The Communications Market in England

1 The market context

1.1 England: setting the scene

Key facts

Figure	Nation	UK
Population	50.1 million	82.2% of total UK population
Age profile	London – median age 35 South West – median age 41 England average – median age 38 London has the youngest population in the UK, with an average age of 34	Median age 38
Income	Weekly household income: £683 Weekly household expenditure: £465.20	Weekly household income: £669 Weekly household expenditure: £459.70
Unemployment	7.7% of working population	7.7% of working population

Source: Office for National Statistics, 2001 Census,

Research

A note on the English regions survey data

We conducted a face-to-face survey of 9,013 adults in the UK, with 5,709 interviews conducted in England. Fieldwork took place in January and February 2010.

Some of the survey data in this section of the report are split by the geographic areas of England.

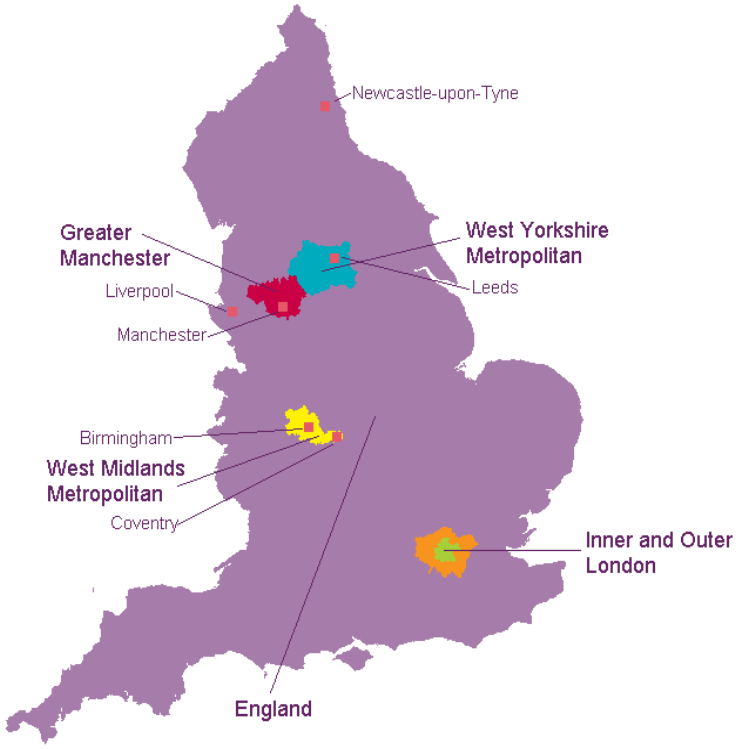
The survey sample in England has error margins of approximately +/- 1-2% at the 95% confidence interval.

In specific geographic areas survey error margins are approximately +/- 6-10%.

In addition to the survey data, this section of the report refers to data from a range of other sources, including data provided to Ofcom by stakeholders.

Direct comparisons between 2009 and 2010 data from specific geographic areas should be made with caution, as in most cases each figure will be subject to error margins of +/- 6-10%. Differences of up to 20 percentage points may still be within the survey margins of error. Annex 1 contains full details of the survey methodology and error margins.

Figure 1.1 Map of research areas in England



Based on Ordnance Survey data and National Statistics Postcode Directory
Source: Ordnance Survey © Crown copyright 2010; Office for National Statistics

1.2 England's communications market in the UK context

This section sets out a selection of headline figures for England's communications market, putting them into a UK-wide context.

1.2.1 Availability of communications platforms and services in England

Almost all homes in England are connected to a broadband-enabled telephone exchange

Figure 1.2 illustrates the availability of communications services in England. It compares coverage levels to the comparable figures for the other UK nations and the UK-wide average. With many communications services now well established, service availability in England changed little between 2009 and 2010. The one exception was DTT coverage, which rose somewhat as a result of the completion of switchover in the ITV South West, Granada and West regions.

Coverage of communications services in England varied from universality for some, to those that extend to only a minority of the population:

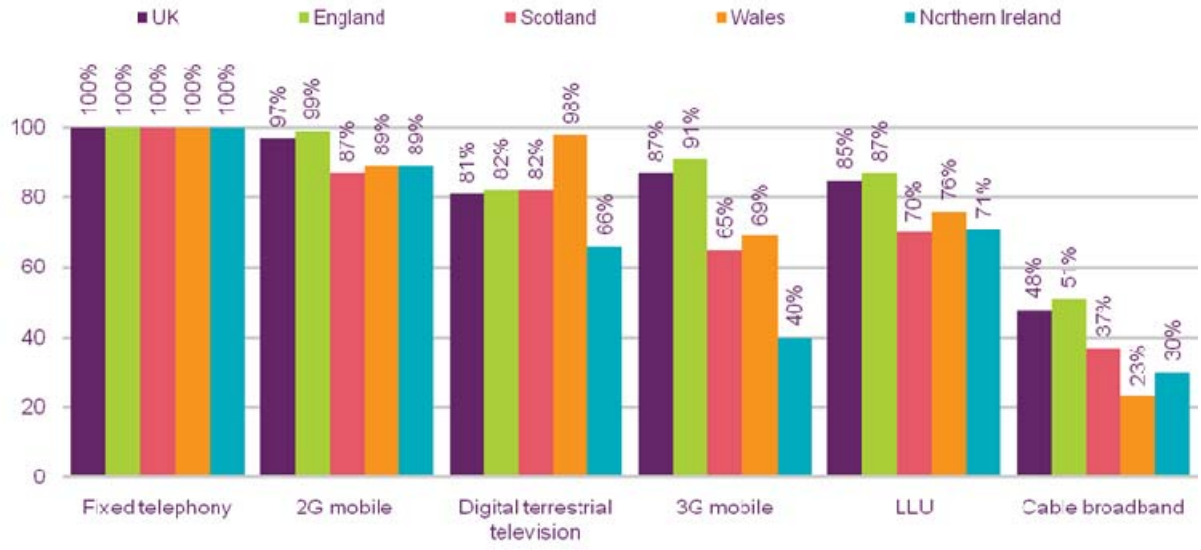
- Digital terrestrial television availability, offing the full channel line-up, was available to 82% of England's population in 2010. This figure has increased by an estimated nine percentage points year on year. The increase is explained by the fact that the Granada and South West regions have switched to digital television over the last 12 months. Switchover among the remaining regions of England will be completed by 2012, whereupon DTT coverage levels will rise as signal power is increased.

- Broadband delivered over a standard fixed telephony line is available to almost all (99.99%) homes and commercial properties in England. But factors such as line length and contention influence the actual broadband speed at customer premises. Cable broadband, offering access to a high-speed internet service, is available to 51% of homes in England, the highest among the UK's nations.

- 2G mobile services were available to 99% of mobile handset users in England – the highest across the UK's nations. 3G population coverage, while lower than 2G (at 91%) was still extensive in England when compared to other nations in the UK (where 3G population coverage ranged from 40% - 69%).

- The universal service obligation on fixed-line telephony services and dial-up internet access means that it is available to all premises in England, in common with the other UK nations.

Figure 1.2 Communications infrastructure availability across the UK's nations, 2010



Sources: Ofcom
1. Proportion of population living in postal districts where at least one operator reports at least 90% 2G area coverage. Sourced from GSM Association / Europa Technologies (Q1 2008). Note that coverage data has been restated; this means that year-on-year comparisons are not possible.
2. Proportion of population living in postal districts where at least one operator reports at least 90% 3G area coverage. Sourced from GSM Association / Europa Technologies (Q1 2008). Note that coverage data has been restated; this means that year-on-year comparisons are not possible.
3. Proportion of premises able to receive DSL services based on data reported by BT
4. Proportion of households passed by Virgin Media's broadband-enabled network
5. Proportion of households connected to an LLU-enabled exchange

6. Availability of 17 services from; figures based on Ofcom estimates.
7. New DAB coverage estimates are forthcoming. Ofcom is currently leading a process to consider the future spectrum planning requirements of digital radio, to prepare for the digital radio upgrade and to make recommendations to Ministers.

1.2.2 Take-up of communications platforms and services in England

Take-up of communications services in England generally higher than in the three smaller nations

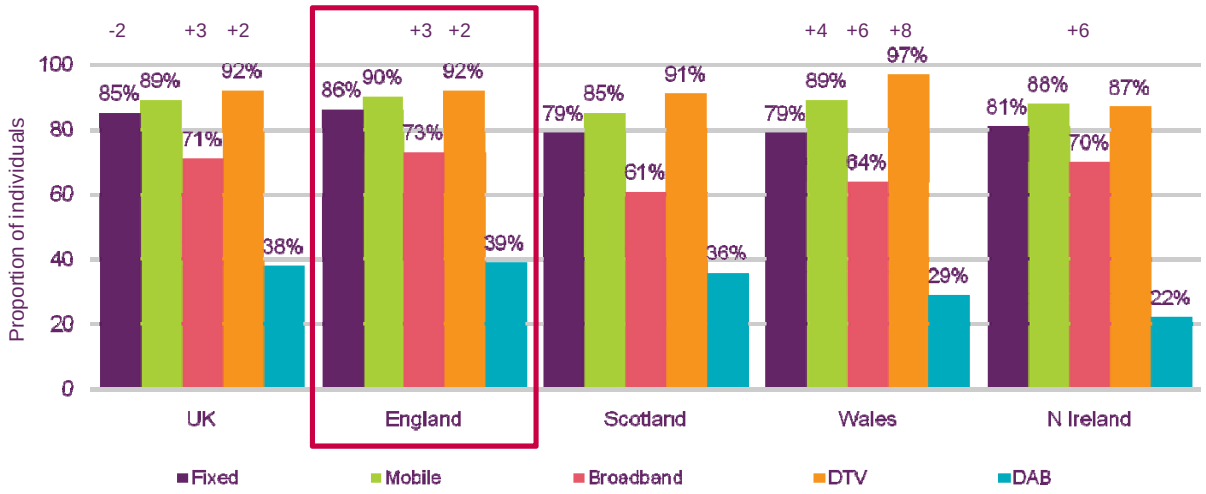
Take-up of communications services in England remained relatively flat year on year and, by and large, at a higher level than in the other UK nations (Figure 1.3):

- Over eight in ten (86%) of people in England claimed to have a fixed telephone line at home. This compares to the UK-wide average of 85%; the gap between the two narrowed by one percentage point year-on-year.

- Broadband take-up, at 73% of homes in England, was the highest among the UK nations. The figure rose by three percentage points year on year – a lower rate of growth when compared to Wales or Northern Ireland, possibly reflecting the proportionally higher levels of take-up in England. The margin between the England and UK-wide figures remained the same with England two percentage points ahead.

- Mobile phone take-up in England, at 90% of individuals, was broadly comparable to the UK-wide average of 89% in Q1 2010, and to penetration in Wales and Northern Ireland. The gap with the UK average remained static at one percentage point over the year.

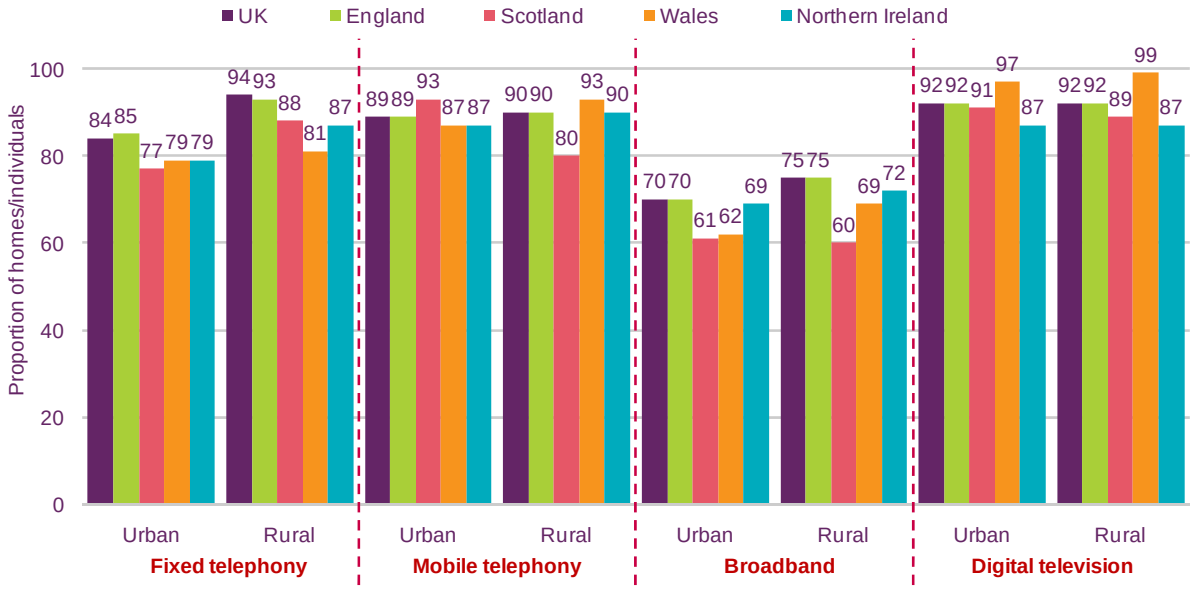
Figure 1.3 Patterns of communications service adoption across the nations of the UK, 2010



Source: Ofcom research, Q1 2010
Fixed line base: All adults aged 15+ (n = 9013 UK, 5709 England, 1468 Scotland, 1075 Wales, 761 Northern Ireland)
Fixed line question: Is there a landline phone in your home that can be used to make and receive calls?
DTV base: Adults aged 15+ (n= 9013 UK, 5709 England, 1468 Scotland, 970 Wales, 640 Northern Ireland)
DTV question. Which, if any, of these types of television does your household use at the moment?
Broadband base: All adults aged 15+ (n= 9013 UK, 5709 England, 1468 Scotland, 970 Wales, 640 Northern Ireland)
Broadband question: Which of these methods does your household use to connect to the internet at home?
DAB base: Adults aged 15+ who listen to radio (n= 7017 UK, 4476 England, 1034 Scotland, 854 Wales, 653 Northern Ireland)
DAB question: How many DAB sets do you have in your household? Response represents those with one or more sets.
Note: Remaining percentages are Don't know responses
Mobile base: All adults aged 15+ (n= 9013 UK, 5709 England, 1468 Scotland, 970 Wales, 640 Northern Ireland)
Mobile question: Do you personally use a mobile phone ?
Note: The DTV take-up figures in this chart will differ from those presented in the 'Fast facts' table. The different is explained by the base of households over which the two figures are calculated. In this chart, is it all homes with television; in the fast facts, it is all homes (including those that do not have a television).

Patterns of communications service take-up among people living in urban and rural locations vary by service and type nation. Take-up of fixed telephony services in England is higher among homes situated in rural locations (93% versus 85% in urban locations). Take-up of broadband (fixed or mobile) is also higher in rural locations (70% versus 75%). There is no material differences in the adoption of either mobile telephony nor digital television by location in England.

Figure 1.4 Adoption of communications technology/service in urban and rural locations



Source: Ofcom research, Q1 2010. For questions see notes beneath Figure 1.3.Consumer take-up of bundled services in England

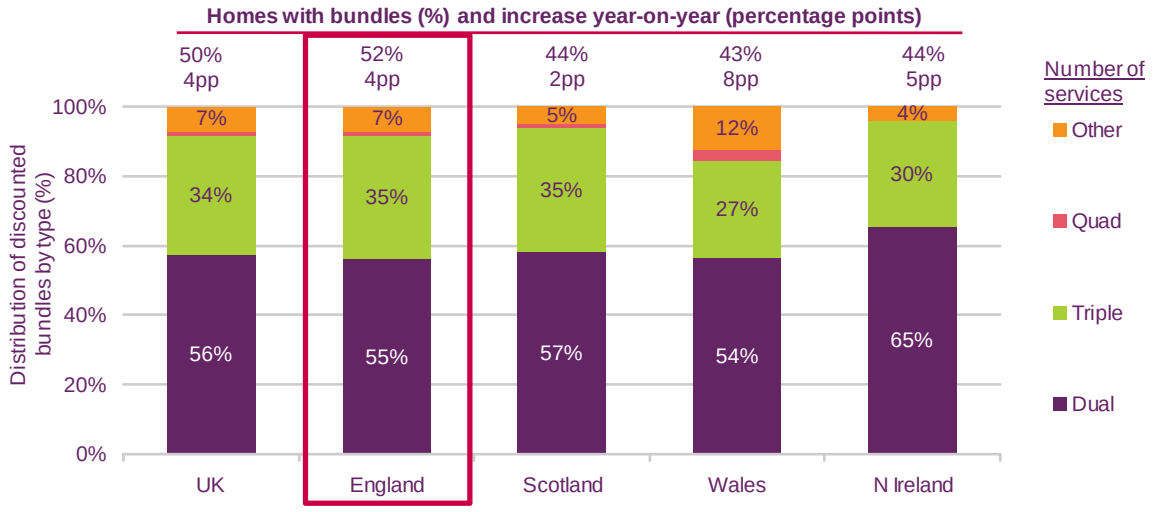
52% of homes in England took a bundle of communications services, up by four percentage points year on year

Across the UK, 50% of homes took a bundle of communications services in Q1 2010. This was up by four percentage points year on year. The most popular type of bundle – taken by more than half (56%) of those who chose a bundle – was a 'dual' package of services such as fixed-line telephony and broadband.

In England, 52% of homes took a bundle. Their popularity grew during 2009, with take-up rising by four percentage points over the year. As a result, the gap with the UK-wide average remained static at two percentage points above. Bundles were more popular in England than anywhere else in the UK, with take-up in the smaller nations ranging from 43% to 44% of homes.

The distribution of bundles, by type, in England was skewed towards dual-play packages, which accounted for 55% of all bundles. Triple-play accounted for a further 35% of the total. This distribution was comparable to that in Scotland; triple-play was less popular in both Wales and Northern Ireland.

Figure 1.5 Take-up of bundles, by nation

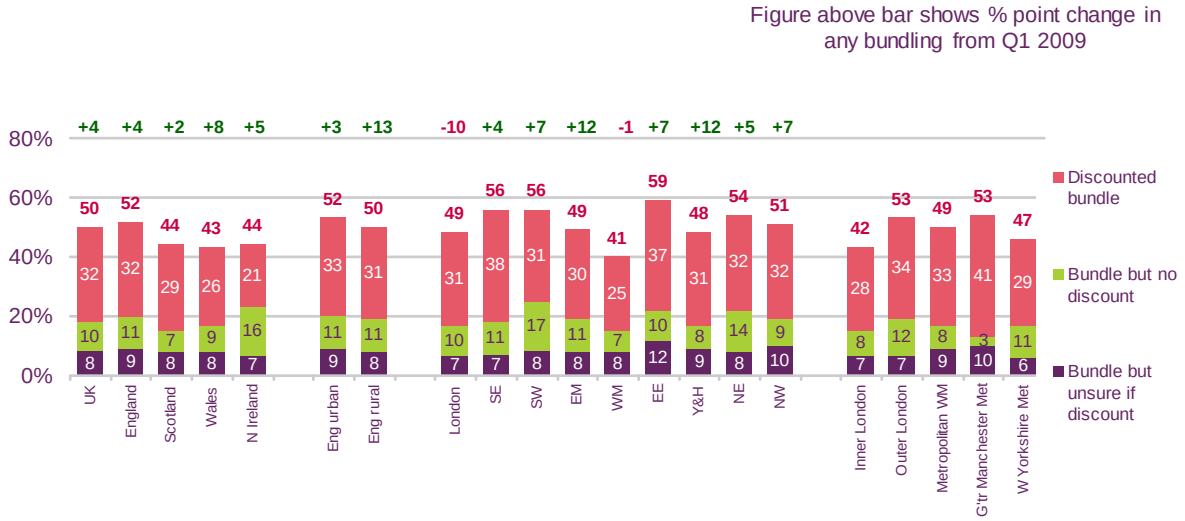


Source: Ofcom research, Q1 2010
Base: All adults aged 15+ with a package of services regardless of whether or not these include a discount (n = 4167 UK, 2793 England, 605 Scotland, 437 Wales, 332 Northern Ireland)
Notes: 1. Remaining percentages are Don't know responses. 2. Bundling is also considered in the UK report; that analysis is based on bespoke research, with a headline bundling figure of 48% (not 50%). The difference arises from different definitions of bundles used in the two pieces of research. In this report a bundle is defined as one where all services are on a single bill, with or without discount. In the UK report research, the definition was of two or more services from one supplier on a single bill and receiving a discount.

Consumers in the East of England most likely to take bundles of communications services

Across England, take-up of bundles is a little lower in rural parts of the nation (50% versus 52% for urban locations). This may reflect the fact that these areas are less well-served by both cable and unbundled exchanges than the rest of the UK, reducing the supply of bundles and discounted packages available. But the difference between the two figures was less pronounced in the case of England compared to the other three smaller nations. Take-up peaked at 59% of homes in the East of England (well above the UK-wide average of 50%).

Figure 1.6 Proportion of customers buying bundled services, 2009-2010



Source: Ofcom research, Q1 2010
Base: All adults aged 15+ (n = 9013 UK, 1468 Scotland, 5709 England, 1075 Wales, 761 Northern Ireland, 1172 Scotland urban, 296 Scotland rural, 368 Glasgow, Clyde & Lanarkshire, 357 Lothian & Forth Valley, 363 Grampian Tayside & Fife, 380 other Scotland)
QG1. Do you receive more than one of these services as part of an overall deal or package from the same supplier? QG3b. Do you receive a discount or special deal for subscribing to this package of services?

1.2.3 Spending by public service broadcasters on television and radio content in England

Error! Reference source not found. illustrates patterns of expenditure in England on broadcasting output. It adjusts for population size by expressing spend on a per-head basis. The chart sets out three types of expenditure:

- the value of networked television spending in England – programmes that are produced in England, which are then broadcast to all UK viewers;
- BBC spending on radio services for listeners in England (BBC local radio services); and
- spend by the BBC and ITV1 on television programmes specifically for viewers in England.

Total spending per head on broadcast-based output in England totalled £38.34 in 2009, down from £41.95 12 months earlier. This represented the second-highest spend per head across the four nations, driven by the high levels of spending in England on TV output produced for a UK-wide audience.

Figure 1.7 Spend per head on UK-originated content broadcast by PSBs on TV and radio, 2010

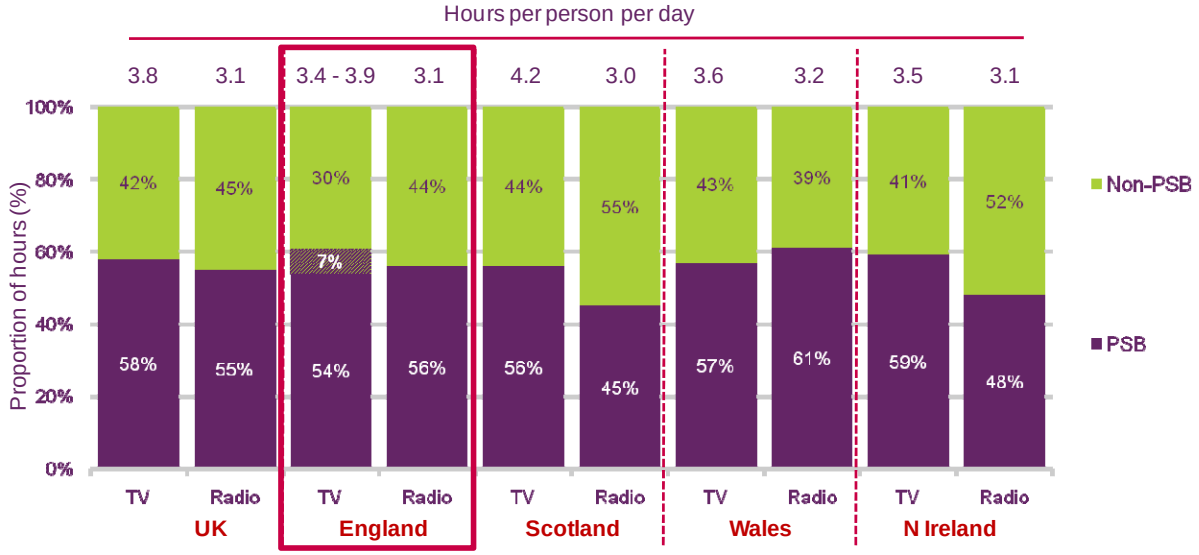
Source: Ofcom analysis and broadcasters

1.2.4 Consumption of television and radio services by people in England

PSBs command the lowest TV viewing shares in the UK in London and the Border regions (54%)

People in England spend a total of between 6.5 and 7.0 hours a day watching television and listening to the radio. This compares to the UK-wide average of 6.9 hours per day. Levels of radio listening in England were broadly comparable to the UK-wide average (3.1 hours/day). The BBC's radio services held a 56% share of listening in England in 2009/10, higher than in Scotland (46%) and Northern Ireland (53%), but lower than in Wales (63%).. PSB channels on the television took a share of viewing that ranged from 54% (in London/Border regions) to 61% (in the East of England). This straddled the UK-wide average of 58%.

Figure 1.8 Hours of daily viewing of television and radio, by nation, 2010



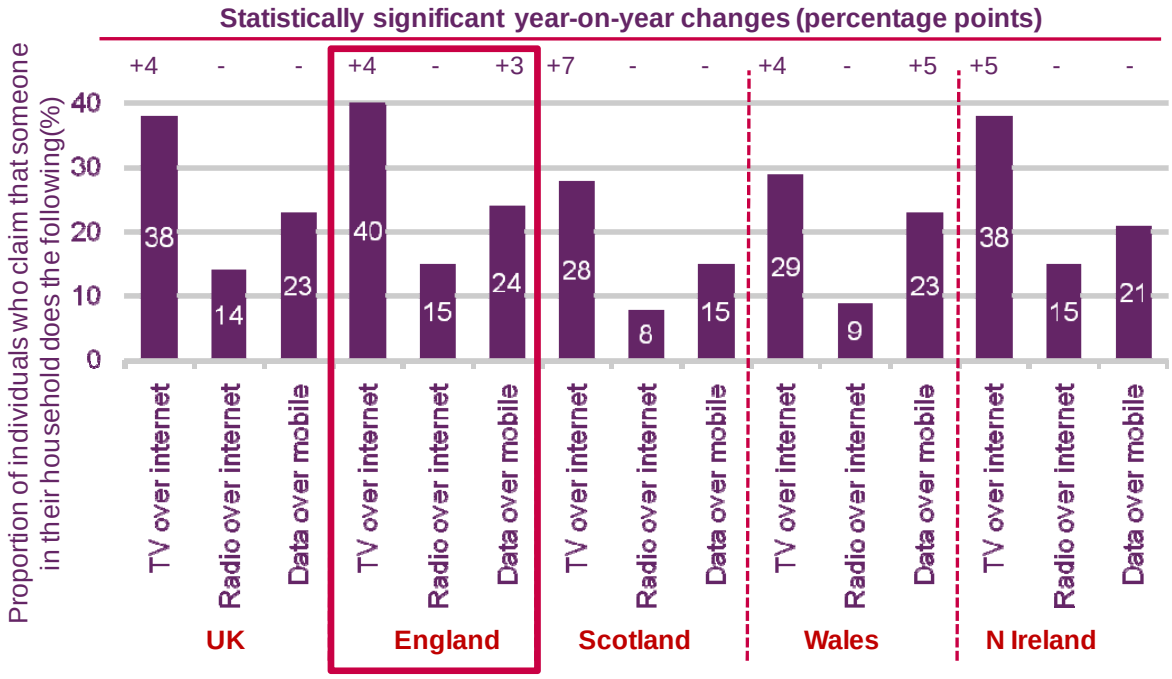
Source: BARB and RAJAR analysis

1.2.5 Use of converged platforms and devices by people in England

Four in ten internet users in England use the web to watch television content; one in five use their mobile phone to access the internet

Four in ten people in England (40%) claimed to be using their internet connection to watch television services; broadly in line with the UK-wide average and up by four percentage points year on year. Fifteen per cent of respondents also claimed to use the internet to listen to the radio over the internet Q1 2010, again on a par with the UK. A fifth (24%) of people in England used their mobile handset to access the internet, up by three percentage points year on year.

Figure 1.9 Consumers' use of converging platforms



Source: Ofcom research, Q1 2010
Base: All adults aged 15+ (n = 9013 UK, 5709 England, 1468 Scotland, 1075 Wales, 761 Northern Ireland)
Q: For the TV and Radio question - Which, if any, of these do you or members of your household use the Internet for whilst at home?
For the Data question - Which if any, of the following activities, other than making and receiving voice calls, do you use your mobile for? Figure represents the number of responses to the following: download free applications, download paid-for applications, send/receive emails, access the internet, connect to the internet using WiFi, use VoIP services, download a new video clip, video streaming, TV streaming, access/ receive sports/ team news/ scores, access/ receive news, use IM/ Instant messaging

1.3 England: Communications and the economy

1.3.1 Introduction

Since the last *Communications Market Report for England* was published in August 2009, the UK economy has shown signs of recovery following the official end of the recession. In last year's report we explored the impact of the economic downturn on consumer attitudes towards communications services. In June 2010 we repeated last year's study to update the findings and assess to what extent consumer spending and attitudes towards communications services across England have changed in comparison to 12 months ago.

1.3.2 Consumer spending on communications services

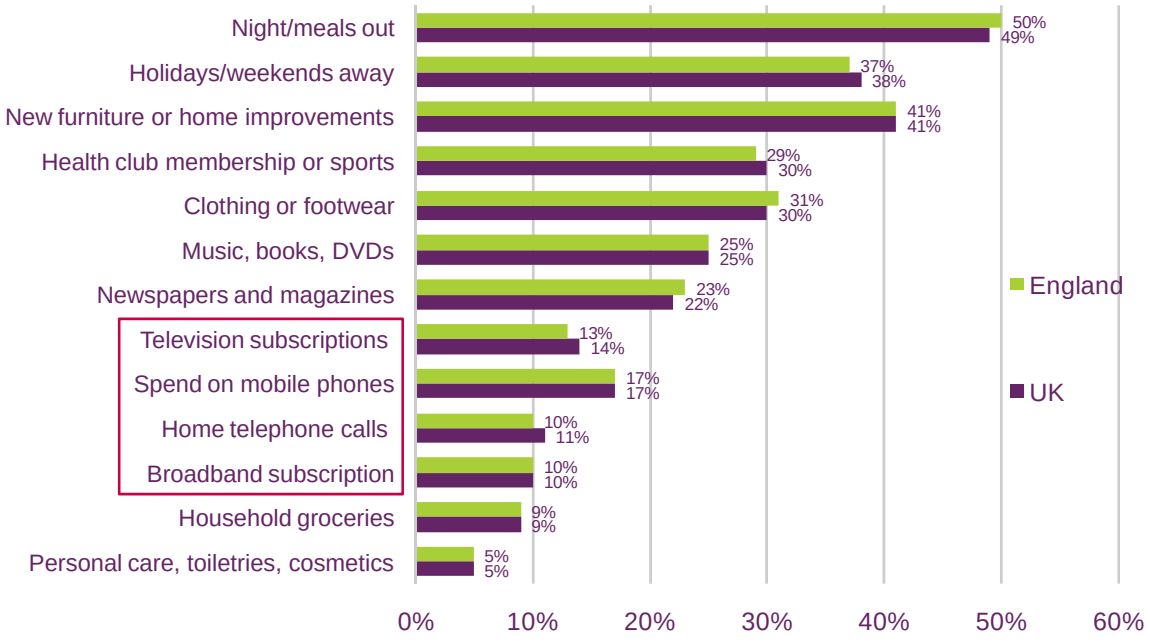
Consumers in England continue to value their communications services relative to other items

As shown in Figure 1.10, consumers in England continue to value their communications services relative to other items, as overall economic conditions have begun to improve. Similarly to the UK as a whole, consumers in England were more likely to cut back on items such as meals/nights out (50%) or new furniture/home improvements (41%) than on communications services.

Only 10% of respondents in England placed their broadband subscription in their top three items most likely to be cut, while less than a fifth of consumers selected their mobile phone or pay-TV subscription. In line with the UK average, the only items less dispensable than these four communications services were household groceries (9%) and toiletries/cosmetics (5%).

Figure 1.10 Items where consumers are most likely to cut back their spending

Items mentioned as first, second or third choice (%)

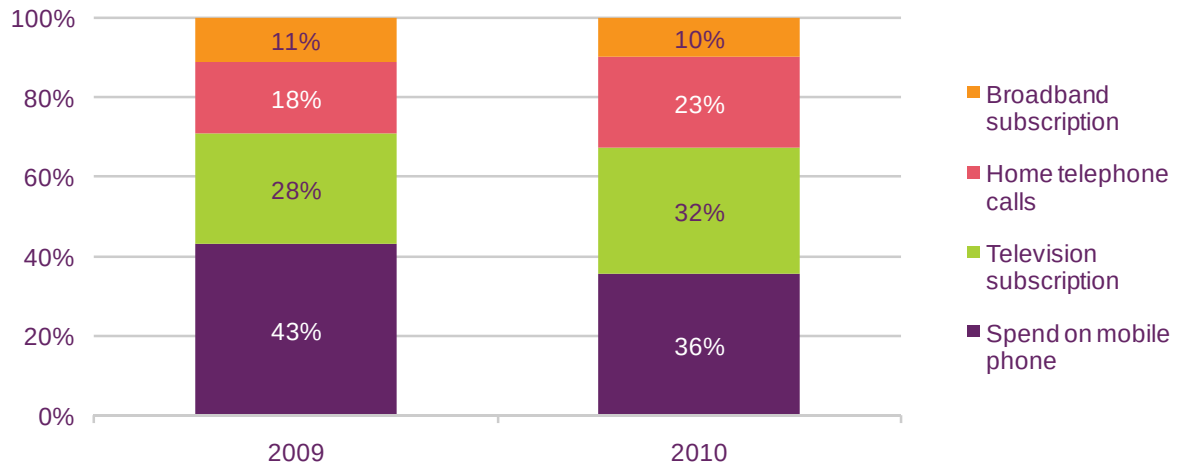


Source: Ofcom-commissioned research
Base: Total sample UK (n=2444),England (n=1727)
Question: If you were forced to cut back on spending, which of the following items would you be most likely to spend less on?

If forced to choose, consumers in England with all four communications services were most likely to cut back spending on their mobile phone, despite the proportion of respondents choosing mobile decreasing by seven percentage points since 2009. The proportion of respondents in England selecting home telephone calls and their pay-TV subscription also fell year on year, by four and five percentage points respectively.

Figure 1.11 The communications services on which consumers would be most likely to cut spend

Proportion of respondents agreeing/disagreeing (%)



Source: Ofcom-commissioned research
Base: Those with all four communications services 2009 (n=632) 2010 (n=591)
Question: Which ONE of the following would you be most likely to cut back spending on?

English consumers believe that communications providers are responding to the recession with better deals

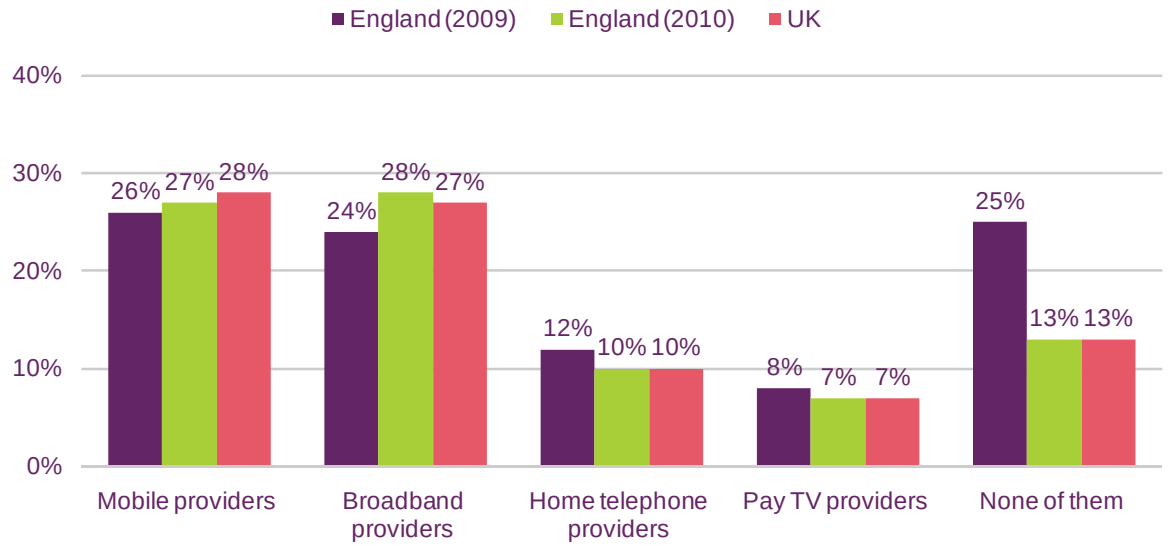
A greater proportion of consumers in England and throughout the UK believe that communications providers are offering better deals now than 12 months ago.

In 2009 a quarter of respondents in England believed that *no* communications providers were offering better deals; in 2010 this figure dropped to just 13%. This decrease is consistent with a similar trend across the UK and in all nations and regions. It suggests that consumers throughout the UK are gaining confidence that providers are responding to the recession, by offering better-value packages for communications services.

Our research indicated that some communications services are perceived to be offering better deals within England than others, as over a quarter of respondents (27% and 28% respectively) agreed that mobile and broadband providers were offering better packages. Following a similar pattern to 2009, only a minority of our sample agreed with this statement for home telephone providers (10%) and pay-TV services (7%).

Figure 1.12 Proportion of English consumers agreeing that communications providers offer better deals now than a year ago

Proportion of respondents agreeing (%)



Source Ofcom-commissioned research
Base: Total sample UK (n=2444) England (2009 n=1747, 2010 n=1727)
Question: And which of the following providers, if any are offering better deals than they were 12 months ago?

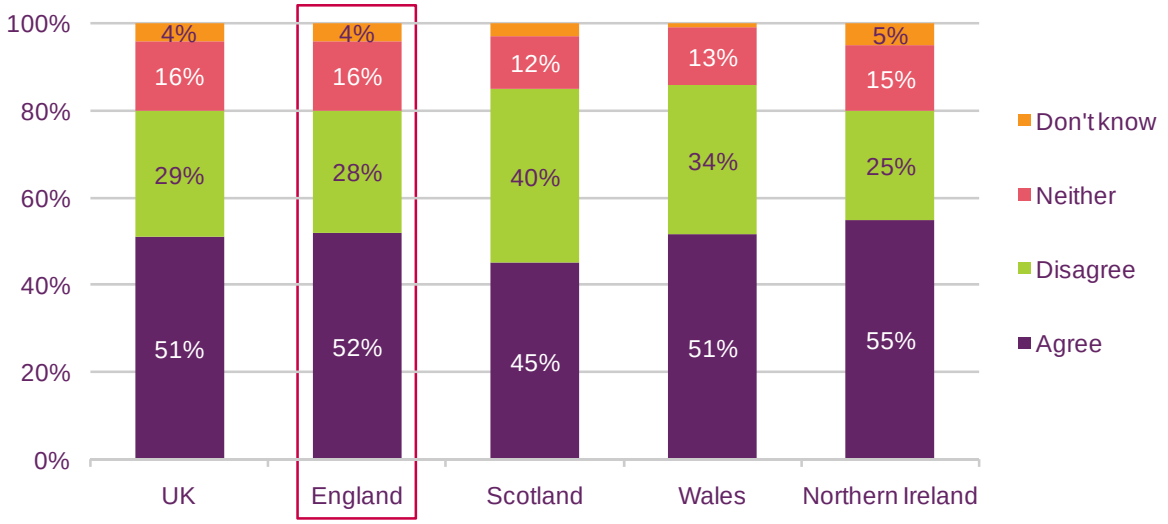
1.3.3 Bundling

Bundled communications services continue to be popular among English consumers

As in the rest of the UK, purchasing multiple communications services from the same provider continues to be popular among English consumers. Just over half of all respondents (52%) agreed they are more likely to take communications services in a bundle now than they were 12 months ago. This finding is also supported by the latest Ofcom research, which shows that 52% of homes in England took a bundle of communications services in Q1 2010.

Figure 1.13 Consumers' agreement/disagreement that they were more likely to take communications services in a bundle by nation

Proportion of respondents (%)

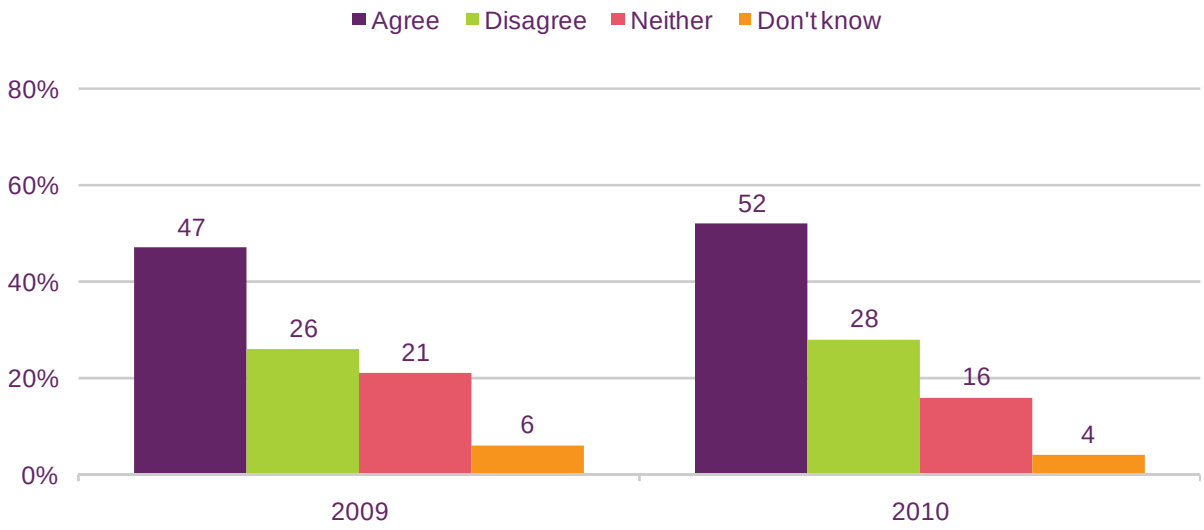


Source: Ofcom-commissioned research
Base: Total sample (n = 2444) England (n = 1727) Scotland (n =285) Wales (n = 203) Northern Ireland (n = 229)Question: How much do you agree or disagree... I'm more likely to consider purchasing TV, broadband and phone services in a package from the same supplier as it offers better value for money

As illustrated in Figure 1.14 below, the current popularity of bundling among English consumers is also consistent with our 2009 study, in which 47% of respondents agreed that they were more likely to take a bundle. In 2010 the proportion of consumers agreeing with this statement rose slightly, by five percentage points, to reach 52%.

Figure 1.14 English consumers' agreement/disagreement that they were more likely to take communications services

Proportion of respondents (%)



Source: Ofcom-commissioned research
Base: Total sample (2009, n=1747) (2010, n=1727)
Question: How much do you agree or disagree... I'm more likely to consider purchasing TV, broadband and phone services in a package from the same supplier as it offers better value for money

1.3.4 Acquisition of new communications equipment

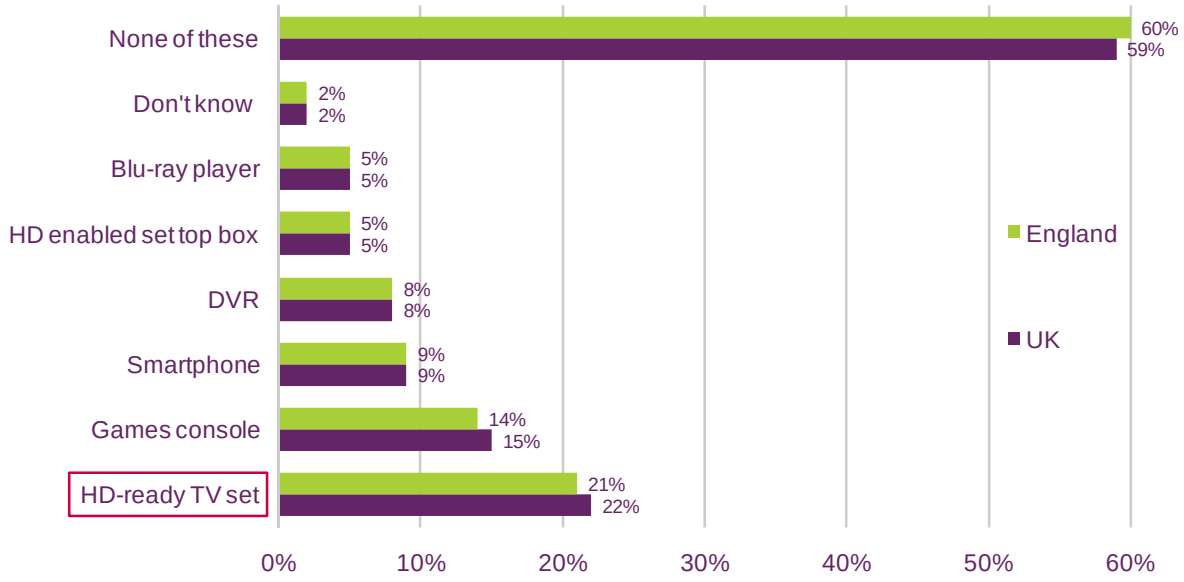
English consumers embrace HDTV in spite of the economic downturn

Although the majority of respondents in England (60%) claimed not to have purchased any of the selected communication devices listed in Figure 1.15, just over a fifth (21%) of our sample claimed to have bought a HD-ready TV during the past year. This finding closely mirrors the UK average, as 22% of respondents across the UK also agreed with this statement.

These findings may reflect the entrance of HDTV into the mainstream across England and the rest of the UK over the last 12 months, with around 7 million HD-ready TV sets sold during 2009 and over 24 million sold to date. However, the relatively smaller proportion of consumers who have purchased a HD-enabled set-top box (5%) suggests that there is a considerable gap between those with HD-ready TV sets and those actually viewing HD content.

Figure 1.15 Selected communication devices bought in the past 12 months

Proportion of respondents (%)

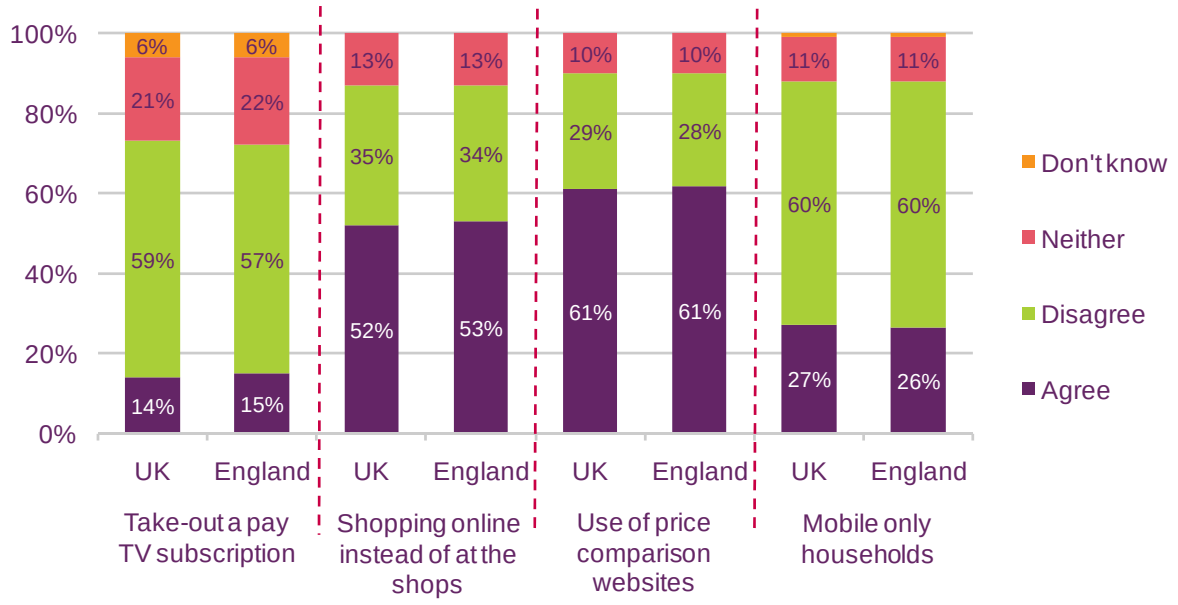


Source: Ofcom-commissioned research
Base: Total sample (UK n=2444, England n=1727)
Question: Which, if any, of these products or services have you or your household bought in the last 12 months?

As shown in Figure 1.16, the majority of consumers in England without pay-TV appear more reluctant to take out a pay-TV subscription than they were 12 months ago, with 57% of respondents disagreeing with this statement. Conversely, one in every six respondents in England (61%) claimed to be more likely to use price comparison websites to get a better deal when shopping online.

Figure 1.16 Consumers' agreement/disagreement with a range of statements exploring changes in behaviour over the last 12 months

Proportion of respondents agreeing/disagreeing (%)



Source: Ofcom-commissioned research
Base: UK (n=1300, 1554, 1554, 2099) England (n=957, 1153, 1153, 1478)Question: I am now going to read out a number of statements other people have made about how the recession has changed their spending on TV, broadband, mobile and home phone services. For each statement please tell me how much you agree or disagree

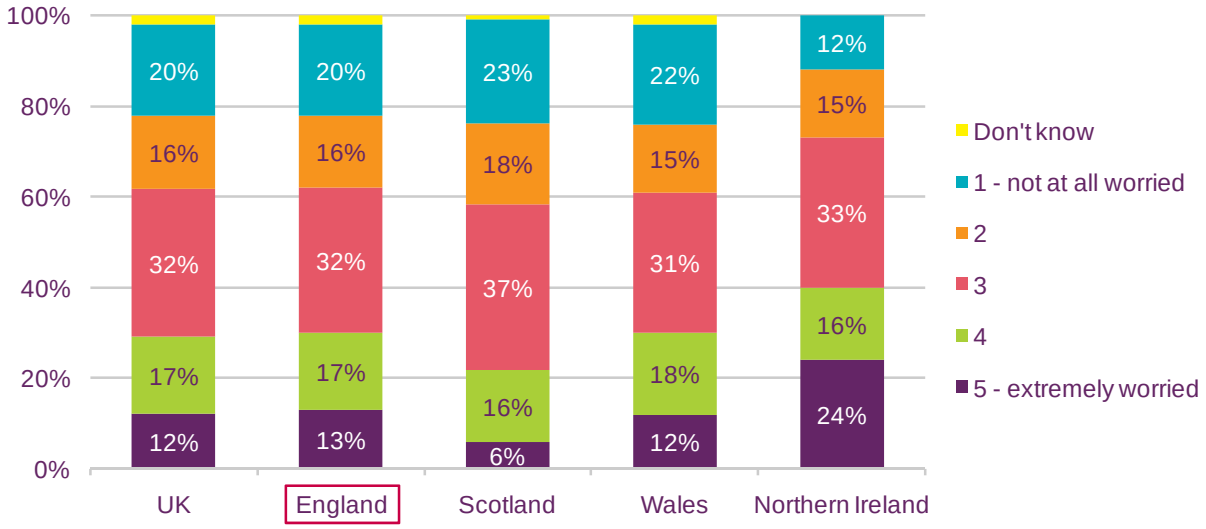
1.3.5 Attitudes of English consumers towards the economy

Despite the official end of recession in the UK, attitudes towards the economic downturn among consumers in England appear to have remained constant over the past year.

The attitudes of English respondents closely matched the UK as a whole, as 30% of respondents in England continue to be worried about the current economic situation, with 13% claiming they were 'extremely worried' about its impact personally. As in 2009, Figure 1.17 also shows that a slightly larger proportion of consumers England (36%) felt unworried by the downturn overall and a fifth of all consumers (20%) claimed they were "not at all worried".

Figure 1.17 Consumer attitudes towards the recession, by nation

Proportion of respondents agreeing/disagreeing (%)



Source: Ofcom-commissioned research
Base: Total sample (n = 2444) England (n = 1727) Scotland (n =285) Wales (n = 203) Northern Ireland (n = 229)
Question: On a scale of 1 to 5, where 5 is extremely worried and 1 is not at all worried, how worried are you about being personally affected by the recession?

1.4 ‘Not-spots’: the English consumer experience

1.4.1 Introduction and context

This year, one of Ofcom’s annual planning priorities is to make progress on broadband and mobile phone not-spots[1]. To reflect this, this section brings together in one place relevant data that have in the past featured throughout the *CMR: England* report.

Section 1.4 below sets out the context for availability and take-up of broadband and mobile services in England.

The overall picture is that a good proportion of the English population have access to 2G mobile and fixed-broadband services at home, and a substantial proportion of the population claim to have both.

At the same time, there are limitations on the ability of broadband-enabled fixed telephone exchanges to deliver high bandwidth. These limitations include long line lengths from the local exchange to the consumer’s premises, which can compromise the ability of fixed lines to support popular internet-based activities such as watching broadcast-quality television output.

Moreover, while mobile population coverage in England is comparatively high, the figure for geographic coverage is lower. The result is that a proportion of England’s landmass is not covered by a mobile service from any operator.

1.4.2 Fixed broadband services

In some parts of England, very slow ‘broadband’ speeds may inhibit internet use

Virtually all local telephone exchanges in England are now DSL-enabled, meaning that most homes in England now have access to a broadband service. However, because of the length and/or quality of the copper telephone wire between exchanges and consumer premises, not all consumers are able to receive downstream broadband speeds sufficient for many internet applications.

Broadband not-spots typically arise when the length or quality of copper telephone lines is not sufficient to support speeds via DSL broadband which are much higher than those available through ‘dial-up’ internet access. Generally, not-spots are most likely to arise in rural areas where there can be long distances between homes and the local exchange. However, this can also be the case in some urban areas, for example when new housing developments are built on the edges of towns and are served by telephone exchanges in town centres.

The 2009 *Digital Britain* report[1] estimated that around 11% of UK households were unable to get a broadband service with a downstream speed of 2Mbit/s or more. This is the connection speed the report believed was necessary to stream a TV programme and watch it online.[2]

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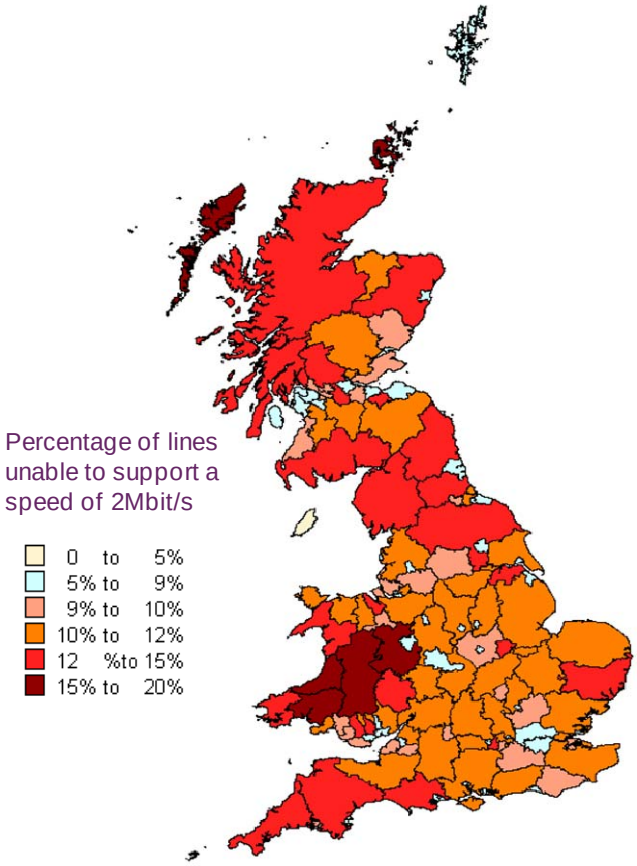
[1] Ofcom Annual Plan 2010/11: http://www.ofcom.org.uk/about/accoun/reports_plans/annual_plan1011/annplan1011/annplan1011.pdf

[1] http://www.culture.gov.uk/images/publications/digitalbritain-finalreport-jun09.pdf

[2] Note, however, that the BBC recommends a minimum download connection speed o 0.5Mbit/s for its iPlayer service.

Figure 1.18 indicates that the proportion of 'bad lines' (i.e. lines incapable of delivering download speeds of 2MBit/s) vary across England and the UK as a whole. It indicates that there is a low proportion of bad lines in the built-up areas of London and the South East, the Midlands and the North West, and a higher proportion of bad lines in the more rural counties of the South West and North of England.

Figure 1.18 Percentage of 'bad lines' in Great Britain



Source: Digital Britain, final report, June 2009
Note: English, Scottish, Welsh, and Isle of Man counties have been colour accordingly to their number of total bad lines against number of total premises - percentage of total bad lines (due to line length plus network effects)

Ofcom's research into broadband speeds (conducted in association with SamKnows) found that there was very large variation in the performance delivered to a panel of over 1,500 residential broadband users.[3] Average speeds for consumers in rural areas (2.7Mbit/s) were around half of those in urban areas (5.8Mbit/s) and while some consumers taking high speed cable services were able to receive average download speeds of over 40Mbit/s, the average speed received by those with DSL broadband was just 4Mbit/s. Around a third (34%) of those on 'up to' 8 or 10Mbit/s DSL packages, received average speeds of less than 2Mbit/s.

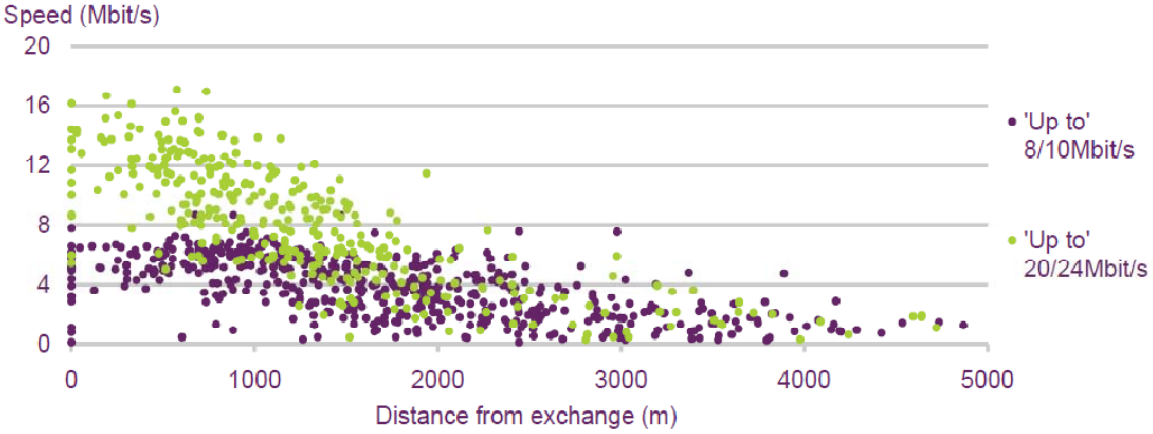
Figure 1.19 maps the average speed of all the DSL panellist s in this research against the (straight line) distance between their home and the local telephone exchange. It indicates that speeds typically decreased with the distance from the exchange, indicating that those living more than 4km from the exchange are unlikely to be able to receive speeds of more

[3] http://stakeholders.ofcom.org.uk/market-data-research/telecoms-research/broadband-speeds/broadband-speeds-2010/

than 2Mbit/s. However, a few panellists had very slow broadband speeds despite living in close proximity to the exchange; this is likely to be the result of electrical interference causing signal loss, or very poor quality in-home wiring.

Figure 1.19 Average line speeds versus distance of customer premises from the telephone exchange, May 2010

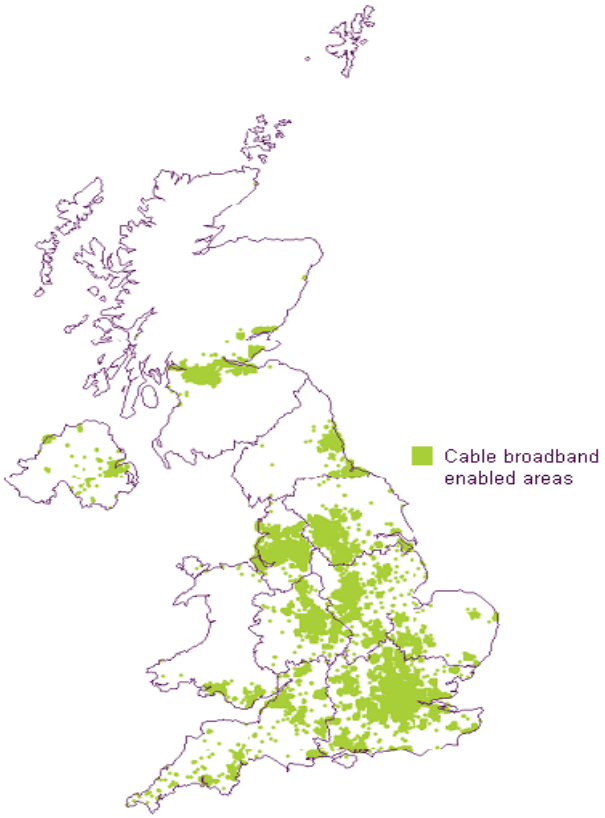
Distance from exchange and average download speeds achieved by panellists on 'up to' 8/10Mbit/s and 'up to' 20/24Mbit/s DSL packages, single thread results, May 2010



Ofcom UK Broadband Speeds Report, July 2010.
Source: SamKnows measurement data for all panellists with a DSL connection in May 2010.

The main alternative to DSL broadband available in the UK is cable broadband, which is available to 52% of homes in England (49% of homes in the UK as a whole). However, as shown in Figure 1.20, Virgin Media's cable footprint is largely confined to built-up areas: cable is not an alternative for the large majority of people who live in a DSL broadband not-spot.

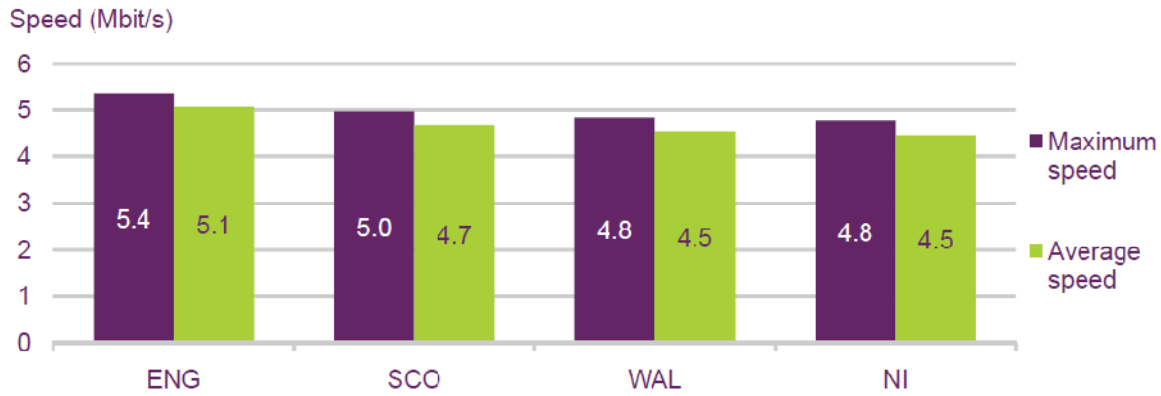
Figure 1.20 Map of the availability of Virgin Media cable broadband



Source: Ofcom / Virgin Media, September 2009 data

Higher availability and take-up of cable services in England than in the other nations, combined with shorter average line lengths, means that average broadband speeds in England are higher than in the other UK nations (Figure 1.21).

Figure 1.21 Estimated average and maximum download speeds, by nation, May 2010



Ofcom UK Broadband speeds report, July 2010
Source: SamKnows measurement data for all panel members with a connection in May 2010. Panel Base: 1506.
Notes: (1) Note that these data have been estimated based on the numbers of households in Geographic Markets 1,2 and 3, and as such are not directly comparable with UK average data published in Ofcom's UK Broadband Speeds, May 2010 report; (2) As sufficient sample sizes were not available for consumers on packages of 'up to' 2Mbit/s or less, data collected for these packages

in April 2009 have been factored in, in proportion to share of all connections in May 2010 and an estimated split between nations; (3) Data collected from single-thread download speed tests.

1.4.3 Mobile services

The phenomenon of mobile voice not-spots, or areas where poor reception make reliable mobile calls difficult, is a familiar experience for some people living in England's more rural and remote locations. In these areas, which are characterised by lower population densities and/or challenging terrain, there are physical and economic challenges that may deter operators from putting up and maintaining mobile phone masts.

How we measure the availability of mobile telephony in this report

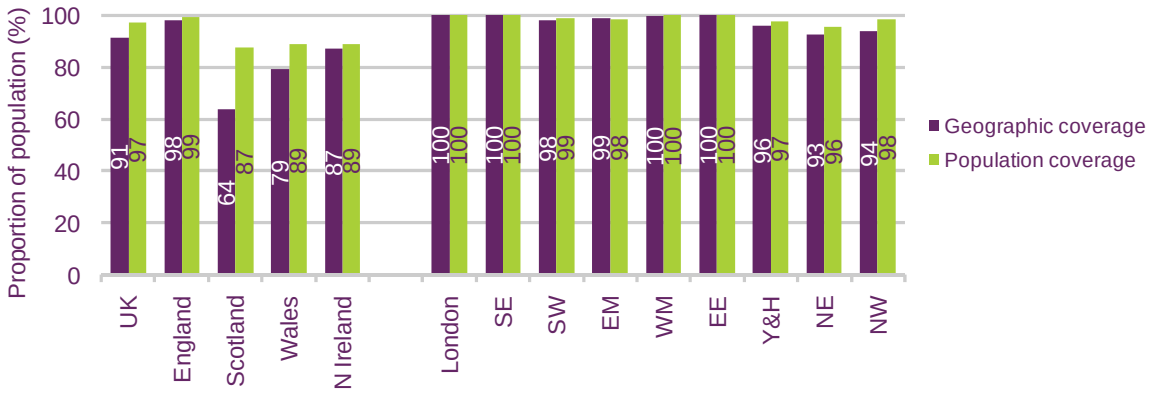
To evaluate the availability of mobile telephony services across the UK we examine the number of mobile networks with second-generation (2G) and third-generation (3G) coverage in each postcode district. For an operator to be counted as having coverage its network footprint has to cover at least 90% of the postcode district, and by using these data in conjunction with population figures we are able to calculate the proportion of people living in postcodes that fall within this coverage threshold.

It is important to note that even though a postcode district does not meet or exceed the 90% threshold, this does not mean that mobile services are not available there; rather, that none of the mobile operators meet the 90% threshold that we have set in this analysis.

Our data show that across England 99% of the population lived in a postcode district with at least 90% 2G area coverage, from one or more operators, in Q2 2010. This is higher than the UK overall (97%), Northern Ireland (89%), Wales (89%) and Scotland (87%). People in postcode districts in the remaining 1% of England may well receive some 2G mobile phone coverage – but the proportion of the postcode with a 2G signal falls below the 90% threshold.

The figure below also illustrates geographic 2G coverage (using the same 90% coverage threshold). Ninety-eight per cent of postcode districts in England had 2G area coverage from one or more mobile networks in Q2 2010; slightly lower than population coverage (99%). The gap between population and geographic coverage is likely to be wider in those nations with large areas of low population density or where hilly or mountainous terrain limits the range of cellular masts.

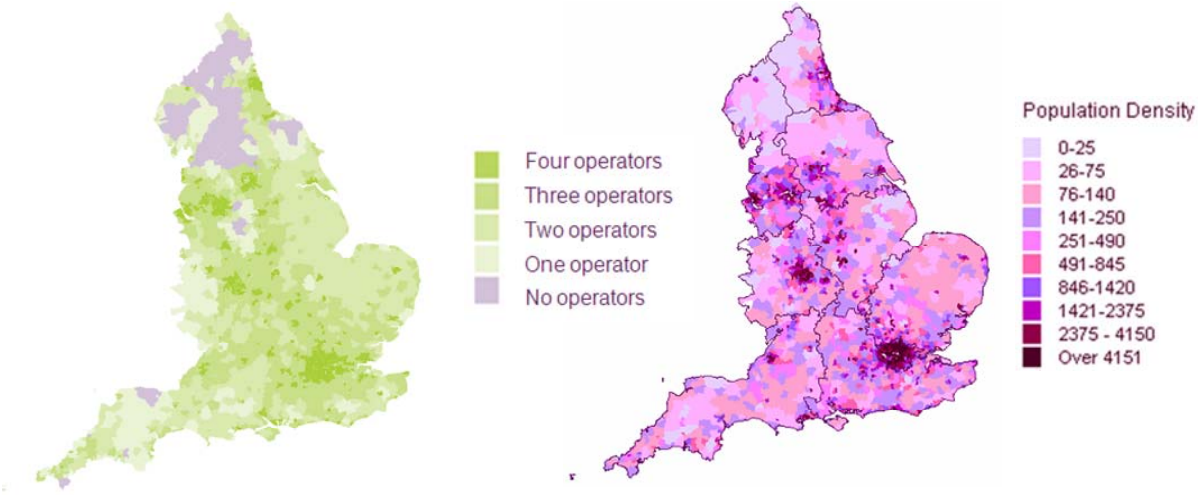
Figure 1.22 2G mobile phone geographic and population coverage



Source: Ofcom/ GSM Association / Europa Technologies; Q2 2010
Note: Figures show the percentage of postcode districts and percentage of population within postcode districts where at least one operator had at least 90% 2G area coverage; data not directly comparable to that published in the 2009 report.

The first map below shows where 2G services were available from one or more operators in England and where coverage was less than 90%; the second details the population density of each of the postcode districts covered in this analysis. In England, coverage is most concentrated around the major urban areas, while there are some areas, particularly in rural areas in the North West, where coverage is less than 90%. This is a result of the networks concentrating build in areas of higher population density; consequently, mobile coverage is usually lower in areas with low population density.

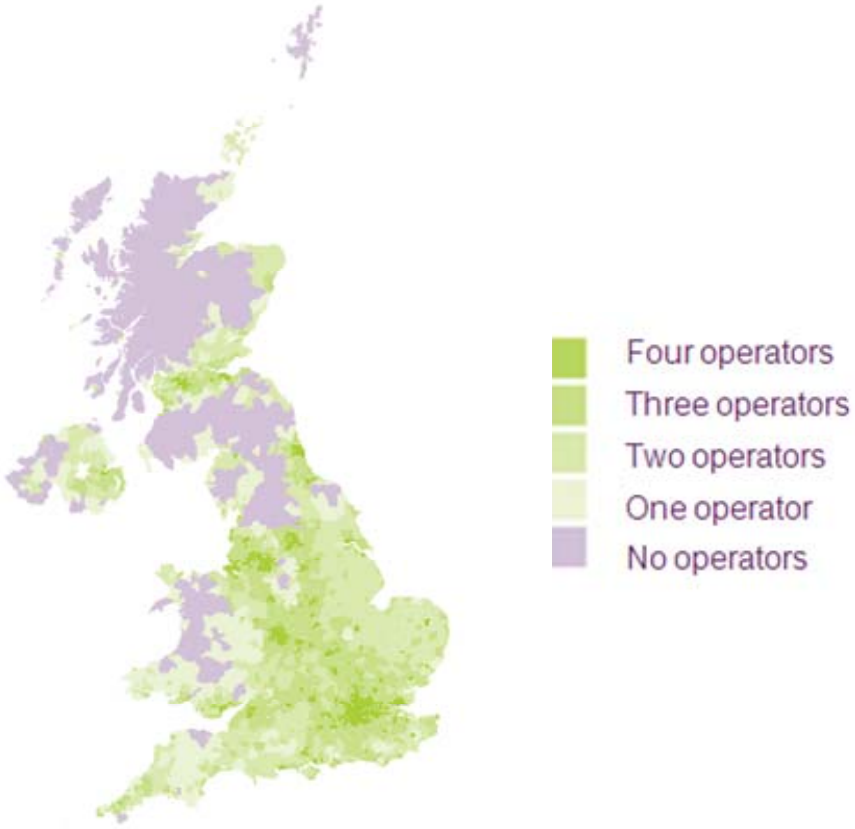
Figure 1.23 2G mobile coverage map and population density by postal code district



Source: Ofcom / GSM Association / Europa Technologies; Q2 2010, and National Statistics website: www.statistics.gov.uk 2001 Census data. Crown copyright material is reproduced with the permission of the Controller Office of Public Sector Information (OPSI).
Note: Map shows the number of 2G operators with at least 90% area coverage; not directly comparable to that published in the 2009 report. Population density shows number of people divided by area (km2) of postcode district.

The map of 2G coverage across the UK shows a similar trend, with coverage concentrated in and around major conurbations, whereas areas of low population density, such as parts of Mid and North Wales, the Border areas and the Scottish Highlands and Islands have lower coverage.

Figure 1.24 UK 2G mobile coverage map

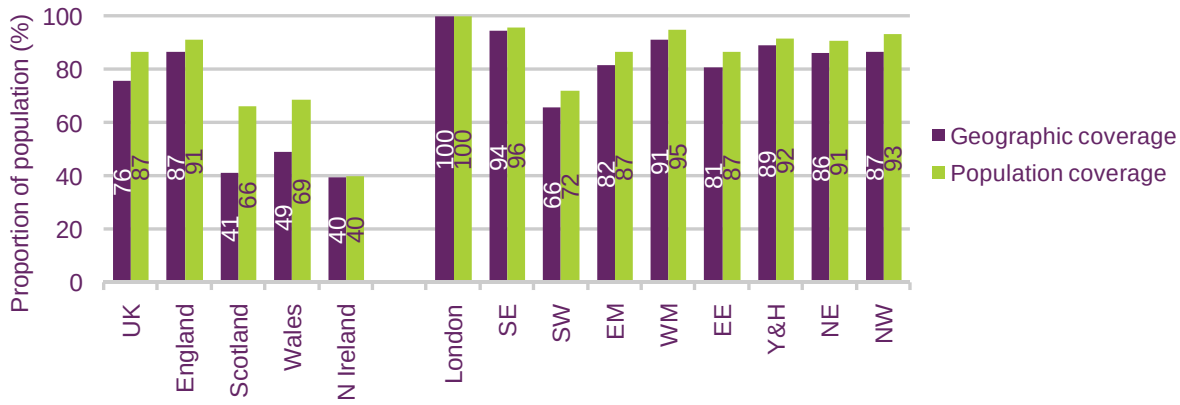


Source: Ofcom / GSM Association / Europa Technologies; Q2 2010
Note: Map shows the number of 2G operators with at least 90% area coverage; not directly comparable to that published in the 2009 report.

Across the UK, 3G coverage, supporting multimedia applications such as video and internet access alongside conventional voice services, is generally lower 2G coverage.

England's 3G population coverage (using the 90% postcode district threshold) is lower than 2G, at 91%. This is higher than the UK-wide average (87%), Wales (69%), Scotland (66%) and Northern Ireland (40%). In line with 2G, geographic 3G coverage is lower than population coverage. Eighty-seven per cent of postcode districts have area coverage from at least one mobile operator. This is higher than the UK as a whole (76%), Wales (49%), Scotland (41%) and Northern Ireland (40%).

Figure 1.25 3G mobile phone geographic and population coverage, by number of operators



Source: Ofcom/ GSM Association / Europa Technologies; Q2 2010
Note: Figures show the percentage of postcode districts and percentage of population within postcode districts where at least one operator had at least 90% 3G area coverage; data not directly comparable to those published in the 2009 report.

Figure 1.26 shows that within England the postcode districts with 90% 3G area coverage are most concentrated around London, the East Midlands and Greater Manchester, where population density is greatest (and where the geographic terrain is least challenging). In contrast, there are large areas in the North West and South West, where 3G coverage falls below the threshold used in this analysis.

Figure 1.26 3G coverage map

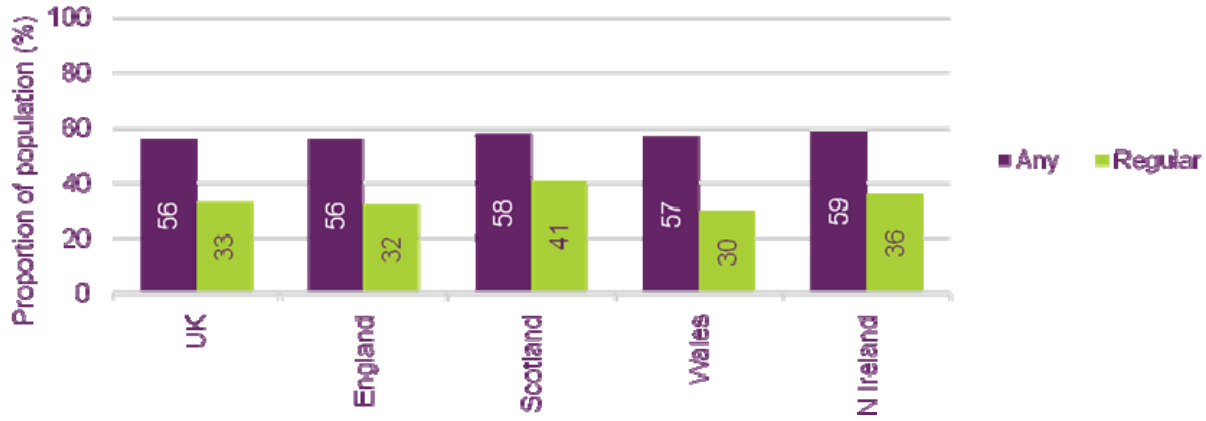
Source: Ofcom / GSM Association / Europa Technologies; Q2 2010
Note: Map shows the number of 3G operators with at least 90% area coverage; not directly comparable to figures published in the 2009 report.

Almost a third of mobile phone users in England claim to regularly experience mobile not-spots

Mobile phones are ubiquitous in England, with take-up levels at 90%, and 13% of households in England are mobile-only.

In October 2009, the Communications Consumer Panel published a review of mobile coverage[4]. Its research (Figure 1.27) found that 56% of people with a mobile phone in England had experienced problems with mobile coverage. Of these, 32% had experienced problems regularly.

Figure 1.27 Proportion of UK adults with a mobile phone experiencing problems with coverage



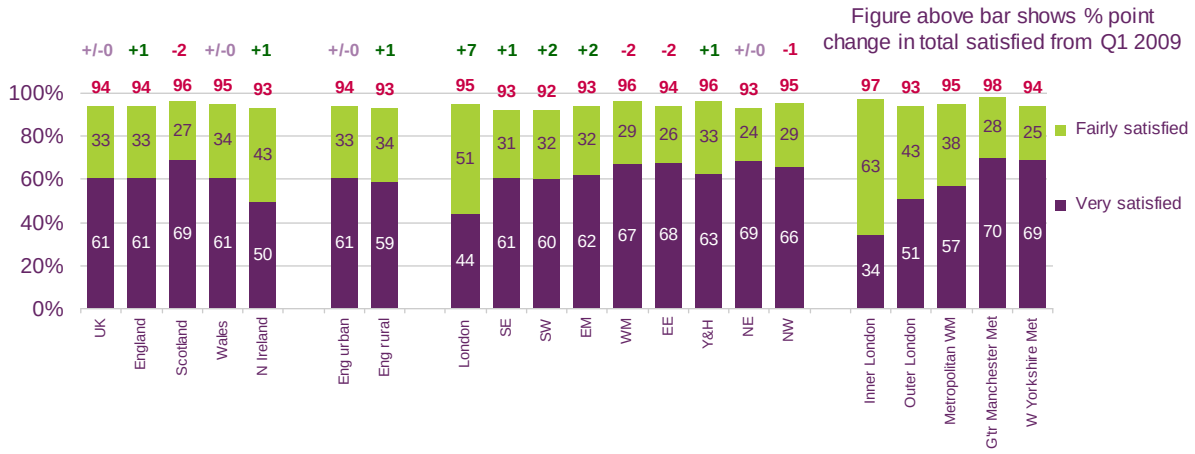
Source: Mostly Mobile, Communications Consumer Panel report, 2009
Question: Which of the following problems, if any, have you had in the past in terms of your mobile reception…? Which of them, if any, do you experience regularly?
Base: All those who use a mobile for personal use (UK n = 1716, England n = 1439, Scotland n = 144, Wales n = 84, Northern Ireland n = 50.

Most mobile phone users in England claim that they are satisfied with their mobile phone service

Ninety four per cent of all mobile phone users in England say that they are satisfied, or very satisfied, with their mobile phone service. This is on a par with the UK average, although not as high as in Scotland (96%) or Wales (95%). Consumers are most satisfied with their mobile phone service in Greater Manchester (98%) and inner London (97%), and least satisfied in the South West, South East, North East and outer London.

[4] *Mostly Mobile*, Communications Consumer Panel, October 2009: http://www.communicationsconsumerpanel.org.uk/Mobile_coverage_consumer_perspective.pdf

Figure 1.28 Overall satisfaction with mobile phone service



Source: Ofcom research, Q1 2010
Base: Adults aged 15+ who personally use a mobile phone (n = 7826 UK, 1237 Scotland, 5008 England, 923 Wales, 658 Northern Ireland)
QD21a. Thinking about your mobile phone service only, how satisfied are you with (main supplier) for the overall service provided by (main supplier)?

1.4.4 The consumer's experience of mobile not-spots in England

To better understand the consumer experience of not-spots in England, we commissioned some qualitative research, using a mixture of telephone and face-to-face interviews and diary exercises, to explore the effect on the small numbers of people who cannot get a mobile signal.

In England, the research was conducted in:

- rural locations: Hertfordshire villages, including Ashell;
- urban locations: Leominster and Bromyard in Hertfordshire; Stapleford Abbotts in Essex; and the Isle of Dogs/Poplar and Rotherhithe in Greater London; and
- commuter links to and from the above locations.

In the research, consumers in England highlighted the importance they placed on services such as mobile access and fixed broadband. For example, consumers in England said that:

> "I have to rely on using the Internet to keep in touch with friends and family, but even that cuts out which is very frustrating." (England, rural)

> "I don't know what I would do without my broadband." (England, city centre)

This research is part of our UK-wide work on better understanding the issue of mobile not-spots (again reflecting our Annual Plan priority). The full results of this will be published later this year as part of our overall consideration of the issues relating to mobile not-spots.

As part of our research we conducted a small number of in-depth interviews with people who are affected by not-spots. As an example, the case study below examines the experience of a mobile phone user in rural England who is affected by intermittent coverage.

Case study: dealing with intermittent coverage in a rural area

Sheila lives on a sheep farm in rural Herefordshire. Although masts are visible from the farm, mobile reception is very unreliable, both in the house and outside.

Sheila recently bought an iPhone on a mobile phone contract, and although she benefits from the internet service indoors using the home fixed connection, she finds it frustrating that due to the poor mobile phone reception, she is unable to make the most of her call and text allowance.

She finds the lack of coverage particularly frustrating when calls are dropped half-way through if the signal is lost. Sheila spends a lot of her time leaving and receiving voicemails when on the farm to check in with other people working on site. Now that she has a smartphone Sheila finds that she is using email more and more, and she is thinking about using Skype as a way of contacting others in future.

For the family members who work on the farm, lack of coverage keeps working methods relatively old-fashioned, with days having to be planned in the morning and members of the team having to work separately without the option of contact during the day.

This is an established routine for them and it seldom creates problems. However, when they hire additional staff at lambing time, the difficulties in communication become more pronounced. Staff who aren't used to working on the farm sometimes need extra support and without mobile phone coverage they are not able to contact others to request information urgently.

Note: The case study above is taken from one of the in-depth interviews conducted by the research agency as part of the not-spots qualitative research. The respondent's name has been changed to ensure anonymity.

1.4.5 Current progress and future work on not-spots

Emergency mobile roaming

A joint effort between Ofcom, mobile network operators, emergency services authorities and the fixed operators who act as call handling agents has resulted in the development of new emergency roaming procedures. These were introduced in 2009 and allow mobile phone users to call the emergency service numbers using another mobile network operator if their own service provider does not offer coverage while an alternative provider does.

In an emergency situation, people can call 999 or 112 from their mobile phone and if their provider has no coverage in the area the phone will automatically switch to whichever network operator has the best signal in that area.

For people living, working and travelling through areas where there are mobile not-spots, this provides them with reassurance that – should they need to make an emergency call, they can do so, provided that at least one mobile network operator has coverage in that area.

Mobile not-spots

Ofcom is undertaking further research to better understand mobile not-spots.

As outlined above, one of Ofcom's priorities for 2010/11 is to make progress on broadband and mobile phone not-spots. We are undertaking a programme of further research to improve our understanding, and we intend to publish further thinking on the causes of not-spots later this year; where they are; and what impact they have on citizens and consumers

across the UK. We plan to use this evidence to consider whether there are any appropriate solutions, within the scope of our duties and powers, for improving coverage.

Fixed broadband not-spots

The coalition government has announced a plan – subject to European state aid rules - to roll out 2Mb/s broadband across the UK by 2015. Ofcom will provide technical advice to assist with this process.

As well as municipal schemes, an alternative way of targeting fixed broadband not spots may be through the use of local schemes. For example, people experiencing fixed broadband not spots might be able to gain broadband access through point-to-point wireless networks, or satellite broadband provision. The emergence of increasingly fast and affordable mobile broadband - which is now used by 15% of people in England – may also provide an important alternative to people who are unable to receive a fixed broadband service – though there may also be areas where the not spots are concurrent.