The Communications Market:
Nations and Regions

Research report

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Section 1

Foreword

This survey is part of Ofcom's Communications Market series of reports. It examines availability, take-up and consumption of communications services across the UK, exploring how citizen and consumer interests are being met and how this picture varies by each of the nations and regions.

We undertook this project to address stakeholder feedback that Ofcom's work should take into consideration the differences between the nations and regions of the UK. The project is consistent with Ofcom's duties to secure the availability of a wide range of electronic communications services throughout the UK, having regard to the different interests of people living in different parts of the UK and in rural and urban areas.

The survey considers the three basic communications platforms; telecoms (including telephone landlines and second and third generation mobile phones), internet (including broadband) and digital broadcasting (including digital TV and radio). It explores the key patterns for these services as they apply to availability, take-up and consumption across the UK, amongst consumers and small and medium-sized enterprises (SMEs).

Most of the data in the report was collated from research undertaken in the second half of 2005, including Ofcom's residential tracking study, the Media Literacy Audit and operator data for mobile phone, digital subscriber line (DSL) and cable coverage.

This report should be seen in the context of a series of complementary research surveys to be published by Ofcom during 2006. These include the Media Literacy Audit, (the main report was published in March 2006 and the supplementary report on media literacy in the nations and regions is being published alongside this report), reports on consumer and SME engagement with digital services and the annual Communications Market report, (all to be published later in the year).

We believe that this report will provide a valuable resource for Ofcom, national, regional and local government and other stakeholders, to tailor their approach to national and regional differences in availability, take-up and consumption of communications services. A series of Rural, Regional and Remote seminars in the nations and regions will be held shortly after publication so they can be used as a forum for discussion of the research findings. Ofcom will then publish a final report which will assess the implications of the research findings on current and planned Ofcom work and, where appropriate, make recommendations.

It is our intention that the nations and regions survey should be repeated on a regular basis and supplemented, where appropriate, by further UK-wide research amongst ethnic minorities, disability groups and key age and socio-economic groups.

Section 2

Summary of Key Findings

There has been considerable debate about the importance of geographical variations in availability, take-up and consumption of communications services across the United Kingdom, and the reasons behind these variations.

This report concludes that such differences cannot be explained by any one single variable, but are a result of a combination of several different factors, including:

- An individual's socio-economic profile
- Whether they live in an urban or rural area
- Their age
- Their attitudes to communications technology
- The part of the country in which they live.

Of these, an individual's socio-economic profile and whether they live in an urban or rural area are the most important.

Figure 1 shows the population profile of each nation and region in the United Kingdom as defined by the percentage of the population in ABC1 socio-economic profiles against the percentage of the population living in urban areas.

Figure 1: The geographic and socio-economic profile of the UK

Source: Indicative analysis based on Business Geographics 'Urban Indicator' and Office of National Statistics, Census 2001 data (National Statistics website: www.statistics.gov.uk Crown copyright material is reproduced with the permission of the Controller of HMSO)

London, the North West and the North East have predominantly urban populations, with Northern Ireland, the South West and Wales having a higher proportion of people living in rural areas. London and the South East have more ABC1s. Conversely, Northern Ireland, Wales, Scotland and the North East have higher proportions of C2DEs.

Many of the key findings of the report reflect the importance of geographic and socio-economic factors.

- Availability of communications services tends to be lower in Northern Ireland, Wales, Scotland and the South West – areas with larger than average rural populations.

- Take-up of communications services is also lower than average in rural areas, and also areas with a high proportion of C2DEs, including Wales, Scotland, Yorkshire and the Humber, the North East and, in particular, Northern Ireland.

- Take-up of telephone landlines, mobile phones and the internet is lower in Wales, Scotland and Northern Ireland. There are also indications that significant parts of the population in those parts of the UK with a high C2DE bias are relying solely on mobile phones for their telecommunications needs.

- Take-up of mobile phones broadly reflects income variations, with Northern Ireland and Wales having much higher levels of people using pre-pay than the UK as a whole (reflecting lower relative income levels).

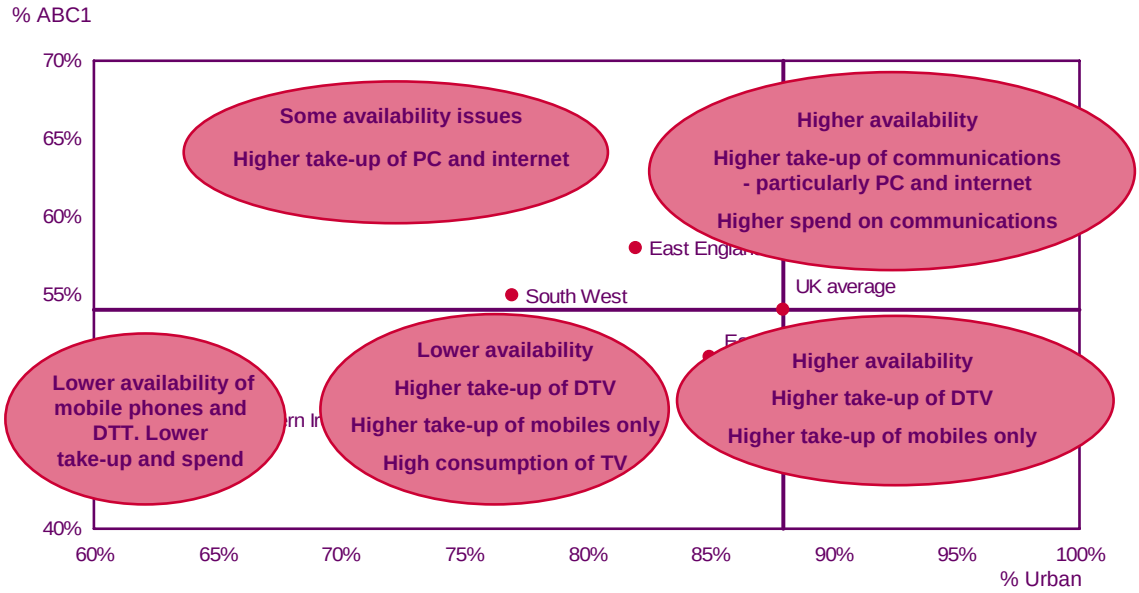
- People living in areas with a high proportion of C2DEs are also more likely to use their mobile phones for texting rather than for calls. London with a higher number of ABC1s is the only part of the UK where the number of mobile phone calls exceed texts.

- Adults living in rural areas are more likely to take up the internet; however early adopters of broadband are more likely to live in urban areas.

- Spend on communications services is higher in parts of the UK with a higher proportion of ABC1s, such as London, the South East and East of England. Average spend is lower in the nations, Yorkshire and the Humber and the North East but the proportion of weekly income spent on communications is higher in these areas.

- Whilst age is a less important determinant of availability, take-up and consumption of communications services as a whole, it is a significant factor influencing take-up of the mobile phones and the internet, with both services biased towards the under-45s.

Figure 2: Key findings by geographic and socio-economic profile



However the report also uncovers a number of areas where differences in availability, take-up and consumption of communications services cannot be explained by geographic and socio-economic factors alone, and where national and regional characteristics are an important factor.

- Wales has the highest take-up of digital TV despite having a high proportion of C2DEs, with the North West and North East close behind. On the other hand, London has one of the lowest levels of digital TV take-up, even with more ABC1s.

- Use of the internet does not conform to socio-economic or rural/urban profiles. People in London spend the most time on the internet.

- Consumption of television appears to bear more relation to where people live than income. People living in Scotland watch the most digital TV in the UK – at 22 hours per week. Those living in the South West watch the least, at just under 17 hours.

- The Welsh are the highest viewers of digital TV as a proportion of total TV. People living in Wales and Northern Ireland are also most likely to watch multichannel television, whereas those living in the South West are the highest viewers of the terrestrial channels.

- The types of programmes people prefer to watch also vary according to the part of the country in which they are viewed. There is a clear North/South divide between Coronation Street and Eastenders as the most popular programme viewed on television in 2005, and Wales has more sports programmes in the top ten than any other part of the UK.

- Radio listening also reflects a North/South split, with the number of weekly hours spent listening to the radio highest in the South of England and lowest in the North East and Scotland

Finally, a number of findings are consistent across the UK, irrespective of demographic or other factors.

- UK-wide satisfaction with communications services is generally very high, and this is broadly consistent across the different parts of the UK.

- Among those not taking up certain communications services, twice as many say the reasons are voluntary as opposed to involuntary. This is a broadly consistent picture across the UK, with expense being the main reason for involuntary exclusion.

2.1 Key findings – availability, take-up and consumption

2.1.1 Availability of communications services

- The universal service obligation (USO) is currently provided by BT and by Kingston Communications in Hull. All households in the UK have access to a landline at a standard charge, although additional connection charges apply when they are so remote that installation would cost over £3,400. There are no particular issues surrounding availability of landlines across the UK.

- Second generation (2G) mobile phone services are widely available across the UK – 99.9% of the UK population live within postal districts that have at least one operator with at least 75% area coverage and 94.6% of the UK population live within postal districts that have coverage by all four operators. However, Scotland, Wales and Northern Ireland have fewer people living in areas reporting coverage by all four operators (85.2%, 79.8% and 87.4% respectively).

- Geographic coverage levels for 2G services where at least one operator reports at least 75% area coverage are lower across the UK than corresponding population coverage levels, but still high overall. However, fewer postal districts have this geographic coverage by all four operators in the more rural areas of the UK – including Scotland (64%) and Wales (60.8%).

- Rollout of third generation (3G) mobile phone services has focused on more urban areas first. London, as the UK's most densely populated area, has the highest geographic coverage (in this case defined by the proportion of postal districts with at least 25% area coverage). Some 46.2% of postal districts in the UK had the defined level of coverage by at least four 3G operators and 90.5% of postal districts had such coverage by at least one operator.

- Ofcom consumer research into mobile phone reception around the UK shows widespread variations in coverage according to where people live. 29% of respondents report reception problems at least monthly, and 22% at least weekly. Northern Ireland, Wales and the South West report the highest incidences of reception problems, with London the lowest. The incidence of reception problems in rural parts of the UK is almost double that in urban areas.

- BT data from January 2006 shows that 99.9% of premises in the UK are connected to DSL-enabled exchanges. However, some premises within these exchange areas are not suitable for delivery of broadband services, or only at very low speeds, due to local technicalities such as distance from exchange or poor quality of networks.

- Distance from exchange is a key determinant of speed of service. Around 86% of premises are located within a 5km local loop length from their exchange - indicating

greater likelihood that these premises will be able to receive higher speed services. 97% of premises in London are within 5km of an exchange whereas in Northern Ireland, the figure is 74%. Significantly fewer premises, around 17%, are within 2kms of an exchange – giving an indication that fewer people will be able to benefit from even higher speed services using currently available technologies.

- 45% of premises are passed by digital cable. Cable availability is highest in London (58%) and the West Midlands (56%) and lowest in Wales (23%), Northern Ireland (30%), the South West (34%) and Scotland (37%).

- Approximately 98% of households across the UK are able to receive digital satellite television, although some homes are unable to receive services due to specific local factors. At least 73% are able to receive digital terrestrial television (DTT) (the maximum possible until digital switchover enables digital signals to be broadcast more widely across the UK) and 45% digital cable (noted above).

- Digital terrestrial television (DTT) availability is highest in the North West (94%), North East (89%) and London (86%), but fewer than 60% of homes are able to receive DTT in Wales, Northern Ireland and the East of England.

- Digital radio is available across the UK via the internet, digital TV and DAB digital radio. DAB digital radio services are available from the BBC, local multiplex services and Digital One. The majority of the UK population (89%) are now covered by at least one multiplex.

2.1.2 Take-up of communications services

- 43% of UK adults say they have taken up three of the four main communications platforms: mobile phones, digital TV and the internet at home. Take-up of these three services together is highest in the South East (51%) and East of England (50%) and lowest in Northern Ireland (34%), Wales (35%) and Scotland (36%).

- People living in Wales are more likely to own a mobile phone and digital TV only than the UK as a whole, with 29% saying that they own these two services compared to 19% for the UK.

- 18% of UK adults say they have taken up only one of the three main communications services. This is highest in Northern Ireland, with 27% who own only one service and 5% who say they don't own any. Those living in Northern Ireland are more likely to own only a mobile phone (22%) than the UK average (15%).

- Take-up of telephone landlines stands at 91% of UK adults. This is highest in the southern English Regions and amongst older age groups (45+) and ABC1s. Take-up of landlines is also higher in rural areas, at 94%. However, despite higher rural populations, Scotland, Wales and Northern Ireland have the lowest take-up of landlines across the UK at 87% in each nation.

- 80% of UK adults say they personally use a mobile phone. Ownership of mobile phones is higher in London (86%) and the South East (91%) but lower in Northern Ireland (70%) and Wales (73%). Ownership of mobile phones tends to be biased towards younger age groups with 90% of under 45s saying they own a mobile phone.

- 8% of UK adults say they rely solely on mobile phones for their telecommunications needs. This is higher in Yorkshire and the Humber (16%), Wales (13%) and Northern

Ireland (12%). People relying solely on mobile phones tended to be younger than the population as a whole; they are more likely to be in C2DE social grades and use pay-as-you-go services.

- Of all those not taking up mobile phones, the majority (87%) are happy using their existing landline service. 12% cite difficulty using as a reason and 11% cite expense.

- Two thirds of UK adults live in households with a PC, with 57% of adults having access to the internet. Internet take-up is higher amongst under 45s (66%) and ABC1s (72%). It is also higher in rural areas (61%). London and the South East have the highest internet take-up, at 64%. Internet take-up is lower in Northern Ireland (48%) and Wales (49%).

- Of those not taking up the internet, 81% say that they have no interest or need. 18% cite expense as a reason.

- Across the UK, 63% of internet households say that they have taken up broadband connections. Take-up of broadband is highest in the North East (70%), North West (69%) and London (66%). Broadband penetration is lower in Northern Ireland (52%) and Wales (54%). Rural areas have lower than average broadband penetration (55%) despite higher penetration of the internet overall (although this is levelling out).

- Take-up of digital TV stood at a UK-wide level of 65% at the end of Q3 2005. It is highest in Wales (72%) and lowest in Northern Ireland (53%). Digital TV take-up is also lower than the UK average in London, with just 58% saying that they have digital TV at home.

- Of the various digital TV platforms, take-up of satellite is highest, at 32% of UK households, with 46% of households in Wales saying they have taken up the service. Take-up of DTT stands at 21% across the UK, but is lower (11%) in Northern Ireland. Take-up of cable TV is 10% of households across the UK. This is highest in Scotland and lowest in Northern Ireland and the South West.

- Of those not taking up digital TV, 68% say that they are satisfied with current channels and 27% say that expense is a contributing factor.

- Take-up of a digital radio *service* can be measured using overall penetration of digital TV, internet and digital radio sets. This is 79% across the UK as a whole. However, fewer than half (32%) say they have access to digital radio, indicating low awareness of set top box and internet functionality.

- Of those not taking up digital radio, 78% say that they are satisfied with current radio networks available. Not listening to much radio (8%), frequency concerns (7%), expense (6%) and understanding (6%) are also cited as issues.

2.1.3 Consumption of communications services

- 3.2% of average weekly household disposable income is spent on communications services across the UK. Around two thirds of this is spent on telecommunications (landline and mobile), with the remaining third on broadcast and internet services.

- In absolute terms, adults in London spend the most on communications services, with an average weekly spend of £18.20. However, relative to disposable income, London has one of the lowest proportionate spends on communications (3.1%) along

with the South East (3.0%). Northern Ireland, with the lowest household income in the UK, spends a total of £14.60 on communications services per week. This represents one of the highest levels of spend as a proportion of household income (3.6%).

- Satisfaction with internet and telecoms services is high, ranging between 89% UK overall internet satisfaction and 93% UK overall landline satisfaction.

- Every week across the UK, adults say they make, on average, over 20 calls on their mobile phones and send 28 text messages. Northern Ireland records the highest number of texts, at just over 35 per week. Conversely, London records the highest number of calls, at 28, and is the only part of the UK where mobile phone calls outnumber texts.

- Across the UK, adults say they spend an average of nearly 10 hours per week accessing the internet. London records a significantly higher usage of the internet, at nearly 14 hours per week.

- Digital TV is watched for an average of 19 hours per week across the UK. Digital TV viewing is higher in northern parts of the UK and is highest in Scotland, at nearly 22 hours per week, followed by the North East, Wales and the North West. People in the South West watch the lowest amounts of digital TV, at just under 16.6 hours per week.

- On average, people spend 24 hours per week listening to radio across the UK. This is broadly consistent across the nations and regions.

- People living in different parts of the country also view different types of programmes – whilst sport did not feature in the top ten programmes across the UK in 2005, in Wales four out of ten programmes viewed were either football or rugby.

2.2 Key findings - nations and regions

2.2.1 English regions

- In general, availability of communications services is higher in the English regions than the UK as a whole. The South West and East of England have lower general levels of availability, in line with their more rural population profile.

- Take-up of all communications services in the English regions is generally consistent with the UK average. Mobile phone, PC and internet take-up is higher in London and the South East and there are indications of a similar picture in the East of England.

- Take-up of telephone landlines is consistent with the UK as a whole, but lower in Yorkshire and the Humber – a region with a higher than average percentage of C2DEs.

- Take-up of mobile phones is relatively high in all the English regions (81% England average), with the exception of Yorkshire and the Humber (83%) and the North East (82%), both regions with a higher proportion of C2DEs.

- Digital TV and digital radio take-up are higher than UK average (72%) in the North West (83%) but lower in London (this trend is somewhat inconsistent with the higher

ABC1 and younger age profile in London, which tends to lead to higher take-up of these services).

- The higher take-up of the internet in London and the South East (both 64% compared to 57% UK average) is consistent with higher PC penetration and a higher proportion of ABC1s in these regions.

- People living in Yorkshire and the Humber and the North East have the lowest weekly spend on communications services across the UK in absolute terms (£13.80 and £13.10 respectively) but as a proportion of income, this is broadly consistent with UK average. In London, adults spend the most on communications services, with an average weekly spend of £18.20. However, relative to disposable income, the South East and London have the lowest proportionate spends (3.0% and 3.1% respectively).

2.2.2 Scotland

- Due to its geography, certain parts of Scotland, particularly the Highlands and Islands, experience lower levels of availability, including some mobile phone black spots, satellite coverage and lower speed broadband.

- 36% of adults living in Scotland say they have taken-up three of the main communications platforms of mobile phone, digital TV and the internet at home, compared to 43% for the UK as a whole.

- Household take-up of telephone landlines in Scotland, at 87%, is lower than the UK average of 91%, driven primarily by lower take-up among younger age groups.

- Scotland has lower 2G mobile phone coverage (56% of postal districts with at least 75% area coverage by all 4 operators). However mobile phone take-up is broadly in line with the UK average, at 77%.

- Scotland has lower than average PC and internet take-up at 51% and 57% respectively, but levels of broadband take-up at 60% are consistent with the UK average and higher than Wales and Northern Ireland.

- Scotland has higher availability than the UK average (73%) for Digital Terrestrial Television (DTT) at 82%. However, despite higher availability of DTT services, take-up of DTT is lower in Scotland, and take-up of digital satellite is also lower than the UK average.

- People in Scotland spend less on communications services than the UK as a whole, £14.50 a week against £15.20 a week for the UK. However, as a percentage of average weekly disposable income, people in Scotland spend a larger proportion of their income on communications at 3.4% against the UK average of 3.2%.

- Adults in Scotland consume more digital TV than anywhere else in the UK – at nearly 22 hours per week, compared to a UK average of 19 hours.

2.2.3 Wales

- Levels of availability of communications services are generally lower than for the UK as a whole.

- Take-up of three of the four key services together – mobile phone, digital TV and internet, is also lower than the UK average (35% compared to 43%), reflecting lower levels of availability and a higher proportion of C2DEs.

- Owing largely to its higher than average rural population, Wales has lower than average coverage for 2G and 3G mobile phones.

- Wales has lower than UK average adult personal take-up of mobile phones but higher reliance on mobile phones as the household's only method of telephony (14% vs. 8% UK average). People living in Wales are also more likely to use pre-pay mobile phone packages.

- Wales experiences lower than UK average broadband and internet take-up (49% compared to 57%) despite good basic broadband availability. The proportion of households within 5km of a broadband exchange is slightly less than the UK average (82% compared to 86%). PC take-up is lower than the UK average (59% compared to 66%).

- Digital TV has been widely adopted in Wales, with higher than UK average take-up (72% vs. 65% for the UK as a whole). This is largely driven by high satellite take-up of 46% vs. 32% across the UK.

- Wales has lower levels of availability of DAB digital radio services but self-reported take-up of digital radio as a whole is consistent with the rest of the UK (28% compared to 32%).

- People spend a lower absolute amount of their weekly income on communications services (£14.60 against £15.20 UK average). However, this is higher than the UK average as a proportion of average weekly disposable income (3.6%, compared to 3.2% UK average).

- People in Wales watched more sporting programs than the UK average. While sport did not feature in the top ten programmes for the rest of the UK in 2005, four of the top ten programmes in Wales were related to football or rugby.

2.2.4 Northern Ireland

- Northern Ireland has the highest rural population when compared to the other nations and regions of the UK (35%, 12% UK average) and also has a higher proportion of C2DEs than UK average (53%, 45% UK average). Partly as a result of this, availability and take-up of communications services tend to be lower in Northern Ireland than the UK average. In particular, availability of digital cable, LLU services, higher speed broadband and DTT services are all lower than the UK average. Similarly, findings show that take-up is lower than the UK average across all the communications services analysed in this report.

- Northern Ireland also has the lowest proportion of those taking up three of the four main communications services: mobile phones, digital TV and the internet (34% compared to 43% for the UK overall).

- Northern Ireland was the first part of the UK to reach 100% broadband availability. However, the proportion of premises within a 5km radius of an enabled exchange and therefore likely to be capable of higher speed broadband connectivity is lower than the UK as a whole (75% compared to 87%), owing to Northern Ireland's more rural profile.

- Despite good availability of basic broadband, take-up of internet and broadband services are lower in Northern Ireland than the UK average (48% and 57% respectively), linked, at least in part, to lower than average PC take-up (55% compared to UK average 66%).

- Northern Ireland has lower than average take-up of mobile phones, driven by lower take-up amongst older people and ABC1s. However, there is greater reliance amongst households on mobile phones as the only method of telephony (12% compared to 8% for the UK). People living in Northern Ireland are also more likely to use pre-pay mobile phone packages.

- Lower take-up of digital TV in Northern Ireland (52% compared with UK average 65%) is consistent with lower than average availability of DTT and cable, and consumers have higher levels of uncertainty around whether or not they are likely to take-up this service in the future (21% uncertain compared to UK average 10%). Cost may also be an issue.

- Northern Ireland has significantly lower take-up of digital radio services (21% vs. UK average 32%). Evidence indicates that listeners are happy with their current analogue services or not interested in digital radio.

- Northern Ireland has one of the lowest average weekly incomes in the UK (£478 compared to £574 UK average), but one of the highest spends on communications as a proportion of weekly disposable income. In absolute terms, however, people living in Northern Ireland spend less than the UK as a whole on communications services (£14.60 against £15.20).

- Northern Ireland has the highest average number of texts sent per week – 37 texts against a UK average of 28 texts.

Section 3

Introduction

3.1 Background

This research report sets out the findings from Ofcom's survey of communications across the nations and regions of the United Kingdom.

This survey is a commitment included in the 2005/6 Annual Plan. It addresses stakeholder feedback that Ofcom's work should better reflect and demonstrate an understanding of the differences between the nations and regions of the UK. This sentiment was reinforced at our Rural, Regional and Remote seminars in 2005 and Annual Plan consultation events in the nations and regions which took place at the beginning of 2006.

It is also consistent with Ofcom's principal statutory duty; namely, to further the interests of citizens and consumers, where appropriate by encouraging competition and duties to secure the availability of a wide range of electronic communication services and a wide range of television and radio services throughout the UK. In doing this, Ofcom must among other things have regard to the desirability of encouraging the availability and use of high speed internet throughout the UK and the different interests of persons living in different parts of the UK and in rural and urban areas.

The Terms of Reference for the project were published on 10 November 2005 and are available at http://www.ofcom.org.uk/research/cm/nations/tor/?a=87101.

This report should be seen in the context of a series of complementary research surveys to be published by Ofcom during 2006. These include the Media Literacy Audit, (the main report was published in March 2006 and the supplementary report on media literacy in the nations and regions is being published alongside this report), the Digital Consumer, Digital SME and the annual Communications Market report, (all to be published later in the year).

3.2 Objectives

There has been considerable debate about the importance of geographic variations in availability, take-up and consumption of communications services and the reasons behind these differences. However, the patterns of variance have never been analysed systematically using market research and other secondary data.

This survey of communications across nations and regions seeks to address this by gathering available data relating to telecommunications (landlines, mobile phones), internet (narrowband, broadband) and digital broadcasting (digital TV, digital radio) and analysing patterns of variance by nation and region.

The information collected measures availability, take-up and consumption across each of these services, among consumers by geographic location. The survey also examines take-up of communications by small and medium sized enterprises (SMEs).

The main aims of the project are to:

- create an evidence base of key trends in communications markets in the UK in relation to geographic location and selected socio-economic indicators;

- identify options and choices for Ofcom's regulatory approach to reflect national and regional differences.
- engage and involve stakeholders and advisory committees in identifying regional differences; and
- engage with national and regional Government to identify issues beyond Ofcom's remit which may merit further consideration.

Ofcom hopes that the research findings presented in this report will establish a robust evidence base for communications services across the UK which can be used as a benchmark against which to assess the impact of future activity and to inform and guide policy development.

3.3 Research methodologies

This report draws on data from a number of sources, including Ofcom research initiatives and other external sources. Data sources have been selected to ensure that they are as comparable as possible but reference should be made to the source notes relating to each section which clearly identify how the research has been used.

The majority of data used in this report is drawn from surveys conducted between Q1 and Q3 2005.

Ofcom is aware, however, that some markets have seen change notably in penetration levels since Q3 2005. For example, data from Q4 2005 of Ofcom's Residential Communications Tracking Study suggests that Wales' take-up of mobile phones and broadband has increased significantly and at a UK level digital TV take-up has increased to more than 70% as reported in *The Communications Market: Digital Progress Report – Digital TV.*

Throughout this report both residential consumer and SME data referred to as 'significantly' different has been tested at the 99% level of confidence and therefore can be considered to be robust. Data referred to as showing 'indicative' differences is significant at the 95% level of confidence. We have significance tested all findings resulting from surveys with a limited sample size and only findings that are significant have been identified in this report.

Data has only been analysed on sample sizes of 100 or more. As such, it has not been possible to analyse all aspects within nation or region. For example, the media literacy audit survey was designed to examine English regions only at an indicative level, which means that where data from the audit is used in this report, the North East cannot be included.

All data used is weighted data and un-weighted base sizes are shown on charts and tables to show the number of respondents who were asked the question.

The three key Ofcom research initiatives used in this report are as follows:

Ofcom's Residential Communications Tracking Study

This study is a continuous face to face survey, with monthly interviewing of a representative sample of around 700 UK adults aged 15+.

The residential tracker achieved a total sample of 4426 UK adults, 3379 adults in England, 407 adults in Scotland, 292 adults in Wales and 348 adults in Northern Ireland. As Northern Ireland only accounts for 3% of the UK a representative sample (i.e. 3% of the total sample is insufficient to allow individual analysis of this nation. Therefore, Ofcom's residential

tracking study boosts the number of interviews in Northern Ireland to provide a sufficiently robust sample.

The study was conducted amongst a representative sample of UK adults aged 15+,reflecting the UK profile of sex, age, socio-economic group, region and employment status and representative of cabled/non cabled areas, rural/urban areas and levels of deprivation. Data reported at a UK level has been weighted to ensure the sample is representative of the UK adult population and data reported at a national level has been weighted to ensure it is nationally representative.

Data was collected between January and September 2005. The sample sizes have dictated the level of possible analysis. Where socio-economic group is assessed - this is a comparison between ABC1s and C2DEs - and where age is analysed, this is split between younger (15-44) and older (45+) consumers.

Statistics for this report are largely based on rolling data over 6 months, combining data from two quarters of 2005 fieldwork where identical questions were asked. Combining periods increases the sample size and allows data to be analysed and interpreted with greater confidence.

Ofcom's Media Literacy Audit

This survey was a discrete face to face survey, interviewing a representative sample of 3244 UK adults aged 16+. It achieved a total sample of 1816 adults in England, 437 adults in Scotland, 495 adults in Wales and 496 adults in Northern Ireland.

Data was collected between June and August 2005. Ofcom's Media Literacy Audit did not extend to landline telephones and therefore the landline telephones section does not include any findings about intention to take-up, and voluntary and involuntary exclusion, as detailed in the other sections.

Ofcom carried out a comparison of these two residential studies with various other sources of data, all of which are detailed in the methodology section of this report along with further sampling details of each survey.

Small and Medium Enterprises (SME) Tracking Study

This survey is a continuous telephone survey, with monthly interviews of a representative sample of SMEs (1-250 employees and annual turnover in excess of £50k).

A total sample of 2117 SMEs has been used for analysis in England, 298 in Scotland, 149 in Wales and 147 in Northern Ireland. The latter three are relatively small and therefore caution should be taken when drawing conclusions from this data. Sample size has also limited analysis to take-up figures. However, Ofcom is currently performing a review of this research which will potentially include an increase in sample sizes.

3.4 Scope

Issues relating to content, including the Public Service Broadcasting (PSB) review settlement and broadcast production, are out of scope for the audit.

This project has not addressed detailed behaviour amongst ethnic minorities, disabled people or specific age groups (like the young). Some of the findings – such as groups involuntarily excluded from digital broadcasting platforms and the internet – suggest there is

more work to be done in these areas which Ofcom plans to address in future research and in subsequent versions of the survey.

3.5 Report structure

This report comprises a current examination of the communications markets – for telecoms (landlines and mobile phones), internet (including broadband) and digital broadcasting (television and radio) – broken down into the 'nations and regions' of the UK.

It examines the UK overall, England, Scotland, Wales, Northern Ireland; and within England, the nine Government Office Regions (GORs) of London, the South East, South West, East Midlands, West Midlands, East England, Yorkshire and the Humber, the North East and the North West. The areas used throughout the report, with abbreviations used are:

Scotland

North East (NE)

North West (NW)

Northern Ireland

Yorkshire and the Humber (Y&H)

East Midlands (EM)

West Midlands (WM)

Wales

East of England (EE)

London

South East (SE)

South West (SW)

The report begins by describing the geographic, socio-demographic, economic, political and historical contexts of each communications market. It then presents data on the markets themselves, under three main sections, which consider respectively the availability of communications services, the take-up of communications services (including exclusion from services, both voluntary and involuntary), and the consumption of services (including usage patterns and satisfaction levels). The final section presents findings on the SME markets for telecoms and internet. This main report is accompanied by four separate reports for the English regions, Scotland, Wales and Northern Ireland, which give greater detail at a national level.

Section 4

Setting the scene

4.1 Introduction

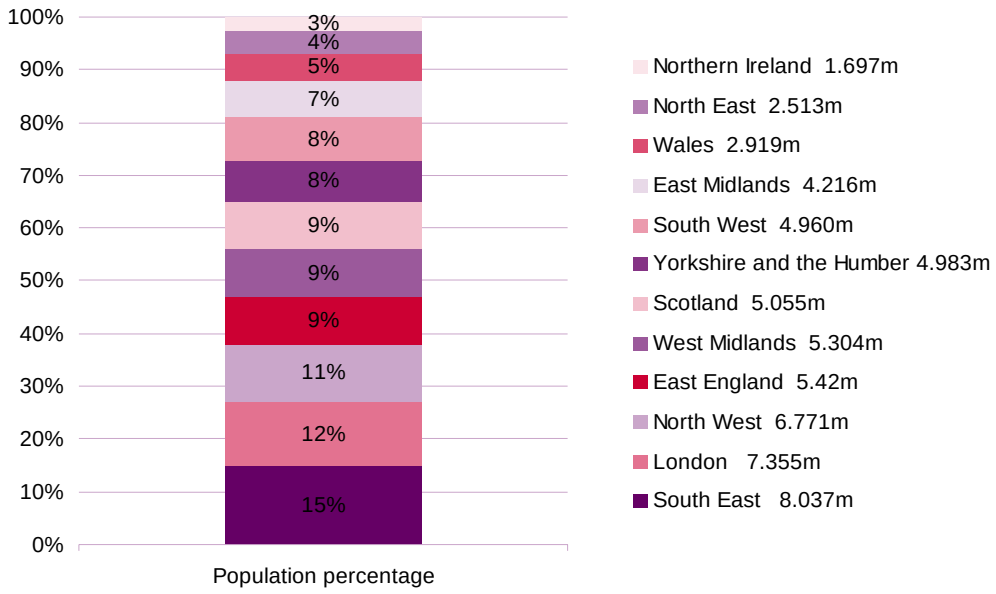
The nations and regions of the United Kingdom each have unique features which influence and shape the availability, take-up and consumption of communications services. Geographic variations in availability and take-up which exist across the United Kingdom need to be considered against a backdrop of the broad range of geographic, social and demographic differences.

Figures 3 to 10 illustrate some of the socio-demographic features influencing the availability, take-up and consumption of communications services across the United Kingdom, including population, rural/urban split, socio-economic group and age.

Geographic (including border issues), historical and social features (e.g. language) also have some influence, and a summary of these by nation and region is also provided below.

4.2 Socio-demographic features

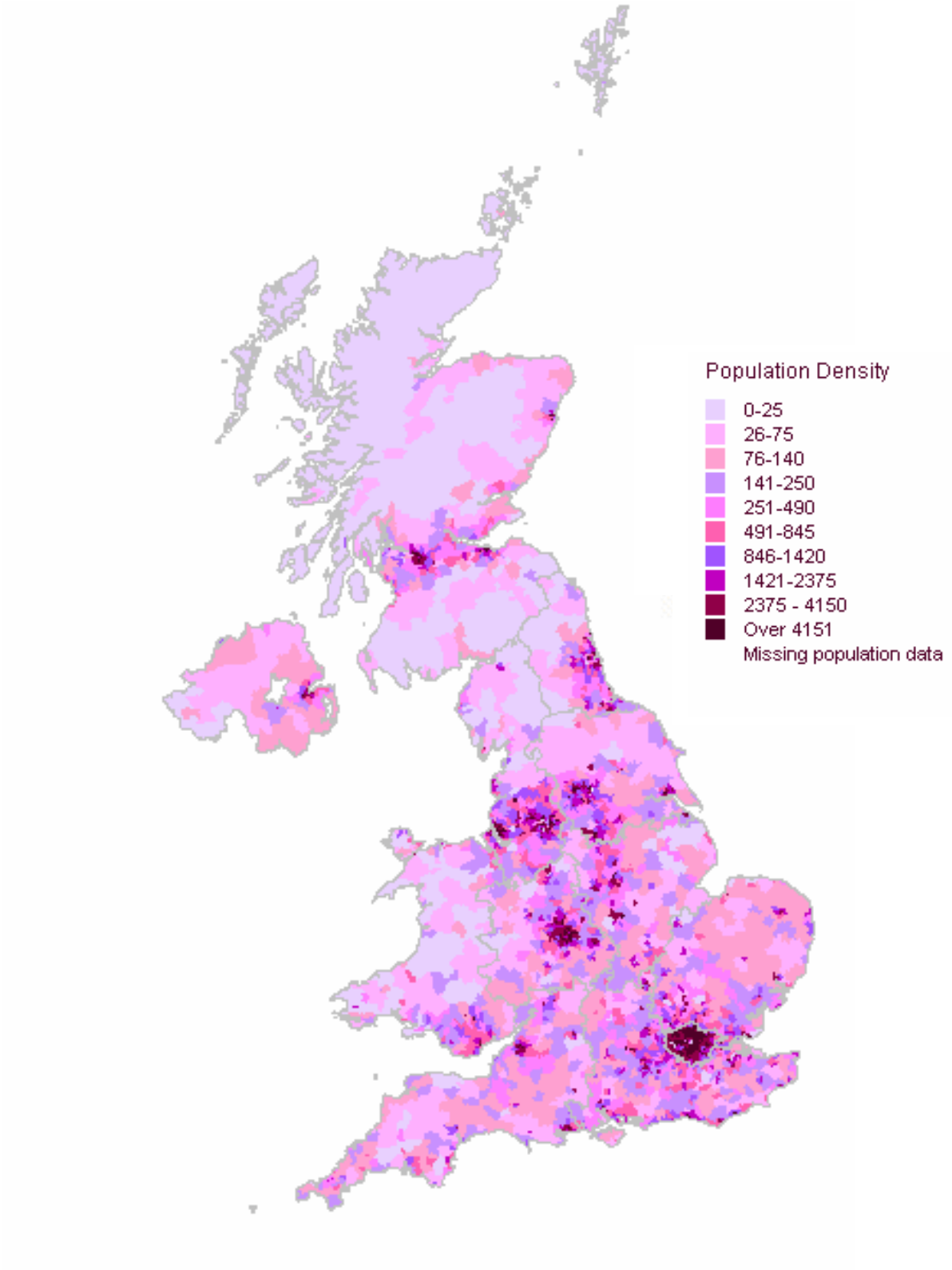
Figure 3: Population across the nations and regions



Source: Office of National Statistics, Regional Trends No 38, 2004 Edition (National Statistics website: www.statistics.gov.uk Crown copyright material is reproduced with the permission of the Controller of HMSO)

59.2 million people live in the UK. Figure 3 shows where these people live across the nations and the nine English regions. South East England has the largest population with around 8 million inhabitants, accounting for 15% of the total. In contrast, Northern Ireland has the smallest population - 1.7 million people – just 3% of the UK population as a whole.

Figure 4: Population density map of the UK



Source: Ofcom, based on Office of National Statistics 2001 Census data (National Statistics website: www.statistics.gov.uk Crown copyright material is reproduced with the permission of the Controller of HMSO)

Figure 4 shows areas of population density across the UK. Population is concentrated in London, the West Midlands, the North West, the North East and the central belt of Scotland.

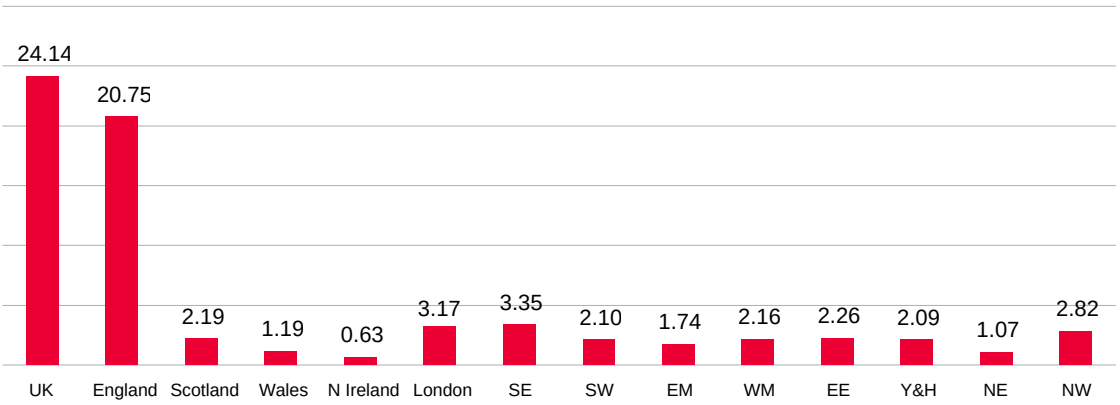
Conversely, the least densely populated areas may be found in Scotland, Wales, Northern Ireland and parts of the South West, North and East of England.

Figure 5: Percentage of population living in rural areas

Note: Rural means settlements less than 2,000 and less than 10 miles from a larger settlement.
Source: Business Geographics 'Urban Indicator'

Figure 5 shows the percentage of population living in rural areas across the UK broken out by individual nations and regions. There are considerable differences in the extent of rural population across the nations and regions, ranging from 35% in Northern Ireland living in rural areas to 0% in London. On average, 88% of the population live in urban areas. London, the North West and the North East have the highest proportion living in urban areas and Northern Ireland, whilst South West England and Wales having the highest rural populations.

Figure 6: Households in each nation and region (2001, millions)



Source: Office of the Deputy Prime Minister; National Assembly for Wales; Scottish Executive; NISRA

Figure 6 shows the number of households in each of the nations and regions. Overall, there are just over 24 million households in the UK with London and the South East accounting for 6.5 million of these. Together, Scotland, Wales and Northern Ireland account for around 4 million households, or one-sixth of the UK total.

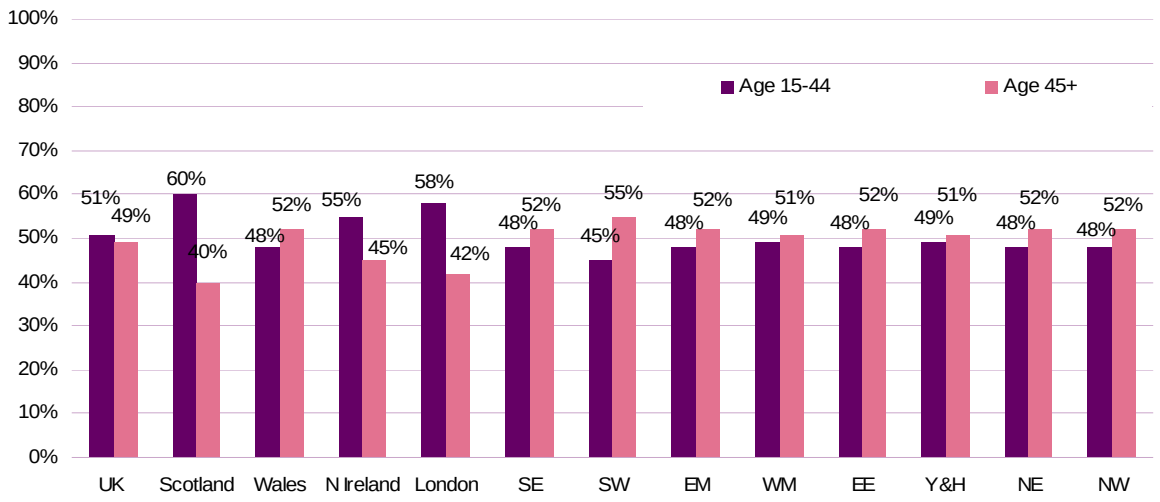
Figure 7: Median age across the UK

UK	Eng	Scot	Wales	NI	Lon	SE	SW	EM	WM	EE	YH	NE	NW
38	38	39	40	35	34	39	41	39	38	39	39	38	38

Source: Office of National Statistics, Census 2001 (National Statistics website: www.statistics.gov.uk Crown copyright material is reproduced with the permission of the Controller of HMSO)

Figure 7 looks at the median age of the population across the nations and regions. The median age across the UK population is 38. Wales and South West England have the oldest populations, with a median age of 40 and 41 respectively. London and Northern Ireland have younger populations, with median ages of 34 and 35.

Figure 8: Age profiles



Source: Office of National Statistics, Census 2001 (National Statistics website: www.statistics.gov.uk Crown copyright material is reproduced with the permission of the Controller of HMSO)

Figure 8 examines the population profile of the nations and regions between the age groups used in this report. Across the UK, 51% of adults are aged between 15 and 45 and 49% are aged 45 or over. Scotland, Northern Ireland and London have the highest proportions of 15 - 44s, while the South West has the highest proportion of over 45s.

Figure 9: Socio-economic profiles

Source: Office of National Statistics, Census 2001 (National Statistics website: www.statistics.gov.uk Crown copyright material is reproduced with the permission of the Controller of HMSO)

Figure 9 shows the socio-economic groups of the nations and regions. Across the UK, 54% of the population are ABC1s and 45% are C2DEs. Scotland, Wales, Northern Ireland and North East England show similar profiles to each other, with higher C2DEs. London, South East England, South West and East of England have a significantly higher proportion of ABC1s.

Figure 10: Average weekly household income and expenditure

Source: Office of National Statistics, Family Spending, A Report on the 2004-2005 Expenditure & Food Survey 2005 Edition. ONS published 10 March 2006 (National Statistics website: www.statistics.gov.uk Crown copyright material is reproduced with the permission of the Controller of HMSO)

Figure 10 shows average gross weekly household income and expenditure. According to ONS statistics, average weekly household income in 2004 was £574 with average household expenditure at £420. London had the highest levels of average income and expenditure at £743 and £484 respectively; levels of income in Wales, Northern Ireland and the North East were lower than the UK average. Northern Ireland had the lowest average income at £478 and the North East had the lowest expenditure at £346.

4.3 Other features of the nations and regions

England

The English regions reflect the full diversity of the United Kingdom in many ways including income distribution, socio-economic group, geography, age and ethnicity.

The English regions are governed centrally by Her Majesty's United Kingdom Government. Government Office Regions (GORs) were established in 1994. The Government Offices represent central Government in the regions and work in conjunction with the regional development agencies (RDAs) which were established in 1998 (London in 1999) to drive economic development in their region. These are sponsored through the Department of Trade and Industry (DTI).

The geography of England ranges from the heavily urbanised areas of London, the North West and North East to the more rural South West and East of England. There are a number of primarily rural areas in the South West and North West of England which pose coverage difficulties for TV, radio and mobile phones.

England has the most diverse ethnic population in the UK. In particular, the London area has the lowest percentage white population in the UK (71.1%; 92% UK average). There is also a great disparity of income levels across the English Regions – people in London have the highest average weekly income in the UK at £743pw, compared to £454 in the North East – a 64% difference.

Scotland

Scotland has its own Parliament with devolved powers, including education, health and economic development. The devolved parliament reflects the strong sense of identity felt among the Scottish people. The topography of the Scottish Highlands and Islands has traditionally posed coverage difficulties for television, radio and mobile phones. The Borders are similarly affected. Scottish topography has also had an impact on population density, with a large proportion living in the 'central belt' area of Scotland.

The proportion of the Scottish population under the age of 16 and the proportion over pension age are very similar to the UK average. However, Scotland has a high percentage of white people (98%; UK average 91%). Scotland's average gross household weekly income, at £523, is less than the UK average of £574.

Wales

Wales' Celtic roots have provided the country with its distinctive culture and language; around one fifth of the population speaks Welsh. Like Scotland, Wales has a partially devolved system of government, represented by the Welsh Assembly since 1998. Wales' mountainous terrain provides a significant challenge to the provision of electronic communications services. Similarly, its long border with England influences television transmission overlap (affecting approx 40% of the population).

The age composition of the Welsh population is broadly similar to the UK average. However, a slightly higher proportion of population is over pensionable age (20% vs 18% UK average). Wales also has a high percentage white population (98%, UK average 91%).

Due to its post-industrial legacy, Wales has a number of demographic indicators that link to higher levels of deprivation and financial exclusion. One indicator is that 14% of households do not have a bank account compared to the 11% UK average.

Northern Ireland

Northern Ireland has the highest rural population when compared to the other nations and regions of the UK (35%, 12% UK average) and also has a higher proportion of C2DEs than UK average (53%, 45% UK average)

Northern Ireland has the highest percentage white population in the UK at 99% compared to a UK average of 92%. It also has the youngest demographic profile in the UK; 23% of the population is under the age of 16, compared to 20% in the UK as a whole.

Economically, Northern Ireland has a high reliance on the public sector. It also has the lowest income levels in the United Kingdom and the highest economic inactivity in UK. Population density varies considerably across Northern Ireland. Almost one third of the population is concentrated in the Greater Belfast area with numerous small towns and villages and relatively remote rural locations being home to most of the remaining inhabitants.

Section 5

Availability of communications services

5.1 Introduction

This section explores the availability of communications services throughout the UK, looking at telecoms (landline and mobile phone), internet (including broadband) and broadcasting (digital TV and digital radio).

In undertaking this analysis, we have drawn from data provided to us by operators and to supplement this, we have also undertaken research into reception issues that consumers may experience.

5.2 Key findings

- The universal service obligation (USO) is currently provided by BT and by Kingston Communications in Hull. All households in the UK have access to a landline at a standard charge, although additional connection charges apply when they are so remote that installation would cost over £3,400. There are no particular issues surrounding availability of landlines across the UK.

- Second generation (2G) mobile phone services are widely available across the UK – 99.9% of the UK population live within postal districts that have at least one operator with at least 75% area coverage and 94.6% of the UK population live within postal districts that have coverage by all four operators. However, Scotland, Wales and Northern Ireland have fewer people living in areas reporting coverage by all four operators (85.2%, 79.8% and 87.4% respectively).

- Geographic coverage levels for 2G services where at least one operator reports at least 75% area coverage are lower across the UK than corresponding population coverage levels, but still high overall. However, fewer postal districts have this geographic coverage by all four operators in the more rural areas of the UK – including Scotland (64%) and Wales (60.8%).

- Rollout of third generation (3G) mobile phone services has focused on more urban areas first. London, as the UK's most densely populated area, has the highest geographic coverage (in this case defined by the proportion of postal districts with at least 25% area coverage). Some 46.2% of postal districts in the UK had the defined level of coverage by at least four 3G operators and 90.5% of postal districts had such coverage by at least one operator.

- Ofcom consumer research into mobile phone reception around the UK shows widespread variations in coverage according to where people live. 29% of respondents report reception problems at least monthly, and 22% at least weekly. Northern Ireland, Wales and the South West report the highest incidences of reception problems, with London the lowest. The incidence of reception problems in rural parts of the UK is almost double that in urban areas.

- BT data from January 2006 shows that 99.9% of premises in the UK are connected to DSL-enabled exchanges. However, some premises within these exchange areas are not suitable for delivery of broadband services, or only at very low speeds, due to local technicalities such as distance from exchange or poor quality of networks.

- Distance from exchange is a key determinant of speed of service. Around 86% of premises are located within a 5km local loop length from their exchange - indicating greater likelihood that these premises will be able to receive higher speed services. 97% of premises in London are within 5km of an exchange whereas in Northern Ireland, the figure is 74%. Significantly fewer premises, around 17%, are within 2kms of an exchange – giving an indication that fewer people will be able to benefit from even higher speed services using currently available technologies.

- 45% of premises are passed by digital cable. Cable availability is highest in London (58%) and the West Midlands (56%) and lowest in Wales (23%), Northern Ireland (30%), the South West (34%) and Scotland (37%).

- Approximately 98% of households across the UK are able to receive digital satellite television, although some homes are unable to receive satellite services due to specific local factors. At least 73% are able to receive digital terrestrial television (DTT) (the maximum possible until digital switchover enables digital signals to be broadcast more widely across the UK) and 45% digital cable (noted above).

- Digital terrestrial television (DTT) availability is highest in the North West (94%), North East (89%) and London (86%), but fewer than 60% of homes are able to receive DTT in Wales, Northern Ireland and the East of England.

- Digital radio is available across the UK via the internet, digital TV and DAB digital radio. DAB digital radio services are available from the BBC, local multiplex services and Digital One. The majority of the UK population (89%) are now covered by at least one multiplex.

5.3 Availability of telecoms services

5.3.1 Telephone landlines

Telephone services over the public switched telephone network (PSTN) are available to 100% of the UK population. The universal service obligation (USO) is currently provided by BT and by Kingston Communications in Hull. All households in the UK have access to a landline at a standard charge, although additional connection charges apply when they are so remote that installation would cost over £3,400. The USO also mandates BT and Kingston to provide affordable voice telephone services to poorer and less well-advantaged members of the community, via special pricing schemes.

BT completed its digitisation of UK telephone exchanges in 1998. The digitisation of exchanges and of the trunk network (completed in 1990) resulted in higher call quality, and gave all UK customers the ability to value-added services such as call waiting, networked voicemail services, and caller ID.

This survey concludes that there are no significant issues related to the availability of voice telephone services (and associated value-added services) anywhere in the UK. That said, we note that there remain a very small number of single dwellings in remote locations that may have difficulties with connection to the PSTN.

5.3.2 Mobile phones – 2G

Ofcom requested data from mobile network operators for second generation (2G) coverage across the UK as of Q3 2005. The data was provided at postal district level (eg SE1), giving 2864 separate data points across the UK. We analysed this data first by population coverage and second by geographic coverage.

Our benchmark for 2G mobile phone availability was 75% area coverage within an individual postal district. For each of population coverage and geographic coverage, we identified postal districts where there was 75% coverage by at least one operator, indicating that people living in that district had access to at least one 2G mobile phone service. Then we identified postal districts where there was such coverage by all four operators.

Population coverage

There was a consistently high level of network coverage across the UK population as a whole with each of the four 2G mobile phone operators stating that they covered 99% of the UK's population.

Figure 11 shows that 99.9% of the UK population lived in postal districts which had at least 75% area coverage by at least one mobile phone operator. This level was consistently high across the nations and regions, ranging from 99.2% in Yorkshire and the Humber to 100% in a number of the nations and regions.

Most people in the UK also had a choice of operator in their area: 94.6% of the population lived in postal district areas which had at least 75% area coverage by four operators. However this was lower in parts of the UK with more rural populations, such as Wales (79.8%), Scotland (85.2%), Northern Ireland (87.4%) and the South West of England (91.1%).

Figure 11: 2G mobile phone population coverage by postal district*

*Source: Ofcom, operator data, Q3 2005. *Note: figure shows percentage of population within postal districts where at least one operator and four operators report at least 75% area coverage*

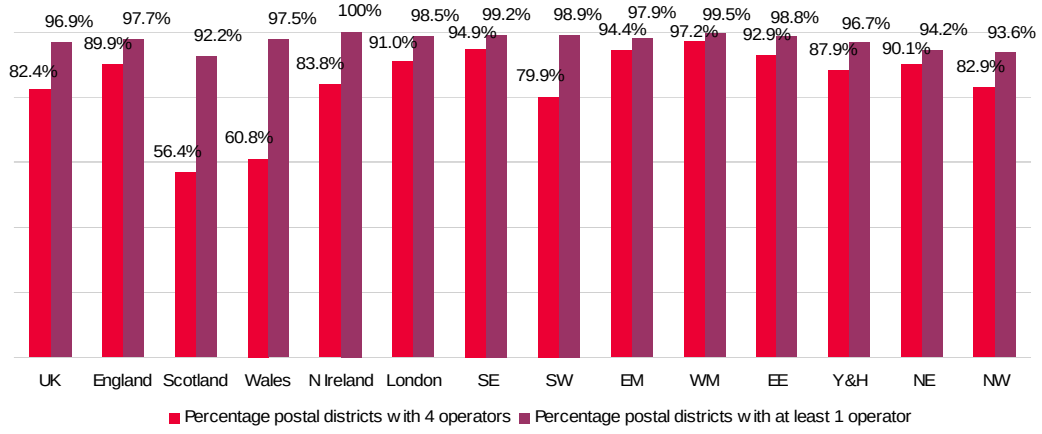
Geographic coverage

As well as looking at population coverage for 2G mobile phones, we also measured geographic coverage of the UK, to understand where there were coverage gaps.

Figure 12 shows that geographic coverage by at least one 2G mobile phone operator was high, but not as high as population coverage: 96.9% of postal districts across the UK had at least 75% area coverage by at least one mobile phone operator. Northern Ireland had the highest proportion of postal districts with coverage by one operator, at 100%; Scotland had the lowest, at 92.2%.

82.4% of postal districts across the UK had at least 75% area coverage by all four mobile phone operators. This was highest in the West Midlands (97.2%), the South East (94.9%) and the East Midlands (94.4%), but lower in Scotland (56.4%) and Wales (60.8%)

Figure 12: 2G mobile phone geographic coverage by postal district*

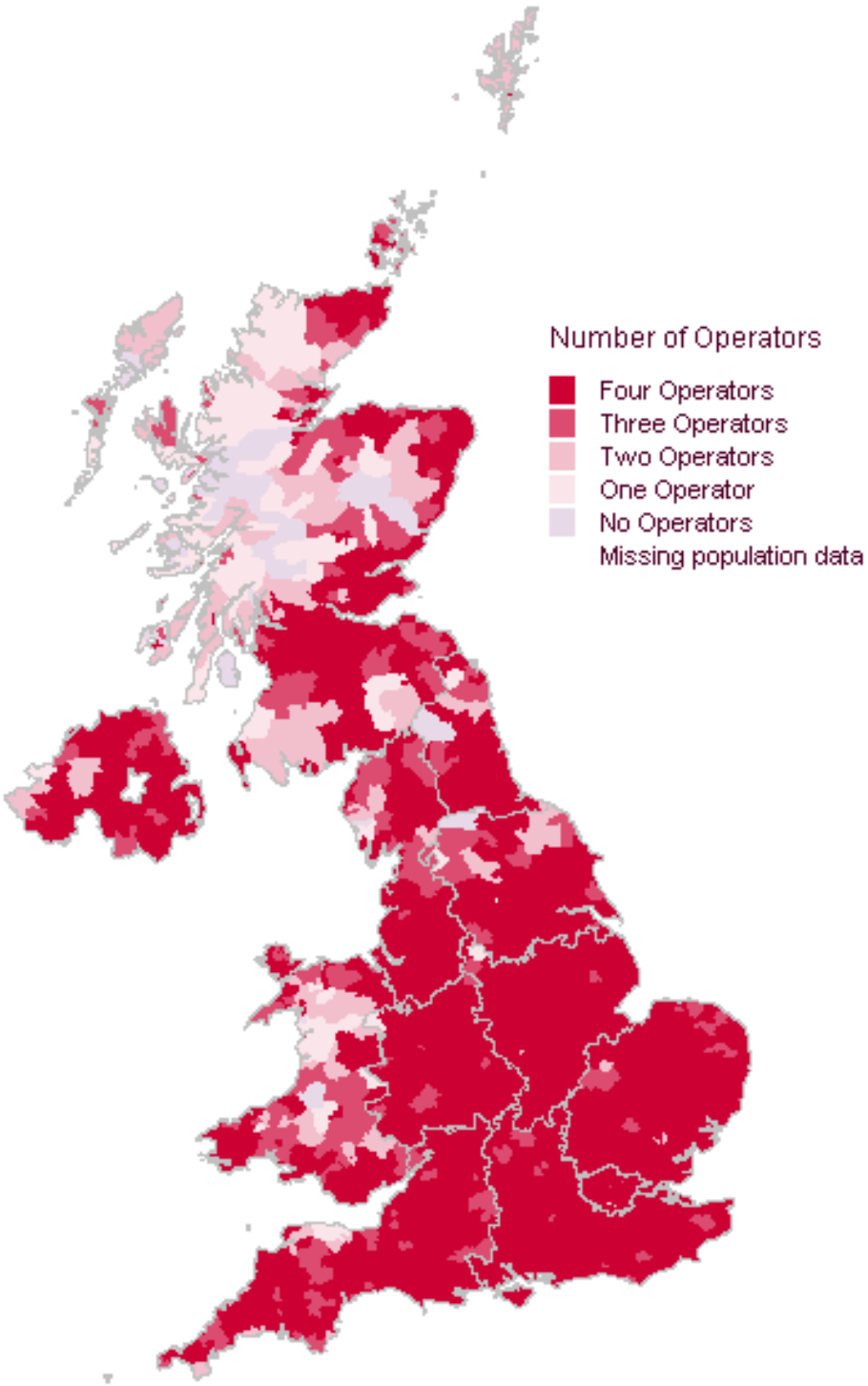


*Source: Ofcom, operator data, Q3 2005. *Note: figure shows the percentage of postal districts where at least one operator and four operators report at least 75% area coverage*

Figure 13 illustrates geographic coverage of the UK by number of 2G mobile phone operators. The map shows that all four operators covered large sections of the UK. However

there were a number of postal districts where either no operators or only one or two operators reported at least 75% area coverage – notably in the Scottish Highlands and Islands, the Lake District, parts of North Yorkshire, areas of mid-Wales and the west of Northern Ireland.

Figure 13: 2G mobile phone coverage by number of operators (postal districts with at least 75% area coverage)

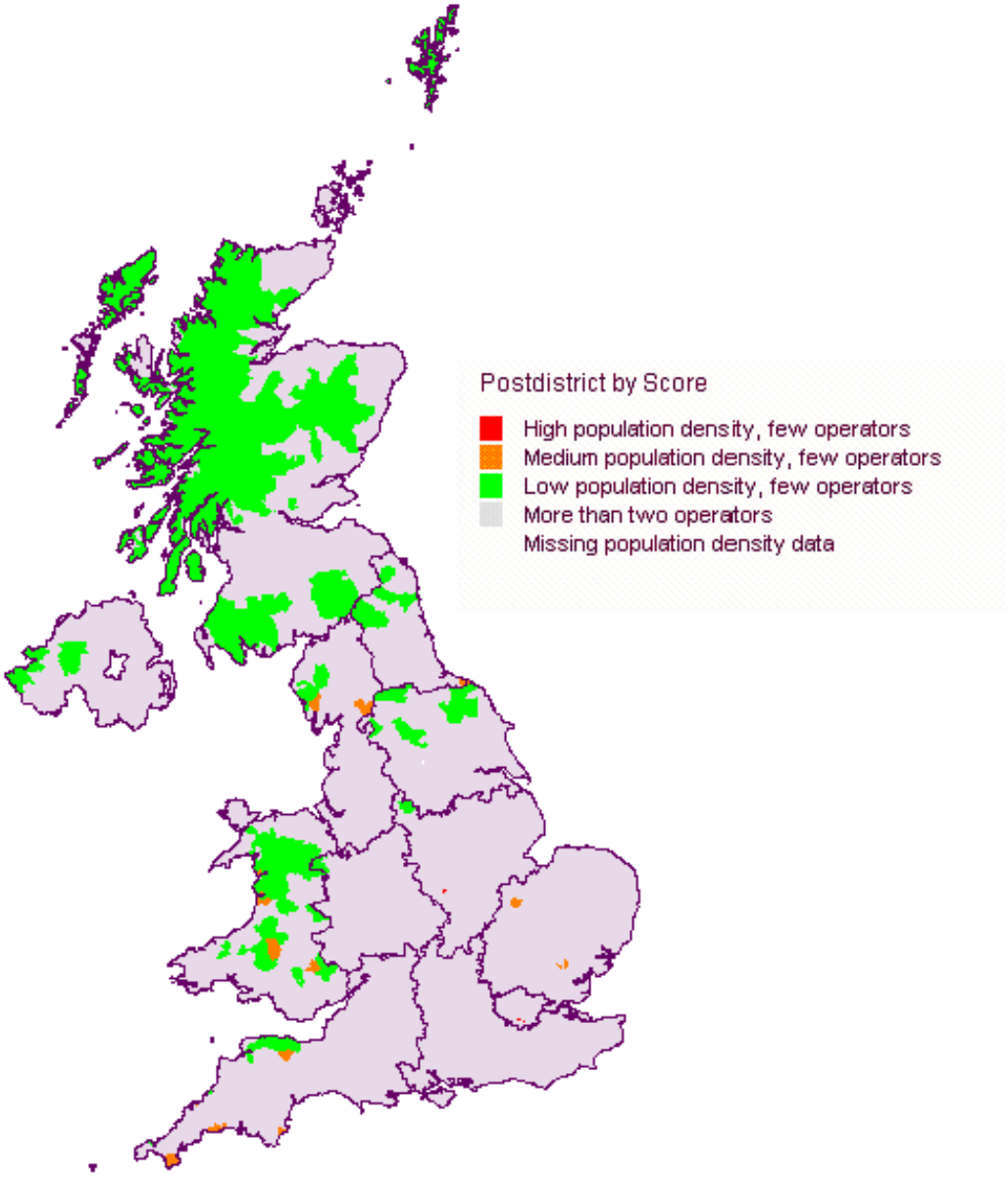


Source: Ofcom, operator data, Q3 2005. Shows the postal districts where the number of operators identified report at least 75% area coverage

Figure 14 shows an overlay of the postal districts where fewer than three operators reported the defined level of geographic coverage, against relative population density in those areas. In general, areas with reported coverage lower than the UK average were those where population density was also very low (for example, the Scottish Highlands). Whilst lower coverage in deeply rural areas may concern those that live there, or those visiting, it is often difficult for the mobile network operators to commit to the costs of network build in these areas (often areas with hilly terrain) in the light of low additional expected returns. It is worth noting that less than 1% of the UK population live where there is no coverage according to the criteria defined above.

However, the amber areas on the map show areas of lower geographic coverage in postal districts with medium population density. These scattered patches appear primarily in Wales, South West England and North West England.

Figure 14: 2G mobile phone coverage against population density (postal districts with at least 75% area coverage)



Source: Ofcom, operator data, Q3 2005

5.3.3 Mobile phones - 3G

Ofcom also requested data from the mobile network operators for 3G coverage across the UK. The data was again provided at postal district level giving us 2864 separate data points. We have analysed the data by geographic coverage across postal districts.

For 3G, we requested a 25% area coverage threshold (in contrast to a 75% area coverage threshold for 2G). The way 3G technology transmits data signals means that 3G transmission speeds deteriorate significantly over distance. A 3G base station typically serves a significantly smaller area than an equivalent 2G base station - especially for higher-speed 3G services (>128 kbit/s).

3G coverage is not simply a ‘yes or no’ answer, in the way that 2G coverage is. A number of factors affect the quality of 3G service, including distance from the base station, the number of simultaneous users of a given base station and whether the user is indoors or outdoors. We set the area coverage threshold at 25% to reflect the newness of 3G services, and 128kbit/s as one of a number of possible thresholds. We asked mobile network operators to give us details of those areas where they provide 3G services at sufficient bandwidth to enable data and video services (>128kbit/s), rather than their total 3G coverage areas which would include areas where the 3G network could be used for lower bandwidth services.

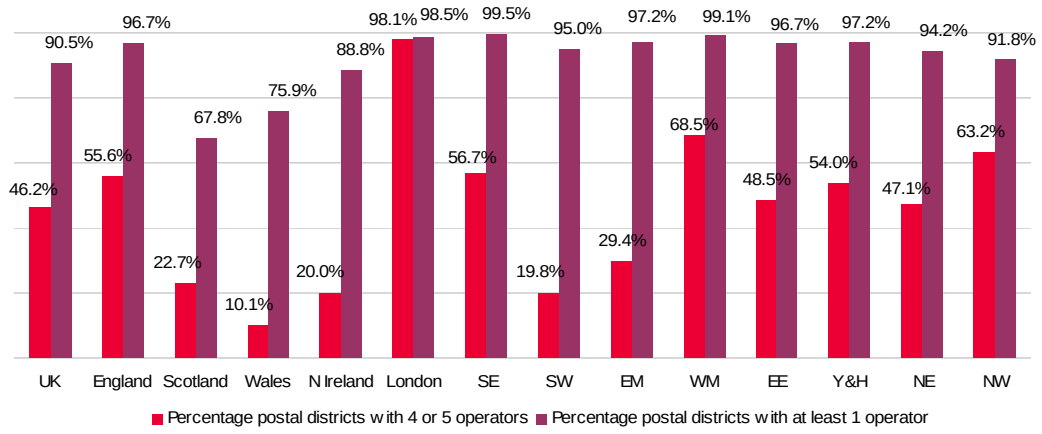
Using this 25% area coverage threshold means that it has not been possible to calculate meaningful statistics about 3G population coverage. In this case the geographic extent of coverage may be more significant than the population covered.

When evaluating 3G coverage, it is also worth noting that all current 3G handsets also have the capability to operate on 2G networks. This means that subscribers with 3G devices will be able to use higher-bandwidth data and video services in the areas where there is 3G network coverage, and will also be able to use 2G networks for voice and simple data when they are outside of a 3G coverage area but still within a 2G coverage area.

Figure 15 shows 3G geographic coverage by postal district. Geographic coverage levels were consistent with 3G rollout occurring in urban parts of the UK first. Some 46.2% of postal districts in the UK had the defined level of coverage by at least four 3G operators and 90.5% of postal districts had such coverage by at least one operator. London and the South East, with 98.5% and 99.5% of postal districts had the highest levels of coverage by at least one operator.

Again, the South West, Wales, Northern Ireland and Scotland – the more rural parts of the UK – and the East Midlands, had lower than UK average 3G coverage, particularly when measuring the coverage by at least four operators.

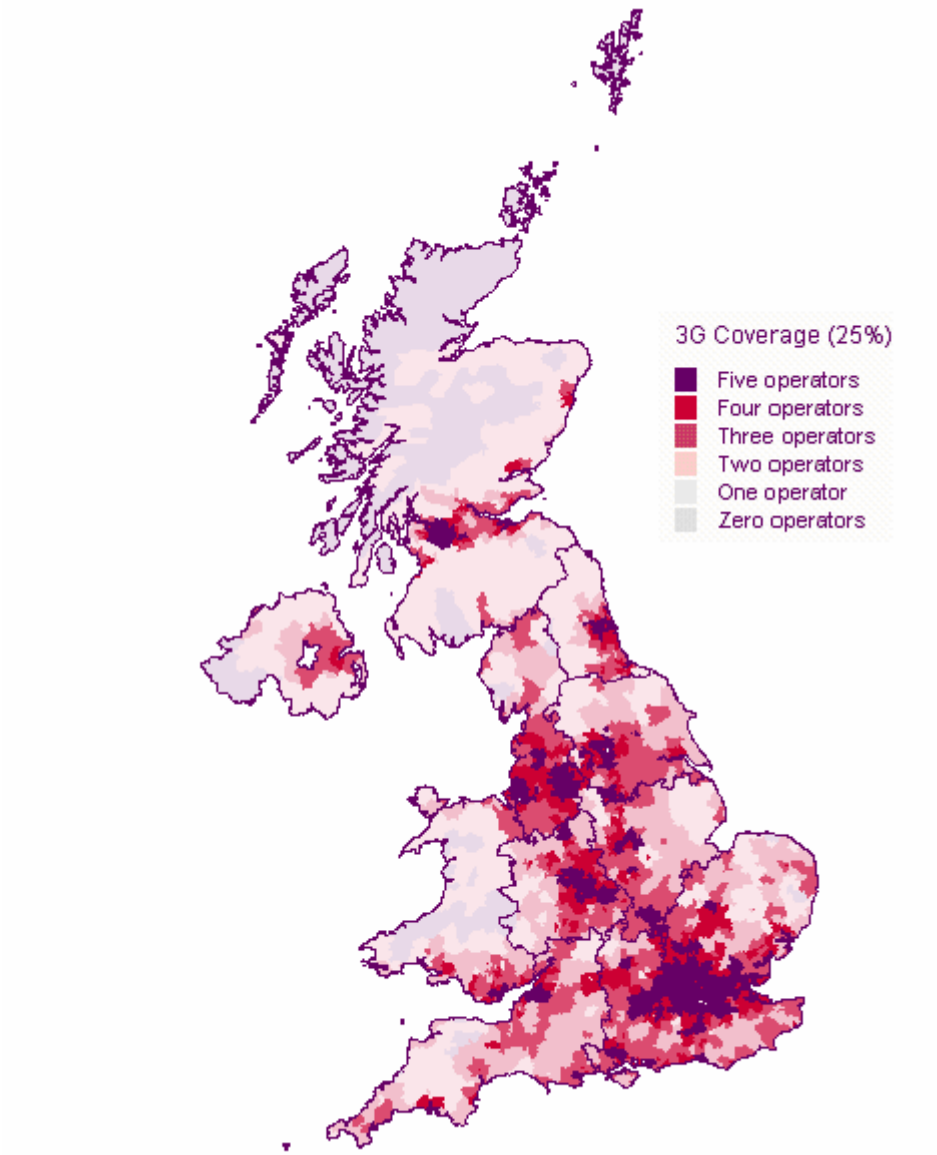
Figure 15: 3G mobile phone geographic coverage by postal district*



*Source: Ofcom, operator data, Q3-Q4 2005. *Note: figure shows the percentage of postal districts where at least one operator and four operators report at least 25% area coverage*

The map in Figure 16 shows that, although 3G operators have achieved significant coverage to date, they are still in rollout stage, and areas of higher population have been targeted first.

Figure 16: 3G mobile phone coverage by number of operators (postal districts with at least 25% area coverage)



Source: Ofcom, operator data, Q3 - Q4 2005. Shows the postal districts where the number of operators identified report at least 25% area coverage

5.3.4 Consumer perceptions of their mobile phone reception

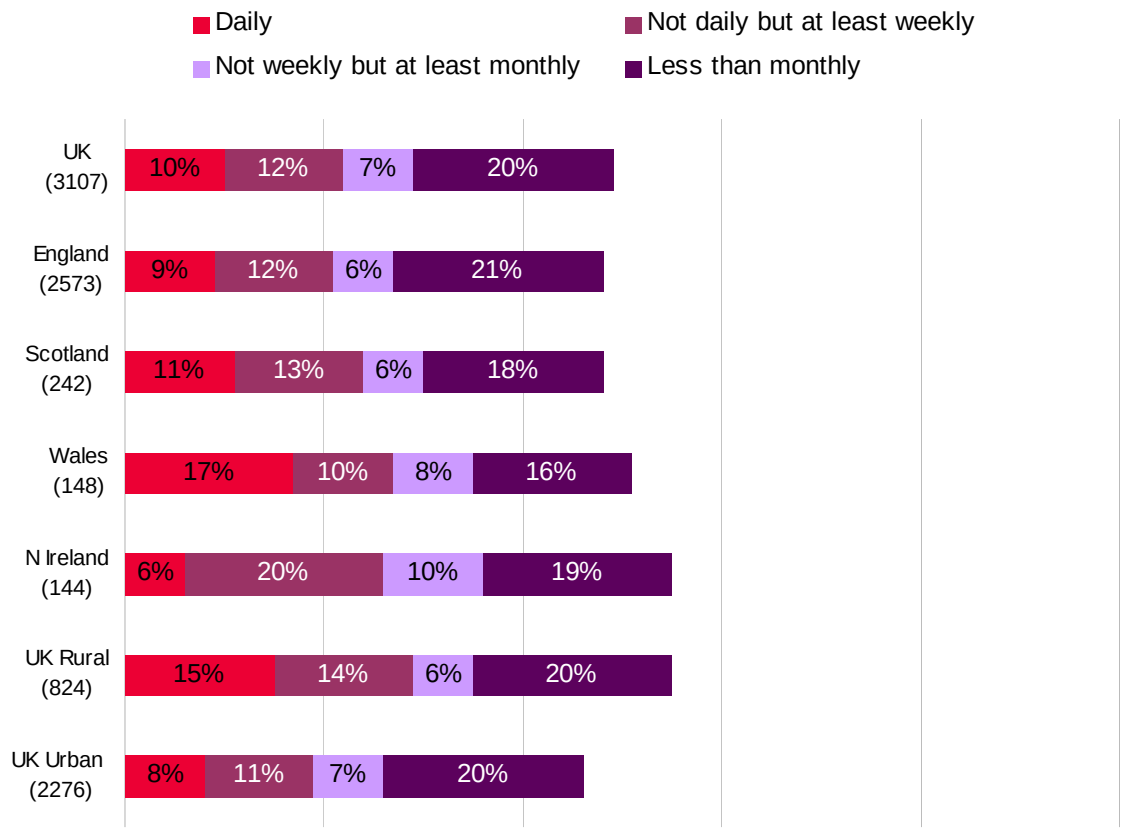
Ofcom surveyed mobile phone users around the UK in February 2006 to ask whether they had reception problems with their mobile phone around where they lived. Consumers were initially asked if they were aware of the reception bars on their phone – 88% of mobile customers claimed they were aware of these. The following figures are based only on consumers who were aware of the link between mobile phone reception and the bars on their phone, in order reduce any confusion with other problems which might be attributed to poor reception (e.g. low battery).

Just over a quarter (29%) of mobile phone customers, who were aware of the reception bars, said that they experienced reception problems in their local area at least monthly, with 22% saying they experienced these at least weekly. In total, around half (49%) of mobile phone users said they had ever experienced reception problems while in their local area. Conversely, around 20% said they experienced reception problems less than once per month.

Figure 17 shows that mobile phone users in Wales were more likely to say that they experienced reception issues on a daily basis, whereas those in Northern Ireland were more likely to say that this occurred weekly. Mobile phone users in England and Scotland reported reception problems at levels which were broadly similar to the UK average. This emphasis on increased reception problems in Wales and Northern Ireland was also consistent with the lower coverage in these parts of the UK, evident from the analysis of operator data.

Mobile phone customers living in rural parts of the UK were almost twice as likely as average (15% compared to 8%) to say they experienced reception problems on a daily basis.

Figure 17: Proportion of mobile phone users reporting reception problems

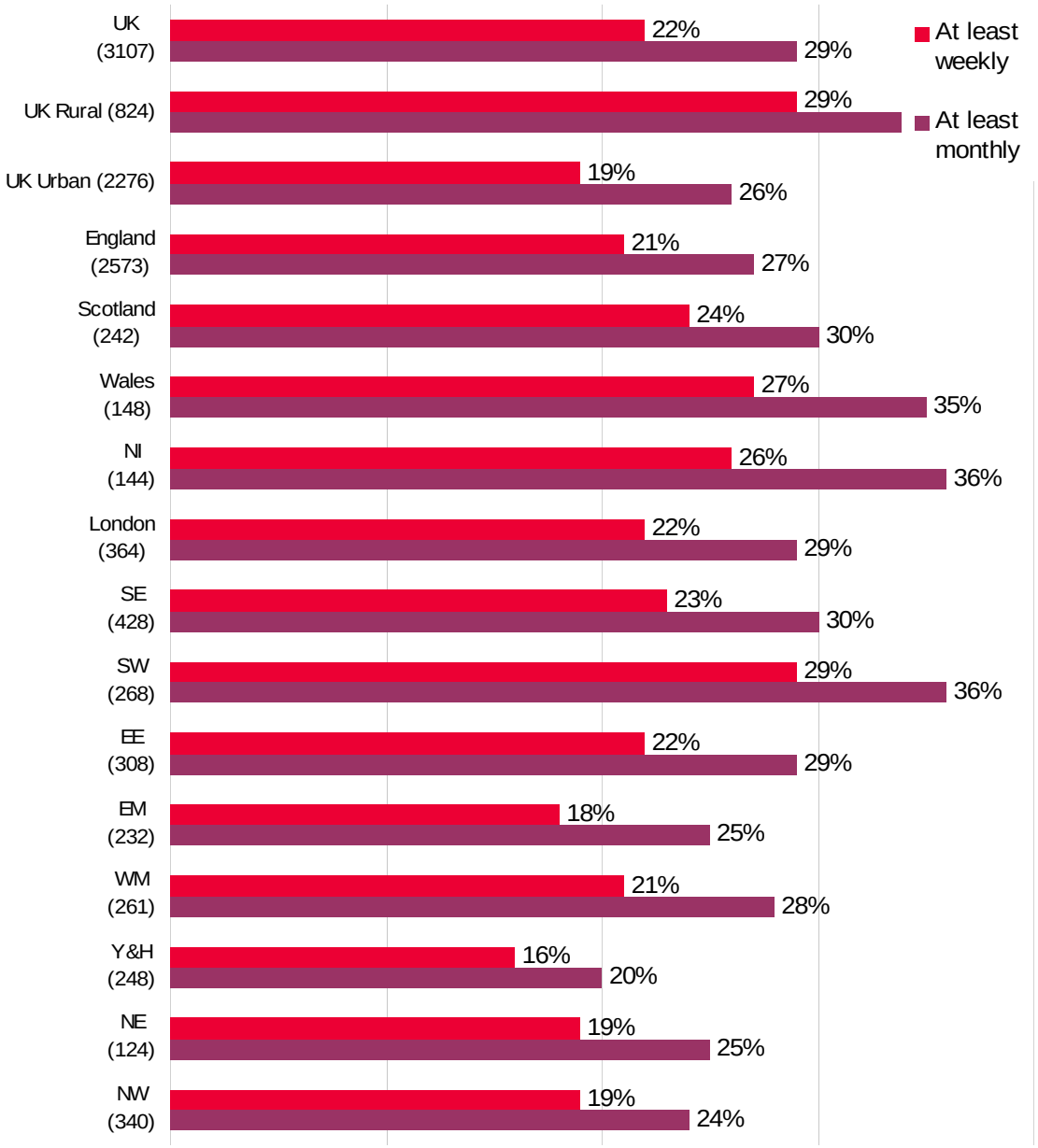


Source: ICM survey, 3-16 February 2006

Figure 18 illustrates the proportion of mobile phone customers who said they experienced reception problems at least weekly, with the combined total saying they experienced these at least monthly.

The only significant differences when making comparisons across the English regions were in the South West where mobile phone users were more likely to say they experienced reception problems at least weekly, compared to the UK average. In comparison, mobile phone users in Yorkshire and the Humber were less likely than average to say they experienced reception problems.

Figure 18: Proportion of mobile users reporting reception problems 'at least weekly' and 'at least monthly'



Source: ICM survey, 3-16 February 2006

In just over half (57%) of the cases of self-reported reception problems the mobile phone users said that the last time this occurred they were inside, compared to 27% who were

outside and on the move, and 11% who said they were outside but stationary. The remainder did not know. There were no significant differences in these proportions by nation or region.

5.4 Availability of internet services

5.4.1 Total internet

Availability of internet services at low speed via a narrowband connection is the same as landline voice services – in other words virtually ubiquitous throughout the UK (we define 'narrowband' as an internet connection achieved by means of dial-up over twisted copper pair or coaxial cable at speeds of less than 128kbit/s).

However, whilst many consumers may be satisfied with this type of connection, there has been a rapid increase in appetite for broadband connections. Ofcom's latest market data (September 2005) shows that 57% of the UK's 15.5 million internet connections were over broadband connections (up from less than 10% at the end of 2002); the trend towards broadband is likely to continue as a larger proportion of websites and internet applications require higher connection speeds to function effectively. In this context, we will focus on the availability of broadband services.

5.4.2 Broadband

Figure 19 below shows broadband coverage for the UK at a postal district level. There are two main connection methods through which households and SMEs can receive broadband services: DSL (digital subscriber line) over a standard copper telephone line connected to a DSL-enabled exchange, and cable (via the cable operators' hybrid fibre-coaxial (HFC) networks). Broadband satellite and wireless broadband offer alternative sources of broadband in some parts of the UK.

Broadband via DSL

BT data from January 2006 shows that 99.9% of premises in the UK were connected to DSL enabled exchanges. However, some premises within these exchange areas are not suitable for delivery of broadband services, or only at very low speeds, due to local technicalities such as distance from exchange or poor quality of networks.

Figure 19 shows the percentage of premises that were connected to a DSL-enabled exchange across the nations and regions of the UK in January 2006. The data shows that, at this time, 0.5% of premises in Wales were not connected to a DSL-enabled exchange. The data also shows lower availability in the West Midlands with 0.3% of premises still unconnected in that area.

It is difficult to quantify the exact number of delivery points within DSL-enabled exchange areas that are not suitable for delivery of broadband services. There are initiatives currently underway to ascertain the extent and location of these broadband 'not-spots'. One example is the 'not-spot' survey being conducted by Community Broadband Network, Access to Broadband Campaign, supported by Avanti Satellite Broadband.

Figure 19: Percentage of premises connected to a DSL-enabled exchange

Source: Ofcom, operator data, January 2006

Broadband via cable modem

Broadband services are also available via cable modem to all homes and businesses that have been passed by cable operators' networks. As of January 2006, cable networks passed around 45% of UK homes.

Figure 20 shows that, across the UK, 45% of premises were able to access digital cable via ntl or Telewest. This was higher in London, with 58% coverage, and the West Midlands with 56%. Availability was lower in Wales, with only 23% of homes passed, followed by Northern Ireland (30%).

Figure 20: Percentage of premises passed by ntl or Telewest digital cable

Source: Ofcom, operator data, January 2006

Local Loop Unbundling (LLU)

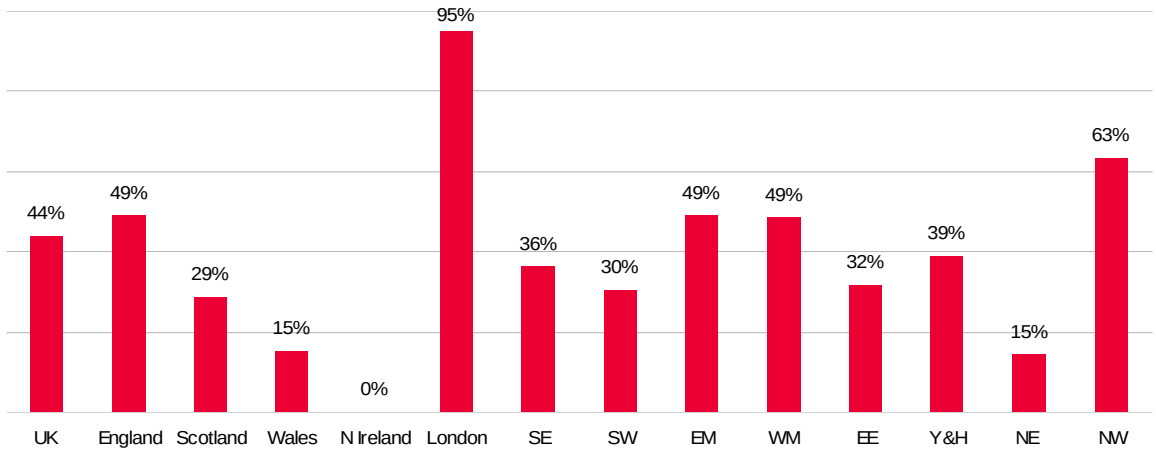
A significant factor affecting choice of DSL broadband services is the presence in the local exchange of an alternative operator with the ability to "unbundle" the local loop line. In simple terms, this means that the alternative operator takes over from BT (or Kingston, in the Hull area) the local line connecting the exchange and the household. The operator places its own equipment in the exchange to connect to the trunk network and facilitate services including DSL. Many internet service providers, such as Wanadoo and Tiscali, have until now

provided the bulk of their connections using BT's wholesale DSL product – this is different to unbundling. LLU operator Be Un Limited, for example, has started to offer a 24Mbit/s DSL service over unbundled lines.

Since LLU operators are free to choose which exchanges they unbundle, they have tended to favour dense urban areas – there are some exchanges in central London with more than eight competing LLU operators. Conversely, this means that more remote rural areas are less likely to benefit from LLU competition.

Figure 21 below shows how many premises by nation and region were connected to an unbundled exchange (as of January 2006). It shows that London was well-served by LLU operators, while Wales and the North East had around 15% of homes connected to an LLU exchange. Northern Ireland had no LLU exchanges at all as of January 2006.

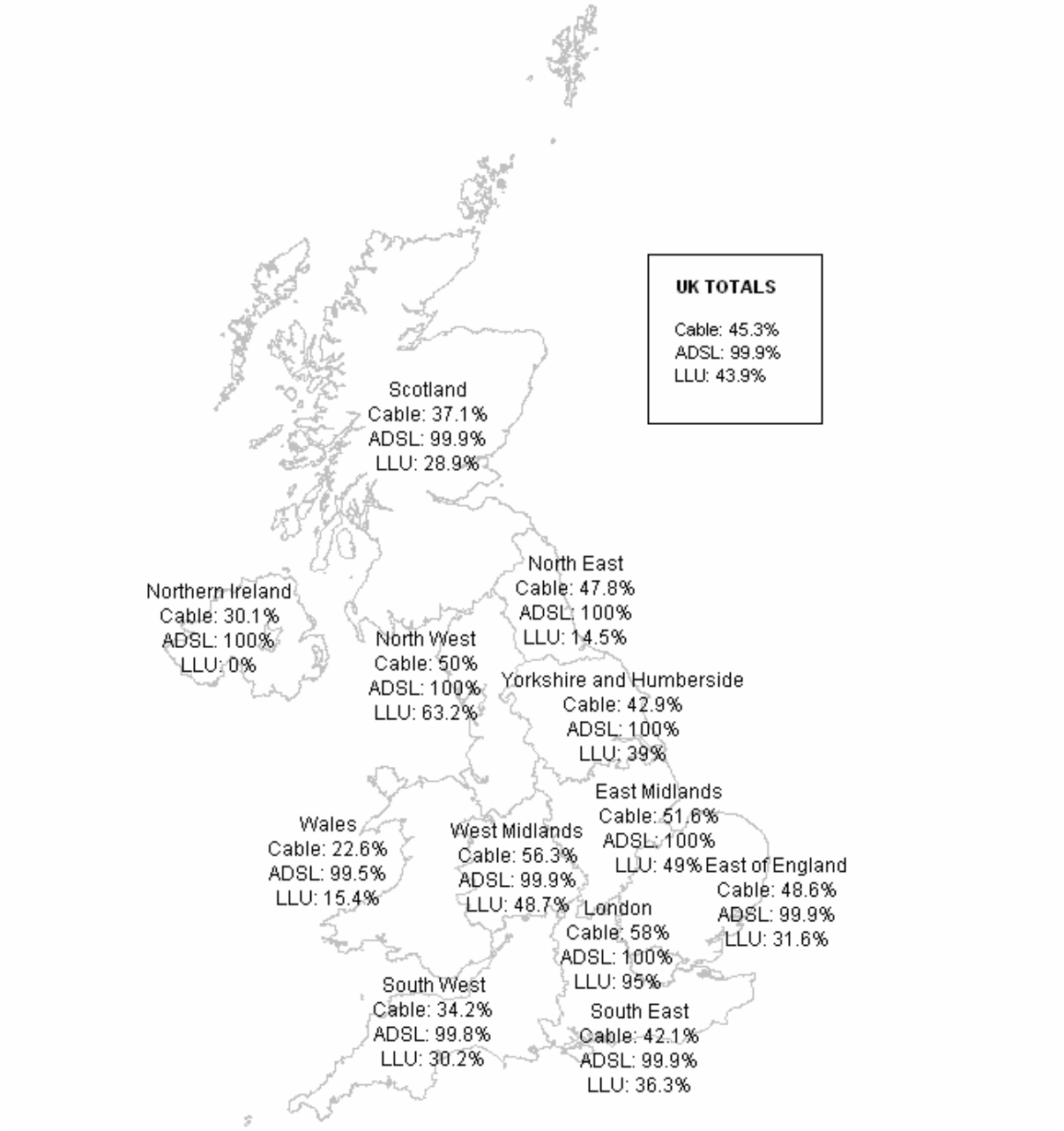
Figure 21: Percentage of premises connected to an LLU enabled exchange



Source: Ofcom, operator data, January 2006

The map in Figure 22 shows the percentage of delivery points within each of the nations and regions that have digital cable available, the percentage that are connected to a DSL enabled exchange, and the percentage that have LLU available.

Figure 22: Broadband availability - DSL, digital cable and LLU



Source: Ofcom, operator data, January 2006

Distance from exchange

A significant factor to consider when evaluating availability of broadband is the potential connection speed that can be achieved. As recently as 2004, a broadband connection speed of 512kbit/s was the norm, with 1Mbit/s seen as a premium product. As of December 2005, most internet service providers offered at least 1Mbit/s connectivity as a standard product, with some providing up to 8Mbit/s or even 24Mbit/s. Over the next few years, connection speeds are likely to increase further, driven by new high-speed applications.

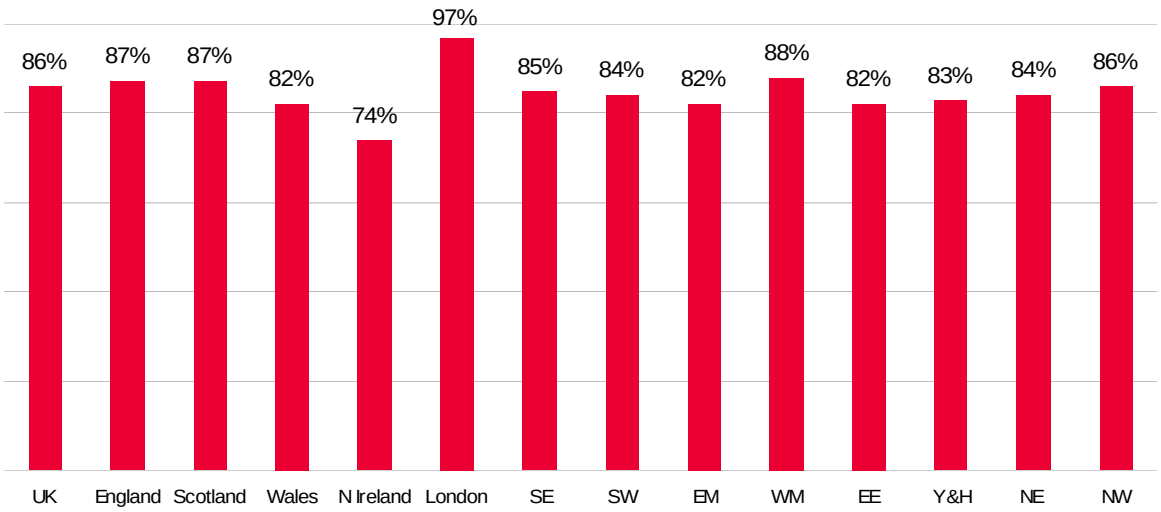
Over cable, speeds of up to 10Mbit/s are likely to become common with limited network modification by the cable operators. The UK's two largest cable companies, Telewest and ntl (set to merge in 2006), already offered speeds of up to 10Mbit/s as a premium product when this survey was conducted. With some network modifications, speeds of 20Mbit/s and above may be achievable over the cable networks.

As DSL and cable are architecturally different, the speed of service delivery from each of the platforms cannot easily be compared. Over DSL, potential connection speeds are constrained by one major factor: the customer's line to the exchange. In general, the further a customer's home is from the exchange, the worse the quality of the line will be. This is turn has an impact on the speed of service available to a customer. The greater the distance from the exchange, the slower the potential speed that can be achieved. However, this relationship is complex and depends on a number of other variables, including the condition of the copper wire network and how directly the line is routed to the customer's home. Speed of service will also depend on the technology employed.

Ofcom commissioned analysis to estimate network distances from the exchange across the UK in order to give an indication of the number of premises in the UK that are likely to be able to receive higher potential connection speeds. The proportion of homes within 5km and 2km implied local loop length of an exchange are shown in Figure 23 and Figure 24 respectively, and maps illustrating distance from the exchange by postal district are shown in Figure 25 and Figure 26. Note that these distances are measured as the length of the copper network, not "as the crow flies" - modelling suggests that on average the network length is 1.4 times the straight-line distance, hence use of the word 'implied'.

Figure 23 shows the percentage of premises within a 5km 'implied' local loop length range of a BT exchange. Overall, 86% of premises across the UK were within this range. This was higher in London at 97%. Across the UK, 14% of premises were outside the 5km range. In Northern Ireland, this figure was as high as 26%.

Figure 23: Percentage of premises within a 5km 'implied' local loop length range of a BT exchange



Source: Point Topic, BroadBand User Service, June 2005

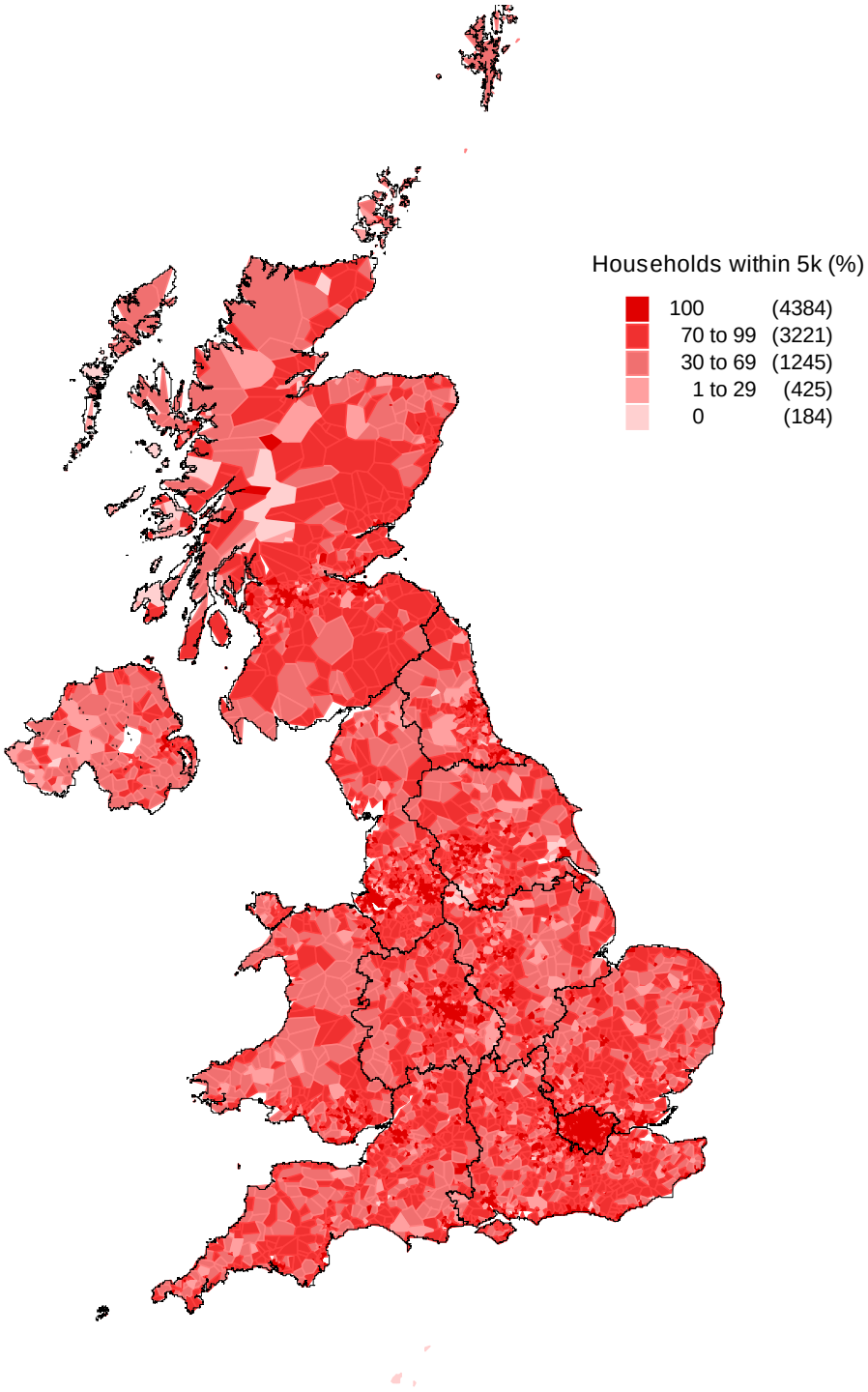
Figure 24 shows the percentage of premises within a 2km 'implied' local loop length range of a BT exchange. At 2km, the modelling suggests that across the UK, each nation and region had consistently fewer than 19% of premises within this distance of an exchange, with the notable exception of Scotland (22%). This in turn suggests that the fewer people will be able

to receive higher-speed services via DSL across the nations and regions – including dense urban areas such as London. However, further technology advances are anticipated over the next few years that may increase the availability of higher speed DSL services at greater distances from the exchange.

Figure 24: Percentage of premises within a 2km 'implied' local loop length range of a BT exchange

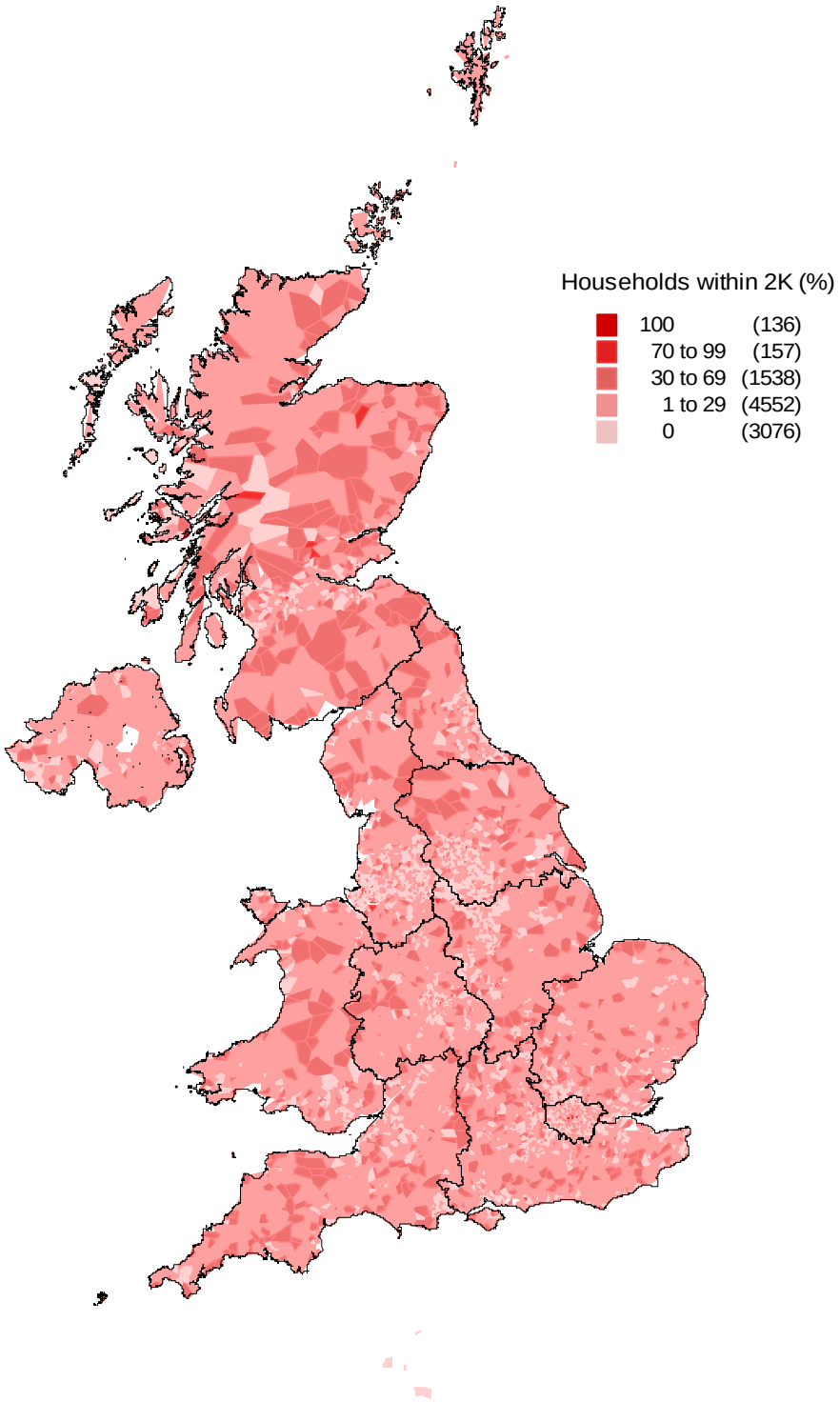
Source: Point Topic, BroadBand User Service, June 2005

Figure 25: Percentage of households within a 5km 'implied' local loop length range of a BT exchange



Source: Point Topic, BroadBand user service, June 2005. Data analysed by postal district

Figure 26: Percentage of households within a 2km 'implied' local loop length range of a BT exchange



Source: Point Topic, Broadband user service, June 2005. Data analysed by postal district

Other broadband technologies

For areas where broadband data rates are restricted, new delivery technologies such as Wi-Max wireless broadband may offer alternative ways of providing these services. However even though such wireless technologies may be more cost-effective than wire-based technologies in sparsely populated areas, the cost to consumers may be higher than for equivalent broadband services in urban areas. So far, higher bit rate wireless broadband services have sometimes been used to provide broadband connections in a few rural areas with no access to DSL, with development agency or local government subsidy. They have also been used to provide commercial services in high demand areas such as the M4 corridor.

5.4.3 Community broadband

The Community Broadband Network (CBN) was launched in January 2004 by the then Rural Affairs Minister Alun Michael and Broadband Minister Stephen Timms, and receives funding from the DTI and DEFRA. The CBN is a co-operative of local small-scale independent broadband operators, and it aims to encourage and support the provision of broadband services as an alternative to the large national service providers (chiefly BT and the cable companies).

At the time of the CBN's 2004 conception, most community broadband projects were being established to provide broadband services to homes and businesses that were not being served by any other operator. At this time, BT was still only mid-way through its programme of upgrading local exchanges to ADSL broadband capability, and the cable operators (then, as now), only passed around half of UK premises. CBN projects were mainly set up in semi-rural or rural areas – although several networks were established in urban areas that had poor DSL coverage. These networks typically consist of a leased line connection to a local "hub", with wireless connectivity between the hub and individual premises.

Over the past two years, as BT has accelerated its exchange upgrade programme, the focus of the CBN has begun to shift towards provision of higher-speed broadband services. As discussed above, in areas of the UK with relatively low population density (and therefore higher average distances from the nearest exchange), DSL broadband may often only be available at speeds of 1Mbit/s or below. CBN wireless networks can often offer connection speeds of 10Mbit/s or above to homes or businesses that face this DSL distance constraint.

Ofcom conducted a focus group session with several CBN members in December 2005, in order to listen to their views, to find out their motivation for setting up and running their own broadband projects, and to gauge their opinions on the future role of the CBN.

Regarding motivation, the CBN members stated that on the whole, the initial motivation had been to meet an unfulfilled demand for broadband, in areas where no service was available at the time. They still saw a strong role for community broadband projects even after BT had provided ADSL access in the area; they felt that the presence of competitive supply is important (in most rural areas, BT – or other service providers using BT's wholesale product – is the only broadband provider). They also pointed out that local broadband black spots (or "not spots") still remain, and many rural premises are too far away from the exchange to receive high-speed DSL services. Finally, they also saw a strong role for community broadband in fostering local community spirit or promoting the local area, and many of those running CBN projects enjoy "giving something back" to their local community.

When discussing the future for CBN networks, an important factor was the issue of bandwidth symmetry – specifically the inability of standard ADSL services to provide fast uplink speeds. This is particularly important to many businesses, which might require high uplink speeds to conduct 2-way video conferences or transfer large amounts of data. Many CBN members said that the ability of community networks to provide fast uplink speeds (512kbit/s and higher) was a major selling point.

5.5 Availability of digital broadcasting services

5.5.1 Digital TV

Introduction

There are currently four main digital TV platforms in the UK: Digital terrestrial television (DTT), cable, satellite and TV over broadband. All four digital platforms offer additional digital TV and radio channels, as well as access to the five public service terrestrial channels and digital radio services. These platforms can also offer additional services such as shopping, gaming, and financial, as well as increased interactive and information services.

Satellite

Around 98% of UK homes fall within the footprint of the Astra 2A satellite signal and therefore in theory can access satellite services via a rooftop dish, although some homes are unable to receive services due to specific local factors.

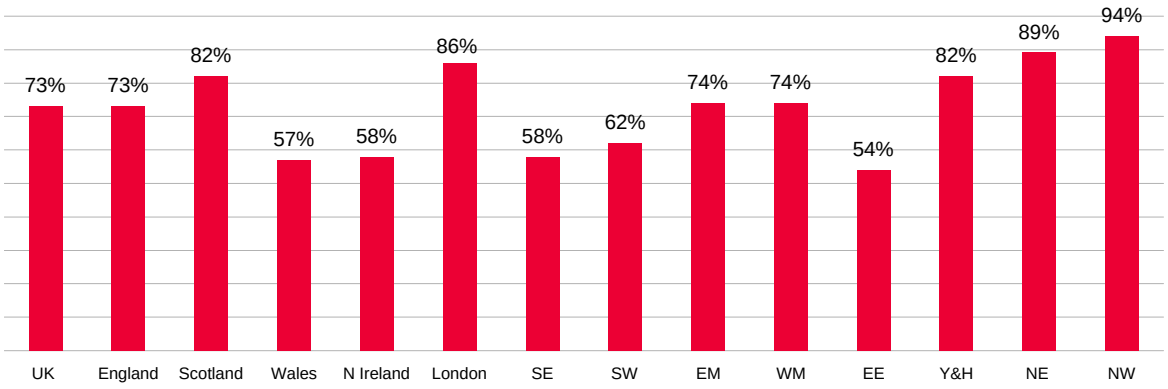
This figure was calculated as a result of a study commissioned by the ITC in 1999 (comprising BBC, Astra and Sky members) which used ray-tracing modelling to calculate the line of sight between roof tops and the Astra 2a satellite at the orbital position of 28.2°E for a number of representative reception areas. The methodology for this estimation used roof-tops for making line of sight calculations and did not take into account distribution systems in multi-dwelling units, planning permission requirements or interference issues (which are relatively small).

Some homes are unable to receive services due to local technical difficulties, such as the location of the premises. Satellite availability can be subject to a lack of coverage in areas where a poor line of sight to the satellite exists. Areas with poor line of sight typically include built up, mountainous and heavily wooded areas (e.g. the mountainous areas of Highland Scotland and the north coast of Devon). Satellite reception is also subject to practical limitations such as planning restrictions, whether individual flats have a south facing aspect, and whether the line of sight to the satellite is obstructed by large office blocks, for some city centre homes.

Digital terrestrial television

At least 73% of homes had access to digital terrestrial television (DTT) across the UK, the maximum possible until digital switchover enables digital signals to be broadcast more widely across the UK.

Figure 27: Digital terrestrial television availability



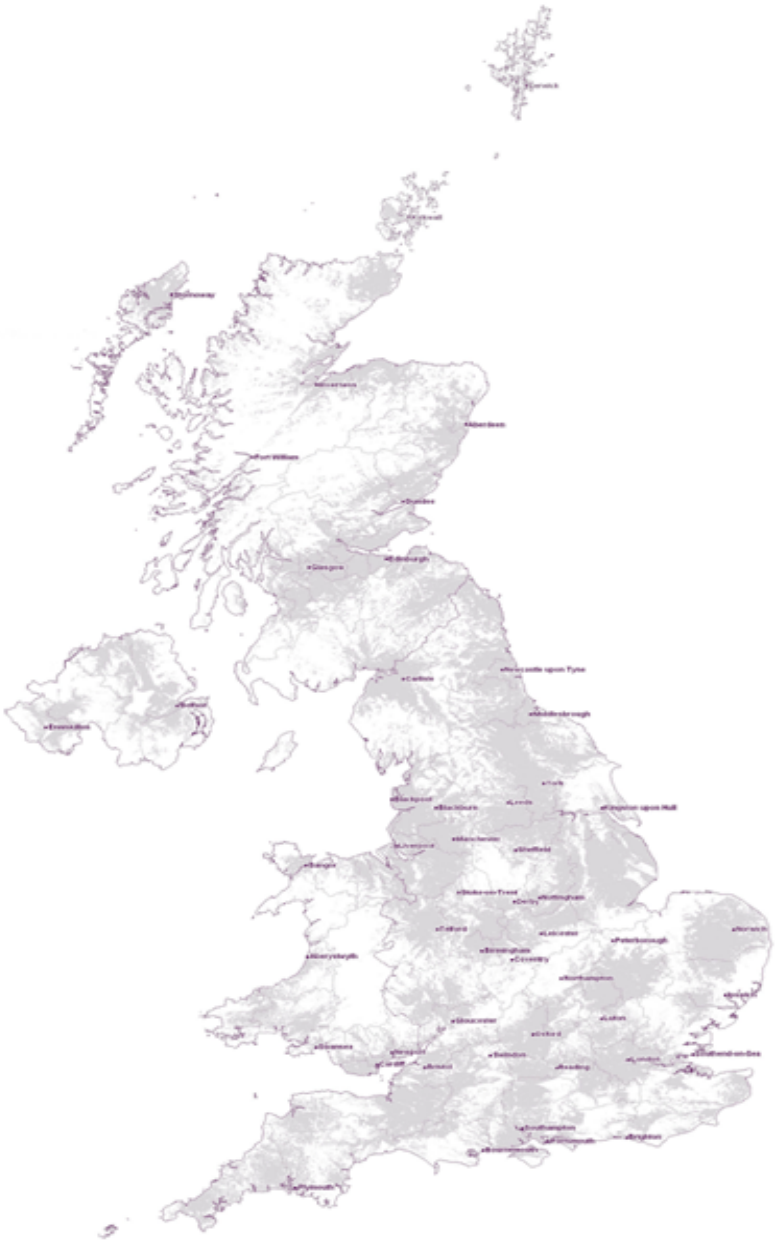
Source: Ofcom, BARB, BBC, April 2004, updated regional coverage 2005. Estimates are based on ITV areas. EM and WM are combined figures. Base is number of households

Figure 27 shows DTT availability across the nations and regions of the UK. DTT availability was higher in the North West, North East and London. It was lowest in Eastern England, Wales and Northern Ireland. Of the nations, Scotland had the highest coverage of DTT at 82%, well above the UK average.

The figure of 73% is derived from computer modelling. Using this methodology, the country is divided into 100m squares and the square is deemed 'covered' if 90% of locations within it can receive a usable signal for 99% of the time, using a standard aerial correctly pointed at the transmitter. The 73% figure is for UK homes that should be able to receive all 6 multiplexes. The number of homes which can receive one or more but less than 6 multiplexes would be higher than this. DTT coverage can vary across the UK and within regions depending on the location of homes and the current aerial equipment being used. DTT coverage will increase as the digital switchover process begins.

Parts of the UK, predominantly rural areas, are currently unable to receive DTT. The map in Figure 28 shows the gaps in current coverage which cannot be filled unless new transmitters are converted to digital and the power levels of the signal are increased, both of which depend on digital switchover. Particular DTT coverage deficiencies exist in the Highlands and Islands of Scotland and also the upland areas of England and Wales. In Northern Ireland, only three transmitters - Divis, Limavady and Brougher Mountain - broadcast the DTT signal, limiting its coverage significantly.

Figure 28: DTT coverage across the UK



Source: Ofcom, Driving Digital Switchover 2004

Digital cable television

Digital cable services were available to an estimated 45% of UK homes, although the cable network covers mainly urban areas. Figure 29 shows that cable availability was highest in London (58%), followed by West Midlands (56%) and East Midlands (52%). Availability was lowest in Wales (23%), Northern Ireland (30%) and the South West (34%). Cable availability relates to the number of homes that the cable network passes and therefore should be able to take up cable services.

Figure 29: Percentage of delivery points passed by ntl or Telewest broadband/digital cable

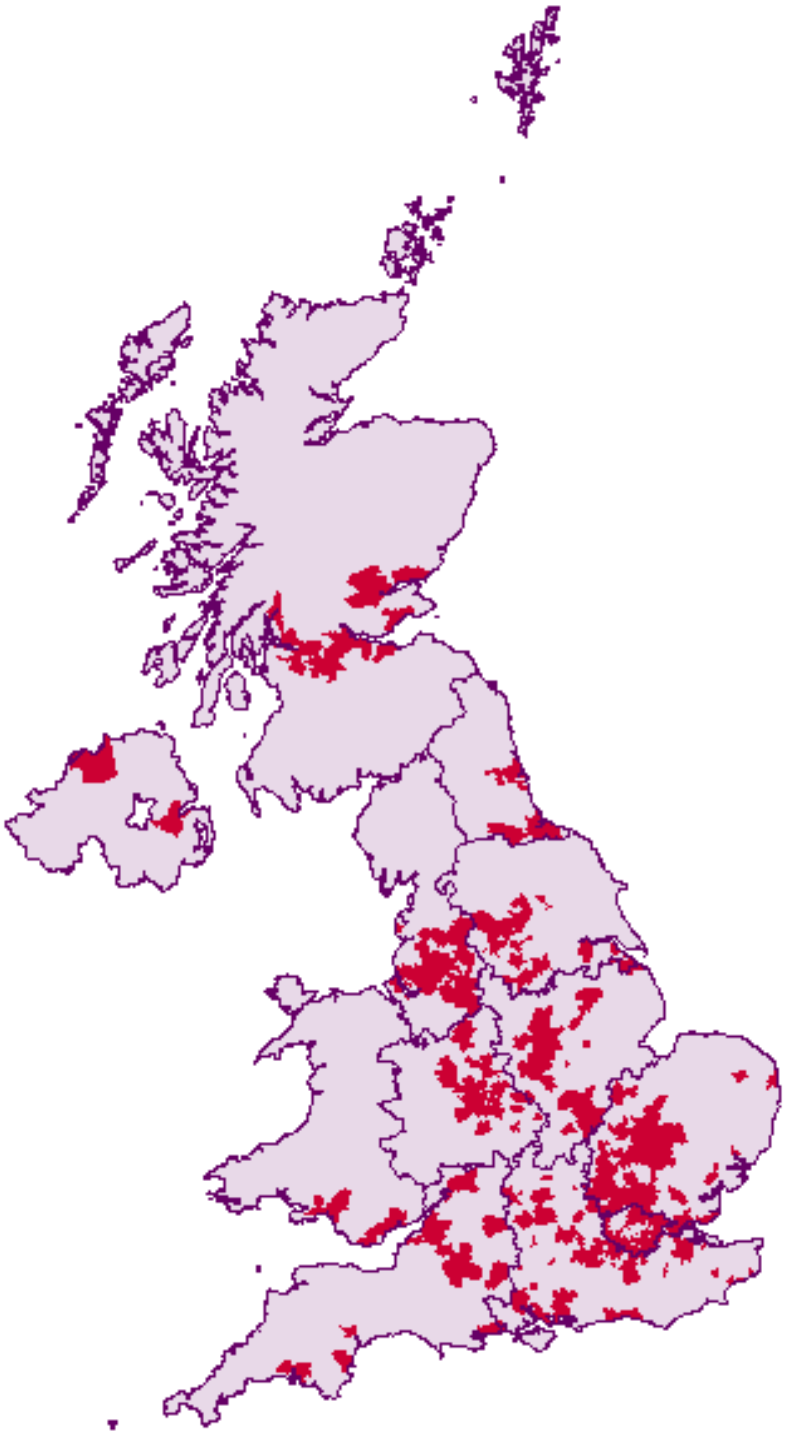
Source: Ofcom, operator data, January 2006

The map in Figure 30 shows ntl and Telewest broadband digital cable availability across the UK as of January 2006. The red areas depict digital cable coverage. Some parts of the cable network are currently analogue and are not depicted in this map. The cable companies are in the process of upgrading these parts of the network to digital; this process is expected to be completed by the end of 2006.

The two main cable companies, ntl and Telewest Broadband are currently in the process of merging. The new joint company will have 3.3 million TV subscribers. 2.6m of these are digital TV customers, with the additional 700,000 analogue cable subscribers expected to be migrated over to digital services by the end of 2006. This will mean the joint company's services will be available to over 12.6 million homes.

A smaller cable company, Wight Cable, also offers cable TV services to around 8,000 subscribers in Scotland, Border, North West, and the Isle of Wight.

Figure 30: Digital cable coverage by ntl and Telewest



Source: Ofcom, based on Point Topic data, June 2005

Note: This map does not depict Wight Cable, which offers cable coverage in Scotland, Borders, the North West and the Isle of Wight

Television over broadband

Around 2.5 million homes in the UK are in areas covered by TV over DSL services, equivalent to 10% of UK homes or 12% of homes in England.

TV over DSL is currently only available as an independent service in two regions of the UK. Homechoice offers the service in the London area and has now passed 2.4m homes for the service. Kingston Interactive Television (KIT), available to 105,000 homes in the Hull area of East Yorkshire, announced that it was closing its TV service in February 2006.

Figure 31 indicates the current coverage for Homechoice's DSL service in the London area, covering 2.4 million homes.

Figure 31: Homechoice DSL Coverage in the London Area

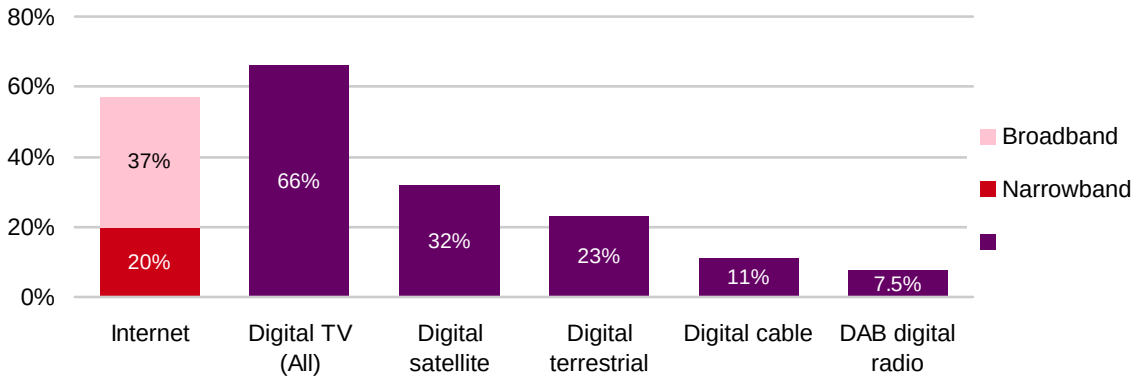
Source: Homechoice website (as above link) Feb 2006 http://www.homechoice.co.uk/pcode/postcode.checker

TV over DSL is expected to become more significant in 2006 as more companies, including BT, plan to launch services. Sky has also launched 'Sky by Broadband', a movie download service for existing subscribers only. The cable companies are also proposing to use DSL as a way of extending their current network coverage. DSL could offer an alternative in areas of the country where the current platforms have not yet achieved full coverage. DSL could also be a suitable platform to offer new services such as high definition television.

5.5.2 Digital radio

Digital radio is available via the internet, digital TV and DAB digital radio. Figure 32 shows that by the end of September 2005, 57% of households had access to digital radio via one of these platforms and over two thirds of households had access to digital radio through digital TV alone.

Figure 32: Availability of digital radio by platform



Source: Ofcom, GfK, September 2005

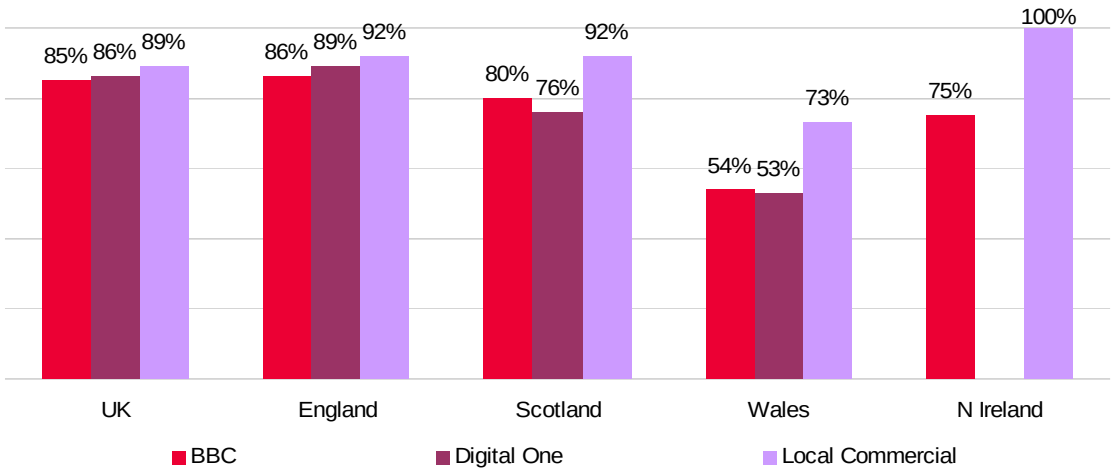
DAB digital radio launched in the UK with services from the BBC in 1995, followed by the licensing of a national commercial DAB multiplex which launched in 1999 and a number of local multiplexes.

DAB digital radio coverage of households has been improving rapidly over recent years, with the majority of the population (over 89%) now being covered by at least one multiplex and most by three or more (national commercial, national BBC and local commercial multiplexes, as set out in Figure 33 below).

Figure 33 shows DAB coverage by nation as at June 2005 for each of BBC, Digital One and local commercial groups of services. Wales experiences lower than UK average coverage for each of the services (54% BBC, 53% Digital One, 73% Local Commercial). The Digital One licence area does not extend to coverage in Northern Ireland. However, Northern Ireland has relatively high local commercial coverage (92%, compared to 83% UK average).

Digital Radio coverage is dependent on international co-ordination, in particular the discussions which will take place at the Regional Radio Conference in May/June 2006. This will seek to secure additional spectrum for DAB digital radio compatible services for the UK. Ofcom's consultation document, The Future Licensing of DAB Digital Radio, lists ten licence areas. A further 19 areas are potentially to be licensed. These are all detailed in the Annex.

Figure 33: DAB digital radio population coverage by nation

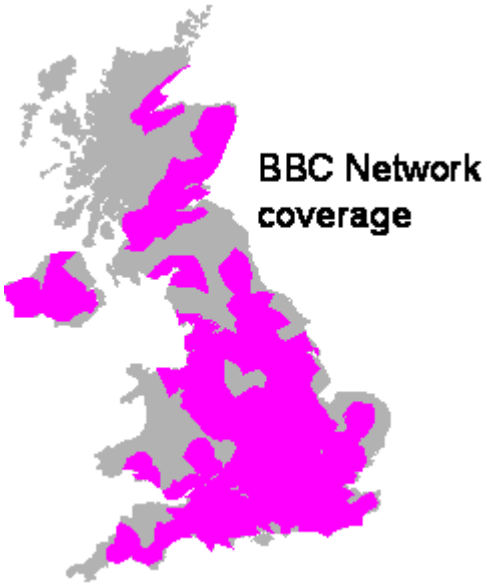


Source: BBC, Digital One, Ofcom, June 2005. Figure for Digital One UK shows the percentage coverage of Great Britain (Digital One's licence does not include N Ireland). Population coverage for local commercial digital multiplexes shows the percentage of population living within licensed areas. Not everyone living within these areas will be able to receive the services at present as transmitter networks are not complete. Actual coverage varies by multiplex and ranges between around 70% and 95% of the licensed area.

The BBC continues to increase its DAB coverage. In 2004 an additional 24 DAB transmitters were switched on. In March 2005 an additional 2 transmitters were switched on in Northern Ireland: Limavady (serving parts of counties Londonderry / Derry and Antrim) and Brougher Mountain (serving the border of counties Tyrone and Fermanagh). Transmitters have also recently been turned on in Londonderry (serving Londonderry and surrounting areas including Strabane, Muff and Limavady), Kenda, Redruth (across Cornwall), Blaenplwyf (serving Aberystwyth and surrounding areas in West Wales) and Chartham (in and around Canterbury).

Figure 34 shows an indicative coverage map of the BBC's UK-wide digital radio services

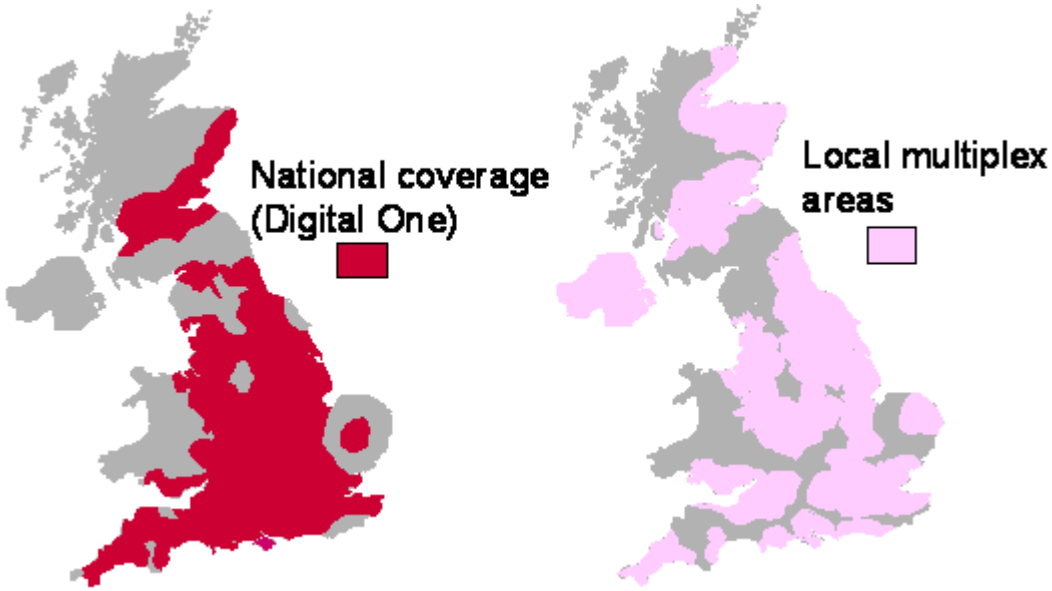
Figure 34: Indicative coverage of BBC DAB Digital Radio network coverage



Source: Ofcom, BBC. Indicative network coverage at June 2005. Recently transmitters have been switched on in Chartham, Blaenplwyf, Redruth, Kendal, Londonderry, Limavady and Brougher Mountain

Figure 35 below shows coverage areas for Local Commercial digital radio and Digital One digital radio at April 2005. Digital One, with its transmission partner ntl, has reached around 86% coverage of the population of Great Britain. It switched on a seven transmitters in 2004 and it has plans to launch more, including a further 10 transmitters which are being added to improve Digital One's coverage in the London areas as part of ensuring *Livetime's* data service coverage to handheld devices.

Figure 35: Indicative coverage of commercial DAB digital radio networks



Note: BBC Local and nations' services are carried on local commercial multiplexes.
Source: Ofcom, indicative network coverage at April 2005

Section 6

Take-up of communications services

6.1 Introduction

The following section reports take-up levels of each of the three categories of communications services. A number of factors are likely to influence the take-up of communications services such as location, income, age and attitudes (as discussed in Section 4 – Setting the scene). This section explores patterns in take-up by nation and region, and also considers consumers who are potentially excluded from taking up services. Demographic and attitudinal data are also examined to highlight key factors impacting on take-up of communications services across the UK.

6.2 Key findings

- 43% of UK adults say they have taken up three of the four main communications platforms: mobile phones, digital TV and the internet at home. Take-up of these three services together is highest in the South East (51%) and East of England (50%) and lowest in Northern Ireland (34%), Wales (35%) and Scotland (36%).

- People living in Wales are more likely to own a mobile phone and digital TV only than the UK as a whole, with 29% saying that they own these two services compared to 19% for the UK.

- 18% of UK adults say they have taken up only one of the three main communications services. This is highest in Northern Ireland, with 27% who own only one service and 5% who say they don't own any. Those living in Northern Ireland are more likely to own only a mobile phone (22%) than the UK average (15%).

- Take-up of telephone landlines stands at 91% of UK adults. This is highest in the southern English Regions and amongst older age groups (45+) and ABC1 socio-demographic profiles. Take-up of landlines is also higher in rural areas, at 94%. However, despite higher rural populations, Scotland, Wales and Northern Ireland have the lowest take-up of landlines across the UK at 87% in each nation.

- 80% of UK adults say they personally use a mobile phone. Ownership of mobile phones is higher in London (86%) and the South East (91%) but lower in Northern Ireland (70%) and Wales (73%). Ownership of mobile phones tends to be biased towards younger age groups with 90% of under 45s saying they own a mobile phone.

- 8% of UK adults say they rely solely on mobile phones for their telecommunications needs. This is higher in Yorkshire and the Humber (16%), Wales (13%) and Northern Ireland (12%). People relying solely on mobile phones tended to be younger than the population as a whole; they are more likely to be in C2DE social grades and use pay-as-you-go services.

- Of all those not taking up mobile phones, the majority (87%) are happy using their existing landline service. 12% cite difficulty using as a reason and 11% cite expense.

- Two thirds of UK adults live in households with a PC, with 57% of adults having taken up the internet. Internet take-up is higher amongst under 45s (66%) and ABC1s (72%). It is also higher in rural areas (61%). London and the South East have the

highest internet take-up, at 64%. Internet take-up is lower in Northern Ireland (48%) and Wales (49%).

- Of those not taking up the internet, 81% say that they have no interest or need. 18% cite expense as a reason.

- Across the UK, 63% of internet households say that they have taken up broadband connections. Take-up of broadband is highest in the North East (70%), North West (69%) and London (66%). Broadband penetration is lower in Northern Ireland (52%) and Wales (54%). Rural areas have lower than average broadband penetration (55%) despite higher penetration of the internet overall (although this is levelling out).

- Take-up of digital TV stood at a UK-wide level of 65% at the end of Q3 2005. It is highest in Wales (72%) and lowest in Northern Ireland (53%). Digital TV take-up is also lower than the UK average in London, with just 58% saying that they have digital TV at home.

- Of the various digital TV platforms, take-up of satellite is highest, at 32% of UK households, with 46% of households in Wales saying they have taken up the service. Take-up of DTT stands at 21% across the UK, but is lower (11%) in Northern Ireland. Take-up of cable TV is 10% of households across the UK. This is highest in Scotland and lowest in Northern Ireland and the South West.

- Of those not taking up digital TV, 68% say that they are satisfied with current channels and 27% say that expense is a contributing factor.

- Take-up of a digital radio service can be measured using overall penetration of digital TV, internet and digital radio sets. This is 79% across the UK as a whole. However, fewer than half (32%) say they have taken up digital radio, indicating low awareness of set top box and internet functionality.

- Of those not taking up digital radio, 78% say that they are satisfied with current radio networks available. Not listening to much radio (8%), frequency concerns (7%), expense (6%) and understanding (6%) are also cited as issues.

Summary of key differences in take-up across the UK

Research conducted in Q2 and Q3 2005 shows that there were significant differences in levels of take-up of the various communications services covered by this review; telephone landlines, mobile phones, internet (including broadband), digital TV and digital radio.

Figure 36 summaries the key differences across the UK. Numbers in black text indicate findings that are not statistically significantly different to the UK average, green underlined text indicates findings significantly higher than the UK average and *red italic text* indicates findings significantly lower than the UK average.

Take-up of many communications services was significantly lower in Scotland, Wales and Northern Ireland. The lower penetration of each of these services can at least partly be explained by the demographic profiles of each of these nations. For instance, PC and internet ownership tends to be lower than average amongst C2DE groups and lower income households (defined as a household income of up to £11.5K per year). The demographic profile of adults living outside England is more biased towards C2DEs, which partly explains lower levels of ownership. Non PC ownership limits consumers' options for connecting to the internet at home, therefore it is unsurprising that most areas with lower PC ownership also had lower home take-up of the internet.

Figure 36: Summary of telecoms and digital broadcasting take-up by nation and rural areas across the UK

		UK TOTAL (4426)	England (3379)	Scotland (407)	Wales (292)	Northern Ireland (348)	Rural Areas (322)
Internet	Landline - household	91%	92%	*87%*	87%	87%	94%
	Mobile - personal	80%	81%	77%	*73%*	*70%*	80%
	PC in household	66%	68%	*57%*	59%	*55%*	68%
	Internet household (inc. broadband)	57%	59%	*51%*	*49%*	*48%*	61%
	Broadband –as % of internet households	63%	64%	60%	*54%*	*52%*	*55%*
D Broadcast	Digital TV - household	65%	66%	60%	72%	*53%*	61%
	Digital Radio – household (DAB, DTT, Freesat, cable, internet)	32%	33%	30%	28%	*21%*	28%

* % of consumers aware that they have access to digital radio services at home

Source: Ofcom Residential Communications Tracking Study, Q2/Q3 2005

There are a few exceptions to this pattern, most notably for digital TV in Wales which was significantly higher than the UK average. In addition, consumers living in rural areas were significantly more likely to have internet at home, although this was less likely to be via a broadband connection. The opposite is true of consumers living in Scotland – who, while being less likely to be connected to the internet at home, were more likely to connect via broadband, if they had already taken up the internet, than consumers living in Wales or Northern Ireland.

Summary of key differences in take-up in English regions

Figure 37 summarises a number of key variances in take-up across the English regions. Consumers living in Yorkshire and the Humber were less likely to have a landline at home whereas landline penetration is higher than average in the South.

Adults living in London, the South East and East of England were more likely than average to own and use a mobile phone.

PC and internet ownership were also higher than average in most regions with higher mobile phone ownership, although this trend did not follow through to broadband.

Figure 37: Summary comparison of take-up of telecoms and digital broadcasting services by English region

		UK TOTAL	London (480)	South East (511)	South West (338)	East Midlands (275)	West Midlands (384)	East of England (346)	Yorkshire & Humberside (364)	North East (173)	North West (484)
Internet	Landline - household	91%	93%	95%	97%	90%	94%	92%	*84%*	87%	91%
	Mobile - personal	80%	86%	91%	75%	80%	81%	84%	83%	82%	75%
	PC in household	66%	72%	73%	70%	70%	62%	71%	63%	58%	64%
	Internet (and broadband) - household	57%	64%	64%	62%	61%	54%	63%	52%	50%	54%
	Broadband - % of internet households	63%	66%	68%	55%	59%	63%	66%	56%	70%	69%
D Broadcast	Digital TV - household	65%	*58%*	69%	63%	68%	66%	66%	63%	71%	72%
	*Digital Radio - household (DAB, DTT, Freesat, cable, internet)	32%	*26%*	39%	30%	34%	28%	34%	30%	39%	38%

* % consumers aware that they have access to digital radio services at home.

Source: Ofcom Residential Communications Tracking Study, Q2/Q3 2005

Similarly to the national differences, regional variations could, at least in part, be explained by the different demographic profiles. For example, higher landline ownership was evident in areas with a higher proportion of key adopters/owners of this service - older consumers (45+), and ABC1s. Consequently the reverse was true for consumers living in Yorkshire and the Humber – C2DEs made up a higher proportion of the population in this region and penetration of landlines here was lower than average.

Higher PC and internet ownership tended to be consistent with higher incomes and those in the ABC1 socio-economic group. This reflects the profile of consumers living in London and the South East.

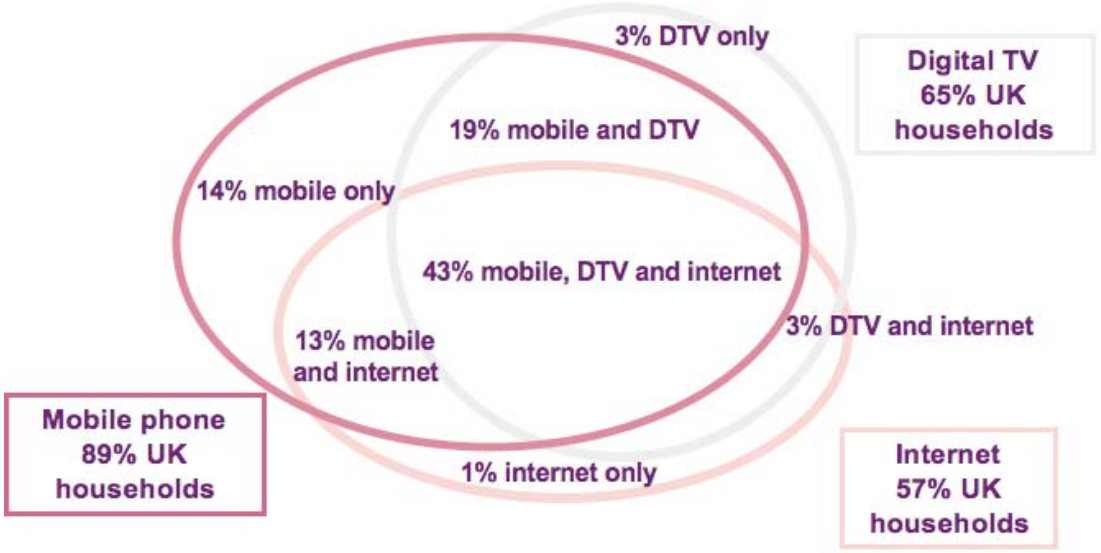
6.3 Cross platform take-up of communications services

Figure 38 shows cross platform take-up of mobile phones, digital TV and internet. Just under half of adults across the UK (43%) said they had taken up three of the main communications services – mobile, digital TV and internet – at home. A further third of adults had two of these, either owning a mobile phone and digital TV (19%) or a mobile phone and home internet (13%).

Internet and digital TV owners rarely purchased these services in isolation. 3% of adults only had digital TV but no mobile phone or internet and 1% only had taken up the internet.

18% of UK adults said they had taken up only one of the three communications services examined. This was highest in Northern Ireland, with 27% who owned only one service and 5% who said they didn't own any. Those living in Northern Ireland were more likely to only own a mobile phone (22%) than the UK average (15%).

Figure 38: Cross-ownership of mobile phones, digital TV and internet in the UK

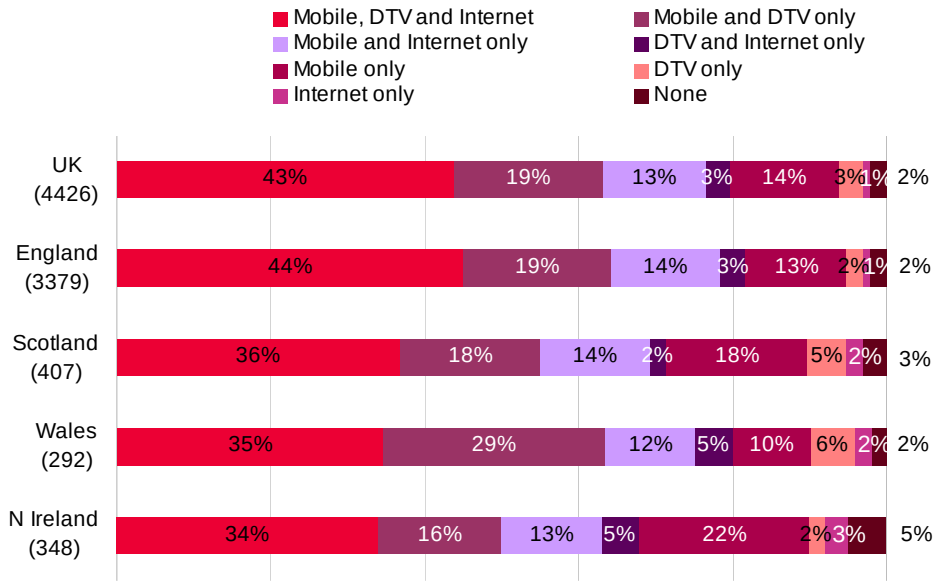


Source: Ofcom residential tracking survey, based on rolled data from Q2 and Q3 2005. Note individual % do not total the overall penetration figures precisely due to rounding of the data. Mobile only figures include consumers that have a landline at home

Base: 3379 UK adults aged 15+

Figure 39 shows cross-ownership of mobile phones, digital TV and the internet across the four nations. There were significant national and regional differences in multiple-service ownership. Consumers in Northern Ireland were less likely to own all three platforms but significantly more likely to have a mobile phone only. Similarly consumers living in Wales were significantly less likely to have all three but were more likely to own both a mobile phone and digital TV. Levels of exclusion from any of these platforms were broadly consistent across the nations.

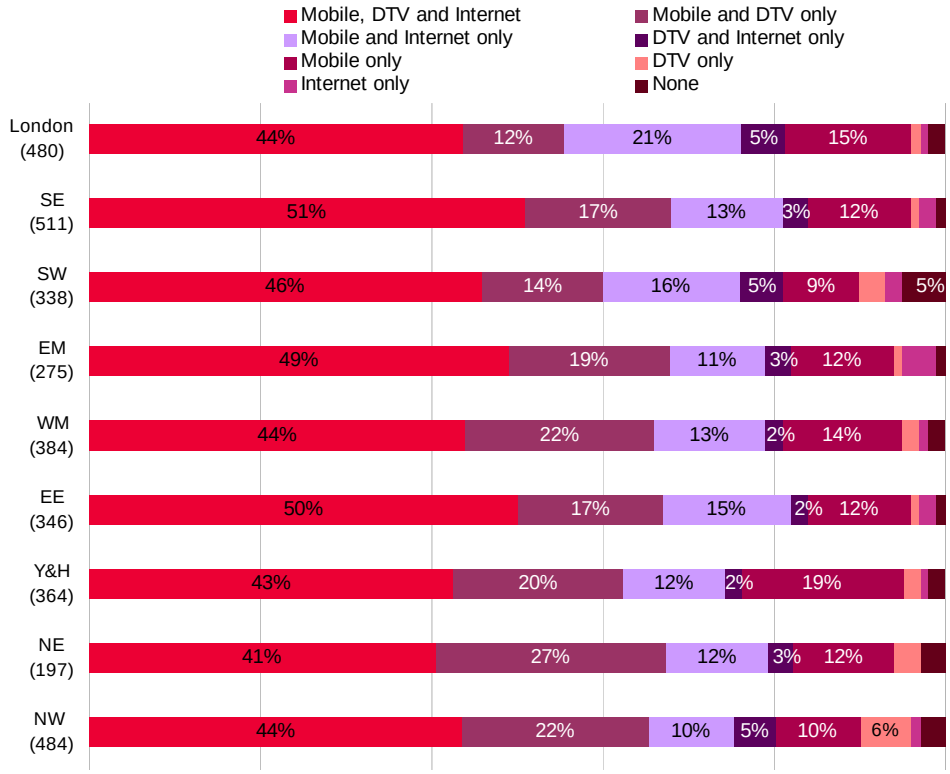
Figure 39: Cross ownership of mobile phones, DTV and internet for nations of the UK



Source: Ofcom Communications Tracking Study, Q2/Q3 2005

There were also variations in multiple-platform ownership across the English regions. Figure 40 shows that consumers living in the South East and East of England were the most likely to own all three platforms.

Figure 40: Cross ownership of mobile phones, DTV and internet for regions of England



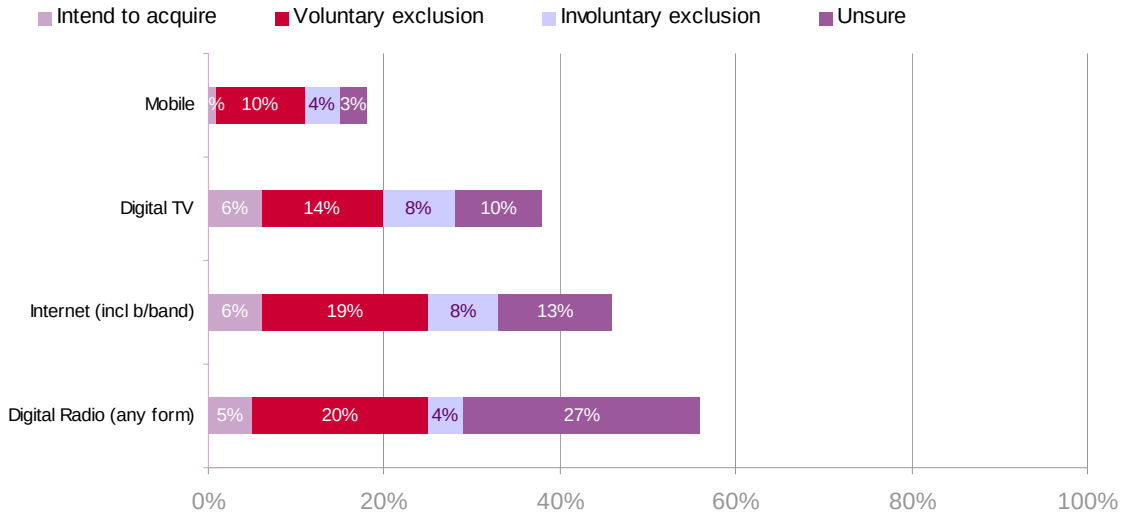
Source: Ofcom Communications Tracking Study, Q2/Q3, 2005

6.4 Exclusion from taking up services

This section examines the intentions and reasons for lack of take-up of mobile phones, internet, digital TV and digital radio[1]. It focuses on the issue of exclusion and whether this was for voluntary or involuntary reasons. People who said they have no intention of getting the platform were asked their reasons for this. Those classified as *voluntarily excluded* gave responses which include being happy with current provision, see no need, or are not interested: in other words, saying that they made a positive choice.

Those classified as involuntarily excluded gave responses that included affordability, perceived lack of digital coverage, perceived difficulty in using and lack of understanding. Those who gave a mix of voluntary and involuntary responses were classed as involuntarily excluded.

Figure 41: Levels of voluntary and involuntary exclusion by platform across the UK



Source: Media Literacy Audit, Ofcom-SRB, June-August 2005

For each platform, levels of involuntary exclusion were less than 10% of adults surveyed. For mobile phones and digital radio, levels were less than 5%. For digital radio and internet, the percentage of those voluntarily excluded was much higher than for mobile phones and digital TV (20% and 19% respectively). The lowest level of exclusion overall was for mobile phones. We examine these findings by nation and English region below, for each of the platforms discussed.

[1] The data is taken from Ofcom's Media Literacy Audit survey of 3244 adults aged 16+ June-August 2005

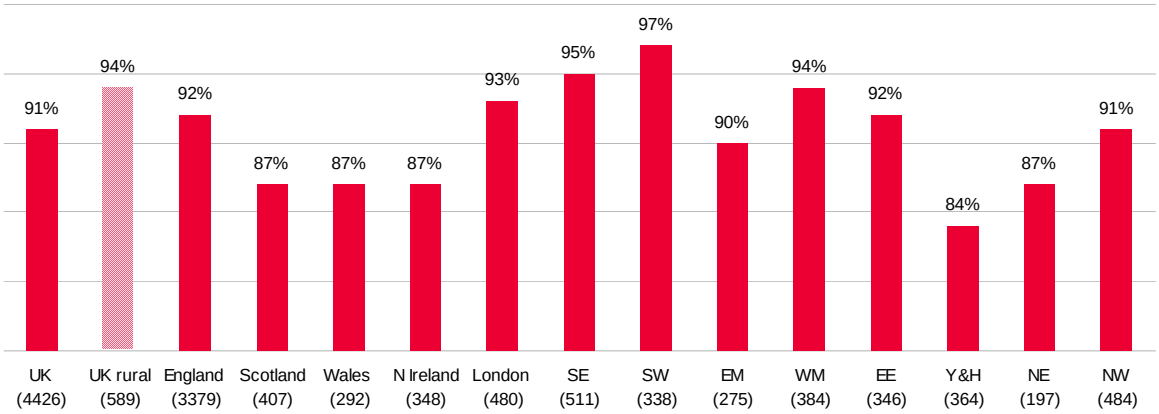
6.5 Take-up of telecoms services

Telephone landlines

Figure 42 shows home landline take-up across the UK. Landlines were the most commonly and consistently used service across the nations and regions, with UK-wide ownership ranging between 84% and 97%. The lowest levels of take-up were in Yorkshire and the Humber, Scotland, Wales and Northern Ireland, where homes were less likely than average to take up a landline.

In comparison, consumers living in the South of England were more likely to take up a landline at home. Consumers living in rural parts of the UK were also more likely than average to take up a landline.

Figure 42: Home landline take-up across nations and regions



Source: Ofcom Communications Tracking Study, Q2/Q3 2005

Home telephone landline take-up by age and socio-economic group

Figure 43 shows take-up of home landlines by age. Consistently higher levels of landline take-up were seen amongst older consumers (over 45) across the UK. Take-up was 96%, compared to 87% amongst those aged under 45.

Lower than average take-up of landlines in Wales and in Yorkshire and the Humber appears to be at least partly driven by significantly lower take-up of landlines amongst younger consumers in these areas. There are also indications that younger consumers in Scotland were less likely to take up a landline at home.

Conversely, the higher take-up in the South West appears to be consistent across all age groups with indications of a similar picture in the South East. Older consumers in the West Midlands and East of England were significantly more likely to take up a landline than the UK average for this age group.

Figure 43: Home landline take-up by age across nations and regions

Source: Ofcom Communications Tracking Study, Q2/Q3 2005 rolled data, base sizes are illustrated in figure above

Take-up of landlines was also generally higher amongst ABC1s (96%) than C2DEs (85%). When comparing take-up by social demographic groups across the UK, the only significant differences were that ABC1s in Wales were less likely to take up a landline and take-up was significantly lower than average across all socio-economic groups in Yorkshire and the Humber. C2DEs in the South West however, were significantly more likely to take up a landline, helping to explain the higher overall take-up in this region.

Figure 44: Comparison of home landline take-up by socio-demographic profile across nations and regions

Source: Ofcom Communications Tracking Study, Q2/Q3 2005 rolled data, base sizes are illustrated in figure above

6.5.1 Mobile phones

Personal take-up of mobile phones across the UK

Figure 45 shows take-up of mobile phones. 80% of adults across the UK had at least one mobile phone – levels were consistently high across the UK, including rural areas. Mobile phone use was significantly lower than average in Wales and Northern Ireland and significantly higher levels of take-up were seen in London, the South East and the East of England.

Figure 45: Personal take-up of mobile phones (adults)

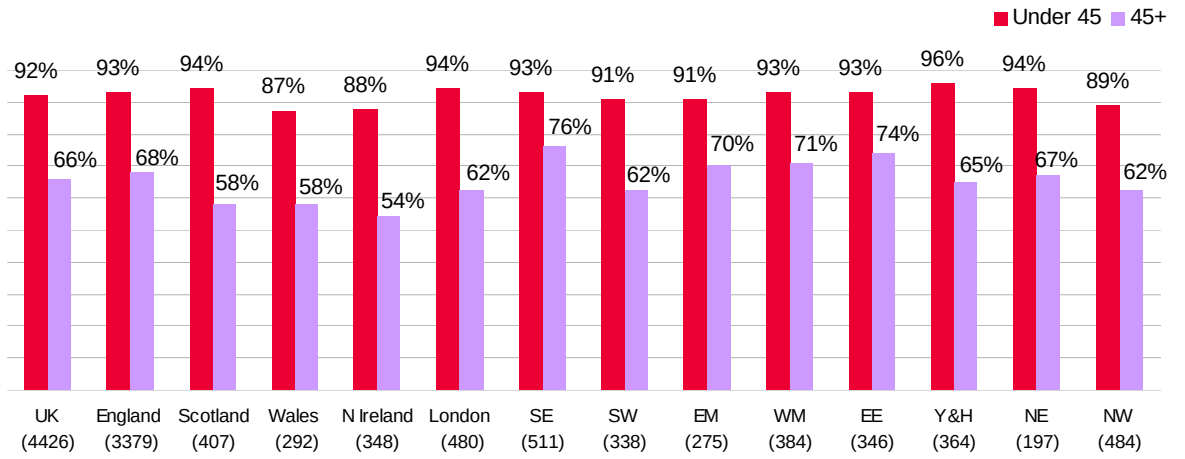
Source: Ofcom Communications Tracking Study, Q2/Q3 2005 rolled data, base sizes are illustrated in figure above

Mobile phone take-up by age and socio-demographic profile

Figure 46 shows take-up of mobile phones by age. Take-up of mobile phones was correlated with age. Younger consumers (92% of under 45s) were more likely than older consumers (66% of those aged 45+) to use a mobile phone.

Over-45s in Northern Ireland were significantly less likely to use a mobile phone compared to the UK average for this age group. Over-45s in Scotland and Wales were also less likely to use a mobile phone. Having said that, the same age group appears, at least in part, to be driving the higher levels of take-up in South East and East of England, illustrated below in Figure 46.

Figure 46: Adults that personally own and use a mobile phone by age



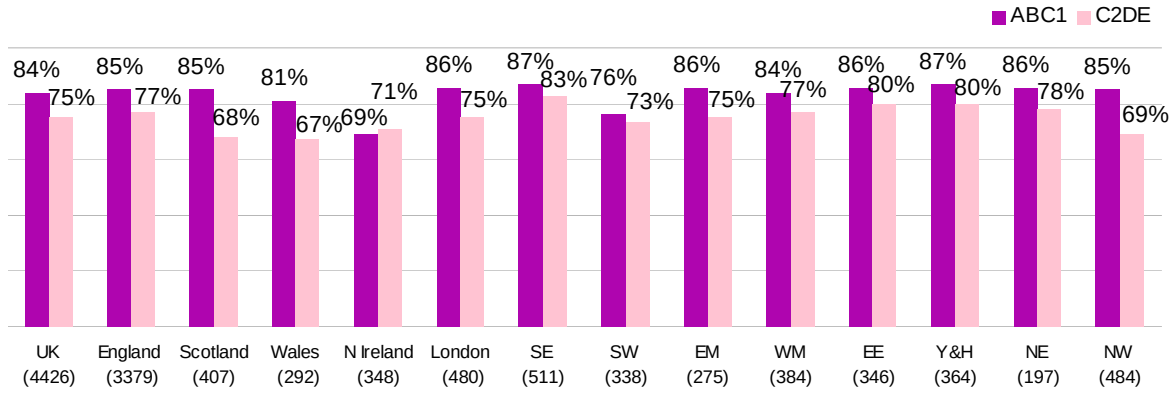
Source: Ofcom Communications Tracking Study, Q2/Q3 2005

Figure 47 shows take-up of mobile phones by socio-economic group. Whilst C2DEs (75%) across the UK were generally less likely than ABC1s (84%) to have a mobile phone, the difference in take-up between the two groups was less marked than between age groups. The only exception was in Northern Ireland, where all socio-economic groups were equally likely to use a mobile phone, due to lower than average take-up amongst ABC1s. The same socio-economic group in South West England was also significantly less likely than the average ABC1 to use a mobile phone.

In Wales there are indications that lower take-up amongst C2DEs may have affected overall take-up and that the same socio-economic group may be driving at least some of the higher take-up in the South East of England.

The only socio-economic group with significantly higher than average take-up of mobile phones in a particular region were C2DEs in the South East, where take-up was the highest in the UK.

Figure 47: Adults that personally own and use a mobile phone by socio-demographic profile

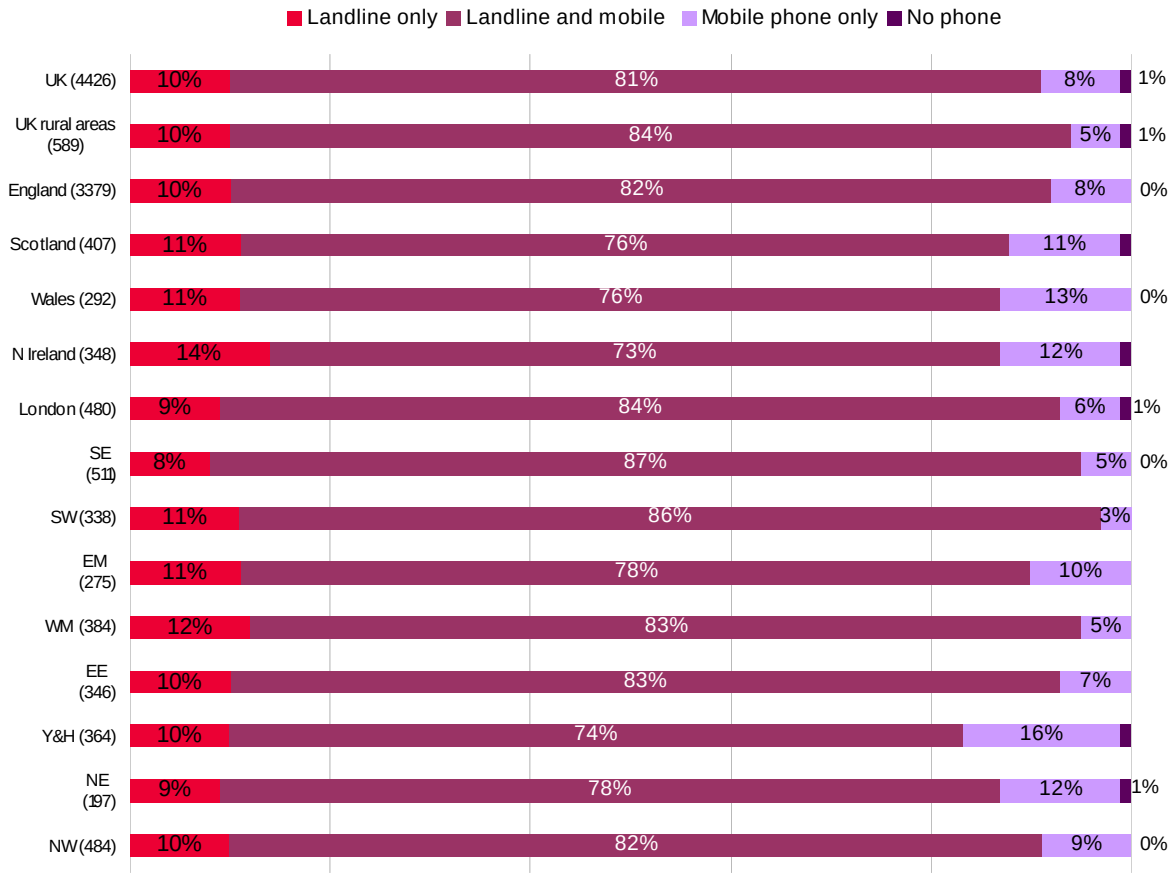


Source: Ofcom Communications Tracking Study, Q2/Q3 2005 rolled data

Summary of household ownership of telecoms services

Figure 48 shows a comparison of household phone take-up. On average, 10% of households across the UK relied solely on a telephone landline for their telecoms service at home. Conversely, a similar proportion (8%) relied solely on a mobile phone, with the majority (81%) of households across the UK taking up both a landline and at least one mobile phone. The proportions relying solely on a mobile phone varied across the UK, from 3% in the South West to 16% in Yorkshire and the Humber. Consumers living in Yorkshire and the Humber, Wales and Northern Ireland were significantly more likely than average to live in homes that relied solely on mobile phones.

Figure 48: Comparison of household phone take-up across the UK (adults)



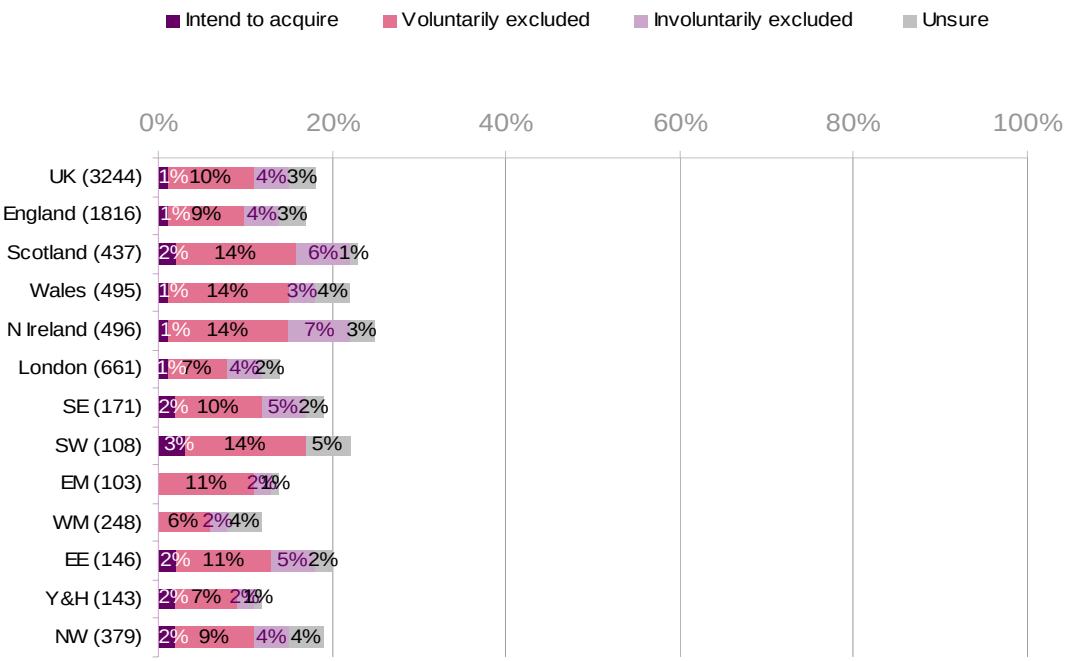
Source: Ofcom Communications Tracking Study, Q2/Q3 2005

Those who relied solely on mobile phones for their telecoms needs were younger than the population as a whole. They were more likely to be C2DEs and were predominantly users of pay-as-you-go mobile phone services.

Analysis of those not taking up mobile phones

Figure 49 shows an analysis of those not taking up mobile phones. There were very few variations in the reasons for not taking up mobile phones across the nations and regions of the UK. 1% said they intended to acquire a mobile phone and 3% were unsure.

Figure 49: Analysis of those not taking up mobile phones by nation and region

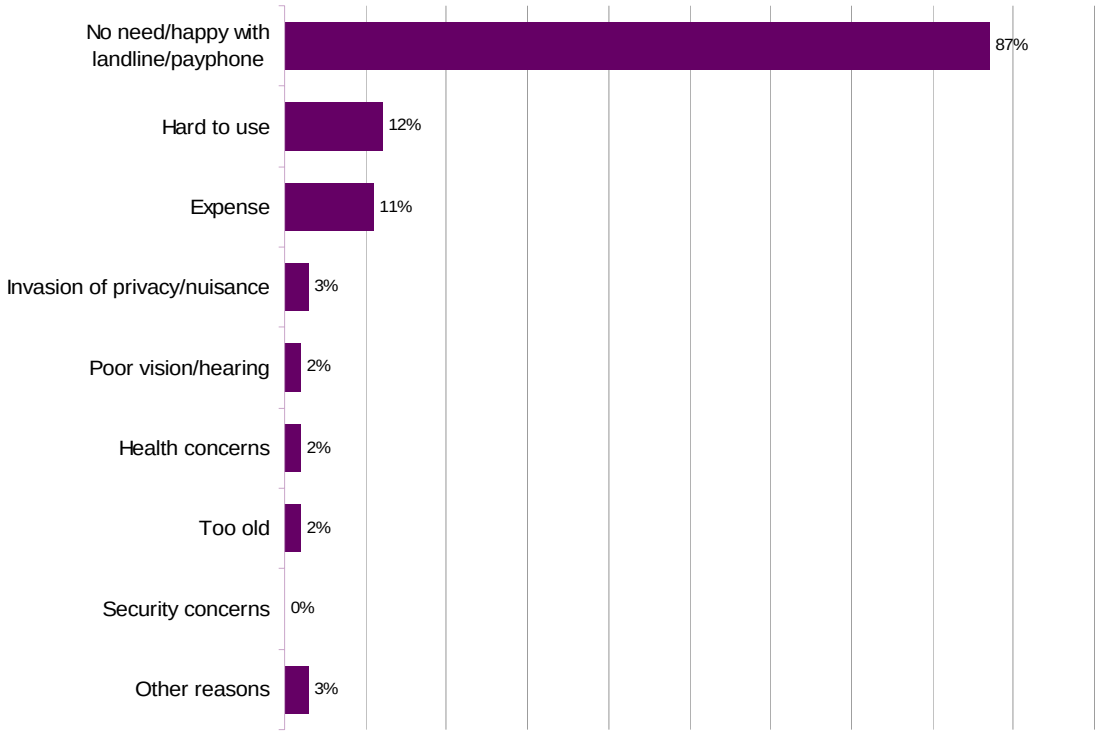


Source: Media Literacy Audit, Ofcom-SRB, June-August 2005

Overall, 10% of the UK population said they were voluntarily excluded from owning a mobile phone, with 4% involuntarily excluded.

The main difference of statistical significance was that no respondents in the South West and West Midlands were involuntarily excluded from acquiring a mobile phone. The West Midlands also had a significantly lower level of voluntarily excluded respondents (6% vs 10% UK average). This finding is consistent with the slightly higher levels of take-up in this region.

Figure 50: Reasons for not acquiring a mobile phone



Source: Media Literacy Audit, Ofcom-SRB, June-August 2005 N=343 adults aged 16+ who do not intend to get a mobile phone in next 12 months

Figure 50 shows reasons for not acquiring a mobile phone. The main reason for not acquiring a mobile phone was that people were already happy with their existing telecommunications services. This was cited by 87% of respondents who didn't have a mobile phone. 12% of people who didn't have a mobile phoned claimed that mobile phones were too hard to use and 11% cited cost as an issue.

Of reasons cited by those who did not intend to take up a mobile phone, coverage was not a sufficiently common response to warrant its own category, indicating that coverage issues were not a significant reason for consumers not to acquire a mobile phone. However it may have been given as a reason by respondents in the 'other' category (comprising a UK average of 3% of responses)

There was little variation between the nations and regions in the reasons for not wanting to get a mobile phone. None of the differences seen in Figure 50 between the nations and regions of the UK was statistically significant.

6.6 Take-up of internet services

PC and internet

Figure 51 shows take-up of both PCs and internet. At the time of the survey, 66% of adults had a PC at home and 57% had access to the internet at home. Consumers living in rural areas, whilst no more likely to have a PC, were significantly more likely to have access to the internet than average.

Adults living in Scotland and Northern Ireland were significantly less likely than the UK average to own a PC or have internet at home. There are also indications of lower PC ownership in Wales and significantly lower than average penetration of the internet in this nation.

However, adults living in London, South East and East of England were significantly more likely to own a PC and higher than average internet take-up was also apparent in London and the South East.

Figure 51: PC and internet take-up by nation and region

Source: Ofcom Communications Tracking Study, Q2/Q3 2005

Figure 52 shows PC ownership by age. Age was a key driver in PC ownership; take-up was higher amongst younger consumers, with 76% of adults aged under 45 owning a PC compared to 54% of those aged 45+.

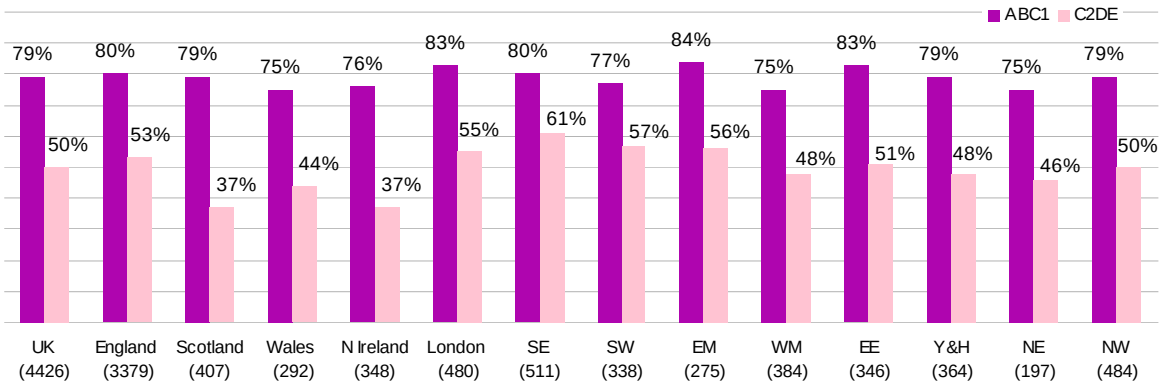
PC ownership was broadly similar across the UK when comparing age bands, with a few exceptions. Younger adults in the South West were significantly more likely to own a PC than average. There are indications that this age group was contributing to lowering overall take-up in Northern Ireland. Ownership of PCs amongst consumers aged 45+ was fairly consistent across the UK although there are indications of lower take-up amongst this age group in Scotland and Northern Ireland.

Figure 52: PC ownership by age

Source: Ofcom Communications Tracking Study, Q2/Q3 2005

Figure 53 shows PC ownership by socio-economic group. Socio-economic group was a key factor in PC ownership, significantly higher amongst ABC1s (79%) compared to C2DEs (50%). When comparing ownership across the UK amongst ABC1s, there were no significant differences. However, there were differences amongst C2DEs. In both Scotland and Northern Ireland C2DEs were significantly less likely to own a PC but the same socio-economic group was significantly more likely to own a PC in the South of England.

Figure 53: PC ownership by socio-demographic profile



Source: Ofcom Communications Tracking Study, Q2/Q3, 2005

6.6.1 Total internet

Figure 54 and Figure 55 show internet take-up by age and socio-economic group. In contrast to the take-up trends of mobile phones, the take-up of the internet (both narrowband and broadband) was affected more by socio-economic group than age. Whilst older consumers (47%) were significantly less likely than younger consumers (66%) to have internet access at home the differences were less marked than between ABC1 (72%) and C2DE (40%) profiles. This trend was apparent across all nations and regions.

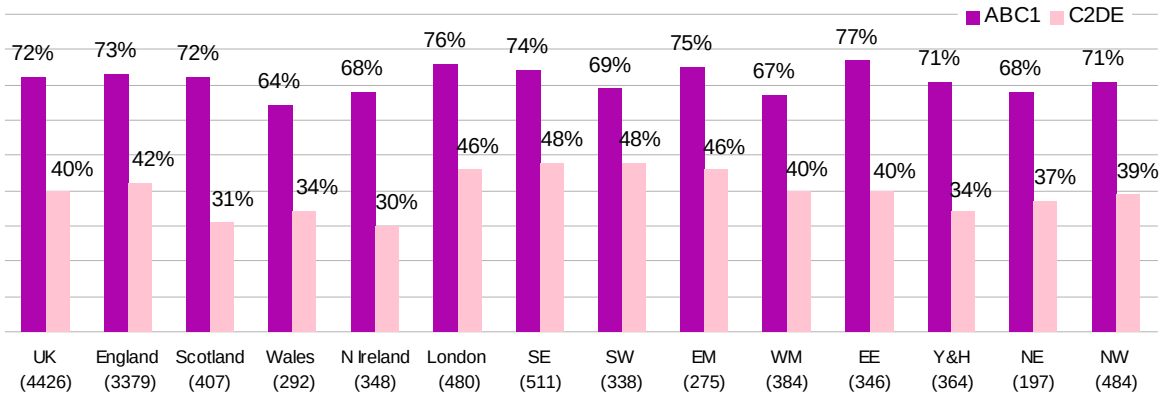
Figure 54: Internet take-up by age

Source: Ofcom Communications Tracking Study, Q2/Q3 2005

There were very few differences in internet take-up across the UK when comparing age bands. The only significant finding, when comparing to the UK average, was that younger consumers (under 45) in the South West of England were significantly more likely than average for this age group to have home internet access.

There were also indications that over 45s in London and the South East had a higher propensity to own the internet at home whereas the opposite is true for the same age group in the North East of England.

Figure 55: Internet take-up by socio-demographic profile

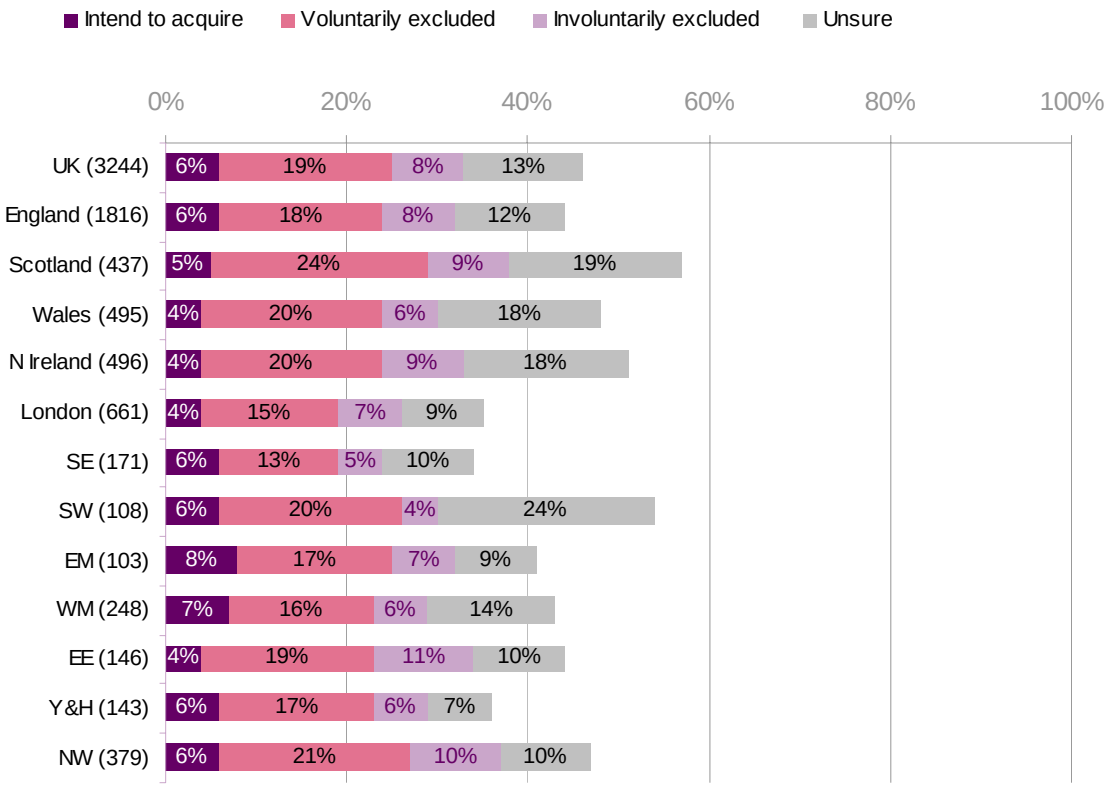


Source: Ofcom Communications Tracking Study, Q2/Q3 2005

There were no significant differences in internet take-up when comparing socio-economic groups across the UK, although there were indications of higher take-up amongst C2DEs in the South East and lower take-up amongst this group in Northern Ireland.

Analysis of those not taking up the internet

Figure 56: Analysis of those not taking up internet

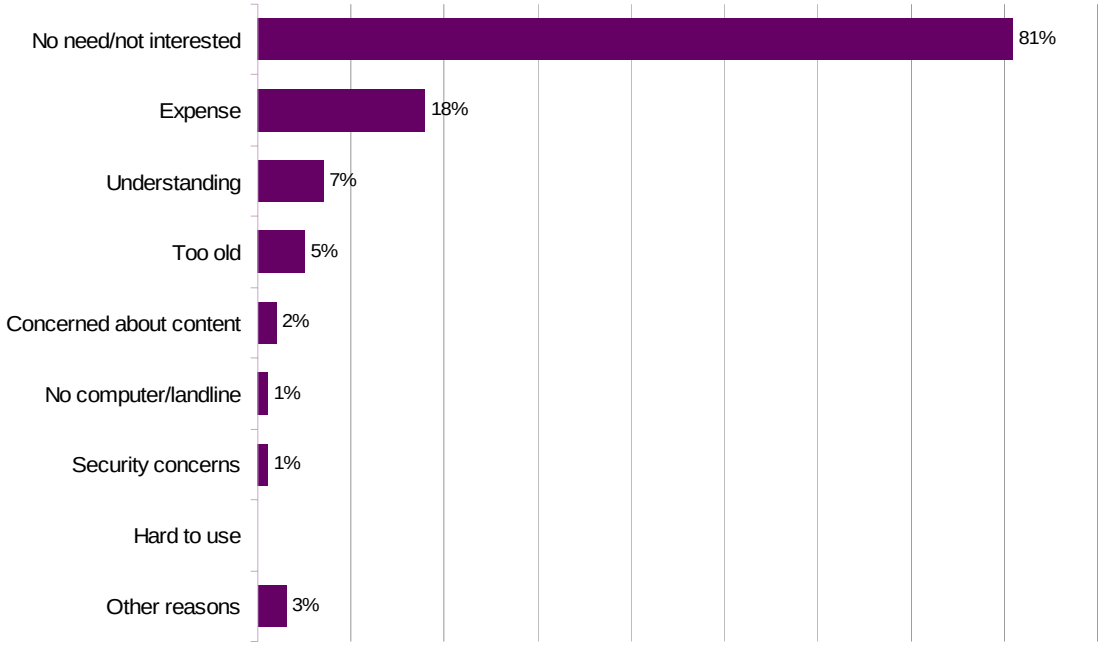


Source: Media Literacy Audit, Ofcom-SRB, June-August, 2005

Figure 56 shows an analysis of those not taking up the internet. 6% of adults across the UK said they were likely to get internet access in the next 12 months[2] and 13% were unsure. People living in the South West of England were more likely to be unsure, with those in Yorkshire and the Humber the least. Overall, 19% of adults were voluntarily excluded from taking up the internet. This was highest in Scotland at 24%. 8% were involuntarily excluded, with no significant differences across the UK.

[2] Results are from the Media Literacy Audit survey and so not directly comparable to Ofcom Tracker Study data on take-up, due to slightly different methodologies and fieldwork dates in surveys

Figure 57: Reasons for not acquiring the internet



Source: Media Literacy Audit, Ofcom-SRB June-August 2005. All adults aged 16+ without internet access at home and no intention of getting it in next 12 months (N=930)

Figure 57 shows reasons for not acquiring the internet. As stated previously, levels of voluntary exclusion were high compared to involuntary exclusion. Lack of interest/need was the key reason not to get internet access at home - a consistent trend across the nations and regions (81% of all UK adults who did not intend to get the internet). Expense, aggregating both the cost of equipment and subscription, was the next most frequent response given, at 18% of those not intending to get the internet within the next 12 months.

6.6.2 Broadband

Figure 58 shows take-up of broadband amongst interviewed homes. At the time of the survey, more than six in ten (63%) homes with internet used a broadband connection. Use of broadband has overtaken narrowband as internet customers' primary method of connection.

Alongside lower than average take-up of the internet, consumers in Wales and Northern Ireland were less likely than average to use a broadband connection. There were also indications of lower take-up of broadband in rural areas (where internet take-up was in fact higher than average) and in the South West of England.

Figure 58: Broadband take-up by nation and region among internet homes

Source: Ofcom Communications Tracking Study, Q2/Q3 2005

6.7 Take- up of digital broadcasting services

6.7.1 Digital TV

Digital TV ownership across the UK

At the time of the survey, almost two-thirds (65%) of UK households had taken up digital TV at home with significantly higher than average ownership reported in Wales and the North West of England. Northern Ireland and, to a lesser extent, London both reported lower than average take-up of digital TV, as shown in Figure 59 below.

Data in other Ofcom Communications Market reports, including the *Communications Market: Digital Progress Report*, relates to ITV regions, which are different from the Government Office Regions used in this report. For example, the London ITV region covers a wider area than the Government region covering London and as a result, digital TV take-up is higher in the London ITV region than the London Government region.

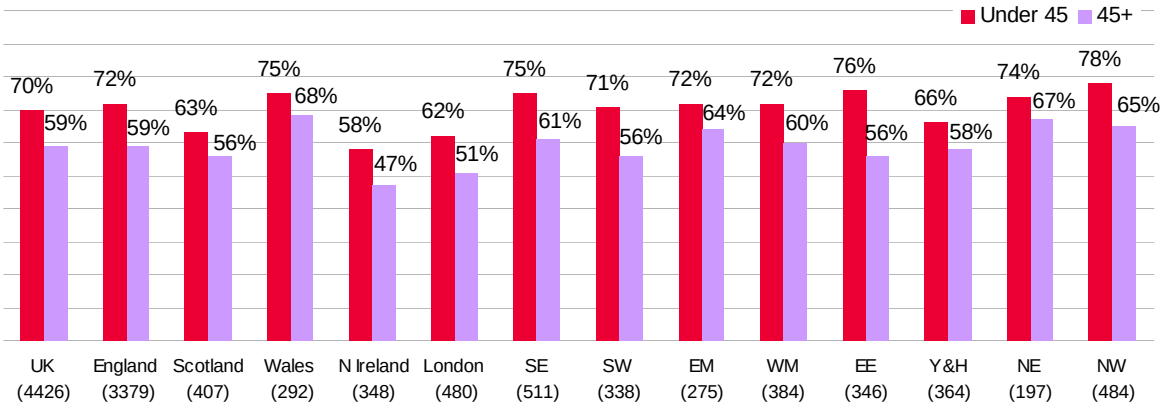
Figure 59: Overall take-up of digital TV

Source: Ofcom Communications Tracking Study, Q2/Q3 2005 rolled data, base sizes are illustrated in figure above

Digital TV ownership by age and socio-demographic profile

Figure 60 and Figure 61 show take-up of digital TV by age and socio-demographic profile. Take-up of digital TV services in the UK was higher amongst younger (70%) and more affluent groups (68%). However, age and socio-demographic profile had less of an impact on ownership of digital TV than in the mobile and internet markets. Lower ownership of digital TV in Northern Ireland was across all age groups. In London there was significantly lower take-up both amongst under-45s and amongst those aged 45+. However, it appears that younger adults were one of the driving factors of higher take-up in the North West of England, and also indications of higher ownership amongst this age group in both the South East and East of England.

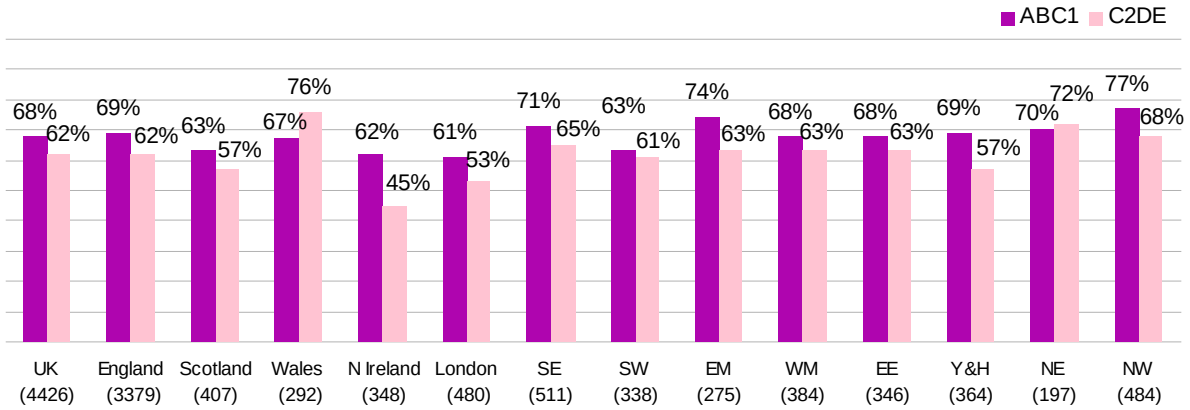
Figure 60: Overall take-up of digital TV by age



Source: Ofcom Communications Tracking Study, Q2/Q3, 2005

As noted earlier, digital TV take-up was highest in the North West and Wales. In Wales C2DE social groups appeared to be driving this, with a significantly higher proportion of C2DEs owning digital TV compared to the average for this socio-economic group. In fact there are indications that C2DEs in Wales were more likely than ABC1s to have digital TV. In contrast, ABC1s were significantly more likely to own digital TV in the North West. Lower take-up amongst C2DEs in Northern Ireland is likely to have had the largest impact on overall ownership, given the higher proportion of C2DEs compared to the UK average. Similarly the same socio-economic group had lower than average ownership in London.

Figure 61: Overall take-up of digital TV by socio-economic group



Source: Ofcom Communications Tracking Study, Q2/Q3 2005

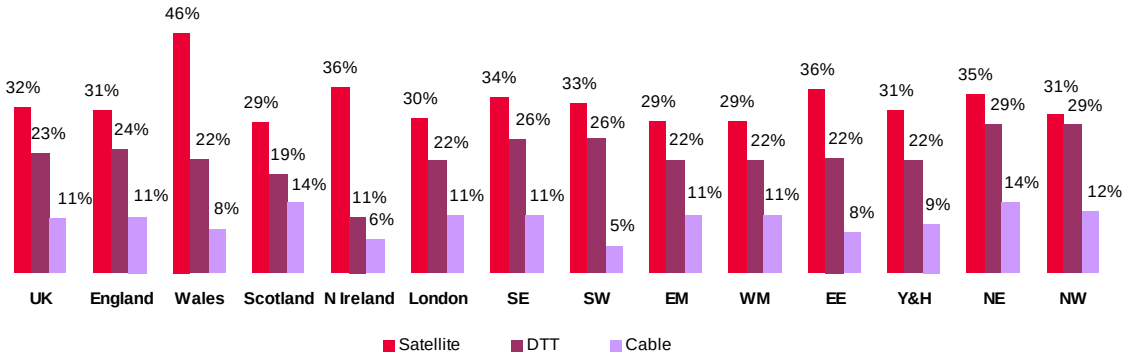
Take-up of digital TV by platform

Figure 62 gives a breakdown of digital TV ownership for each digital platform. Satellite was the most widely used digital platform (32% of homes with digital satellite services) with take-up significantly higher in Wales (46%).

Digital terrestrial television (DTT) was the primary platform for digital TV in 23% of UK homes. Digital cable made up an additional 11% of UK homes.

The latest available data suggests that around 38,000 homes in the UK were using TV over DSL services to receive digital TV. This is equivalent to around 0.15% of homes in the UK.

Figure 62: Take-up of satellite, DTT and cable for nations and regions



Source: Operator data/BARB regional homes data Q3 2005 (note that the data in this chart has been derived from BARB's TV regions rather than the GOR regions)

Digital Satellite television availability and take-up

Figure 62 shows digital satellite take-up across the nations and regions ranging from 29% to 46%. Wales had by far the highest take-up of all the nations and regions at 46%. Take-up was also high in Northern Ireland, at 36%, above the UK average of 32% and significantly higher than the take-up of DTT and cable in Northern Ireland. Ownership in England and Scotland were slightly below the UK average at 31% and 29% respectively.

Of the English regions, take-up was higher on the eastern side of the country. East of England (36%), North East (35%), South East (34%), were all above the UK average. For

the East and South East this may have been partly a result of lower availability of the other digital platforms. Whilst the North East region had high ownership and high availability on all digital platforms, take-up of satellite in the Midlands (29%) and London areas (30%) was slightly below the UK average as at Q3 2005.

Digital terrestrial television (DTT) availability and take-up

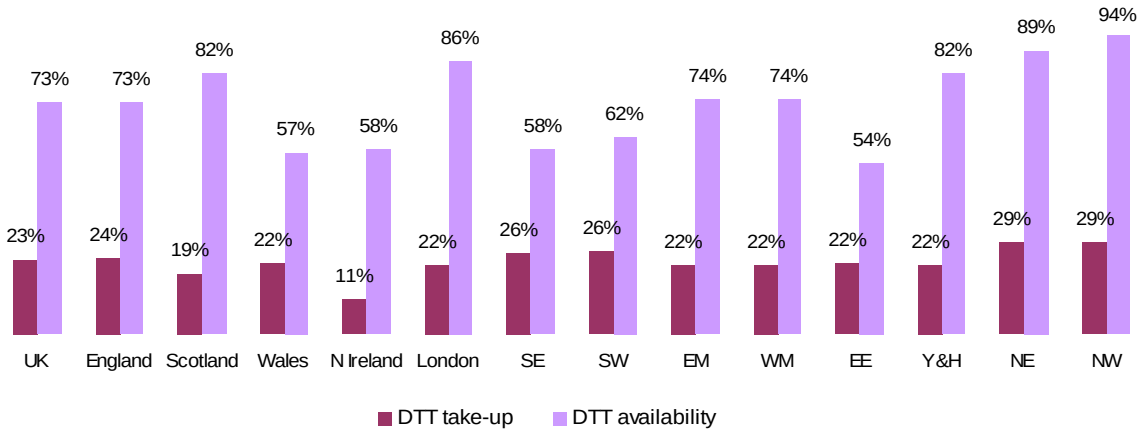
DTT is the fastest growing of the digital TV platforms. In the year to September 2005 around 4m DTT boxes and IDTVs were sold. The number of homes with DTT has gone from just over 1 million in 2002 to around 5.7 million in Q3 2005.

Figure 63 shows that take-up of DTT services was fairly even across the UK. However, there were a few exceptions to this, notably Northern Ireland which had significantly lower ownership of DTT. Across the rest of the UK ownership of DTT was broadly similar to the average despite a more pronounced variation in availability across the different regions.

Some patterns can be distinguished between availability and take-up, for example, two of the highest take-up regions, the North East and North West, (both at 29%), also had high availability, (89% and 94% respectively). However, availability was not always the main determinant of take-up. Exceptions to this trend include Scotland, London and Yorkshire and the Humber which had higher than average availability but only average take-up.

DTT availability was lower than average in Wales and broadly similar to Northern Ireland. However, take-up in Wales was 22%, twice as high as Northern Ireland (11%). This indicates the popularity of digital TV in Wales.

Figure 63: DTT take-up compared with DTT availability



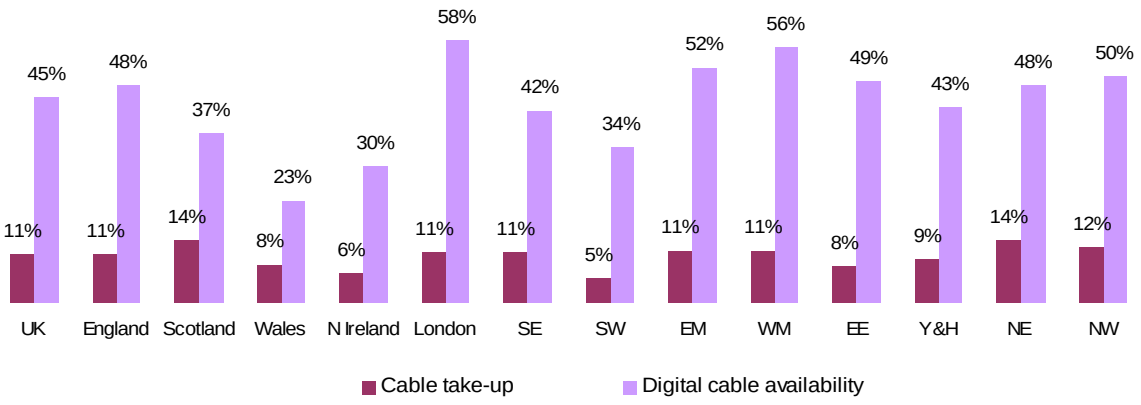
Source: Availability figures from Ofcom/BBC data. Ownership figures from Ofcom homes estimates based on DTT sales data/BARB regional homes data Q3 2005 (Note that the data in this chart has been derived from BARB's TV regions rather than the GOR regions)

Cable television availability and take-up

Figure 64 shows that take-up of digital cable television ranged from 5% -14% across the UK, with the average for the UK being 11%. Of the nations, take-up was highest in Scotland at 14% and Scotland also had the highest digital cable availability of the nations. Wales (8%) and Northern Ireland (6%) were below average take-up, partly as a result of lower availability. In England take-up was 11%, the same as the UK average.

Of the English regions, the highest take-up was in the North East at 14% and the North West at 12%. These two regions had a high take-up across all digital TV platforms. The lowest area of take-up was the South West at 5% - this was also one of the lowest areas of cable availability. The availability of cable generally matched the patterns of take-up in the UK, with higher or lower availability corresponding to higher or lower take-up. The exception to this was the London area, which had the highest availability but average take-up of 11%. This may be partly due to the high availability of other platforms in the London area, or a particularly transient population.

Figure 64: Cable take-up compared with digital cable availability



Source: Take-up from cable operator data ntl, Telewest, Wight Cable Q3 2005. Availability of digital cable based on percentage of premises passed by ntl or Telewest digital cable, operator data, January 2006. Note, digital cable availability figures do not include Wight Cable which offers cable coverage in Scotland, Border, the North West and the Isle of Wight

Analysis of those not taking up digital TV

Figure 65: Analysis of those not taking up digital TV

Source: Media Literacy Audit, Ofcom-SRB, June-August 2005.

Figure 65 shows an analysis of those not taking up digital TV. 32% of all UK adults did not have any intention of acquiring digital TV or were uncertain about their intention to get digital TV. 6% of UK adults who did not already own digital TV intended to acquire this service in the next 12 months. Of those who had not already taken up digital TV, 14% of UK adults were voluntarily excluded, almost twice as many as the 8% who were involuntarily excluded. Levels of uncertainty around acquiring this service were greater than levels of involuntary exclusion, at 10% of UK adults.

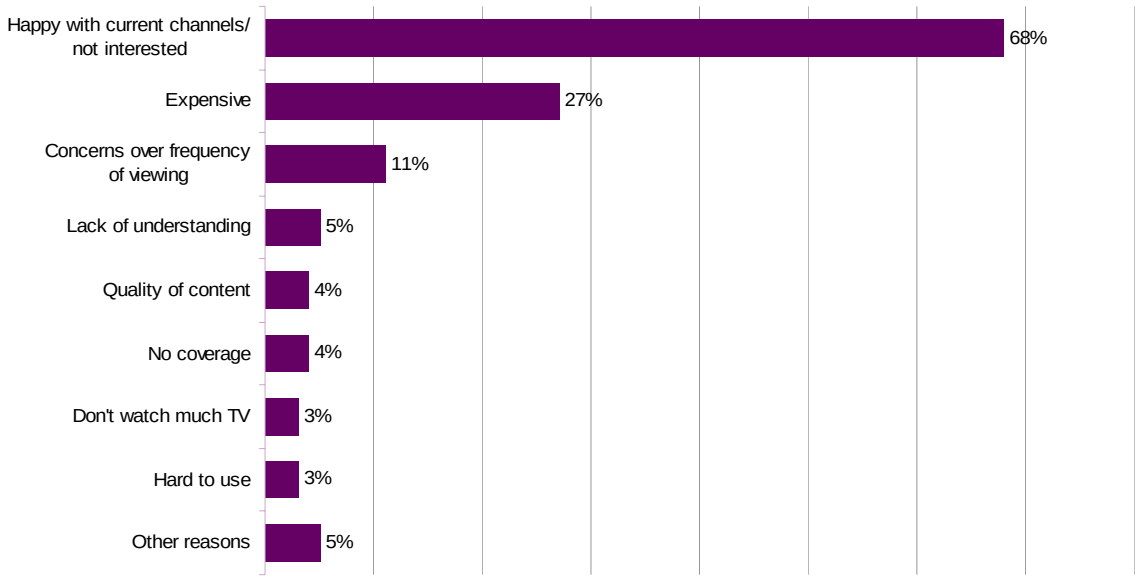
This trend was broadly consistent across the nations and regions. Scotland, one of the first to switch over in 2009, showed signs of having the lowest level of uncertainty surrounding digital TV and a relatively high level of voluntary exclusion.

Respondents in Northern Ireland (21%) and Yorkshire and the Humber (16%) were the most uncertain about acquiring digital TV, with a statistically significant number (compared to 10% UK average) unsure about the service.[3] For Northern Ireland, this finding was consistent with slightly higher levels of voluntary exclusion and the lowest level of take-up of the platform (12% less than the UK average). Northern Ireland is one of the last parts of the UK to switch over to digital.

[3] Results are from the Media Literacy Audit survey and so not directly comparable to Ofcom Tracker Study data on take-up, due to slightly different methodologies and fieldwork dates in surveys

Respondents were also asked for the reasons why they were not intending to get digital TV. Results are given in Figure 66. There were no differences of statistical significance between the nations and regions.

Figure 66: Reasons for not acquiring digital TV



Source: Media Literacy Audit, Ofcom-SRB, June-August 2005 adults aged 16+ without digital TV and not intending to get in next 12 months. Un-weighted UK N=771. Multiple responses allowed, therefore %s do not add up to 100

Most people with no intention of getting digital TV were happy with current TV channels, or saw no need (68% UK average). Expense, both of the hardware and subscription, was the next most important reason (27% UK average).

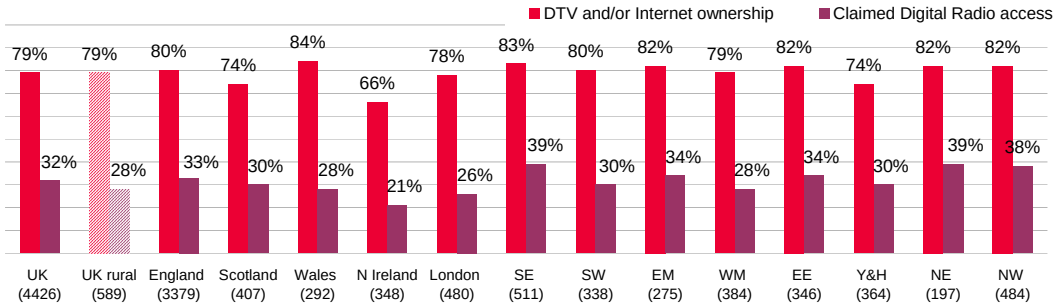
6.7.2 Digital radio

Take-up of digital radio services across the UK

Figure 67 illustrates the numbers of UK adults who have claimed that they had taken up digital radio services compared to claimed take-up digital TV and internet across the nations and regions. The purpose of this analysis is to demonstrate the possible means of accessing digital radio against those who believe they have access to this service. It highlights a lack of awareness amongst consumers in relation to the functionality of digital TV and internet.

On average, 79% of UK adults lived in homes with digital TV and/or internet and therefore had access to digital radio. However, less than half this proportion (32%) said they had digital radio access at home.

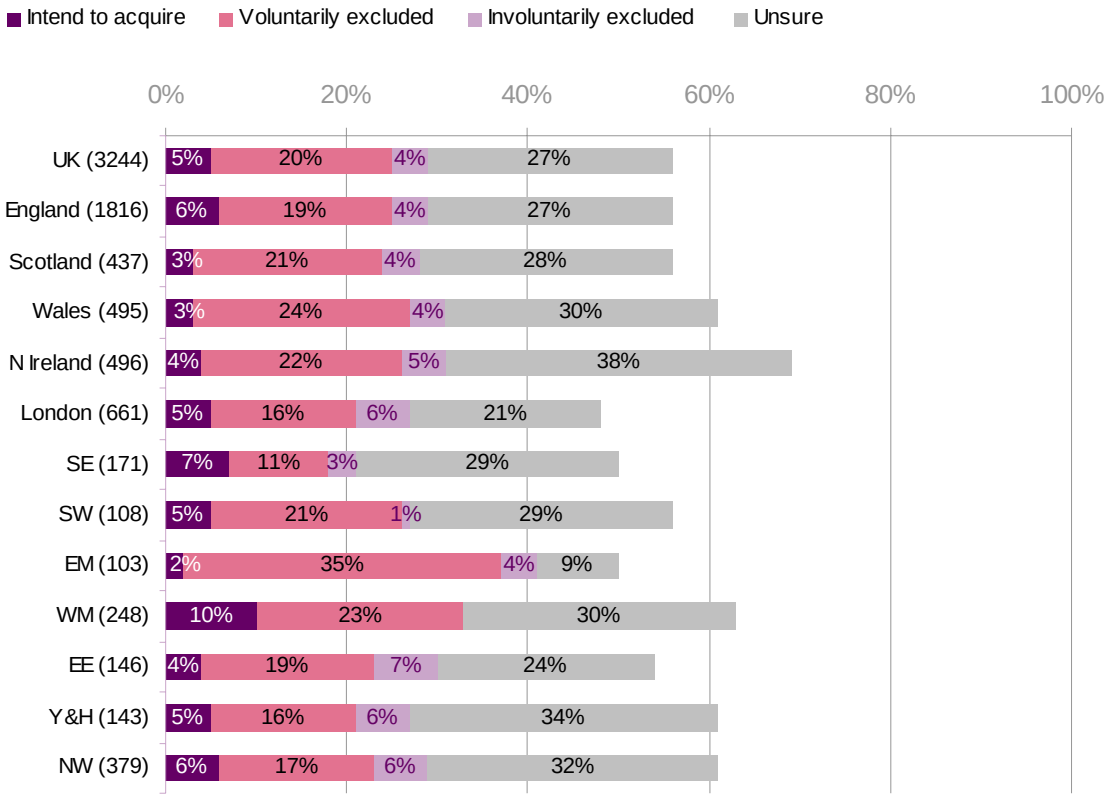
Figure 67: Claimed access to digital radio services compared to digital TV/Internet access



Source: Ofcom Communications Tracking Study, Q2/Q3 2005

Analysis of those not taking up digital radio services

Figure 68: Voluntary and involuntary exclusion from digital radio services by nation and region

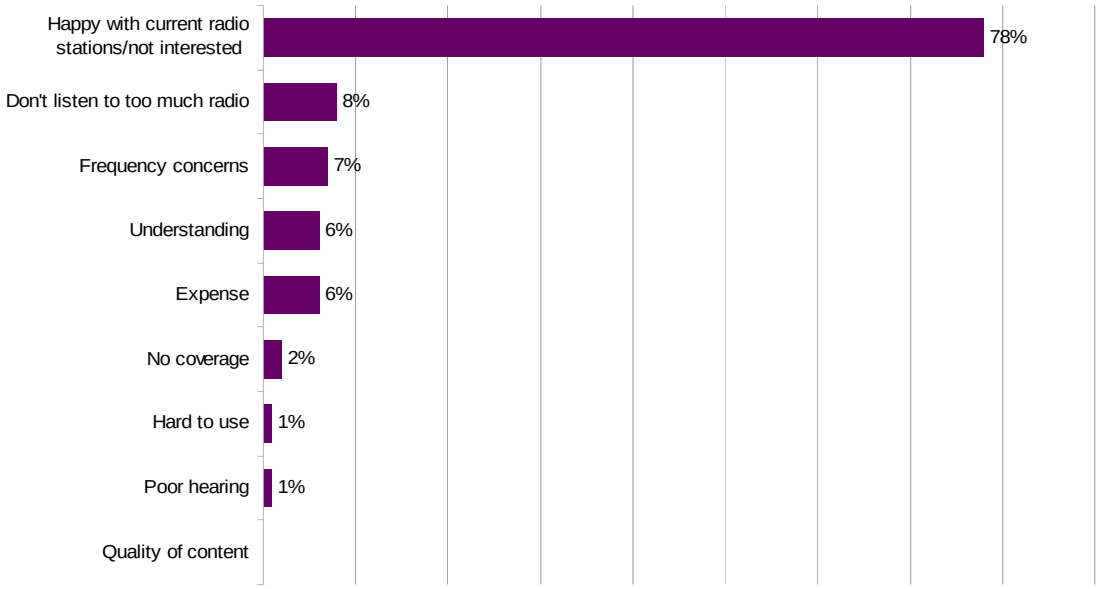


Source: Media Literacy Audit, Ofcom-SRB, June-August 2005

Figure 68 shows exclusion from digital radio services. Of all those not taking up digital radio services, 5% intended to acquire at some point in the future and 27% were unsure. Those in Northern Ireland were more likely to be unsure about taking up digital radio, and those in the East Midlands least likely to be unsure. Levels of exclusion from digital radio services show that people were far more likely to give reasons of voluntary than involuntary exclusion (20% and 4% respectively)[4]. Those in the South East were less likely to be voluntarily excluded, and those in the East Midlands were more likely to be. Responses from the West Midlands indicated no involuntary exclusion.

[4] Results are from the Media Literacy Audit survey and so not directly comparable to Ofcom Tracker Study data on take-up, due to slightly different methodologies and fieldwork dates in surveys

Figure 69: Reasons for not taking up digital radio services



Source: Media Literacy Audit, Ofcom-SRB, June-August 2005 Adults aged 16+ without digital radio and not intending to start listening to digital radio in the next 12 months Unweighted UK N=1030 Multiple responses allowed, therefore percentages do not add up to 100%

Figure 69 shows reasons for not starting to listen to digital radio services. 78% said that they were happy with their current offering. Expense was the fifth most common reason given, at 6% of total responses.

Section 7

Consumption of communications services

7.1 Introduction

Against the context of availability and ownership of communications services, this section considers the consumption of telecommunications, internet and digital broadcasting services. Where possible, we consider the extent of spend on communications across the nations and regions, the extent of use of those services and consumer satisfaction with both the overall services and value for money.

Research is drawn from a range of sources, including the Ofcom Communications Tracking Study, BARB, RAJAR in relation to radio and the Media Literacy Audit for the extent of use of mobile and internet services.

7.2 Key findings

- 3% of average weekly household income is spent on communications services across the UK. Around two thirds of this is spent on telecommunications (landline and mobile), with the remaining third on broadcast and internet services.

- In absolute terms, adults in London spend the most on communications services, with an average weekly spend of £18.20. However, relative to disposable income, London has one of the lowest proportionate spends on communications (3.1%) along with the South East (3.0%). Northern Ireland, with the lowest household income in the UK, spends a total of £14.60 on communications services per week. This represents the highest spend as a proportion of household income (3.6%).

- Satisfaction with internet and telecoms services is high, ranging between 89% UK overall internet satisfaction and 93% UK overall landline satisfaction.

- Every week across the UK, adults say they make, on average, over 20 calls on their mobile phones and send 28 text messages. Northern Ireland records the highest number of texts, at just over 35 per week. Conversely, London records the highest number of calls, at 28, and is the only part of the UK where mobile phone calls outnumber texts.

- People living in Wales and Northern Ireland are more likely to use pre-pay mobile phone packages than the UK as a whole.

- Across the UK, adults say they spend an average of nearly 10 hours per week accessing the internet. London records a significantly higher usage of the internet, at nearly 14 hours per week.

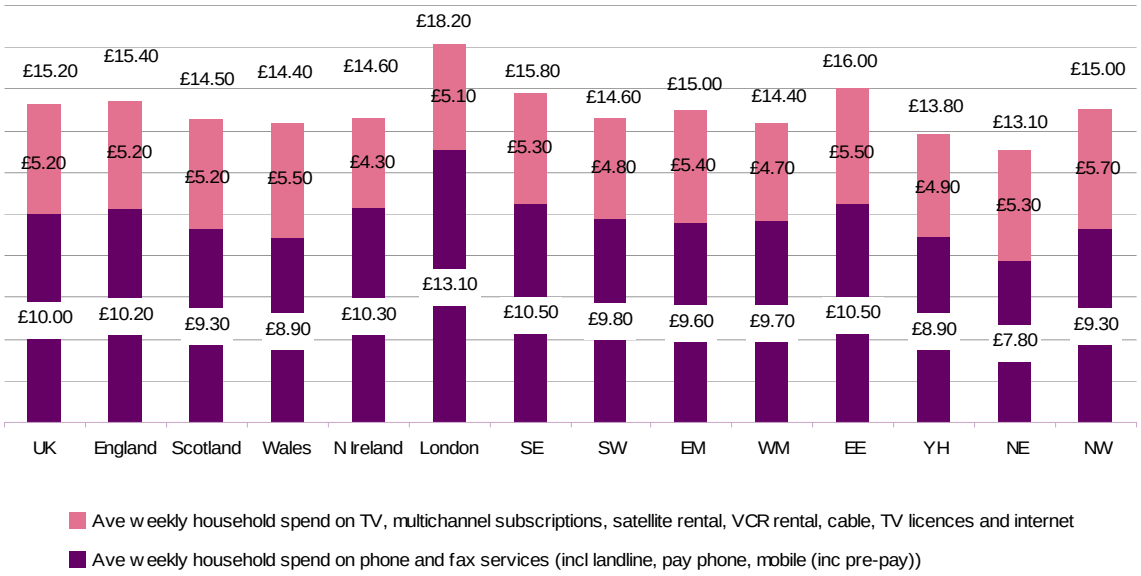
- Digital TV is watched for an average of 19 hours per week across the UK. Digital TV viewing is higher in northern parts of the UK and is highest in Scotland, at nearly 22 hours per week, followed by the North East, Wales and the North West. People in the South West watch the lowest amounts of digital TV, at just under 16.6 hours per week.

- On average, people spend 24 hours per week listening to radio across the UK. This is broadly consistent across the nations and regions.

- People living in different parts of the country also view different types of programmes – whilst sport did not feature in the top ten programmes across the UK in 2005, in Wales four out of ten programmes viewed were either football or rugby.

7.3 Communications spend

Figure 70: Average weekly household communications spend



Source: Office of National Statistics, Family Spending, 2005 Edition (National Statistics website: www.statistics.gov.uk Crown copyright material is reproduced with the permission of the Controller of HMSO)

Figure 70 shows the average weekly household expenditure on broadcast and internet and telecoms across the nations and regions. Overall, average weekly household spend was £5.20 on broadcast and internet services and £10.00 on telecoms, making £15.20 in total. In absolute terms, London spent the most on communications services (£18.20), followed by Eastern England (£16.00) and South East England (£15.80).

However, relative to disposable income, London had one of the lowest proportionate spends on communications (3.1%) along with the South East (3.0%). Across the UK, 3.2% of average weekly household disposable income was spent on communications services (2.1% on telecoms and a further 1.1% on broadcast and internet).

Spend on phone and fax services was higher than spend on TV services and this is likely to be due to the average number of mobile phones per household – 27% of households have only one mobile phone, 32% have two mobile phones, 15% have three mobile phones and 16% have four or more.

Northern Ireland, with the lowest household income in the UK, spent the highest proportion of disposable income on communications services (3.6%) alongside Wales (3.6%), followed by Scotland, the North East and the North West, all at 3.4%. This is shown in Figure 71 below.

Figure 71: Average weekly household communications spend as a percentage of disposable income

UK	Eng	Scot	Wales	NI	Lon	SE	SW	EM	WM	EE	YH	NE	NW
3.2%	3.2%	3.4%	3.6%	3.6%	3.1%	3.0%	3.3%	3.3%	3.3%	3.2%	3.3%	3.4%	3.4%

Source: Office of National Statistics, Family Spending, A Report on the 2004-2005 Expenditure & Food Survey 2005 Edition. ONS published 10 March 2006 (National Statistics website: www.statistics.gov.uk Crown copyright material is reproduced with the permission of the Controller of HMSO)

7.4 Consumption of telecoms services

7.4.1 Telephone landlines

Consumer spend on telephone landline services

Separate Ofcom consumer research indicates that, on average, customers across the UK said they spent around £23 per month on telephone landline services (including line rental and VAT). Differences in self-reported spending between nations and regions were not statistically significant.

Consumers in Northern Ireland said they spent slightly more (£29) than the UK as a whole (albeit not significant). This higher spend was consistent with a heavier reliance on landline services in Northern Ireland (due to lower penetration of mobile phones).

The Office of National Statistics (ONS) publishes data on average spend on telecoms, covering both landline and mobile phone services (described in the previous section). Across the UK, consumers spent around 3% of their household income on telecoms services.

Consumer attitudes towards telephone landline services

Figure 72 shows overall satisfaction with landline services. Overall satisfaction with landline services across the UK stood at 93%. Satisfaction with landline services was consistent across the UK, with the exception of landline customers in Northern Ireland where there was slightly less satisfaction with their service than the UK average (89%).

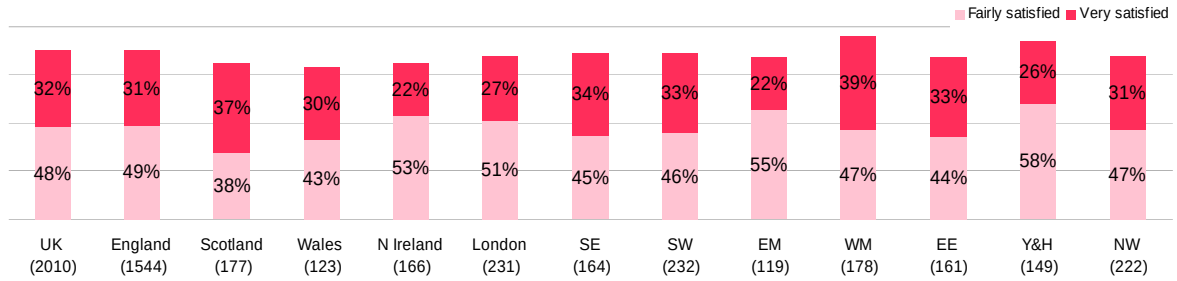
Figure 72: Overall satisfaction with landline service

Source: Ofcom Communications Tracking Study, Q2, 2005

Figure 73 shows satisfaction with value for money of landline services across the UK. Consumers were less satisfied with the value for money of their telephone landline services. This was consistent across the UK, with 80% either fairly or very satisfied. Consumers living in Wales and Northern Ireland were significantly less satisfied than consumers in other parts of the UK. ONS figures show that consumers in each of these nations spent a higher proportion of their weekly income on communications. This may explain the lower satisfaction with value for money in these parts of the UK. In Northern Ireland lower satisfaction with value for money also appeared to have influenced overall satisfaction.

While sample sizes from Ofcom's research prevent further analysis of satisfaction by spend levels at a national or regional basis, UK level data suggests that satisfaction with value for money falls as spending rises. For example, 79% of telephone landline customers spending up to £10 per month were satisfied with the value for money, falling to 73% amongst those spending between £24-£50 and 71% amongst customers spending more than £50 per month.

Figure 73: Satisfaction with value for money of landline service



Source: Ofcom Communications Tracking Study, Q2/Q3 2005 rolled data

7.4.2 Mobile phones

Use of mobile phones

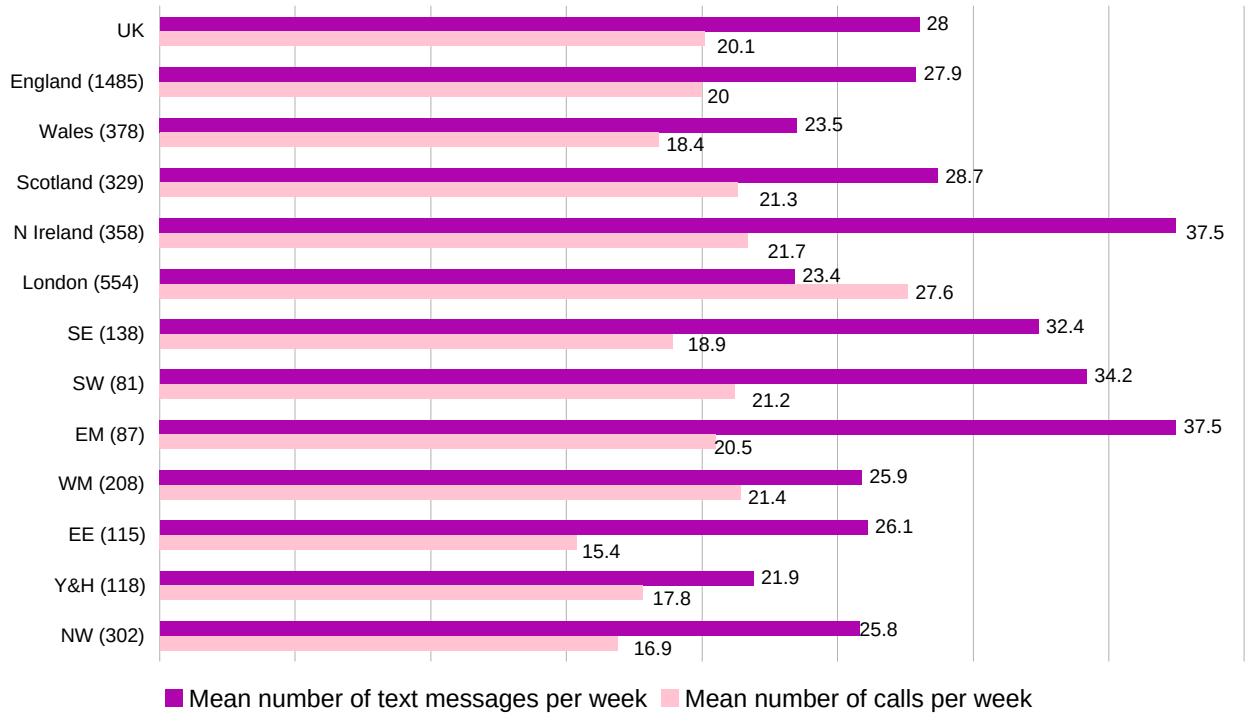
On average mobile phone customers said they spent around £20 per month on mobile phone services, according to Ofcom research. There are also indications that adults living in London spent more on mobile phone services

Overall levels of mobile calls and texts each week are shown in Figure 74. Texting was the most popular use of mobile telecoms across the nations and regions with an average of 28 texts and just over 20 calls from a mobile phone every week in the UK.

Northern Ireland recorded the highest number of texts relative to calls at 37.5 per week per handset. This may have been a factor of lower average household income related to the cost of calls against texts and costs of inadvertent mobile roaming[5]. Conversely, London recorded the highest number of calls, at 27.6 and was the only region where calls outnumbered texts.

[5] Where calls are transferred to one of the networks used in the Republic of Ireland

Figure 74: Mean number of calls and texts per week

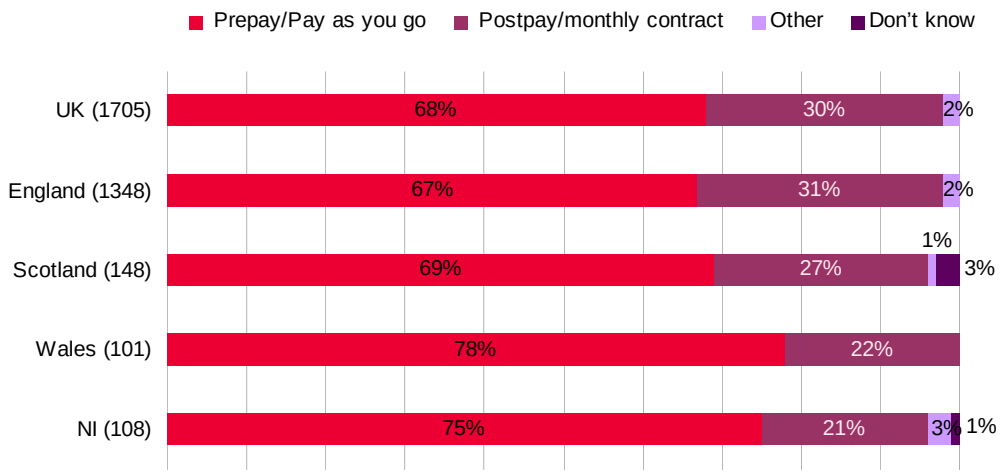


Source: Media Literacy Audit, Ofcom-SRB, June-August, 2005

Use of mobile phone payment packages

Figure 75 shows average use of prepay and pay-as-you-go packages compared to contract packages where the operator includes fixed amounts of paid-for minutes. On average 68% of UK mobile phone customers used a pre-pay mobile phone package compared to 30% who said they opted for a contact package. Mobile phone customers in Wales were more likely to opt for a prepay mobile phone package (78%), than mobile customers in other parts of the UK (68% UK average).

Figure 75: Use of mobile phone packages: prepay compared with contract



Source: Ofcom Communications Tracking study 2005, base sizes illustrated in figure above

Figure 76 and Figure 77 show satisfaction with mobile phone services and with value for money. Overall satisfaction with mobile phone services was relatively high across the nations and regions at 92% overall. Although a similar picture to telephone landlines, the satisfaction with value for money was slightly lower, at 80%.

Mobile phone customers living in London were significantly less satisfied overall (87%), in particular with value for money (70%). This lower satisfaction may be a result of the higher spend indicated in this region compared to average.

Figure 76: Overall satisfaction with mobile phone service

Source: Ofcom Residential Communications Tracking Study, Q2 2005

Figure 77: Satisfaction with value for money of mobile phone service

Source: Ofcom Residential Communications Tracking Study, Q2 2005

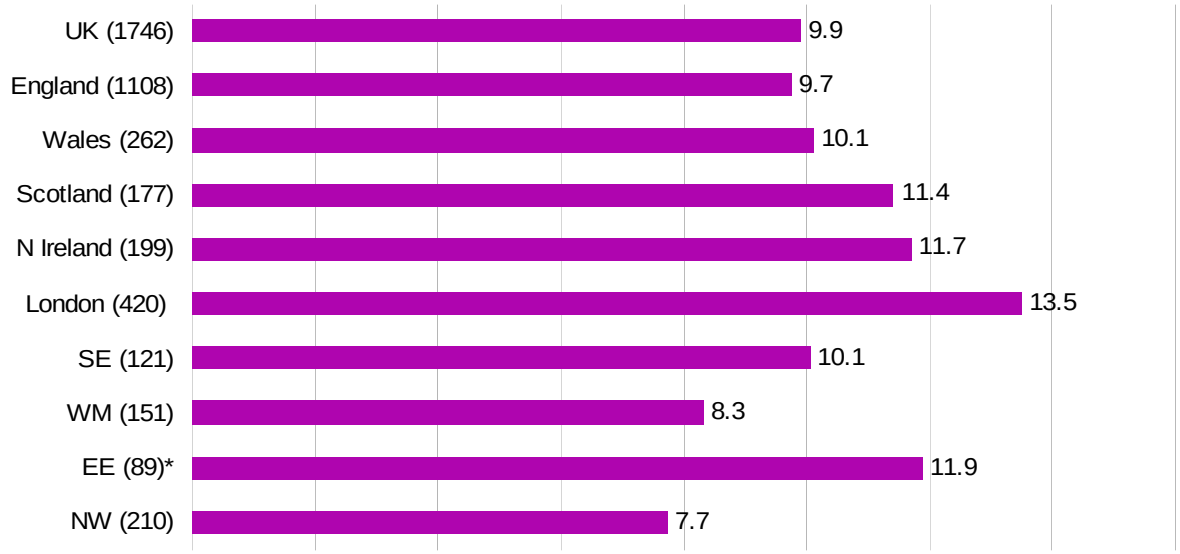
7.5 Consumption of internet

7.5.1 Internet use

On average UK internet customers said they spent £18 per month on internet services. There were no significant differences in spending levels between the nations or English regions. Consumers with broadband internet said that they spent on average more than those using a narrowband package; £21 versus £12.

Figure 78 shows the number of weekly hours spent using the internet. Internet users across the UK said they spent an average of 9.9 hours a week on the internet with London recording the highest number of internet hours of use per week (13.9)[6]. Internet customers in Scotland, Wales and Northern Ireland reported levels of use consistent with the UK average. People in the North West and West Midlands spent the lowest amount of time on the internet, at 7.7 hours and 8.3 hours respectively, but this was not different in statistical terms from the UK average.

Figure 78: Weekly hours of use of the internet



*Source: Media Literacy Audit, Ofcom-SRB, June - August 2005***.** *Note: Results for the other regions are not shown due to the small base sizes *Base size small so treat as indicative only. Base: adults aged 16+ who use the internet*

Overall satisfaction with internet service

Figures 79 and 80 show satisfaction with internet services and with value for money. Overall satisfaction with internet services was relatively high across the nations and regions. Consumers across the UK were equally as satisfied as each other with their internet services both overall and with the value for money. Across the UK, 89% were satisfied with their internet service and, consistent with trends in other markets, slightly fewer (81%) were satisfied with their internet service for value for money.

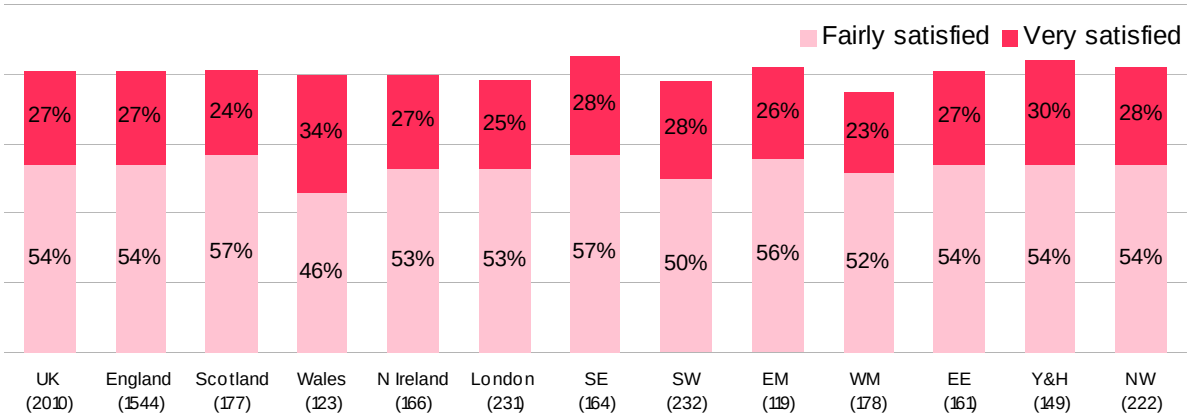
There were no significant differences in satisfaction levels across the UK compared to average. However, there were indications that internet customers in the West Midlands were less satisfied (75%) with the value for money compared to the average (81.1%).

[6] This data is from Ofcom's Media Literacy Audit survey, conducted June-August 2005

Figure 79: Satisfaction with home internet service

Source: Ofcom Communications Tracking Study, Q2/Q3 2005 rolled data

Figure 80: Satisfaction with value for money of internet service



Source: Ofcom Communications Tracking Study, Q1/Q3 2005 rolled data

7.6 Consumption of digital broadcasting services

7.6.1 Digital TV

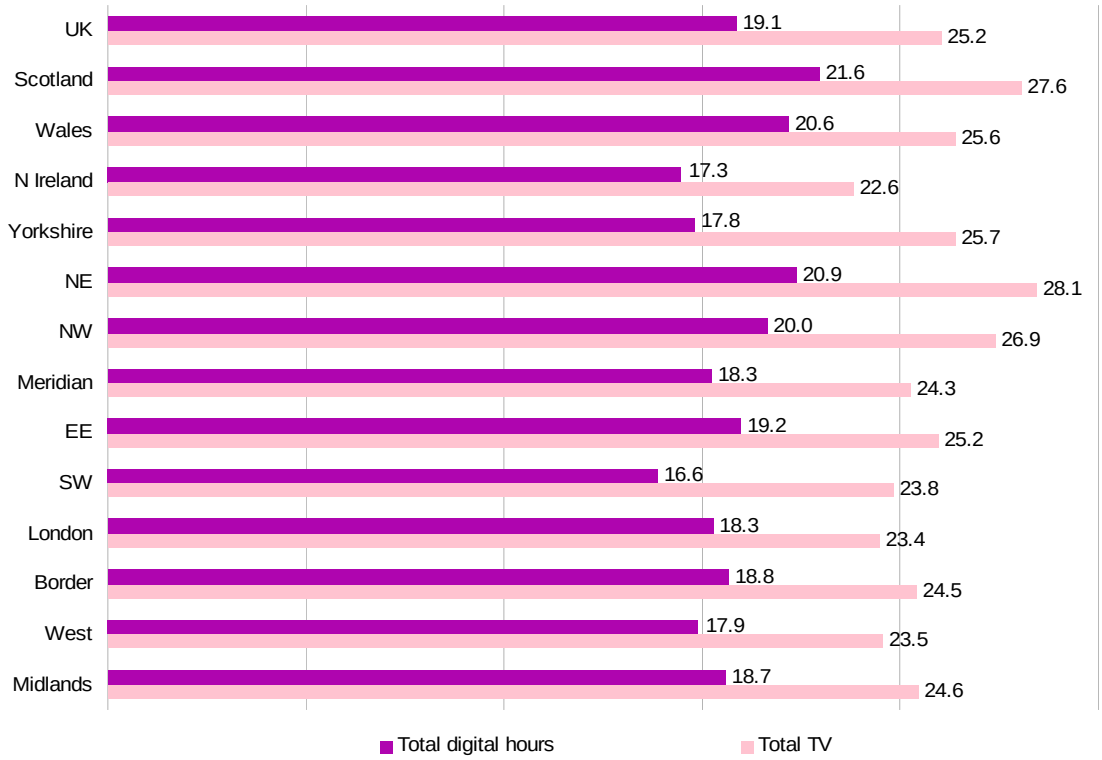
Hours spent watching TV

Figure 81 shows average weekly hours of viewing TV by ITV region. Across the UK, people with digital TV watched a total of 25.2 hours of television (both analogue and digital) on average each week. Television consumption was higher in the northern parts of the UK. People in the North East and Scotland consumed more TV than the rest of the UK nations and regions at 28.1 hours and 27.6 hours per week respectively. Viewing in the North West and Yorkshire and the Humber was also significantly higher. People in Northern Ireland (22.6), London (23.4) and the West (23.5) had the lowest consumption levels. Border, the South West, Meridian and Midlands were also significantly lower than average.

Across the UK, people with digital TV watched 19.1 hours of digital TV only on average per week in 2005. Television consumption was higher in the northern parts of the UK. People in Scotland consumed more digital TV than the rest of the UK nations and regions at 21.6 hours per week, followed by the North East (20.9), Wales (20.6) and the North West (20). People in the South West and Northern Ireland had the lowest consumption levels at 16.6 hours and 17.3 hours respectively. People in Yorkshire, Meridian, London, West and Midlands also watched significantly less digital TV per week than UK average.

Note that figures in this section refer to the following areas: Wales - HTV Wales; Scotland - Grampian and STV regions; Northern Ireland – the UTV area.

Figure 81: Average weekly hours of viewing TV by ITV region

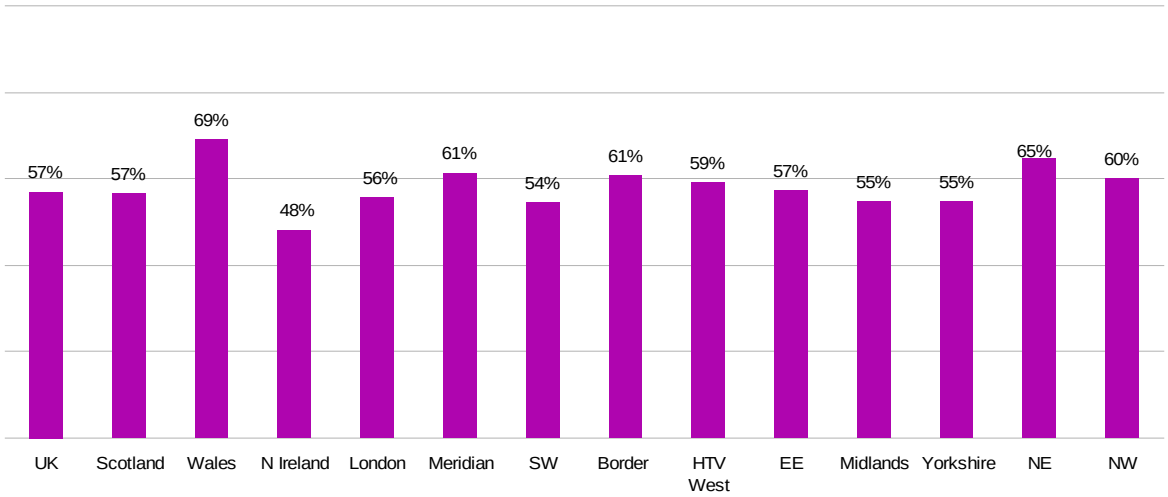


Source: BARB, 2005. All digital individuals (4+) in multichannel homes by region and across multichannel network

Figure 82 shows the proportion of individuals over the age of 4 who tuned into digital TV services for at least 15 consecutive minutes a week.

Across the UK, 15 minute reach to digital TV was 57%. Wales experienced the highest reach for digital TV of any of the ITV regions at 69%. The North East (65%) and Meridian (61%) were both significantly higher than UK average. In contrast, Northern Ireland experienced the lowest reach with a level of 48% which was also significantly lower than UK average. The rest of the regions showed little variation around the UK average.

Figure 82: Average weekly reach to total TV via any digital signal by ITV region (15 minute consecutive)

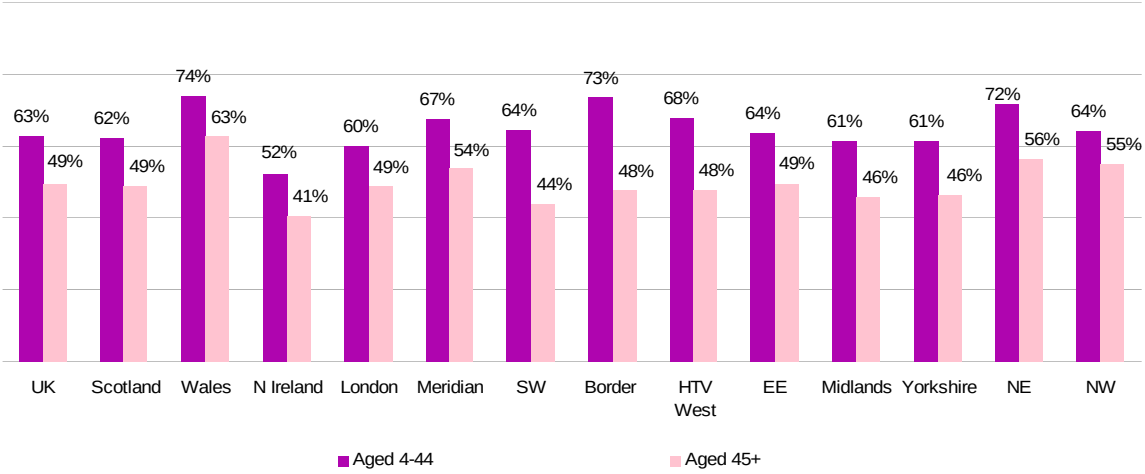


Source: BARB, 2005. Figure shows 15 minute consecutive average weekly reach via any digital signal to total TV. All individuals (4+)

Figure 83 shows 15 minute weekly reach to digital TV broken down by older (aged 45+) and younger (aged 4-44) viewers. Reach to digital TV showed a marked split with age. The younger age group had significantly higher reach than the older one. This pattern was repeated across every region to varying degrees, with the largest difference occurring in the Border region where the gap between the reach for younger and older groups was 25 percentage points.

In the 4-44 age group, London at 60% and N Ireland at 52% had significantly lower weekly reach to digital TV when compared to the UK average of 63% for that age group. In contrast, the North East, Meridian (67%), Border (73%) and Wales (74%) had significantly higher reach when compared to the UK average for that age group. In the 45+ age group, Northern Ireland was the only region with significantly lower than UK average weekly reach to digital TV at 41%. In contrast, the North West (55%), North East (56%), Meridian (54%) and Wales (63%) all had significantly viewing reach than the UK of 49%.

Figure 83: Average weekly reach to total TV via any digital signal by age by ITV region (15 minute consecutive)

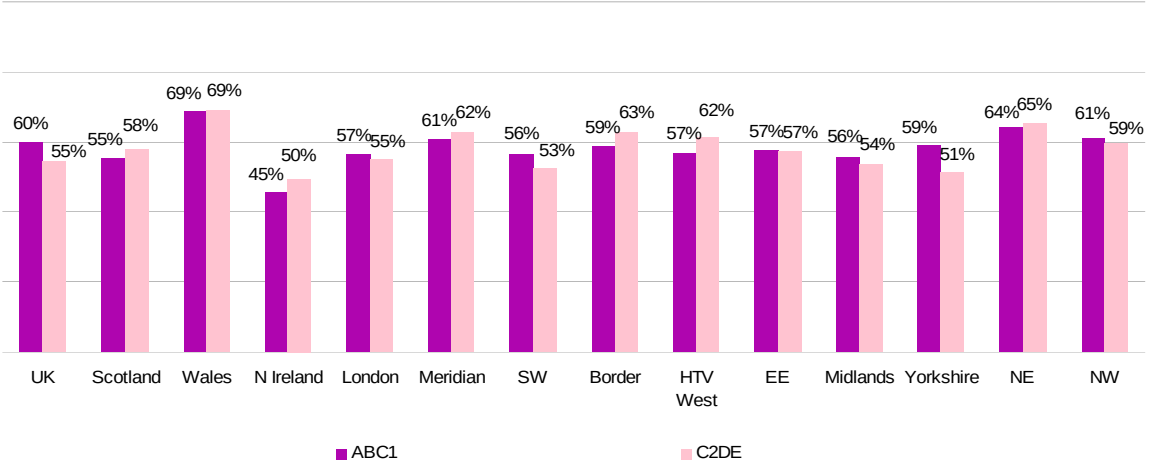


Source: BARB, 2005. Figure shows 15 minute consecutive average weekly reach via any digital signal to total TV. All individuals (4+)

Figure 84 shows 15 minute reach to digital TV broken down by socio-economic group. In contrast to age, socio-economic group had essentially no impact on reach to digital TV. Across the regions, the maximum difference due to socio-economic group was eight percentage points, in Yorkshire.

In the ABC1 socio-economic group, 60% of all ABC1s watched at least 15 minutes consecutive TV via any digital signal. London (57%), Scotland (55%) and Northern Ireland (45%) all had significantly lower than UK average weekly reach (60%). Wales had significantly higher reach at 68.6%. In the C2DE socio-economic group, the North West (59%), North East (65%), Meridian (62%), Wales (69%) and the West (62%) all had significantly higher than UK average weekly reach, 55%. Northern Ireland was the only region with significantly lower reach amongst C2DEs, at 50%.

Figure 84: Average weekly reach to total TV via any digital signal by socio-economic group by ITV region (15 minute consecutive)



Source: BARB, 2005. Figure shows 15 minute consecutive average weekly reach via any digital signal to total TV. All individuals (4+)

The table below shows the ten most popular programmes (attracting the largest audiences) across the UK throughout 2005.

Top 10 rated programmes in 2005 by ITV region

UK Overall	Scotland
1. Coronation Street (ITV1) 2. Eastenders (BBC1) 3. I'm A Celebrity - Get Me Out Of Here! (ITV1) 4. The Vicar Of Dibley (BBC1) 5. Emmerdale (ITV1) 6. Comic Relief: Red Nose Night Live 05 (BBC1) 7. Doctor Who (BBC1) 8. Strictly Come Dancing (BBC1) 9. A Touch of Frost 10. Little Britain	1. Eastenders (BBC1) 2. Coronation Street (ITV1) 3. Chewin' the Fat (BBC1) 4. Emmerdale (ITV1) 5. I'm a celebrity – get me out of here (ITV1) 6. The X factor results (ITV1) 7. Still Game (BBC2) 8. Hogmanay Live (BBC1) 9. Only an Excuse? (BBC1) 10. Comic Relief: Red Nose Night Live 05 (BBC1)
Wales	**Northern Ireland**
1. Eastenders (BBC1) 2. Rugby Six Nations (BBC1) 3. Coronation Street (ITV1) 4. I'm A Celebrity - Get Me Out Of Here! (ITV1) 5. Rugby Build-Up (BBC1) 6. Wales On Saturday (BBC1) 7. Rugby Union (BBC1) 8.Emmerdale (ITV1) 9. A Touch of Frost (ITV1) 10.Little Britain (BBC1	1. Coronation Street (ITV1) 2. Emmerdale (ITV1) 3. Eastenders (BBC1) 4. I'm A Celebrity - Get Me Out Of Here! (ITV1) 5. The X Factor (ITV1) 6. The X Factor Results (ITV1) 7. Match Of The Day (BBC1) 8. Heartbeat (ITV1) 9. Uefa Champions League Live (ITV1) 10. Comic Relief Does Fame Academy (BBC1)
London	**HTV West**
1. Eastenders (BBC1) 2. Doctor Who (BBC1) 3. I'm A Celebrity - Get Me Out Of Here! (ITV1) 4. Little Britain (BBC1) 5. Coronation Street (ITV1) 6. Strictly Come Dancing (BBC1) 7. Diamond Geezer (ITV1) 8. Uefa Champions League Live (ITV1) 9. Match Of The Day Live (BBC1) 10.Comic Relief: Red Nose Night Live 05 (BBC1)	1. Eastenders (BBC1) 2. The Vicar Of Dibley (BBC1) 3. Coronation Street (ITV1) 4. Dalziel And Pascoe (BBC1) 5. Holby City (BBC1) 6. Doctor Who (BBC1) 7. Midsomer Murders (ITV1) 8. Comic Relief: Red Nose Night Live 05 (BBC1) 9. Emmerdale (ITV1) 10. The Royal (ITV1)
Border	**South West**
1. Coronation Street (ITV1) 2. Emmerdale (ITV1) 3. I'm A Celebrity - Get Me Out Of Here (ITV1)! 4. Heartbeat (ITV1) 5. The X Factor (ITV1) 6. The X Factor Results (ITV1) 7. Who Wants To Be A Millionaire? (ITV1) 8. Ahead Of The Class (ITV1) 9. ITV News 10. Ant and Dec's Saturday Night Takeaway (ITV1)	1. Eastenders (BBC1) 2. Strictly Come Dancing (BBC1) 3. Coronation Street (ITV1) 4. Doc Martin (ITV1) 5. Strictly Come Dancing Christmas Special (BBC1) 6. Match Of The Day Live (BBC1) 7. Waking The Dead (BBC1) 8. Ten O'clock News (BBC1) 9. Spotlight (BBC1) 10. Bleak House (BBC1)
East Of England	**Meridian**
1. Eastenders (BBC1) 2. Strictly Come Dancing (BBC1) 3. Coronation Street (ITV1) 4. Doctor Who (BBC1) 5. Comic Relief: Red Nose Night Live 05 (BBC1) 6. I'm A Celebrity - Get Me Out Of Here! (ITV1) 7. Little Britain (BBC1) 8. The Vicar Of Dibley (BBC1) 9. The Green Green Grass (BBC1) 10. Waking the Dead (BBC1)	1. Eastenders (BBC1) 2. The Vicar Of Dibley (BBC1) 3. Comic Relief: Red Nose Night Live 05 (BBC1) 4. Coronation Street (ITV1) 5. Strictly Come Dancing (BBC1) 6. The Green Green Grass (BBC1) 7. Doctor Who (BBC1) 8. I'm A Celebrity - Get Me Out Of Here! (ITV1) 9. The X Factor (ITV1) 10. A Touch of Frost (ITV1)

Yorkshire	North East
1. Coronation Street (ITV1) 2. Emmerdale (ITV1) 3. Eastenders (BBC1) 4. Heartbeat (ITV1) 5. I'm A Celebrity - Get Me Out Of Here! (ITV1) 6. Doc Martin (ITV1) 7. The X Factor (ITV1) 8. The X Factor Results (ITV1) 9. Midsomer Murders (ITV1) 10. The Royal (ITV1)	1. Coronation Street (ITV1) 2. Eastenders (BBC1) 3. Emmerdale (ITV1) 4. Heartbeat (ITV1) 5. I'm A Celebrity - Get Me Out Of Here! (ITV1) 6. Ant & Dec's Saturday Night Takeaway (ITV1) 7. The X Factor Results (ITV1) 8. Holby City (BBC1) 9. Casualty @ Holby City (BBC1) 10. The Royal (ITV1)
North West	**Midlands**
1. Coronation Street (ITV1) 2. I'm A Celebrity - Get Me Out Of Here! (ITV1) 3. Eastenders (BBC1) 4. The X Factor (ITV1) 5. Emmerdale (ITV1) 6. Uefa Champions League Live (ITV1) 7. The X Factor Results (ITV1) 8. The Vicar Of Dibley (BBC1) 9. The Royal Variety Performance (ITV1) 10. A Touch Of Frost (ITV1)	1. Coronation Street (ITV1) 2. Eastenders (BBC1) 3. The Vicar Of Dibley (BBC1) 4. Emmerdale (ITV1) 5. I'm A Celebrity - Get Me Out Of Here! (ITV1) 6. Comic Relief: Red Nose Night Live 05 (BBC1) 7. Strictly Come Dancing (BBC1) 8. Doctor Who (BBC1) 9. Heartbeat (ITV1_ 10. A Touch of Frost (ITV1)

Source : BARB, 2005. Programmes analysed on highest occurrence only, ranked by audience numbers, programmes under 10 minutes in duration were excluded

Six of the top ten highest rated programmes according to BARB audience analysis were shown on BBC1. Programmes from ITV1 were more likely to be in the top 10 in the north of England and Northern Ireland. Analysis of the different types of programmes consumed shows significant variations across the UK.

There was also some evidence of programmes with a local flavour attracting larger audiences in certain parts of the UK, such as Midsomer Murders in the HTV West region, Doc Martin in the South West, Heartbeat in Yorkshire and Hogmanay Live in Scotland.

People living in the north of England and Northern Ireland were also more likely to watch Coronation Street than Eastenders. In Wales, four of the top 10 programmes were for sport, whereas across the UK no sport programmes featured in the top 10.

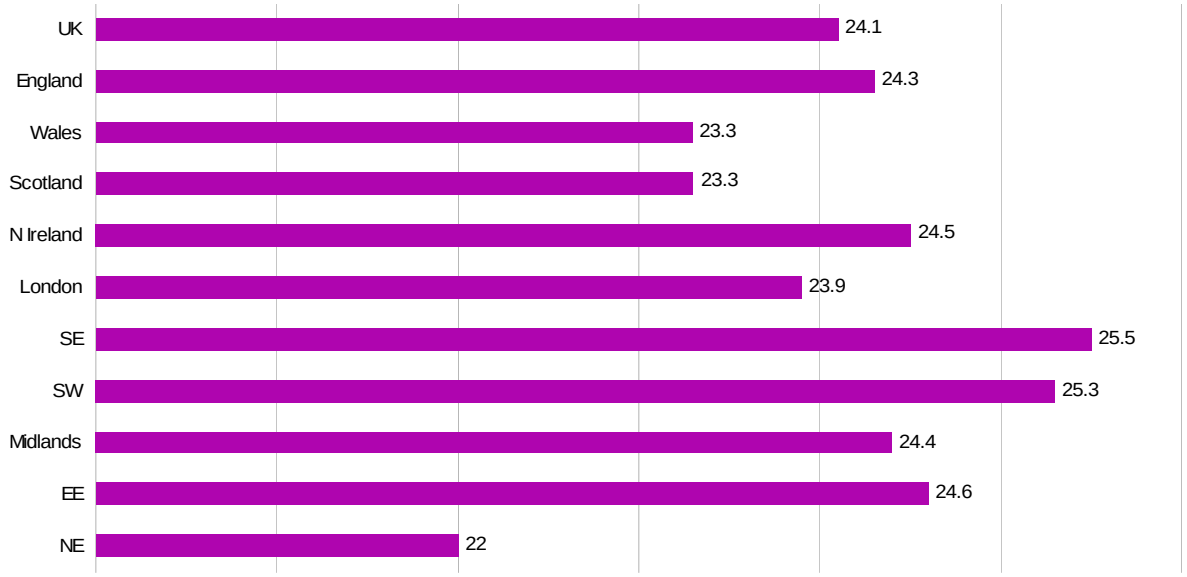
7.6.2 Digital Radio

Hours spent listening to radio

Figure 85 shows the amount of time spent listening to radio every week. Figures are not available for digital radio only. The average time spent by adults listening to all forms of radio across the UK was 24.1 hours per week. Northern Ireland had the highest listening of the nations at 24.5 hours per week, while both Scotland and Wales had below average listening of 23.3 hours per week. With weekly listening of 22 hours the North East had the lowest average listening of any of the English regions, with the South and South East having the highest listening at 25.5 hours.

Although it did not split the data out by nation and region, a recent survey carried out by RAJAR suggests that average listening to radio using the DAB digital radio platform was 13 hours per week, higher than both digital TV (5.6 hours) and the internet (5.7 hours). Respondents were asked to complete a listening diary.

Figure 85: Time listening to radio each week (all radio)

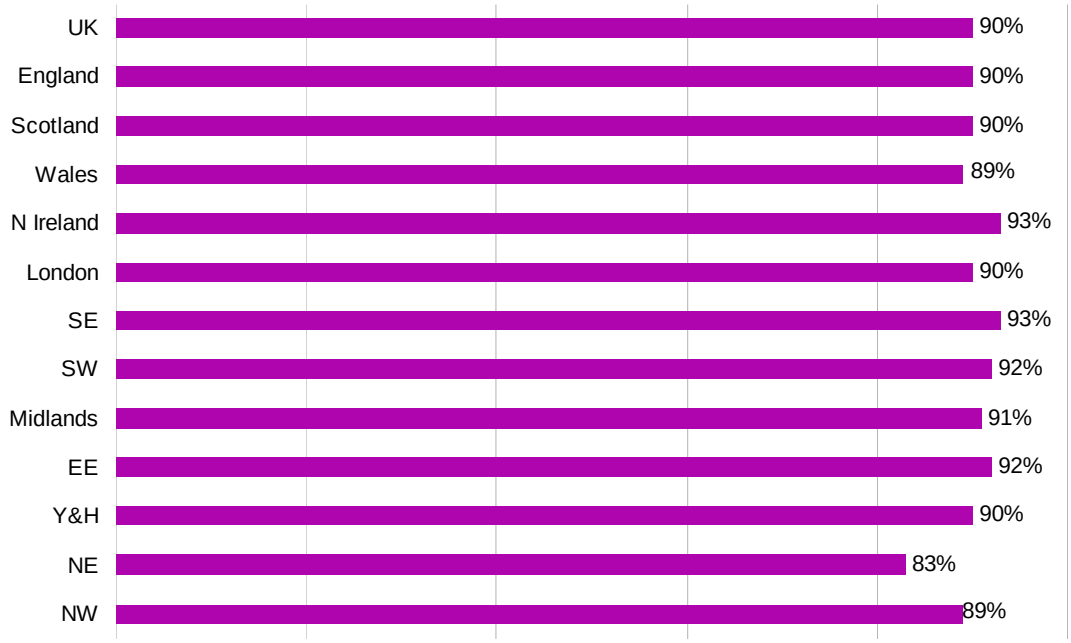


Source: RAJAR Q3 2005, time spent by all adults (15+) in hours. Based around the RAJAR regions. Note: Figures only available for total radio listening, not available for digital only. Results for other regions are not shown due to the small base sizes

Figure 86 shows the radio reach of the number of individuals aged 15+ who tune into a radio station for at least a 5 minute period over the course of a week.

Across the UK, 90% of adults tuned into a radio station for at least 5 minutes over the course of a week. This was significantly higher in the South East (93%), South West (92%), East of England (92%), Midlands (91%) and Northern Ireland (93%). The North East (83%) and the North West and Wales (at 89% each) had significantly lower reach.

Figure 86: Average weekly reach to total radio (5 minute consecutive)



Source: RAJAR Q3 2005, radio reach of all adults (15+). Based around the RAJAR regions. Note: Figures only available for total radio, not available for digital only. Results for other regions are not shown due to the small base sizes

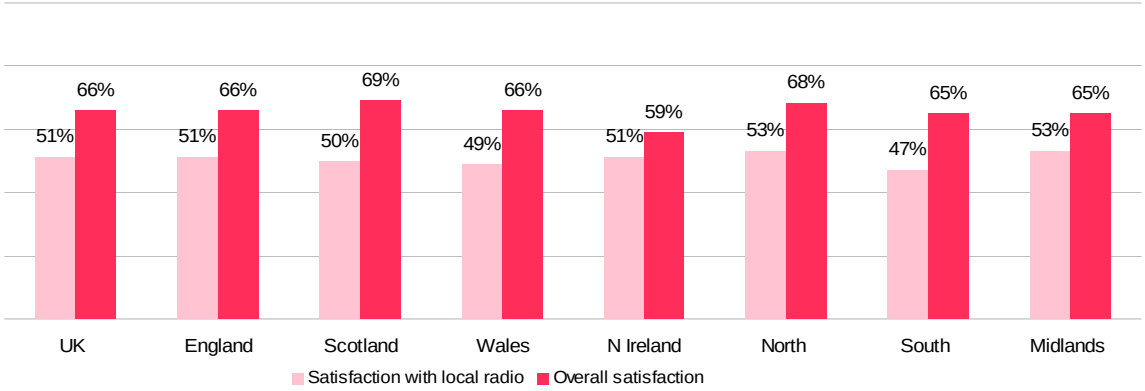
Satisfaction with radio

Figure 87 shows the proportion of adults satisfied with their radio service and with local radio. Overall, the majority of listeners surveyed were satisfied with what they listened to on the radio. Fewer than 2% of the respondents in any of the nations or regions said that they were actually dissatisfied with the radio that they listened to, with the balance neutral or satisfied.

Northern Ireland listeners showed the greatest variance from the UK average with only 59% satisfied with their radio listening and 39% being neutral (the highest of any of the nations and regions).

Satisfaction for local radio was lower than with radio generally. However, even here, fewer than 3% of respondents in any of the nations or regions said that they were dissatisfied with what they heard on local radio.

Figure 87: Percentage of adults satisfied with overall service and local radio content



Source: MORI, July-August 2004. Note: A score of 8-10 by respondents was taken to mean satisfied. Note: Figures only available for total radio satisfaction, not available for digital only. Results for other regions are not shown due to the small base sizes

Section 8

Small and Medium-sized Enterprises

8.1 Introduction

This section sets out research relating to take-up and consumption of mobile phone and internet services by SMEs in the nations and regions.

Research undertaken in this survey shows that there is relatively little information available about SMEs (either Ofcom data or third party research) at a level that allows full comparison across the nations and regions. Studies have been generally designed to produce findings representative of the UK as a whole, rather than broken down by nations and regions. Comparison of data across different sources is also difficult, due to the different definitions of SMEs used by the research.

To enable comparison across nation and region, this report draws 2005 data from Ofcom's SME Tracking Study for the nations and regions. We have supplemented this research with a summary of other useful sources of SME information available in the UK.

Ofcom will be undertaking further research to understand SMEs and their behaviour, needs and attitudes towards communications. A research project 'The Digital Small and Medium-Sized Enterprise' (The Digital SME) will be published later in 2006 and will involve both qualitative and quantitative research. A major outcome of this piece of work will be a refinement in the current SME Tracking Study to ensure that important issues for SMEs are understood and monitored at both a UK level and within the nations and regions.

The 2004-5 Ofcom Annual Report outlines Ofcom's commitment to ensure that our policy development and regulatory actions are informed by the views of all those with an interest in the outcome, including engagement with SMEs.

8.2 Key findings

- According to Ofcom research, the majority of businesses in the UK had, or were in the process of gaining, access to the internet (79%). This was broadly consistent across the nations and regions but significantly lower than the UK average in the North West (69%).

- Research shows that similar proportions of SMEs owned or rented mobile phones across the nations (51% UK average). This was significantly lower than the UK average in the East of England (34%).

8.3 Definitions and methodology

Primary data used in this section is taken from the Ofcom SME Tracking study. Ofcom's SME Tracking Study interviews SMEs continually throughout the year. Due to the breadth of questions asked, questions are rotated on a quarterly basis. In 2005, 147 interviews were achieved in Northern Ireland, 298 in Scotland,149 in Wales and 2117 in England. Within the English regions base sizes of between 95 and 476 were achieved. The rotation of questions throughout the year means that even with data aggregated over the whole year, analysis by nation and region is not possible for the majority of questions.

Data has not been used in this report where base sizes have been too small. Caution should still be used when interpreting the results, as the SME Tracking Study was not initially designed to give a robust representation of the spread of businesses within the nations and regions.

For full information on the methodology used in this section, refer to Annex 3.

The Department for Trade and Industry (DTI) adheres to the Companies Act 1985 definition which states that a company is small if it satisfies at least two of the following criteria: turnover of not more than £5.6million; a balance sheet total of not more than £2.8million; and not more than 50 employees. A medium sized company must satisfy at least two of the following criteria: a turnover of not more than £22.8million; a balance sheet of not more than £11.4million; and not more than 250 employees.

For the research purposes, the SME Tracking Study defines SMEs as businesses employing between 1 and 250 people and having a turnover in excess of £50k. Ofcom is aware that other research studies investigate slightly different groups of businesses and SMEs.

The Ofcom Consumer Panel also carried out research on SMEs in 2004 that focused on the smaller businesses from sole traders to those with ten employees (essentially micro businesses) at a UK level.[7]

8.4 Setting the scene – SMEs in the UK

There are two key sources for information about types and location of SMEs across the UK. The DTI's Small Business Service (SBS) statistics estimate figures for all businesses (defined according to number of employees, not turnover) in the UK, regardless of the number of employees and including businesses that are not VAT registered. The Office of National Statistics also publishes information on the number of businesses in the UK but focusing on VAT registered businesses only.

According to the SBS, there were an estimated 4.3 million business enterprises in the UK at the start of 2004 (regardless of the number of employees, and including businesses that are not VAT registered). In 2004, 99.3% of these 4.3 million were small businesses, whilst 0.6% were medium sized and 0.1% were large businesses (definitions are based on number of employees and do not take into account turnover). SMEs accounted for 59% of the people employed by all enterprises and account for just over half (51%) of turnover in the UK. In particular, small enterprises accounted for 47% of employment and 37% of turnover in the UK.

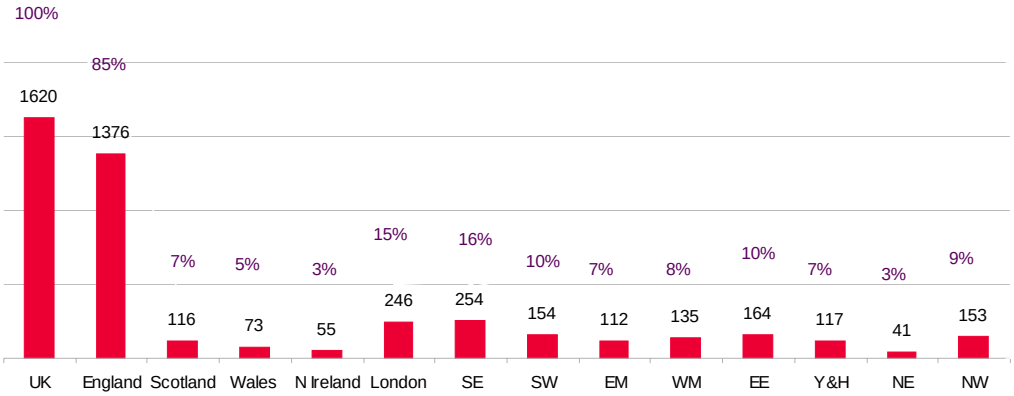
SBS information for 2004 is available for the regions in the UK, however at the start of 2003 the SBS found that 33% of all UK enterprises were in London and the South East. For each region and country in the UK, no more than 0.2% of enterprises were large, and at least 98.9 % were small. The proportions of enterprises that were medium-sized range from 0.5% (in the South East and South West) to 0.9% (in the North-East).

The Office for National Statistics also produces information on the number of VAT registered businesses in the UK. Again, figures are based on the number of employees only and do not take into account turnover. ONS figures for 2005 shown in Figure 88 indicate there were 1.6 million VAT-registered businesses with up to 250 employees in the UK. There were a further 7,695 large businesses with more employees.

[7] See http://www.ofcomconsumerpanel.org.uk/publications/consumer_panel_report.pdf

2005 data on the number of businesses in the regions is made available by ONS and is shown below. This indicates that of all VAT-registered small and medium sized businesses in the UK, 85% were based (or have their head office) in England, 7% were in Scotland, 5% were in Wales and 3% were based in Northern Ireland. The South East and London were home to 31% of these businesses and the North East had the lowest proportion of SMEs.

Figure 88: SME numbers 2005 (000s of businesses)



Source: Office of National Statistics, 2005 (National Statistics website: www.statistics.gov.uk Crown copyright material is reproduced with the permission of the Controller of HMSO)

8.5 SME take-up of mobile phones

Figure 89 shows that the proportions of SMEs that owned or rented mobile phones were similar across the nations and regions. 51% of SMEs across the UK claimed to own or tent a mobile phone. This was higher in Northern Ireland (51%), but lower in Scotland and Wales (47%) The East of England was the only area that differed significantly from UK average, with significantly lower take-up of mobile phones in comparison to the UK average.

Figure 89: Take-up of mobile phones for SMEs

Source: Ofcom SME Tracking Study, 2005

Across the UK, spend on mobile phones was approximately £239 per week by SMEs in England, £134 in Scotland, £185 in Northern Ireland and £162 in Wales. UK average spend

was £220. Despite the size of monthly spend differences between the nations, these are not statistically significant (likely related to the small base sizes and range of monthly spend reported within the nations).

8.6 SME take-up of internet services

8.6.1 Total internet services

Data from Ofcom's tracking study in 2005 indicates that the majority of businesses in the UK already had or were in the process of gaining access to the internet.

Figure 90 shows that 79% of SMEs across the UK had taken up, or were in the process of taking up the internet. Take-up was significantly lower than UK average in the North West (69%).

Figure 90: Internet take-up for SMEs

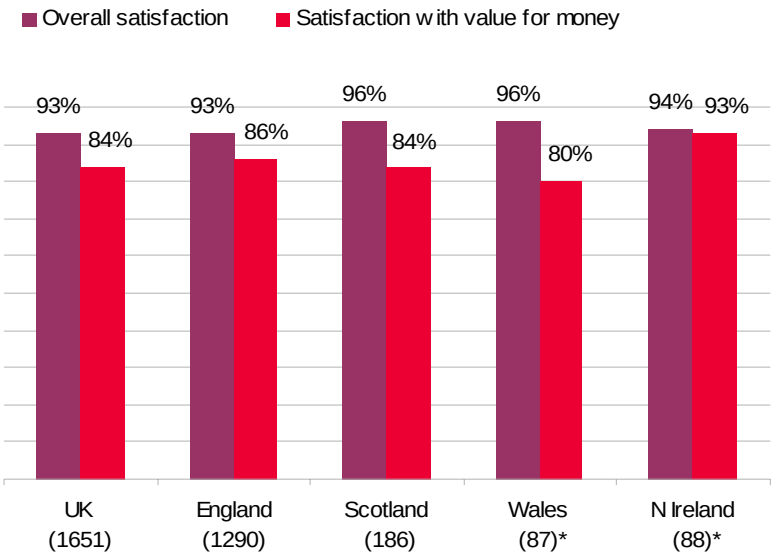
Source: Ofcom SME Tracking Study, 2005

Figure 91 shows satisfaction with internet services amongst SMEs. 93% of SMEs across the UK were either 'fairly' or 'very' satisfied. However, of these, 46% of SMEs in England were 'very satisfied' with the quality of service overall, with 51% in Wales and 52% of those in Scotland claiming this. SMEs in Northern Ireland were significantly more positive, with 75% saying they were 'very satisfied' in comparison to 49% for the UK overall.

Across the UK 84% of SMEs claimed to be 'fairly' or 'very' satisfied with value for money of internet services. Northern Ireland had the highest number of respondents satisfied at 93%, although this was not significantly different to the UK average and there were no significant differences between the nations and the UK average.

Around four in ten SMEs in England and Scotland said they were 'very satisfied' with the value for money of their internet services (38% and 39% respectively) and five in ten (52%) in Wales said this. SMEs in Northern Ireland gave the most positive feedback on their internet experiences with 58% saying they were 'very' satisfied with value for money. This is significantly higher than the UK average of 39%.

Figure 91: Overall SME satisfaction with internet services



*Source: Ofcom SME Tracking Study, 2005 *Base sizes small so care to treat as indicative only*

8.6.2 SME take-up of broadband

Figure 92 shows that similar levels of broadband use were reported in England (70%), Scotland (66%) and Northern Ireland (69%). However, broadband take-up by SMEs in Wales was significantly lower at 42%.

There were no significant differences from UK average across SME use of broadband in the English regions. Base size for East England and the North East were too small to report on.

Figure 92: Broadband use among internet-using SMEs

*Source: Ofcom SME Tracking Study, 2005. * East England and the North East too small to report on. **Wales and Northern Ireland base sizes small so treat as indicative only*

8.7 Third party reports on SMEs

The table outlines a selection of reports by key business organisations on key themes identified in the audit.

	Report	Date	Overview	Website
CBI	E-value matters apparently	2005	How companies use e-business to achieve financial benefits and competitive advantages, considering the benefits of e-enabled workers to organisations.	www.cbi.org.uk
Ofcom Panel	Consumers and the Communications Market: Where	2004	Landline, mobile and internet access by small businesses. SME knowledge gap with	www.ofcom.org.uk

	are we Now?		technology developments Satisfaction with services Smaller businesses price plans Broadband access	
Scottish Enterprise	Scottish e-Business Survey	2005	Aimed to provide an accurate picture of adoption levels and likely future trends in e-business usage	www.scottish-enterprise.com
DTI Small Business Service	Transaction Framework Market Research Final Report, Databuild (on behalf of SBS)	2005	Levels of business use of the businesslink.gov.uk website. Internet security and attitudes towards the internet	www.sbs.gov.uk
Federation of Small Businesses	Lifting the Barriers to Growth in UK Small Businesses	2004	Variation in connection to the internet across industries and regions Uses of the internet and perceived benefits of its use Barriers to engagement in e-commerce	www.fsb.org.uk
Federation of Small Businesses	Entrepreneurial Countryside	2004	Rural broadband access and training opportunities for small businesses in rural areas	www.fsb.org.uk
Cardiff University	e-Commerce in Welsh SMEs	2004	Changes in internet access and use Use of the internet for buying, selling, communications and	www.cardiff.ac.uk

			information Perceived impact of e-commerce on SMEs	
Small Business Research Trust	SBRT Quarterly Survey of Small Business in the UK	2004	Levels of internet connection and regional variation Levels of engagement with e-business and e-commerce Barriers to internet activity and use Sales benefits from e-commerce	www.sbrt.co.uk
DTI	Business in the Information Age	2003	Identification of a core group of 'non-adopters' of ICT in businesses across countries 'Digital divide' between smaller and larger businesses	www.dti.gov.gsi.uk
BCC	Business Broadband report	2003	Increase in broadband use, barriers to take-up, perceived importance of broadband in the success of business and experience and satisfaction of use Perceived importance of broadband availability in choosing a business location Pressure from customers and suppliers to use broadband enabled applications Use of LANs and WANs, intranets, extranets, EDIs	www.chamberonline.co.uk

			and Internet Protocol	
Federation of Small Businesses	Lifting the Barriers to Growth in UK Small Businesses	2006 biennial survey	Geographic reach of the internet Involvement in selling and buying on Barriers to e-commerce (relevance, cost, risk of fraud and access to expertise)	www.fsb.org.uk

Annex 1

DAB Digital Radio Services

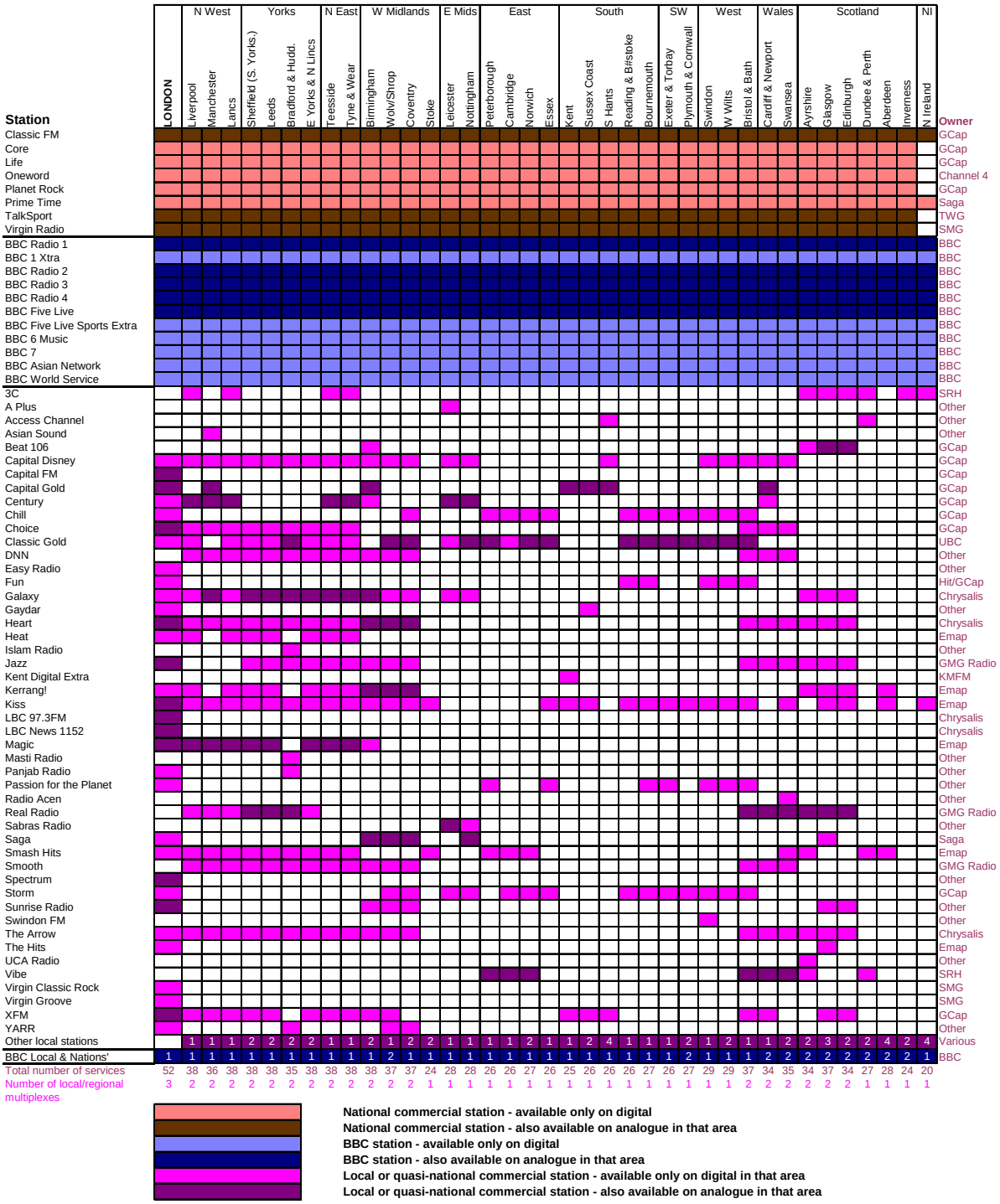
A1.1 Radio stations available via digital TV platforms

Source: Ofcom – April 2005 Note: Not all DAB digital radio stations are shown

Station	Sky	Freeview	NTL	Telewest	Also on DAB
BBC Radio 1	■	■	■	■	■
BBC 1 Xtra	■	■	■	■	■
BBC Radio 2	■	■	■	■	■
BBC Radio 3	■	■	■	■	■
BBC Radio 4	■	■	■	■	■
BBC Radio 4 LW	■			■	■
BBC Radio Five Live	■	■	■	■	■
BBC Five Live Sports Extra	■	■	■	■	■
BBC 6 Music	■	■	■	■	■
BBC 7	■	■	■	■	■
BBC Asian Network	■	■	■	■	■
BBC World Service	■	■	■	■	■
BBC World Service Extra	■				
BBC Radio Wales	■	*	■		*
BBC Radio Cymru	■	*	■		*
BBC Radio Ulster	■	*	■		*
BBC Radio Foyle		*			*
BBC Radio nan Gaidheal	■	*	■		*
BBC Radio Scotland	■	*	■		*
3C		■			
Akash Radio	■				
Amrit Bani	■				
Apple FM	■				
Asian Gold Radio	■				
Big Blue	■				
Calvary Radio	■				
Capital Disney	■		■	■	*
Capital FM	■		■	■	*
Capital Gold 1548	■		■	■	*
Century FM	■		■	■	*
Choice FM	■			■	*
Classic FM	■		■	■	
Classic Gold	■				*
Club Asia	■				*
Core	■		■	■	■
Cross Rhythms	■				
Desi Radio	■				
Deutsche Welle				■	
EWTN Global Catholic Radio	■				
Family Radio	■				
Galaxy 105	■		■	■	*
Gaydar Radio	■				*
Globecast	■				
Heart 106.2	■		■	■	*
Heat	■	■			*
Jazz FM	■	■	■	■	*
Kerrang!	■	■	■		*

	Sky	Freeview	NTL	Telewest	Also on DAB
Kismat Radio	■				
Kiss	■	■	■		*
LBC 97.3	■				*
Liberty Radio	■				
Magic	■	■	■		*
Mojo	■	■			
On Air	■				
Oneword	■	■	■		■
Panjab Radio	■				*
Planet Rock	■		■	■	■
Premier Radio	■	■	■		
Primetime Radio	■	■	■		■
Pulse Unsigned	■				
Pure Dance	■				
Q Radio	■	■	■		
Raaj Radio	■				
Radio London	■				
Real Radio	■				*
RTE 2FM	■				
RTE Lyric FM	■				
RTE Europe	■				
RTE Radio 1	■			■	
RTE Raidio na Gaeltachta	■				
Smash Hits	■	■	■		*
Smooth FM	■				
Solar Radio	■				
Spectrum 1	■				
Sukh Sagar Radio	■				
Sunrise Radio	■			■	*
TalkSport	■	■	■	■	■
The Arrow	■		■		*
The Hits	■	■	■		
The Mix	■		■		*
The Storm	■		■	■	*
TWR - Trans World Radio	■				
UCB Bible	■				
UCB Europe	■		■	■	
UCB Inspirational	■				
UCB Talk	■				
Virgin Radio	■			■	■
Virgin Classic Rock	■				
WRN Europe	■			■	
XFM	■		■	■	*
Yarr Radio	■				*
Relevant local stations				*	*
Stations available to all viewers	*88*	*24*	*41*	*32*	
* only available in certain areas					

A1.1.1 Availability of DAB digital radio services across each nation and region



Source: Ofcom
Note: Jazz FM has been rebranded "Smooth"

A1.1.2 Future licensing of DAB digital radio

Ofcom's consultation document, The Future Licensing of DAB Digital Radio, lists the following ten licence areas. The order of the licences given in this list is provisional and the availability of spectrum for any particular area is subject to international agreement at the Regional Radio Conference in May-June 2006 and the vacating of the spectrum by existing users.

Proposal for the first ten new local DAB multiplex licences

Licence area	*BBC station(s) to be carried*	*Est. pop. Coverage (000s)*
Hertfordshire, Bedfordshire & Buckinghamshire	BBC Three Counties Radio	1,082
Chester & Wrexham	BBC Radio Wales, BBC Radio Cymru (plus any new BBC Radio Cheshire)	668
Oxfordshire	BBC Radio Oxford	767
Herefordshire & Worcestershire	BBC Hereford & Worcester	642
Lincolnshire	BBC Radio Lincolnshire	639
Guildford	BBC Southern Counties Radio	536
Reigate & Crawley	BBC Southern Counties Radio	417
Derbyshire	BBC Radio Derby	400
Northamptonshire	BBC Radio Northampton	393
Suffolk	BBC Radio Suffolk	375

Source: Ofcom

This leaves a further 19 areas potentially to be advertised, as set out in the table below. In addition, there is the potential to add further multiplexes in Northern Ireland, either to cover the whole of Northern Ireland, or to split Northern Ireland into three areas, each with its own local multiplex. The availability of this spectrum depends upon discussions with the relevant authorities in the Republic of Ireland, and we will set out our plans for Northern Ireland in due course.

Proposal for the further new local DAB multiplex licences

Further licence areas	*BBC station(s) to be carried*	*Est. pop. coverage*
Heads of the South Wales Valleys	BBC Radio Wales and BBC Radio Cymru	350
York & Scarborough	BBC Radio York	349
Somerset	BBC Somerset Sound	332
Gloucestershire	BBC Radio Gloucester	324
North & West Cumbria	BBC Radio Cumbria	271
Pembrokeshire & Carmarthenshire	BBC Radio Wales and BBC Radio Cymru	267
Morecambe Bay	BBC Radio Cumbria and BBC Radio Lancashire	239
North Wales	BBC Radio Wales and BBC Radio Cymru	234
Warwickshire	BBC Coventry & Warwickshire	190
Harrogate and the Yorkshire Dales	BBC Radio York	177
West Dorset	(the proposed BBC Radio Dorset)	107
West Norfolk	BBC Radio Norfolk	96
North Devon	BBC Radio Devon	94
Dumfries & Galloway	BBC Radio Scotland and BBC Radio Nan Gaidheal	87
Scottish Borders	BBC Radio Scotland and BBC Radio Nan Gaidheal	82
Salisbury	BBC Wiltshire Sound	75
Ceredigion & Powys	BBC Radio Wales and BBC Radio Cymru	72
Orkney & Shetland	BBC Radio Scotland and BBC Radio nan Gaidheal	42
Western Scotland	BBC Radio Scotland and BBC Radio nan Gaidheal	40

Annex 2

Digital Switchover

A2.1 Regional digital switchover timetable

Source: Digital UK, September 2005 http://www.digitaluk.co.uk/site/when.html#

The switchover process is scheduled to begin in 2008, this will mean the switch off of the analogue signal on a regional basis in order to boost the replacement digital signal. Border will be the first region to start switchover in the second half of 2008, followed in 2009 by the West Country in the first half of the year and later Wales and Granada in the second half of the year. Prior to switchover, DTT coverage will remain limited to approximately 73% of the UK population. This provides lower coverage on digital by the Public Service Broadcasters (PSBs) than is the case with existing analogue transmissions. DTT coverage is limited by the necessity to transmit at reduced power in order to avoid interference with analogue transmissions. However, once switchover has taken place, the power of digital transmissions will be increased resulting in coverage equivalent to that of current analogue transmissions (around 98.5% of households) – indeed, this is one of the primary benefits of switchover.

Whilst DTT will, after switchover, provide access to the PSBs without subscription for the majority of the population, there will always be some who cannot receive an adequate signal. Some areas in the Highlands of Scotland for example will receive a limited DTT service due to the unique geography of the area. For these households, free to view satellite will be the main low cost option. Sky already provides a subscription-free service offering, a minidish and digital receiver box for £150, and the BBC and ITV announced plans in September 2005 to launch an unencrypted free to view satellite offering to compete with the Sky product.

Annex 3

Research methodologies

The source data for this project has primarily been drawn from the full range of Ofcom research to date.

Ofcom's Residential Communications Tracking Study conducted by MORI

This study is a continuous face to face survey, with monthly interviewing of a representative sample of around 700 UK adults aged 15+.

The residential tracker achieved a total sample of 4426 UK adults, 3379 adults in England, 407 adults in Scotland, 292 adults in Wales and 348 adults in Northern Ireland. As Northern Ireland only accounts for 3% of the UK a representative sample (i.e. 3% of the total sample is insufficient to allow individual analysis of this nation. Therefore, Ofcom's residential tracking study boosts the number of interviews in Northern Ireland to provide a sufficiently robust sample.

The study was conducted amongst a representative sample of UK adults aged 15+,reflecting the UK profile of sex, age, socio-economic group, region and employment status and representative of cabled/non cabled areas, rural/urban areas and levels of deprivation. Data reported at a UK level has been weighted to ensure the sample is representative of the UK adult population and data reported at a national level has been weighted to ensure it is nationally representative.

Data was collected between January and September 2005. The sample sizes have dictated the level of possible analysis. Where socio-economic group is assessed - this is a comparison between ABC1s and C2DEs - and where age is analysed, this is split between younger (15-44) and older (45+) consumers.

Statistics for this report are largely based on rolling data over 6 months, combining data from two quarters of 2005 fieldwork where identical questions were asked. Combining periods increases the sample size and allows data to be analysed and interpreted with greater confidence.

Ofcom's Media Literacy Audit conducted by saville rossiter-base

This study was a discrete face to face survey, interviewing a representative sample of 3244 UK adults aged 16+. It achieved a total sample of 1816 adults in England, 437 adults in Scotland, 495 adults in Wales and 496 adults in Northern Ireland.

Data was collected between June and August 2005. As with the residential tracking survey the data is weighted for each nation individually, according to age, gender, socio-economic group, working status and region.

Ofcom carried out a comparison of these two residential studies with various other sources of data, all of which are detailed below.

Small and Medium Enterprises (SME) Tracking Study conducted by Continental Research

This study is a continuous telephone survey, with monthly interviews of a representative sample of SMEs (enterprises with 1-250 employees and annual turnover in excess of £50k).

A total sample of 2117 SMEs has been used for analysis in England, 298 in Scotland, 149 in Wales and 147 in Northern Ireland. The latter three are relatively small and therefore caution should be taken when drawing conclusions from this data. Sample size has also limited analysis to take-up figures. However, Ofcom is currently performing a review of this research which will potentially include an increase in sample sizes.

As small businesses make up 97% of the UK SME market data for small businesses closely resembles SMEs as a whole. Medium businesses were over-sampled in the survey in order to provide a sufficient sample to analyse individually. Overall data was re-weighted to reflect the profile of SMEs as a whole in the UK. Data for individual nations was weighted to the profile of SMEs within that nation.

Data for this report is based on rolling data over nine months, from January to September 2005. Given the range of questions asked, questions are rotated and changed between quarters. Data has been amalgamated over the period where possible to create sample sizes large enough to be analysed and interpreted.

Broadband User Service – Point Topic

A combination of official statistics and primary research to estimate broadband take-up by any desired geography in the UK. Further details of the methodology can be found on their website at www.point-topic.com.

The BARB establishment survey

A consumer survey of 4000 homes per month, resulting in 48,000 homes per year being surveyed. The report monitors TV programmes.

RAJAR

Information is collected by means of a seven day self-completion diary. Diaries are personally placed with one selected adult (aged 15+) and up to two children (according to the number of children present) in each selected household. Approximately 130,000 respondents per year are asked to complete a diary.

Further details on the methodology used by RAJAR can be found on their website at: http://www.rajar.co.uk/

A3.2 Statistical Reliability

In a survey, you ask a representative number of people questions, to represent the views of the population as a whole. Since you cannot ask everybody, you cannot be certain.

So survey results are valid with limits on accuracy, the quoted figure + or – a percentage change, or with the comment significant at the 99.1% confidence level. This statistic says if you asked 100 people from the population, 99 of them would give you a response within the accuracy range of the survey.

The size of the accuracy range is dependent on the number of people you ask, and the level of agreement between them.

The sample tolerances that apply to some of the percentage results in this document are given in the table below. This table shows the possible variation that might be anticipated because a sample, rather than the entire population of adults, was interviewed. As indicated, sampling tolerances vary with the size of the sample and the size of the percentage results.

For example, on a question where 50% of the all respondents in a sample of 4,426 respond with a particular answer, the chances are 99 in 100 that this result would not vary more than 1.9 percentage points, plus or minus, from a complete coverage of the entire population using the same procedures.

	Approximate sampling tolerances applicable to percentages at or near these levels					
	10% or 90%		**30% or 70%**		**50%**	
Size of sample on which survey result is based	±		±		±	
	95%	99%	95%	99%	95%	99%
UK (4,426)	0.9	1.2	1.4	1.8	1.5	1.9
England (3,379)	1.0	1.3	1.6	2.0	1.7	2.2
Scotland (407)	2.9	3.8	4.5	5.9	4.9	6.4
Wales (292)	3.4	4.5	5.3	6.9	5.7	7.5
Northern Ireland (348)	3.2	4.1	4.8	6.3	5.3	6.9
Source: Ofcom						

Tolerances are also involved in the comparison of results from different parts of the sample. A difference, in other words, must be of at least a certain size to be considered statistically significant. The following table is a guide to the sampling tolerances applicable to comparisons.

		Differences required for significance at or near these percentage levels		
		10% or 90%	**30% or 70%**	**50%**
Size of the sample compared		±	±	±
Wales vs UK (292 vs. 4,426)	95%	3.6	5.4	5.9
	99%	4.7	7.1	7.8
Source: Ofcom				

Significance testing has conducted on the data contained in this report.

Comparability assessment

Ofcom conducted a comparison of the data contained within this report with various data sources:

- Ofcom's Consumer Panel tracking survey, Q4 2004
- Broadband Wales Resident survey, Broadband Wales Unit, Q1 and Q4 2005
- MORI's technology tracker, Q2 2005
- BMRB's Target Group Index (TGI), April 2004 to March 2005
- NISR, Northern Ireland omnibus, Q2 2005

Ofcom concludes from this comparison that the data obtained via its Residential Communications Tracking Study and Media Literacy Audit contained within this report, provides an accurate comparison of the attitudes and behaviours of consumers living in different parts of the UK.

Annex 4

Glossary of terms and definitions

2G Second generation of mobile telephone systems using digital encoding. 2G networks support voice, low speed data communications, and short messaging services.

3G Third generation of mobile systems. Provide high-speed data transmission and supporting multimedia applications such as full-motion video, video-conferencing and Internet access.

ABC1 The aggregate of socio economic groups A, B and C1 (see SEG).

ADSL Asymmetric Digital Subscriber Line. A digital technology that allows the use of a copper line to send high bandwidths in one direction and a lesser bandwidth in the other.

BARB The pan-industry body which measures television viewing.

Broadband A service or connection generally defined as being "always on" and providing a bandwidth greater than 128kbit/s.

C2DE The aggregate of socio-economic groups C2, D and E (see SEG).

DAB Digital Audio Broadcasting. The brand name for the technology by which terrestrial Digital Radio multiplex services are broadcast in the UK.

DSL Digital Subscriber Line. A family of technologies generally referred to as DSL, or xDSL, capable of transforming ordinary phone lines (also known as 'twisted copper pairs') into high-speed digital lines, capable of supporting advanced services such as fast Internet access and video-on-demand. ADSL, HDSL (High data rate Digital Subscriber Line) and VDSL (Very high data rate Digital Subscriber Line) are all variants of xDSL)

DTI Department of Trade and Industry.

DTT Digital Terrestrial Television, currently most commonly delivered through the Freeview service.

GOR Government Office Region. The highest level of sub-national government in England; the nine GORs were created in 1994.

HFC Hybrid fibre coaxial. A technology by which telecommunications networks incorporate both optical fibre and coaxial cable to create a broadband network.

Internet A global network of networks, using a common set of standards.

ISP Internet Service Provider. A company that provides access to the internet.

Kbit/s Kilo bits per second (1,000 bits per second). A unit of measurement of data transmission speed.

Leased Line A transmission facility which is leased by an end user from a public carrier, and which is dedicated to that user's traffic.

LLU Local Loop Unbundling. A process by which BT's exchange lines are physically disconnected from BT's network and connected to other operators' networks. This enables operators other than BT to use the BT local loop to provide services to customers.

Local Loop The access network connection between the customer's premises and the local PSTN exchange, usually a loop comprised of two copper wire

Mbit/s Mega bits per second (1,000,000 bits per second). A unit of measurement of data transmission speed.

Multichannel Provision or receipt of television services other than the main five channels (BBC ONE & TWO, ITV1, Channel 4/S4C, Five) plus local analogue services. 'Multichannel homes' comprise all those with digital terrestrial TV, satellite TV, digital cable or analogue cable, or TV over broadband. Also used as a noun to refer to a channel only available on digital platforms (or analogue cable).

Multiplex A device that sends multiple signals or streams of information on a carrier at the same time in the form of a single, complex signal. The separate signals are then recovered at the receiving end.

Narrowband A service or connection providing data speeds up to 128kbits, such as via an analogue telephone line, or via ISD.

Postal district The geographic area identified by letters and numbers which appears as the first part of a post code, e.g. SW8.

PSB Public Service Broadcasting, or Public Service Broadcaster. The Communications Act 2003 defines the PSBs to include the BBC, ITV1, Channel 4, Five and S4C.

PSTN Public Switched Telephone Network – such as BT's current copper telephone network.

RAJAR Radio Joint Audience Research – the pan-industry body which measures radio listening.

RDA Regional Development Agency. A public body established for the purpose of development, primarily economic, of one of England's Government Office Regions (see GOR).

SME Small or Medium sized Enterprise.

Socio Economic Group (SEG) A social classification, classifying the population into social grades, usually on the basis of the Market Research Society occupational groupings (MRS, 1991). The groups are defined as follows.

> **A.** Professionals such as doctors, solicitors or dentists, chartered people like architects; fully qualified people with a large degree of responsibility such as senior civil servants, senior business executives and high ranking grades within the armed forces. Retired people, previously grade A, and their widows.
>
> **B.** People with very senior jobs such as university lecturers, heads of local government departments, middle management in business organisations, bank managers, police inspectors, and upper grades in the armed forces.
>
> **C1.** All others doing non-manual jobs, including nurses, technicians, pharmacists, salesmen, publicans, clerical workers, police sergeants and middle ranks of the armed forces.

C2. Skilled manual workers, foremen, manual workers with special qualifications such as lorry drivers, security officers and lower grades of the armed forces.

D. Semi-skilled and unskilled manual workers, including labourers and those serving apprenticeships. Machine minders, farm labourers, lab assistants and postmen.

E. Those on the lowest levels of subsistence including all those dependent upon the state long-term. Casual workers, and those without a regular income.

TV over DSL/TV over Broadband A technology that allows viewers to access TV content – either in a linear programme schedule, or on-demand – using Internet Protocol via broadband services, either on a PC or (via a set-top box) on a TV set.

Unbundle See LLU.

USO Universal Service Obligation. This is a series of requirements, currently upon BT and Kingston Communications, to provide every household in the UK with access to a landline telephone.

WiFi (Wireless Fidelity) Short range wireless technologies using any type of 802.11 standard such as 802.11b or 802.11a. These technologies allow an over-the-air connection between a wireless client and a base station, or between two wireless clients.

Annex 5

Table of Figures