

A1.2 Multivariate analysis: logistic regressions

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 for inclusion 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 .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 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 adult sample weight[16].

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 .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 so results across regressions would consistently control for the same background factors. These variables included age, gender, urbanity, economic status, educational qualifications, financial struggles, ethnicity, religion and Welsh identity.

[16] 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.

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.

In a nutshell, the first approach indicates which variables are the primary drivers 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 first approach. If this regression identifies that age or education[17] (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

[17] We chose age and education for this exercise given that they re 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.

Effect size and presentation

To aide 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 being dissatisfied 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 being dissatisfied 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. being dissatisfied). 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

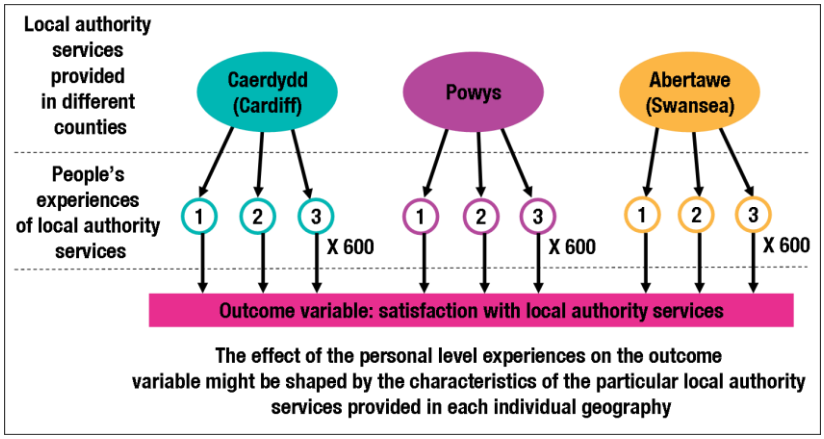
showed to have significant effects on the outcome. A maximum number of three demographic variables were chosen – generally these were the demographics with the largest effect on the outcome. This section of the analysis is meant to be a 'profiling' exercise through which we supply information on distinct social groups - that is why only demographic variables are included.

A1.3 Multivariate analysis: Multilevel modelling

The National Survey was carried out in all 22 local authorities (LA) within Wales, with a sample of approx. 600 adults (16+) being selected in every LA. As such, aside from allowing us to understand how people's characteristics affect their attitudes it can also provide us with a description of how LA level characteristic might affect people's attitudes. We analyse those differences by using multilevel modelling.

Multilevel modelling is the appropriate advanced modelling technique to be used when the data is structured spatially with people being nested in higher level units (counties / local authorities). The goal of multilevel analysis is to account for variance in an outcome at the individual level by taking into account the information measured at all levels. Such an approach has strong substantive and statistical justifications. Substantively, multilevel modelling makes it possible to run the analysis in a single comprehensive model as opposed to having to implement an individual regression for each county of interest. Also since the effect of an individual level predictor on the outcome can be modelled as a result of the effect of a county level predictor, multilevel analysis can tap into causal heterogeneity. Statistically, the use of multilevel is required when modelling data structured on separate levels to avoid generating incorrect (deflated) standard errors and inflated Type 1 error rates.

The diagram below illustrates how people's experience of public authority services might be shaped by the type and quality of the actual services provided in each distinct local authority / county.



We implemented MLM models for each outcome variable included in the report. It is important to note that for 'satisfaction with public services' and 'local area maintenance' the analysis follows the full path outlined below. For the final two outcome variables ('the council is good at letting people know how it is performing' and 'the ability to influence decision affecting the local area') our analysis stops at step 2 (below). This is because, on the one hand, we do not discover any substantively significant differences between local authorities. On the other hand, we fail in identifying local authority characteristics which are capable at explaining the very small differences.

In implementing the analysis we ran several sequential models in Stata (Version 12):

1. **Null multilevel model: Random effects ANOVA**. This model does not include any predictors and is meant to identify what proportion of the variance of satisfaction is due to cross-LA differences as compared to differences between individuals. The results of the model are reported in Appendix 2. Aside from regular regressions outputs the results also include the values of the variance components (i.e. the errors at the different levels). These are the 'within local authority, between respondent variance of the mean (WLA)' and the 'between local authority variance of the mean' (BLA)[18]. Based on these values we computed the Intra-class Correlation coefficient[19] which indicates what % of the variance if satisfaction is due to differences between local authorities.

2. **Random Intercept Model.** This is a fixed effects model, similar to the previous one, but in which we included the individual level predictors found to be significant in the simple regression. Based on the results of this model (Appendix 2) we estimated (and graphed) the mean level of satisfaction in each of the 22 local authorities. The estimated means (and their 95% Confidence Intervals) were computed based on the regression coefficient for the Intercept to which we summed the estimated level-2 error term which was estimated using the Empirical Bayes estimation method. Finally, it needs to be mentioned that the predictor variables were centred so that their mean would equal 0.

3. **Accounting for the variations in the intercepts.** Having shown that the intercepts (i.e. means) vary across local authorities we now included LA level explanatory variables to account for such differences. After several manual iterations we discovered which LA level variables have a significant impact on the outcome and introduced these in the final model. Based on the results generated by the model we computed the proportion of the BLA the local authority level variables explain[20].

[18] The WLA shows how an individual's level of satisfaction deviates from the mean level of satisfaction in the local authority in which he/she resides. The BLA shows how the mean level of satisfaction in a particular local authority deviates from the grand mean of satisfaction (i.e. across Wales).

[19] The ICC (Intra-class Correlation) is computed based on this formula:

ICC=(BLA / (BLA+WLA))*100

[20] This was computed using the formula:

Furthermore, we graphed the effect the local authority characteristics have on modifying the level of satisfaction.

4. **Random slope and intercept model.** Aside from letting the intercept (mean) differ across local authorities we now also allow for the slopes of a predictor variable to differ across local authorities, meaning that we acknowledge that a given variable could have different effects in different areas. We ran the analysis choosing to include random slopes for the predictor which was shown to have the highest effect on the outcome. The results were presented in a graph which indicates the strength of the effect of these variables on satisfaction / area maintenance assessment in different local authorities. The estimated coefficients presented (and their 95% Confidence Intervals) were computed based on the regression coefficient for the respective variables to which we added the estimated level-2 error term which was estimated using the Empirical Bayes estimation method.

5. **Cross-level interaction model.** Finally, having shown that there are differences between the slopes of relevant predictors we attempted to assess whether the Local Area characteristics already shown to influence the variation in the intercepts could account for them. We included interaction terms between the area characteristics and the relevant variables. However, the results (Appendix 2) show that the interaction terms are not statistically significant for either model.

A1.4 Multivariate analysis: Path models

In designing policy interventions it would be useful for the Welsh Government to have a clear picture of whether:

- The level of a person's satisfaction with services drives their perception of how good the local authority is at letting them know how it is performing.

OR

- It is the other way around: perceptions of how good the local authority is letting people know how it is performing influence the level of satisfaction.

To answer this question we implemented path analysis. Path analysis is an advanced statistical technique that is used to tap into issues of causality by describing the dependencies between variables in a dataset by estimating several regression equations simultaneously, permitting us to test recursive bi-directional relationships. As such, we designed a system of two equations which were estimated simultaneously. In the first regression 'satisfaction with public authority services' was the dependent variable and we included as predictors the variables we identified in the simple regressions (including how good the local authority is at letting people know how it is performing). The second regression used 'thinking that the local authority is good at letting

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% variation explained = 1 - ($BLA_{\text{this model}}$ / $BLA_{\text{random intercept model}}$)

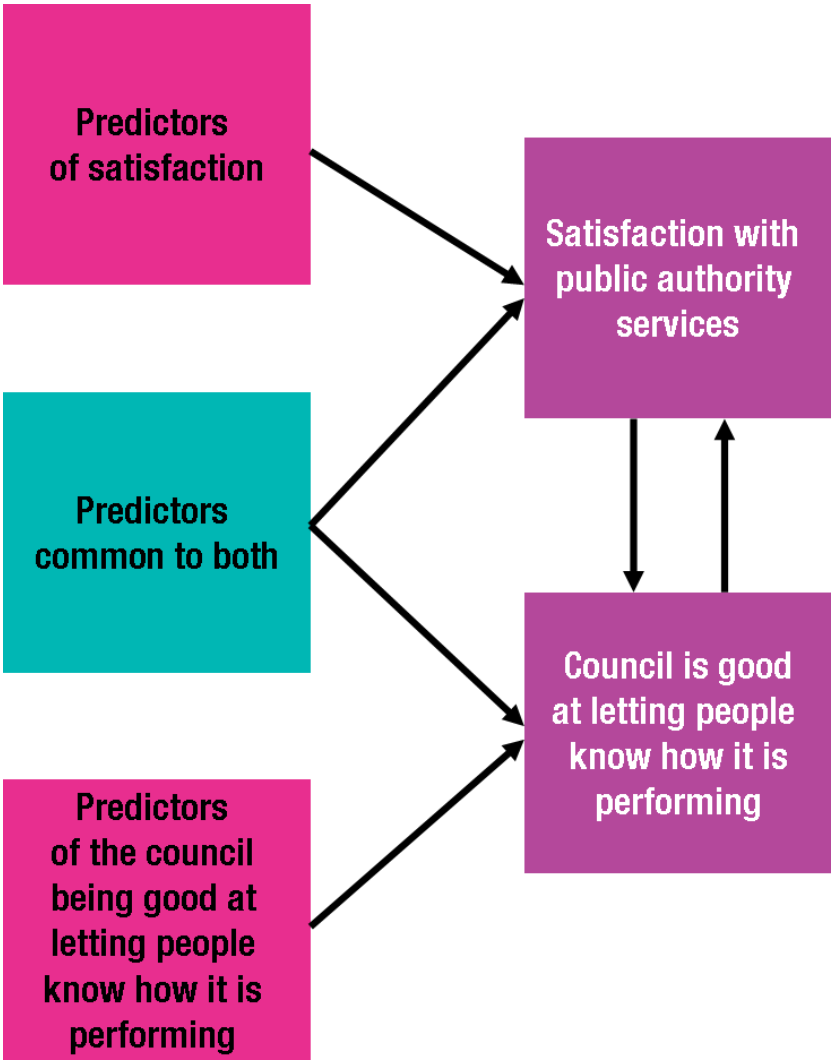
people know how it is performing' as the dependent variable, again, we included as independent variables the predictors we identified in the simple regressions (including satisfaction). Not using simultaneous estimation would lead to a Type I error as the individual regression equations would overestimation of the effect of either one variable on the other. The models and results were depicted in the report through path diagrams and tables. The full regression results can be found in Appendix 2.

By running these equations simultaneously we answered the questions of which had a stronger effect on the other: satisfaction or being informed about performance? The results showed that while controlling for the effect satisfaction has on the perception of being informed, it is actually how good a person thinks the local authority is at letting people know about its performance that significantly influences the level satisfaction

On a technical note, the models were implemented in Stata (Version 12). The fit of the Path model can be measured by several statistics (CFI, TLI or RMSEA)[21] we report in the table in Appendix 2. As a rule of thumb if the CFI and TLI are above 0.950 and the RMSEA is below 0.05 the model is said to have a very good fit.

Figure A.1: Variables included in the models at the beginning of the analysis:

Figure A.2: Initial Path model to be tested



Appendix 2: Full regression results

Table A.1: Logistic regression results: being dissatisfied with public authority services					
Independent variables	Description	Odds Ratio	95% Confidence Interval		Percentage point change between maximum and minimum values
natidwel	National Identity - Welsh	1.036	0.914	1.175	0.86%
dvagegrp3	Derived variable - Age group 3	1.041	0.970	1.117	3.93%
dvethnicity	Derived variable - Ethnicity (White or non-white)	0.528	0.311	0.897	-14.31%
dvhiqual2	Highest educational qualification	0.985	0.944	1.028	-1.45%
rel	Religion	0.904	0.793	1.029	-2.47%
urbrurdum	Urban-Rural classification	1.082	0.950	1.233	1.93%
working	In paid or unpaid work	1.209	1.044	1.399	4.60%
finbilcred	Finance - ability to keep up with bills and credit commitments at present	0.896	0.835	0.963	-10.79%
gender	Gender	0.979	0.870	1.102	-0.52%
expdiscr	Experienced any discrimination, harassment or abuse in the last 12 months	1.322	1.056	1.654	6.88%
uamreinvol	Local authority services - would like to be more involved in the decisions local	0.861	0.812	0.913	-14.33%
lafreegraf	Local area - free from graffiti and vandalism	1.091	1.025	1.161	8.54%
uacomperf	Local authority services - good at letting local people know how well it is perf	1.584	1.500	1.672	42.12%
lasafe2	Local area - safety at home after dark	1.110	0.997	1.237	7.72%
flat	Flat or maisonette	0.706	0.540	0.922	-8.19%
lasafe6	Local area - safety walking in nearest town/city centre after dark	1.107	1.032	1.187	7.40%
soctenant	Tenure - Social housing tenant	1.241	1.040	1.480	5.29%
uainfdecs	Local authority services - can influence decisions affecting my local area	1.287	1.219	1.359	23.48%
lawelmain	Local area - well maintained	1.705	1.599	1.818	48.80%
uaperfinfo	Local authority services - would like more information on how local authority is	0.916	0.860	0.975	-8.46%
wbanxyest	Well-being - overall anxiety yesterday (0-10 scale)	1.036	1.013	1.059	8.60%
wgoversat	Welsh Government - overall satisfaction with way Welsh Government is doing its j	1.157	1.125	1.190	34.48%
terrace	Semi or terrace	0.824	0.721	0.943	-4.71%
_cons	Intercept	0.017	0.009	0.032	
Model fit:	*Pseudo R squared*	*0.2*			
Base:		*11559*			
	Effect not statistically significant				

Table A.2: Multilevel models predicting satisfaction with public authority services, by local authorities						
Independent variables	Description	Model 1 Random effects ANOVA	Model 2 Random intercept model	Model 3 Variations in the intercept	Model 4 Random slope and intercept	Model 5 Cross-level interaction
_cons	Intercept	2.66	2.64	2.80	2.79	2.79
wgoversat	Welsh Government - overall satisfaction with way Welsh Government is doing its j		0.06	0.06	0.06	0.06
working	In paid or unpaid work		0.07	0.07	0.07	0.07
dvethnicity	Derived variable - Ethnicity (White or non-white)		-0.24	-0.23	-0.24	-0.24
finbilcred	Finance - ability to keep up with bills and credit commitments at present		-0.07	-0.07	-0.07	-0.07
expdiscr	Experienced any discrimination, harassment or abuse in the last 12 months		0.15	0.15	0.15	0.15
soctenant	Tenure - Social housing tenant		0.15	0.15	0.15	0.15
lafreegraf	Local area - free from graffiti and vandalism		0.05	0.05	0.05	0.05
uacomperf	Local authority services - good at letting local people know how well it is perf		0.26	0.26	0.26	0.26
uaperfinfo	Local authority services - would like more information on how local authority is		-0.03	-0.03	-0.03	-0.03
terrace	Semi or terrace		-0.05	-0.05	-0.05	-0.05
flat	Flat or maisonette		-0.08	-0.08	-0.07	-0.07
lasafe8	Local area - safety travelling by public transport after dark		0.04	0.04	0.04	0.04
uainfdecs	Local authority services - can influence decisions affecting my local area		0.10	0.10	0.11	0.11
lawelmain	Local area - well maintained		0.26	0.26	0.27	0.24
uamreinvol	Local authority services - would like to be more involved in the decisions local		-0.06	-0.06	-0.06	-0.06
wbhapyest	Well-being - overall happiness yesterday (0-10 scale)		-0.01	-0.01	-0.01	-0.01
la00009	LA - Other gross revenue expenditure (£ per head, FY 2012-13)			-0.0012	-0.0012	-0.0012
la00007	LA - Gross revenue expenditure on Planning and economical development (£ per hea			0.0022	0.0021	0.0021
lawelmain * la00007	Interaction between area maintenance and planning and economic development expenditure					0.0001
lawelmain * la00009	Interaction between area maintenance and LA expenditure on 'other'					0.0001
Between LA variance of mean		0.021	0.013	0.010	0.01	0.01
Within LA, between responded variance of the mean		1.211	0.796	0.796	0.793	0.793
Between LA variance of lawelmain		-	-	-	0.002	0.003
Base:		14427	11147	11147	11147	11147
	Effect not statistically significant				*Significant at the 90% level*	

Table A.3: PATH Analysis: Recursive relationship between dissatisfaction with local authority services and the extent to which people think the local authority is doing a good job of informing them about its performance

Dependent variable: Dissatisfaction with local authority services

Independent variables	Description	Regression Coefficient	95% Confidence Interval	
uaqualserv	Local authority services - provides high quality services	-0.139	-0.502	0.224
dvacorn	Derived variable - ACORN classification	-0.017	-0.038	0.005
dvagegrp3	Derived variable - Age group 3	0.105	0.069	0.141
dvethnicity	Derived variable - Ethnicity (White or non-white)	0.009	-0.223	0.241
dvhiqual2	Highest educational qualification	-0.022	-0.042	-0.002
finbilcred	Finance - ability to keep up with bills and credit commitments at present	-0.050	-0.094	-0.007
gender	Gender	-0.029	-0.084	0.027
larespcons	Local area - people treating each other with respect and consideration	0.091	0.042	0.139
lawelmain	Local area - well maintained	0.165	0.051	0.279
natidwel	National Identity - Welsh	0.066	0.005	0.127
rel	Religion	-0.120	-0.184	-0.056
soctenant	Tenure - Social housing tenant	-0.106	-0.205	-0.007
uainfdecs	Local authority services - can influence decisions affecting my local area	0.232	0.167	0.297
uamreinvol	Local authority services - would like to be more involved in the decisions local	0.000	-0.037	0.038
uaperfinfo	Local authority services - would like more information on how local authority is	-0.341	-0.389	-0.292
urbrurdum	Urban-Rural classification	0.072	0.004	0.139
wgoversat	Welsh Government - overall satisfaction with way Welsh Government is doing its j	0.079	0.046	0.112
working	In paid or unpaid work	0.014	-0.053	0.081
_cons	Intercept	2.511	1.923	3.099

Dependent variable: Thinking the local authority is not good at letting people know how it is performing

Independent variables	Description	Regression Coefficient	95% Confidence Interval	
uacomperf	Local authority services - good at letting local people know how well it is perf	0.359	0.108	0.610
dvagegrp3	Derived variable - Age group 3	0.013	-0.025	0.051
dvethnicity	Derived variable - Ethnicity (White or non-white)	-0.241	-0.401	-0.080
dvhiqual2	Highest educational qualification	-0.003	-0.020	0.015
expdiscr	Experienced any discrimination, harassment or abuse in the last 12 months	0.152	0.060	0.245
finbilcred	Finance - ability to keep up with bills and credit commitments at present	-0.054	-0.085	-0.023
flat	Flat or maisonette	-0.133	-0.239	-0.027
gender	Gender	0.023	-0.024	0.070
lafreegraf	Local area - free from graffiti and vandalism	0.041	0.015	0.067
lasafe8	Local area - safety traveling by public transport after dark	0.050	0.016	0.083
lawelmain	Local area - well maintained	0.253	0.209	0.297
natidwel	National Identity - Welsh	0.055	0.004	0.106
rel	Religion	-0.010	-0.068	0.048
soctenant	Tenure - Social housing tenant	0.173	0.093	0.253
terrace	Semi or terrace	-0.090	-0.145	-0.036
uainfdecs	Local authority services - can influence decisions affecting my local area	0.087	0.030	0.145
uamreinvol	Local authority services - would like to be more involved in the decisions local	-0.060	-0.084	-0.036
uaperfinfo	Local authority services - would like more information on how local authority is	0.008	-0.077	0.093
urbrurdum	Urban-Rural classification	0.008	-0.049	0.065
wbhapyest	Well-being - overall happiness yesterday (0-10 scale)	-0.013	-0.025	-0.002
wgoversat	Welsh Government - overall satisfaction with way Welsh Government is doing its j	0.056	0.034	0.077
working	In paid or unpaid work	0.037	-0.019	0.092
_cons	Intercept	0.640	0.022	1.259

Model fit: *CFI =* *0.999* *TLI =* *0.994* *RMSEA=* *0.009*

Base: *10445*

Effect not statistically significant

Table A.3: Logistic regression results: thinking the local area is not well maintained					
Independent variables	Description	Odds Ratio	95% Confidence Interval		Percentage point change between maximum and minimum values
natidwel	National Identity - Welsh	1.086	0.959	1.230	1.70%
dvagegrp3	Derived variable - Age group 3	0.938	0.873	1.008	-5.28%
dvethnicity	Derived variable - Ethnicity (White or non-white)	0.543	0.343	0.860	-11.01%
dvhiqual2	Highest educational qualification	1.017	0.976	1.061	1.43%
rel	Religion	0.959	0.840	1.093	-0.88%
urbrurdum	Urban-Rural classification	1.065	0.934	1.216	1.32%
working	In paid or unpaid work	0.933	0.804	1.082	-1.45%
finbilcred	Finance - ability to keep up with bills and credit commitments at present	1.051	0.974	1.134	3.98%
gender	Gender	1.141	1.010	1.289	2.74%
wbsat6	Well-being - overall satisfaction with area lived in (0-10 scale)	1.217	1.177	1.258	44.87%
lafreegraf	Local area - free from graffiti and vandalism	1.804	1.702	1.913	51.95%
uainfdecs	Local authority services - can influence decisions affecting my local area	1.123	1.063	1.186	9.37%
lasafe4	Local area - safety walking in local area after dark	1.190	1.102	1.286	11.26%
soctenant	Tenure - Social housing tenant	0.745	0.624	0.889	-5.85%
obs1	Condition of residential properties in area	1.309	1.175	1.459	18.30%
uacomperf	Local authority services - good at letting local people know how well it is perf	1.277	1.214	1.344	20.22%
wgoversat	Welsh Government - overall satisfaction with way Welsh Government is doing its j	1.076	1.046	1.108	15.52%
_cons	Intercept	0.009	0.005	0.016	
Model fit:	*Pseudo R squared*	*0.160*			
Base:		*11764*			
	Effect not statistically significant				

Table A.4: Multilevel models predicting thinking that the local area is not well maintained, by local authorities

Independent variables	Description	Model 1 Random effects ANOVA	Model 2 Random intercept model	Model 3 Variations in the intercept	Model 4 Random slope and intercept	Model 5 Cross-level interaction
_cons	Intercept	2.37	2.38	2.28	2.28	2.28
dvagegrp3	Derived variable - Age group 3		-0.06	-0.06	-0.06	-0.06
urbrurdum	Urban-Rural classification		0.08	0.08	0.08	0.08
wbsat6	Well-being - overall satisfaction with area lived in (0-10 scale)		0.10	0.10	0.10	0.10
lafreegraf	Local area - free from graffiti and vandalism		0.34	0.34	0.33	0.29
uainfdecs	Local authority services - can influence decisions affecting my local area		0.06	0.06	0.06	0.06
lasafe4	Local area - safety walking in local area after dark		0.07	0.07	0.07	0.07
soctenant	Tenure - Social housing tenant		-0.10	-0.10	-0.10	-0.10
obs1	Condition of residential properties in area		0.13	0.13	0.13	0.13
wgoversat	Welsh Government - overall satisfaction with way Welsh Government is doing its j		0.04	0.04	0.04	0.04
uacomperf	Local authority services - good at letting local people know how well it is perf		0.13	0.13	0.12	0.12
la00007	LA - Gross revenue expenditure on Planning and economical development (£ per hea			0.0021	0.0021	0.0020
lafreegraf * La00007	Interaction between area not being free of graffiti and LA planning and economic development expenditure					0.0010
Between LA variance of mean		0.024	0.007	0.006	0.006	0.006
Within LA, between responded variance of the mean		1.151	0.836	0.836	0.833	0.833
Between LA variance of lafreegraf					0.002	0.002
Base:		*14525*	*12820*	*12820*	*12820*	*12820*
	Effect not statistically significant				*Significant at the 90% level*	

Table A.5: Logistic regression results: thinking that the local authority is not good at letting people know how it is performing

Independent variables	Description	Odds Ratio	95% Confidence Interval		Percentage point change between maximum and minimum values
natidwel	National Identity - Welsh	1.005	0.893	1.131	0.12%
dvagegrp3	Derived variable - Age group 3	1.281	1.196	1.371	23.59%
dvethnicity	Derived variable - Ethnicity (White or non-white)	1.446	0.909	2.301	8.64%
dvhiqual2	Highest educational qualification	0.976	0.937	1.017	-2.38%
rel	Religion	0.800	0.706	0.908	-5.38%
urbrurdum	Urban-Rural classification	1.045	0.918	1.188	1.06%
working	In paid or unpaid work	1.023	0.889	1.177	0.55%
finbilcred	Finance - ability to keep up with bills and credit commitments at present	0.973	0.906	1.044	-2.67%
gender	Gender	0.959	0.858	1.073	-1.01%
uamreinvol	Local authority services - would like to be more involved in the decisions local	1.091	1.033	1.153	8.44%
dvacorn	Derived variable - ACORN classification	0.946	0.905	0.988	-11.00%
larespcons	Local area - people treating each other with respect and consideration	1.154	1.076	1.238	13.53%
uaperfinfo	Local authority services - would like more information on how local authority is	0.547	0.517	0.580	-53.71%
wgoversat	Welsh Government - overall satisfaction with way Welsh Government is doing its j	1.085	1.053	1.117	19.38%
uaqualserv	Local authority services - provides high quality services	1.642	1.550	1.739	43.64%
soctenant	Tenure - Social housing tenant	0.665	0.555	0.798	-10.06%
uainfdecs	Local authority services - can influence decisions affecting my local area	1.336	1.269	1.407	27.97%
_cons	Intercept	0.231	0.135	0.397	
Model fit:	*Pseudo R squared*	*0.176*			
Base:		*11918*			
	Effect not statistically significant				

Table A.6: Logistic regression results: thinking that the local authority is not good at letting people know how it is performing (categorical)

Independent variables	Description	Odds Ratio	95% Confidence Interval		Percentage point change between maximum and minimum values
natidwel	National Identity - Welsh	1.000	0.888	1.126	0.01%
_Idvagegrp3_2	65-74 year olds	0.985	0.814	1.192	-0.37%
_Idvagegrp3_3	45-64 year olds	1.160	0.948	1.420	3.70%
_Idvagegrp3_4	25-44 year olds	1.788	1.427	2.239	13.97%
_Idvagegrp3_5	16-24 year olds	2.288	1.693	3.090	19.30%
dvethnicity	Derived variable - Ethnicity (White or non-white)	1.394	0.876	2.217	7.81%
dvhiqual2	Highest educational qualification	0.976	0.938	1.017	-2.33%
rel	Religion	0.812	0.716	0.922	-5.02%
urbrurdum	Urban-Rural classification	1.046	0.919	1.190	1.08%
working	In paid or unpaid work	1.068	0.921	1.240	1.61%
finbilcred	Finance - ability to keep up with bills and credit commitments at present	0.970	0.903	1.042	-2.94%
gender	Gender	0.962	0.860	1.076	-0.95%
uamreinvol	Local authority services - would like to be more involved in the decisions local	1.084	1.026	1.144	7.79%
dvacorn	Derived variable - ACORN classification	0.943	0.902	0.985	-11.60%
larespcons	Local area - people treating each other with respect and consideration	1.160	1.081	1.245	13.99%
uaperfinfo	Local authority services - would like more information on how local authority is	0.548	0.517	0.580	-53.67%
wgoversat	Welsh Government - overall satisfaction with way Welsh Government is doing its j	1.089	1.057	1.121	20.22%
uaqualserv	Local authority services - provides high quality services	1.653	1.561	1.751	44.14%
soctenant	Tenure - Social housing tenant	0.671	0.559	0.806	-9.84%
uainfdecs	Local authority services - can influence decisions affecting my local area	1.334	1.267	1.405	27.86%
_cons	Intercept	0.358	0.211	0.605	
Model fit:	*Pseudo R squared*	*0.178*			
Base:		*11918*			
	Effect not statistically significant				

Table A.7: Multilevel models predicting thinking that the local authority is not good at letting people know how it is performing, by local authorities

Independent variables	Description	Model 1 Random effects ANOVA	Model 2 Random intercept model
_cons	Intercept	3.01	2.94
dvagegrp3	Derived variable - Age group 3		0.08
dvhiqual2	Highest educational qualification		-0.02
rel	Religion		-0.08
uamreinvol	Local authority services - would like to be more involved in the decisions local		0.04
larespcons	Local area - people treating each other with respect and consideration		0.08
uaperfinfo	Local authority services - would like more information on how local authority is		-0.28
wgoversat	Welsh Government - overall satisfaction with way Welsh Government is doing its j		0.04
uaqualserv	Local authority services - provides high quality services		0.32
soctenant	Tenure - Social housing tenant		-0.17
uainfdecs	Local authority services - can influence decisions affecting my local area		0.15
Between LA variance of mean		0.018	0.011
Within LA, between responded variance of the mean		1.412	0.997
Base:		*14300*	*12198*
	Effect not statistically significant		

Table A.7: Logistic regression results: thinking that people cannot influence decisions affecting the local area

Independent variables	Description	Odds Ratio	95% Confidence Interval		Percentage point change between maximum and minimum values
natidwel	National Identity - Welsh	1.064	0.936	1.210	1.08%
dvagegrp3	Derived variable - Age group 3	0.878	0.817	0.944	-8.97%
dvethnicity	Derived variable - Ethnicity (White or non-white)	1.219	0.786	1.893	3.22%
dvhiqual2	Highest educational qualification	0.923	0.884	0.964	-5.42%
rel	Religion	0.932	0.814	1.067	-1.20%
urbrurdum	Urban-Rural classification	1.026	0.901	1.167	0.43%
working	In paid or unpaid work	1.126	0.976	1.299	2.04%
finbilcred	Finance - ability to keep up with bills and credit commitments at present	0.920	0.852	0.993	-5.40%
gender	Gender	0.990	0.878	1.116	-0.17%
labelong	Local area - belonging to local area	1.268	1.175	1.370	14.02%
uacomperf	Local authority services - good at letting local people know how well it is perf	1.354	1.278	1.435	20.59%
wbanxyest	Well-being - overall anxiety yesterday (0-10 scale)	0.975	0.954	0.996	-4.52%
wgoversat	Welsh Government - overall satisfaction with way Welsh Government is doing its j	1.125	1.088	1.162	19.21%
uamreinvol	Local authority services - would like to be more involved in the decisions local	1.271	1.199	1.346	16.05%
uaperfinfo	Local authority services - would like more information on how local authority is	1.088	1.022	1.158	5.70%
_cons	Intercept	0.570	0.329	0.987	
Model fit:	*Pseudo R squared*	*0.058*			
Base:		*11962*			
	Effect not statistically significant				

Table A.8: Logistic regression results: thinking that people cannot influence decisions affecting the local area (categorical)					
Independent variables	Description	Odds Ratio	95% Confidence Interval		Percentage point change between maximum and minimum values
natidwel	National Identity - Welsh	1.062	0.934	1.206	1.03%
_Idvagegrp3_2	65-74 year olds	0.693	0.559	0.859	-5.82%
_Idvagegrp3_3	45-64 year olds	0.730	0.583	0.915	-4.91%
_Idvagegrp3_4	25-44 year olds	0.691	0.536	0.892	-5.87%
_Idvagegrp3_5	16-24 year olds	0.511	0.373	0.701	-11.62%
dvethnicity	Derived variable - Ethnicity (White or non-white)	1.219	0.785	1.893	3.21%
_Idvhiqual2_1	Below NQF level 2	0.830	0.661	1.041	-3.07%
_Idvhiqual2_2	NQF level 2	0.940	0.781	1.131	-0.98%
_Idvhiqual2_3	NQF level 3	0.820	0.656	1.024	-3.28%
_Idvhiqual2_4	NQF levels 4-8	0.710	0.592	0.852	-5.88%
rel	Religion	0.939	0.821	1.075	-1.07%
urbrurdum	Urban-Rural classification	1.028	0.903	1.170	0.47%
working	In paid or unpaid work	1.069	0.919	1.244	1.14%
finbilcred	Finance - ability to keep up with bills and credit commitments at present	0.932	0.862	1.006	-4.62%
gender	Gender	0.993	0.880	1.120	-0.13%
labelong	Local area - belonging to local area	1.268	1.175	1.369	14.00%
uacomperf	Local authority services - good at letting local people know how well it is perf	1.352	1.276	1.433	20.47%
wbanxyest	Well-being - overall anxiety yesterday (0-10 scale)	0.974	0.954	0.995	-4.59%
wgoversat	Welsh Government - overall satisfaction with way Welsh Government is doing its j	1.126	1.090	1.164	19.42%
uamreinvol	Local authority services - would like to be more involved in the decisions local	1.272	1.201	1.348	16.12%
uaperfinfo	Local authority services - would like more information on how local authority is	1.088	1.022	1.158	5.68%
_cons	Intercept	0.510	0.299	0.868	
Model fit:	*Pseudo R squared*	*0.060*			
Base:		*11962*			
	Effect not statistically significant				

Table A.9: Multilevel models predicting thinking that people cannot influence decisions affecting the local area by local authorities

Independent variables	Description	Model 1 Random effects ANOVA	Model 2 Random intercept model
_cons	Intercept	3.51	3.52
natidwel	National Identity - Welsh		0.05
dvagegrp3	Derived variable - Age group 3		-0.08
dvhiqual2	Highest educational qualification		-0.03
finbilcred	Finance - ability to keep up with bills and credit commitments at present		-0.05
labelong	Local area - belonging to local area		0.08
uacomperf	Local authority services - good at letting local people know how well it is perf		0.23
wbanxyest	Well-being - overall anxiety yesterday (0-10 scale)		-0.01
wgoversat	Welsh Government - overall satisfaction with way Welsh Government is doing its j		0.07
uamreinvol	Local authority services - would like to be more involved in the decisions local		0.12
uaperfinfo	Local authority services - would like more information on how local authority is		0.07
Between LA variance of mean		0.011	0.006
Within LA, between responded variance of the mean		1.282	1.141
Base:		*14377*	*11980*
	Effect not statistically significant		

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