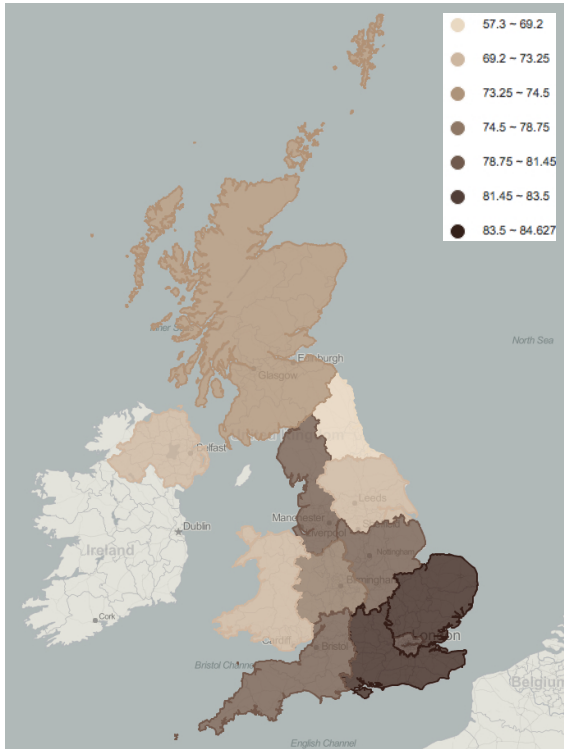


Web coverage in the UK and its potential impact on general population web surveys



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Web surveys for the general population:
How, why and when? Conference
25-26 February 2013

Ofcom Wave 2, 2012 Household internet access data mapped using geocommons

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1

Talk agenda

Parallel with telephone coverage research

UK internet coverage benchmarks

What is measured and how

Question wording

UK coverage data

Internet access and internet usage

International comparisons

Digital divide analysis

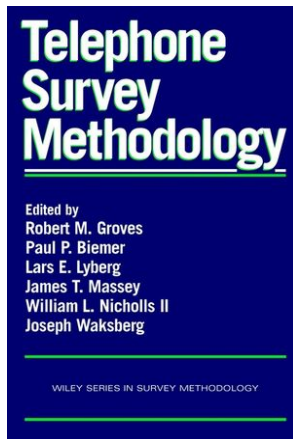
Final thoughts and considerations

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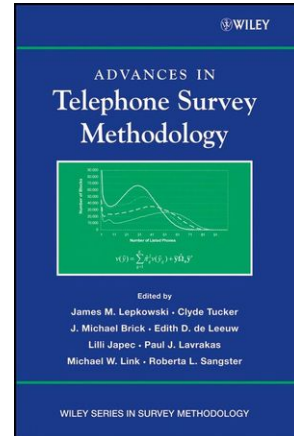
2

Web surveys of the general population: learnings from telephone survey methodology

If history teaches us anything, telephone surveys took off in the late 1960s when the telephone penetration approached 90% in the U.S. and in many European countries (Tucker & Lepkowsky, 2008, p.4)



Coverage was an issue debated at the First International conference on Telephone Survey Methodology held in 1987, and at the Second conference held in 2006



Trevin and Lee (1988) wrote their chapter about international comparisons of telephone coverage by asking statisticians around the world to provide data about telephone coverage of their own country

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Telephone coverage methodological debate during the years

1. Access

- Landline household access
- Mobile phone access

2. Changes in technology

- Multiple phone lines
- Faxes, answering machines, Caller-ID
- Mobile phones

3. Changes in sociopolitical climate

- Mobility of the respondent
- Attitudes towards privacy and confidentiality
- Legislations such as Do not call initiatives

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Why do survey researchers need Internet coverage benchmarks

Assess magnitude of coverage error

Assist in weighting survey data if the non internet population is not surveyed but the target population includes it

Make considerations and cost estimates for mixed mode surveys of the general population

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Ideal characteristics of Internet penetration benchmarks

- Survey design not subject to potential coverage error associated with the variable of interest (Internet penetration)
 - Face-to-face
 - Telephone
 - Mail
- Collected frequently (at least once a year)
- Large sample size
- Released timely
- Publicly available
- Released with a report or official tables (not dataset only)
- Anonymized microdataset availability (not tables or report only)

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Benchmarks of Internet penetration in the UK

Official statistics sources

- Office of National Statistics (ONS), Labour Force Survey
- Office of National Statistics (ONS), Opinion and Lifestyle Survey
- Office of Communication (Ofcom) technology tracker
- Eurobarometer E-communication survey (annual)
- Eurostat Information and Communication Technology (ICT) survey (annual)

Commercial sources

- Broadcaster Audience Research Board (Barb) Establishment survey (monthly)
- AcXiom Research Opinion Poll (ROP)
- Google Consumer Barometer enumeration study (Started in 2012)

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Measurement of Internet penetration, social agenda

Internet access rates are monitored by many agencies, funding large scale surveys to obtain regular estimates

For example, the European Union Digital Agenda (EDA) target is to increase regular internet usage up to 75% of the population by 2015

Official statistics questionnaires ask about reasons why the household is not online and also how the household is connected (broadband versus dial-up)

Another major reason for measuring internet access is to assess pockets of digital divide by specific groups such as elderly, disabled and other low income groups

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Measurement of Internet penetration, UK social agenda

Guardian article on October 17, 2012 by Jessica Fuhi, **“How the digital divide is being tackled”**:

“Digital exclusion is a social care issue, whether it's ordering prescriptions, applying for benefits or simply talking to others. So what is being done to help more people get online?” [link](#)

Non-for-profit initiatives such as GoOn UK reporting ONS data:

21% Not users= 10.8 Million

[link to site](#)

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Benchmarks: question wording

In the following slides we are looking at the exact question wording of the following surveys:

- ONS Labour Force Survey
- ONS Opinion and Lifestyle Survey
- Ofcom technology tracker
- Eurobarometer E-communication survey
- Eurostat ICT survey

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ONS Labour Force Survey question

INTUSE

When did you last use the internet, was it?

- Within the last 3 months?
- Between 3 months and a year ago?
- More than 1 year ago? or
- Never used it?
- Don't Know <proxy only>

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ONS Labour Force Survey dataset

Data collection frequency	Quarterly
Data release delay	Approximately one quarter late
Sampling methodology	Stratified by geography
Lowest interviewed age	16
Data availability	Economic and Social Data Service Free for university/nonprofit or £600 commercial.
Sample size	Approximately 99,900

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ONS Opinions and Lifestyle Survey key questions

A1. Do you or anyone in your household have access to the Internet at home, regardless of whether it is used? (by any device)

- Yes
- No
- Don't know

C2. On average how often did you use the Internet in the last 3 months?

- Every day or almost every day
- At least once a week (but not every day)
- At least once a month (but not every week)
- Less than once a month

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ONS Opinion and Lifestyle dataset

Data collection frequency	Yearly
Data release delay	Approximately six months later
Sampling methodology	Address based sample PPS
Lowest interviewed age	16
Data availability	Economic and Social Data Service Free for univ /nonprofit or £600 comm.
Sample size	Approximately 1,100 - 1,800 depends on the month

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Ofcom Technology Tracker key questions

QE2 **Do you or does anyone in your household have access to the internet/ Worldwide Web at HOME (via any device, e.g. PC, mobile phone etc)?**

- Yes have access and use at home
- Yes have access but do not use at home
- Do not have access at home
- Don't know

QE3 (IN6). SHOWCARD **Do you ever access the internet anywhere other than in your home at all? IF YES: Where is that? (MULTI CODE)**

...

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Ofcom Technology Tracker

Data collection frequency	Triannual
Data release delay	Few months later
Sampling methodology	Stratified by geography + quota
Lowest interviewed age	16
Data availability	Not readily available, need to file a Freedom of Information Request (FOI)
Sample size	Approximately 2,750

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Eurobarometer E-communication survey question

D46 SHOWCARD **Which of the following goods do you have?**

- ...
- An internet connection at home
- ...

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Eurostat survey on ICT usage in households and by individuals key questions

A2 **Do you or anyone in your household have access to the Internet at home?** (by any device)

- Yes
- No
- Don't know

C1 **When did you last use the Internet?** (filter question) (via any device, desktop, portable or handheld, including mobile or smart phones)

- Within the last 3 months
- Between 3 months and a year ago
- More than 1 year ago
- Never used it

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Coverage issues and literacy levels

- Because surveys often focus on subgroups, coverage of the social, demographic and economic subdomains is important for designing and analyzing the results from internet surveys of the general population
- Internet literacy and literacy in general is a key assumption for self administered surveys such as web surveys
- According to the BSI report in the UK there is 7.1% of the population below level Entry level 2 or lower
 - Entry Level 1 is the national school curriculum equivalent for attainment at age 5-7. Adults below Entry Level 1 may not be able to write short messages to family or select floor numbers
 - Entry Level 2 is the national school curriculum equivalent for attainment at age 7-9. Adults with below Entry Level 2 may not be able to describe a child's symptoms to a doctor or use a cash point to withdraw cash

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Telephone Status vs. Internet Status

Phone status

- No phone of any kind
- Landline only
- Both Landline and Mobile
- Mobile mostly
- Mobile only

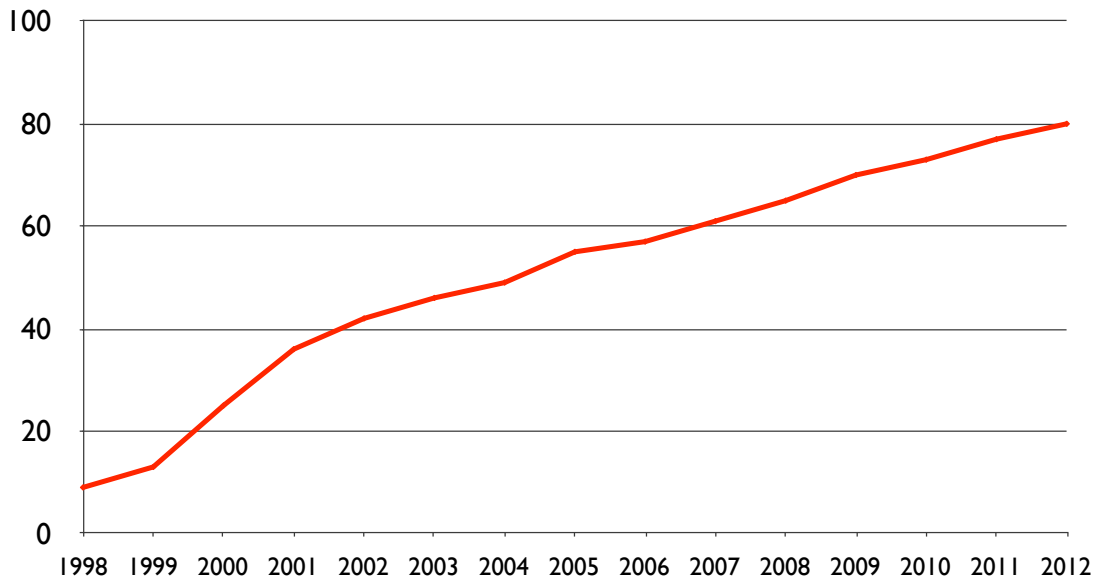
Internet status

- No internet from anywhere
- Internet from home only
- Internet from home and outside home
- Internet outside home only
 - Smartphone
 - Work + wifi

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UK Household internet access growth over time

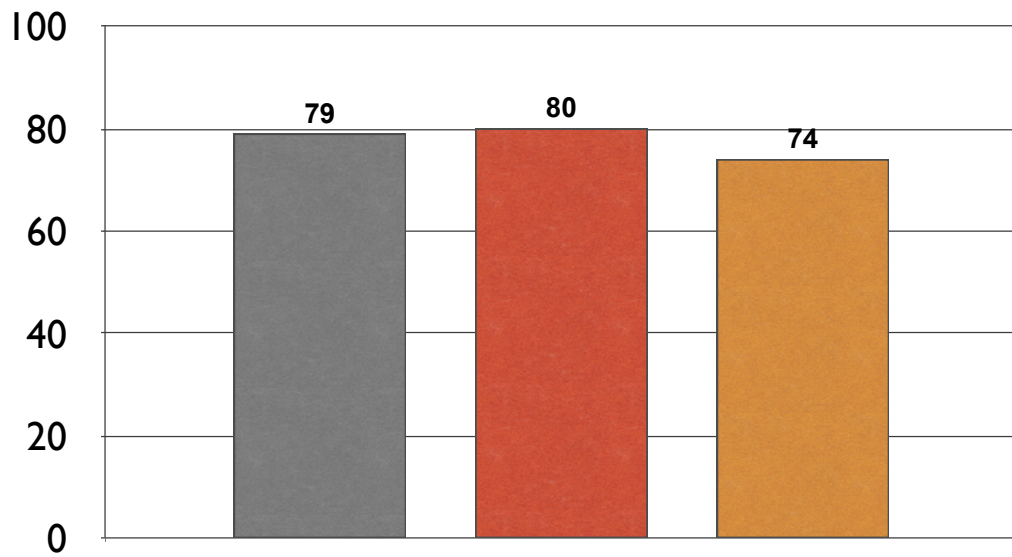


Source: ONS 2012 report

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UK internet penetration, household level

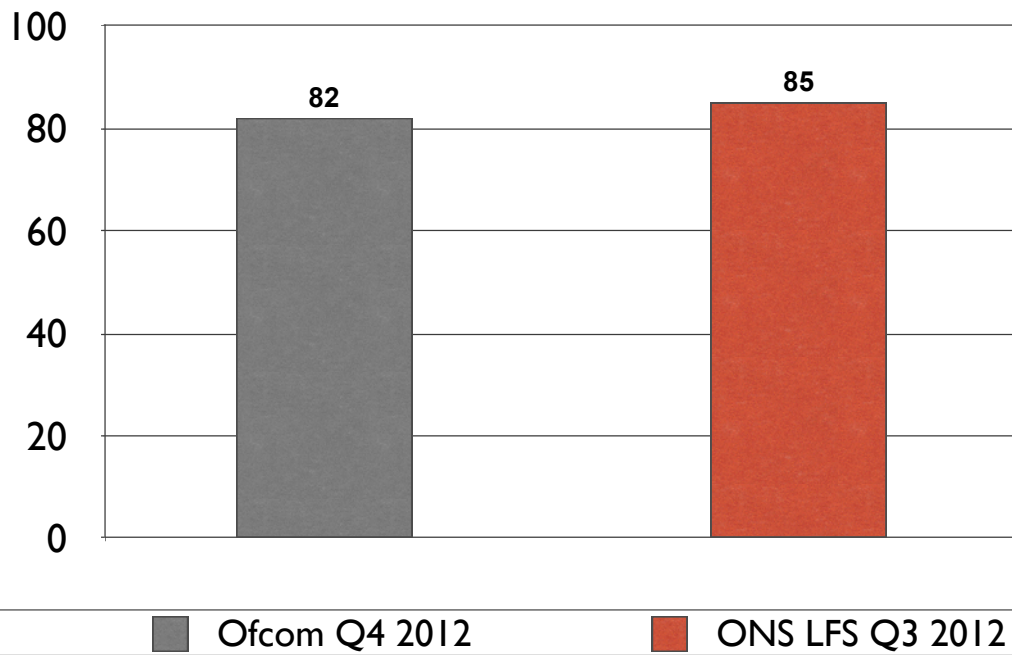


Ofcom Q4 2012 ONS Mid 2012 Eurobarometer Dec 2011

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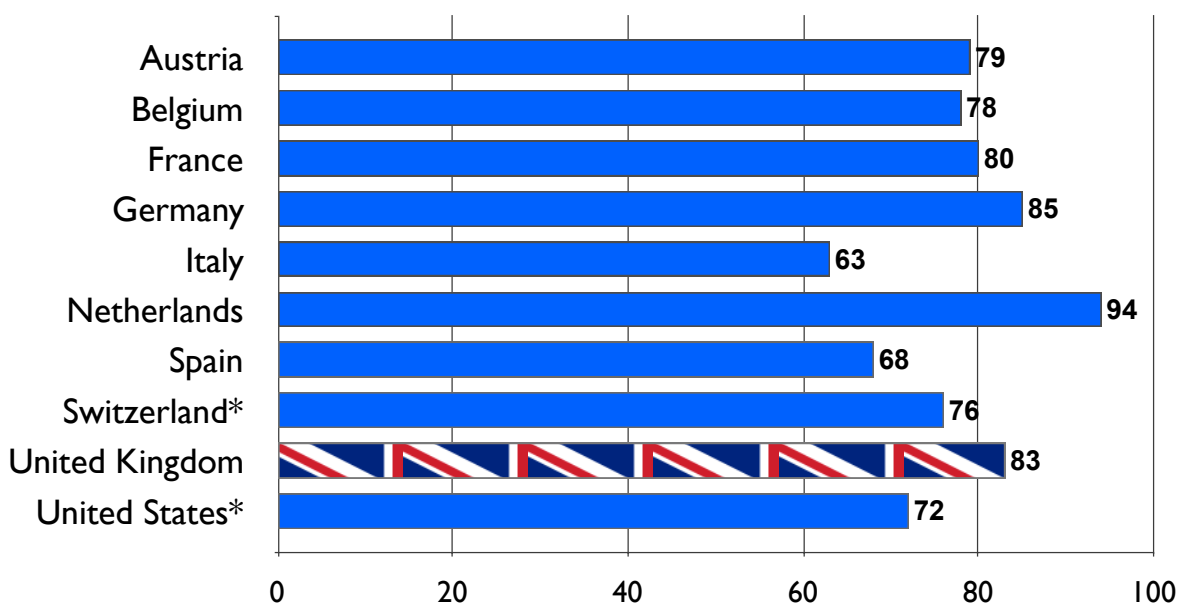
UK internet penetration, person level (16+)



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International comparisons, Internet from home 2012

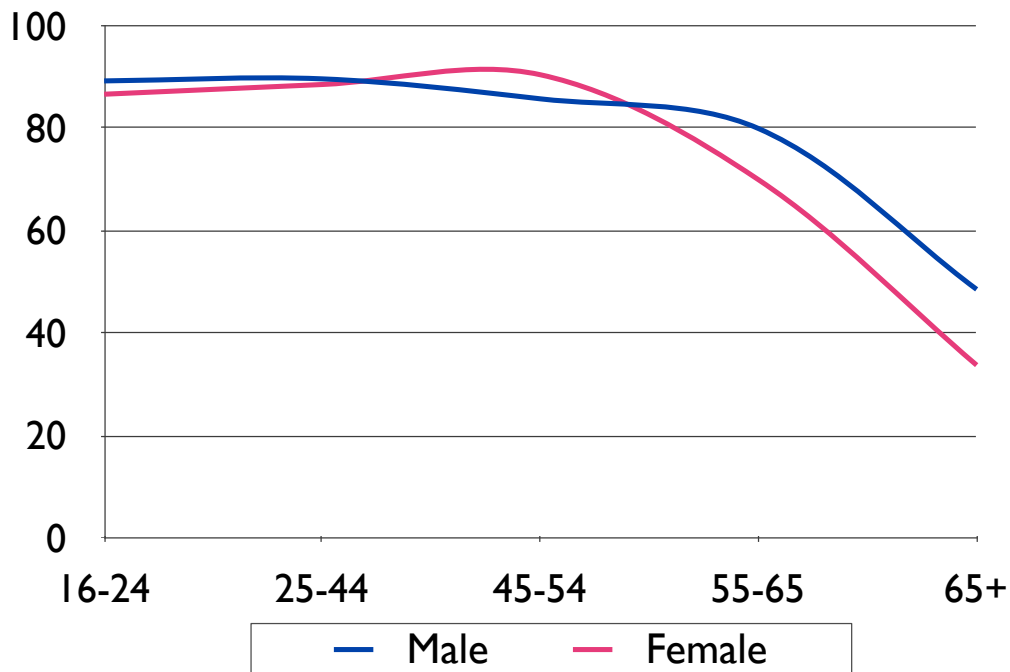


Source: Eurostat Statistics in Focus 50/2012 report + CPS data (July 2011) for US and Office Fédéral de la Statistique for Switzerland (2012)

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UK: Who is online from home age by gender

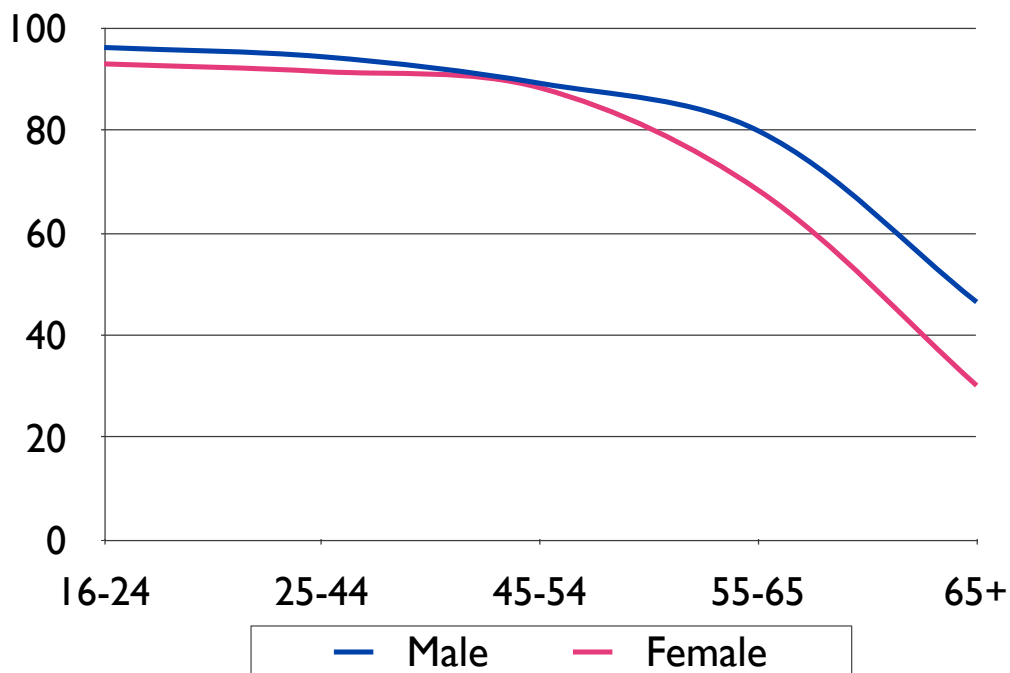


Source: Ofcom July 2012

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UK: Who is online from anywhere age by gender



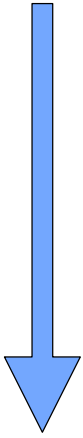
Source: Ofcom July 2012

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Level of connectivity

**High
Connectivity**



- Internet both inside and outside home, multiple devices
- Internet both inside and outside home, not multiple devices
- Internet at home only, multiple devices
- Internet at home only, single device
- Internet only from outside home
- No Internet at home neither access from outside home

**No
Connectivity**

Source: File (2013)

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Level of internet usage activity

High Activity



**No
Activity**

- Every day
- Several times a week
- At least once a week
- At least once a month
- Less than once a month
- Never

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UK combination of access and frequency of use (%)

	Every day & many times a week	Once a week and at least once a month	Never or extremely rare
Home use only	24.2	3.6	2.2
Home & Outside home	47.0	1.4	0.1
Outside only	2.0	2.1	1.0
No access from anywhere	0	0	19.7

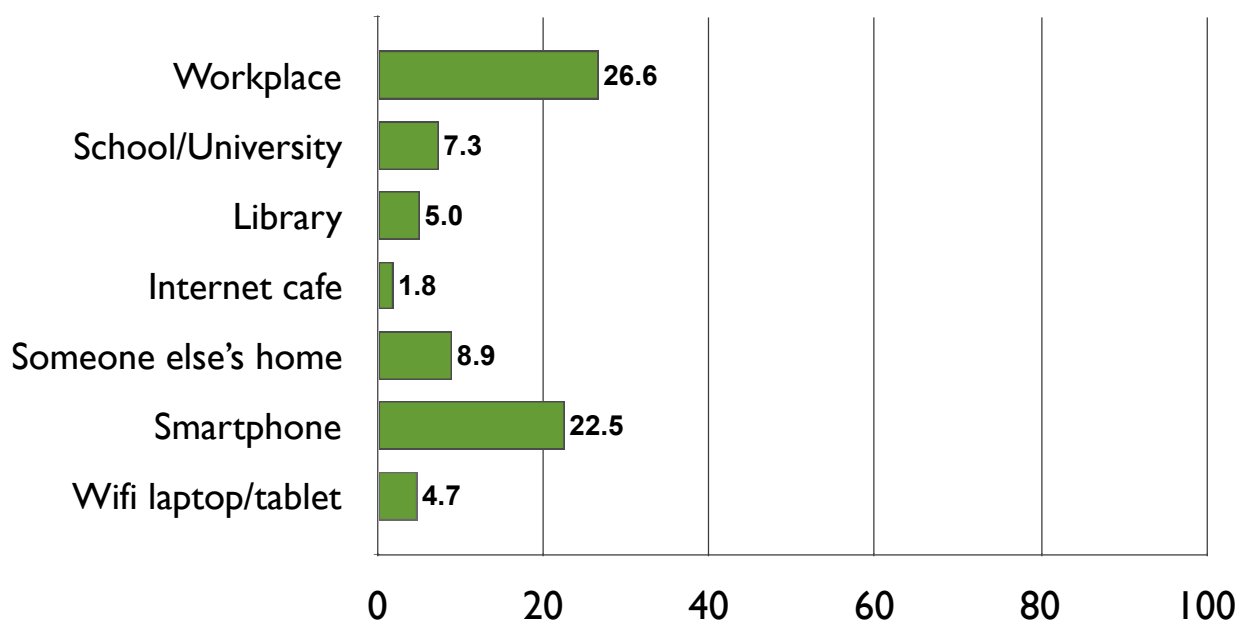
Ofcom July 2012 dataset

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UK Internet access other than home

[Do you ever access the internet anywhere other than in your home at all?]



Source: Ofcom July 2012

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UK Digital divide analysis using Ofcom Q2 2012 technology tracker

Dependent variable:

Having Internet access from home and use it

Predictors:

- Gender (1 = Male)
- Cage: Age centered (Age - mean of age)
- Race (1 = White)
- Urbanicity (1 = Urban)
- Regions (England, Scotland, Wales, Northern England)
- Social Grade (A&B, C1, C2, D&E)
- Interaction between Cage and Social Grade

Income not used due to high missing rate (29.1%)

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A note on social grade

“Social Grade is the ‘common currency’ social classification used by the advertising industry and employed in market research
This is NOT the government NC_SEC classification

The classification assigns every household to a grade, usually based upon the occupation and employment status of the Chief Income Earner...” (Market Research Society)

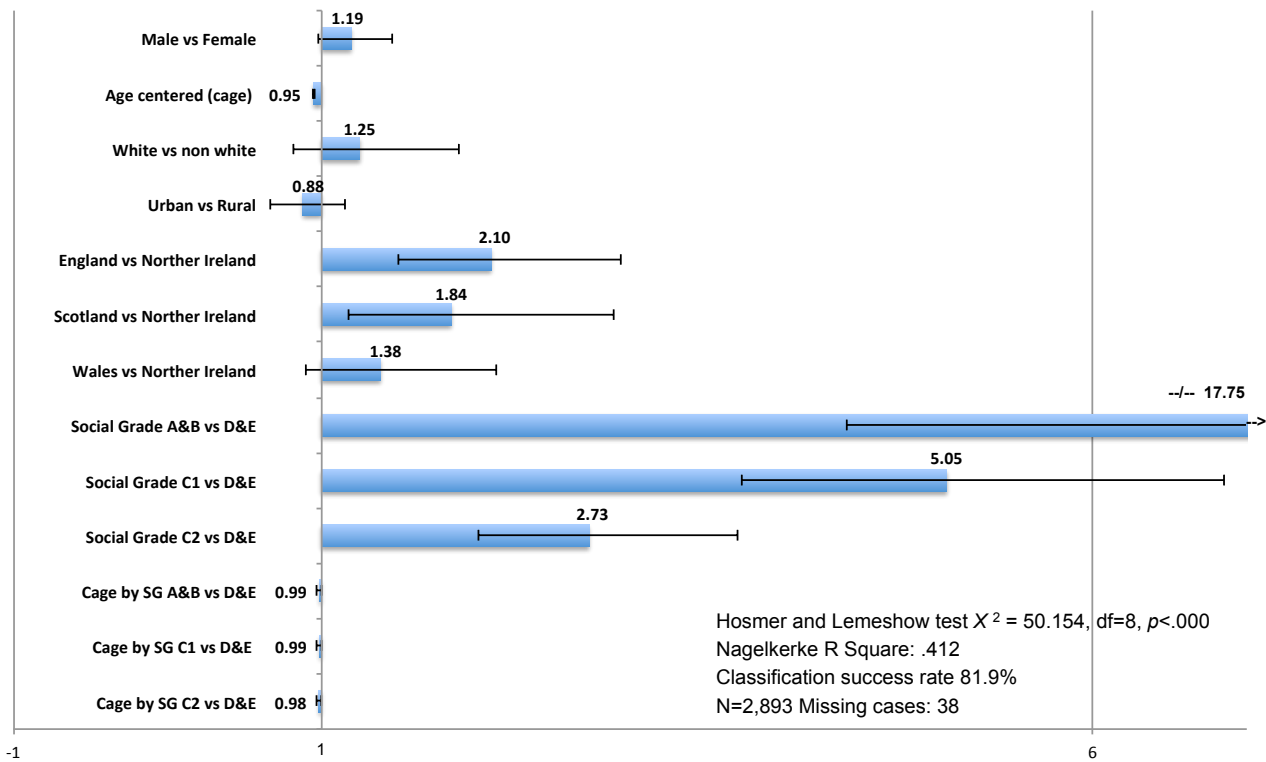
- A. Higher managerial, administrative and professional
- B. Intermediate managerial, administrative and professional
- C.1 Supervisory, clerical and junior managerial, administrative and professional
- C.2 Skilled manual worker
- D. Semi-skilled and unskilled manual workers
- E. State pensioners, casual and lowest grade workers, unemployed with state benefits only

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Odds ratios of being online from home UK

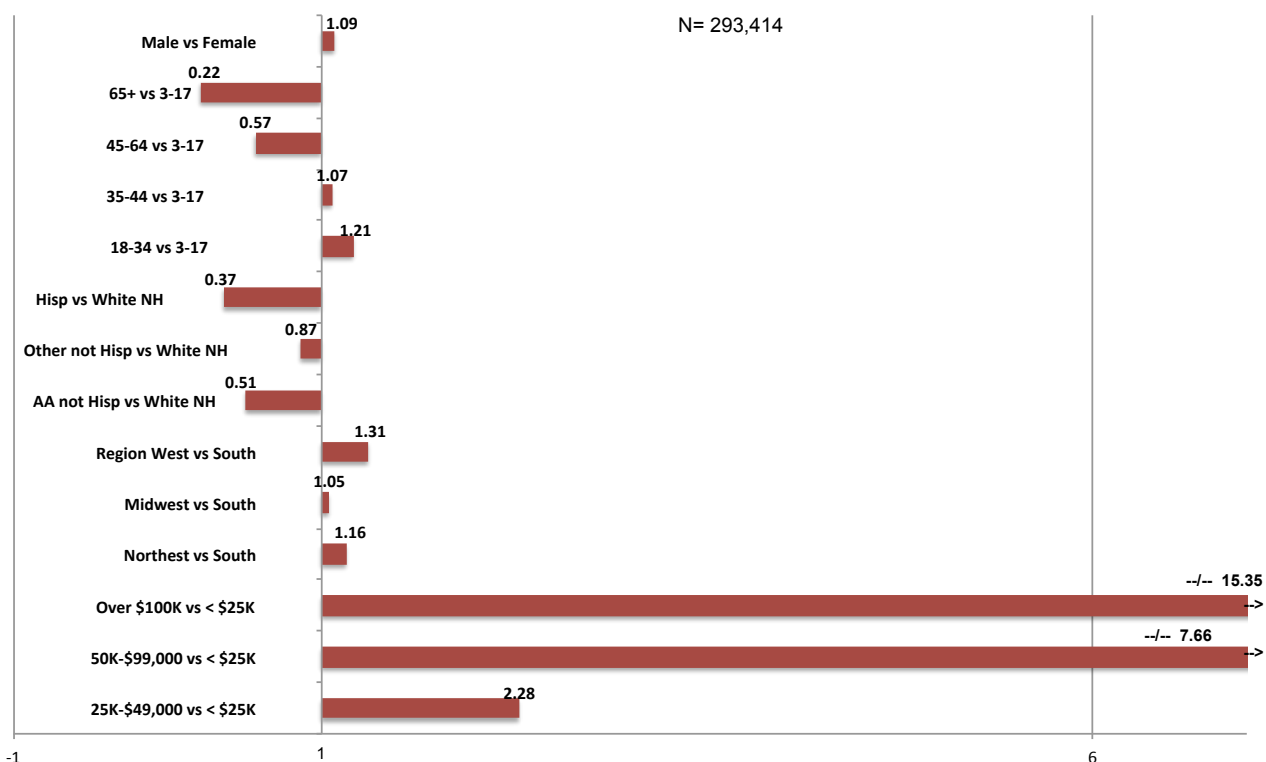
Ofcom July 2012 dataset logistic regression



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Odds ratios of being online from home U.S.

CPS July 2011 dataset logistic regression (File, 2013)



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Digital divide analysis summary

By using logistic regression type analysis we can net out what really makes a difference in internet access

For example in the UK it does not appear that there is a gender gap when controlling for age, race, urbanicity, social class, and region

This is not the case for the US, where there is still a gender gap although of low magnitude

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Internet coverage methodological debate (or what we should debate)

1. Access

- Type of access: home vs. outside home
- Smartphone access
- Frequency of usage
- Internet / reading literacy

2. Changes in technology

- Multiple devices: laptop/desktop/ smartphone & tablets

3. Changes in sociopolitical climate

- Mobility of the respondent
- Attitudes towards privacy and confidentiality
- Legislations

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Considerations for web surveys of the General Population

The good news: In the UK internet access is steadily increasing and it can quickly reach a level of almost universal coverage as in the Netherlands, for example

The less so good news: Internet access is becoming more and more mobile (e.g Smartphone) and more and more devices are available to answer a survey

Making web surveys device agnostic and eliminating device effect is the next challenge of survey methodologists

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Quantitative Marketing - Survey Team
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Web surveys for the general population: How, why and when?

Conference 25-26 February 2013, London

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