

# The Use Of And Attitudes Towards Information And Communication Technologies (ICT)By People From Black And Minority Ethnic Groups Living In Deprived Areas

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School of Continuing Education and Department of Sociology and Social Policy, University of Leeds

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## GLOSSARY OF TERMS

<b>BHPS</b>	British Household Panel Survey
<b>BME</b>	Black and Minority Ethnic
<b>DVD</b>	Digital Video Disc
<b>ICT</b>	Information and Communication Technologies
<b>MP3</b>	Motion Picture (experts group) 3 (or MPEG audio player 3)
<b>ONS</b>	Office of National Statistics
<b>PAT 15</b>	Policy Action Team 15
<b>PC</b>	Personal Computer
<b>PDA</b>	Personal Digital Assistant
<b>WAP</b>	Wireless Application Protocol (Mobile phones)

### **Labour market status:**

The people who took part in this survey gave their own definition of their labour market status. The household survey used a standard classification of economic activity into full- and part-time employment, self-employment, participation in government training schemes, unemployment, full-time education, and non-participation in the labour market. For the purposes of simplification in reporting, they were often grouped into economically active and inactive.

The **economically active** includes people working as employees or self-employed, people engaged on government training courses and the unemployed.

**The economically inactive** include those in full-time education, looking after a home or family full-time, unable to work on health grounds, the retired and those not active in the labour market for other reasons.

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The report was drafted in consultation with Rachel Barker and Vanessa Pittard (DfES).

## EXECUTIVE SUMMARY

### Introduction and Background

This report follows from the Social Exclusion Unit's PAT (Policy Action Team) 15 report<sup>1</sup> on access to and use of information and communication technologies (ICT) by people living in deprived areas. PAT 15 emphasised policy concerns about the 'digital divide' and 'information poverty' in deprived areas. Among other issues, it highlighted the paucity of information on access to, and usage of, ICT by people from Black and minority ethnic (BME) groups in these areas, concluding that there was an urgent need for comprehensive data to be collected in deprived areas in order that a baseline position could be established.

The main aims of this research project were to address this need and thus provide background information to inform policy makers and practitioners about differentials in access to, usage of and attitudes towards, ICT between ethnic groups living in deprived areas. It was commissioned as one of three linked projects addressing the issues raised by the PAT 15 report<sup>2</sup>.

### Methodology

A mixture of quantitative and qualitative research methods was used, specifically:

- A national questionnaire survey of 1,182 Black and ethnic minority and 391 White households in inner and outer London, Birmingham, Leeds/Bradford, Cardiff and Glasgow.
- Local case studies, undertaken in the West Midlands and West Yorkshire, which included focus groups and 118 qualitative household interviews.

This report focuses primarily on the results from the questionnaire survey, with some supplementary information from the qualitative case studies. Both the survey and the local case studies focused primarily on visible minority ethnic groups resident in neighbourhoods characterised by a geographical concentration of BME residents.

This report presents two types of analysis, each with a different function:

- Descriptive analysis of the ICT experiences of the sampled groups from the deprived communities, including analysis of differences between groups. The analysis offers a picture of BME ICT access and use in deprived communities *as it stands* (i.e. without accounting for differences in terms of other demographic/social factors)
- Statistical analysis which identifies key predictors of ICT access and use. This allows us to identify the extent to which ethnic group membership was a factor in its own right (regardless of other factors) and indicates possible explanations for different levels of ICT access and use.

**Findings from this study represent the picture in deprived communities with a concentration of BME groups and cannot be taken as a reflection of more general patterns of access and use for BME groups, nor are the findings a reflection of ICT experience in deprived areas with a predominantly White population.**

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<sup>1</sup> Department of Trade and Industry (2000) 'Closing the Digital Divide: Information and Communication Technologies in Deprived Areas, a report by Social Exclusion Unit Policy Action Team 15'.

<sup>2</sup> Further studies addressed good practice in the provision of ICT for BME groups and scoping the availability of software in minority languages.

## **Main Findings**

### **Awareness**

Awareness levels for the sample as a whole were high for mobile phones, digital TVs, PCs and DVD players, but varied for newer technologies like PDAs and MP3 players.

Awareness of ICT items did not differ considerably between the White group and the aggregated BME group for well-known items like mobile phones and PCs, but there was some disparity for newer items such as PDAs and WAP phones, with awareness levels higher among White respondents.

Relatively low awareness of newer technologies was particularly the case with South Asian and Black respondents. For example, awareness of PDAs was 46 per cent and 54 per cent for these groups compared to 66 per cent among the White group.

Awareness levels were greatest amongst households containing two or more adults<sup>3</sup> and in households where school-age children were present. This pattern was less apparent for BME groups than the White group.

Age was the main predictor of awareness of PCs. Economic position and skill level were significant factors, irrespective of ethnic group. Location was also a significant factor in its own right (people living outside London were more likely to be aware of PCs).

Being South Asian was also a significant predictor of PC awareness – South Asian respondents were less likely to be aware of PC technology than other groups after controlling for other factors.

### **Ownership and Availability within the Home**

83 per cent of the sample owned one or more of a list of ICT items. Ownership of mobile phones was highest (72 per cent), followed by digital TV (43 per cent) and home PC (38 per cent).

In the sampled population there were no large differences in general ownership levels of ICT between the White group and the aggregated BME group, and no marked differences by ethnic group in the age of PCs where they were owned.

However, PC ownership among South Asian (42 per cent), Chinese and Other (44 per cent) and Mixed (41 per cent) groups was higher than ownership levels of both White and Black groups (37 per cent and 31 per cent respectively).

Respondents with Mixed parentage and those of South Asian origin were more likely to own a digital TV than other groups (52 per cent and 47 per cent compared to an overall BME group figure of 43 per cent and a figure of 39 per cent for White respondents).

When analysis controlled for other factors, like household type and income, being Black was a significant predictor of lack of PC ownership. Economic position was the main predictor of this, with unemployed and economically inactive people least likely to own a PC. Other significant factors were income level and household type, particularly the presence of children in the household.

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<sup>3</sup> Perhaps due to exposure to other household members using ICT products and services.



This association of ownership of ICT items with the presence of children was more pronounced for White than for BME groups.

After controlling for other factors, Black and South Asian people were still less likely than White people in these communities to have used home Internet access. Other significant factors were economic position and income.

### **Experience of Using ICT**

78 per cent of sampled respondents had used an ICT item, mobile phones being most used (76 per cent). 42 per cent had used text messaging. 49 per cent had used a PC/laptop. 42 per cent had used the Internet.

Experience of use of ICT items was generally higher among men than among women in the sampled population.

Age was the main predictor of probability of having used a PC (pensioners were very unlikely to have used one). Other significant factors were economic position and skill level.

There were some differences between ethnic groups in the sampled population in experience of using a PC. Respondents of Mixed parentage and from Chinese & Other groups reported the highest levels of experience of use across the range of named ICT items, while respondents from South Asian groups reported lower levels of experience than other ethnic groups. Being South Asian was a significant predictor of PC use, after controlling for other factors.

Only 38 per cent of South Asian respondents and 40 per cent of Black respondents had used the Internet, compared to 45 per cent of White respondents, 54 per cent of Chinese and Other respondents and 61 per cent of respondents from the Mixed parentage group. After controlling for other factors, being South Asian, or from a Chinese and Other group were significant predictors of *use of the Internet*.

Use of the Internet at home was lowest for Black respondents (22 per cent) and highest for respondents with Mixed parentage (38 per cent) and Chinese and Other groups (35 per cent). For White respondents this figure was 31 per cent and for South Asian respondents it was 26 per cent. After controlling for other factors, being Black was significant in predicting probability of using the Internet at home.

Experience of using ICT was greater for respondents in households with children than those in households without children. This was a stronger pattern for White respondents with children (63 per cent had used the Internet) than for BME respondents with children (40 per cent had used the Internet). Levels of use for those without children were very similar between White and BME groups.

As might be expected the main influence on use of the Internet was use of a PC, but age and economic position were also significant predictors.

### **Use of PCs at Home**

The most common use for a PC at home was for own study or learning (70 per cent of respondents reported this). Use of email and surfing the web were the next most common activities (60 per cent for both).

Women were more likely than men to have helped children with their learning (68 per cent who used the PC regularly reported this, as opposed to 45.5 per cent of men).

BME respondents were more likely to have used a home PC for educational purposes than White respondents (73 per cent compared to 61 per cent).

There was little difference between White and BME groups regarding the proportions using their PC to help children with their homework.

In contrast, White respondents were more likely than respondents from other ethnic groups to report using their home PC for all other purposes, including:

- leisure activities (68 per cent, compared to 50 per cent),
- e-mailing (66 per cent compared to 57 per cent, despite evidence from the qualitative research of common use of email among BME respondents to communicate with family members overseas)
- web surfing (72 per cent compared to 56 per cent),
- for work purposes (44 per cent compared to 36 per cent) and
- buying goods and services (42 per cent, compared to 25 per cent).

After controlling for other factors, being South Asian was a significant predictor of the probability of *using a home PC for leisure* and *using a home PC for email*, probability being lower for South Asian people than other groups.

Being a student was the main predictor of using a PC for study purposes. Across a range of purposes, usage levels were greatest among students, those in work and those in higher skill groups.

A greater proportion of White respondents than BME respondents had used a home PC to access statutory service provision. 26 per cent of Black respondents and 20 per cent of South Asian respondents had done this compared to 34 per cent of White respondents.

A higher proportion of respondents from BME than from the White group had used the Internet to access information of relevance to ethnic/religious background (21 per cent of BME group users compared to 9 per cent of White). Interviews indicated that some people valued the use of ICT to access information of specific relevance to their ethnic/religious/cultural background.

### **Local Provision, Awareness and Use of ICT Outside the Home**

Overall awareness of UK online centres and **learndirect** was 53 per cent. South Asian and Chinese and Other respondents were less aware of UK online centres and **learndirect** than other groups (43 and 38 per cent respectively, though the sample size for the latter group was small).

Despite these levels of awareness of UK online centres and **learndirect** brands, 64 per cent of respondents in the sample as a whole reported that they were aware of public computer facilities. The local public library was most often cited (by 50 per cent), followed by schools/colleges (32 per cent) and Internet cafes (30 per cent).

Highest levels of awareness of public computer facilities were among younger people and respondents with Mixed parentage. Of all ethnic groups, awareness was lowest among South Asian respondents, however this was still relatively high (60 per cent).

46 per cent of the total sample had used a public access facility. This was most likely to be a school or college (34 per cent) or a library (26 per cent). Young people were most likely to have used public access facilities.

Levels of use of public ICT access facilities were broadly similar for White, South Asian and Black groups (42 per cent, 43 per cent and 49 per cent respectively), and were higher for Mixed and Chinese and Other groups (63 per cent and 63 per cent respectively, though these figures need to be treated cautiously, due to small sample sizes).

People in the South Asian group were significantly less likely to have used public Internet facilities than other groups. Other significant predictors of using public Internet facilities were economic position, skill level and age.

### **Barriers and Facilitators to the Use and Ownership of ICT**

The main reasons cited for not using a PC were lack of computer literacy (48 per cent) and lack of interest (41 per cent). Lack of computer literacy was more likely to be reported as a barrier among Chinese and Other non-users (60 per cent) and Mixed parentage non-users (58 per cent) than other groups.

Lack of interest/need was the main reason given by White non-users (60 per cent), compared to only a third of those from Black, South Asian and Mixed groups. Lack of interest/need was particularly prevalent among older age groups.

25 per cent of South Asian non-PC users and 33 per cent of Chinese and Other non-PC users reported that problems in reading and writing in English prevented them from using a PC. This was not a significant issue for other groups. Controlling for other factors, having poor English language ability was a significant predictor of not having used a PC.

Cost was cited by a relatively higher percentage of Mixed, Chinese and other and Black respondents compared to other groups (58 per cent, 38 per cent and 47 per cent respectively cited this). For White and South Asian groups this was reported as a problem for 26 per cent and 28 per cent of non-users. However, statistical analysis did not reveal ethnic group membership in its own right as a factor in reporting cost as a barrier.

63 per cent of the overall sample reported that they had non-existent or beginner-level ICT skills. This was especially the case for older respondents. Those in work had the highest self-reported computer literacy levels. Overall, reported ICT skill levels were similar between White, South Asian and Black ethnic groups, but higher for Mixed and Chinese and Other groups.

80 per cent of respondents said that computer skills were essential to children. BME respondents were slightly more likely than White respondents to say this.

Training in computer skills was most often undertaken for reasons linked to employability (i.e. for 'developing skills', 'to succeed at work' or 'to get a new job'). Respondents from the

South Asian group were less likely to have undertaken ICT training than those from other BME groups.

After controlling for other factors, women, Black people and people with intermediate skills were significantly more likely to have undertaken formal ICT training than other groups.

Qualitative interviews indicated many participants were motivated to become more conversant with ICT for study and work purposes and also to develop ICT skills like the use of email.

The most common reasons for non-use of public facilities were not wanting or not needing to use the facilities (32 per cent and 30 per cent of non-users). This was especially the case for White respondents and older respondents. The most significant factors in non-use of public facilities included age and skill level. South Asian people are also significantly less likely than other groups to use public facilities.

In line with findings, above, about barriers to the use of PCs, 25 per cent of BME respondents stated lack of skills in English as a reason for non-use of public facilities. There were indications from interviews that gender may also act as a barrier for some Muslim women.

Evidence from qualitative interviews suggests the importance of localised provision for public ICT access in order to encourage BME groups to use facilities. There were mixed views about the importance of targeting provision towards specific ethnic groups or age groups.

## **Conclusions**

Many of the differences in levels of ICT access and use can be accounted for by age, household structure and income. However, ethnic group was also a factor in ICT access and use in its own right. In some key aspects South Asian and Black groups emerge as disadvantaged - particularly South Asian women. The Mixed parentage group is relatively advantaged though this may reflect its younger age profile. People across all ethnic groups are aware of the importance and role of ICT training, but language and computer literacy represented barriers to this to some extent.

## **Recommendations**

- There is evidence to suggest that there is scope for further development of combined basic skills and/or language (ESOL) and computer literacy training to meet the needs of BME groups in deprived communities.
- In order to promote training in, and use of, ICT it is important to build on those aspects that people value – including ability to help children with their studies, improving employment prospects and social interaction at publicly provided ICT facilities.
- In order to meet a diversity of client preferences/requirements, there is scope for promoting networking amongst local providers, to co-ordinate provision and promote each other's services.

As this research focuses on areas with a BME concentration, there is a need to consider both the experiences of more dispersed BME groups where targeted provision is more difficult and comparison research in deprived communities with predominantly White populations.

# 1. INTRODUCTION AND BACKGROUND

## 1.1 Context

This project was stimulated by a report to the Social Exclusion Unit of the Cabinet Office into the access to and use of ICT by people living in deprived neighbourhoods<sup>4</sup>.

The Social Exclusion Unit (SEU) commissioned a set of 18 reports (produced by Policy Action Teams [PATs], drawn from various government departments) each of which addressed a separate range of questions related to social exclusion and neighbourhood renewal. The PAT 15 team was concerned with the consequences of the 'information age' for a society that is already divided socially and economically. An additional 'digital divide' may be said to be emerging, with the 'information rich' benefiting from enhanced access to the economy and government, while the 'information poor' face a new form of exclusion: the inability to fully participate in the emerging economy and society based on new forms of ICT.

The PAT 15 report argued that access to ICT in deprived neighbourhoods would be relatively poor. Access to all forms of information technology would be most limited in such areas due to lower incomes and a physical telecommunications infrastructure which is either obsolete or underdeveloped (e.g. in large council estates). With high unemployment rates, a relatively low percentage of people become familiar with ICT through their work. A negative experience of education and lack of a compelling reason to become conversant with ICT would mean that a high percentage of residents in these areas are less likely to take advantage of training opportunities on offer.

It was further suggested that while all these factors also affect people from BME groups living in deprived neighbourhoods, their effect may be reinforced by *potential barriers* to the use of ICT *specific to people from these ethnic groups*. These include the *language* used by ICT hardware and software, *lower levels of ability in English* (particularly for older people and women from South Asian ethnic groups, as well as some groups of asylum seekers), and *cultural or gender-specific barriers*. On the other hand, some BME groups may be more receptive to ICT than the majority population.

However, the PAT 15 team noted the almost complete lack of information on the usage of ICT by people in deprived areas generally, and more specifically, a paucity of information on the usage of and access to ICT by people from BME groups. The PAT 15 report concluded that there is an urgent need for *comprehensive* data to be collected in deprived neighbourhoods in order that the *baseline position* can be established. This would enable targets to be set for increasing access, and progress towards these targets to be monitored.

The Department for Education and Skills (DfES) responded by commissioning three linked projects to establish this baseline information on the usage of, attitudes towards and barriers to access to ICT among people from minority ethnic communities, living in deprived areas. This project provides an overview of access to and use of ICT by people from BME groups (as outlined in 1.3)<sup>5</sup>.

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<sup>4</sup> Department of Trade and Industry (2000) *Closing the Digital Divide: Information and Communication Technologies in Deprived Areas*, a report by Social Exclusion Unit Policy Action Team 15.

<sup>5</sup> The other two projects were concerned with the provision of ICT facilities and training by community-based organisations and identifying the availability of computer software in minority languages.

## 1.2 Aims of the Research Project

The primary *aim* of this project was to provide background information to help policy makers and practitioners address the issue of people from minority ethnic groups living in deprived areas becoming further disadvantaged by the operation of the so-called 'digital divide'.

The *specific objectives* of this research project were to:

- 1) identify the current level and pattern of usage of ICT by people from BME communities, living in deprived urban neighbourhoods, comparing them with those of others living in the same neighbourhoods;
- 2) identify the attitudes towards ICT and e-commerce of people from BME groups living in deprived urban neighbourhoods, their views about the wider social benefits of these technologies and how these views and attitudes differ from others living in the same areas;
- 3) identify the barriers which people from BME groups face with regard to accessing and using ICT, beyond those faced by all people living within deprived neighbourhoods, in particular those relating to cultural and language needs;
- 4) explore the potential specific benefits of ICT, in terms of expressing and developing cultural identities and promoting better integration between different groups. This involves identifying the type of cultural content which people from different ethnic groups require from electronic information sources.

In addressing these aims the report concentrates on *two types of finding*:

- 1) Those which describe and reflect the experiences of ICT for different ethnic groups within these deprived areas. These findings reveal a complex picture which in part, reflects the different nature of these groups, not only in cultural terms, but in terms of age, economic status and other demographic variables.
- 2) Those findings which identify the key predictors of ICT experience. These allow us to examine the relationship between ethnicity *per se* and ICT awareness, ownership and use and look at those factors which are associated with variations in ICT experience. These findings have been presented as a synthesis at the end of each chapter.

In addressing these issues, the report has focussed primarily on the results of a large scale quantitative survey, supplementing these with qualitative findings to provide more depth and contextual understanding.

## 1.3 Scope and Limitations of the Study

In any research study there are inevitably limitations, and this study was no exception. In order to aid understanding of the report we have drawn attention to some of the main issues below.

First, it should be borne in mind that this study concentrates on BME groups living in deprived areas and, as such does not purport in any way to be representative of the wider population. To achieve maximum penetration of deprived BME groups the study was restricted to a number of cities containing areas of deprivation in which there are significant minority populations. Hence the experiences of deprived outer city estates, small and isolated minority communities and deprived areas in which there is no significant minority

ethnic population, and the comparative experiences of people from BME groups who are more economically successful, are not addressed here.

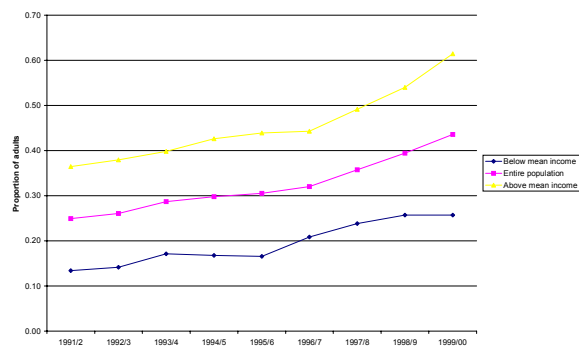
Further, while the sample captured a broad range of ethnic groups, it is recognised that this raises the problem that it is impossible to fully reflect such diversity within a study of this kind: broad ethnic categorisations disguise many differences and even with the broad categorisations used, in some cases numbers for some of the smaller groups were too small to allow statistically robust analysis. Nonetheless, where the data has been thought to be of particular relevance to the study aims, findings for small groups have been presented, with appropriate caveats.

It also recognised that research of this nature is exploratory and evolving. During the course of the study, the findings inevitably led to further questions and issues about the people's experiences of ICT which could not be covered within the scope of this project. Where we have felt these issues to be of particular significance, we have recommended them as subjects of possible future research.

#### **1.4 Background**

Most research into access and use of ICT relates to the general population only. For instance, a number of government and commercial surveys have traced the adoption of information technology and usage of the Internet. These include the ONS Omnibus Survey, the General Household Survey and the MORI Technology Tracker. The General Household Survey for 2000 revealed that 45 per cent of households had a home PC. Figure 1.1 demonstrates the steady growth in the proportion of the adult population in Britain with access to PC technology at home during the 1990s. It also illustrates the very strong influence of *income* on the ability to take advantage of information and communications technologies. Adoption of home computers among households with below average income is much slower than for households with above average income. The proportion of adults living in households with a home PC was more than twice as high in households with above average income than in households with below average income by the end of the 1990s.

However, there is very little information on regional or urban variations in ICT usage, let alone on variations in usage by ethnic group. Figure 1.2 demonstrates the strong 'centre/periphery' contrast within the UK in the degree of access to the Internet. Usage of the Internet is greatest in the most prosperous regions of the UK (London and the South East) and much lower in the Midlands, northern and peripheral England and lowest of all in Northern Ireland and Wales.



**Figure 1.1: Proportion of British adults living in households with computers (source: British Household Panel Survey)<sup>6</sup>**



**Figure 1.2: Percentage of households with access to the Internet by region, 2001/2 (source: ONS Expenditure and Food Survey)<sup>7</sup>**

However, there is very little information on regional or urban variations in ICT usage, let alone on variations in usage by ethnic group. Figure 1.2 demonstrates the strong ‘centre/periphery’ contrast within the UK in the degree of access to the Internet. Usage of the Internet is greatest in the most prosperous regions of the UK (London and the South East) and much lower in the Midlands, northern and peripheral England and lowest of all in Northern Ireland and Wales.

The British Telecom/Essex University ‘Home On-line’ longitudinal survey of IT usage<sup>8</sup> yields some information on variations by ethnic group. In 1999, a higher percentage of people from BME groups lived in households with a PC compared with the overall sample, and the percentage of BME households with a PC was larger. The survey also found that people from BME groups were more likely to live in households with Internet access in 1999, but revealed rapid adoption of the Internet between 1999 and 2000, which may have altered this picture.<sup>9</sup> However, this study was based on a very small sample and was in contrast to the East Midlands Household Survey for 2000 which found that only 40 per cent of BME group respondents compared with 48 per cent of all respondents had a home PC.<sup>10</sup>

As these selected examples illustrate, the information base on ICT awareness, ownership and usage by ethnic group is limited.

<sup>6</sup> Gershuny, J. (2002) ‘Web-use and Net-nerds: A Neo-Functionalist Analysis of the Impact of Information Technology in the Home’, *ISER Working Paper 2002-1*, University of Essex.

<sup>7</sup> Botting, B. (ed) (2002) *Family Spending: A report on the 2001-2002 Expenditure and Food Survey*, London: The stationery Office, chapter 9.

<sup>8</sup> Anderson, B. and Tracey, K. (2001) ‘Digital Living: The Impact (or otherwise) of the Internet on Everyday Life’ in Wellman, B. & Haythornwaite, C. (Eds.) Special issue on ‘The Internet in Everyday Life’, *American Behavioral Scientist* 45, November 2001, 456-475; Gershuny, J. (2002). ‘Social Leisure and Home IT: A Panel Time-Diary Approach’, *IT & Society*, 1 (1) 1, Summer 2002, 54-72.

<sup>9</sup> This survey is based on a sample of 1,735 people, 78 of whom were from Black and Minority Ethnic groups. In 1999, 68 per cent of White households did not have a PC, compared with 48.6 per cent of minority households and only 6.6 per cent of White sample members lived in households with Internet access, compared with 9 per cent of minority sample members.

<sup>10</sup> East Midlands Observatory (2001) *East Midlands Household Survey 2000: Ethnic Minorities Summary Report*, East Midlands Observatory, Nottingham.



## 2. METHODOLOGY

### 2.1 Introduction

A mixture of quantitative and qualitative research methods was used, specifically: a national household questionnaire survey – concentrating on deprived localities in six major urban areas, and multi-faceted local case studies - undertaken in the West Midlands and West Yorkshire. Both the survey and the local case studies focused on visible minority ethnic groups resident in neighbourhoods characterised by a geographical concentration of BME residents.

### 2.2 Background

The project was designed to yield both benchmark national data on access to and usage of ICT by people from BME groups, and to explore further the factors underlying these ethnic differences. This involved a mixture of quantitative and qualitative research methods, specifically:

- a quantitative national household questionnaire survey. This provided the primary focus of the report and was designed to establish baseline information on a wide range of factors relating to respondents' awareness, ownership and experience of ICT and their attitudes to it;
- qualitative local case studies, undertaken in the West Midlands and West Yorkshire. This used a variety of methods of data collection, including in-depth household interviews and focus groups. These supplemented the quantitative survey by providing a richer context for the survey results, elucidating both the detailed experiences of people from BME groups in using ICT and the features of local ICT environments.

The project aimed to cover the whole of the UK, but the practicalities of survey design, fieldwork organisation and the geographical concentration of people from ethnic minority groups in areas of urban deprivation meant that interviews were clustered in particular localities within England, Wales and Scotland. Northern Ireland was not included in the research because of small numbers of people from BME groups.

### 2.3 Key Methodological Issues

The *definition of ICT* adopted for the study was similar to that used by the PAT 15 team. The main focus throughout the study was on the use of computer technology, but usage of related technologies such as mobile phones, faxes and digital televisions was also covered.

In terms of *target groups*, the project took as its primary focus people from visible minority ethnic groups; i.e. people whose family origins lie in the Caribbean or Africa (in 1991 Census terms, Black-Caribbean and Black-African people), the Indian sub-continent (Indian, Pakistani and Bangladeshi people, together with Sri Lankans) or south-east Asia (Chinese and Other Asian people). Within this, the geographical areas chosen for study determined the exact ethnic mix of the populations studied. This meant that smaller ethnic groups, such as those arriving in the UK more recently, notably asylum seekers, could also be brought into the scope of the study.<sup>11</sup>

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<sup>11</sup> Note that asylum seekers are not separately distinguished: they are classified according to their ethnic group.

The project aimed to cover the prime *geographical concentrations* of people from BME groups across Great Britain. The quantitative survey aimed to interview a minimum of 1,000 BME group households, yielding information on household members with a range of demographic characteristics (see Chapter 3 for further information). A smaller number of interviews were undertaken with White households in the same areas. The number of interviews achieved in the household survey was designed to be large enough to enable national comparisons to be made across ethnic groups. The areas in which the household survey was undertaken included the cities in which 55.7 per cent of the BME population of the UK lived at the time of the 2001 Census. As outlined in section 2.4 and Appendix 2.1, the neighbourhoods to be surveyed were selected using the level of deprivation (based on standard indicators) and ethnic composition (from the 1991 Census<sup>12</sup>). The local area studies focused on deprived neighbourhoods in the West Midlands and West Yorkshire.

## 2.4 The National Questionnaire Survey

The survey was designed to enable the position of people from BME groups to be compared with that of White people resident in the same *deprived* areas. The household survey was undertaken by Market and Opinion Research International (MORI). The design of the questionnaire was agreed between the research team, DfES and MORI. Wherever possible, tried and tested questions from previous MORI and DfES surveys were used.

The survey selected neighbourhoods in six survey locations in areas of deprivation within five major cities: inner London, outer London, Birmingham, Leeds/Bradford, Glasgow and Cardiff.<sup>13</sup> The target was set at 1,500 interviews (i.e. 250 interviews at each of the six survey locations), three-quarters of which were to be from BME groups. The survey was conducted by MORI between April and June 2002. These locations were chosen to cover the major concentrations of people from minority ethnic groups, and to have representatives from the three nations of Great Britain.<sup>14</sup> Across the five cities, there was an achieved sample of 1,585 individuals, of whom 1,193 (75 per cent) were from BME groups (see Appendix 2.3 for further information); the remainder of the sample were from White ethnic groups in those areas. Table 2.1 shows the sample sizes by interview location. Achieved sample sizes were similar in all locations.<sup>15</sup>

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<sup>12</sup> Results from the 2001 Census of Population were not available at the time the project was designed and the fieldwork undertaken.

<sup>13</sup> Glasgow and Cardiff were included in order that the study covered the whole of Great Britain, even though these cities contained relatively small minority ethnic group populations. The Scottish study yielded information on an area suffering very high levels of deprivation but with a relatively small minority ethnic group share of the population. The study in Wales was distinctive in studying a very long established minority population in an area of long-standing deprivation, contrasted with the situation of a newer immigrant population.

<sup>14</sup> Northern Ireland was not covered by this survey because of the relatively small size of the BME population.

<sup>15</sup> See Appendix 2.2 for further details.

**Table 2.1: Ethnic and gender breakdown of the surveyed population**

Interview location	No. of White residents interviewed	No. of minority ethnic group residents interviewed	Total interviews
Inner London	67	204	271
Outer London	64	200	264
Birmingham	68	204	272
Leeds/Bradford	65	200	265
Glasgow	62	188	250
Cardiff	66	197	263
<b>Total</b>	<b>392</b>	<b>1193</b>	<b>1585</b>

The quantitative survey was conducted using face-to-face interviews, in the respondents' own homes. The aim was for interviews to take an average of 20 minutes. The questionnaire was piloted in Ladywood ward in Birmingham at the start of March 2002. The pilot questionnaire worked well, but took slightly too long for respondents who were users of ICT, and hence minor adjustments were made to reduce the time taken to complete interviews. The final version of the questionnaire can be found in Appendix 2.5.

## 2.5 The Qualitative Local Case Studies

The qualitative local case studies aimed to provide contextual information to aid understanding of the findings from the quantitative survey, by examining further the issues relating to the availability, awareness and ownership of ICT and barriers to the use of ICT for people from different ethnic groups living in deprived neighbourhoods in the West Midlands and West Yorkshire. The West Midlands study contrasted the Handsworth area of Birmingham (using the local definition of the neighbourhood, rather than the electoral ward boundary) and the city of Wolverhampton. The West Yorkshire study selected neighbourhoods in Bradford and Leeds.

Each local case study identified all public sector and community *provision* of ICT facilities within the boundaries of the areas selected. For each facility identified, the hardware and software available, the type of access to ICT available and the terms on which access was available were identified.

Discussion groups with representatives of the different *providers* of access to ICT were held in the West Midlands and West Yorkshire. These sought the perspectives of providers on the type of services which people from BME groups demand, the services and content provided, and the barriers they perceive that people from these ethnic groups face in using ICT.

The views of local *residents* of the study areas were sought regarding the uses which could be made of ICT, attitudes towards the facilities available and views about what actions could be taken to increase their use of the technology.

Fifteen focus groups were held<sup>16</sup>, recruited from people taking computer courses or using computer access facilities. There were a further two focus groups involving ICT providers. These focus groups explored issues surrounding the availability of ICT, the use of ICT, the perceived value of ICT skills and the potential future use of ICT. They also explored participants' views on cultural, linguistic and gender barriers to the use of ICT, and the

<sup>16</sup> Nine were held in West Yorkshire and six in the West Midlands. (See Appendix 2.4 for further details.)

specific use that people from different age, gender or ethnic groups would make of ICT. The schedule for the focus group discussions can be found in Appendix 2.7.

The awareness and use of ICT across generations of families from BME groups were explored through 118 qualitative cross-generational *household interviews*<sup>17</sup> (70 in the West Midlands and 48 in West Yorkshire) conducted by community researchers. Households were identified through voluntary organisations and community centres. These interviews explored the attitudes of different generations to ICT and the different barriers that they face, and delved further into the questions identified in the focus groups. The interview schedule can be found in Appendix 2.6.

## 2.6 Summary

This chapter has outlined the methodology adopted for the research project. It has highlighted that:

- A mixture of quantitative and qualitative research methods was used, specifically: a national household questionnaire survey – concentrating on deprived localities in six major urban areas. This was complemented by multi-faceted local case studies - undertaken in the West Midlands and West Yorkshire.
- Both the survey and the local case studies focused on visible minority ethnic groups resident in neighbourhoods characterised by a geographical concentration of BME residents. The quantitative household survey also involved interviews with White residents of the same areas.
- The national household questionnaire survey aimed to yield information on the awareness, ownership and usage of ICT among households within deprived areas.
- The local case studies were designed to provide a richer context for the findings of the quantitative study. They involved an audit of local ICT facilities, discussions with ICT providers, focus groups with residents attending courses/using local ICT facilities, and qualitative household interviews.

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<sup>17</sup> These interviews involved as many household members as were available at the time of the interview and were willing to participate.

### **3. PROFILE OF PEOPLE IN THE NATIONAL SURVEY**

#### **3.1 Introduction**

This chapter provides a general profile of the sample of people included in the quantitative household survey. The overall picture revealed by the survey was one of a deprived population. The unemployment rate was very high and the percentage in work was low, while levels of skill and qualification were low. The White population was older on average than the BME population, and tends to live in smaller households.

#### **3.2 Ethnic Group and Gender**

As outlined in Chapter 2, the overall target of a 75 per cent BME and 25 per cent White sample split was achieved. The detailed ethnic breakdown (see Table A3.1) suggests that Black people (people of African and Caribbean background) were better represented in the sample than in the population as a whole (according to the 1991 Census of Population), while South Asian people were under-represented.<sup>18</sup> The largest single ethnic group amongst BME respondents were the Pakistani ethnic group (354 people), followed by Black-Caribbean (229 people) and Indian people (159 people). 333 people in the sample were categorised as White British. The number of respondents from some ethnic groups (e.g. the Chinese and the Mixed parentage groups) was so small that all results are subject to a large degree of sampling error.<sup>19</sup>

Overall, females outnumbered males amongst survey respondents<sup>20</sup>; 859 respondents (54 per cent) were female and 724 respondents (46 per cent) were male.

#### **3.3 Ethnic Group and Age**

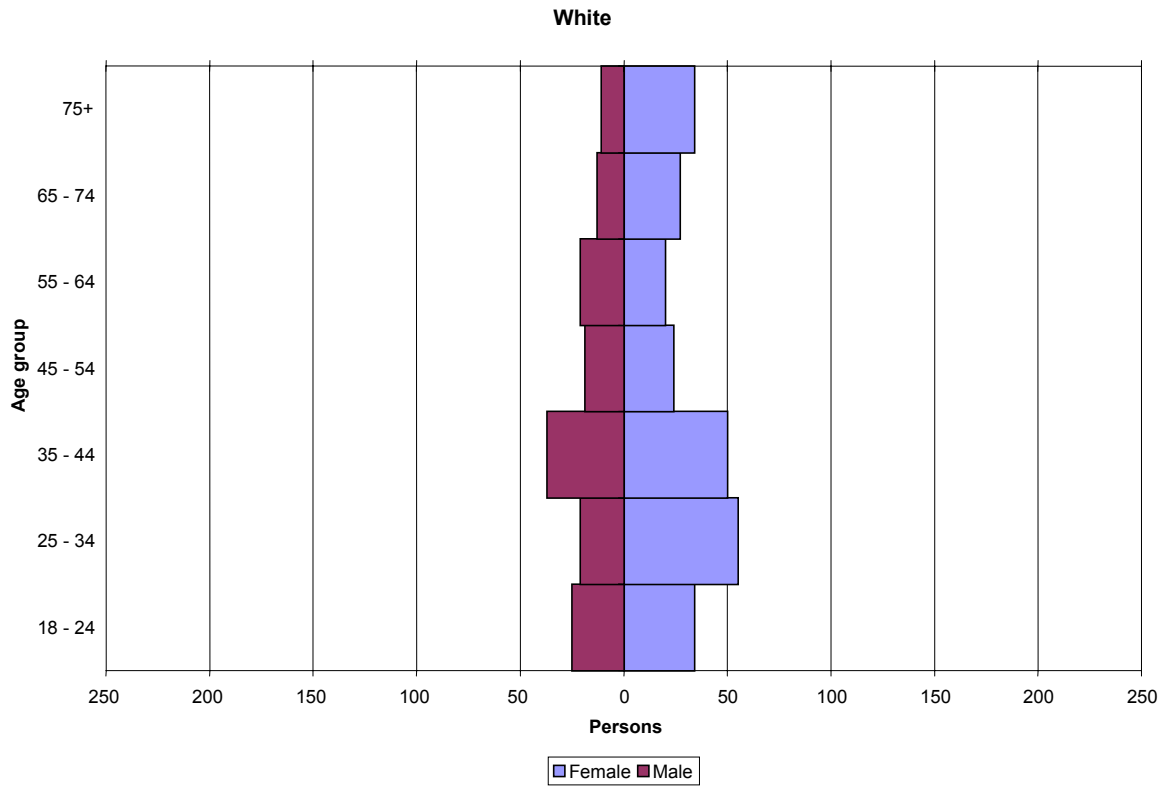
Half of all the sampled population was aged 25-44 years, approximately a fifth were aged under 25 years, 16.5 per cent were aged between 45 years and retirement age and just over 14 per cent were aged over retirement age. The ethnic group contrasts in the broad age structure of the sampled population reflect differences in the age structure of the population by ethnic group more generally (Figures 3.1 and 3.2 and Table A3.2). However, insofar as age is an important dimension in the use of and attitudes towards ICT, it is crucial to bear in mind differences in age structure by ethnic group when examining ethnic group differentials. The contrasting age structure of the White and BME sample population reflected typical differences in the age structure of the population in deprived urban areas with a high ethnic minority population. The White population resident in deprived communities with a high ethnic minority population tends to have a much older age profile, compared to deprived areas with a predominantly White population.

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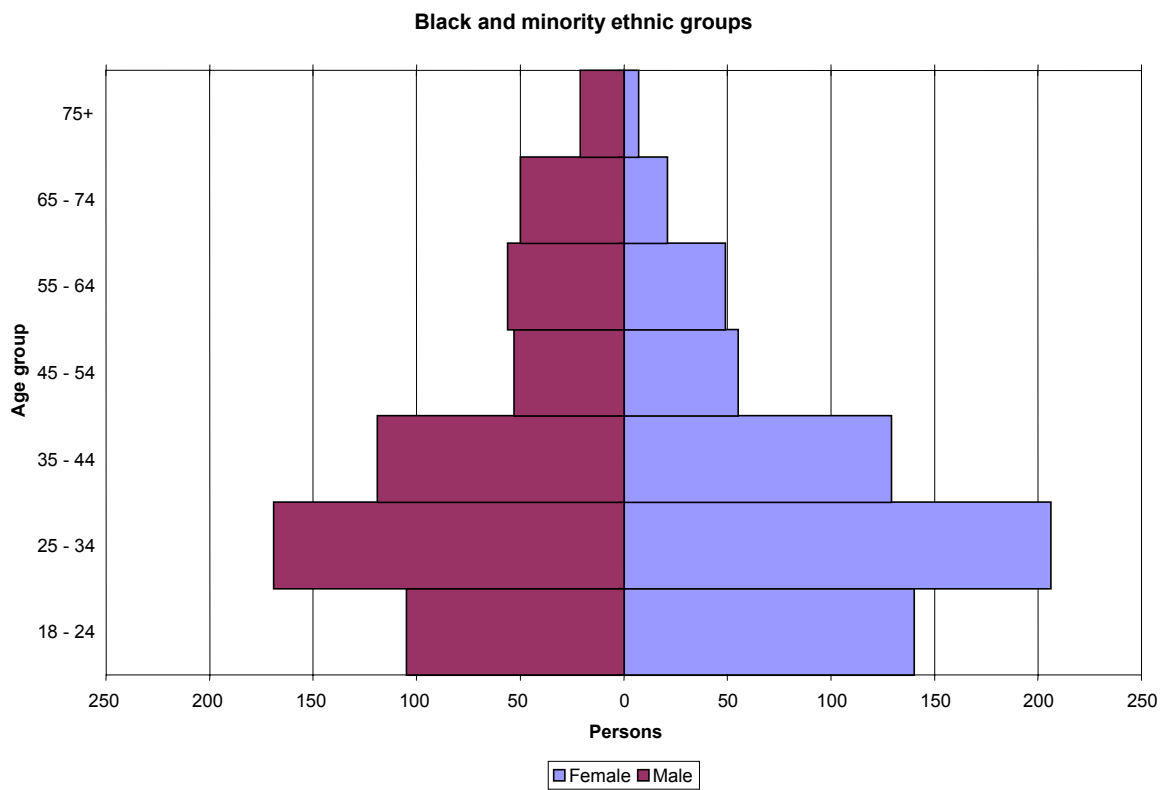
<sup>18</sup> This may reflect the greater tendency of Black people than of South Asian people (in aggregate) to live in inner city areas. No 2001 Census data was available for small areas at the time of writing.

<sup>19</sup> It is notable that these two groups are more geographically dispersed than BME groups in aggregate.

<sup>20</sup> As is typically the case in household surveys.



**Figure 3.1: Age composition of sample for White Group**



**Figure 3.2: Age composition of sample for BME Groups**

### 3.4 Ethnic Group, Household Size and Presence of Children

Average household size was larger for the BME sampled population (household size average: 3.5 persons) than for the White sampled population (household size average: 2.4 persons). Amongst the BME sampled population, Pakistani and Bangladeshis have the largest average household sizes (4.5 and 4.3 persons, respectively).<sup>21</sup> Indian and Black-African households are also larger than the sample average (see Table A3.3). Just over half (53 per cent) of individuals in the sampled population lived in households in which children were present, with White respondents less likely than BME respondents to live in households containing children (Figure 3.3).

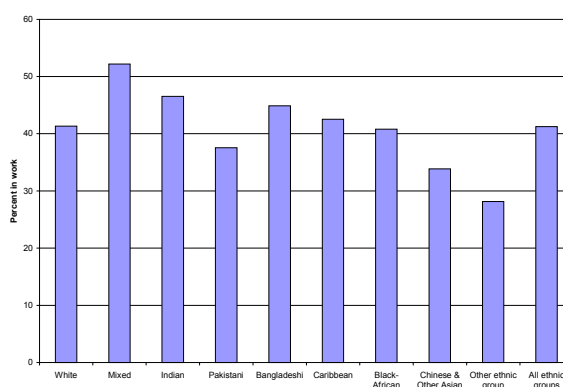
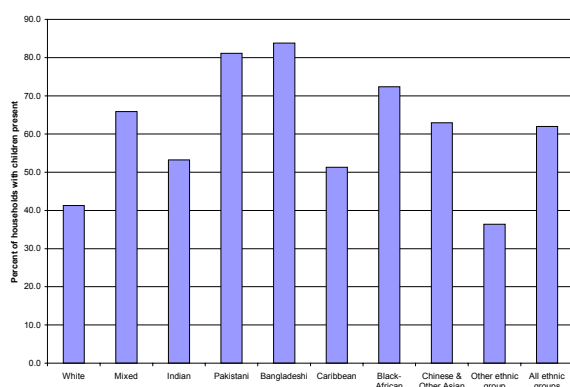


Figure 3.3: Percentage of households with children

Figure 3.4: Percentage of sample members in work

### 3.5 Broad Ethnic Group and Household Type

The use of and attitudes towards ICT may be expected to vary by household type (i.e. according to the presence of other individuals in the household). Household type is also related to age.

Approximately a third of the sampled population lived as part of a two-parent family with at least one child under 16 years of age (see Table A3.4). However, half of all South Asian respondents lived in such a household. 14 per cent of respondents lived in a one-parent family with one or more children under 16 years of age. The proportions of respondents from such household types were highest amongst those from Black and Mixed ethnic groups. 11 per cent of respondents were from households containing three or more adults. Chinese and Other and South Asian respondents were more likely than the sample average to be part of such a household. White respondents were more likely than those from BME groups to live in a one-adult household or as part of a couple household without children.

### 3.6 Broad Ethnic Group and Household Income

Household income may be expected to be one of a number of determinants of access to and use of ICT. The survey revealed an economically deprived population, with high levels of economic inactivity (especially for retired White people) and unemployment. Amongst the sampled population there was greater variation in household income within than between ethnic groups. No clear pattern in median incomes by ethnic group was evident.

<sup>21</sup> The local case studies bear out this point, with Bangladeshi families included in household interviews with community researchers tending to be particularly large.

Slightly over half (53 per cent) of the sampled population lived in households in which earnings from employment was a source of income (see Table A3.5). In aggregate, White respondents were less likely to have earnings as a source of household income than BME respondents (in aggregate) were,<sup>22</sup> but they were more likely to be in receipt of pensions.<sup>23</sup> Nearly three in ten of the sampled population was in households receiving income from Income Support or Job Seekers' Allowance (JSA). The proportion of households receiving income from these benefits was greater for BME than for White groups. Black respondents were most likely to be in receipt of household income from council tax or housing benefit.

### **3.7 Ethnic Group and Economic Status**

Economic status might be expected to be an important determinant of use of and attitudes towards ICT, since many individuals will have exposure to ICT in the workplace or through study.

Reflecting the focus of the survey on deprived areas, only 41 per cent of respondents were in work<sup>24</sup> (see Table A3.6 and Figure 3.4), and 12 per cent of the sampled population was unemployed. The percentage of the entire sample unemployed was higher amongst BME (13 per cent) than White groups, (9 per cent; Table A3.6). Slightly over 22 per cent of the sampled population of working age were unemployed (see Table A3.7), with 24 per cent of BME and 17 per cent of white people of working age<sup>25</sup> unemployed. Only three-fifths of the sample population were economically active. The remainder was out of the labour force, permanently sick or retired (Table A3.6). With the exception of people aged 45 to 59 or 64, economic activity rates were higher for White people than for people from BME groups in the sampled population (Table A3.7).

Over a third of the sampled population had never had a job (see Table A3.6). Differences between the relative economic activity levels of the different ethnic groups are largely explained by the differences in their age profiles.

### **3.8 Broad Ethnic Group by Industry, Occupation and Skill**

Experience of and access to ICT for those in employment, or with experience of employment, may be expected to vary by industry, occupation and skill level.

More than half of the sampled population for whom an industry was recorded worked in distribution and transport (wholesaling, retailing, hotels, restaurants and public transport). Within this broad sector, wholesaling and retailing were of particular importance for people of Mixed parentage and South Asian people, while hotels and restaurants were more important for Chinese and Other people (see Table A3.8). Over a fifth of the sampled population were in public sector services, but for Black people and those of Mixed parentage the proportion in this sector was over 30 per cent. White people and South Asian people were more likely to work in the manufacturing sector than the other ethnic groups were.

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<sup>22</sup> Amongst BME respondents those from Mixed and South Asian groups were most likely to be in households where earnings from employment was a source of income, while for respondents from the Black group the percentage was slightly higher than for White respondents.

<sup>23</sup> This reflects the older than average age structure of White respondents.

<sup>24</sup> Defined as 'employed, self-employed or on a scheme'.

<sup>25</sup> Defined as 16-59 years for women and 16-64 years for men.



Reflecting the deprived nature of the areas from which the sample was drawn and the industrial structure of employment, the sampled population was drawn mainly from unskilled and semi-skilled occupational groups. Table A3.9 shows that 22 per cent of the sampled population for whom an occupation was recorded was drawn from elementary occupations but for most BME groups this proportion was even higher. The next largest occupational groupings were retail, administrative & secretarial, and process, plant or machine operatives.<sup>26</sup> Only 6.8 per cent of the sampled population were from professional occupations, although a greater share of the South Asian and Chinese & Other groups were in managerial occupations.

In aggregate, over a third of White people in the sampled population were in higher skilled occupations compared with less than a quarter of those from BME groups. This pattern was repeated across most broad sectors (see Table A3.10) and was most pronounced in service industries.

### **3.9 Broad Ethnic Group by Highest Qualification**

Slightly less than three-fifths of both men and women in the sampled population held formal qualifications. The tendency to have educational qualifications certificated declines with age. Hence variations in age profiles between ethnic groups would be expected to influence the percentage of people within an ethnic group with qualifications.<sup>27</sup> People of Mixed parentage<sup>28</sup> were most likely to have educational qualifications (see Figure A3.1).

Of the sampled population with formal qualifications (see Table A3.11), around 22 per cent of women and 30 per cent of men had highest qualifications at NVQ levels 4 and 5 (i.e. at degree level or above). Chinese and Other and the White groups were more likely than the other broad ethnic groups to have high level qualifications.

### **3.10 Broad Ethnic Group by Language Ability, Literacy and Numeracy**

Lack of proficiency in English and problems with literacy and numeracy disadvantage people in most spheres of everyday life. Furthermore, they are also likely to be important barriers in using and accessing ICT, as confirmed in the qualitative case studies.

English was not a first language for 56 per cent of the South Asian respondents and 59 per cent of respondents from the Chinese & Other ethnic groups in the sampled population (see Table A3.12).<sup>29</sup> Over a quarter of Black people had a first language other than English. With the exception of people of Mixed parentage and from the Chinese & Other ethnic groups, women were more likely than men to have a first language other than English; (again, this was borne out in the qualitative work).

Overall, an eighth of the sampled population reported problems using the English language (Table A3.14). People from the South Asian and Chinese & Other ethnic groups faced the most severe problems, particularly women. The percentage experiencing difficulties with English increased with age, with nearly half of all South Asian men and three-quarters South Asian women of retirement age reporting problems. However, problems with English were by no means confined to the older age groups.

<sup>26</sup> South Asians amongst the sampled population were particularly likely to be in this occupational group.

<sup>27</sup> The small proportion of the White-Irish population with qualifications exemplifies this.

<sup>28</sup> Who have a younger age profile than the sampled population average.

<sup>29</sup> Table A3.13 provides details of languages spoken by respondents with a first language other than English.

### 3.11 Summary

This chapter has provided a broad overview of the sampled population covered in the national household survey. It has shown that:

- BME groups comprise 75 per cent of the sampled population, with White groups comprising the remaining 25 per cent.
- Women account for just over half (54 per cent) of the sampled population.
- In aggregate, half of the sampled population was aged 25-44 years. White people within the sampled population display an older age profile than those from BME groups. This is an important factor to bear in mind when considering ethnic group differentials.
- BME groups are characterised by larger household sizes than the White respondents are. Two-thirds of the White respondents were from households with no children, compared with two-fifths of the sampled population from BME groups. However, there were marked variations between BME groups, with Pakistani and Bangladeshi respondents being more likely than average to have children and displaying larger than average household sizes.
- The overall picture was one of labour market disadvantage experienced by the sampled population. Only two-fifths of the sampled population was in work. In aggregate, BME and White groups were characterised by similar proportions of respondents in work. Amongst those not in work, people from BME groups were more likely to be unemployed and those from White groups were more likely to be retired than the sampled population average. A third of the sampled population had never had a job, but over two-fifths of the BME sampled population were in this category.
- The sampled population was drawn predominantly from unskilled and semi-skilled occupational groups, although White respondents were somewhat more likely than those from BME groups to be in higher skilled occupations.
- Two in five of the sampled population had no formal qualifications.
- A substantial minority of the sampled population reported a lack of proficiency in English and problems with literacy and numeracy. Such problems were most pronounced amongst older people and amongst females from South Asian and Chinese & Other ethnic groups.

## 4. LEVELS OF AWARENESS OF ICT

### 4.1 Introduction

In essence, the analysis confirms the findings of earlier research, in demonstrating that the dominant factor in awareness of ICT was age, controlling for other factors<sup>30</sup>. Awareness levels are lower for South Asian people (taken as a whole), while being unemployed and having low skill levels also act to lower levels of awareness. For all ethnic groups, being in a job of intermediate skill level and living with school-age children tends to raise awareness of information technology.

### 4.2 The Aggregate Picture and Awareness by Ethnic Group

Respondents were asked whether they had heard of named ICT items in a list including (amongst others) mobile phones, digital TVs, PCs and MP3 players (see Table 4.1). Overall, only 1.5 per cent of all respondents had heard of none of the ICT items listed. However, awareness levels vary by ICT item. Whereas nearly all of the sampled population had heard of mobile phones, and 84 per cent had heard of PCs only 38 per cent had heard of MP3 players. Variations in levels of awareness of different ICT items may arise because different sections of the population use ICT for entertainment or to communicate with friends and family, while other may use technology items primarily for work or education.

**Table 4.1: Percentage of respondents who had heard of an item of technology**

Item	White	<i>BME groups</i>	Mixed	South Asian	Black	Chinese & Other	<i>All</i>
PCs	87.7	82.8	91.3	82.4	81.4	88.0	84.0
Mobile phone	99.2	98.9	100.0	98.4	99.5	98.0	99.0
WAP mobile phone	56.9	45.1	65.2	41.4	46.0	56.0	48.1
Combination mobile phone and organiser	55.1	44.5	68.1	40.7	46.7	40.0	47.2
PDA	65.9	51.2	72.5	45.9	54.2	62.0	54.9
Internet-connected games console	70.3	59.3	82.6	56.2	60.7	54.0	62.1
DVD player	83.8	72.7	88.4	70.5	73.3	74.0	75.5
MP3 player	43.3	36.5	55.1	33.7	35.8	52.0	38.2
Digital TV	92.6	86.3	97.1	86.0	86.3	76.0	87.9
None of these	0.3	1.9	0.0	2.4	1.2	4.0	1.5
<b>Any</b>	<b>390</b>	<b>1170</b>	<b>69</b>	<b>621</b>	<b>430</b>	<b>50</b>	<b>1560</b>

These variations in levels of awareness of different ICT items were reflected across broad ethnic groups (Table 4.1). For the most well-known items – particularly PCs and mobile phones – levels of awareness were not dissimilar for White and BME groups. However, for the newer and more specialised technologies, there was some disparity with awareness levels higher amongst White than amongst BME respondents. Amongst BME groups, Chinese & Other and South Asian people were most likely not to have heard of any of the items and both

<sup>30</sup> For example, see: Research Surveys of Great Britain (2001) *ICT Access and Use: Report on the Benchmark Survey*, DfES Research Report 252; Russell, N. and Stafford, N. (2002) *Trends in ICT Access and Use*, DfES Research Report 358.

Black and South Asian groups showed low awareness of the newer technologies. For the latter there was evidence that these generally lower awareness levels were statistically significant (see Section 4.4.). Respondents of Mixed parentage displayed the highest levels of awareness of any ethnic group; however, it is salient to note here that this group was relatively small and that the age profile of this broad group was younger the sampled population average. The multivariate analysis carried out (Section 4.4) suggests that, in this case ethnicity was not a significant influence.

The interaction between ethnicity and other variables could also throw up marked differences between White and BME groups: for example, see Tables A4.1-A4.4 in Appendix 4.1 for differences by skill group, income, household type and presence of children.

For BME groups, differences in awareness between households with school-age children and those without children were generally smaller than those for White respondents, except for digital TV and PCs (as outlined above) – i.e. the presence of children in a White household appears to be more likely to increase the awareness of ICT amongst other household members (Table A4.4).

Also the differentials by income group were more marked for BME group respondents than for White groups: 92 per cent of White respondents from higher income groups were aware of PCs compared with 84 per cent in the lowest income group. For BME group respondents 91 per cent in the highest income group were aware of PCs compared with 72 per cent from the lowest income group (Table A4.2).

### **4.3 Awareness by Factors other than Ethnicity**

#### Age

The data reveal that awareness of ICT varies by a number of factors other than ethnicity. In particular there was a clear inverse relationship between awareness of ICT and age, evidenced by the logistic regression reported in Section 4.4. This relationship was more pronounced for newer and more specialised technologies (e.g. combined PDA and mobile phone or Internet-connected games console) (Table 4.2).

The local case studies revealed that older people often gained what awareness they had of ICT from younger people. Younger people could be a source of encouragement too. For example, a mother of a teenage daughter spoke of how her daughter had made her aware of email and had encouraged her to learn:

*“She’ll say ‘Mum, you may want to send an email to somebody, then [if you go on a training course] you’ll know how to do it.’ ... So I grasped the opportunity of starting; I find it very interesting”* (mother, early 40s).

However some felt that the relative gap in knowledge of ICT would grow as ICT became more accessible to children and students in school and college.

**Table 4.2: Percentage of age group aware of technology**

Item	Percentage of each age group			
	16-24	25-44	45-59/64	60/65+
PCs	92.8	86.0	78.6	72.8
Mobile phone	100.0	99.4	98.4	97.2
WAP mobile phone	72.5	53.7	32.1	11.7
Combination mobile phone and organiser	68.2	51.3	35.7	16.9
PDA	72.1	58.7	44.4	30.0
Internet-connected games console	81.6	66.4	48.8	35.7
DVD player	88.5	79.7	71.8	47.9
MP3 player	58.4	43.3	23.0	9.4
Digital TV	92.5	90.6	83.7	76.1
None of these	0.0	0.6	2.8	4.2
<b>Any</b>	<b>305</b>	<b>780</b>	<b>252</b>	<b>213</b>

#### Skill Level, Income and Economic Position

Awareness also varies by skill level and income, with awareness being highest for the highest skill and income groups. However, there was evidence (see Section 4.4) that the latter was not a significant influence. For both skill and income groups, variations are most marked for the more specialised technologies (e.g. WAP mobile phones and PDAs). There was also evidence that economic position was an explanatory factor, with the economically inactive being less aware of ICT than other groups.

#### Household Type

Generally, people were more likely to be aware of ICT if they lived in a household containing children, particularly school age children. For instance, in the case of PCs, 88 per cent of people in households with school age children, compared with 80 per cent of people living in households without children were aware of PCs. Nonetheless, the regression analysis of awareness of PCs found that presence of children was not a statistically significant influence on awareness, when other variables were controlled for (Appendix A4.2).

#### Location

Location also emerged as a significant factor, with those living outside London more likely to be aware of PCs.

### **4.4 Synthesis**

It is clear (see Chapter 3) that BME groups and White people within the sampled population are not evenly distributed across important categories of variation (such as age, household structure, etc), and there are non-random associations between some of the dimensions of variation - used in the descriptive analyses outlined above. Hence, a logistic regression model was constructed in an attempt to separate out the influence of different factors and to identify the relative importance of the characteristics of different types of people upon their likelihood of being aware of PCs. (For further technical details of logistic regression see Appendix A4.2.)

The *probability of being aware of PCs* was not very well explained by the logistic regression; suggesting that there was considerable variation within the data, or that some important determinants have been excluded from the model.<sup>31</sup> However, the model was useful in highlighting some of the most influential characteristics (Table A4.5):

- *age* - awareness of PC technology declined with increasing age;
- being *South Asian* - South Asians were less likely to be aware of PC technology;
- *economic position* – economically inactive people were least likely to be aware of PCs;
- *skill level* – people working in jobs with an intermediate skill level were statistically more likely to be aware of PCs than those at a higher skill level;
- *location* - people living outside London (rather than in London)<sup>32</sup> were more likely to be aware of PCs.

#### 4.5 Overview of Levels of Awareness of ICT

Awareness levels were high for mobile phones, digital TVs, PCs and DVD players, but between groups for newer technologies like PDAs and MP3 players.

In the sample, awareness of ICT items did not differ to any great extent between the White group and the aggregated BME group for well known items like mobile phones and PCs, but there was some disparity for newer items such as PDAs and WAP phones, with awareness being higher amongst White than amongst BME respondents. This relatively low awareness of newer technologies, however, was particularly true of South Asian and Black respondents. For example, awareness of PDAs was 46 per cent and 54 per cent for these groups compared to 66 per cent among the White group.

Awareness levels were greatest amongst households containing two or more adults and in households with school-age children. This was less apparent for BME groups than the White group.

Age was the main predictor of awareness of PCs. Economic position, skill level and location were also significant (people living outside London were more likely to be aware of PCs).

Being South Asian was also a significant predictor of PC awareness – South Asian respondents were less likely to be aware of PC technology.

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<sup>31</sup> Only 16.7 per cent of the variance in this probability (Nagelkerke  $R^2$ ) is accounted for by the characteristics of the individual included in the regression model

<sup>32</sup> Note that in the descriptive statistics reported for the sampled population the location variable was not used, because of primary interest in the other dimensions of variation and constraints of sample size.

## 5. LEVELS OF OWNERSHIP AND AVAILABILITY OF ICT WITHIN THE HOME

### 5.1 Introduction

Overall, more than four-fifths of all respondents had or owned an ICT item, but the likelihood of ownership declines with age. Mobile phones are the most commonly owned ICT item, and almost twice as likely to be owned as a PC. There was a small tendency for people from BME groups to be more likely than White people to have / own an ICT item, but this was related to age. Holding other factors constant, ownership increases with income and was higher for families with school age children, while Black people, older people and people unemployed or economically inactive are less likely to have or own an ICT item.

### 5.2 Ownership of ICT in Aggregate and by Ethnic Group

83 per cent of the sampled population owned one or more out of a standard list of named ICT items<sup>33</sup> (see Table 5.1). As was the case for awareness, levels of ownership were highest for mobile phones: 72 per cent of the sampled population owned a mobile phone. This was also highlighted in the local case studies. Several individuals had more than one mobile phone – one person reported having three to keep abreast of work, home and other interests. Moreover, mobile phones were the ICT item most likely to be owned on an individual basis, rather than being shared amongst household members.

**Table 5.1: Percentage of respondents who have or own an item of technology**

Item	White	BME groups	Mixed parentage	South Asian	Black	Chinese & Other	All
PCs	37.9	38.4	41.8	42.8	31.1	44.0	38.4
Mobile phone	68.1	73.3	86.6	74.3	71.5	80.0	72.7
WAP mobile phone	14.0	12.1	22.4	9.6	12.2	20.0	12.3
Combination mobile phone and organiser	7.3	5.8	7.5	5.0	4.7	16.0	6.0
PDA	9.6	8.9	10.4	8.6	8.0	14.0	9.0
Internet-connected games console	19.5	14.5	31.3	12.4	12.0	20.0	15.1
DVD player	26.0	24.0	35.8	25.6	17.9	34.0	24.3
MP3 player	6.5	6.4	7.5	6.7	4.7	16.0	6.4
Digital TV	39.2	43.9	53.7	48.0	39.8	34.0	43.3
None of these	20.0	15.5	6.0	13.2	19.3	8.0	16.1
Any of these	80.0	84.5	94.0	86.8	80.7	92.0	83.9
<b>All respondents</b>	<b>385</b>	<b>2697</b>	<b>67</b>	<b>614</b>	<b>425</b>	<b>50</b>	<b>1541</b>

The next most commonly owned items were digital TVs and PCs; owned by 43 per cent and 38 per cent, respectively, of respondents. PDAs and MP3 players were the least commonly owned. Hence, there was a positive association between ownership and awareness of ICT items. Respondents were most likely to have or own a home PC between 1 and 3 years old (47 per cent; see Table A5.1), but 11 per cent owned or used a PC that was 5 or more years old.

<sup>33</sup> These are the same ICT items referred to in Chapter 4.

Ownership levels were slightly lower for White respondents than for BME group respondents, so reversing the pattern of slightly higher levels of awareness of ICT amongst the White sampled population, but there were no large disparities between the two groups. People from the Chinese & Other ethnic group and those of Mixed parentage were most likely to own an ICT item<sup>34</sup>, while Black people were the least likely of any of the broad BME groups to possess an ICT item.

People of Mixed parentage<sup>35</sup> and those of South Asian origin were most likely to own Digital TVs: 52 per cent and 48 per cent, respectively, owned such items, compared to 39 per cent of the White population. The qualitative studies indicated that for South Asian households in particular, such equipment was purchased specifically to enable access to Asian language programmes and religious programmes. One Indian interviewee indicated that he purchased a digital package:

*“... for personal enjoyment of Asian channels, and to help the children learn to speak Punjabi and learn more about their culture.”* (Indian male, 40s).

However, perhaps a more common motivation for such purchase was to keep older relatives entertained. As one 30-year old Asian man indicated:

*“The main purpose of buying was to give something to my parents. They do not enjoy English programmes for obvious reasons [limited English]. With Satellite TV language is not a problem since they can access programming in their own Asian language. Besides we all love watching Bollywood movies. One main advantage of a Satellite TV is that we get first hand news of what happens in the Indian sub-continent.”*

### 5.3 Ownership of PCs by Ethnicity

Ownership of PCs is of particular interest from a policy perspective because they are the most important means for accessing the Internet and may also be used for learning purposes. The purposes for which people use their PCs was explored more fully in Section 7. However, the qualitative research revealed that decisions to purchase PCs were often made as an “essential buy” for children’s studies. Typical comments included:

*“The decision was made to purchase the computer for educational purposes.”* (South Asian father)

*“I decided to purchase a computer to help my children because they have to use computers at school.”* (Afro-Caribbean mother)

Of all the major ethnic groups, South Asian (42 per cent) and Chinese and Other (44 per cent) respondents were most likely to own a PC, while relatively low ICT ownership levels amongst Black people (31 per cent) were particularly pronounced, such that they were statistically significant when other factors were controlled for (see Section 5.5). However, there were no significant differences between ethnic groups regarding the age of the PC which they owned (Table A5.1).

As with awareness, the interaction between ethnicity and other factors could produce anomalies in patterns of ownership. For instance, while awareness and ownership both decline fairly steadily with increasing age for BME groups, for White groups the pattern of

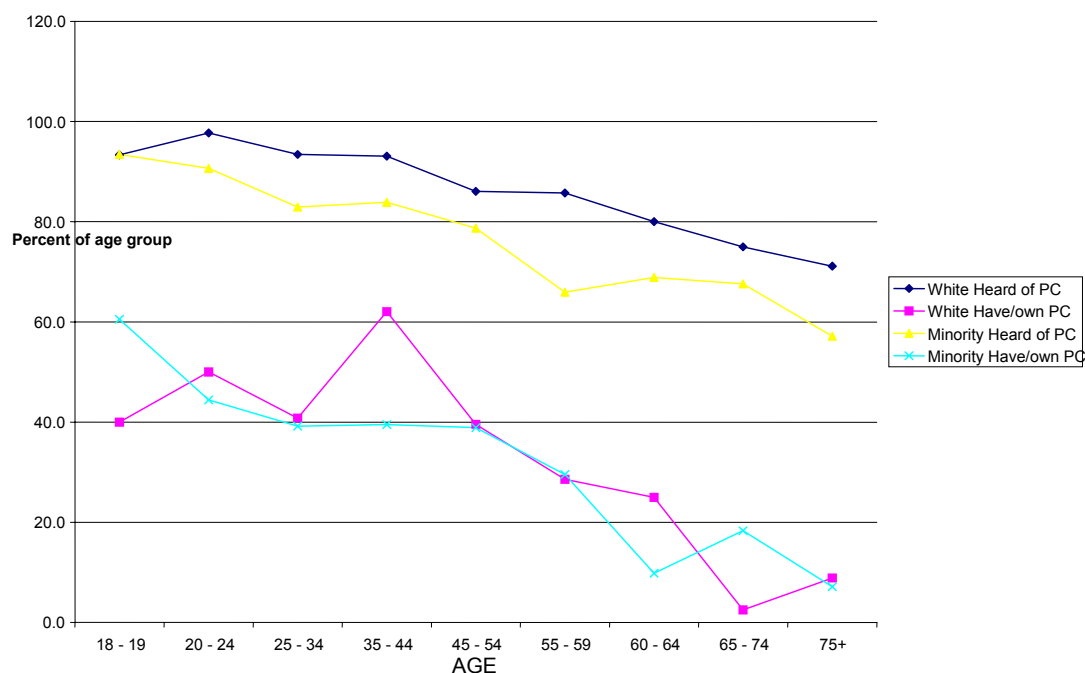
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<sup>34</sup> This is based on a small sample size

<sup>35</sup> Again, based on a relatively small sub-group.



ownership was much more erratic across the age groups, peaking in the 30-44 age group (Figure 5.1), although ownership shows a steady decline.



**Figure 5.1: Percentage of people aware of and owning a PC by age**

There are also differences between the ethnic groups in the skill profile of PC ownership. While, in aggregate, BME groups and White respondents displayed similar levels of PC ownership, for BME groups in the intermediate skilled group especially, and also the lower skilled groups ownership levels were slightly higher than for White people.

Amongst the White sample, households containing two adults and 2-parent families with children displayed the highest ownership levels for PCs (in excess of 50 per cent). Amongst BME groups, households containing 3 or more adults displayed the highest ownership rates, resulting from the higher propensity of young people to adopt ICT items.

The contrast in ownership levels by presence of children in the household was more pronounced for White respondents than for those from BME groups. Again, this is likely to reflect the older age profile of White households without children than of BME group households without children.

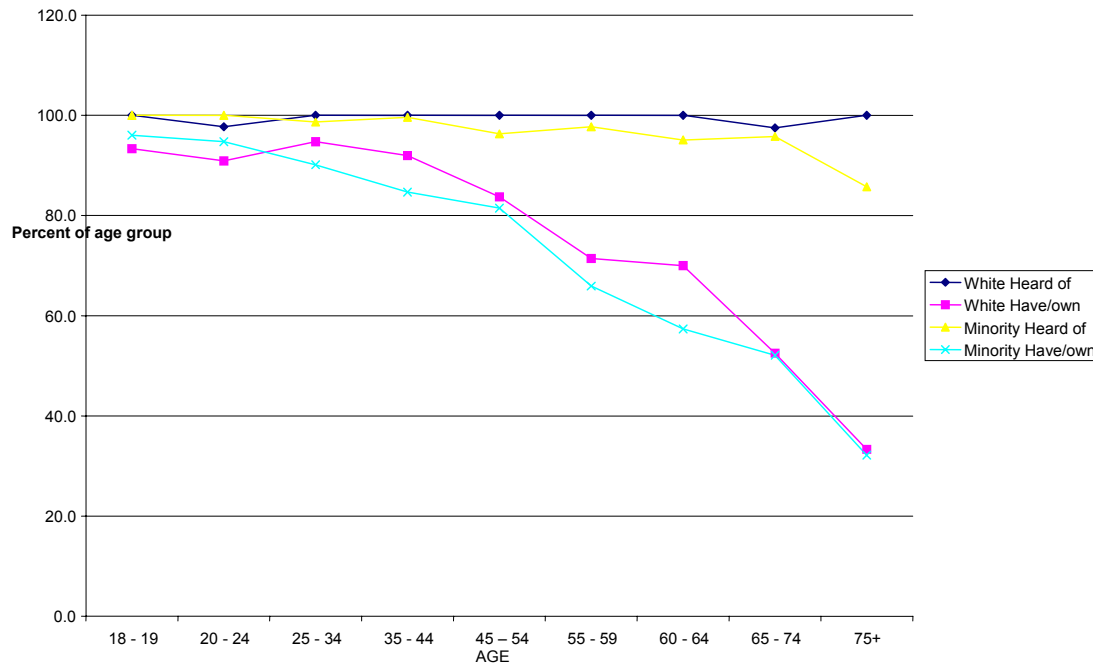
#### 5.4 Ownership by Factors other than Ethnicity

##### Age

Many of the factors which were associated with greater awareness of ICT were also associated with higher levels of ownership. For instance, the percentage of the sampled population owning an item of ICT technology declines with increasing age. More than nine in ten of adults aged under 45 years owned at least one ICT item, compared with 75 per cent of those aged between 45 years and retirement age and 47 per cent of those of retirement age (see Table A5.2).

Figure 5.2 reveals that ownership of ICT items declined particularly steeply in the oldest age groups. The decline in ownership levels with increasing age was more marked than the decrease in awareness levels. Ownership of PCs declined even more strongly with age than

of ICT in general.<sup>36</sup> However, unlike the relationship between age and awareness, that between age and ownership does not emerge as significant when subjected to a logistic regression analysis (see Section 5.5).



**Figure 5.2: Percentage of sampled population aware of and owning any ICT item by age**

#### Skill Level , Income and Economic Position

Similarly, ownership of ICT items amongst the sampled population was greater amongst the higher skilled than the lower skilled, irrespective of broad ethnic group (see Table A5.3). Again, this relationship did not prove significant when subject to a logistic regression analysis. However, income did prove to have significant explanatory power - ownership rates being higher for those in higher income groups (reflecting other research in this area). But the most significant explanatory variable was economic position, with unemployed and economically inactive people associated with lower ownership levels.

#### Household Type

Ownership of ICT items was higher amongst respondents living in particular household types (adult couples without children, all adult households, and one- and two- parent families with children) and in households with children (especially school age children). Evidence emerged from some interviewees in the qualitative interviews that ownership of a range of ICT items was “*expected*”, particularly amongst children, and where such ownership was common amongst peer and friendship networks a lack of ICT items was seen as a mark of social inferiority, because “*everyone else has them*”. Logistic regression analysis suggests that household type was a significant explanatory variable.

<sup>36</sup> The ICT items with highest ownership levels amongst people of retirement age in the sampled population were mobile phones (owned by over a third of the age group) and digital TVs (owned by one in five of the age group).

## 5.5 Access to the Internet at Home

Some information on access to the Internet at home is presented here. (It should be considered in conjunction with information on use of ICT in Chapter 6.)<sup>37</sup>

Overall, 27 per cent of people had used the Internet at home (Table A6.1). Use of the Internet at home was lowest for Black respondents (22 per cent) and highest for respondents with Mixed parentage (38 per cent) and Chinese and Other groups (35 per cent). For White respondents this figure was 31 per cent and for South Asian respondents it was 26 per cent.

Easily the most common form of connection reported was via a telephone line and modem, accounting for 83 per cent of all households with an Internet-connected PC (Table 5.2). Cable modems were the next most frequent (about a tenth as common). South Asian people were more likely than White people to have high-speed ADSL connections. Overall 52 per cent of the sampled population who had ever used a PC had access to an Internet-connected PC at home and virtually all respondents (95 per cent) with such access at home had used it to connect to the Internet from home.

**Table 5.2: Type of Internet connection by ethnic group (per cent of connections by ethnic group)**

Type of connection	White	Mixed parentage	South Asian	Black	Chinese & Other	All ethnic groups
Via telephone line (modem)	86.1	66.7	83.6	85.4	66.7	83.0
Via telephone line (ADSL)	1.7	12.5	5.0	2.2	11.1	4.2
Via digital phone line (ISDN)	0.9	0.0	1.3	1.1	0.0	1.0
Via cable (cable modem)	9.6	8.3	8.2	6.7	16.7	8.6
Other	1.7	12.5	1.9	4.5	5.6	3.2
<b>All with Internet connected PC</b>	<b>115</b>	<b>24</b>	<b>159</b>	<b>89</b>	<b>18</b>	<b>405</b>
<i>Per cent of those who had used a PC with an internet-connected PC at home</i>	56.1	54.5	55.4	41.8	50.0	51.6
<b>Per cent of all respondents with internet-connected home PC</b>	29.3	34.8	25.0	20.5	34.6	25.6
<i>Per cent with an internet-connected PC at home who had ever used Internet at home</i>	94.3	92.3	95.8	92.7	100.0	94.6

The Family Expenditure Survey for 2001-2 revealed that while overall, 40 per cent of households had home Internet access, 80 per cent of the wealthiest households had such access, compared with only 10 per cent of the poorest households. While only 1 per cent of retired couple households had home Internet access, 64 per cent of households consisting of a male/female couple with 2 or more children had such access.

## 5.6 Synthesis

A logistic regression model constructed to separate out and assess the relative importance of different factors in explaining the *probability of owning a PC* (see Appendix 5.2 for further

<sup>37</sup> The national survey did not ask all respondents whether there is an Internet connection at home. Rather it asks people who have used the Internet where they have used it, and for those who have used the Internet at home it asks what type of Internet connection they had for the main computer in the house.

details) revealed that the following dimensions were significant (Table A5.4)<sup>38</sup> - with those persons listed being less likely to own a PC:

- *economic position* – unemployed<sup>39</sup> and economically inactive;
- *income* – lower incomes (the negative effect increases the lower the income);
- *ethnic group* – Black people.

On the other hand, the model reveals that the probability of owning a PC was significantly higher for the following household types:

- *household types* – adult couples without children, all adult households, and one- and two- parent families with children.

A further analysis separated out the relative importance of different factors in explaining *use of the Internet from home* (see Appendix 5.3) (Table A5.5).

- Black and South Asian people are significantly less likely than white people to have used home Internet access.
- The unemployed, the economically inactive and those with low earnings are significantly less likely than other people to have accessed the Internet from home.
- People living in all adult households are significantly more likely than other people to have home Internet access.
- Further variables for which the association is statistically significant at the 5 per cent level include being female, having low skill and having an income of £111-170 per week (all acting to reduce the probability of having used the Internet from home).

## 5.7 Overview of Ownership and Availability within the Home

83 per cent of the sample owned one or more of a list of ICT items. Ownership of mobile phones was highest, followed by digital TV and home PC.

In the sampled population there were no large differences in general ownership levels of ICT between the White group and the aggregated BME group, and no marked differences by ethnic group in the age of owned PCs.

However, PC ownership among South Asian, Chinese and Other and Mixed groups was higher than ownership levels of both White and Black groups.

Respondents with Mixed parentage and those of South Asian origin were more likely to own a digital TV than other groups.

When analysis controlled for other factors, like household type and income, being Black was still a significant predictor of lack of PC ownership.

Economic position was the main predictor of the probability of owning a PC, with unemployed and economically inactive people least likely to own a PC. In addition to being Black, other significant factors were income level and household type.

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<sup>38</sup> The model accounted for approximately a quarter of the variance in the probability of owning a PC – suggesting that there remains a considerable amount of unexplained variation. Nevertheless, the modelling exercise is considered to be valuable in separating out and highlighting some of the most important explanatory factors in the probability of owning a PC.

<sup>39</sup> The unemployed are less likely than economically inactive people to own a PC.

Being Black or South Asian were significant predictors of having accessed the Internet from home – Black and South Asian respondents were less likely to have access than other groups after controlling for other factors.

Association of ownership of ICT items with the presence of children was more pronounced for White than for BME groups.

## 6. EXPERIENCE OF USING ICT

### 6.1 Introduction

The survey revealed that the great majority of respondents had used an ICT item, and nearly half had used a PC. The likelihood of having used an ICT item was much lower for older respondents. Of the ethnic groups, South Asians were the least likely to have used ICT, while experience of ICT also varied by economic position (students being particularly high users of ICT, followed by those in work) and skill level, those at higher skill levels being more likely to have used ICT.

### 6.2 Experience in Aggregate and by Ethnic Group

Overall, 80 per cent of all respondents had used one or more of the ICT items specified in the questionnaire (Table 6.1). The most common type of technology used was the mobile phone (76 per cent), and 42 per cent had also used SMS text messaging on a mobile phone.

**Table 6.1: Percentage of respondents who had ever used an ICT item by gender and broad ethnic group**

Ever used ICT item	Female	Male	White	Mixed parentage	South Asian	Black	Chinese & Other	All ethnic groups
Personal desktop or laptop computer	46.6	52.9	52.3	63.8	45.1	49.0	69.2	49.5
Mobile phone	73.2	78.9	78.3	91.3	70.6	77.7	84.6	75.8
SMS text messaging on a mobile phone	38.0	45.9	48.5	71.0	35.8	37.5	55.8	41.6
Internet	38.2	46.0	45.2	60.9	38.0	40.0	53.8	41.8
Intranet	9.5	13.1	16.1	15.9	8.5	8.5	23.1	11.2
Fax machine	27.9	32.5	36.2	31.9	21.7	35.2	38.5	30.0
E-mail	31.8	38.0	40.1	43.5	29.8	33.6	50.0	34.6
Interactive services through Digital TV	21.2	23.9	24.7	34.8	21.0	19.8	26.9	22.4
Any of these	77.3	83.3	82.1	95.7	75.0	82.1	88.5	80.1
None of these	21.9	16.4	17.9	4.3	23.9	17.7	9.6	19.4
<b>All respondents</b>	<b>859</b>	<b>724</b>	<b>392</b>	<b>69</b>	<b>637</b>	<b>435</b>	<b>52</b>	<b>1585</b>

Other surveys of ICT usage have revealed a growing use of these technologies, and the results of this survey are broadly compatible, with 47 per cent of the sampled population having used a PC, 42 per cent having accessed the Internet and 35 per cent having made use of e-mail (Table 6.1). Interactive services via digital TV had been used by 22 per cent of respondents, but Black and South Asian people were less likely than white people to have used them.

An analysis of more detailed information on where experience in use of the PC and the Internet had been gained (Table A6.1), reveals that; 33 per cent had used a PC at home, 23 per cent had used one at work, and 19 per cent had used one at a place of study. People were much more likely to have used the Internet at home (27 per cent) than at work (16 per cent)

or at a place of study (14 per cent). Only 11 per cent of the sampled population reported having used an Intranet,<sup>40</sup> with the majority of such experience having been gained at work.

In terms of differences by ethnic group (in terms of percentages ever having used ICT), those of Mixed parentage and Chinese and Other respondents showed the highest levels of use and the South Asian group the lowest, followed by the Chinese and Other group (Table 6.1). Membership of the South Asian group emerged as a significant factor (Section 6.5). The qualitative case study interviews in the West Midlands and West Yorkshire revealed that middle-aged and older females from some South Asian groups were particularly likely to lack such experience of using ICT. As one Asian male interviewee said:

*“There are Asian families who are not keen on their female members getting too much education as this may lead to disruption in families.”*

A Bengali woman reported that in her view:

*“Being a woman is definitely a barrier as we have household chores, as well as having to put up with my husband’s disapproval.”*

There was also an example of an adult son and daughter in a South Asian family persuading their father to let their mother go on a computing course – to give her an interest outside the home and to help her be fulfilled.

Patterns of access from home or work were broadly similar for all ethnic groups, with the proportion of respondents reporting having used PCs and the Internet at home exceeding the percentage reporting experience at work (Table A6.1). However, a higher proportion of the White sampled population than of the BME groups had used PCs and the Internet at work – particularly in the 25 and over age groups.

White respondents were most likely and Black respondents least likely to have such an Internet-connected PC at home: the respective percentages were 56 per cent and 42 per cent. Some of the smaller ethnic groups (i.e. Chinese & Other and Mixed parentage) were more likely to have an Internet-connected PC at home, but the reliability of this finding is undermined by the small numbers in these ethnic groups.

White respondents in work were more likely to have used a PC, and more particularly the Internet and an Intranet (and to have used these technologies at work<sup>41</sup>) than individuals from BME groups in work (Table A6.2). The South Asian and Black groups again appeared as the lowest users, with only 38 per cent of South Asian respondents and 40 per cent of Black respondents having used the Internet, compared to 45 per cent of White respondents, 54 per cent of Chinese and Other respondents and 61 per cent of respondents from the Mixed parentage group (Table A6.1).

Again there were some variations in the profiles of ICT use when ethnicity was considered in association with other variables:

There was a marked difference between ethnic groups in the pattern of decline with age (Table A6.3): 71 per cent of White respondents and 70 per cent of respondents from BME

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<sup>40</sup> Intranets are usually located at places of work or study, but users may not be aware that they are using an intranet.

<sup>41</sup> This probably reflects the higher percentage of White people than of respondents from BME groups, working in white-collar occupations.

groups aged 16-24 years had used the Internet; but among those aged 25-44 years, 68 per cent of White and only 40 per cent of respondents from BME groups had used the Internet. This probably reflects the very high rates of usage of the Internet by students (see Section 6.3).

White respondents from the higher skilled group in the sampled population were more likely to report experience of use of all ICT items, with the exception of interactive services through digital TV, than their higher skilled counterparts from BME groups. However, intermediate and lower skilled respondents from BME groups were slightly more likely than their White counterparts to have experience of using PCs and the Internet. To some extent this appeared to reflect experience gained at work or through work-related studies for people in non-manual occupations – especially in service industries. When asked about their skills/capacity to undertake tasks, gaining experience “*at work*” and from “*work colleagues*” was often quoted. In terms of computing courses the qualitative local studies revealed that several had learned at work the specific applications needed for their jobs. However, it is notable that the differences in experience of use of ICT items by skill group were much more pronounced than any differences in experience by broad ethnic group.

Experience of use of ICT items in households with children was less common for respondents from BME groups than amongst White respondents, whereas for households without children, levels of use were similar for both groups. As with ownership, it would appear that presence of children has a greater influence in White than in BME households.

### 6.3 Experience by Factors other than Ethnicity

#### Age

As was the case for awareness (Chapter 4) and ownership (Chapter 5), there is evidence that age was a major influence on use of ICT, with the logistic regression highlighting this as the single most important explanatory factor. Table 6.2 shows that 53 per cent of the sampled population who had reached retirement age had never used any of the ICT items listed, but only 2 per cent of 16-24 year olds had never done so. The pattern of experience of use declining with age was apparent for every ICT item identified in the survey, with experience tending to decrease quite rapidly once retirement age is reached.

**Table 6.2: Percentage of each age group who had ever used an ICT item**

Ever used ICT item	Aged 16-24	Aged 25-44	Aged 45-59/64	Aged 60/65+	All ages
Mobile phone	92.8	84.1	62.5	41.0	76.2
SMS text messaging on a mobile phone	69.6	48.7	21.2	2.7	41.8
Personal desktop or laptop computer	78.1	55.6	30.1	13.1	49.8
Internet	70.3	47.7	24.3	3.6	42.0
Intranet	18.6	13.2	5.4	0.9	11.3
Fax machine	39.9	36.9	18.9	5.9	30.1
E-mail	58.5	39.6	19.3	3.6	34.8
Interactive services through Digital TV	38.2	26.1	10.4	2.3	22.5
None of these	2.3	11.6	32.0	53.2	19.0
<b>All respondents</b>	<b>306</b>	<b>786</b>	<b>259</b>	<b>222</b>	<b>1573</b>



Use of the Internet also declined with age amongst the sampled population (Table A6.3). One interviewee attributed high levels of usage amongst young people to being a:

*“lifestyle thing. ... Young people use ICT and computers a lot more and ICT is linked to all aspects of their lives”* (Black mother, 40s).

Likewise, a teenager interviewed in the local case studies suggested that:

*“It might be difficult for older people because they didn’t grow up with ICT* (Black teenage girl).”

In contrast, of those aged between 45 and retirement age, only 63 per cent had used a mobile phone, 30 per cent a PC and 21 per cent SMS text messaging. Levels of use for those of retirement age were even lower. A representative of an ICT provider interviewed in the local case studies suggested that this might reflect adults (i.e. other than young people):

*“tending to use ICT in an ad hoc fashion, to fulfil specific needs* (representative of ICT provider).”

Less than 4 per cent of the sample of retirement age had ever used the Internet.

### Economic Position and Skill Level

Experience also varied by economic position, students being the most likely to have reported ever having used each of the ICT items, (with the exception of a fax machine), than any of the other sub-groups identified. Students were followed by those in work. The unemployed and economically inactive were the least likely to have used ICT, to a statistically significant degree (see Section 6.4). As with awareness and ownership, experience of using a PC was also associated with skill level - those in lower skilled groups being less likely and those in intermediate skilled groups more likely to have used a PC. Again, the logistic regression highlighted this as a significant explanatory factor.

### Other Factors

Experience of use of mobile phone technology, PCs, the Internet and e-mail was much higher for individuals in the sampled population from households with children - particularly school-age children, than for households without children, but this association appears not to be statistically significant.

Slightly more men than women in the sampled population had used the ICT technologies (though the logistic regression analysis reveals that this difference was not statistically significant, when other factors are controlled for – see Appendix 6.2).

## **6.4 Synthesis**

A logistic regression model was constructed to separate out and assess the relative importance of different factors in explaining the *probability of using a PC* (see Appendix 6.2 for further details). Age, ethnicity, economic position and skill emerged as important influences (Table A6.4), as detailed below:

- *age* – this has the strongest effect, with the probability of having used a PC declining markedly with increasing age (pensioners being very unlikely to have used a PC);
- being *South Asian* - South Asian respondents emerge as much less likely to have used a PC;
- *economic position* – the unemployed and economically inactive are least likely to have used a PC;
- *skill level* - possession of low skills also reduces the probability of having used a PC,

while having intermediate skills increases the probability of having used a PC.

A similar analysis which sought to identify the factors predicting people's *use of the Internet* (Table A6.5) found, not surprisingly, that the most statistically significant influence on use of the Internet was whether or not a person had used a PC. However, two additional variables were statistically highly significant negative influences on Internet usage;

- *economic position* - the economically inactive are least likely to have used a PC
- At the 5 per cent significance level, women, people from the South Asian and Chinese and Other ethnic groups, economically inactive people, people with low skill levels and people with lower incomes are less likely to have used the Internet.

A further analysis identified significant factors explaining whether people had *used the Internet at home* (Table A6.6). It found:

- The most significant factors were having used a PC *per se* and having used a PC at another person's home.
- Being Black is a statistically significant factor in its own right. Black people are less likely than other groups to have used the Internet at home.
- Also significant (at the 5 per cent level) are having used the internet at work or at a place of study and living in a household with children or in a wholly adult household.

## **6.5 Overview of Experience of Using ICT**

Three quarters of sampled respondents had used an ICT item, mobile phones being most used. Half had used a PC/laptop. 42 per cent had used the Internet.

Respondents of Mixed parentage and from Chinese & Other groups reported the highest levels of experience of use across the range. Respondents from South Asian groups reported lower levels of experience than other ethnic groups.

Respondents from South Asian and Black groups reported lowest levels of Internet experience.

Being Black was a significant predictor of whether someone had used the Internet at home. Black respondents were still less likely than other groups to have used the Internet at home after controlling for other factors.

Age was the main predictor of probability of having used a PC (pensioners were very unlikely to have used one). Other significant factors were economic position and skill level.

Being South Asian was also a significant predictor of PC use - South Asian respondents were less likely to be aware of PC technology than other groups after controlling for other factors.

Experience of using ICT was greater for respondents in households with children than those in households without children. This was a stronger pattern for White respondents with children than for BME respondents with children.

As might be expected, the main influence on use of the Internet was use of a PC, but age and economic position were also significant predictors.

## 6.6 Common Themes in Awareness, Ownership and Use of ICT

A number of *common themes* have emerged from the analyses of awareness, ownership and experience of use of ICT:

- Age was the most powerful factor determining awareness, ownership and usage of ICT, with younger people having high levels of awareness and use and older people low levels of awareness, usage and interest.
- South Asian respondents have lower levels of ICT awareness than other respondents.
- The chances of owning and using an ICT item increases the higher a person's income.
- Black respondents are less likely than other respondents to own a PC.
- People in work and education have the greatest amount of experience with ICT.
- The presence of school age children increases the awareness of ICT.

## 7. USE OF PCs AT HOME

### 7.1 Introduction

Home PCs are most commonly used for personal study (more commonly by respondents from BME groups), e-mail and web surfing. Students and people in work (especially the higher skilled) were most likely to use PCs at home. Helping children with their education was an important use for home PCs. Home PCs provide some people with a means of accessing information about their ethnic, religious or cultural background.

### 7.2 Purpose of Use in Aggregate and by Ethnic Group

The survey asked respondents who used a PC at home what activities they performed using their home PC, and which of these activities they undertook at least once a week. Nearly a third of the sampled population replied to these questions.<sup>42</sup>

The most common use for the home PC was for own study or learning – mentioned by 69 per cent of respondents (Table 7.1). The importance of PC use for education and study purposes was reiterated in the qualitative case studies. Indeed, the purchase of a home PC was often prompted primarily with educational/study purposes in mind. A higher education student reported that a PC was “*a necessity*” for study purposes:

*“Everything has to be type-written and you are given website addresses to find out more information.”* (female student, early 20s)

Children reported using PCs for homework, and where PCs were shared this use tended to be prioritised. In larger families a few children reported problems regarding access to home PCs for homework when their siblings required access too. From the local case studies there were three specific examples of families with several children (at least four) trying to share a PC. One teenage girl reported that it was “*difficult to take it in turns doing homework*” – due to conflicting timescales, etc. In another family older children coming up to exams were given priority on the PC over younger children not working specifically for exams.

PCs at home were most frequently used for Internet web-surfing (83 per cent of surfers did so once or more a week), followed by emails (81 per cent), leisure (72 per cent) and own study/learning (69 per cent).

38 per cent of respondents using a home PC reported doing so for work related activities. Work-related purposes also included searching for employment in some instances. One interviewee reported:

*“It’s a great way of seeing what’s out there job wise in Birmingham. It’s a lot less time-consuming than reading the Evening Mail cover to cover every week.”* (Asian man, early 20s)

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<sup>42</sup> In some sub-groups of the population (e.g. people of retirement age subdivided by gender) the number of respondents is small. This needs to be borne in mind when interpreting the results.

**Table 7.1: Purposes home PC is put to, by age and gender (percentages of each age and gender group)**

Use home PC for	Female				Male			
	16-24	25-44	45-59/64	All ages	16-24	25-44	45-59/64	All ages
Work related activities	25.4	39.7	25.0	33.8	35.7	44.8	50.0	41.8
Own study or learning	76.2	69.5	70.0	70.8	75.0	68.7	56.3	68.8
Help children with learning or homework	23.8	54.3	20.0	42.5	25.0	34.3	34.4	30.9
Leisure	50.8	57.6	30.0	52.9	67.9	56.7	43.8	57.8
E-mails	71.4	53.0	55.0	57.5	65.5	65.7	46.9	62.5
Buying goods and services	25.4	27.8	15.0	25.4	31.0	38.8	25.0	34.0
Internet or web surfing	68.3	55.6	55.0	57.5	67.9	63.4	53.1	63.7
Correspondence	25.4	39.7	35.0	35.4	32.1	47.0	50.0	41.4
Household finances	9.5	22.5	10.0	17.9	10.7	27.6	21.9	21.1
Other	0.0	2.0	0.0	1.7	2.4	0.0	0.0	0.8
None of these	0.0	2.0	0.0	1.7	0.0	0.7	3.1	0.8
<b>All responses</b>	<b>63</b>	<b>151</b>	<b>20</b>	<b>240</b>	<b>84</b>	<b>134</b>	<b>32</b>	<b>256</b>
<i>Use PC once or more a week for (percentage of those who use a home PC for a given purpose)</i>								
Work related activities	56.3	65.0	80.0	64.2	80.0	58.3	81.3	68.2
Own study/learning	58.3	58.1	78.6	59.4	73.0	66.3	66.7	68.8
Help children with learning/homework	66.7	69.5	50.0	67.6	57.1	56.5	45.5	55.7
Leisure	59.4	52.9	66.7	55.9	77.2	69.7	57.1	71.6
E-mails	71.1	73.8	63.6	71.7	80.0	81.8	73.3	80.6
Buying goods and services	37.5	28.6	0.0	29.5	30.8	44.2	37.5	39.1
Internet/web surfing	72.1	71.4	100.0	73.9	75.4	89.4	82.4	83.4
Correspondence	56.3	58.3	71.4	58.8	51.9	65.1	68.8	62.3
Household finances	0.0	58.8	50.0	48.8	22.2	64.9	71.4	59.3
Other	-	66.7	-	50.0	50.0	-	-	50.0
<b>All using a PC for any of these purposes at least weekly</b>	<b>62</b>	<b>147</b>	<b>19</b>	<b>232</b>	<b>84</b>	<b>131</b>	<b>31</b>	<b>252</b>
<b>Percent using a PC for any of these purposes at least weekly</b>	<b>98.4</b>	<b>97.4</b>	<b>95.0</b>	<b>96.7</b>	<b>100.0</b>	<b>97.8</b>	<b>96.9</b>	<b>98.4</b>

The national survey revealed that fewer than a fifth of all respondents had used their home PC to obtain information relevant to their ethnic or religious background, although a third of respondents who had accessed such information did so once or more per week (Table A7.1). This is discussed in further detail later in this Section.

Local case studies revealed some interest in accessing information on local events and services via the Internet. Particular reference was made to cultural and social events (in their own or neighbouring areas) and to facilities/events for young people. Very few made reference to wanting to be able to use e-participation or e-consultation. However, many interviewees preferred to phone (rather than email) service providers.

A quarter of respondents to the national survey reported having accessed statutory provider websites and 13 per cent had emailed statutory service providers (Table A7.1). The qualitative component of the study revealed a particular demand for information on

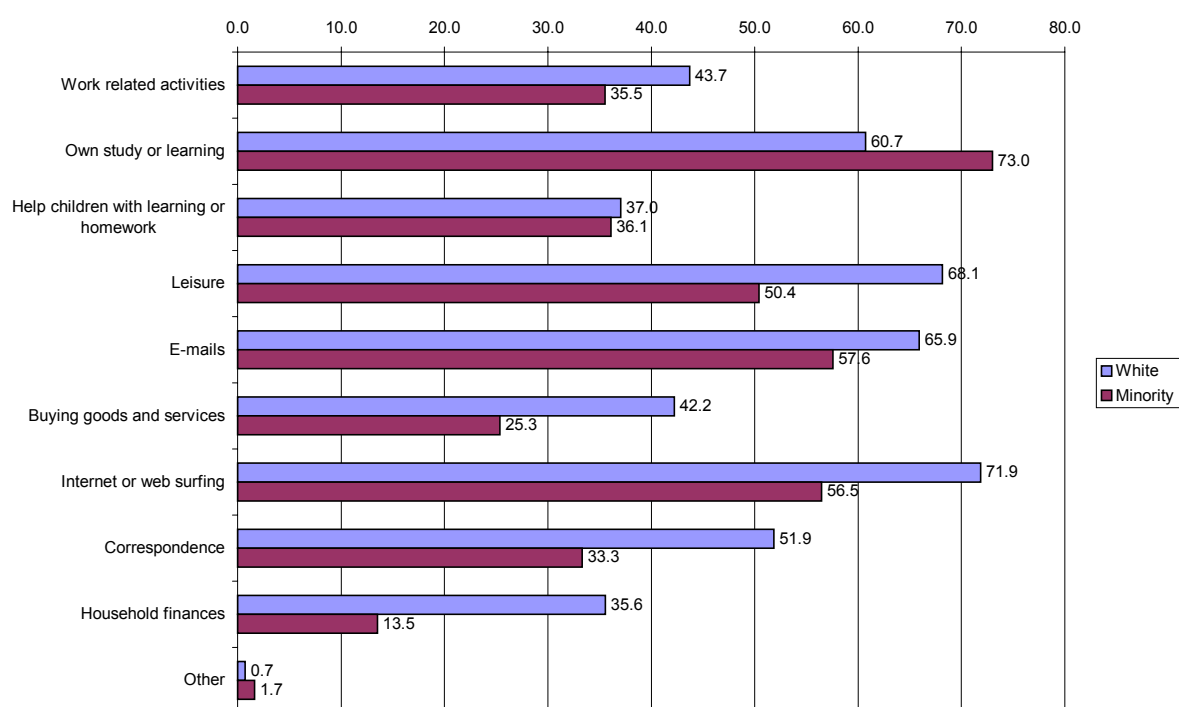
educational provision<sup>43</sup> – including information on schools, colleges and training courses. One mother noted:

*“Learning more about their curriculum at school would help me help them with their homework.”* (Black mother, late 30s)

White respondents were more likely than BME respondents to have used a home PC to access statutory service provision. For example, 26 per cent of Black respondents and 20 per cent of South Asian respondents had done this, as opposed to 34 per cent of White respondents. (Table A7.1).

Other suggested purposes for accessing service providers via the Internet included accessing information on local services, local plans and developments, local MP contact details, social care and childcare facilities.

There were marked differences between White and BME groups as Figure 7.1 shows:



**Figure 7.1: Purposes home PC is put to, by age and White/BME group breakdown (percentages of each age and broad ethnic group)**

Among home PC users from BME groups, 73 per cent used their PC for own study or learning, compared with only 61 per cent of White respondents. There was little difference between White and BME groups regarding the proportions using their PC to help children with their homework. In contrast, White respondents were more likely than respondents from other BME groups to report using their home PC for all other purposes, including leisure activities, e-mailing and web surfing.

There were variations between BME groups: Black respondents were most likely to use a home PC to help their children with learning, but South Asian respondents who used a PC to help their children did so more regularly than respondents from other ethnic groups. There were examples from the qualitative local case studies of PCs being specifically bought for study purposes. These included a woman undertaking an Open University course, another

<sup>43</sup> Including OFSTED reports, schools admissions, exam board information, National Curriculum details, etc.

woman studying for qualifications to further her career in the health sector, the purchase of a computer for accountancy studies, as well as examples of respondents buying CDs to help children with SATs: *“My Mum bought me some CD Roms to help me with my SATS.”* (Black girl at junior school).

Although BME were less likely than White groups to use e-mail, the qualitative interviews revealed that use of e-mail to keep in touch with relatives around the world was a key incentive for using home PCs amongst some BME group interviewees. Focus groups in West Yorkshire revealed that amongst Asian women aged over 30 years the most common use for email was to communicate with family members overseas. Through a translator, one woman commented that she often used her sister’s machine: *“and there she emails her family back home. She’s been using it in Urdu”* (translator for an Urdu-speaking woman at a focus group). Some focus group attendees used e-mail for communicating with family members in India and Pakistan in preference to ringing them, often because of convenience across time zones.

The proportion using a PC for work activities was slightly higher amongst White respondents (56 per cent) than amongst respondents from BME groups (48 per cent).

People from BME groups were more likely than White respondents to have accessed such religious/ethnic group information, with the percentage consulting such websites being highest in the youngest age group (Table A7.2) and for those in work (Table A7.3), One interviewee reported:

*“As a Black woman I think it is important for me to have an alternative news perspective, which I think can be more accurate, about what is happening around the world. I search for Black literature for the children in my wider family.”* (Black woman, late 30s)

Another student noted:

*“I always like to look for the Black/African perspective. I like to get an alternative view to the European.”* (Black woman, early 20s)

Specific events/campaigns also had an impact. A number of Black interviewees referred to Black History month:

*“I think my culture has an impact. This month it’s Black History Month. And so I will be looking out for local events to go to through the Internet.”* (Black woman, 30s)

However, for some interviewees searching for such information proved the exception rather than the rule. One interviewee reported accessing Web sites of specific significance to her ethnicity:

*“... particularly around Black History month when that type of information abounds. ... Otherwise I do not use computers any differently from my friends.”* (Black woman, 20s)

A Black teenage boy reported that he went on a *“Black chat”* site that he would not have used had it not been for his ethnic background. Amongst several young Black and Asian interviewees specific reference was made to accessing Black music and Asian songs via the Internet. In general, however, young people reported *“using it [i.e. ICT] normal”* / *“the same as everyone else”*.

Amongst some South Asian families, specific reference was made to purchase of Digital TV to enable access to Asian language and news programmes (as highlighted in Chapter 5).

### **7.3 Purpose of Use by Factors other than Ethnicity**

#### Age and Gender

There were a number of gender differences in the uses to which a PC was put, women being more likely to help children with their homework (43 per cent did so compared to 31 per cent of men), but men being more likely than women to use their home PC for purchasing goods and services and for home finance.

Variations in purpose of home PC use by age were more pronounced for some activities than for others. Unsurprisingly, usage of PCs for helping children with homework was highest in the 25-44 year old age group.

#### Economic Position and Skill Level

People in work and students tended to make most use of a home PC for a range of purposes (see Appendix 7.2, Table A7.4). Unsurprisingly, almost all students used a PC for their own study and learning and those in work were most likely to use a PC for work-related activities. People in work and the economically inactive (including full-time carers/parents) were most likely to use a PC to help children with their learning. Students tended to make use of the home PC more regularly than people in work.

For respondents from both White and BME groups, the percentage using a home PC for work-related purposes declined with the respondent's skill level (Table A7.5); this is in line with skill level variations in patterns of ICT experience outlined in Chapter 6. Those with higher skill levels were also more likely to access government services online than were others.

Use of a home PC for leisure and web surfing was more common for respondents with higher level skills. The same pattern was evident for correspondence, home finance and online shopping. Respondents with higher skills were most likely to use their PC for e-mail.

### **7.4 Purpose of Use and Age of PC**

The age of the home PC equipment available to a respondent appears to have had relatively little influence on the type of use which was made of it - especially for respondents from BME groups (Table A7.6), though the numbers of households with older PCs was quite small. However, this is not to discount entirely the role of age of PC equipment in understanding patterns of usage. A slight tendency was apparent for the percentage using the Internet to be lower for the oldest PCs, and the frequency of use of PCs for web surfing and e-mail was higher for newer PCs, probably because older PCs are incapable of supporting modern web browsers.

This pattern was also borne out in the qualitative interviews. Some interviewees felt that their home PC was rather old, but a more frequent complaint was the slow speed of Internet connections and the "*prohibitive*" cost of a broadband connection. Despite the fact that the cost and speed of Internet connections were the most frequent and widespread source of complaint, the costs of upgrading hardware and software were also acknowledged. A focus group participant in West Yorkshire noted:



“... it's expensive having computers, and upgrading. Like, for example, every time there's a new package and there's different things you can do with these packages, and for someone that's not quite up with computing and stuff like that, it's expensive to get these new packages, isn't it?” (Asian man, 50s)

However, some saw advantages in keeping older equipment because of concerns around security. In one instance an interviewee reported that while PCs had been purchased for the children's studies, a decision had been taken to retain older/basic equipment “because of the high break-in rates in the area” (Asian father).

## 7.5 Synthesis

In order to identify the significant influences in determining how people used their PCs, a number of logistic regressions were carried out. In each case, the explanatory power of the resulting model was low, accounting for less than 25 per cent of the variation, suggesting that either there were significant explanatory factors which were not covered by the study, or simply that the influences on purpose of use were very varied and complex.

Looking at a selection of uses, namely *using a PC for home study* (Table A7.7), *using a home PC for leisure* (Table A7.8, and *using a home PC for e-mail* (Table A7.9) the regression analyses identified the following factors as significant:

- Being a *student* – perhaps not surprisingly, this was the most significant influence associated with using a PC for home study
- Living in a *household composed of three or more adults* – increases the likelihood of having used a PC for study purposes. This applied independently of economic position
- *Skill level* – those with lower skill levels were less likely than others to have used a PC for home study
- *Ethnicity* – South Asian respondents were less likely to use a home PC for leisure purposes or for e-mail
- *age* – unlike many of the other associations with age, it was the 45 to 64 age group who were least likely to use a PC for leisure purposes. However, all those over 45 were less likely to use e-mail.

## 7.6 Overview of Use of PCs at Home

The most common use for a PC at home was for own study or learning. Use of email and surfing the web were the next most common activities.

Women were more likely than men to have helped children with their learning.

BME respondents were more likely to have used a home PC for educational purposes than White respondents.

White respondents were more likely to have used a home PC for leisure for work purposes, to buy good and services and for email than respondents from BME groups.

Across a range of purposes, usage levels were greatest amongst those in work and students, and amongst those in higher skill groups.

White respondents were more likely than BME respondents to have used a home PC to access statutory service provision.

BME groups were more likely than White respondents to have used the Internet to access information of relevance to ethnic/religious background

Being a student was the main predictor of using a PC for study purposes, but household type and skill level were also significant.

The South Asian group were associated with significantly lower levels of PC for leisure purposes and e-mail, while age was also a negative influence on using a PC for these purposes.

## **8. LOCAL PROVISION, AWARENESS AND USE OF ICT OUTSIDE THE HOME**

### **8.1 Introduction**

The local case studies revealed a high degree of usage of ICT facilities outside the home, and a fairly high level of awareness of computer facilities and courses in the locality. Lack of use of public ICT facilities was usually because of a lack of interest or perceived need to use them. The manner of provision of such facilities and the cost of using them are barriers to their use, while the provision of highly localised ICT facilities tends to promote use.

### **8.2 General Awareness and Use of Public Facilities for Accessing ICT**

Training provision in the West Midlands area was distributed around a number of sites: colleges and schools, libraries and community centres (in which, several UK online centres were located). Colleges tended to run the more specialised ICT training courses, with the majority of the other providers running ‘tasters’, introductory and beginners’ courses. Likewise, the survey of local ICT facilities in West Yorkshire revealed that training provision tended to be mainly at basic or beginner levels. Most of the providers offered basic or introductory level training across a range of ICT skills, including taster sessions at cyber cafés, informal e-mail and Internet courses at all the libraries, and in some cases accredited training up to NVQ level 1, though intermediate and advanced level courses were available. In the main, providers offered cost-free access to facilities but with restrictions (such as being registered on courses or being a member of a library) or had minimal charges.

According to the national survey, half of the sampled population indicated that they knew where to go to get information on computer facilities and training courses in their area (see Table A8.1, Appendix 8.1). Overall, the survey results indicate a fairly high awareness of computer facilities and courses available in the local area, but a sizeable minority of respondents (over a third of respondents) indicated that they lacked, or only had partial, information. The results also indicate a demand for more computer training – with nearly 55 per cent of the sampled population indicating that they would like to get more training in computers.

Overall, 65 per cent of respondents were aware of public ICT access facilities in their neighbourhoods (Table 8.1). The three venues most frequently identified were the public library<sup>44</sup> (identified by 50 per cent of the sampled population), schools/colleges (32 per cent) and Internet cafes (30 per cent). One in ten respondents indicated that they were aware of ICT facilities in voluntary and community organisations. Nearly 4 per cent of respondents reported having used ICT facilities at voluntary or community organisations and community access booths (Table 8.2).

Of respondents who had used public ICT facilities in any location (Table 8.2), the three most commonly used were school/colleges (used by 34 per cent of respondents), libraries (26 per cent) and Internet cafes (17 per cent).

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<sup>44</sup> This was the most frequently identified venue by respondents in all gender, age and ethnic group categories.

**Table 8.1: Awareness of public facilities for ICT access in the local area (percentages)**

Aware of public computer facilities	Female	Male	16-24	25-44	45-59/64	60/65+	All ages	White	Mixed parent age	South Asian	Black	Chinese & Other
Yes	65.2	63.4	80.1	70.0	52.9	37.4	64.5	67.9	73.9	60.4	65.7	61.5
at Library	50.6	49.3	59.8	55.7	40.5	28.4	50.2	57.9	53.6	46.3	47.6	51.9
at Internet cafe	27.4	32.0	36.9	34.2	23.9	9.0	29.5	36.5	40.6	20.3	35.4	25.0
at Place of worship	4.4	3.3	2.6	4.6	5.0	2.3	3.9	3.6	1.4	4.7	3.7	1.9
at School or college	35.5	28.5	44.4	34.9	25.1	15.8	32.4	34.2	37.7	32.0	30.1	32.7
at Voluntary or community organisation	10.7	8.6	10.1	10.2	9.7	7.7	9.7	9.7	18.8	9.1	10.3	0.0
at Community access booth	5.6	4.1	6.2	6.5	2.3	0.9	5.0	7.7	1.4	3.9	5.1	0.0
at Commercial organisation	8.0	6.1	4.9	9.4	5.8	3.6	7.1	9.2	8.7	5.3	8.5	0.0
at Other	0.8	1.5	1.3	1.0	1.5	0.9	1.1	1.0	0.0	1.6	0.7	1.9
Not aware	34.0	35.8	18.6	29.4	46.3	62.2	34.7	31.4	24.6	38.6	33.6	38.5
<b>All respondents</b>	<b>859</b>	<b>724</b>	<b>306</b>	<b>786</b>	<b>259</b>	<b>222</b>	<b>1573</b>	<b>392</b>	<b>69</b>	<b>637</b>	<b>435</b>	<b>52</b>

**Table 8.2: Respondents who had used public facilities for ICT access anywhere (percentages)**

Ever used public computer facilities	Female	Male	16-24	25-44	45-59/64	60/65+	All ages	White	Mixed	South Asian	Black	Chinese & Other
Yes	45.5	46.5	83.9	49.3	22.7	8.0	46.1	42.4	63.2	42.7	49.4	62.7
Library	23.5	29.0	55.9	25.5	10.8	3.3	26.1	22.6	33.8	24.7	27.8	47.1
Internet cafe	13.0	21.0	31.9	18.6	6.4	0.9	16.8	16.5	26.5	11.1	21.4	33.3
Place of worship	1.0	2.3	1.3	2.2	1.6	0.0	1.6	1.0	1.5	1.6	2.1	2.0
School or college	35.6	31.5	77.3	32.8	12.0	2.4	34.0	29.8	45.6	32.4	36.0	47.1
Voluntary or community organisation	3.9	3.2	4.9	4.6	1.6	0.9	3.7	2.8	4.4	2.6	6.4	0.0
Community access booths/kiosks	3.7	3.7	6.9	3.9	2.0	0.5	3.7	3.1	5.9	3.5	4.2	2.0
Commercial organisation	6.1	9.7	12.2	9.2	2.8	1.4	7.7	8.2	10.3	6.9	8.2	5.9
Other	1.8	1.3	0.7	1.7	2.4	1.4	1.6	1.8	0.0	1.8	1.2	2.0
No/none	54.5	53.5	16.1	50.7	77.3	92.0	53.9	57.6	36.8	57.3	50.6	37.3
<b>All respondents</b>	<b>841</b>	<b>710</b>	<b>304</b>	<b>775</b>	<b>251</b>	<b>212</b>	<b>1542</b>	<b>389</b>	<b>68</b>	<b>620</b>	<b>425</b>	<b>51</b>

The ICT initiatives UK online centres<sup>45</sup> and **learndirect** had been heard of by 53 per cent of respondents (Table 8.3). Overall, 3 per cent of the sampled population reported having used a PC at a UK online centre.<sup>46</sup> The qualitative case studies confirmed wide variability in levels of awareness. A significant group of respondents were completely unaware of the range and details of ICT provision in the local area. Others had a limited knowledge and knew of some facilities. Yet others had a good knowledge of such services, gained from TV adverts, and promotional literature at workplaces and community centres for example:

<sup>45</sup> It is possible (and in some instances probable) that UK online centres may have more familiar local names. This may have led to under-reporting of awareness.

<sup>46</sup> The issue of UK online centres often having more familiar local names applies here also, and may have led to an under-reporting of use.

*“I’m always getting leaflets in the post and know five local community centres in the area” (mother, mid 30s).*

**Table 8.3: Awareness of and use of UK online centres and learndirect centres**

Awareness	White	Mixed	South Asian	Black	Chinese & Other	Total
Heard of <b>learndirect</b> only	33.4	31.9	25.9	29.0	17.3	28.6
Heard of UK online centres only	1.8	1.4	2.5	3.4	0.0	2.5
Heard of both <b>learndirect</b> and UK online centres	26.3	26.1	16.3	25.5	21.2	21.9
No, have not heard of either	37.8	39.1	54.6	41.8	61.5	46.5
<b>Respondents</b>	<b>392</b>	<b>69</b>	<b>637</b>	<b>435</b>	<b>52</b>	<b>1585</b>
<i>Ever used a PC at a UK online centre</i>	3.1	4.3	2.5	2.8	1.9	2.8

### 8.3 Awareness and Use of Public Facilities for Accessing ICT by Ethnicity

Respondents of Mixed parentage and those from the Black ethnic groups had higher than average levels of awareness and also were amongst the most likely to indicate that they want more training. People from BME groups were more likely to want help in thinking about the computer skills that they needed than were White respondents amongst the sampled population. Awareness was least amongst older respondents and those in South Asian and Chinese & Other groups, although at around 60 per cent this was still relatively high (Table A8.1).

Respondents of Mixed parentage and from the Chinese & Other ethnic groups were most likely to have used public facilities, (over 60 per cent in each case<sup>47</sup>) while White respondents and those in the South Asian group were the least likely to have used such facilities (just over 40 per cent in each case).

There was also variation between ethnic groups regarding awareness of the ICT initiatives UK online centres<sup>48</sup> and **learndirect**. Table 8.3 shows that awareness of these initiatives was highest among White respondents, and least amongst respondents from the Chinese & Other ethnic groups (only 38 per cent of whom had heard of such initiatives) followed by South Asian respondents (45 per cent of whom were aware).

### 8.4 Awareness and Use of Public Facilities for Accessing ICT, by Factors other than Ethnicity

#### Age

A very strong negative association with age was apparent: older respondents were least likely to be aware of facilities and courses. Younger people had higher than average levels of

<sup>47</sup> Although small sample sizes point to the need for caution here

<sup>48</sup> It is possible (and in some instances probable) that UK online centres may have more familiar local names. This may have led to under-reporting of awareness.

awareness and also were amongst the most likely to indicate that they want more training (Table A8.1). Most young people had used public ICT facilities (particularly in schools/colleges). The percentage who had used Internet cafes also declined with age: a third of those in the 16-24 age group had used such facilities, compared with only 6 per cent of those aged 45-59/64 and less than 1 per cent of those of pensionable age.

#### Other Factors

While 89 per cent of PC users were aware of local ICT facilities, only 49 per cent of non users were aware of them (Table A8.3).

### **8.5 Synthesis**

To assess what might be some of the influences on people's use of public ICT facilities, a logistic regression analysis was carried out to identify those factors which were associated with the use of the Internet in a public place. (Table A8.2):

The most statistically significant positive influences on having used the Internet in a public facility were :

- *owning a PC*
- *being a student*
- *having intermediate level skills.*

The most significant negative influences were

- *age* - with increasing age, respondents were less likely to have used public ICT Internet access
- *economic inactivity*
- *low skill levels*
- *being South Asian*

### **8.6 Overview of Local Provision, Awareness and Use of ICT Outside the Home**

Overall awareness of UK online centres and **learndirect** was 53 per cent. South Asian and Chinese and Other respondents were less aware of UK online centres and **learndirect** than other groups (though the sample size for the latter group was small).

Two thirds of respondents in the sample as a whole reported that they were aware of public computer facilities. The local public library was most often cited, followed by schools/colleges and Internet cafes.

Highest levels of awareness of public computer facilities were among younger people and respondents of Mixed parentage. Of all ethnic groups, awareness was lowest among South Asians, however this was still relatively high.

Nearly half of the total sample had used a public access facility. This was most likely to be a school or college or a library. Young people were most likely to have used public access facilities.

Levels of use of public ICT access facilities were broadly similar for White, South Asian and Black groups, and were higher for Mixed and Chinese and Other groups.

People from the South Asian group were significantly less likely to have used public Internet facilities. Other significant predictors of using public Internet facilities were economic position, skill level and age.

## 9. BARRIERS AND FACILITATORS TO USE AND OWNERSHIP OF ICT

### 9.1 Introduction

The main reasons for not using a PC at home were lack of computer literacy, lack of interest and cost, while the primary reason for non-use of public ICT facilities was that respondents either did not want or did not need to use such facilities. Nothing would induce some respondents (especially older people) to use a PC. The level of computer skills of the majority of survey respondents was very low, with people in work having the highest level of skills, usually gained through employment. Most respondents to the survey regarded computer skills as being essential for their children. ICT training was most common for younger respondents, often motivated by the perceived need to increase their employability.

### 9.2 Reasons for Not Using a PC, in Aggregate

Overall, there were three main reasons non-users in the sampled population gave for not using a PC (see Table 9.1): lack of computer literacy (mentioned by 48 per cent of respondents), no need/lack of interest (highlighted by 41 per cent of respondents) and cost (identified by 32 per cent of respondents). Problems reading and writing in English, lack of time and lack of access to a computer were each mentioned by 14-15 per cent of respondents.

**Table 9.1: Reasons for not using a PC (percentage of those not using), by ethnic group**

Don't use a PC because	White	Mixed parenta ge	South Asian	Black	Chinese & Other	<i>All ethnic groups</i>
Not computer literate/don't know how to use one	46.8	58.3	44.6	51.0	60.0	47.6
No need for a computer/not interested	60.1	33.3	35.1	33.3	53.3	40.8
Cost/cannot afford it	26.0	58.3	27.7	38.4	46.7	31.6
Problems reading and writing in English	5.8	4.2	24.9	7.6	33.3	15.2
No time/too busy	5.2	33.3	21.8	10.1	13.3	15.0
Do not have access to a computer	13.3	16.7	12.0	17.2	20.0	14.0
Other	14.5	4.2	5.8	4.5	6.7	7.5
Lack of information about where to go to use computers or on what is available	3.5	8.3	4.9	5.6	6.7	4.9
Someone else in the household uses it	2.9	4.2	5.8	1.0	0.0	3.7
No software available in my language	0.0	0.0	3.4	2.0	33.3	2.7
Don't like going to places that are mixed sex	0.0	0.0	1.2	0.0	0.0	0.5
Don't see people from my culture using it	0.0	0.0	1.2	0.0	0.0	0.5
<b>All responses</b>	<b>173</b>	<b>24</b>	<b>325</b>	<b>198</b>	<b>15</b>	<b>735</b>

Less than 5 per cent of respondents indicated that a lack of information about where to go and/or availability of ICT hampered their use of computers. 4 per cent of respondents relied on someone else in their household who used a PC. A lack of software in respondents' own



languages was mentioned by only 3 per cent of respondents.<sup>49</sup> Other barriers were discussed in the qualitative studies, where one interviewee indicated for instance that while cost was the foremost barrier preventing her from owning a PC, fear of crime was an additional consideration:

*“If I could afford a computer at home I would use it a lot more, but I would worry if anyone knew that I had one – it might end up being an excuse to rob the house”*  
(spokesperson for Asian family, West Midlands)

Interviews with ICT service providers in the local case study areas also highlighted the fact that a lack of basic skills<sup>50</sup> might be a more important barrier to using PCs than lack of computer literacy per se.

The reasons respondents gave for not using public ICT facilities are detailed in Table 9.2. The most important reason for non-use is simply that respondents ‘don’t want to use them’ (mentioned by 32 per cent of non-users), followed by ‘don’t need to use them at all’ (mentioned by 29 per cent of non-users). Nonetheless, the local case studies revealed that some non-users had quite positive views about the availability of public facilities. For example:

*“Facilities are good but I have not used them because I don’t need to. There are Saturday morning classes and evening classes. Female and male classes are held separately. Different stages are available, from a learner to a Diploma. Gender appropriate tutors are available as well.”* (Bangladeshi woman)

However, other interviewees expressed concerns about the likely standard of training provision offered in community centres. One Afro-Caribbean mother reported:

*“I wouldn’t consider community facilities for IT training as I would like to go somewhere more professional, like a college where I can be sure they are getting the standards right and following the proper syllabus.”*

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<sup>49</sup> Five out of fifteen respondents from the Chinese and Other group cited this reason

<sup>50</sup> Amongst both the White population and BME groups.

**Table 9.2: Reasons given for not using public facilities for ICT (percentages of non-users)**

Reason	Female	Male	16-24	25-44	45-59/64	60/65+	All ages	White	Mixed	South Asian	Black	Chinese & Other
Don't want to use them	31.8	32.9	14.9	22.5	37.5	50.3	32.4	42.9	25.0	28.3	30.0	23.5
Don't need to use them at all	28.7	29.1	31.9	22.5	33.9	35.4	28.9	40.4	37.5	24.3	23.7	29.4
Don't speak English very well	18.8	12.2	17.0	20.5	13.7	9.5	16.0	2.5	4.2	25.5	12.6	35.3
None locally/not aware of any locally	13.5	15.4	17.0	17.3	10.1	11.6	14.2	10.6	20.8	17.0	12.6	17.6
Other	16.9	10.4	14.9	15.3	13.1	12.7	14.1	13.6	25.0	11.2	17.9	11.8
Don't need to use them – have own facilities	9.7	11.9	21.3	14.1	8.9	3.2	10.7	13.1	16.7	10.0	8.9	5.9
I am too old	7.8	8.9	0.0	0.0	4.8	29.1	8.4	15.2	0.0	5.5	7.9	0.0
Lack of skills make me afraid of using PCs in public places	8.6	8.3	4.3	10.4	7.7	5.8	8.3	6.1	4.2	10.3	8.4	5.9
Costs too much/cant afford I	4.5	5.0	4.3	5.8	4.2	2.6	4.5	2.0	4.2	5.5	6.3	5.9
Don't like going out alone	2.6	1.8	2.1	2.9	1.8	1.6	2.3	0.5	4.2	2.7	2.6	5.9
Lack of support to help me find what I want	2.4	1.8	4.3	2.3	1.2	2.1	2.1	1.0	0.0	2.4	3.2	0.0
Don't want to travel to use them	2.1	2.1	4.3	1.7	1.8	1.1	1.7	0.5	0.0	1.8	4.2	5.9
Cant get childcare	2.1	0.0	2.1	2.3	0.0	0.0	1.2	0.0	4.2	1.8	1.1	0.0
Problem of restricted time on PCs	1.4	0.6	2.1	1.7	0.6	0.0	1.1	0.5	4.2	0.9	1.6	0.0
Don't like the atmosphere	0.5	1.2	0.0	0.9	1.8	0.0	0.8	0.0	0.0	0.6	2.1	0.0
These places are not culturally sensitive	0.7	0.6	0.0	1.2	0.6	0.0	0.7	0.0	0.0	1.5	0.0	0.0
No facilities for people with disabilities	0.0	0.9	0.0	0.0	1.2	0.5	0.4	1.0	0.0	0.3	0.0	0.0
Don't like going to mixed sex places	0.5	0.3	0.0	0.6	0.0	0.5	0.4	0.0	0.0	0.9	0.0	0.0
I never see anyone from my ethnic or religious background doing this	0.2	0.6	0.0	0.6	0.6	0.0	0.4	0.0	0.0	0.9	0.0	0.0
<b>All respondents</b>	<b>421</b>	<b>337</b>	<b>47</b>	<b>347</b>	<b>168</b>	<b>189</b>	<b>751</b>	<b>198</b>	<b>24</b>	<b>329</b>	<b>190</b>	<b>17</b>

### 9.3 Reasons for Not Using a PC by Ethnicity

Cost emerged as a more important barrier to PC use for BME groups than for White respondents across the skills hierarchy<sup>51</sup> (Table A9.1) and was a particular issue for Mixed, Chinese and other and Black respondents compared to other groups.<sup>52</sup> For White and South Asian groups this was reported as a problem for 26 per cent and 28 per cent of non-users (Table 9.1). Amongst respondents from BME groups there was little variation in the

<sup>51</sup> It would seem plausible here that 'skill group' is acting to some extent as a proxy for household income, which has a direct relationship with cost.

<sup>52</sup> 58 per cent, 38 per cent and 47 per cent, respectively, cited this.

percentages of respondents reporting cost barriers to PC use by either the presence, or age, of children in the household (Table 9.2).

Lack of interest/no need for a computer was the most important reason reported by White respondents for not using a PC: 60 per cent of White respondents cited this reason, compared with 41 per cent of all non-users questioned<sup>53</sup> (Table 9.1). This reason was far less important for Black and South Asian respondents. The greater lack of interest for White respondents than for respondents from BME groups was evident across the skills hierarchy (Table A9.1).

Lack of computer literacy was the main reason cited by respondents from BME groups for not using PCs (Table A9.1). In aggregate, just under half of respondents from both White and BME groups cited a lack of computer literacy as a reason for not using PCs, but amongst White respondents this was a less important barrier than lack of interest.

Language is a particular barrier for a 25 per cent of the sampled population from South Asian groups and 33 per cent of the population from the Chinese & Other group (Table 9.1), while 22 per cent of South Asians also had too little time to take advantage of training. The findings from the qualitative interviews suggest that language can act as a pre-cursor to lack of computer literacy.<sup>54</sup>

South Asian respondents were much more likely than White non-users to be deterred from using public ICT facilities because their lack of skills made them not confident to use them. Although few respondents reported that lack of cultural sensitivity by providers was a problem for them, for some women, culture acted as a barrier to use.

South Asian people were much more likely than White non-users to be deterred from using public ICT facilities because their lack of skills made them not confident to use them. Few people, however, reported that lack of cultural sensitivity by providers was a problem. There was some evidence from interviews that in some cases culture may act as a barrier to use for women:

*“The local community holds various IT courses. However, I am unable to find out if they are any good due to my husband disapproving of me joining in anything outside. Being a woman is definitely a barrier as we have household chores, as well as having to put up with husband’s disapproval.” (Bangladeshi wife and mother)*

#### **9.4 Reasons for Not Using a PC by Factors other than Ethnicity**

##### Age

Cost was the foremost barrier identified by young people in accessing PCs (Table A9.3). It was also the foremost reason given for non use by the unemployed<sup>55</sup> (54 per cent).

Older respondents were much more likely to say they were not interested in using a PC or, in the case of public ICT facilities, that they did not need or want to use them. There was evidence from the qualitative studies of interviewees indicating the fact that they could rely on other household members who knew about ICT, and this helped to ‘justify’ their lack of interest and inclination to learn. ‘Lack of interest’ was cited as the main reason for not using

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<sup>53</sup> This probably reflected the larger percentage of older people among White respondents.

<sup>54</sup> In this respect it is notable that a smaller proportion of the South Asian sampled population (45 per cent) than of any other broad ethnic group mentioned ‘lack of computer literacy’ as a barrier to using a PC.

<sup>55</sup> Exceeding lack of computer literacy.

a PC amongst 75 per cent of White respondents of retirement age and 57 per cent of such respondents from BME groups (Table A9.3).

*“I have absolutely no idea how to use a computer or any desire to learn. Even if training or access were readily available, I would still have no interest in using them.”* (White female interviewee, pensionable age)

The qualitative interviews revealed that a ‘lack of interest’ might be so ingrained that interviewees had “*not even thought about*” barriers and incentives because they had no desire to learn about computers.

### Economic Position

The economically inactive were most likely to report a lack of interest, although this may be partly age-related, given that retired people are included in this group (Table A9.4).

## **9.5 Computer Skills, Learning and Training: Attitudes and Experience, in Aggregate**

Since lack of computer literacy emerged from the national survey as the key barrier identified by BME groups for not using a PC, and given the importance of IT skills in employability, it is appropriate to examine levels of computer skills, and attitudes to, and experience of, learning in more detail.

Nearly two-thirds of the entire sampled population rated themselves as having ‘non-existent’ or ‘beginner-level’ computer skills, while around one in eight claimed to have ‘advanced’ or ‘expert’ level computer skills (Table 9.3). Looking at how people had acquired their skills (Table 9.4), the single most important source was via courses at work or place of study. However, informal methods – through self-teaching or via friends were also important. Less than 5 per cent had obtained their knowledge via courses run by community groups or formal ICT providers.

Overall, 15 per cent of the sampled population reported that they were currently receiving ICT training, or had done so within the last year (Table 9.5). A further 15 per cent had undertaken training more than a year ago. The most important reasons given for undertaking ICT training (Table 9.5) were to develop skills (36 per cent), to succeed at work (31 per cent) and to get a new job (27 per cent).

This reasoning was confirmed in focus group discussions undertaken as part of the qualitative case studies, where there was a widespread belief that “*ICT skills are now a part in the vast majority of good jobs*”. Of the households interviewed in Handsworth, Birmingham, most were interested in increasing their skills, and a desire to use ICT for educational purposes or to improve employment prospects was quite common. Other motives for undertaking ICT training (each mentioned by about a quarter of relevant respondents) included personal development, to get qualifications and to widen horizons.

Of the sampled population in work, 58 per cent regarded computer skills as essential to their work (Figure A9.1). Similar patterns of variation were displayed in the percentage of respondents who felt that computer skills will be important in their job or in helping them to obtain another job (Figure A9.2). The percentage agreeing with this assertion was even higher (77 per cent) than those regarding computer skills as essential to their current work (58 per cent).

Overall, 80 per cent of respondents agreed that computer skills were essential to children now, and nearly 90 per cent agreed that they would be essential in future (Table A9.5).

**Table 9.3: Distribution of self-assessed computer skills (percentages of each type of person)**

	Non-existent	Beginner level	Intermediate level	Advanced level	Expert	Don't know	Total
<i>Gender</i>							
Female	42.0	23.2	24.6	8.2	1.2	0.8	853
Male	39.6	21.7	24.6	11.3	2.4	0.6	720
<i>Age</i>							
16-24	10.8	23.3	42.6	21.6	1.3	0.3	305
25-44	33.8	26.2	27.3	9.7	2.4	0.6	785
45-59/64	59.2	22.7	12.5	3.9	1.2	0.4	255
60/65+	85.4	8.7	4.6	0.0	0.5	0.9	219
<b>All ages</b>	<b>40.7</b>	<b>22.6</b>	<b>24.7</b>	<b>9.7</b>	<b>1.7</b>	<b>0.6</b>	<b>1564</b>
<i>Economic position</i>							
In work	22.5	26.2	34.8	13.0	2.9	0.3	653
Unemployed	39.4	26.6	20.7	10.6	1.1	0.5	188
Student	3.7	15.7	47.2	27.8	4.6	0.9	108
Inactive	65.7	18.3	11.2	2.7	0.2	1.1	635
<i>Skill level</i>							
Higher skilled	23.5	21.0	34.2	15.4	5.3	0.6	319
Intermediate	24.3	27.8	32.2	14.1	1.6	0.0	370
Lower skilled	54.5	22.5	17.2	4.9	0.6	0.4	530
<i>Ethnic group</i>							
White	43.0	20.2	24.6	8.5	3.1	0.5	386
Mixed	29.0	29.0	30.4	8.7	1.4	1.4	69
South Asian	44.9	22.5	21.4	9.4	1.4	0.3	635
Black	37.2	23.3	27.3	10.4	0.9	0.9	433
Chinese & Other	21.2	23.1	34.6	15.4	1.9	3.8	52

## 9.6 Computer Skills, Learning and Training: Attitudes and Experience, by Ethnicity

The percentage reporting non-existent computing skills was highest for the South Asian group (45 per cent). This group were amongst the most reliant on formal training courses for their skills, but were less likely to have undertaken ICT training (72 per cent) than respondents from other BME groups. Respondents from South Asian ethnic groups placed particular importance on increasing their skills and widening their horizons. One Pakistani father in his late 50s was adamant that learning computing skills was an important route to employability and improving prospects:

*“I am from a working class background and I would like to improve the quality of my life and my family’s life. Incentives to learn computing are powerful, especially to improve ourselves. I do not care about the attitudes of others. Nobody will be allowed to create barriers in my or my family’s life.”* (Pakistani man, late 50s)

A similar proportion of White respondents (43 per cent) reported having no computing skills. White respondents were more likely to be self-taught than those from the BME groups and were relatively unlikely to have undertaken training. For White respondents those in work made up the majority of those currently undertaking training while students were more common among BME respondents undertaking training.

**Table 9.4: Source of computer knowledge (per cent of each type of person)**

	Self-taught	Obtained informally via friends	Obtained via community groups or formal ICT providers	Obtained at courses provided at work or place of study	Other	All answers
<i>Gender</i>						
Female	26.9	9.0	5.0	56.4	2.7	443
Male	44.7	8.9	3.7	41.1	1.6	380
<i>Age</i>						
16-24	27.9	7.5	2.9	60.0	1.7	240
25-44	35.9	8.9	5.0	47.9	2.4	463
45-59/64	47.9	12.8	5.3	30.9	3.2	94
60/65+	42.3	11.5	3.8	42.3	0.0	26
<b>All ages</b>	<b>35.1</b>	<b>9.0</b>	<b>4.4</b>	<b>49.3</b>	<b>2.2</b>	<b>823</b>
<i>Economic position</i>						
In work	34.4	10.7	4.7	47.3	2.9	450
Unemployed	40.0	5.0	1.0	53.0	1.0	100
Student	33.0	4.4	3.3	58.2	1.1	91
Inactive	34.8	9.2	6.0	48.4	1.6	184
<i>Skill level</i>						
Higher skilled	40.0	7.9	2.8	47.9	1.4	215
Intermediate	28.1	8.3	5.5	56.1	2.0	253
Lower skilled	38.5	11.7	4.2	42.3	3.3	213
<i>Ethnic group</i>						
White	43.2	8.9	1.6	42.2	4.2	192
Mixed	31.0	14.3	4.8	45.2	4.8	42
South Asian	32.7	7.3	3.8	54.6	1.6	315
Black	28.6	10.4	7.5	52.3	1.2	241
Chinese & Other	60.0	8.6	2.9	28.6	0.0	35

37 per cent of Black respondents and less than a third of those of Mixed parentage and from the Chinese & Other group had non-existent computer skills. Overall respondents from ethnic groups were more likely than White respondents to have undertaken ICT training. Formal courses were a more important source of knowledge than average for Black respondents, but Black respondents and those of Mixed parentage were also more likely than people from other ethnic groups to gain their knowledge from friends. The desire to gain qualifications was more important for respondents from the Black and Chinese & Other ethnic groups as a reason for training in ICT.

The greater probing in the qualitative local case studies, however, highlighted the ways in which individual interviewees built up their knowledge from a variety of sources: including from school, college, trial and error, relatives, friends and work colleagues. For example:

*“I found out how to use my PC by myself really. I grew up with computers ... being around my other sister’s place. ... I’ve picked it up from my cousins.”* (teenage Indian male)

*“I have mainly learned ICT skills through project work at college and work. ... Colleagues at work will usually help me.”* (Indian female, early 20s)

**Table 9.5: Percentage of respondents currently undertaking training, or who had done so within the last year**

	Yes, currently	Yes, in the past year	Yes, but not in the past year	No, have not undertaken any ICT training
<i>Gender</i>				
Female	6.6	9.2	15.5	66.6
Male	7.0	7.2	13.5	70.2
<i>Age</i>				
16-24	14.7	16.3	25.5	41.8
25-44	6.9	8.9	16.5	65.5
45-59/64	2.3	4.2	6.6	84.9
60/65+	1.4	0.0	3.2	93.2
<b>All ages</b>	<b>6.8</b>	<b>8.3</b>	<b>14.6</b>	<b>67.5</b>
<i>Ethnic group</i>				
White	5.4	9.4	13.3	68.4
Mixed	8.7	18.8	18.8	52.2
South Asian	5.3	6.1	15.2	71.9
Black	9.4	8.0	14.7	65.7
Chinese & Other	13.5	13.5	11.5	61.5

Respondents from BME groups (with the exception of the Chinese & Other group, in which numbers of respondents were small) were slightly more likely than White respondents to agree with that computer skills were essential to their children’s work now, and would be in the future. This was borne out by one Somalian mother:

*“It is important for them to learn how to use it [the computer], they need to learn for their education. It is a good thing to learn for their careers in the future.”*

### **9.7 Computer Skills, Learning and Training: Attitudes and Experience, by Factors other than Ethnicity**

#### Age

There was again, a strong age dimension to the statistics: older people were much more likely to say their skills were non-existent compared with young respondents: 85 per cent of those of retirement age indicated that their skills were non-existent, but only 11 per cent of 16-24 year olds (Table 9.3). Older respondents were also more likely to have gained their knowledge informally, while younger people were more likely to have undertaken formal courses. Indeed, the qualitative case studies revealed the importance of lessons at school in equipping young people with some knowledge of computers and their general satisfaction with the teaching provided,<sup>56</sup> while older respondents bemoaned their relative lack of knowledge. For example, a 43 year old woman stated:

*“I have very limited knowledge of ICT. I didn’t do anything to do with ICT at work or college. My basic knowledge of keyboard skills comes from my typing lessons at school.”*

<sup>56</sup> However, a minority of interviewees complained about the computers being ‘busy’ in schools and having to wait to go on them. Tutors were often busy. Others complained about school computers being older than home PCs and that they were “a lot slower than ours at home”.

Similarly more than half of all 16-24 year olds, but only 13 per cent of those aged from 45 to retirement age had received training. Younger people were also likely to regard computer skills as essential.

### Economic Position and Skill Level

There were also marked variations in computer skills by economic status: 66 per cent of the economically inactive and 39 per cent of the unemployed in the sampled population self-assessed their computer skills as non-existent, compared with 23 per cent of those in work. However, there were few marked differences in sources of knowledge by economic position, although the unemployed were most likely to have been self-taught (Table 9.3). People in work accounted for the majority (58 per cent) of those who had undertaken training during the last year, while students (37 per cent) were the largest group among those currently undertaking training. Employment-related reasons for undertaking ICT training were particularly important for the unemployed and students (Table A9.6).

24 per cent of those in higher skilled and intermediate occupations reported having non-existent computing skills, compared with 55 per cent of the sampled population in lower skilled occupations. Both higher skilled and lower skilled workers were more likely to have gained their knowledge informally than those from the intermediate skill category. 73 per cent of respondents in work from higher skilled groups considered computer skills as essential to their work, compared with 66 per cent of those with intermediate skills and 39 per cent of those from the lower skilled group (Figure A9.1).

## **9.8 Facilitating Use and Ownership of ICT Generally**

This section explores findings relating to how use and ownership of ICT might be facilitated amongst those currently not using a PC. Actions that would encourage non-users to use computers mentioned in the national survey are presented for different categories of respondents in Table A9.7. The most commonly mentioned action was provision of training and support, followed by financial help, help with literacy and better local ICT facilities.

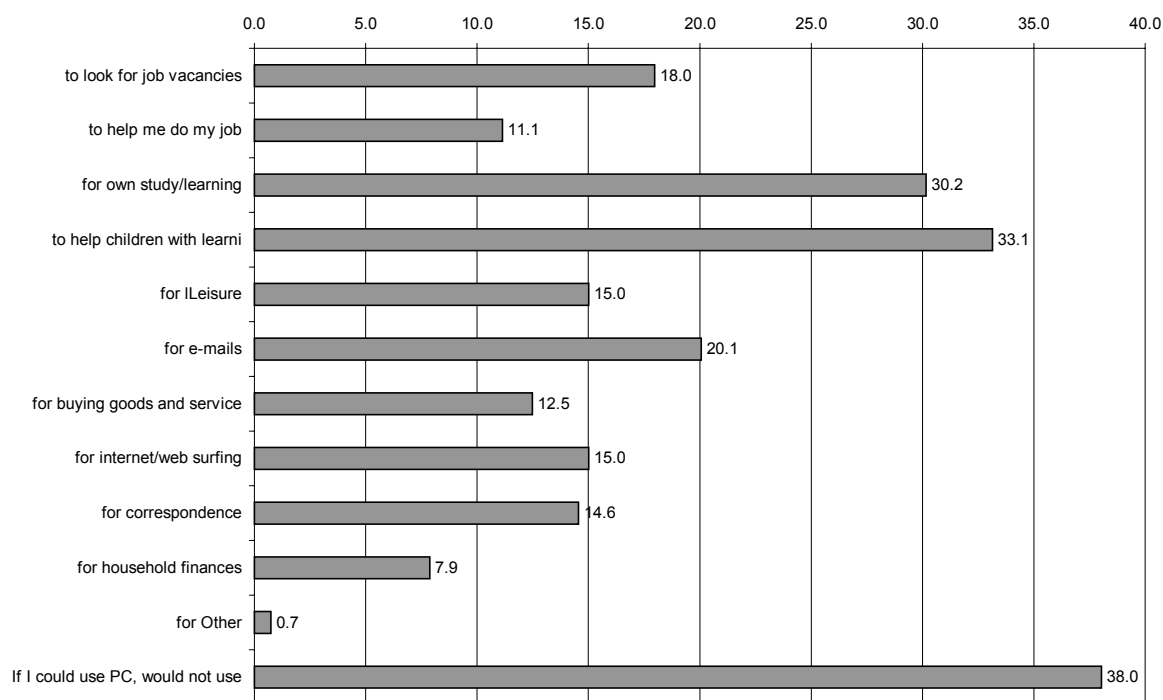
In terms of local public ICT provision, other common themes emerged from the qualitative studies. Learning with others of a similar standard and the opportunity afforded for social interaction was also important to some interviewees. Other matters mentioned that could facilitate use included:

- longer opening hours
- shorter queues
- more PCs with printers
- and more free provision

Several interviewees considered that the costs associated with accessing IT centres and accessing ICT equipment (including connection to the Internet and enrolling on basic ICT courses) are prohibitive.



**Figure 9.1: Purposes which non-users might put a computer to (percentage of non-users)**



However, none of the actions listed would induce 42 per cent of non-users to start using computers and a similar proportion could see no purpose to which they could put a PC. 38 per cent said they would not use a PC if they could use one (Figure 9.1). However, there is evidence of unmet demand, with the two most common reasons being education-related: for a person's own study and to help children with their education. Each of these reasons was mentioned by about a third of respondents. Use of e-mail came next, followed by searching for job vacancies, leisure and web surfing.

### **9.9 Facilitating Use and Ownership of ICT Amongst Minority Ethnic Groups**

In aggregate, White respondents were most resistant to using a PC, while those of Mixed parentage were least resistant and people from BME groups were more interested than White respondents in educational applications (Table A9.8). Training and support and financial help were among the top three facilitators for all BME groups.

Of other actions mentioned, help with literacy and information/tuition in minority languages was most important for South Asian and Chinese & Other respondents. 31 per cent of South Asian respondents said that help with reading and writing would encourage them to use a computer, and 18 per cent that information in their own language would do so (Table A9.7). This was borne out by the qualitative local studies. For example, one middle-aged Indian woman indicated that the fact that her English was not very good acted as a barrier to her using ICT. She had to rely on other family members to help her out. She felt that she would not be confident accessing ICT facilities outside the home because of her lack of English. However, she thought that she would be encouraged to learn if there was a Punjabi-speaking tutor, as her English was a major factor in her not doing a course.

A Learning Partnership Co-ordinator in Wolverhampton interviewed in the course of the project considered that specialised learning support was “*absolutely crucial*” for BME groups, with native languages speakers needing to be available to provide such support. The potential for this to attract people was highlighted by one ICT provider:

*“... we have a lot of people who have moved out of [the area], but are happy to come back here because they know they can get support from minority people.”* (ICT provider)

An interviewee in West Yorkshire reinforced the same point:

*“You need Black tutors to teach Black people and that is something this city does not have. They’re not even beginning to understand what a major barrier that is, when you walk in a classroom and you have a White teacher you ask to help you and you’re shown what to do and then they leave. You need someone who can come in and interact with you positively, share your interests, share your knowledge, share your world view of things and – as I’ve said – we’ve got loads of centres, loads of facilities and nobody’s used them and why?”*(young Black woman)

However, fewer respondents felt that software in languages other than English was necessary and the local case studies revealed some difference of opinion on this matter. Some interviewees considered that words such as ‘file’ and ‘save’ could be recognised by non-English speakers, and that it was okay to learn with software in English.

The national survey found that provision of software in languages other than English was important to a minority of the sampled population from BME groups. 14 per cent of people (112 respondents) who have ever used a PC use software whose user interface is in a language other than English (see Table A9.9). Just over a quarter of respondents whose first language is not English had used such software, while 10.5 per cent of people who have English as their first language had used software in a minority language. Demand for minority language software was greatest among computer users from the South Asian ethnic group (and even higher, among a small number of respondents, for Chinese & Other respondents). The most commonly used minority languages were Arabic, Punjabi, French and Urdu, followed by Cantonese, Somali, Spanish, Portuguese, Farsi and Tamil (see Table A9.9).<sup>57</sup>

Better local provision appears to be an important issue for the small number of non-users of Mixed parentage. Table 9.2 shows that 21 per cent of non-users of Mixed parentage, 18 per cent of Chinese and other non-users and 17 per cent of South Asian non-users said that lack of local provision was a barrier to use, (compared to only 11 per cent of White non-users) and while very few said they would not travel to use facilities, convenience can be important. For example, in discussion with a male focus group in Wolverhampton, the location of the ICT centre near to the city centre (enabling shopping to be carried out), the fact that it was on a bus route and next to a Mosque, were all identified as important assets. The linked project investigating the provision of ICT facilities by community groups found that:

*“access to ICT for Black and minority ethnic groups is supported considerably by providing easy to reach services at the neighbourhood level ... many users are*

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<sup>57</sup> Most software in minority languages falls under the broad heading of “office software” - see Dholakia, U. (2002) Scoping the availability of software in ethnic minority languages within the United Kingdom, DfES Research Report 287.

*reluctant to travel beyond their local, familiar environment in order to become involved in or make use of ICT courses or facilities”.*<sup>58</sup>

The proximity of ICT provision to other community facilities was also important for some. The fact that one Centre was linked to a Mosque meant that there was a certain atmosphere that was ‘respectful’ and ‘peaceful’. It was noted that this matched with cultures of many users who were either South Asian or from refugee communities. One provider highlighted how ICT facilities based in centres with multi-service provision could be very beneficial to particular groups of users. He particularly mentioned South Asian women, who could draw on the “*emotional support*” provided by female centre co-ordinators and female centre users, and women’s support groups in the same building.

Publicly provided facilities were also seen positively by some users as offering a place to socialise and share with others the experience of using ICT equipment and software.

Comments from centre users in West Yorkshire included:

*“... It’s a social place ... its less boring here [than working at home]”* (young South Asian man)

*“My daughter prefers to come to the cyber café and interface with other friends on other computers. ... Cyber cafes are like a resource ... they give that social element that is crucial.”* (mother of teenage daughter)

*”It’s a good place to meet and learn together.”* (Somalian woman, 30s)

Some respondents had multiple needs if they were to make effective use of ICT facilities:

*“If the course was free it would encourage me because I’ve got a computer at home I could practise on it. Also if it was close to my home because I have a child and family to look after and even if I had to pay it needs to be cheap because I can’t pay a lot. Also if they spoke a bit of Mirpuri/Urdu that would help me. Also if there were more courses locally.”* (South Asian woman)

*“I would like to learn, but I need help with English, I need some childcare and it needs to be a free course, it needs to be in walking distance of my home, if it is too far then I won’t be able to go and the teacher needs to speak our language.”* (South Asian woman)

## **9.10 Facilitating Use and Ownership of ICT Amongst Other Groups**

Age again appeared to be a differentiating factor in whether and how use and ownership of ICT could be facilitated.

Training emerged as particularly important to young respondents. A mother whose teenage son spent a good deal of time helping other young people with their ICT queries considered that more “*peer training*” would be particularly valuable, while an Afro-Caribbean mother in her late 30s with a daughter of primary school age wanted to see “*mothers and children learning together*”.

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<sup>58</sup> CLES Consulting, MCCR & CEMVO (2003) Supporting Access to ICT for BME Groups in Deprived areas: Approaches to Good Practice, DfES Research Report 388, p.34.

The proportion of non-users who could not be induced to start using computers increased from roughly a quarter of those aged under 45 to half of the 45-59/64 age group and to two-thirds of those of retirement age. (Table A9.7)

The percentage of non-users who could not see themselves using a PC for any purpose also increased with age (Table A9.8). Younger people thought they might use a PC for job search or their own education and e-mail/web-surfing, while respondents in the middle of the age range were more interested in helping children with their education. Women were more likely than men to mention helping children.

Unsurprisingly, respondents who saw no need for a PC appear least likely to become PC users, and among these, the elderly indicated that they would be least likely to use PCs (Table A9.10).

People who were not computer literate were also relatively resistant to using a PC, but respondents who had not used a PC due to cost reasons suggested that they were more likely to make use of a PC.

## 9.11 Synthesis

As with other aspects of this study, a logistic regression model was constructed to identify those factors which were associated with non-use of ICT (Table A9.11): The model accounts for 42 per cent of the variance between respondents in the probability that they have never used ICT. It was found that non-use of ICT was associated with:

- *Age* – older people were less likely to have used ICT;
- *Being South Asian* – South Asian respondents were less likely to have used ICT;
- *Language difficulties* - people with poor English language ability were less likely to have used ICT;
- *Gender* – women were significantly less likely to use ICT;
- *Economic position* – unemployed and economically inactive respondents were less likely to use ICT;
- *Skills level* having intermediate skills significantly increases the likelihood of having used ICT;

The factors associated with different means of acquiring ICT skill were also examined through logistic regression. In relation to the acquisition of ICT skills via *self-teaching* versus *formal training*, these factors were significant (see Tables A9.12 and A9.13, Appendix A.9.2):

- *Gender* – women were significantly less likely have self-taught ICT skills and more likely to have undertaken formal training through work or study;
- *Ethnicity* – respondents from the South Asian and Black ethnic groups were less likely to be self-taught, and Black respondents were more likely to have gained their skills through formal routes;
- *Age* – The strongest influence reducing the probability of engaging in formal training is increasing age;
- *Household type* – single pensioners were less likely to have taught themselves how to use ICT, while respondents from households with two adults, one over 60 were more likely to have gained their skills via formal routes;
- *Economic position* – the economically inactive were less likely to have self-taught

ICT skills, and along with the unemployed less likely to have gained their skills through work or study;

- *Location* – respondents living outside London were also less likely to have acquired their ICT skills through self – teaching;
- *Skill level* – those with intermediate level skills were significantly more likely to have undertaken formal training at work or study.

However, these models only account for 14 per cent (self-teaching) and 24 per cent (formal training) of the variance between respondents on this variable, suggesting that the pattern of influences is varied and complex.

A regression analysis of factors in reporting *having “non-existent” self-assessed computer skills* (Table A9.14) shows stronger patterns. From this analysis we know that:

- *Age* strongly increases the probability of having poor skills.
- Being *South Asian* was a significant factor in its own right in predicting that respondents report that they have non-existent computer skills.
- The *economically inactive*, the *unemployed*, *those with poor skills* and those *having an income of £111-170 per week* are more likely to assess their skills to be non-existent.

In relation to *cost as a barrier to ICT usage*, (Table A9.15): controlling for other factors, cost does not represent more of a barrier for some BME groups compared to others. Statistically significant explanatory variables are all closely related to income. Being economically inactive increases the chance of cost being a deterrent to ICT usage and the deterrent effect of cost increases as weekly income decreases.

## **9.12 Overview of Barriers and Facilitators to the Use and Ownership of ICT**

The main reasons cited for not using a PC were lack of computer literacy and lack of need/interest. Lack of computer literacy was more likely to be reported as a barrier among Chinese and Other non-users and Mixed parentage non-users.

Lack of interest/need was the main reason given by White non-users. Markedly fewer non-users from Black, South Asian and Mixed groups gave this reason. Lack of interest/need was particularly prevalent amongst the older age groups.

A quarter of South Asian non-PC users and a third of Chinese and Other non-PC users reported that problems in reading and writing in English prevented them from using a PC. This was not a significant issue for other groups.

Cost was a particular issue for Mixed, Chinese and other and Black respondents in the sample compared to other groups. However, when other factors were controlled for, BME grouping was not a significant predictor of cost being reported as a barrier to PC use.

Membership of the South Asian group and language difficulties were significant barriers to using ICT. Age and gender were also significant predictors of non-use of ICT.

Two thirds of the overall sample reported that they had non-existent or beginner-level ICT skills. This was especially the case for older respondents. Controlling for other factors, being *South Asian* was a significant factor in its own right in predicting reporting of non-existent computer skills.

Those in work had the highest self-reported computer literacy levels. In the sample, reported ICT Skill levels were highest for Mixed and Chinese and Other groups.

80 per cent of respondents said that computer skills were essential to children. BME respondents in the were slightly more likely than White respondents to say this. Controlling for other factors

Training in computer skills was most often undertaken for reasons linked to employability. Respondents from the South Asian group were less likely to have undertaken ICT training than those from other BME groups.

Qualitative interviews indicated many participants were motivated to become more conversant with ICT for study and work purposes and also to develop ICT skills like the use of email.

The most common reasons for non-use of public facilities were not wanting or not needing to use the facilities. This was especially the case for White respondents and older respondents.

25 per cent of BME respondents stated lack of skills in English as a reason for non-use of public facilities. There were indications from interviews that gender may also sometimes be a barrier for some Muslim women.

Evidence from qualitative interviews suggests the importance of localised provision for public ICT access in order to encourage encouraging BME groups to use facilities. There were mixed views about the importance of targeting provision towards specific ethnic groups or age groups.

The predictors for how people acquired their skills were very varied, and included age, gender, ethnicity, skill level and economic position.

There were mixed findings from interview participants and survey respondents on the use, need and demand for minority ethnic language software.

## 10. KEY ISSUES

### 10.1 Issues Relating to the Sample Population

It is evident from previous chapters that many of the differences in levels of ICT access and use can be accounted for by factors other than ethnicity: The effect of ethnicity independent of these structural factors has been measured through the use of logistic regressions, reported in Appendix 10.

*Age* emerges as a key dimension of variation in influencing awareness, ownership and use of ICT. Awareness, ownership and use declines with age, with those respondents in the oldest age group most likely to indicate a lack of interest in ICT. Moreover, older respondents are more likely than other age groups to indicate a lack of interest in learning about computing skills and accessing ICT.

*Household structure* is another dimension of variation, and one which is related to age. The results from previous chapters have demonstrated that the presence of school-age children in a household tends to have a positive association with PC ownership and use. In the local case studies, helping children with their studies emerged as an important motive for owning and using PCs and a positive attitude towards the importance of ICT to children, was evident across all ethnic groups.

Awareness, ownership and usage of ICT also varied by *skill level*, *economic position* and *income*.<sup>59</sup> Income emerged as an important factor in ownership, with the lowest income groups least likely to own a PC and other ICT items. The local case studies also revealed that the cost of courses and access to ICT facilities was also a barrier to ICT use for some people. In multivariate analyses *economic position* emerges as an important factor in awareness, ownership and use of ICT, with the economically inactive and unemployed being less likely to be aware of, own or use a PC. Those in employment often had access to ICT training. However, it is apparent that the skill level associated with respondents' employment was also important, with the lower skilled having lower levels of ICT awareness and use.

These findings have an impact on the barriers which people face in using ICT, and the ways in which these barriers might be overcome:

*Lack of interest* – this is perhaps the most difficult to address. It appears to be strongly linked to age, with older respondents in particular reporting that there was nothing which could be done to get them to use a PC. However, the qualitative case studies suggest that the influence of others around them can be an important means of stimulating interest, knowledge and use of new technologies, and that for some, lack of interest is linked to lack of understanding about what such technologies can do.

*Cost* is inevitably closely linked to the economic and income variables. It is apparent from the qualitative studies that this is not simply a question of initial purchase costs, but of upgrading, maintenance and Internet access charges. Such costs were regarded as prohibitive by those on lower incomes. Government initiatives to provide subsidised equipment and facilities were mentioned as a potential method for increasing ICT usage. However, for the individual cost is principally a barrier to *home* ownership, with relatively few people reporting that this prevented them from using public facilities.

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<sup>59</sup> Note that these variables are themselves inter-related.

*Lack of computer literacy*, was the most common barrier cited, however and there are a number of possible motivational factors for people to overcome this. In particular ICT *training* is regarded as important in increasing *employability* by many respondents and unemployed respondents often viewed this as a route back into employment. Parents viewed ICT skills as being of key importance for the future employment of their children. Generally, employment rather than education was the key motivator, the focus groups indicating that for many, educational progression is not a key issue: qualifications were regarded as being useful for employment purposes, but were not generally seen as tools for progression.

## 10.2 Issues Relating to BME Groups

The picture which emerges of the relative position of different ethnic groups in relation to the awareness ownership and use of ICT is mixed, and undoubtedly more complex than can be represented within this report. However, a number of patterns emerge which suggest that there are factors which affect particular ethnic groups over and above the general sample population within the areas studied. In some cases these appear to be related to the demographic profile of the ethnic group concerned. For example, the Mixed ethnic group appears to be relatively advantaged, tending to display relatively high levels of awareness and use of ICT. However, this group contains relatively small numbers of respondents, so it is difficult to generalise this finding, while the results of the logistic regression models would tend to suggest that the younger than average age profile of this group is an important factor in 'explaining' the results observed.

However, the logistic regression shows that in some aspects ethnic group is also a predictive factor in ICT access and use in its own right:

In terms of ownership, *Black* respondents emerge as the most disadvantaged, being less likely than average to own PCs. The descriptive statistics suggest that is an important barrier to PC use amongst this group. So too does the regression analysis, which shows that, controlling for other factors, like age and income level, being Black is a significant factor in non-ownership of a PC.

Of the BME groups, the *South Asian* group emerge most frequently as being disadvantaged in their access and use of ICT, despite relatively high ownership levels. Their awareness and use levels of PCs and use of ICT in general are significantly lower than average, and their usage patterns are significantly different, showing less use of ICT for leisure and e-mail, despite qualitative evidence that the latter is valued as a means of keeping in touch with friends and relations overseas. They are also less likely to use public Internet facilities than other groups.

While *lack of computer literacy* emerged as an important barrier to PC use for the South Asian as for other BME groups, the local case studies revealed that this was often underlain by a lack of knowledge and associated confidence in use of English. Logistic regression shows that lack of English skills has a significant association with non-use of ICT. This appears to be a particular issue for the South Asian group, where 25 per cent of non-users said that problems in reading and writing English were a barrier to using a PC. Further, information on training indicates that South Asian respondents were less likely to have undertaken computer training than those from other BME groups. However they were also significantly less likely to have obtained any computer skills through self-teaching.



In addition to the language barrier, the qualitative studies also suggested that some South Asian women, particularly older women, experience further disadvantage in ICT access and use because of cultural factors. Although some are keen to extend their ICT skills they may face cultural disapproval and family demands are prioritised. For some, the provision of digital TV and access to programmes in their own language means that they are less likely to leave their homes and gain exposure to English.

### **10.3 Summary**

This chapter has outlined some key issues emerging from the research. It has highlighted that the key explanatory factors for variation in ICT access and use include:

- Age - with awareness, ownership and use of ICT declining with age.
- Household type - the presence of school-age children in a household tends to have a positive association with PC ownership and use.
- Income – in deprived areas the lower one’s income, the less likely one is to have access to ICT
- Economic position – the inactive and unemployed are least likely to be own or use PCs
- Skill level – those in low-skilled jobs have least awareness of ICT.

Consequently many of the barriers and issues faced by respondents regarding their access to and use of ICT cross ethnic group boundaries.

However, it is also apparent that in some aspects, ethnic group membership is a factor in its own right, in particular:

- Black respondents record relatively low ownership levels
- The South Asian group displays relatively low levels of use and experience despite relatively high ownership levels

It is also evident that people may face particular issues and barriers to ICT access and use as a result of their ethnicity. In particular, lack of computer literacy combined with language difficulties and/or difficulties with reading and writing are important barriers to PC use for some BME groups.

## **11. CONCLUSIONS AND RECOMMENDATIONS**

### **11.1 Conclusions**

Much of the policy debate has assumed that people from BME groups experience poorer access to ICT than White people and hence will be expected to be on the wrong side of the emerging ‘digital divide’. However, the research evidence available on the use of ICT by different sections of the UK population is still patchy and contradictory in places.

This project attempted to fill in some of the gaps of knowledge about the awareness and usage of ICT by people from BME groups. It has yielded information on deprived areas, but has not covered the ICT experience of the less deprived and more geographically dispersed sections of the BME population. Even within deprived neighbourhoods, people from BME groups are revealed to be disadvantaged relative to White people on a number of dimensions.

In the areas covered by the survey, respondents from BME groups as a whole have slightly less access to, and experience of, ICT than White respondents, but age, economic status and income are important influences on this pattern (as highlighted in Chapter 10). Young people have much more experience of ICT than older respondents do, and people in education or work are much more familiar with ICT than the unemployed or economically inactive. The oldest respondents had very little experience of ICT in general. These patterns are even more pronounced for PCs, since the items of ICT which people from all age groups are most familiar with are mobile phones and digital TVs.

Despite the fact that there is a sizeable minority of the population with a lack of interest in, and perceived lack of need for, access to ICT, there is a considerable demand for computer-related training. In general, people across all ethnic groups are keenly aware of the role of computing skills in aiding learning and enhancing employability – both for themselves, and more particularly, for their children. Although most respondents who had undertaken training were positive about their experiences, an unmet demand remains. In general, the evidence suggests that in deprived neighbourhoods within cities there are a multiplicity of ICT facilities – including libraries, schools and colleges, community and voluntary organisations, and other types of public provision.<sup>60</sup> Although awareness levels are generally reasonable, some potential remains for enhancing awareness of such provision. Evidence from local case studies indicates that there is a demand for highly localised facilities. Cost also emerges as a key issue, with potential users/learners emphasising the need for free/cheap free access charges and courses.

Of all the sub-groups covered by the study, South Asian Muslim women emerge as perhaps the most disadvantaged. Some have poor English and there is evidence that some may face cultural barriers to learning outside the home. Some local centres have attempted to target this group, by provision of women-only classes associated with other support facilities.

### **11.2 Recommendations**

On the basis of the research conducted, five key recommendations are highlighted:

- i. There is some evidence that lack of proficiency in English and poor basic skills contribute to a lack of computer literacy. In order to enhance employability in

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<sup>60</sup> However, some interviewees from the West Midlands claimed that parts of Handsworth were poorly served.

deprived neighbourhoods there is scope for further development of combined basic skills and/or language (ESOL) and computer literacy training.

- ii. There is widespread recognition that computing skills enhance employability and that computing skills are important for children – in their studies and for their future work. Moreover, there is evidence from local case studies that many respondents value the ‘social’ aspects of ICT access and learning outside the home. In order to promote training in, and use of ICT, it is important to build on these different aspects that people value – perhaps ‘weighting’ them differently according to the sub-group in question (i.e. so targeting marketing and provision to enhance participation in ICT courses and usage of ICT facilities).
- iii. Cost is an important consideration for many people in deprived neighbourhoods and the research highlighted the emphasis by actual and potential ‘users’ of publicly provided facilities on ‘local’ provision. Any charges levied for use of facilities need to be kept to a minimum to encourage participation in courses and use of facilities.
- iv. In discussions with providers it was clear that some providers have ‘targeted’ particular client groups, but in so doing there is a danger that other potential users get put off: feeling that particular centres are ‘not for them’. In an attempt to meet a diversity of user preferences and requirements there would appear to be scope for promoting networking amongst local providers, in order to co-ordinate provision and promote each other’s services.<sup>61</sup>
- v. The national survey and case studies have focused on deprived areas and geographical concentrations of BME groups. There is a need to consider people outside major concentrations, where targeted provision is more difficult. There is scope for investigating the role of ‘community ICT champions’ to meet the needs of BME groups outside the main urban areas / concentrations of BME population.

### 11.3 Summary

This chapter has outlined the key conclusions and recommendations from the research:

- This study has attempted to yield information on awareness, ownership, experience and provision of ICT in deprived areas.
- In the areas covered by the survey, people from BME groups as a whole have slightly less access to, and experience of, ICT than White respondents, but age, economic status and income are important influences on this pattern.
- There are substantial differences between and within BME groups in terms of awareness and experience of ICT.
- South Asian (especially Muslim women) emerge as a particularly disadvantaged group in terms of ICT awareness and experience.
- A sizeable minority of the population (especially White respondents) reported a lack of interest in, and perceived lack of need for, access to ICT. However, there is a considerable demand for computer-related training, associated with an awareness of the importance of computing skills aiding learning and enhancing employability.
- There is scope for further development of combined basic skills and/or language (ESOL) and computer literacy training.
- In order to promote training in, and use of, ICT it is important to build on those aspects

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<sup>61</sup> However, local case studies revealed some diversity in provider attitudes in relation to networking.

that people value – including ability to help children with their studies, improving employment prospects and social interaction at publicly provided ICT facilities.

- Charges for use of facilities need to be kept to a minimum to encourage participation in courses and use of facilities.
- In order to meet a diversity of client preferences/requirements, there is scope for promoting networking amongst local providers, in order to co-ordinate provision and promote each other's services.
- There is a need to consider the experiences of more dispersed BME groups where targeted provision is more difficult. In particular, there is scope for investigating the role of 'community ICT champions' to meet the needs of BME groups outside the main urban areas / concentrations of BME population.

# APPENDICES

## Appendix 2.1 Details of the national household questionnaire survey methodology

The approach adopted to sampling for the survey was as follows:

- All wards in each survey location (i.e. study area) were ranked by levels of deprivation using the Index of Multiple Deprivation 2000. Each area was treated separately.
- All wards that did not fall in the national top 10 per cent of deprived wards were excluded.<sup>62</sup>
- All wards with less than 10 per cent of the population from BME groups were excluded in England. However, in Glasgow and Cardiff, the 10 per cent most deprived wards have less than 5 per cent of their population from BME groups, and thus the top 20 per cent most deprived wards was used in order to pick up wards with a BME share of the population of at least 10 per cent.
- Four wards were selected per study area from the list of wards derived from the steps outlined above (plus two ‘reserve’ wards).<sup>63</sup>
- Finally, a random sample of addresses<sup>64</sup> was drawn from each ward, taking into account the ward size, the proportion of BMEs and likely response rates.

For any given sample size, the number of addresses that would need to be issued depends not only on the penetration of the target audience, but on the likely *response rate* – i.e. the proportion of eligible households identified at which interviews are actually completed.<sup>65</sup> Deprived areas and people from BME groups are both under-represented in national surveys and the Census, indicating a low response rate and hence the need to contact a relatively large number of addresses per achieved interview. (Appendix 2.2 provides further technical information on the household survey and Table A2.1 details the wards selected and the number of addresses drawn in each study area.)

Interviewers were instructed to make up to four calls at each address to screen for eligibility and/or achieve an interview. In households where there were several people eligible for interview, respondents were selected using a Kish grid (in preference to methods such as interviewing those with the next birthday), because this method requires collecting the minimum of personal information. Fieldwork took place between 23<sup>rd</sup> March and 8<sup>th</sup> July 2002. The average interview length was 24 minutes. The overall adjusted response was 59%. (Table A2.2 presents the overall sample outcome for all six areas as well as detailed breakdowns of response rates for each area. The Tables in Appendix A2.2 provide a more detailed breakdown of response rates and reasons for non-contact in each of the fieldwork areas.)

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<sup>62</sup> This equated with a deprivation score of less than 45 for England. Note that there were variations for in the methodology for Scotland and Wales as the deprivation scores are worked out differently.

<sup>63</sup> The number of wards selected in each study area was based on an assumed unadjusted response rate of 65 per cent (for both White and BME interviews) and the size of wards.

<sup>64</sup> The sampling frame used was the Postal Address File (PAF), which MORI have generally found to be reliable and up-to-date.

<sup>65</sup> In practice, interviewers made several call-backs to each selected addresses until an interview was achieved, or the address is ‘exhausted’ after the maximum number of calls.

**Table A2.1: Selected wards, BME penetration and addresses issued in each study area**

Case study area	Selected wards	Overall BME penetration (%)	Mainstage addresses drawn	BME booster addresses drawn
Birmingham	Aston Sparkbrook Small Heath Nechells	57.7	235	286
Birmingham Reserves	Soho Washwood Heath	52.1	43	116
Cardiff	Butetown Grangetown Splott Adamsdown	13.1	113	2,366
Cardiff Reserves	Trowbridge Ely	4.6	23	1,354
Inner London	Ordanace (LB Newham) Queensbridge (Hackney)	40.2	169	589
Inner London	South (Newham) Friary	27.7	29	225
Outer London	St. Raphael's Angel road Harlesden (Brent) Dormers Wells	48.6	195	432
Outer London	Latymer Cathall (Waltham)	33.6	33	189
Leeds	City and Holbeck Harehills	19.7	62	720
Leeds	University Burmantofts	11.8	13	314
Bradford	University Bradford Moor	64.2	143	102
Bradford Reserves	Little Horton Bowling	30.9	17	103
Glasgow	Strathbungo Kingston Govhanhill Ibrox	10.5	112	2,542
Glasgow Reserves	Royston Darnley	2.8	113	6,111

**Table A2.2: Response rate analysis the for six case study areas**

	<b>Unadjusted response rate (%)</b>	<b>Adjusted response rate (%)</b>
Birmingham	37	61
Cardiff	15	53
Leeds	15	51
Bradford	36	62
Inner London	33	60
Outer London	44	62
Glasgow	13	61
Overall main interviews*	50	61
Overall booster interviews only	17	57
Overall survey	23	<b>59</b>

\*White and BME groups, but excluding the additional BME booster interviews



## Appendix 2.2 Details of the national household questionnaire survey

### Key to tables:

<b>Invalid/ineligible</b>	Address demolished/vacant/not found/non-residential. For booster sample only <u>ineligible</u> applies to households with no BME occupants
<b>Other</b>	Occupant(s)away/ill/too dangerous to interview
<b>Refused</b>	Contact, but refused/Contact but refused to give ethnicity
<b>No contact</b>	No contact after 4 or more calls at address/ with selected respondent

**Table A2.3: Birmingham**

<b>Response rate analysis</b>			
	<b>Mainstage interviews</b>		<b>BME Booster interviews</b>
<b>Issued sample</b>	289		453
<b>Achieved interviews</b>	124		148
<b><i>Unadjusted response rate</i></b>		<b>43%</b>	<b>33%</b>
Invalid sample	37		77
Ineligible (booster only)	-		122
Other	27		32
<b><i>Adjusted response rate</i></b>		<b>55%</b>	<b>67%</b>
Refused	34		20
No contact	67		55

*Source: MORI*

**Table A2.4: Cardiff**

<b>Response rate analysis</b>			
	<b>Mainstage interviews</b>		<b>Booster interviews</b>
<b>Issued sample</b>	117		1,605
<b>Achieved interviews</b>	72		191
<b><i>Unadjusted response rate</i></b>		<b>62%</b>	<b>12%</b>
Invalid sample	4		104
Ineligible (booster only)	-		1,111
Other	1		8
<b><i>Adjusted response rate</i></b>		<b>64%</b>	<b>50%</b>
Refused	30		80
No contact	10		111

*Source: MORI*

**Table A2.5: Inner London**

<b>Response rate analysis</b>			
	<b>Mainstage interviews</b>		<b>Booster interviews</b>
<b>Issued sample</b>	207		603
<b>Achieved interviews</b>	104		167
<b><i>Unadjusted response rate</i></b>		<b>50%</b>	<b>28%</b>
Invalid sample	21		58
Ineligible (booster)	-		252
Other	15		10
<b><i>Adjusted response rate</i></b>		<b>61%</b>	<b>59%</b>
Refused	22		39
No contact	42		76

*Source: MORI*

**Table A2.6: Outer London**

<b>Response rate analysis</b>			
	<b>Mainstage interviews</b>		<b>Booster interviews</b>
<b>Issued sample</b>	217		378
<b>Achieved interviews</b>	130		134
<b><i>Unadjusted response rate</i></b>		<b>60%</b>	<b>35%</b>
Invalid sample	27		21
Ineligible (booster only)	-		116
Other	5		2
<b><i>Adjusted response rate</i></b>		<b>70%</b>	<b>56%</b>
Refused	34		35
No contact	21		70

*Source: MORI*

**Table A2.7: Leeds**

<b>Response rate analysis</b>			
	<b>Mainstage interviews</b>		<b>Booster interviews</b>
<b>Issued sample</b>	83		787
<b>Achieved interviews</b>	34		98
<b><i>Unadjusted response rate</i></b>		<b>41%</b>	<b>12%</b>
Invalid sample	10		95
Ineligible (booster only)	-		492
Other	3		10
<b><i>Adjusted response rate</i></b>		<b>49%</b>	<b>52%</b>
Refused	19		25
No contact	18		68

*Source: MORI*

**Table A2.8: Bradford**

<b>Response rate analysis</b>			
	<b>Mainstage interviews</b>		<b>Booster interviews</b>
<b>Issued sample</b>	198		173
<b>Achieved interviews</b>	87		46
<b><i>Unadjusted response rate</i></b>		<b>44%</b>	<b>27%</b>
Invalid sample	38		53
Ineligible (booster only)	-		51
Other	11		4
<b><i>Adjusted response rate</i></b>		<b>58%</b>	<b>71%</b>
Refused	31		11
No contact	31		8

*Source: MORI*

**Table A2.9: Glasgow**

<b>Response rate analysis</b>			
	<b>Mainstage interviews</b>		<b>Booster interviews</b>
<b>Issued sample</b>	108		1,801
<b>Achieved interviews</b>	64		186
<b><i>Unadjusted response rate</i></b>		<b>59%</b>	<b>10%</b>
Invalid sample	10		153
Ineligible (booster only)	-		1,324
Other	1		12
<b><i>Adjusted response rate</i></b>		<b>66%</b>	<b>60%</b>
Refused	13		55
No contact	21		72

*Source: MORI*

## Appendix 2.3: How well the survey represents the population

**Table A2.10: Population profile of surveyed wards**

	Population (000s)				Share of population (%)				Percent GB population
	Selected wards	Reserve wards	All wards	Great Britain	Selected wards	Reserve wards	All wards	Great Britain	
Population	332.7	214.6	547.3	54888.8	100	100	100	100	1.0
White	193.6	154.2	347.8	51873.8	58.2	71.8	63.5	94.5	0.7
Minority ethnic groups	139.1	60.4	199.5	3015.1	41.8	28.2	36.5	5.5	6.6
Black	35.6	18.2	53.7	890.7	10.7	8.5	9.8	1.6	6.0
Black-Caribbean	23.3	11.8	35.0	500.0	7.0	5.5	6.4	0.9	7.0
Black-African	6.7	3.5	10.2	212.4	2.0	1.6	1.9	0.4	4.8
Black-Other	5.6	2.9	8.5	178.4	1.7	1.4	1.6	0.3	4.8
South Asian	90.2	35.2	125.4	1479.6	27.1	16.4	22.9	2.7	8.5
Indian	20.2	13.3	33.4	840.3	6.1	6.2	6.1	1.5	4.0
Pakistani	58.9	19.4	78.3	476.6	17.7	9.0	14.3	0.9	16.4
Bangladeshi	11.0	2.6	13.7	162.8	3.3	1.2	2.5	0.3	8.4
Chinese & Other	13.4	7.0	20.4	644.7	4.0	3.3	3.7	1.2	3.2
Chinese	2.1	1.6	3.8	156.9	0.6	0.8	0.7	0.3	2.4
Other-Asian	3.9	2.1	6.1	197.5	1.2	1.0	1.1	0.4	3.1
Other-Other	7.3	3.3	10.6	290.2	2.2	1.5	1.9	0.5	3.6
Born in Ireland	11.6	5.2	16.8	837.5	3.5	2.4	3.1	1.5	2.0

Source: 1991 Census of Population

Table A2.10 presents the population profile of the wards surveyed. These areas contained 1 per cent of the total population of Great Britain, and 6.6 per cent of the minority population. Minority ethnic groups formed more than a third of the population, six times the national average. The areas surveyed contained more than a sixth of the Pakistani ethnic group. The share of each minority ethnic group was about ten times higher than their share of the total population of Great Britain.

**Table A2.11: Comparison of ethnic composition of sample with (England and Wales) population 2001**

	Ethnic group share of each age group (%)						
	All	White	Minority	South Asian	Black	Chinese & Other	Mixed parentage
<i>Sample population</i>							
18-24	100.0	19.4	80.6	50.7	20.1	4.9	4.9
25-44	100.0	20.7	79.3	41.3	29.4	5.1	3.4
45-59/64	100.0	28.6	71.4	35.5	18.5	3.9	3.9
60/65+	100.0	42.8	57.2	23.0	24.8	1.8	4.1
All aged 18+	100.0	24.9	75.1	39.6	25.1	4.4	3.9
<i>2001 Census data for England and Wales</i>							
18-24	100.0	87.1	12.9	6.3	2.5	2.3	1.8
25-44	100.0	90.4	9.6	4.2	2.8	1.7	0.9
45-59/64	100.0	94.5	5.5	2.7	1.3	1.1	0.4
60/65+	100.0	96.9	3.1	1.4	1.0	0.4	0.2
All aged 18+	100.0	92.6	7.4	3.4	2.0	1.3	0.7

Table A2.11 compares the ethnic group and age composition of the sample with that of the population of England and Wales from the 2001 Census (comparable data for Scotland is not

available, due to confidentiality constraints on the publication of Census data). The sample is biased towards the South Asian ethnic groups, relative to the population as a whole.

People of mixed parentage are under-represented, partly because of their youth. Only 45.5 per cent of the 661 thousand people of mixed parentage living in England and Wales in 2001 were aged 18 or over. The focus on deprived inner city wards would also have excluded many people of mixed parentage and from the Chinese and Other ethnic groups. Additionally, the survey recruited one respondent in each household. Thus, in a household with partners from different ethnic groups, the children of mixed parentage would be excluded if they were under 18, and the household would be probably be represented by one parent and their ethnic group.

## **Appendix 2.4: Details of focus groups and group interviews**

In the West Midlands, face-to-face interviews were undertaken with 9 ICT providers in the Handsworth area.

In West Yorkshire, a meeting was organised at Chapeltown Library in Leeds expressly for ICT facilities providers on March 20th 2003, to which all the organisations interviewed as part of the ICT providers audit were invited. This gave them an opportunity to hear more about the project nationally, and to reflect on some of the points and issues raised in the user focus groups. Representatives of 9 organisations attended the meeting.

Focus groups were conducted with people who either use community ICT facilities, or who are interested in using facilities but feel deterred from doing so (for reasons generally related to their age).

Nine were carried out in West Yorkshire, four of which took place in Bradford Moor, four in Chapeltown and one in Harehills. The identified groups were:

- A 'young' (under 30 year old) Asian female group
- An 'older' (over 30 year old) Asian female group
- A 'young' (under 30 year old) Asian male group
- An 'older' (over 30 year old) Asian male group
- A 'young' (under 30 year old) mixed gender Black group
- An 'older' (over 30 year old) Black female group
- A mixed age and gender Black group
- 2 mixed gender and age Black and Asian library user groups

Venues for the focus groups included libraries, a restaurant, a cyber café, a Methodist chapel, and a media centre. Participants were recruited by the project's four fieldworkers, and in some cases by the facility provider (although ICT facilities providers were not permitted to join the focus groups themselves).

On average the groups had between 6-10 participants, with one note-taker and a moderator to facilitate the discussion. The supplied question schedule was interpreted fairly flexibly. A number of key themes or issues emerged through analysing the large amount of data collected.

**Appendix 2.5 Household Survey Questionnaire**

MORI/15631/KKB/EVH

**Attitudes to ICT Survey**  
 FINAL (18/3/02)  
 QUESTIONNAIRE

CARD 1 (cont'd)

Transfer Respondent Details and Numbers from Contact Sheet

**AREA NUMBER**

<input type="text"/>	<input type="text"/>	<input type="text"/>
(39)	(40)	(41)

**ADDRESS NUMBER**

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
(42)	(43)	(44)	(45)

**Address:**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Telephone in home: (46)

Yes: \_\_\_\_\_

Number given (WRITE IN INCLUDING std code) 1

---

Refused/Ex-directory 2

No 3

**QA CODE GENDER OF RESPONDENT. SINGLE CODE ONLY**

Female	1	
Male	2	(47)

**QB CODE RESPONDENT AGE AND ETHNICITY (OVERLEAF) FROM CONTACT SHEET. SINGLE CODE ONLY**

18 – 19	1	
20 – 24	2	
25 – 34	3	
35 – 44	4	
45 – 54	5	
55 – 59	6	
60 – 64	7	
65 – 74	8	
75+	9	
Refused	0	(48)

**INTERVIEWER CODE**

**QC Interview conducted in English directly with respondent?**

Yes	1	Finish	
No	2	CODE QD	(49)

**CODE IF NO (Code 2) at QC**

**QD Interview conducted by:**

Mother tongue interviewer	1	
Interviewer + interpreter	2	
Interviewer + household interpreter	3	(50)

**Language used:** WRITE IN \_\_\_\_\_

**Showcard Version**

AA- Y	1	
AA(R)- Y (R)	2	(51)

**Interview Declaration**

**I confirm that I have carried out this Interview face-to-face with the above name person and that I asked all the relevant questions fully and recorded the answers in conformance with the survey specification and within the MRS Code of Conduct.**

Signature: .....

Interviewer Name (CAPS):  
 .....

**Interviewer Number:**

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	/	<input type="text"/>
(52)	(53)	(54)	(55)		(56)

(52-56)

**Day of Interview** 1 2 3 4 5 6 7  
 (Mon) (Thur) (Sun)

**Date of Interview:**   /   /01

**Length of Interview:**   (minutes)  
 (57) (58) (57-58)





INTERVIEWER RECORD START TIME

Hours Mins

INTERVIEWER: SOME SHOWCARDS HAVE BEEN REVERSED. SHOWCARDS WHICH MAY BE REVERSED ARE MARKED (R) ON THE QUESTIONNAIRE. PLEASE BE CAREFUL TO CODE THE CORRECT RESPONSE.

REPEAT CONTACT SHEET INTRODUCTION IF NECESSARY

**I would like to start by re-assuring you that this interview is completely confidential.**

HOUSEHOLD
-----------

ASK ALL

**I'd like to ask you about the people who live here regularly and who are members of your household. This is to enable me to work out which sections of the questionnaire apply to you.**

Q1. **How many people are there usually living here – that includes yourself, any other adults and children? CODE BELOW**

1 2 3 4 5 6 7 8 9 (IF MORE THAN 9, CODE "9" AND WRITE IN BOXES)

(61)

Q2. **Are there any young people living in this household aged under 18? MULTICODE OK. IF YES, CLARIFY AGES**

(62)

Yes:	
Aged 0-4	1
Aged 5-11	2
Aged 12-17	3
No young people under 18	4

(62)

Q3. **SHOWCARD A How would you describe the composition of your household? Just read out the letter that applies. SINGLE CODE ONLY**

(63)

A	Single adult under 60	1
B	Single adult 60 or over	2
C	Two adults both under 60	3
D	Two adults at least one 60 or over	4
E	Three adults or more all 16 or over	5
F	1-parent family with child/ren, at least one under 16	6
G	2-parent family with child/ren, at least one under 16	7
H	Two or more families/couples living together	8
	Other (WRITE IN & CODE "9")	9

(63)

Q4. SHOWCARD B **Which statement on this card best applies to you?** SINGLE CODE ONLY

(64)

<b>Working:</b>			
A	Full-time (30+ hours/week)	1	GO TO Q6
B	Part-time (29 hours or less/week)	2	
C	Self-employed with employees	3	
D	Self employed without employees	4	
E	Local or Government training scheme (GTS)/Modern apprenticeships	5	
<b>Unemployed:</b>			ASK Q5
F	registered	6	
G	not registered, but seeking work	7	
<b>Inactive:</b>			
H	At home/not seeking work	8	
I	Long-term sick/disabled	9	
J	Retired	0	
K	Full-time education	X	
	Other (WRITE IN & CODE "Y")	Y	

(64)

ASK IF (CODES 5-Y) AT Q4. OTHERS GO TO Q6

Q5. **Have you ever had a paid job since leaving full-time education (ADD IF NECESSARY: school) apart from casual or holiday work?** SINGLE CODE ONLY

(65)

	Yes	1	ASK Q6
	No	2	GO TO
	Don't know	3	Q8

(65)

ASK IF YES (CODE 1 AT Q5) OR WORKING (CODE 1-4 AT Q4).  
OTHERS GO TO Q8

- Q6. SHOWCARD C **What type of industry/business do you currently/did you most recently work in? Please just read out the letter that applies.** IF MORE THAN ONE JOB ASK RESPONDENT TO CONSIDER INDUSTRY OF MAIN JOB. IF RESPONDENT CANNOT DECIDE THEN MAIN JOB IS JOB WITH MOST HOURS. ALL SUBSEQUENT QUESTIONS REFER TO MAIN JOB. SINGLE CODE ONLY

		(66)
A	Agriculture and Forestry	1
B	Fishing	2
C	Mining and quarrying	3
D	Manufacturing	4
E	Electricity, gas and water supply	5
F	Construction	6
G	Wholesale and retail	7
H	Motor repairs	8
I	Hotels and restaurants	9
J	Transport and communication	0
K	Banking, finance and insurance	X
L	Real estate, renting and other business services	Y
		(67)
M	Public administration and defence	1
N	Education	2
O	Health and Social Work	3
	Other (WRITE IN WHAT BUSINESS DOES/MAKE AND CODE '4')	4

(66-67)

- Q7. SHOWCARD D **Which of these categories best describes your current or most recent job? Please just read out the letter that applies.** SINGLE CODE ONLY

		(68)
A	Managers and senior officials (eg production manager, office manager, senior officer in the Police/Fire services)	1
B	Professional (eg engineer, management consultant, software professional)	2
C	Associate professional and technical occupations (eg nurse, journalist, police officer, sales rep)	3
D	Administrative and secretarial (eg accounts clerk, credit controller)	4
E	Skilled trades (eg brick layer, plumber, chef)	5
F	Personal services (eg, hairdresser, care assistant, nursery nurse)	6
G	Retail (eg sales assistant, call centre operator)	7
H	Process, plant or machine operatives (eg assembly line worker, bus/lorry driver, scaffolder)	8
I	Elementary occupations (eg labourer, catering assistant, bar staff, cleaner, security guards)	9
	Other occupations (WRITE IN WHAT THEY DO/JOB TITLE & CODE "0")	0

ICT USAGE
-----------

Now I would like to ask you some questions about various types of technology.

ASK ALL

- Q8. SHOWCARD E (R) **Which of these, if any, have you heard of? And which others? Please just read out the letters that apply.** MULTICODE OK

ASK OF THOSE THINGS WHICH ARE HEARD OF (CODES 1-9 AT Q8). OTHERS GO TO Q10

- Q9. SHOWCARD E (R) AGAIN **And which of these, if any, do you or other members of your household have or own at home? And which others? Please just read out the letters that apply.** MULTICODE OK

		Q8 Heard of (69)	Q9 Have/own (70)
A	Mobile phone	1	1
B	WAP mobile phone	2	2
C	Combination mobile phone/electronic organiser (eg Nokia Communicator or Ericsson Smartphone)	3	3
D	Digital/electronic personal organiser or palm-top computer	4	4
E	Internet-connected games console (eg Dreamcast)	5	5
F	DVD player (built into a computer or stand alone)	6	6
G	MP3 player (as a plug-in to a computer or as a portable player)	7	7
H	Digital TV eg satellite digital (Sky Digital), cable digital (ntl, Telewest) or through your existing aerial (ON/ITVdigital)	8	8
I	PCs (laptops and handhelds)	9	9
	None of these	0	0
	Don't know	X	X

(69-70)

ASK ALL

- Q10. SHOWCARD F **Which of these, if any, have you ever personally used? PROBE FULLY. And which others? MULTICODE OK. ADD IF NECESSARY: By PC, I mean a desktop, laptop or any other computer you may use; by the internet, I mean using the internet/world wide web via any device.**

		(71)	
A	Mobile phone	1	
B	SMS text messaging on a mobile phone	2	GO TO FILTER AT Q17
C	Personal desktop or laptop computer (PC)	3	ASK Q11a
D	Internet	4	ASK Q11b
E	Intranet	5	ASK Q11c

F	Fax machine	6
G	E-mail	7
H	Interactive services through Digital TV – eg games, shopping, banking or e-mail	8
	None of these	9
	Don't know	0

GO TO FILTER AT Q17

(71)

ASK a) – c) IF USES A PC, INTERNET OR INTRANET RESPECTIVELY (CODES 3-5 AT Q10). OTHERS GO TO FILTER AT Q17

Q11. SHOWCARD G **At which of the following places have you used.....?** READ OUT a-c. MULTICODE OK

		At home	At work	At place of study	At someone else's home	Somewhere else	Don't know	
a)	<b>a Personal desktop or laptop computer (PC)</b>	1	2	3	4	5	6	(72)
b)	<b>the Internet</b>	1	2	3	4	5	6	(73)
c)	<b>the Intranet</b>	1	2	3	4	5	6	(74)

ASK IF RESPONDENT USES INTERNET AT HOME (CODE 1 AT Q11b). OTHERS GO TO FILTER AT Q13

Q12. **What type of internet connection do you have for the main computer in the house? Is it?** (READ OUT). SINGLE CODE ONLY

<b>Via telephone line (modem)</b>	(75) 1
<b>Via telephone line (ADSL)</b>	2
<b>Via digital phone line (ISDN)</b>	3
<b>Via cable (cable modem)</b>	4
Other (WRITE IN AND CODE '5')	5
Don't know	6

(75)

Q13. ASK IF USES PC AT HOME (CODE 1) AT Q11a. OTHERS GO TO FILTER AT Q17  
 SHOWCARD H (R) **Do you use your PC at home for any of the following activities?**  
 MULTICODE OK. PROBE: **Do you use it for anything else that is not on the list?**

Q14. ASK ALL WHO MENTION ACTIVITY AT Q13 (CODES 1-0). OTHERS GO TO FILTER AT Q15  
 SHOWCARD H (R) AGAIN **And which of these do you do at least once per week?**  
 MULTICODE OK

		Q13 Use PC (76)	Q14 Use once per week (77)
A	Work related activities	1	1
B	Own study/learning	2	2
C	Help children with learning/homework	3	3
D	Leisure (e.g. games, pursue hobbies)	4	4
E	E-mails (e.g. friends/family, service providers, community groups etc)	5	5
F	Buying goods and services	6	6
G	Internet/web surfing	7	7
H	Correspondence	8	8
I	Household finances	9	9
Q13 <b>Other:</b> (WRITE IN AND CODE '0')		0	
Q14 <b>Other:</b> (WRITE IN AND CODE '0')			0
None of these		X	X
Don't know		Y	Y

(76-77)

ASK IF USES PC AT HOME (CODE 1) AT Q11a. OTHERS GO TO FILTER AT Q17

Q15. **And have you used your household PC to . . . .** (READ OUT a-c)? MULTICODE OK

ASK ALL WHO MENTION ACTIVITY AT Q15a-c. OTHERS GO TO FILTER AT Q17

Q16. **And which do you do at least once a week?** MULTICODE OK

		Q15 Use PC (78)	Q16 Use once per week (79)
a)	<b>Communicate by e-mail with statutory service providers, e.g. the Council, the Police, health care providers</b>	1	1
b)	<b>Get information from website about statutory service providers, e.g. the Council, the police, health care providers</b>	2	2
c)	<b>Obtain information related to your ethnic or religious background</b>	3	3
No, none of these		4	4
Don't know		5	5

(78-79)

ASK IF HAVE/ OWN PCS (CHECK BACK TO Q9 (CODE 9) ON PAGE 6).  
OTHERS GO TO Q19.

Q17. **How old is the PC you (members of your household) use at home?** ADD IF NECESSARY: **I mean the age of the PC itself, not the date you first acquired it.** SINGLE CODE ONLY. IF MORE THAN ONE PC IN HOUSEHOLD, ASK ABOUT MOST UP-TO-DATE.

	(80)
Less than a year old	1
Over 1 year but less than 3 years old	2
Over 3 years but less than 5 years old	3
5 years old or more	4
Don't know/can't remember	5

(80)

CARD 2

Q18. **How much, if at all, did you or other members of you household purchase your home PC for?** SINGLE CODE ONLY. INTERVIEWER: PROMPT BY READING OUT PRICE BANDS IF RESPONDENT UNABLE TO RECALL. NOTE: WE ARE INTERESTED IN HOW MUCH THEY PAID FOR IT – NOT WHAT THEY THINK IT IS WORTH.

	(12)
Nothing (free/donation)	1
£200 or less	2
£201 - £700	3
£701 - £1,000	4
£1,001 - £1,500	5
£1,501 or more	6
Don't know/can't remember	7
Refused	8

(12)

ASK ALL  
Q19. **Have you, or your household, obtained a PC free or at a discount as a result of a government or local scheme?** IF YES: **Do you know the name of the scheme?** MULTI CODE OK. REFER TO INTERVIEWER INSTRUCTIONS

	(13)
<b>Yes:</b>	
Computers within Reach	1
Wired up Communities	2
Re-conditioned equipment from employer	3
Yes, other (WRITE IN AND CODE "4")	4
Yes, but can't remember which scheme	5
No	6
Don't know	7

(13)



Q20. **Have you ever heard of learndirect or UK Online Centres?** SINGLE CODE ONLY  
(14)

<b>Yes:</b>		
Heard of learndirect only	1	GO TO FILTER AT Q22
Heard of UK Online Centres only	2	ASK Q21
Heard of both learndirect and UK Online	3	
No, Have not heard of either	4	GO TO FILTER AT Q.22 (14)

ASK IF HEARD OF UK ONLINE (CODES 2 OR 3) AT Q20. OTHERS GO TO FILTER AT Q22.

Q21. **And have you ever used a computer, including laptops and handheld computers at a UK Online Centre?** SINGLE CODE ONLY

Yes	1	
No	2	
Don't know	3	(15)

ASK ALL WHO HAVE USED PC (CODE 3 AT Q10 ON PAGE 6) OR (CODE 1 AT Q21). OTHERS GO TO FILTER AT Q23.

Q22. **Do you use any software or computer programmes in languages other than English?**  
 IF YES ASK: **Which language(s) do you use?** MULTICODE OK

(16)

**Yes:**

Akan	1
Arabic	2
Armenian	3
Assyrian	4
Bengali	5
Cantonese	6
Farsi	7
French	8
Greek	9
Gujerati	0
Igbo/ Yoruba/ Hausa	X
Kurdish	Y
	(17)
Polish	1
Portuguese	2
Punjabi	3
Pushto	4
Serbo-croat	5
Somali	6
Spanish	7
Swahili	8
Sylethi	9
Tagalog	0
Tamil	X
Turkish	Y
	(18)
Urdu	1
Vietnamese	2
Other (WRITE IN & CODE '3')	3
No, do not use any	4
Don't know	5

(16-18)

ATTITUDES OF NON-USERS
------------------------

ASK ALL RESPONDENTS WHO DO NOT USE A PC AT Q10. ON PAGE 6.  
OTHERS GO TO FILTER AT Q27.

- Q23. SHOWCARD I (R) **Which of the following reasons, if any, best describe why you do not use a Personal desktop or laptop computer (PC)?** PROBE: **Any other reasons not listed on this card?**  
MULTICODE OK

		(19)
A	Cost/cannot afford it	1
B	Do not have access to a computer (anymore)	2
C	Not computer literate/don't know how to use one	3
D	No need for a computer/ Not interested	4
E	No time/too busy	5
F	Someone else in the household uses it	6
G	Lack of information about where to go to use computers/what is available	7
H	Don't like going to places that are mixed sex	8
I	Don't see people from my culture using it	9
J	Problems reading and writing in English	0
K	No software available in my language	X
	Other (WRITE IN & CODE "Y")	Y
		(20)
	Don't know	1

(19-20)

Q24. SHOWCARD J (R) **If you were able to use computers and had access to them, which of the following things on this list, if any, would you use computers for? PROBE: Anything else that is not on this list? MULTICODE OK**

		(20)
A	Look for job vacancies	2
B	Help me do my job	3
C	Own study/learning	4
D	Help children with learning/homework	5
E	Leisure (e.g. games, pursue hobbies)	6
F	E-mails (e.g. friends/family, service providers, community groups etc)	7
G	Buying goods and services	8
H	Internet/web surfing	9
I	Correspondence	0
J	Household finances	X
	Other (WRITE IN & CODE 'Y')	Y
		(21)
	None, would not use	1
	Don't know	2

(20-21)

Q25. SHOWCARD K (R) **And if support, facilities and equipment were available, how likely would you be to use computers to . . . . .**

(READ OUT a-c). ALTERNATE ORDER. TICK  START. SINGLE CODE EACH

		Very likely	Fairly likely	Very unlikely	Not at all	Don't know	
<input type="checkbox"/>	a) <b>Communicate by e-mail with statutory service providers, e.g. the Council, the Police, health care providers</b>	1	2	3	4	5	(22)
	b) <b>Get information from websites about statutory service providers, e.g. the Council, the police, health care providers</b>	1	2	3	4	5	(23)
<input type="checkbox"/>	c) <b>Contact/get information related to your ethnic or religious background</b>	1	2	3	4	5	(24)

Q26. SHOWCARD L **Which, if any, of the things shown on this card, would encourage you to use computers? Just read out the letters that apply. MULTICODE OK**

		(25)
A	Access to broadband	1
B	Financial help	2
C	Training and support	3
D	More/better public facilities available in the area	4
E	Help with reading and writing in English	5
F	Software available in my language	6
G	Information available in my	7

	language	
H	More information about the ICT facilities in the area	8
I	More/better childcare facilities	9
J	More facilities better suited to people of my ethnic or religious background	0
	To help with getting/doing a job	X
	None of these	Y
	Don't know	

(25)

COMPUTER SKILLS
-----------------

**I would now like to ask you some questions about computer skills.**

ASK THOSE IN WORK (CODES 1-4 AT Q4). OTHERS GO TO Q27b.

Q27.a **Please tell me whether you agree or disagree with each of the following statements.**  
READ OUT a) to b) SINGLE CODE ONLY FOR EACH

	Agree	Disagree	Don't know
a) <b>Computer skills are essential to my work now</b>	1	2	3

(26)

**ASK ALL**

	Agree	Disagree	Don't know	Not working	Not applicable
Q27.b b) <b>Computer skills will be essential to getting on in my job/getting a new job</b>	1	2	3	4	5

(27)

**ASK ALL**

Q28. **And please tell me whether you agree or disagree with each of the following statements.** SINGLE CODE ONLY FOR EACH

NOTE: Omit the word "my" if respondent does not have children at Q2.

	Agree	Disagree	Don't know	No opinion
a) <b>Computer skills are essential to (my) children's work now</b>	1	2	3	4
b) <b>Computer skills will be essential to (my) children's work in the future</b>	1	2	3	4

(28)

(29)

Q 29. SHOWCARD M (R) I am now going to read out some statements about computer skills. (As before,) by computers I mean all types of computer including laptops or handheld computers.

Please tell me how strongly you agree or disagree with each of the following statements. READ OUT a-c. ALTERNATE START. TICK START (✓). SINGLE CODE ONLY FOR EACH

		Strongly agree	Tend to agree	Neither	Tend to disagree	Strongly disagree	Don't know/ no opinion	
<input type="checkbox"/>	a) I know where to go to get more information about computer facilities and training courses in my area	1	2	3	4	5	6	(30)
	b) I would like to get more training in computers	1	2	3	4	5	6	(31)
<input type="checkbox"/>	c) I would like someone to help me think about what computer skills I need	1	2	3	4	5	6	(32)

Q30. SHOWCARD N (R) Which of the following best sums up your own computer skills? SINGLE CODE ONLY

	(33)	
Non existent	1	GO TO Q32.
Beginner level	2	ASK Q31.
Intermediate level	3	
Advanced level	4	
Expert	5	
Don't know	6	GO TO Q32. (33)

COMPUTERS AND LEARNING

ASK ALL WHOSE COMPUTER SKILLS ARE BEGINNER, INTERMEDIATE, ADVANCED OR EXPERT (CODES 2-5 AT Q30). OTHERS GO TO Q32.

Q31. Would you say the computer knowledge that you have is mainly . . . ? READ OUT. SINGLE CODE ONLY

	(34)	
Self-taught	1	
Obtained informally via friends	2	
Obtained via community groups or formal ICT providers	3	
Obtained at courses provided at work or place of study	4	
Other (WRITE IN AND CODE "5")	5	
Don't know	6	(34)

- ASK ALL
- Q32. SHOWCARD O (R) **Which of these, if any, do you do at least once a week for any purpose, e.g work, study, leisure etc? Please read out the letter/s that apply.**  
MULTICODE OK
- Q  
33. SHOWCARD O AGAIN (R) **And which two or three of these things do you think would be most useful in helping you to learn new skills? CODE UP TO THREE**

		Q32. Used (35 )	Q33. Learn from (36)
A	<b>Using the Internet or CD-Roms</b>	1	1
B	<b>Reading books</b>	2	2
C	<b>Watching TV generally</b>	3	3
D	<b>Reading newspapers</b>	4	4
E	<b>Using computers</b>	5	5
F	<b>Watching educational TV (eg documentaries/Learning Zone)</b>	6	6
G	<b>Using reference books (eg encyclopaedia)</b>	7	7
H	<b>Listening to the radio</b>	8	8
	None of these	9	9
	Don't know	0	0

(35-36)

- Q34. **Are you currently undertaking any computer training, or have you completed any at work, school or place of study in the past year or longer ago? SINGLE CODE ONLY**

	(37)	
Yes, currently	1	ASK Q35.
Yes, in the past year	2	
Yes, but not in the past year	3	
No, have not undertaken any ICT training	4	GO TO Q36.
Don't know/ can't remember	5	

(37)

- ASK IF UNDERTAKEN ICT TRAINING (CODES 1-3 AT Q34.). OTHERS GO TO Q36.
- Q35. **What are the main reasons why you decided to do computer training? PROBE FULLY**  
MULTICODE OK

	(38)
To get a new/better job	1
To increase my self-confidence	2
To widen my horizons	3
For personal development/growth	4
To get qualifications	5
To help with my child's education	6
To develop skills	7
Because I enjoy learning new skills	8
To fill in spare time/as a hobby	9
To succeed in my work life	0
To earn more money	X
Other (WRITE IN AND CODE "Y" )	Y
	(39)
Don't know	1

PUBLIC FACILITIES/ E-GOVERNMENT

ASK ALL

Q36. I am now going to ask for your views on Computer facilities.

SHOWCARD P (R) **Looking at this card, have you ever used a computer in any of these public facilities anywhere? By public facilities, I am talking about facilities that are open to all members of the public. Please just read out the letter/s that apply.**

MULTICODE OK

Q37. SHOWCARD P (R) AGAIN **And as far as you are aware, which, if any, of these public facilities for access to computers are available in this area? By this area I mean 1 mile/ 15 minutes walk from your home. Again, just read out the letter/s that apply.**

MULTICODE OK

		Q.36 (40)	Q.37 (41)	
<b>Yes:</b>				
A	Library	1	1	
B	Internet café	2	2	
C	Place of worship	3	3	
D	School or college	4	4	
E	Voluntary or community organisations e.g. Citizen's Advice Bureau	5	5	
F	Community access booths/ kiosks for accessing information e.g. at a railway station	6	6	GO TO Q39
G	Commercial organisation or business, e.g. business centre or shop	7	7	
	Other (WRITE IN & CODE "8")	8	8	
	No/ None	9	9	ASK Q38
	Don't know	0	0	

(40-  
41)



ASK IF NO/DON'T KNOW (CODES 9-0 AT Q36). OTHERS GO TO Q39.  
 Q38. **Why have you not used any public computer facilities?** DO NOT PROMPT. PROBE FULLY. MULTICODE OK

(42)	
Don't want to use them	1
Don't need to use them at all	2
Don't need to use them – have own facilities	3
None locally/not aware of any locally	4
Don't want to travel to use them	5
Costs too much/can't afford it	6
I don't like going out alone	7
I am too old	8
Don't speak English very well/language issues	9
Can't get childcare	0
Lack of skills make me afraid of using PCs in public places	X
Don't like the atmosphere	Y
(43)	
Problem of restricted time on PC	1
No facilities for people with disabilities	2
These places are not culturally sensitive	3
Don't like going to mixed sex places	4
I never see anyone from my ethnic or religious background doing this	5
There is no support there to help me find what I want	6
Other (WRITE IN & CODE "7")	7
Don't know	8

(42-43)

ASK ALL  
 Q39. SHOWCARD Q (R) **How confident, if at all, do you feel about getting information and advice (about anything) in the following ways?** READ OUT a-c. ALTERNATE START. TICK START (✓). SINGLE CODE ONLY FOR EACH

		Very confident	Fairly confident	Not very confident	Not at all confident	No experience of using	Don't know	
<input type="checkbox"/>	a) <b>Telephone services (helplines)</b>	1	2	3	4	5	6	(44)
<input type="checkbox"/>	b) <b>Through a website on the internet</b>	1	2	3	4	5	6	(45)
<input type="checkbox"/>	c) <b>via Digital Interactive Television</b>	1	2	3	4	5	6	(46)

Q40. SHOWCARD Q (R) AGAIN **How confident, if at all, do you feel about buying products or services in the following ways?** READ OUT a-c. ALTERNATE START. TICK START (✓). SINGLE CODE ONLY FOR EACH

		Very confident	Fairly confident	Not very confident	Not at all confident	No experience of using	Don't know	
<input type="checkbox"/>	a) <b>Ordering by telephone</b>	1	2	3	4	5	6	(47)
	b) <b>Through a web site on the internet</b>	1	2	3	4	5	6	(48)
<input type="checkbox"/>	c) <b>Via Digital Interactive Television</b>	1	2	3	4	5	6	(49)

Q41. SHOWCARD R (R) **I am going to read out a list of statements about new technology and how public services, such as local councils and health authorities, can use it to deliver services. I would like you to tell me, from this card, how strongly you agree or disagree with each.** READ OUT A-B. ROTATE ORDER. TICK START (✓). SINGLE CODE ONLY

		Strongly agree	Tend to agree	Neither	Tend to disagree	Strongly disagree	Don't know/no opinion	
<input type="checkbox"/>	A <b>New technology, such as the Internet and Digital Interactive Television would make it easier for me to deal with public services</b>	1	2	3	4	5	6	(50)
<input type="checkbox"/>	B <b>When contacting public services such as the local council, I would prefer to stick to more traditional methods, such as the telephone</b>	1	2	3	4	5	6	(51)

Q42. SHOWCARD S (R) **Which of these activities, if any, would you be likely to do electronically eg via the internet, through digital TV or at an electronic post office kiosk? Please just read out the letter/s that apply.** MULTICODE OK

		(52)
A	Apply for/renew your passport	1
B	Book an appointment with your GP	2
C	Do your income tax return	3
D	Find out about benefits (eg housing benefit, pension)	4
E	Get health information via NHS direct	5
F	Look up information on schools	6
G	Notify your council of a fault (eg streetlight, bins, etc)	7
H	Pay your council tax	8
I	Renew your car tax	9
J	Vote	0
	None of these	X
	Don't know	Y

DEMOGRAPHICS

Now I'd like to round up the interview by asking you some questions about yourself. As before, I would like to reassure you that everything is strictly confidential.

Q43. Thinking about educational qualifications, do you have any qualifications from school, college, university, connected with work or from government schemes? SINGLE CODE ONLY

	(53)	
Yes	1	ASK Q44.
No	2	GO TO Q45.
Don't know	3	

(53)

**PLEASE TURN OVER FOR Q44.**

ASK IF YES (CODE 1) AT Q43. OTHERS GO TO Q45.

Q44. SHOWCARD T **Looking at this list, please can you tell me the level of your highest educational qualification? ADD IF NECESSARY: including overseas qualifications from other countries? DO NOT PROMPT.**  
SINGLE CODE OK. PLEASE REFER TO INTERVIEWER INSTRUCTIONS

(54)

A	<b>Non NVQ: Level 0</b>	RSA Word Power RSA Number Power CLAIT	1
B	<b>NVQ Level 1</b>	GCSE/SCE/O-level grades below C CSE grades below 1 BTEC/SCOTBTEC/SQA – First Certificate BEC/SCOTBEC – Certificate/Diploma City & Guilds – Operative Awards CPVE - Year 1 (Technician) LCCI/RSA/PEI – Elementary/First Level RSA - Vocational Certificate Foundation GNVQ/GSVQ NVQ/SVQ Level 1	2
C	<b>NVQ Level 2</b>	GCSE/SCE/O-level grades at A-C CSE grade 1 BTEC/SCOTVEC/SQA – First diploma BEC/SCOTBEC/BTEC/SCOTVEC/SQA Certificate/ Diploma <i>with Credit</i> City & Guilds - Higher Operative/craft LCCI - Certificate/ Second level PEI – Stage 2 Pitmans – Intermediate Level 2 Diploma Certificate RSA – Diploma Intermediate GNVQ/GSVQ/NVQ/SVQ Level 2	3
D	<b>NVQ Level 3</b>	A level passes AS Levels BEC/SCOTBEC/BTEC/SCOTVEC/SQA – National OND/ONC TEC/SCOTEC – Certificate/ Diploma City & Guilds – Advanced Craft LCCI – Third Level Diploma Pitmans - Level 3 Advanced Higher Certificate RSA - Stage 3 Advanced Diploma Advanced GNVQ/GSVQ Access to Higher Education Courses Advanced awards in ESOL and foreign languages NVQ/SVQ Level 3	4
E	<b>NVQ Level 4</b>	Teaching Qualifications (including PGCE) First Degree BEC/SCOTBEC/BTEC/ SCOTVEC/SQA – HND/HNC TEC/SCOTEC – Higher Certificate/Diploma LCCI – Advanced level RSA - Advanced Certificate/Higher Diploma Diploma in Higher Education Nursing (SRN) Certificate in Higher Education NVQ/SVQ Level 4	5
F	<b>NVQ Level 5</b>	Higher Degree Graduate Membership of Professional Institute Continuing Education Diploma Other high level professional qualification	6
		Other UK professional/vocational qualifications (WRITE IN AND CODE "7")	7
		Other overseas qualifications (WRITE IN AND CODE "8")	8
		Don't know	9

(54)

ASK ALL

Q45. Is English your main language?

(55)

Yes	1	GO TO Q48.	
No	2	ASK Q46.	(55)

ASK IF ENGLISH IS NOT MAIN LANGUAGE (CODE 2) AT Q45. OTHERS GO TO Q48.

Q46. SHOWCARD U (R) How well do you speak English?

(56)

Very well	1		
Fairly well	2	GO TO Q48.	
Not very well	3		
Not at all well	4	ASK Q47.	
Don't know	5	GO TO Q48.	(56)

ASK IF NOT WELL (CODES 3 OR 4) AT Q46. OTHERS GO TO Q48.

Q47. What is your main language? SINGLE CODE ONLY

(57)

Akan	1
Arabic	2
Armenian	3
Assyrian	4
Bengali	5
Cantonese	6
Farsi	7
French	8
Greek	9
Gujerati	0
Igbo/ Yoruba/ Hausa	X
Kurdish	Y
	(58)
Polish	1
Portuguese	2
Punjabi	3
Pushto	4
Serbo-croat	5
Somali	6
Spanish	7
Swahili	8
Sylethi	9
Tagalog	0
Tamil	X
Turkish	Y
	(59)
Urdu	1
Vietnamese	2
Other (WRITE IN & CODE '3')	3

(57-59)

ASK ALL

Q48. SHOWCARD V **As you may know, thousands of adults have problems with reading, writing or numbers/basic arithmetic. Do you have any problems with . . . .** READ OUT (a)-(d). ROTATE ORDER. TICK START (✓) SINGLE CODE EACH

		Yes- experience great difficulty	Yes- experience some difficulty	No – experience no difficulty	Don't know	Refused	
<input type="checkbox"/>	a) <b>reading English</b>	1	2	3	4	5	(60)
	b) <b>writing English</b>	1	2	3	4	5	(61)
<input type="checkbox"/>	c) <b>spelling</b>	1	2	3	4	5	(62)
	d) <b>numbers or basic arithmetic</b>	1	2	3	4	5	(63)

Q49. SHOWCARD W **And now thinking about your home, in which of these ways does your household occupy this accommodation? Just read out the letter that applies.** SINGLE CODE ONLY

		(64)
A	Owned outright	1
B	Buying on mortgage	2
C	Rented from Council	3
D	Rented from Housing Association/Trust	4
E	Rented from private landlord	5
	Other (WRITE IN & CODE '6')	6

(64)

Q50. **Do you have poor eyesight which would affect your use of a computer?** SINGLE CODE ONLY

	(65)
Yes	1
No	2
Don't know	3

(65)

Q51. **And do you have any other disability or condition that would affect your use of a computer?** SINGLE CODE ONLY

	(66)
Yes	1
No	2
Don't know	3

(66)

Q52. SHOWCARD X (R) This card shows various possible sources of income. Can you please tell me which kinds of income you, and anyone in your household, receive? Just read out the letters that apply. MULTICODE OK

INTERVIEWER ADD IF NECESSARY: As with the rest of your answers, these will be treated in strictest confidence.

		(67)
A	Earnings from employment/self-employment	1
B	Occupational pension (pension from former employer)	2
C	Retirement pension (National Insurance)/Old person's pension	3
D	Widow's pension	4
E	Income support/Jobseekers Allowance (formerly unemployment benefit or income support for unemployed people)	5
F	Council tax benefit/Housing benefit	6
G	Incapacity benefit (previously sickness and/or invalidity benefit)	7
H	Severe disablement/Attendance/invalid allowance	8
I	Disability Living Allowance	9
	Other (WRITE IN & CODE "0")	0
	None of these	X
	Don't know	Y
		(68 )
	Refused	1

(67-68)

Q53. SHOWCARD Y (R) From this card, could you tell me which band your household's **total annual gross income from all sources falls in?** That is income from work and any other sources, such as benefits and pensions, **before** deductions, income tax, National insurance etc. Please just read out the letter. As before, let me reassure you that this information is strictly confidential to MORI and will only be used to analyse responses to the rest of the survey.

IF NOT KNOWN, PROBE FOR ESTIMATE. SINGLE CODE ONLY

	Weekly	Annually	(69)
G	Under £40	Under £2,079	1
B	£40-£59	£2,080-£3,119	2
O	£60-£79	£3,120-£4,159	3
J	£80-£99	£4,160-£5,199	4
C	£100-£119	£5,200-£6,239	5
N	£120-£139	£6,240-£7,279	6
I	£140-£159	£7,280-£8,319	7
F	£160-£179	£8,320-£9,359	8
K	£180-£199	£9,360-£10,399	9
P	£200-£249	£10,400-£12,999	0
A	£250-£299	£13,000-£15,599	X
Q	£300-£399	£15,600-£20,799	Y
			(70)
E	£400-£499	£20,800-£25,999	1
H	£500-£599	£26,000-£31,199	2
M	£600-£699	£31,200-£36,399	3
D	£700 or more	£36,400 or more	4
		Don't know	5
		Refused	6

(69-70)

**TURN OVER AND ASK Q54**

Q54. Finally, are you happy for your contact details to be passed onto the Department for Education and Skills, and to be re-contacted for future research into people's views about and use of Information and communications technology? Your answers to the survey will remain confidential to MORI.

IF YES: Please could you sign below.

DO NOT FORGET TO CODE ANSWER BELOW AFTER **OBTAINING** SIGNATURE

	(71)
Yes	1
No	2

Signature:

Name:

INTERVIEWER RECORD END TIME

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Hours		Mins	

THANK RESPONDENT, COMPLETE FRONT PAGE AND CLOSE



## Appendix 2.6 Schedule for Household Interviews

# Use & Attitudes Towards Information and Communication Technologies by People from Minority Ethnic Groups

A research project conducted by the University of Warwick on behalf of the Department for Education and skills.

### Cross Generational Household Interviews in Birmingham & Wolverhampton

INTERVIEWER: Introduce yourselves as working with (relevant local organisation) & Warwick University, as part of a Government funded research project to assess attitudes towards the use of information & communication technologies, for example computers and digital photography. Explain that the purpose is to find out the best ways of helping people to use these technologies in positive and creative ways and to find out how well community ICT facilities are working. Mention that their response will be a valuable contribution. Stress that responses will be treated in the utmost confidence, (under terms of the Data Protection Act)

SCREENING: Explain that the interviews are aimed at all family members, over the age of seven. Ask how many family members there are (record) and their ages/gender. Then ask how many are actually in the house, and whether they would be willing to be interviewed. Interview those members of the household who agree, and then arrange a time for interviewing members not present. If this is not a convenient time for the household to be interviewed then arrange a more convenient time.

### TOPICS TO BE EXPLORED

#### 1. ICT AT HOME

Inventory (respondent=person most able to answer for household)

- a) What devices are available at home?
- b) How was decision made to purchase them? (who made them, why did they make them, how did they hear about them, where did they purchase them from & why, how important were price considerations)
- c) Which members of the household make most use of these devices? (men, women, young boys, young girls?)
- d) Are any devices (e.g. PC) shared? (if so, how is use allocated?)

Household members: (note age group<sup>66</sup>, gender, language preference, and disabilities<sup>67</sup> if relevant)

- a) Do you use what's available at home? (if not, why not).
- b) How did you find out how to use it?
- c) How confident/competent are you in using it?
- d) Where would you go to get help if you needed it?

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<sup>66</sup> Age groups are: 50+, 25-49, 16-25, 10-15

<sup>67</sup> Respondents should be asked if they have any disabilities (inc. sight and hearing) which affect their access to and use of ICT. It should include learning disabilities.

- e) What do you typically use it for ( e.g. in the case of on-line services – shopping, travel arrangements, business, entertainment, news. Be as specific as possible – particularly in connection with 'education' and with use of ITC for business purposes)
  - f) Are there any other things you would like to get from it (if yes, what stops you?)
2. ICT IN SCHOOL/COLLEGE/WORKPLACE (as relevant to age group of respondent being interviewed)
- a) To what extent is your knowledge and use of ICT based on your experiences in School/Workplace
  - b) What kind of equipment/training was available to you?
  - c) What did you use it for?
  - d) Where did you go to get help if you needed it?
  - e) Did you get any formal qualifications relating to ICT

### 3. TRAINING (Other than school/college/workplace based)

- a) Have you heard of UK Online or LearnDirect? (if yes), how did you hear about them? Have you been involved with them? (note details, including specific location of access point)
- b) Have you been on any training courses/tasters (or similar) in connection with ICT?( note agency which provided course)
- c) What was your main reason for going?
- d) Were the courses successful in meeting your needs? (if not, why not)
- e) Did you feel competent/confident in your ICT skills after taking the courses?
- f) Do you think you will participate in any other ITC related courses over the next two/three years (explore why/why not – based on needs, and convenience<sup>68</sup>, cost & quality of the courses)
- g) To what extent do you see community based facilities meeting your needs (explore whether respondent knows of, or has used, such facilities and what their experience with them has been)

### 5. INCENTIVES & BARRIERS TO ICT USE

Do you think your religious, cultural or ethnic background makes you more likely to use ICT for particular purposes? (inc. satellite t.v.) How about age or gender? Do you think any of them create barriers to learning about, or using ICT

### 6. LOCAL GOVERNMENT SERVICES (16+)

Some people have told us that they would particularly like to use ICT to find out more about local services, such as health and education. Is this an area that you have a particular interest in? (Details of specific services and why/what type of, information is wanted)

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<sup>68</sup> Convenience should be explored in terms of both the location of courses and the time involved in participating in them

## Minority Ethnic Attitudes Towards ICTs Focus Group Discussion Guide (Service User)

### Conduct of the Focus group

#### a) Establish rapport/Introduction

It is essential when conducting focus groups to think carefully about the research approach and the style which is appropriate for the focus group.

Often, participants do not know what to expect from focus group discussions. It is important for the facilitator to set the group at ease and create an informal atmosphere that encourages focus groups participants to take part in the discussions: The following should be considered as part of the organisation/conduct of the focus group:

1. *Help to create a more informal setting by arranging chairs in a semicircular format, so there are no physical barriers between yourself and focus group participants (this may not be relevant for focus groups held in Mosques, temples etc)*
2. *Refreshments (cups of tea etc.) should be provided, if possible, to help put people at their ease.*
3. *Introduce yourself and encourage participants to share forenames. Make an effort to remember participants' forenames and address each participant by name during the discussions. This approach helps the development of a pleasant constructive atmosphere.*
4. *Focus group participants should be told that the discussions are informal, that we want everyone to take part, that we welcome everyone's views and that all views are confidential. In other words, we want frank views and feelings on issues raised.*
5. *Provide an explanation of what you are doing, namely, that you have been asked by Warwick University, who are working with the Department for Education & Skills and with (named) local ICT service providers to identify barriers faced with regard to accessing and using ICT as well as exploring the specific benefits of ICT's. Explain the wider context of the research project ie parallel work in Leeds and the other focus groups and family/quantitative surveys.*
6. *Explain why we've invited them, that we have sought to talk to a variety of groups, according to age and ethnic origin, so that we can test a broad range of opinions*
7. *Explain why the research is useful, how the views and opinions of service users can be used to inform the delivery of ICT provision.*
8. *Explain what will happen during the interview, that the group will be asked a variety of questions and that their responses will be recorded, using a tape recorder, if that is OK with them.*
9. *Explain what will happen to the research findings, that they will be analysed, along with the findings of the other focus groups and the family interviews as well as the quantitative survey and included in a final report for DfES. This report will also be summarised and made available to research participants.*

## **b) Phrase the questions carefully**

Certain types of questions impede group discussions. For example, yes-or-no questions are one-dimensional and do not stimulate discussion.

Open-ended questions are more useful because they allow participants to tell their story in their own words and add details that can result in unanticipated findings.

For example:

- What would you like to see etc. ?
- How do you feel about....?

## **c) Use probing techniques**

If participants give incomplete answers or are maybe struggling to say what they think, gently probe for the answer they want to give. Try these techniques:

- *Repeat the question* - repetition gives more time to think
- *Adopt a naïve posture* - suggesting that you've got a limited understanding of the situation and can they please explain for you
- *Repeat the reply* - hearing it again sometimes stimulates conversation
- *Ask when, what, where, which and how questions* - they provoke more detailed information
- *Use neutral comments* - "Anything else?", "What else?" "Tell us why you feel this way about.....?"

## **d) Control the discussion**

In some groups, a few individuals can dominate the discussion. To make sure everyone has opportunities to participate:

- Ask questions of people who are reluctant to talk
- If someone is dominating the discussions, intervene, politely summarise the point, then refocus the discussion
- Take advantage of a pause and say something like, "Thanks for that interesting idea. If it's OK with you, or, with your consent, I would like to move on to the next topic etc."
- As well as encouraging individual contributions, try to facilitate discussions to enable participants to either arrive at a common view or a range of views regarding each aspect of the topic discussion guide.

## **e) Recording the discussions**

The discussions will be recorded using a tape recorder, and transcribed at a later date. Notes should reflect the content of the discussions and will be reported in participants' language, retaining their phrases and grammatical usage. Summarising or paraphrasing responses can be misleading. For instance, a verbatim reply "Yes, indeed! I feel very positive about that," loses its intensity when recorded as "Yes."

## **f) Issues to include in focus group topic guide**

Issues outlined below need to be explored in depth, using questions such as "What?", "When?", "Where?", "Which?", and "How?". Make sure all participants are involved in the discussions.

### Centre use/home use

*Key Question* : To what extent do you use centres rather than home facilities because you can get access to specialised teachers and support, or to particular programmes, such as U.K. On-line.

How important are getting formal qualifications to all of this?

### Availability of software/hardware (particularly specialised)

*Key Question:* To what extent do you use centres because particular types of hard ware or software are not available at home. Is cost an issue?

### Availability of support/trainers (time/space)

Do centres have any advantages in terms of getting back-up and support as needed (either while at the centre (on-site or off-site) or afterwards)?

### Organisational Culture

How does the 'culture' of particular centres influence the decision to attend

### Barriers (age, gender, disabilities, racial)

Do any racial/ethnic barriers, age, gender, disability or class barriers make it harder for minority ethnic students to access training centres.

### External Applications

How are the skills/qualifications gained in the centre used for application elsewhere (e.g. work) – How valuable are ICT skills perceived to be?

## **Aspirations**

What opportunities can be accessed? How will they be accessed? How do participants see their future progression in the area of ICT skills

## **g) Concluding the discussion**

Ask participants if they have any final comments to make. Once comments have been noted, thank them all for taking part and for giving so many positive views and suggestions.

### Appendix 3.1 Details of the profile of the sampled population

In this and subsequent appendices, detailed cross-tabulations of data from the national survey, referred to in the main text are presented. The tables presented in these appendices are intended to make as much information as possible available from the survey, but in presenting information for all the main breakdowns of ethnic group age, household type, occupation and gender, the percentages presented are sometimes based on small subsets of the survey sample. Where the total number of cases on which a percentage is based is less than 100, it should be treated with caution. Comparisons between groups should recognise that small percentage differences based on small numbers in each group are unlikely to be statistically significant.

**Table A3.1: Ethnic and gender breakdown of the sampled population**

Broad ethnic group	2001 Census ethnic group	Share of ethnic group by gender		Per cent of sampled population by gender		All persons	
		Female	Male	Female	Male	Number	Per cent
White	British	61.6	38.4	23.9	17.7	333	21.0
	Irish	73.9	26.1	2.0	0.8	23	1.5
	Other White background	61.1	38.9	2.6	1.9	36	2.3
Mixed parentage	White and Black Caribbean	74.3	25.7	3.0	1.2	35	2.2
	White and Black African	38.5	61.5	0.6	1.1	13	0.8
	White and Asian	61.5	38.5	0.9	0.7	13	0.8
	Any other Mixed background	75.0	25.0	0.7	0.3	8	0.5
South Asian	Indian	43.4	56.6	8.0	12.4	159	10.0
	Pakistani	50.0	49.7	20.6	24.3	354	22.3
	Bangladeshi	45.6	54.4	4.2	5.9	79	5.0
	Any other Asian background	42.2	57.8	2.2	3.6	45	2.8
Black	Caribbean	58.1	41.9	15.5	13.3	229	14.4
	African	57.5	42.0	11.6	10.1	174	11.0
	Any other Black background	59.4	40.6	2.2	1.8	32	2.0
Chinese & Other	Chinese	50.0	50.0	1.2	1.4	20	1.3
	Any other background	21.9	78.1	0.8	3.5	32	2.0
<b>Total</b>		<b>54.2</b>	<b>45.7</b>	<b>859</b>	<b>724</b>	<b>1585</b>	<b>1585</b>

**Table A3.2: Age breakdown of respondents by ethnic group<sup>69</sup>**

Ethnic group	Percentage from each age group				Total
	16-24	25-44	45-59/64	60/65+	
<b>White</b>	<b>15.1</b>	<b>41.7</b>	<b>18.9</b>	<b>24.3</b>	<b>391</b>
British	15.3	39.9	18.9	25.8	333
Irish	13.0	26.1	30.4	30.4	23
Any other White background	14.3	68.6	11.4	5.7	35
<b>BME groups</b>	<b>20.9</b>	<b>52.7</b>	<b>15.7</b>	<b>10.7</b>	<b>1182</b>
<i>Mixed</i>	<i>21.7</i>	<i>58.0</i>	<i>14.5</i>	<i>5.8</i>	<i>69</i>
White and Black Caribbean	25.7	57.1	14.3	2.9	35
White and Black African	7.7	69.2	7.7	15.4	13
White and Asian	23.1	46.2	23.1	7.7	13
Any other Mixed background	25.0	62.5	12.5	0.0	8
<i>South Asian</i>	<i>24.5</i>	<i>51.3</i>	<i>15.5</i>	<i>8.7</i>	<i>633</i>
Indian	22.2	41.1	22.8	13.9	158
Pakistani	27.0	52.3	13.4	7.4	352
Bangladeshi	21.8	62.8	11.5	3.8	78
Any other Asian background	17.8	60.0	13.3	8.9	45
<i>Black</i>	<i>14.5</i>	<i>53.8</i>	<i>17.0</i>	<i>14.7</i>	<i>429</i>
Caribbean	11.6	45.8	19.6	23.1	225
African	18.6	62.2	14.5	4.7	172
Any other Black background	12.5	65.6	12.5	9.4	32
<i>Chinese &amp; Other</i>	<i>29.4</i>	<i>52.9</i>	<i>7.8</i>	<i>9.8</i>	<i>51</i>
Chinese	31.6	47.4	10.5	10.5	19
Any other background	28.1	56.3	6.3	9.4	32
<b>All ethnic groups</b>	<b>19.5</b>	<b>50.0</b>	<b>16.5</b>	<b>14.1</b>	<b>1573</b>
<b>No. of respondents</b>	<b>306</b>	<b>786</b>	<b>259</b>	<b>222</b>	<b>1573</b>

<sup>69</sup> It should be noted that row and column totals do not match exactly between Tables due to ‘missing data’ on selected dimensions of interest.

**Table A3.3: Household size**

Ethnic group	No. of respondents	Mean household size (persons)	Per cent of households with children aged			
			0-4 years	5-11 years	12-17 years	None
<b>White</b>	<b>392</b>	<b>2.4</b>	<b>14.8</b>	<b>18.6</b>	<b>12.0</b>	<b>64.5</b>
British	333	2.3	13.2	17.4	12.6	65.8
Irish	23	2.2	13.0	8.7	8.7	82.6
Any other White background	36	2.8	30.6	36.1	8.3	41.7
<b>BME groups</b>	<b>1193</b>	<b>3.5</b>	<b>30.3</b>	<b>32.0</b>	<b>24.0</b>	<b>40.9</b>
<i>Mixed</i>	<i>69</i>	<i>2.9</i>	<i>24.6</i>	<i>34.8</i>	<i>18.8</i>	<i>40.6</i>
White and Black Caribbean	35	2.9	22.9	45.7	28.6	34.3
White and Black African	13	2.7	38.5	7.7	0.0	53.8
White and Asian	13	3.1	23.1	38.5	15.4	30.8
Any other Mixed background	8	2.4	12.5	25.0	12.5	62.5
<i>South Asian</i>	<i>637</i>	<i>4.1</i>	<i>36.4</i>	<i>35.2</i>	<i>27.5</i>	<i>33.9</i>
Indian	159	3.4	20.8	20.8	20.8	54.7
Pakistani	354	4.5	41.2	39.5	31.9	26.3
Bangladeshi	79	4.3	45.6	45.6	26.6	22.8
Any other Asian background	45	3.6	37.8	33.3	17.8	40.0
<i>Black</i>	<i>435</i>	<i>2.8</i>	<i>23.9</i>	<i>28.5</i>	<i>21.4</i>	<i>48.5</i>
Caribbean	229	2.2	17.0	22.3	15.7	59.4
African	174	3.4	31.0	36.2	27.6	36.2
Any other Black background	32	3.2	34.4	31.3	28.1	37.5
<i>Chinese &amp; Other</i>	<i>52</i>	<i>2.9</i>	<i>15.4</i>	<i>19.2</i>	<i>9.6</i>	<i>63.5</i>
Chinese	20	3.1	20.0	30.0	5.0	60.0
Any other background	32	2.8	12.5	12.5	12.5	65.6
<b>All</b>	<b>1585</b>	<b>3.2</b>	<b>26.4</b>	<b>28.7</b>	<b>21.0</b>	<b>46.8</b>

**Table A3.4: Household types<sup>70</sup>**

Household Type	All respondents	Per cent of all respondents living in each household type						
		All	White	BME groups	Mixed parentage	South Asian	Black	Chinese & Other
Single adult under 60	208	13.2	18.7	11.4	16.4	6.5	17.3	15.4
Single adult 60 or over	124	7.9	16.4	5.1	3.0	2.7	9.0	3.8
Two adults both under 60	171	10.9	15.4	9.4	11.9	6.8	11.5	19.2
Two adults at least one 60 or over	100	6.4	9.2	5.4	4.5	5.4	5.5	5.8
Three adults or more all 16 or over	173	11.0	8.2	11.9	7.5	14.8	7.4	21.2
1-parent family with child/ren, at least one under 16	224	14.2	10.8	15.4	29.9	7.3	26.3	3.8
2-parent family with child/ren, at least one under 16	505	32.1	18.2	36.7	25.4	49.5	20.6	30.8
Two or more families/couples living together	57	3.6	2.6	4.0	0.0	5.9	2.3	0.0
Other	10	0.6	0.5	0.7	1.5	1.1	0.0	0.0
<b>All types</b>	<b>1572</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>All respondents</b>		<b>1572</b>	<b>390</b>	<b>1182</b>	<b>67</b>	<b>630</b>	<b>433</b>	<b>52</b>

<sup>70</sup> There is 'missing data' for some household types.



**Table A3.5: Source of household income**

Source	% receiving household income, by source					
	White	Mixed	South Asian	Black	Chinese & Other	Total
Earnings	46.9	63.8	59.5	48.0	36.5	52.7
Occupational pension	10.5	1.4	2.4	5.3	5.8	5.2
Retirement pension	21.4	5.8	9.3	14.0	7.7	13.4
Widows pension	2.6	0.0	0.9	1.1	0.0	1.3
Household income support/JSA	21.7	37.7	29.0	34.3	19.2	28.7
Council tax or housing benefit	15.6	20.3	12.7	23.4	11.5	16.7
Incapacity benefit	7.9	10.1	6.3	5.7	7.7	6.8
Severe disablement etc allowance	3.3	4.3	0.5	0.7	0.0	1.4
Disability Living Allowance	4.3	4.3	3.9	3.4	0.0	3.8
Other	6.4	13.0	13.0	8.0	13.5	10.0
None of these	1.5	0.0	2.4	1.4	7.7	2.0
Don't know	1.0	1.4	2.0	1.8	3.8	1.8
Refused	2.6	2.9	1.3	1.4	7.7	1.9
No answer	0.0	0.0	1.3	0.2	1.9	0.6
<b>Respondents</b>	<b>392</b>	<b>69</b>	<b>637</b>	<b>435</b>	<b>52</b>	<b>1585</b>

**Table A3.6: Economic status by ethnic group**

	All	Percentage in each economic status				Per cent not in work never worked
		In work	Unemployed	Student	Inactive	
<b>White</b>	<b>392</b>	<b>41.3</b>	<b>8.7</b>	<b>3.6</b>	<b>46.4</b>	<b>11.3</b>
British	333	42.0	8.7	3.3	45.9	8.8
Irish	23	17.4	8.7	0.0	73.9	15.8
Any other White background	36	50.0	8.3	8.3	33.3	33.3
<b>BME groups</b>	<b>1192</b>	<b>41.2</b>	<b>12.9</b>	<b>7.9</b>	<b>38.0</b>	<b>42.0</b>
<i>Mixed parentage</i>	<i>69</i>	<i>52.2</i>	<i>20.3</i>	<i>5.8</i>	<i>21.7</i>	<i>10.0</i>
White and Black Caribbean	35	42.9	25.7	5.7	25.7	10.0
White and Black African	13	61.5	7.7	7.7	23.1	20.0
White and Asian	13	61.5	15.4	0.0	23.1	0.0
Any other Mixed background	8	62.5	25.0	12.5	0.0	33.3
<i>South Asian</i>	<i>636</i>	<i>40.7</i>	<i>10.8</i>	<i>7.5</i>	<i>40.9</i>	<i>45.6</i>
Indian	159	46.5	8.2	8.8	36.5	37.6
Pakistani	354	37.6	11.6	6.8	44.1	46.6
Bangladeshi	78	44.9	11.5	7.7	35.9	53.5
Any other Asian background	45	37.8	13.3	8.9	40.0	50.0
<i>Black</i>	<i>435</i>	<i>41.8</i>	<i>14.5</i>	<i>6.2</i>	<i>37.5</i>	<i>38.3</i>
Caribbean	229	44.5	12.2	2.6	40.6	15.7
African	174	40.8	16.1	11.5	31.6	58.3
Any other Black background	32	28.1	21.9	3.1	46.9	73.9
<i>Chinese &amp; Other</i>	<i>52</i>	<i>26.9</i>	<i>15.4</i>	<i>28.8</i>	<i>28.8</i>	<i>55.3</i>
Chinese	20	25.0	5.0	35.0	35.0	53.3
Any other background	32	28.1	21.9	25.0	25.0	56.5
<b>All ethnic groups</b>	<b>1584</b>	<b>41.2</b>	<b>11.9</b>	<b>6.8</b>	<b>40.1</b>	<b>34.4</b>

**Table A3.7: Economic activity, by age group**

Ethnic group	Economic activity rate				Unemployment rate			
	Aged 16-59/64	Aged 16-24	Aged 25-44	Aged 45-59/64	Aged 16-59/64	Aged 16-24	Aged 25-44	Aged 45-59/64
<b>White</b>	<b>64.5</b>	<b>61.0</b>	<b>73.0</b>	<b>48.6</b>	<b>17.3</b>	<b>22.2</b>	<b>17.6</b>	<b>11.1</b>
British	66.8	60.8	78.2	47.6	17.0	22.6	17.3	10.0
Irish	37.5	66.7	16.7	42.9	33.3	0.0	100.0	33.3
Any other White background	60.6	60.0	58.3	75.0	15.0	33.3	14.3	0.0
<b>BME Groups</b>	<b>59.8</b>	<b>53.4</b>	<b>63.6</b>	<b>55.7</b>	<b>23.9</b>	<b>33.3</b>	<b>22.0</b>	<b>19.4</b>
<i>Mixed parentage</i>	76.9	86.7	77.5	60.0	28.0	38.5	29.0	0.0
White and Black Caribbean	70.6	77.8	80.0	20.0	37.5	42.9	37.5	0.0
White and Black African	81.8	100.0	77.8	100.0	11.1	0.0	14.3	0.0
White and Asian	83.3	100.0	66.7	100.0	20.0	33.3	25.0	0.0
Any other Mixed background	87.5	100.0	80.0	100.0	28.6	50.0	25.0	0.0
<i>South Asian</i>	56.2	53.5	59.4	50.0	20.9	30.1	17.6	18.4
Indian	63.2	51.4	75.4	52.8	14.0	22.2	12.2	10.5
Pakistani	52.8	57.9	51.6	46.8	23.8	38.2	14.7	27.3
Bangladeshi	58.7	47.1	65.3	44.4	20.5	0.0	25.0	25.0
Any other Asian background	56.1	25.0	63.0	66.7	26.1	0.0	35.3	0.0
<i>Black</i>	63.9	51.6	67.5	63.0	26.1	43.8	23.7	21.7
Caribbean	70.5	57.7	81.6	52.3	22.1	40.0	19.0	21.7
African	58.5	50.0	56.1	80.0	28.1	50.0	25.0	20.0
Any other Black background	55.2	25.0	57.1	75.0	43.8	0.0	50.0	33.3
<i>Chinese &amp; Other</i>	47.8	26.7	59.3	50.0	36.4	0.0	43.8	50.0
Chinese	35.3	0.0	55.6	50.0	16.7	-	20.0	0.0
Any other background	55.2	44.4	61.1	50.0	43.8	0.0	54.5	100.0
<b>All ethnic groups</b>	<b>60.8</b>	<b>54.9</b>	<b>65.5</b>	<b>53.7</b>	<b>22.4</b>	<b>31.0</b>	<b>21.0</b>	<b>17.3</b>

**Table A3.8: Industry, by ethnic group**

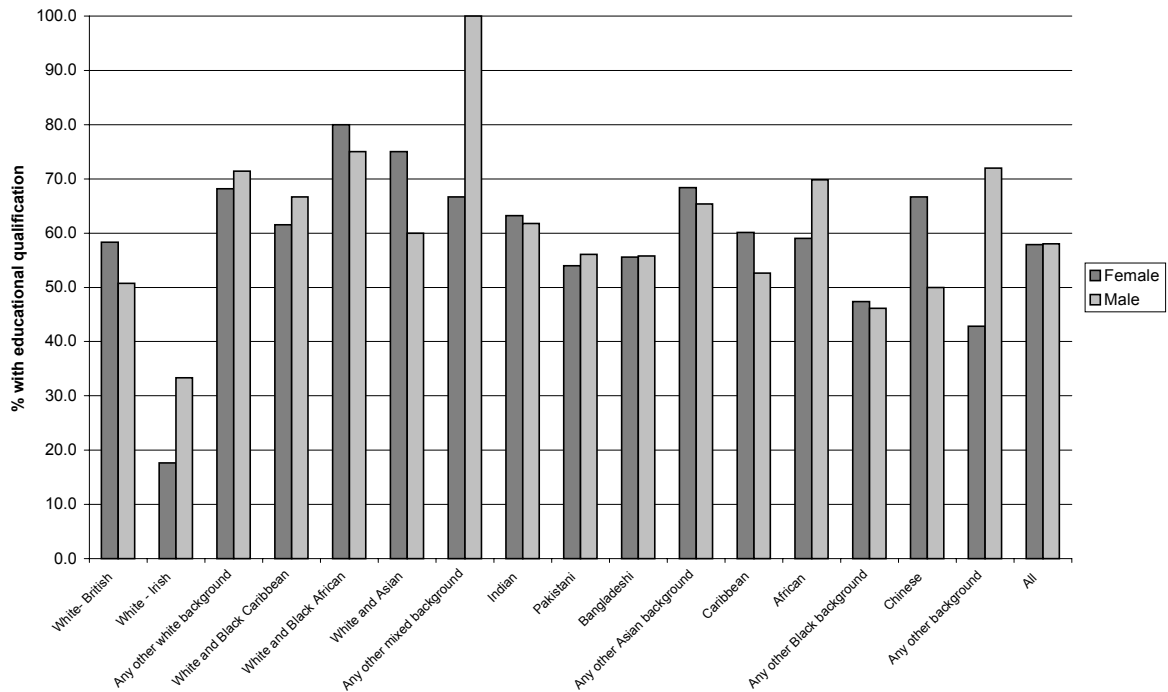
Broad industry sector	All ethnic groups		Per cent in each sector				
	Number	Per cent	White	Mixed parentage	South Asian	Black	Chinese & Other
Primary and energy	19	1.5	2.5	3.1	0.7	1.2	3.3
Manufacturing	181	14.7	14.2	3.1	19.3	11.9	6.7
Construction	34	2.8	3.4	3.1	1.3	4.0	3.3
Distribution, transport and other	649	52.7	49.0	56.3	58.9	46.2	66.7
<i>Wholesale and retail</i>	198	16.1	15.0	25.0	22.8	7.0	6.7
<i>Hotels and restaurants</i>	127	10.3	7.9	15.6	11.8	8.9	20.0
<i>Transport and communication</i>	115	9.3	8.2	6.3	9.8	11.0	3.3
Business services	74	6.0	6.5	1.6	6.1	6.1	6.7
Public services	274	22.3	24.4	32.8	13.8	30.6	13.3
<b>All industries</b>	<b>1231</b>	<b>1231</b>	<b>353</b>	<b>64</b>	<b>457</b>	<b>327</b>	<b>30</b>

**Table A3.9: Occupational breakdown of sampled population**

SOC Occupation	All ethnic groups		Per cent in each occupation				
	Number	Per cent	White	Mixed parentage	South Asian	Black	Chinese & Other
Managers and senior officials	69	5.6	5.7	3.1	6.6	4.0	13.3
Professionals	83	6.8	10.9	3.1	5.7	4.6	6.7
Associate professional and technical occupations	77	6.3	7.7	7.8	3.3	8.8	3.3
Administrative and secretarial	146	11.9	12.3	9.4	12.1	12.5	3.3
Skilled trades	93	7.6	10.3	4.7	6.6	6.7	6.7
Personal services	80	6.5	6.9	9.4	4.2	9.4	0.0
Retail	148	12.1	11.4	15.6	17.0	5.5	10.0
Process, plant or machine operatives	146	11.9	9.1	3.1	17.4	9.7	3.3
Elementary occupations	275	22.4	20.9	35.9	18.1	27.1	26.7
Other occupations	110	9.0	4.9	7.8	9.0	11.9	26.7
<b>All respondents</b>	<b>1244</b>	<b>1227</b>	<b>350</b>	<b>64</b>	<b>454</b>	<b>329</b>	<b>30</b>

**Table A3.10: Industry and skill, by broad ethnic group**

Industry	White respondents per cent in each skill group				BME groups per cent in each skill group			
	Higher skilled	Intermediate	Lower skilled	Total	Higher skilled	Intermediate	Lower skilled	Total
Primary and energy	55.6	22.2	22.2	9	40.0	30.0	30.0	10
Manufacturing	18.0	10.0	72.0	50	18.3	5.3	76.3	131
Construction	75.0	8.3	16.7	12	63.6	4.5	31.8	22
Distribution, transport and other	28.7	34.5	36.8	171	17.5	32.1	50.4	474
Business services	43.5	47.8	8.7	23	32.0	58.0	10.0	50
Public services	45.9	34.1	20.0	85	31.9	39.9	28.2	188
<b>All industries</b>	<b>34.6</b>	<b>30.6</b>	<b>34.9</b>	<b>350</b>	<b>23.0</b>	<b>30.5</b>	<b>46.5</b>	<b>875</b>
<b>Respondents</b>	<b>121</b>	<b>107</b>	<b>122</b>	<b>350</b>	<b>201</b>	<b>267</b>	<b>407</b>	<b>875</b>



**Figure A3.1: Percentage with educational qualification, by ethnic group**<sup>71</sup>

**Table A3.11: Highest qualifications – percentages by ethnic group and gender**

Qualification	White	Mixed parentage	South Asian	Black	Chinese & Other	Total
<b>Females</b>						
Non NVQ: Level 0	4.5	0.0	2.4	3.5	0.0	3.2
NVQ Level 1	13.6	17.9	25.6	23.8	11.1	21.0
NVQ Level 2	26.5	42.9	26.2	24.5	22.2	26.7
NVQ Level 3	22.0	21.4	23.8	17.5	22.2	21.2
NVQ Level 4	19.7	10.7	8.5	13.3	22.2	13.4
NVQ Level 5	9.8	3.6	4.9	11.9	11.1	8.4
Other UK professional/vocational qualifications	1.5	0.0	2.4	0.0	0.0	1.3
Other overseas qualifications	2.3	3.6	6.1	4.9	0.0	4.4
Don't know	0.0	0.0	0.0	0.7	11.1	0.4
<b>All</b>	<b>132</b>	<b>28</b>	<b>164</b>	<b>143</b>	<b>9</b>	<b>476</b>
<b>Males</b>						
Non NVQ: Level 0	1.4	0.0	1.6	0.0	0.0	1.0
NVQ Level 1	16.4	37.5	20.5	26.9	4.3	21.2
NVQ Level 2	20.5	31.3	17.8	24.0	13.0	20.2
NVQ Level 3	21.9	18.8	21.6	14.4	34.8	20.4
NVQ Level 4	23.3	6.3	17.8	12.5	26.1	17.5
NVQ Level 5	11.0	6.3	13.5	11.5	8.7	12.0
Other UK professional/vocational qualifications	4.1	0.0	1.1	2.9	0.0	2.0
Other overseas qualifications	0.0	0.0	5.4	7.7	8.7	5.0
Don't know	1.4	0.0	0.5	0.0	4.3	0.7
<b>All</b>	<b>73</b>	<b>16</b>	<b>185</b>	<b>104</b>	<b>23</b>	<b>401</b>

<sup>71</sup> Note that some of these percentages are based on small numbers of respondents.

**Table A3.12: Language ability, literacy and numeracy**

	White	Mixed parentage	South Asian	Black	Chinese & Other	All
<b>Females</b>						
% for whom English is not their first language	6.6	4.4	55.8	31.0	58.8	31.9
% speak English poorly	2.5	2.2	27.2	11.9	29.4	14.4
% with problems in reading	7.4	6.7	34.6	21.8	52.9	22.0
% with problems in writing	9.4	6.7	38.2	22.2	58.8	24.1
% with problems spelling	14.3	4.4	40.2	30.2	58.8	28.4
% with problems in maths	8.6	11.1	23.9	21.8	41.2	18.6
<b>All females</b>	<b>244</b>	<b>45</b>	<b>301</b>	<b>252</b>	<b>17</b>	<b>859</b>
<b>Males</b>						
% for whom English is not their first language	6.8	12.5	51.0	25.8	68.6	35.2
% speak English poorly	0.7	4.2	4.5	3.3	14.3	3.9
% with problems in reading	8.1	8.3	27.8	12.1	37.1	19.6
% with problems in writing	8.1	12.5	29.3	14.8	40.0	21.3
% with problems spelling	16.2	20.8	33.7	20.9	51.4	27.3
% with problems in maths	9.5	16.7	12.5	9.3	28.6	12.0
<b>All males</b>	<b>148</b>	<b>24</b>	<b>335</b>	<b>182</b>	<b>35</b>	<b>724</b>

**Table A3.13: Languages spoken by respondents to the survey (number)**

Language	White	Mixed	South Asian	Black	Chinese & Other	All ethnic groups
Urdu			46			46
Punjabi			42			42
Somali			3	27		30
Bengali			19			19
Other	4		8		4	16
Arabic	1		4	3	3	11
Gujerati			10			10
No answer			4	2	1	7
French		1		3		4
Portuguese			1	2	1	4
Pushto			4			4
Turkish	2				2	4
Farsi				1	2	3
Cantonese					2	2
Swahili				2		2
Tamil			2			2
Igbo/Yoruba/Hausa				1		1
Kurdish			1			1
Polish	1					1
Sylethi			1			1
<b>All who have a first language other than English</b>	<b>8</b>	<b>1</b>	<b>145</b>	<b>41</b>	<b>15</b>	<b>210</b>
<b>All those for whom English is not their main language</b>	<b>26</b>	<b>5</b>	<b>339</b>	<b>125</b>	<b>34</b>	<b>529</b>
<i>Per cent for whom English is not their first language</i>	<i>6.6</i>	<i>7.2</i>	<i>53.3</i>	<i>28.8</i>	<i>65.4</i>	<i>33.4</i>

**Table A3.14: Percentage of each gender and age group who speak English “not very well” or “not at all well”**

Age and gender	White	Mixed parentage	South Asian	Black	Chinese & Other	All ethnic groups
<i>Female</i>						
16-24	2.9	0.0	8.0	2.5	0.0	5.2
25-44	3.8	3.7	26.7	18.0	40.0	17.5
45-59/64	2.9	0.0	55.2	10.3	0.0	19.1
60/65+	0.0	0.0	76.5	2.8	100.0	11.8
<b>All ages</b>	<b>2.5</b>	<b>2.2</b>	<b>26.8</b>	<b>12.1</b>	<b>31.3</b>	<b>14.3</b>
<b>All females</b>	<b>244</b>	<b>45</b>	<b>298</b>	<b>248</b>	<b>16</b>	<b>851</b>
<i>Male</i>						
16-24	4.0	0.0	3.0	4.8	9.1	3.8
25-44	1.7	0.0	14.4	9.2	29.4	11.0
45-59/64	0.0	0.0	30.4	0.0	33.3	14.8
60/65+	0.0	0.0	44.7	0.0	75.0	21.1
<b>All ages</b>	<b>1.4</b>	<b>0.0</b>	<b>18.9</b>	<b>5.6</b>	<b>28.6</b>	<b>11.8</b>
<b>All males</b>	<b>147</b>	<b>24</b>	<b>334</b>	<b>180</b>	<b>35</b>	<b>720</b>

## Appendix 4.1 Supporting information on levels of awareness of ICT

**Table A4.1: Awareness of ICT, by skill group**

ICT item	White respondents				People from BME groups			
	Higher skilled	Intermediate	Lower skilled	Total	Higher skilled	Intermediate	Lower skilled	Total
PCs	95.0	85.0	86.9	89.1	90.0	89.9	80.0	85.3
Mobile phone	100.0	99.1	98.4	99.1	99.5	99.6	96.3	98.1
WAP mobile phone	76.0	52.3	48.4	59.1	63.7	58.8	38.6	50.5
Combination mobile phone and organiser	71.1	51.4	46.7	56.6	63.2	62.2	37.9	51.1
PDA	86.8	65.4	50.0	67.4	70.1	64.8	44.3	56.4
Internet-connected games console	86.8	71.0	58.2	72.0	73.1	76.8	52.8	64.8
DVD player	93.4	84.1	80.3	86.0	83.6	85.4	69.9	77.8
MP3 player	58.7	42.1	31.1	44.0	55.2	46.8	31.1	41.4
Digital TV	97.5	92.5	90.2	93.4	93.5	93.3	81.2	87.7
None of these	0.0	0.0	0.0	0.0	0.5	0.4	2.0	1.1
<b>Persons</b>	<b>121</b>	<b>107</b>	<b>122</b>	<b>350</b>	<b>201</b>	<b>267</b>	<b>409</b>	<b>877</b>

**Table A4.2: Awareness of ICT, by weekly household income (percentage of persons in each income band)**

ICT item	White respondents				People from BME groups			
	Under £110	£110 to £170	£170 to £350	£350 and over	Under £110	£110 to £170	£170 to £350	£350 and over
PCs	83.6	83.9	92.3	92.0	72.2	80.5	84.4	90.7
Mobile phone	100.0	96.8	100.0	100.0	95.1	96.1	98.2	100.0
WAP mobile phone	44.3	43.5	51.9	86.0	36.1	35.1	44.5	67.2
Combination mobile phone and organiser	39.3	46.8	57.7	80.0	36.1	31.7	50.5	66.1
PDA	54.1	50.0	73.1	86.0	38.9	36.1	53.7	74.3
Internet-connected games console	62.3	61.3	76.9	88.0	50.7	48.3	62.4	74.9
DVD player	78.7	75.8	90.4	95.0	63.9	63.9	78.9	87.4
MP3 player	36.1	33.9	42.3	61.0	28.5	23.9	36.2	56.3
Digital TV	93.4	88.7	96.2	97.0	76.4	81.5	91.3	94.5
None of these	0.0	0.0	0.0	0.0	3.5	2.4	0.5	0.0
<b>Persons in income band</b>	<b>61</b>	<b>62</b>	<b>52</b>	<b>100</b>	<b>144</b>	<b>205</b>	<b>218</b>	<b>183</b>

**Table A4.3: Awareness of ICT, by household type (percentage of all in each type of household)**

ICT item	White respondents				People from minority ethnic groups			
	Mobile phone	PDA	MP3 player	PCs	Mobile phone	PDA	MP3 player	PCs
Single adult under 60	100.0	63.0	52.1	86.3	97.8	57.8	45.2	80.0
Single adult 60 or over	98.4	39.1	10.9	76.6	85.0	20.0	8.3	56.7
Two adults both under 60	100.0	81.7	60.0	95.0	99.1	57.7	41.4	82.0
Two adults at least one 60 or over	91.7	41.7	16.7	72.2	90.6	31.3	17.2	73.4
Three adults or more all 16 or over	100.0	75.0	46.9	96.9	99.3	58.9	44.0	84.4
1-parent family with child/ren, at least one under 16	100.0	71.4	54.8	90.5	98.4	46.7	28.6	83.5
2-parent family with child/ren, at least one under 16	100.0	81.7	54.9	94.4	97.7	52.1	38.9	84.3
Two or more families/couples living together	90.0	80.0	40.0	70.0	93.6	40.4	29.8	76.6
Other	100.0	100.0	50.0	100.0	100.0	37.5	12.5	87.5
No answer	100.0	0.0	0.0	100.0	100.0	81.8	54.5	81.8
<b>All household types</b>	<b>387</b>	<b>257</b>	<b>169</b>	<b>342</b>	<b>1157</b>	<b>599</b>	<b>427</b>	<b>969</b>

**Table A4.4: Presence of children and awareness of ICT (percentage of household type)**

ICT item	White respondents			People from minority ethnic groups		
	School age	all children	No children	School age	all children	No children
PCs	94.2	92.7	85.4	87.3	85.1	77.5
Mobile phone	100.0	99.4	98.4	98.5	98.1	95.7
WAP mobile phone	68.3	68.5	49.8	45.7	44.1	43.0
Combination mobile phone and organiser	69.2	68.5	48.6	43.4	43.0	43.2
PDA	75.0	76.4	61.3	50.6	49.6	49.2
Internet-connected games console	81.7	80.9	63.6	62.4	61.6	52.7
DVD player	94.2	94.4	78.3	76.2	74.4	68.0
MP3 player	54.2	52.8	39.1	35.5	34.6	36.3
Digital TV	100.0	99.4	88.5	89.1	88.5	79.5
None of these	0.0	0.0	0.4	0.3	0.6	3.1
<b>All persons</b>	<b>120</b>	<b>178</b>	<b>253</b>	<b>668</b>	<b>1029</b>	<b>488</b>



## Appendix 4.2 Logistic regression of probability of being aware of personal computers

The logistic regression model estimates each probability for a given respondent to the national survey, based on a number of their characteristics which the descriptive statistics suggest would influence their ICT awareness patterns. The coefficients on each of the variables measure the independent influence of each of these variables relative to a ‘missing’ category. A variable is regarded as having an important influence if the estimate of its coefficient is statistically significant at the 1 per cent level (i.e. there is a less than 1 per cent probability of this effect being due to random chance). Here the ‘missing’ category<sup>72</sup> in each of the logistic regression models (encompassed within the ‘constant’ term) is:

- a single White man, aged 16-24, working in a higher skilled occupation, earning over £350 per week and living in London.

The detailed results from the logistic regression model are presented in Table A4.5.

**Table A4.5: Logistic regression of probability of being aware of personal computers**

Variable	B	S.E.	Wald	Sig.	Exp(B)
Female	-0.2125	0.1630	1.7001	0.1923	0.8085
Mixed parentage	-0.2063	0.4786	0.1859	0.6664	0.8136
<i>South Asian</i>	<i>-1.1359</i>	<i>0.2156</i>	<i>27.7605</i>	<i>0.0000</i>	<i>0.3211</i>
Black	-0.4753	0.2140	4.9319	0.0264	0.6217
Chinese and other	-0.8847	0.4442	3.9664	0.0464	0.4128
aged 25 to 44	-0.4130	0.2392	2.9803	0.0843	0.6617
<i>aged 45 to 59/64</i>	<i>-0.7722</i>	<i>0.2749</i>	<i>7.8938</i>	<i>0.0050</i>	<i>0.4620</i>
<i>aged 60/64 plus</i>	<i>-0.9163</i>	<i>0.3538</i>	<i>6.7056</i>	<i>0.0096</i>	<i>0.4000</i>
single adult 60+	-0.2307	0.3683	0.3922	0.5311	0.7940
two adults both under 60	0.2207	0.3085	0.5118	0.4744	1.2469
two adults, one 60 plus	0.0468	0.3756	0.0155	0.9008	1.0479
3+ adults	0.4702	0.3258	2.0826	0.1490	1.6003
1 parent family child under 16	0.3859	0.2958	1.7014	0.1921	1.4709
2 parents, at least one child under 16	0.4256	0.2562	2.7596	0.0967	1.5305
2 or more couples living together	-0.2702	0.3972	0.4627	0.4964	0.7632
other household	0.3399	0.7030	0.2338	0.6287	1.4049
unemployed	-0.4286	0.2567	2.7869	0.0950	0.6514
student	0.1875	0.4064	0.2128	0.6446	1.2062
<i>economically inactive</i>	<i>-0.5921</i>	<i>0.2045</i>	<i>8.3791</i>	<i>0.0038</i>	<i>0.5532</i>
<i>intermediate skill</i>	<i>0.6298</i>	<i>0.2063</i>	<i>9.3172</i>	<i>0.0023</i>	<i>1.8773</i>
low skill	0.3202	0.1696	3.5644	0.0590	1.3774
under £110	-0.3391	0.2352	2.0784	0.1494	0.7124
£111-£170	-0.0151	0.2104	0.0052	0.9428	0.9850
£170-£350	0.0136	0.2140	0.0041	0.9492	1.0137
<i>Not in London</i>	<i>1.1772</i>	<i>0.1559</i>	<i>56.9863</i>	<i>0.0000</i>	<i>3.2451</i>
Constant	2.0605	0.3627	32.2658	0.0000	7.8499

### Goodness of fit statistics

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1291.091	0.1008	0.167495

### Note:

Coefficients which are statistically significant at the 1 per cent level are shown in italics.

<sup>72</sup> Sometimes referred to as the ‘base case’.

## Appendix 5.1 Supporting information on ownership of ICT

**Table A5.1: Age of home PC, by ethnic group (percentage of each ethnic group)**

Age of PC	White	Mixed	South Asian	Black	Chinese & Other	Total
Less than a year old	23.9	21.4	21.8	22.8	38.1	23.1
Over 1 year but less than 3 years old	44.0	46.4	49.4	48.0	42.9	47.4
Over 3 years but less than 5 years old	23.1	14.3	17.3	17.9	14.3	18.6
5 years old or more	9.0	17.9	11.5	11.4	4.8	10.9
<b>Responses</b>	<b>134</b>	<b>28</b>	<b>243</b>	<b>123</b>	<b>21</b>	<b>549</b>

**Table A5.2: Percentage of age group owning an ICT item**

	Percentage of each age group			
	16-24	25-44	45-59/64	60/65+
PCs	49.0	42.0	32.0	11.7
Mobile phone	85.3	79.3	59.1	35.1
WAP mobile phone	24.2	12.3	6.6	0.0
Combination mobile phone and organiser	12.1	5.1	4.2	1.4
PDA	10.5	11.2	6.6	0.5
Internet-connected games console	24.8	16.3	8.9	2.3
DVD player	35.9	26.1	18.1	5.0
MP3 player	10.1	7.4	3.9	0.0
Digital TV	48.4	48.1	36.3	19.8
None of these	4.2	9.4	20.8	46.8
Any of these	94.4	89.1	74.9	47.3
<b>All respondents</b>	<b>306</b>	<b>786</b>	<b>259</b>	<b>222</b>

**Table A5.3: Ownership of ICT items, by skill group**

ICT item	White respondents				People from BME groups			
	Higher skilled	Intermediate	Lower skilled	Total	Higher skilled	Intermediate	Lower skilled	Total
PCs	55.4	31.8	30.3	39.4	52.0	42.9	31.9	39.9
Mobile phone	76.9	68.2	61.5	68.9	84.0	83.1	66.8	75.8
WAP mobile phone	16.5	15.0	9.8	13.7	18.5	15.4	9.5	13.4
Combination mobile phone and organiser	13.2	4.7	4.1	7.4	11.5	6.0	3.2	6.0
PDA	18.2	8.4	3.3	10.0	19.5	10.9	5.7	10.5
Internet-connected games console	26.4	21.5	13.1	20.3	20.5	14.3	9.5	13.5
DVD player	33.9	25.2	21.3	26.9	35.0	30.1	17.5	25.4
MP3 player	11.6	5.6	2.5	6.6	11.5	8.6	4.2	7.3
Digital TV	43.0	42.1	36.9	40.6	53.5	51.9	37.4	45.6
None of these	6.6	20.6	27.9	18.3	5.0	6.8	21.4	13.1
<b>Persons</b>	<b>121</b>	<b>107</b>	<b>122</b>	<b>350</b>	<b>200</b>	<b>266</b>	<b>401</b>	<b>867</b>

## Appendix 5.2 Logistic regression of probability of owning a personal computer

The logistic regression model estimates each probability for a given respondent to the national survey, based on a number of their characteristics which the descriptive statistics suggest would influence their ICT ownership patterns. The coefficients on each of the variables measure the independent influence of each of these variables relative to a ‘missing’ category (as outlined in Appendix 4.2). The detailed results from the logistic regression model are presented in Table A5.4.

**Table A5.4: Logistic regression of probability of owning a home PC**

Variable	B	S.E.	Wald	Sig.	Exp(B)
Female	-0.3085	0.1327	5.4074	0.0201	0.7345
Mixed parentage	-0.1708	0.2945	0.3364	0.5619	0.8430
South Asian	-0.3130	0.1595	3.8533	0.0496	0.7312
<i>Black</i>	<i>-0.4820</i>	<i>0.1725</i>	<i>7.8049</i>	<i>0.0052</i>	<i>0.6176</i>
Chinese and other	-0.4667	0.3419	1.8634	0.1722	0.6270
aged 25 to 44	0.0077	0.1576	0.0024	0.9611	1.0077
aged 45 to 59/64	-0.1617	0.2083	0.6031	0.4374	0.8507
aged 60/64 plus	-0.5692	0.3287	2.9988	0.0833	0.5660
single adult 60+	-0.9052	0.5079	3.1763	0.0747	0.4045
<i>two adults both under 60</i>	<i>0.6798</i>	<i>0.2354</i>	<i>8.3392</i>	<i>0.0039</i>	<i>1.9734</i>
two adults, one 60 plus	0.1832	0.3694	0.2460	0.6199	1.2011
<i>3+ adults</i>	<i>1.0541</i>	<i>0.2456</i>	<i>18.4125</i>	<i>0.0000</i>	<i>2.8693</i>
<i>1 parent family child under 16</i>	<i>0.9456</i>	<i>0.2405</i>	<i>15.4649</i>	<i>0.0001</i>	<i>2.5744</i>
<i>2 parents, at least one child under 16</i>	<i>0.8473</i>	<i>0.2035</i>	<i>17.3288</i>	<i>0.0000</i>	<i>2.3334</i>
2 or more couples living together	0.6644	0.3396	3.8265	0.0504	1.9433
other household	0.7022	0.4930	2.0286	0.1544	2.0181
<i>unemployed</i>	<i>-1.0517</i>	<i>0.2033</i>	<i>26.7600</i>	<i>0.0000</i>	<i>0.3494</i>
student	0.4160	0.2469	2.8385	0.0920	1.5158
<i>economically inactive</i>	<i>-0.8270</i>	<i>0.1592</i>	<i>26.9984</i>	<i>0.0000</i>	<i>0.4374</i>
intermediate skill	-0.0299	0.1510	0.0393	0.8428	0.9705
low skill	-0.2869	0.1418	4.0946	0.0430	0.7506
<i>under £110</i>	<i>-0.8170</i>	<i>0.2366</i>	<i>11.9200</i>	<i>0.0006</i>	<i>0.4417</i>
<i>£111-£170</i>	<i>-0.6876</i>	<i>0.1812</i>	<i>14.4008</i>	<i>0.0001</i>	<i>0.5028</i>
£170-£350	-0.3128	0.1569	3.9774	0.0461	0.7314
Not in London	0.2079	0.1333	2.4333	0.1188	1.2311
Constant	-0.0442	0.2716	0.0265	0.8708	0.9568

### Goodness-of-fit statistics

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1790.838959	0.173921	0.237236

### Note:

Coefficients which are statistically significant at the 1 per cent level are shown in italics.

### Appendix 5.3 Logistic regression of probability of having accessed the Internet from home

The logistic regression model estimates each probability for a given respondent to the national survey, based on a number of their characteristics which the descriptive statistics suggest would influence their Internet access patterns. The coefficients on each of the variables measure the independent influence of each of these variables relative to a ‘missing’ category (as outlined in Appendix 4.2). The detailed results from the logistic regression model are presented in Table A5.5.

**Table A5.5: Logistic regression of probability of having accessed the Internet from home**

Variable	B	S.E.	Wald	Sig.	Exp(B)
Female	-0.3403	0.1468	5.3778	0.0204	0.7115
Mixed parentage	-0.0801	0.3081	0.0676	0.7948	0.9230
<i>South Asian</i>	<i>-0.7064</i>	<i>0.1746</i>	<i>16.3661</i>	<i>0.0001</i>	<i>0.4934</i>
<i>Black</i>	<i>-0.6869</i>	<i>0.1903</i>	<i>13.0320</i>	<i>0.0003</i>	<i>0.5031</i>
Chinese and other	-0.4844	0.3607	1.8035	0.1793	0.6161
aged 25 to 44	-0.1993	0.1653	1.4536	0.2279	0.8193
<i>aged 45 to 59/64</i>	<i>-0.7397</i>	<i>0.2358</i>	<i>9.8360</i>	<i>0.0017</i>	<i>0.4773</i>
<i>aged 60/64 plus</i>	<i>-2.2975</i>	<i>0.5579</i>	<i>16.9602</i>	<i>0.0000</i>	<i>0.1005</i>
single adult 60+	-0.2234	0.6949	0.1034	0.7478	0.7998
two adults both under 60	0.3315	0.2527	1.7203	0.1897	1.3930
two adults, one 60 plus	0.2918	0.4749	0.3776	0.5389	1.3388
<i>3+ adults</i>	<i>0.7197</i>	<i>0.2624</i>	<i>7.5196</i>	<i>0.0061</i>	<i>2.0538</i>
1 parent family child under 16	0.5588	0.2614	4.5688	0.0326	1.7485
2 parents, at least one child under 16	0.5140	0.2179	5.5622	0.0184	1.6719
2 or more couples living together	-0.3371	0.4293	0.6167	0.4323	0.7138
other household	0.0713	0.5803	0.0151	0.9023	1.0739
<i>Unemployed</i>	<i>-0.8292</i>	<i>0.2227</i>	<i>13.8647</i>	<i>0.0002</i>	<i>0.4364</i>
Student	0.3024	0.2466	1.5041	0.2200	1.3531
<i>Inactive</i>	<i>-1.0416</i>	<i>0.1870</i>	<i>31.0432</i>	<i>0.0000</i>	<i>0.3529</i>
Intermediate skill	0.1473	0.1626	0.8205	0.3650	1.1587
<i>low skill</i>	<i>-0.5350</i>	<i>0.1631</i>	<i>10.7656</i>	<i>0.0010</i>	<i>0.5857</i>
<i>under £110</i>	<i>-0.8744</i>	<i>0.2842</i>	<i>9.4681</i>	<i>0.0021</i>	<i>0.4171</i>
£111-£170	-0.5532	0.2129	6.7519	0.0094	0.5751
£170-£350	-0.1925	0.1733	1.2333	0.2668	0.8249
Not in London	0.0619	0.1472	0.1772	0.6738	1.0639
Constant	0.2346	0.2905	0.6521	0.4194	1.2644

#### *Goodness of fit statistics*

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1494.71	0.178	0.262

## Appendix 6.1 Supporting information on experience of using ICT

**Table A6.1: Use of PCs, the Internet and intranets (percentages by gender and ethnic group)**

Ever used	Female	Male	White	Mixed parentage	South Asian	Black	Chinese & Other	<i>All ethnic groups</i>
a PC at home	28.9	36.9	36.0	39.1	31.0	30.2	40.4	32.7
a PC at work	22.1	24.9	28.8	29.0	19.5	24.0	17.3	23.4
a PC at place of study	18.9	19.3	16.3	24.6	17.9	21.4	30.8	19.2
a PC at someone elses home	11.3	16.2	16.6	18.8	10.7	13.1	21.2	13.5
a PC somewhere else	6.8	9.8	8.9	17.4	4.2	9.9	23.1	8.1
<b>All used a PC (per cent)</b>	<b>46.6</b>	<b>52.9</b>	<b>52.3</b>	<b>63.8</b>	<b>45.1</b>	<b>49.1</b>	<b>69.2</b>	<b>49.6</b>
the Internet at home	23.6	30.8	31.1	37.7	26.1	22.1	34.6	27.0
the Internet at work	14.1	18.6	20.7	13.0	14.9	14.5	15.4	16.2
the Internet at place of study	12.9	16.0	11.7	17.4	14.2	15.2	26.9	14.4
the Internet at someone elses home	9.5	14.0	14.5	18.8	7.9	12.0	21.2	11.6
the Internet somewhere else	6.6	9.1	7.7	14.5	4.4	10.8	15.4	7.8
<b>All used the Internet (%)</b>	<b>38.2</b>	<b>46.0</b>	<b>45.2</b>	<b>60.9</b>	<b>38.1</b>	<b>40.1</b>	<b>53.8</b>	<b>41.9</b>
an intranet at home	0.9	2.5	2.6	2.9	1.4	0.9	1.9	1.6
an intranet at work	6.9	7.2	13.0	8.7	4.6	4.8	7.7	7.0
an intranet at place of study	0.7	3.0	1.8	2.9	1.6	0.9	9.6	1.8
an intranet at someone elses home	0.2	0.6	0.8	1.4	0.2	0.2	0.0	0.4
an intranet somewhere else	0.3	0.8	0.8	0.0	0.3	0.7	1.9	0.6
<b>All used an intranet (%)</b>	<b>9.5</b>	<b>13.1</b>	<b>16.1</b>	<b>15.9</b>	<b>8.5</b>	<b>8.5</b>	<b>23.1</b>	<b>11.2</b>
<i>All persons</i>	<i>859</i>	<i>724</i>	<i>392</i>	<i>69</i>	<i>636</i>	<i>434</i>	<i>52</i>	<i>1583</i>

**Table A6.2: Use of PCs, the Internet and intranets (percentages by economic position)**

Ever used	White respondents				People from BME groups			
	In work	Unemployed	Student	Inactive	In work	Unemployed	Student	Inactive
a PC at home	56.8	29.4	71.4	15.9	44.0	24.7	66.0	13.2
a PC at work	56.2	8.8	42.9	7.1	39.1	16.2	7.4	7.3
a PC at place of study	21.6	20.6	78.6	6.0	18.7	21.4	75.5	9.7
a PC at someone else's home	22.8	8.8	57.1	9.3	15.3	18.8	25.5	4.6
a PC somewhere else	13.0	2.9	28.6	4.9	9.8	9.7	18.1	3.1
<b>All used a PC</b>	<b>77.8</b>	<b>50.0</b>	<b>92.9</b>	<b>26.9</b>	<b>63.3</b>	<b>46.1</b>	<b>87.2</b>	<b>25.6</b>
the Internet at home	52.5	20.6	64.3	11.5	36.9	19.5	51.1	10.4
the Internet at work	40.7	5.9	35.7	4.4	29.1	9.1	6.4	2.6
the Internet at place of study	16.0	11.8	64.3	3.8	13.8	17.5	68.1	5.1
the Internet at someone else's home	20.4	8.8	57.1	7.1	13.4	15.6	23.4	3.1
the Internet somewhere else	11.1	0.0	21.4	4.9	10.6	11.0	19.1	1.3
<b>All used the Internet</b>	<b>71.0</b>	<b>38.2</b>	<b>92.9</b>	<b>19.8</b>	<b>55.6</b>	<b>40.9</b>	<b>79.8</b>	<b>16.6</b>
an intranet at home	5.6	0.0	7.1	0.0	2.0	1.9	1.1	0.4
an intranet at work	29.6	0.0	21.4	0.0	10.4	3.2	2.1	0.4
an intranet at place of study	1.9	0.0	28.6	0.0	1.8	1.3	9.6	0.2
an intranet at someone else's home	1.9	0.0	0.0	0.0	0.0	1.9	0.0	0.0
an intranet somewhere else	1.9	0.0	0.0	0.0	0.4	2.6	0.0	0.0
<b>All used an intranet</b>	<b>32.7</b>	<b>2.9</b>	<b>50.0</b>	<b>1.1</b>	<b>16.1</b>	<b>8.4</b>	<b>16.0</b>	<b>1.5</b>
<i>All persons</i>	<i>162</i>	<i>34</i>	<i>14</i>	<i>182</i>	<i>491</i>	<i>154</i>	<i>94</i>	<i>453</i>

**Table A6.3: Use of PCs, the Internet and intranets (percentages by age group)**

Ever used	White respondents				People from BME groups			
	Aged 16-24	Aged 25-44	Aged45-59/64	Aged 60/65+	Aged 16-24	Aged 25-44	Aged45-59/64	Aged 60/65+
A PC at home	52.5	52.1	27.0	5.3	48.2	33.7	18.9	7.9
a PC at work	42.4	44.8	14.9	4.2	26.3	25.4	13.0	7.1
a PC at place of study	47.5	20.2	2.7	1.1	47.0	18.0	4.3	2.4
a PC at someone elses home	35.6	22.7	6.8	2.1	25.9	12.0	4.3	0.0
a PC somewhere else	20.3	12.9	1.4	1.1	14.2	7.9	3.8	1.6
<b>All used a PC</b>	<b>84.7</b>	<b>72.4</b>	<b>37.8</b>	<b>9.5</b>	<b>76.5</b>	<b>51.2</b>	<b>27.0</b>	<b>15.7</b>
the Internet at home	42.4	48.5	24.3	0.0	41.7	26.8	15.1	4.7
the Internet at work	27.1	33.7	12.2	1.1	19.4	17.2	9.7	0.8
the Internet at place of study	35.6	14.1	2.7	0.0	39.7	12.7	2.2	0.0
the Internet at someone elses home	30.5	20.9	6.8	0.0	21.1	10.8	2.7	0.0
the Internet somewhere else	16.9	10.4	4.1	0.0	15.4	7.7	3.2	0.0
<b>All used the Internet</b>	<b>71.2</b>	<b>67.5</b>	<b>32.4</b>	<b>1.1</b>	<b>70.0</b>	<b>42.5</b>	<b>21.1</b>	<b>5.5</b>
an intranet at home	5.1	3.7	1.4	0.0	2.0	1.3	1.6	0.0
an intranet at work	20.3	21.5	5.4	0.0	6.5	6.4	1.6	0.8
an intranet at place of study	8.5	1.2	0.0	0.0	5.7	1.1	0.0	0.0
an intranet at someone elses home	1.7	1.2	0.0	0.0	0.0	0.5	0.0	0.0
an intranet somewhere else	1.7	1.2	0.0	0.0	0.0	1.0	0.0	0.0
<b>All used an intranet</b>	<b>30.5</b>	<b>23.9</b>	<b>8.1</b>	<b>0.0</b>	<b>15.8</b>	<b>10.4</b>	<b>4.3</b>	<b>1.6</b>
<i>All persons</i>	<i>59</i>	<i>163</i>	<i>74</i>	<i>95</i>	<i>247</i>	<i>623</i>	<i>185</i>	<i>127</i>

## Appendix 6.2: Logistic regression of probability of having used a personal computer

The logistic regression model estimates each probability for a given respondent to the national survey, based on a number of their characteristics which the descriptive statistics suggest would influence their ICT usage patterns. The coefficients on each of the variables measure the independent influence of each of these variables relative to a ‘missing’ category (as outlined in Appendix 4.2). The detailed results from the logistic regression model are presented in Table A6.4.

**Table A6.4: Logistic regression of probability of having used a PC**

Variable	B	S.E.	Wald	Sig.	Exp(B)
Female	-0.3252	0.1411	5.3143	0.0212	0.7224
Mixed parentage	-0.0420	0.3216	0.0171	0.8961	0.9589
<i>South Asian</i>	<i>-1.0338</i>	<i>0.1737</i>	<i>35.4301</i>	<i>0.0000</i>	<i>0.3556</i>
Black	-0.3303	0.1761	3.5172	0.0607	0.7187
Chinese and other	0.0864	0.3889	0.0493	0.8242	1.0902
<i>aged 25 to 44</i>	<i>-0.7590</i>	<i>0.1741</i>	<i>19.0135</i>	<i>0.0000</i>	<i>0.4681</i>
<i>aged 45 to 59/64</i>	<i>-1.6908</i>	<i>0.2219</i>	<i>58.0359</i>	<i>0.0000</i>	<i>0.1844</i>
<i>aged 60/64 plus</i>	<i>-2.2043</i>	<i>0.3466</i>	<i>40.4468</i>	<i>0.0000</i>	<i>0.1103</i>
single adult 60+	-0.5206	0.4213	1.5266	0.2166	0.5942
two adults both under 60	0.2229	0.2442	0.8330	0.3614	1.2497
two adults, one 60 plus	0.2505	0.3679	0.4637	0.4959	1.2847
3+ adults	0.4739	0.2652	3.1934	0.0739	1.6063
1 parent family child under 16	0.0734	0.2359	0.0967	0.7558	1.0761
2 parents, at least one child under 16	0.3428	0.2056	2.7815	0.0954	1.4089
2 or more couples living together	-0.1378	0.3608	0.1458	0.7025	0.8713
other household	0.4952	0.5484	0.8153	0.3665	1.6408
<i>unemployed</i>	<i>-0.9570</i>	<i>0.1958</i>	<i>23.8913</i>	<i>0.0000</i>	<i>0.3840</i>
student	0.8004	0.3366	5.6559	0.0174	2.2264
<i>economically inactive</i>	<i>-1.1928</i>	<i>0.1636</i>	<i>53.1753</i>	<i>0.0000</i>	<i>0.3034</i>
<i>intermediate skill</i>	<i>0.6761</i>	<i>0.1609</i>	<i>17.6567</i>	<i>0.0000</i>	<i>1.9663</i>
<i>low skill</i>	<i>-0.4052</i>	<i>0.1457</i>	<i>7.7372</i>	<i>0.0054</i>	<i>0.6668</i>
under £110	-0.3036	0.2194	1.9150	0.1664	0.7382
£111-£170	-0.3542	0.1819	3.7918	0.0515	0.7017
£170-£350	-0.3386	0.1671	4.1065	0.0427	0.7128
Not in London	0.2332	0.1381	2.8507	0.0913	1.2627
Constant	1.9425	0.2940	43.6579	0.0000	6.9763

### Goodness of fit statistics

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1670.56702	0.28267	0.376905

### Note:

Coefficients which are statistically significant at the 1 per cent level are shown in italics.



### Appendix 6.3 Logistic regressions of probability of having used the Internet

The logistic regression model estimates each probability for a given respondent to the national survey, based on a number of their characteristics which the descriptive statistics suggest would influence their ICT usage patterns. The coefficients on each of the variables measure the independent influence of each of these variables relative to a ‘missing’ category (as outlined in Appendix 4.2). The detailed results from the logistic regression models are presented in Tables A6.5 and A6.6.

**Table A6.5: Logistic regression of probability of having used the Internet**

Variable	B	S.E.	Wald	Sig.	Exp(B)
Female	-0.4674	0.2008	5.4162	0.0200	0.6267
Mixed parentage	0.5303	0.4454	1.4177	0.2338	1.6995
South Asian	-0.4963	0.2442	4.1298	0.0421	0.6088
Black	-0.4504	0.2535	3.1556	0.0757	0.6374
Chinese and other	-0.9269	0.4726	3.8461	0.0499	0.3958
aged 25 to 44	-0.3594	0.2288	2.4661	0.1163	0.6981
<i>aged 45 to 59/64</i>	<i>-0.8929</i>	<i>0.3178</i>	<i>7.8934</i>	<i>0.0050</i>	<i>0.4095</i>
<i>aged 60/64 plus</i>	<i>-2.7045</i>	<i>0.5698</i>	<i>22.5258</i>	<i>0.0000</i>	<i>0.0669</i>
single adult 60+	-0.0504	0.7351	0.0047	0.9454	0.9509
two adults both under 60	0.5018	0.3484	2.0738	0.1498	1.6516
two adults, one 60 plus	0.5516	0.6077	0.8239	0.3640	1.7361
3+ adults	0.2801	0.3679	0.5796	0.4465	1.3232
1 parent family child under 16	0.5410	0.3437	2.4779	0.1155	1.7177
2 parents, at least one child under 16	0.0714	0.2885	0.0613	0.8044	1.0741
2 or more couples living together	0.1133	0.5311	0.0455	0.8311	1.1200
other household	-0.0117	0.7547	0.0002	0.9876	0.9884
Unemployed	-0.1998	0.2856	0.4892	0.4843	0.8189
Student	0.4916	0.3836	1.6425	0.2000	1.6350
<i>Inactive</i>	<i>-0.6981</i>	<i>0.2365</i>	<i>8.7140</i>	<i>0.0032</i>	<i>0.4975</i>
Intermediate skill	0.1061	0.2251	0.2220	0.6375	1.1119
low skill	-0.5041	0.2132	5.5888	0.0181	0.6040
under £110	-0.6768	0.3268	4.2899	0.0383	0.5083
£111-£170	-0.5594	0.2673	4.3794	0.0364	0.5715
£170-£350	-0.1055	0.2405	0.1923	0.6610	0.8999
Not in London	-0.1151	0.1988	0.3352	0.5626	0.8913
<i>Ever used a PC</i>	<i>4.1945</i>	<i>0.2162</i>	<i>376.3581</i>	<i>0.0000</i>	<i>66.3194</i>
<i>Constant</i>	<i>-1.4458</i>	<i>0.4388</i>	<i>10.8543</i>	<i>0.0010</i>	<i>0.2356</i>

**Goodness of fit statistics**

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
916.9	0.542	0.729

**Table A6.6: Logistic regression of probability of having used the Internet at home**

Variable	B	S.E.	Wald	Sig.	Exp(B)
Female	-0.3067	0.1676	3.3486	0.0673	0.7359
Mixed parentage	0.1689	0.3509	0.2317	0.6303	1.1840
South Asian	-0.2360	0.2040	1.3377	0.2474	0.7898
<i>Black</i>	<i>-0.6195</i>	<i>0.2150</i>	<i>8.3059</i>	<i>0.0040</i>	<i>0.5382</i>
Chinese and other	-0.6407	0.3947	2.6347	0.1046	0.5269
aged 25 to 44	0.1297	0.1893	0.4696	0.4932	1.1385
aged 45 to 59/64	0.1786	0.2884	0.3836	0.5357	1.1956
aged 60/64 plus	-1.0301	0.5633	3.3438	0.0675	0.3570
Single adult 60+	-0.1886	0.7932	0.0565	0.8120	0.8281
two adults both under 60	0.3960	0.2862	1.9143	0.1665	1.4858
two adults, one 60 plus	0.1817	0.5401	0.1132	0.7366	1.1993
3+ adults	0.7489	0.3019	6.1539	0.0131	2.1146
1 parent family child under 16	0.7525	0.3020	6.2079	0.0127	2.1222
2 parents, at least one child under 16	0.5536	0.2476	5.0012	0.0253	1.7395
2 or more couples living together	-0.2983	0.4860	0.3768	0.5393	0.7421
other household	-0.2739	0.6314	0.1882	0.6645	0.7604
Unemployed	-0.4842	0.2595	3.4799	0.0621	0.6162
Student	0.2274	0.2943	0.5968	0.4398	1.2553
Inactive	-0.3920	0.2213	3.1389	0.0764	0.6757
Intermediate skill	-0.1342	0.1859	0.5213	0.4703	0.8744
low skill	-0.4437	0.1923	5.3223	0.0211	0.6416
under £110	-0.7384	0.3071	5.7807	0.0162	0.4779
£111-£170	-0.4663	0.2418	3.7186	0.0538	0.6273
£170-£350	0.1286	0.2025	0.4033	0.5254	1.1372
Not in London	-0.0220	0.1704	0.0166	0.8974	0.9783
<i>Ever used a PC</i>	<i>3.3695</i>	<i>0.2727</i>	<i>152.6986</i>	<i>0.0000</i>	<i>29.0651</i>
Used Internet at work	0.4038	0.1882	4.6021	0.0319	1.4974
Used Internet at place of study	-0.0110	0.2042	0.0029	0.9569	0.9890
<i>Used Internet at someone else's house</i>	<i>0.6001</i>	<i>0.2093</i>	<i>8.2200</i>	<i>0.0041</i>	<i>1.8224</i>
<i>Constant</i>	<i>-3.2281</i>	<i>0.4320</i>	<i>55.8444</i>	<i>0.0000</i>	<i>0.0396</i>

**Goodness of fit statistics**

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1138.9	0.361	0.524

**Appendix 7.1 Details of use of home PCs for gathering information of relevance to ethnic/religious background and for accessing information from government / service providers**

**Table A7.1: Use of PC to communicate with government and to obtain information relevant to ethnic/religious background by ethnic group (percentage of ethnic groups)**

Used household PC for	White	Mixed	South Asian	Black	Chinese & Other	All
e-mail statutory service providers	16.3	0.0	12.4	12.1	15.0	12.9
Access statutory service provider websites	34.1	20.8	20.2	25.8	15.0	25.2
Obtain info related to your ethnic or religious background	9.6	29.2	22.3	20.2	15.0	18.3
Used household PC for none of these	60.7	58.3	64.2	65.3	70.0	63.5
<b>All responses</b>	<b>135</b>	<b>24</b>	<b>193</b>	<b>124</b>	<b>20</b>	<b>496</b>
<i>Use PC once or more a week for (percentage of those who use a home PC for a given purpose)</i>						
e-mail statutory service provider	22.7	-	54.2	40.0	33.3	39.1
access statutory service provider web site	15.2	0.0	30.8	34.4	33.3	24.8
obtain info. Related to your ethnic or religious background	30.8	28.6	32.6	36.0	33.3	33.0

**Table A7.2: Use of PC to communicate with government and obtain information of relevance to ethnic/religious background, by age and broad ethnic group (percentage of age and ethnic groups)**

Use household PC to	White					BME groups				
	16-24	25-44	45-59/64	60/65+	All ages	16-24	25-44	45-59/64	60/65+	All ages
e-mail statutory service providers	9.7	17.1	26.3	0.0	16.3	8.5	15.4	3.0	0.0	11.7
Access statutory service provider websites	29.0	36.6	36.8	0.0	34.1	14.5	27.4	12.1	22.2	21.7
Obtain info related to your ethnic or religious background	6.5	9.8	15.8	0.0	9.6	28.2	18.4	21.2	0.0	21.4
Used household PC for none of these	71.0	56.1	57.9	100.0	60.7	65.8	61.7	75.8	77.8	64.7
<b>All responses</b>	<b>31</b>	<b>82</b>	<b>19</b>	<b>3</b>	<b>135</b>	<b>117</b>	<b>201</b>	<b>33</b>	<b>9</b>	<b>360</b>
<i>Use PC once or more a week for (percentage of those who use a home PC for a given purpose)</i>										
e-mail statutory service provider	0.0	21.4	40.0	-	22.7	60.0	41.9	100.0	-	47.6
access statutory service provider web site	11.1	13.3	28.6	-	15.2	23.5	34.5	25.0	0.0	30.8
obtain info. related to your ethnic or religious background	0.0	37.5	33.3	-	30.8	36.4	21.6	71.4	-	32.5

**Table A7.3: Use of PC to communicate with government and obtain information of relevance to ethnic/religious background, by employment status and broad ethnic group (percentage of employment status and ethnic groups)**

Use household PC to	White					BME groups				
	In work	Unempl oyed	Student	Inactive	<i>All</i>	In work	Unempl oyed	Student	Inactive	<i>All</i>
e-mail statutory service providers	18.0	10.0	10.0	15.4	<i>16.3</i>	13.9	5.9	9.8	8.8	<i>11.6</i>
Access statutory service provider websites	38.2	10.0	50.0	23.1	<i>34.1</i>	23.0	20.6	21.3	19.3	<i>21.9</i>
Obtain info related to your ethnic or religious background	10.1	10.0	0.0	11.5	<i>9.6</i>	24.4	17.6	23.0	12.3	<i>21.6</i>
Used household PC for none of these	58.4	70.0	50.0	69.2	<i>60.7</i>	61.2	70.6	65.6	71.9	<i>64.5</i>
<b>All responses</b>	<b>89</b>	<b>10</b>	<b>10</b>	<b>26</b>	<b><i>135</i></b>	<b>209</b>	<b>34</b>	<b>61</b>	<b>57</b>	<b><i>361</i></b>
<i>Use PC once or more a week for (percentage of those who use a home PC for a given purpose)</i>										
e-mail statutory service provider	25.0	0.0	0.0	25.0	<i>22.7</i>	48.3	50.0	50.0	40.0	<i>47.6</i>
Access statutory service provider web site	20.6	0.0	0.0	0.0	<i>15.2</i>	41.7	14.3	15.4	9.1	<i>30.4</i>
Obtain info. related to your ethnic or religious background	33.3	0.0	-	33.3	<i>30.8</i>	29.4	33.3	28.6	71.4	<i>33.3</i>

## Appendix 7.2 Supporting information on use of PCs at home

**Table A7.4: Purposes of home PC is put to, by economic situation and White/BME group breakdown (percentages of each economic activity and broad ethnic group)**

Use home PC for	White					BME group				
	In work	Unempl oyed	Student	Inactive	All	In work	Unempl oyed	Student	Inactive	All
Work related activities	55.6	10.0	50.0	12.0	43.7	48.3	34.3	19.4	8.5	35.6
Own study or learning	58.9	50.0	90.0	60.0	60.7	68.4	77.1	95.2	62.7	72.9
Help children with learning or homework	37.8	20.0	10.0	52.0	37.0	40.7	37.1	14.5	44.1	36.4
Leisure	70.0	50.0	70.0	68.0	68.1	50.2	51.4	51.6	49.2	50.4
E-mails	70.0	40.0	70.0	60.0	65.9	60.3	45.7	62.9	49.2	57.5
Buying goods and services	52.2	30.0	40.0	12.0	42.2	28.7	34.3	19.4	15.3	25.5
Internet or web surfing	78.9	50.0	70.0	56.0	71.9	57.9	57.1	62.9	44.1	56.4
Correspondence	60.0	20.0	60.0	32.0	51.9	40.7	34.3	27.4	13.6	33.4
Household finances	47.8	20.0	10.0	8.0	35.6	15.8	17.1	3.2	13.6	13.4
Other	0.0	0.0	0.0	4.0	0.7	1.9	2.9	0.0	1.7	1.6
None of these	2.2	0.0	0.0	0.0	1.5	1.4	0.0	0.0	1.7	1.1
<b>All responses</b>	<b>90</b>	<b>10</b>	<b>10</b>	<b>25</b>	<b>135</b>	<b>209</b>	<b>35</b>	<b>62</b>	<b>59</b>	<b>365</b>
<i>Use PC once or more a week for (percentage of those who use a home PC for a given purpose)</i>										
Work related activities	72.0	0.0	80.0	66.7	71.2	65.3	66.7	58.3	60.0	64.6
Own study/learning	45.3	80.0	66.7	73.3	54.9	62.2	66.7	88.1	54.1	67.3
Help children with learning/homework	58.8	50.0	0.0	69.2	60.0	57.6	84.6	55.6	69.2	62.4
Leisure	63.5	80.0	85.7	70.6	67.4	62.9	61.1	65.6	58.6	62.5
E-mails	79.4	75.0	85.7	73.3	78.7	77.0	68.8	82.1	65.5	75.7
Buying goods and services	34.0	33.3	50.0	66.7	36.8	35.0	50.0	33.3	11.1	34.4
Internet/web surfing	78.9	60.0	100.0	78.6	79.4	76.9	80.0	82.1	76.9	78.2
Correspondence	53.7	50.0	66.7	75.0	57.1	60.0	66.7	76.5	62.5	63.1
Household finances	65.1	50.0	100.0	50.0	64.6	48.5	33.3	100.0	25.0	44.9
Other	-	-	-	0.0	0.0	50.0	0.0	-	100.0	50.0
<b>All respondents</b>	<b>97.8</b>	<b>100.0</b>	<b>100.0</b>	<b>96.0</b>	<b>97.8</b>	<b>96.2</b>	<b>100.0</b>	<b>98.4</b>	<b>98.3</b>	<b>97.3</b>

**Table A7.5: Purposes home PC is put to, by skill group and White/BME group breakdown (percentages of each skill group and broad ethnic group)**

Use household PC for	White				BME groups			
	Higher skilled	Intermediate	Lower skilled	All occupations	Higher skilled	Intermediate	Lower skilled	All occupations
Work related activities	59.0	36.1	23.3	44.1	63.3	32.7	29.0	41.0
Own study or learning	65.6	66.7	36.7	59.1	73.3	69.1	67.7	70.0
Help children with learning or homework	36.1	44.4	30.0	37.0	43.3	38.2	41.9	41.0
Leisure	67.2	75.0	60.0	67.7	55.6	51.8	50.5	52.6
E-mails	72.1	66.7	50.0	65.4	68.9	59.1	49.5	59.0
Buying goods and services	52.5	41.7	16.7	40.9	34.4	25.5	24.7	28.0
Internet or web surfing	77.0	77.8	53.3	71.7	70.0	54.5	47.3	57.0
Correspondence	60.7	55.6	33.3	52.8	51.1	31.8	30.1	37.2
Household finances	45.9	36.1	23.3	37.8	22.2	14.5	10.8	15.7
Other	0.0	0.0	3.3	0.8	2.2	1.8	1.1	1.7
None of these	0.0	0.0	6.7	1.6	1.1	0.9	2.2	1.4
<b>All responses</b>	<b>61</b>	<b>36</b>	<b>30</b>	<b>127</b>	<b>90</b>	<b>110</b>	<b>93</b>	<b>293</b>
<i>Use PC once or more a week for (percentage of those who use a home PC for a given purpose)</i>								
Work related activities	75.0	76.9	28.6	69.6	71.9	52.8	74.1	66.7
Own study/learning	52.5	50.0	54.5	52.0	57.6	61.8	69.8	62.9
Help children with learning/homework	50.0	75.0	66.7	61.7	64.1	59.5	69.2	64.2
Leisure	61.0	74.1	61.1	65.1	58.0	59.6	72.3	63.0
E-mails	79.5	70.8	86.7	78.3	80.6	76.9	73.9	77.5
Buying goods and services	40.6	26.7	40.0	36.5	32.3	25.0	52.2	35.4
Internet/web surfing	80.9	78.6	68.8	78.0	76.2	70.0	86.4	76.6
Correspondence	54.1	60.0	60.0	56.7	60.9	57.1	64.3	60.6
Household finances	60.7	61.5	85.7	64.6	55.0	37.5	50.0	47.8
Other	-	-	0.0	0.0	50.0	50.0	0.0	40.0
<b>All respondents</b>	<b>100.0</b>	<b>100.0</b>	<b>90.0</b>	<b>97.6</b>	<b>96.7</b>	<b>97.3</b>	<b>96.8</b>	<b>96.9</b>

**Table A7.6: Age of PC and use of PC (percentage of age range of PC and broad ethnic group)**

Use household PC for	White					BME groups				
	Under1 year	1 to 3 years	3 to 5 years	5 years or more	All	Under1 year	1 to 3 years	3 to 5 years	5 years or more	All
Work related activities	36.7	46.9	50.0	30.0	43.5	32.5	36.1	31.4	48.6	35.9
Own study or learning	66.7	59.2	69.2	60.0	63.5	77.9	71.0	76.5	73.0	73.8
Help children with learning or homework	40.0	34.7	42.3	20.0	36.5	28.6	37.4	33.3	43.2	35.3
Leisure	73.3	73.5	57.7	70.0	69.6	50.6	54.2	37.3	45.9	49.7
E-mails	66.7	73.5	61.5	50.0	67.0	59.7	61.9	51.0	48.6	58.1
Buying goods and services	43.3	51.0	42.3	30.0	45.2	24.7	29.7	15.7	32.4	26.6
Internet or web surfing	76.7	79.6	69.2	50.0	73.9	58.4	63.2	47.1	45.9	57.5
Correspondence	53.3	63.3	42.3	20.0	52.2	36.4	36.8	21.6	27.0	33.1
Household finances	23.3	51.0	30.8	30.0	37.4	13.0	13.5	15.7	10.8	13.4
Other	0.0	0.0	3.8	0.0	0.9	0.0	1.9	0.0	0.0	0.9
None of these	0.0	2.0	3.8	0.0	1.7	0.0	0.6	3.9	0.0	0.9
<b>All responses</b>	<b>30</b>	<b>49</b>	<b>26</b>	<b>10</b>	<b>115</b>	<b>77</b>	<b>155</b>	<b>51</b>	<b>37</b>	<b>320</b>
<i>Use PC once or more a week for (percentage of those who use a home PC for a given purpose)</i>										
Work related activities	63.6	87.0	53.8	33.3	70.0	68.0	78.6	50.0	50.0	67.8
Own study/learning	60.0	55.2	50.0	50.0	54.8	76.7	70.9	76.9	44.4	70.3
Help children with learning/homework	83.3	58.8	63.6	0.0	64.3	63.6	69.0	70.6	50.0	65.5
Leisure	63.6	63.9	66.7	85.7	66.3	64.1	60.7	78.9	41.2	61.6
E-mails	85.0	83.3	87.5	40.0	81.8	76.1	83.3	61.5	72.2	77.4
Buying goods and services	38.5	40.0	36.4	0.0	36.5	36.8	39.1	12.5	33.3	35.3
Internet/web surfing	82.6	84.6	77.8	100.0	83.5	93.3	77.6	70.8	76.5	80.4
Correspondence	62.5	64.5	54.5	0.0	60.0	71.4	64.9	45.5	40.0	62.3
Household finances	85.7	68.0	62.5	33.3	67.4	50.0	42.9	50.0	50.0	46.5
Other	-	-	0.0	-	0.0	-	33.3	-	-	33.3
<b>All respondents</b>	<b>100.0</b>	<b>98.0</b>	<b>92.3</b>	<b>100.0</b>	<b>97.4</b>	<b>98.7</b>	<b>98.7</b>	<b>96.1</b>	<b>97.3</b>	<b>98.1</b>

### Appendix 7.3 Logistic regressions of probability of using a PC for home study, leisure and email

The logistic regression model estimates each probability for a given respondent to the national survey, based on a number of their characteristics which the descriptive statistics suggest would influence their Internet access patterns. The coefficients on each of the variables measure the independent influence of each of these variables relative to a ‘missing’ category (as outlined in Appendix 4.2). The detailed results from the logistic regression model are presented in Tables A7.7, A7.8 and A7.9.

**Table A7.7: Logistic regression of probability of having used a PC for Home Study**

Variable	B	S.E.	Wald	Sig.	Exp(B)
Female	-0.2380	0.2092	1.2949	0.2551	0.7882
Mixed parentage	0.0661	0.4610	0.0206	0.8860	1.0683
South Asian	-0.0810	0.2424	0.1117	0.7382	0.9222
Black	0.0110	0.2758	0.0016	0.9681	1.0111
Chinese and other	0.2455	0.5695	0.1859	0.6664	1.2783
aged 25 to 44	0.0830	0.2450	0.1148	0.7348	1.0866
aged 45 to 59/64	-0.7294	0.3316	4.8368	0.0279	0.4822
aged 60/64 plus	-1.3070	0.6097	4.5951	0.0321	0.2706
single adult 60+	1.1326	1.0208	1.2310	0.2672	3.1036
two adults both under 60	0.6126	0.3862	2.5159	0.1127	1.8452
two adults, one 60 plus	1.3669	0.6733	4.1213	0.0423	3.9230
3+ adults	1.1393	0.3981	8.1897	0.0042	3.1247
1 parent family child under 16	0.9465	0.4148	5.2071	0.0225	2.5767
2 parents, at least one child under 16	0.2793	0.3337	0.7005	0.4026	1.3222
2 or more couples living together	0.0616	0.5620	0.0120	0.9127	1.0635
other household	0.3725	0.8400	0.1966	0.6575	1.4513
Unemployed	0.3365	0.3590	0.8787	0.3486	1.4001
Student	1.7640	0.4316	16.7060	0.0000	5.8355
Inactive	-0.5276	0.2580	4.1818	0.0409	0.5900
Intermediate skill	0.0861	0.2315	0.1384	0.7098	1.0900
low skill	-0.6094	0.2260	7.2718	0.0070	0.5437
under £110	-0.1367	0.4281	0.1020	0.7494	0.8722
£111-£170	0.2271	0.3281	0.4790	0.4889	1.2549
£170-£350	-0.1587	0.2472	0.4125	0.5207	0.8532
Not in London	-0.4323	0.2149	4.0481	0.0442	0.6490
Constant	0.2562	0.4298	0.3554	0.5510	1.2920

*Goodness of fit statistics*

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
712.639	0.161	0.215



**Table A7.8: Logistic regression of probability of having used a home PC for leisure**

Variable	B	S.E.	Wald	Sig.	Exp(B)
Female	-0.4832	0.2113	5.2286	0.0222	0.6168
Mixed parentage	-0.7893	0.4565	2.9894	0.0838	0.4541
<i>South Asian</i>	<i>-1.5210</i>	<i>0.2567</i>	<i>35.1112</i>	<i>0.0000</i>	<i>0.2185</i>
Black	-0.6695	0.2775	5.8205	0.0158	0.5120
Chinese and other	-0.6793	0.5039	1.8170	0.1777	0.5070
aged 25 to 44	-0.3187	0.2412	1.7449	0.1865	0.7271
<i>aged 45 to 59/64</i>	<i>-1.4947</i>	<i>0.3690</i>	<i>16.4119</i>	<i>0.0001</i>	<i>0.2243</i>
aged 60/64 plus	-1.6883	0.7372	5.2447	0.0220	0.1848
Single adult 60+	0.0952	1.0307	0.0085	0.9264	1.0999
two adults both under 60	-0.3765	0.3860	0.9513	0.3294	0.6863
two adults, one 60 plus	-0.8336	0.7579	1.2100	0.2713	0.4345
3+ adults	0.1482	0.3866	0.1470	0.7014	1.1597
1 parent family child under 16	0.1406	0.4129	0.1160	0.7334	1.1510
2 parents, at least one child under 16	0.0729	0.3376	0.0466	0.8291	1.0756
2 or more couples living together	-0.7387	0.6296	1.3764	0.2407	0.4777
other household	0.0984	0.8626	0.0130	0.9092	1.1034
Unemployed	-0.1797	0.3540	0.2578	0.6116	0.8355
Student	0.0975	0.3301	0.0872	0.7678	1.1024
Inactive	-0.5455	0.2735	3.9769	0.0461	0.5796
Intermediate skill	0.4106	0.2337	3.0868	0.0789	1.5077
low skill	-0.0654	0.2309	0.0803	0.7770	0.9367
under £110	0.5695	0.4370	1.6986	0.1925	1.7674
£111-£170	0.2733	0.3161	0.7479	0.3872	1.3143
£170-£350	-0.0387	0.2514	0.0237	0.8777	0.9621
Not in London	0.3160	0.2149	2.1613	0.1415	1.3716
Constant	1.0026	0.4352	5.3061	0.0213	2.7252

**Goodness of fit statistics**

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
706.144	0.155	0.209

**Table A7.9: Logistic regression of probability of having used a home PC for e-mail**

Variable	B	S.E.	Wald	Sig.	Exp(B)
Female	-0.4548	0.2068	4.8377	0.0278	0.6346
Mixed parentage	0.0756	0.4501	0.0282	0.8667	1.0785
<i>South Asian</i>	<i>-0.7998</i>	<i>0.2443</i>	<i>10.7166</i>	<i>0.0011</i>	<i>0.4494</i>
Black	-0.3122	0.2723	1.3148	0.2515	0.7318
Chinese and other	-0.2473	0.5093	0.2358	0.6272	0.7809
aged 25 to 44	-0.3461	0.2371	2.1312	0.1443	0.7074
<i>aged 45 to 59/64</i>	<i>-1.2663</i>	<i>0.3467</i>	<i>13.3424</i>	<i>0.0003</i>	<i>0.2819</i>
<i>aged 60/64 plus</i>	<i>-1.7606</i>	<i>0.6619</i>	<i>7.0757</i>	<i>0.0078</i>	<i>0.1719</i>
single adult 60+	0.5921	1.0262	0.3329	0.5640	1.8078
two adults both under 60	0.2635	0.3786	0.4845	0.4864	1.3015
two adults, one 60 plus	0.6300	0.6516	0.9348	0.3336	1.8776
3+ adults	0.2504	0.3790	0.4365	0.5088	1.2846
1 parent family child under 16	0.1681	0.4043	0.1728	0.6776	1.1830
2 parents, at least one child under 16	0.0504	0.3294	0.0234	0.8784	1.0517
2 or more couples living together	-0.0578	0.5654	0.0104	0.9186	0.9439
other household	1.3190	0.8698	2.2996	0.1294	3.7397
Unemployed	-0.6291	0.3583	3.0823	0.0792	0.5331
Student	0.1384	0.3262	0.1800	0.6713	1.1484
Inactive	-0.6683	0.2650	6.3575	0.0117	0.5126
Intermediate skill	0.1494	0.2281	0.4291	0.5124	1.1611
low skill	-0.5736	0.2266	6.4061	0.0114	0.5635
under £110	0.2436	0.4296	0.3215	0.5707	1.2758
£111-£170	-0.0298	0.3172	0.0088	0.9252	0.9706
£170-£350	-0.0203	0.2442	0.0069	0.9339	0.9799
Not in London	0.3452	0.2107	2.6841	0.1014	1.4123
Constant	0.7853	0.4253	3.4092	0.0648	2.1930

*Goodness of fit statistics*

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
731.356	0.131	0.176

## Appendix 8.1 Supporting information on local provision, awareness and use of ICT outside the home

Table A8.1: Knowledge of computer skills and facilities (percentages of each group)

	Female	Male	16-24	25-44	45-59/64	60/65+	All ages	White	Mixed parentage	South Asian	Black	Chinese & Other
<i>I know where to go to get more information about computer facilities and training courses in my area</i>												
Strongly agree	23.6	26.5	35.6	26.2	22.4	9.5	25.0	26.3	33.3	22.8	26.4	19.2
Tend to agree	25.7	23.2	26.8	26.3	22.8	16.7	24.5	27.0	27.5	20.7	27.4	25.0
Neither	6.3	6.1	4.9	7.3	6.2	4.5	6.2	5.1	7.2	5.5	7.6	9.6
Tend to disagree	17.3	18.8	18.3	18.4	18.1	17.1	18.2	14.3	15.9	21.2	17.2	17.3
Strongly disagree	20.7	20.7	13.1	17.4	25.1	37.8	20.7	21.9	14.5	25.4	14.5	13.5
Don't know/no opinion	5.9	4.4	1.3	4.3	4.6	13.5	5.1	4.3	1.4	4.2	6.9	15.4
<b>All</b>	<b>859</b>	<b>724</b>	<b>306</b>	<b>786</b>	<b>259</b>	<b>222</b>	<b>1573</b>	<b>392</b>	<b>69</b>	<b>637</b>	<b>435</b>	<b>52</b>
<i>I would like to get more training in computers</i>												
Strongly agree	30.6	28.2	35.0	35.5	21.6	9.9	29.5	19.4	36.2	27.9	40.7	21.2
Tend to agree	24.8	25.0	29.7	28.8	17.4	13.1	24.9	21.9	21.7	26.2	25.5	30.8
Neither	7.9	9.3	9.5	8.7	10.8	4.5	8.6	8.7	14.5	9.9	5.7	5.8
Tend to disagree	16.6	16.9	19.3	14.5	22.8	15.3	16.9	21.2	14.5	17.0	12.9	17.3
Strongly disagree	15.1	17.1	4.9	8.9	22.8	49.1	16.1	25.3	11.6	14.8	11.0	9.6
Don't know/no opinion	4.4	3.3	1.6	3.7	3.9	6.8	3.8	2.3	1.4	4.1	4.1	15.4
<b>All</b>	<b>859</b>	<b>724</b>	<b>306</b>	<b>786</b>	<b>259</b>	<b>222</b>	<b>1573</b>	<b>392</b>	<b>69</b>	<b>637</b>	<b>435</b>	<b>52</b>
<i>I would like someone to help me think about what computer skills I need</i>												
Strongly agree	23.1	22.8	25.8	27.9	17.8	8.6	23.1	10.7	24.6	24.5	32.9	11.5
Tend to agree	24.1	21.8	26.5	25.8	17.8	14.0	22.9	21.7	23.2	23.2	23.2	28.8
Neither	8.1	9.9	9.5	10.1	10.0	3.2	9.0	8.4	10.1	10.2	7.8	5.8
Tend to disagree	21.1	21.5	28.4	19.7	23.6	15.8	21.5	27.3	26.1	20.7	15.9	23.1
Strongly disagree	18.3	19.5	7.5	12.1	26.3	49.5	18.8	28.1	14.5	16.8	14.5	15.4
Don't know/no opinion	4.7	4.1	1.6	4.5	3.9	7.7	4.3	2.6	1.4	4.2	5.5	15.4
<b>All</b>	<b>859</b>	<b>724</b>	<b>306</b>	<b>786</b>	<b>259</b>	<b>222</b>	<b>1573</b>	<b>392</b>	<b>69</b>	<b>637</b>	<b>435</b>	<b>52</b>

**Table A8.2: Logistic regression of probability of having used the Internet in a public place**

Variable	B	S.E.	Wald	Sig.	Exp(B)
Female	0.0289	0.1464	0.0389	0.8436	1.0293
Mixed parentage	0.4694	0.3224	2.1198	0.1454	1.5990
<i>South Asian</i>	<i>-0.5399</i>	<i>0.1751</i>	<i>9.5069</i>	<i>0.0020</i>	<i>0.5828</i>
Black	0.2661	0.1801	2.1824	0.1396	1.3048
Chinese and other	0.2451	0.3956	0.3838	0.5356	1.2778
<i>aged 25 to 44</i>	<i>-1.3716</i>	<i>0.1821</i>	<i>56.7225</i>	<i>0.0000</i>	<i>0.2537</i>
<i>aged 45 to 59/64</i>	<i>-2.4428</i>	<i>0.2363</i>	<i>106.9052</i>	<i>0.0000</i>	<i>0.0869</i>
<i>aged 60/64 plus</i>	<i>-3.3255</i>	<i>0.3990</i>	<i>69.4599</i>	<i>0.0000</i>	<i>0.0360</i>
single adult 60+	-0.0768	0.4624	0.0276	0.8680	0.9260
two adults both under 60	-0.3320	0.2517	1.7395	0.1872	0.7175
two adults, one 60 plus	0.0867	0.4143	0.0437	0.8343	1.0905
3+ adults	0.0530	0.2810	0.0356	0.8504	1.0544
1 parent family child under 16	-0.3799	0.2446	2.4124	0.1204	0.6839
2 parents, at least one child under 16	-0.3265	0.2124	2.3616	0.1244	0.7215
2 or more couples living together	-0.3260	0.3748	0.7569	0.3843	0.7218
other household	0.3454	0.5938	0.3384	0.5608	1.4125
Unemployed	-0.1424	0.2035	0.4897	0.4841	0.8672
<i>Student</i>	<i>1.7105</i>	<i>0.4281</i>	<i>15.9620</i>	<i>0.0001</i>	<i>5.5317</i>
<i>Inactive</i>	<i>-0.8328</i>	<i>0.1714</i>	<i>23.6190</i>	<i>0.0000</i>	<i>0.4348</i>
<i>Intermediate skill</i>	<i>0.4973</i>	<i>0.1640</i>	<i>9.1914</i>	<i>0.0024</i>	<i>1.6443</i>
<i>low skill</i>	<i>-0.4233</i>	<i>0.1517</i>	<i>7.7884</i>	<i>0.0053</i>	<i>0.6549</i>
under £110	-0.2419	0.2351	1.0579	0.3037	0.7852
£111-£170	-0.2269	0.1946	1.3595	0.2436	0.7970
£170-£350	0.0549	0.1729	0.1008	0.7508	1.0564
Not in London	0.0417	0.1428	0.0851	0.7705	1.0425
<i>Have or own a PC</i>	<i>0.8380</i>	<i>0.1355</i>	<i>38.2422</i>	<i>0.0000</i>	<i>2.3117</i>
<i>Constant</i>	<i>1.5579</i>	<i>0.3061</i>	<i>25.8949</i>	<i>0.0000</i>	<i>4.7488</i>

**Goodness of fit statistics**

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1567.8	0.321	0.430

**Table A8.3: Awareness of public facilities for ICT access in the local area among non-users of PCs (percentages)**

Aware of public computer facilities	Female	Male	16-24	25-44	45-59/64	60/65+	All ages	White	Mixed parent age	South Asian	Black	Chinese & Other
<i>Yes</i>	<i>50.8</i>	<i>46.0</i>	<i>67.2</i>	<i>56.2</i>	<i>44.2</i>	<i>34.2</i>	<i>49.0</i>	<i>51.3</i>	<i>64.0</i>	<i>45.7</i>	<i>49.5</i>	<i>50.0</i>
at Library	38.8	34.9	50.7	43.0	33.7	25.4	37.2	45.5	40.0	34.0	34.2	43.8
at Internet cafe	16.1	15.8	29.9	18.9	14.4	7.3	15.9	20.9	24.0	9.4	21.2	18.8
at Place of worship	3.5	2.6	4.5	3.2	4.4	1.6	3.2	3.2	0.0	3.7	2.3	6.3
at School or college	26.6	21.1	40.3	28.1	21.0	16.1	24.6	22.5	32.0	25.4	23.4	18.8
at Voluntary or community organisation	7.8	6.5	7.5	8.0	6.6	6.7	7.3	6.4	24.0	7.1	6.8	0.0
at Community access booth	1.7	1.2	6.0	2.3	0.0	0.0	1.5	0.0	0.0	2.3	1.8	0.0
at Commercial organisation	3.5	4.7	1.5	5.2	3.9	2.6	3.9	2.7	4.0	4.3	5.0	0.0
at Other	0.7	1.2	1.5	1.4	0.0	0.5	0.9	0.5	0.0	1.7	0.0	0.0
Not aware	48.6	52.8	32.8	43.0	54.7	65.3	50.3	48.1	32.0	53.4	49.5	50.0
<b>All respondents</b>	<b>459</b>	<b>341</b>	<b>67</b>	<b>349</b>	<b>181</b>	<b>193</b>	<b>790</b>	<b>187</b>	<b>25</b>	<b>350</b>	<b>222</b>	<b>16</b>

## Appendix 9.1 Supporting information on barriers and facilitators to use and ownership of ICT

**Table A9.1: Reasons for not using a PC (percentage of those not using), by ethnic group and skill level**

Don't use PC because	White				BME groups			
	Higher skilled	Intermediate	Lower skilled	<i>All levels</i>	Higher skilled	Intermediate	Lower skilled	<i>All levels</i>
Cost/cannot afford it	25.0	12.8	33.8	25.3	39.0	44.4	26.3	31.8
Do not have access to a computer	18.8	6.4	11.3	11.3	11.9	18.1	15.2	15.2
Not computer literate/don't know how to use one	43.8	36.2	59.2	48.7	25.4	43.1	52.3	46.3
No need for a computer/not interested	56.3	70.2	60.6	62.7	39.0	29.2	39.1	37.2
No time/too busy	3.1	4.3	7.0	5.3	15.3	29.2	11.1	15.2
Someone else in the household uses it	6.3	4.3	1.4	3.3	1.7	1.4	2.5	2.1
Lack of information about where to go to use computers or on what is available	0.0	6.4	1.4	2.7	8.5	8.3	4.9	6.1
Don't like going to places that are mixed sex	0.0	0.0	0.0	0.0	1.7	0.0	0.4	0.5
Don't see people from my culture using it	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.5
Problems reading and writing in English	3.1	4.3	5.6	4.7	15.3	4.2	12.8	11.5
No software available in my language	0.0	0.0	0.0	0.0	3.4	0.0	3.7	2.9
Other	9.4	19.1	14.1	14.7	8.5	1.4	6.2	5.6
<b>All responses</b>	<b>32</b>	<b>47</b>	<b>71</b>	<b>150</b>	<b>59</b>	<b>72</b>	<b>243</b>	<b>374</b>

**Table A9.2: Reasons for not using a PC (percentage of those not using), by type of household and ethnic group**

Don't use PC because	White					Minority ethnic groups				
	Person present aged 0-4	Person present aged 5-11	Person present aged 12-17	No young people under 18	All households	Person present aged 0-4	Person present aged 5-11	Person present aged 12-17	No young people under 18	All households
Cost/cannot afford it	56.3	45.0	36.4	23.0	26.0	36.8	34.7	30.9	31.1	33.3
Do not have access to a computer	18.8	20.0	18.2	12.6	13.3	14.2	16.5	12.2	14.3	14.2
Not computer literate/don't know how to use one	56.3	40.0	63.6	45.9	46.8	42.6	48.9	52.0	49.6	47.9
No need for a computer/not interested	37.5	30.0	45.5	66.7	60.1	25.8	26.1	27.6	43.4	34.9
No time/too busy	25.0	25.0	18.2	0.7	5.2	27.4	27.3	26.8	9.8	18.0
Someone else in the household uses it	0.0	0.0	9.1	3.0	2.9	6.8	5.1	8.9	0.8	3.9
Lack of information about where to go to use computers or on what is available	18.8	0.0	0.0	2.2	3.5	6.8	4.0	4.9	4.1	5.3
Don't like going to places that are mixed sex	0.0	0.0	0.0	0.0	0.0	1.1	1.1	0.8	0.0	0.7
Don't see people from my culture using it	0.0	0.0	0.0	0.0	0.0	1.1	0.6	0.8	0.4	0.7
Problems reading and writing in English	12.5	15.0	18.2	4.4	5.8	19.5	22.2	22.8	15.2	18.1
No software available in my language	0.0	0.0	0.0	0.0	0.0	2.1	4.5	4.9	2.9	3.6
Other	0.0	10.0	9.1	16.3	14.5	5.8	6.3	7.3	5.3	5.3
<b>All responses</b>	<b>16</b>	<b>20</b>	<b>11</b>	<b>135</b>	<b>173</b>	<b>190</b>	<b>176</b>	<b>123</b>	<b>244</b>	<b>562</b>

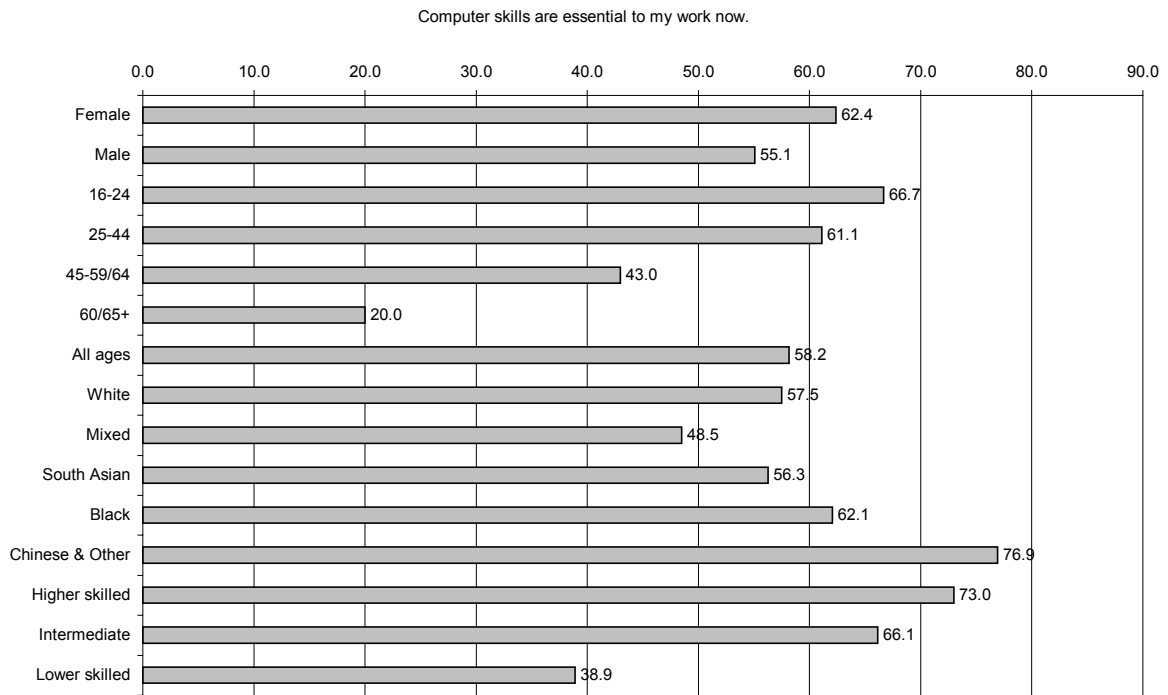
**Table A9.3: Reasons for not using a PC (percentage of those not using), by ethnic group and age**

Don't use PC because	White					BME groups				
	16-24	25-44	45-59/64	60/65+	All ages	16-24	25-44	45-59/64	60/65+	All ages
Cost/cannot afford it	44.4	48.7	27.5	12.9	26.0	48.8	41.3	17.7	22.4	33.0
Do not have access to a computer	33.3	17.9	12.5	9.4	13.3	11.6	17.1	12.1	10.3	14.2
Not computer literate/dont know how	55.6	48.7	60.0	38.8	46.8	23.3	46.3	58.1	50.5	47.9
No need for a computer/not interested	33.3	41.0	52.5	75.3	60.1	34.9	24.2	41.1	57.0	35.1
No time/too busy	22.2	12.8	2.5	1.2	5.2	20.9	24.2	9.7	7.5	17.5
Someone else in the household uses it	0.0	5.1	5.0	1.2	2.9	7.0	3.9	4.0	2.8	4.0
Lack of information about where to go	11.1	5.1	2.5	2.4	3.5	4.7	7.5	2.4	1.9	5.0
Dont like going to places that are mixed sex	0.0	0.0	0.0	0.0	0.0	2.3	0.7	0.0	0.9	0.7
Dont see people from my culture using it	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.8	0.0	0.7
Problems reading and writing in English	22.2	10.3	7.5	1.2	5.8	11.6	21.4	16.9	14.0	18.2
No software available in my language	0.0	0.0	0.0	0.0	0.0	2.3	3.6	5.6	1.9	3.6
Other	11.1	7.7	10.0	20.0	14.5	2.3	5.0	5.6	7.5	5.4
<b>All responses</b>	<b>9</b>	<b>39</b>	<b>40</b>	<b>85</b>	<b>173</b>	<b>43</b>	<b>281</b>	<b>124</b>	<b>107</b>	<b>555</b>

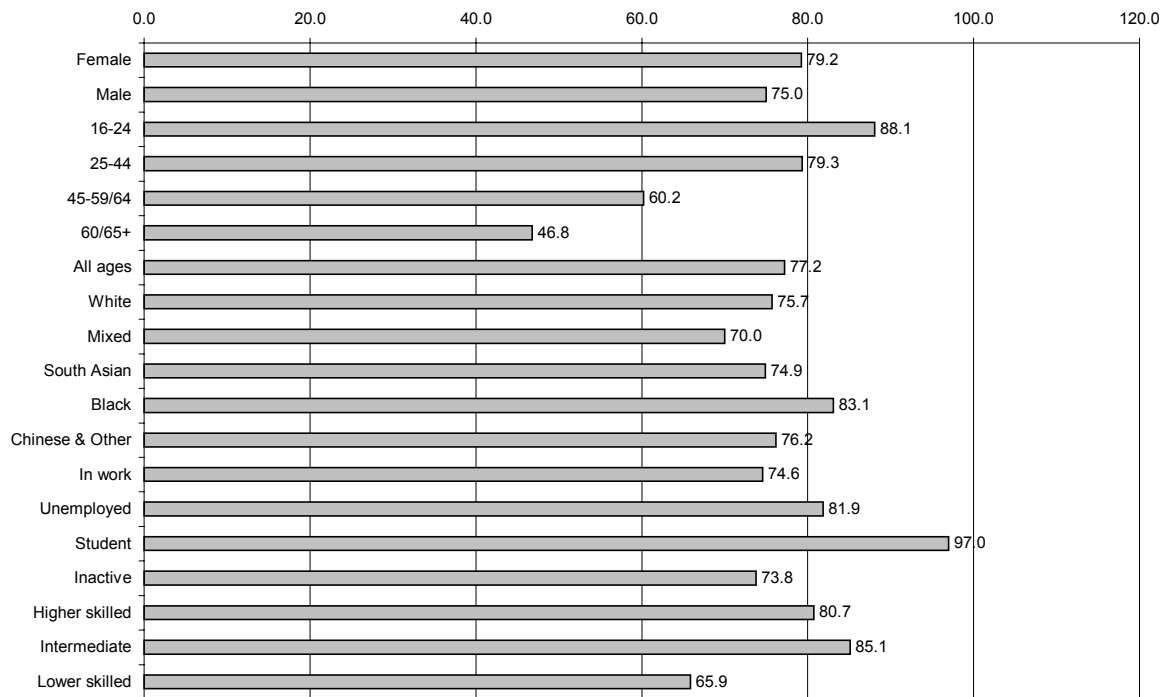
**Table A9.4: Reasons for not using a PC (percentage of those not using), by ethnic group and economic position**

Don't use PC because	White					BME groups				
	In work	Unemployed	Student	Inactive	All	In work	Unemployed	Student	Inactive	All
Cost/cannot afford it	26.9	68.8	0.0	20.8	26.0	30.4	50.6	62.5	29.9	33.3
Do not have access to a computer	3.8	25.0	0.0	13.8	13.3	16.2	16.9	25.0	12.5	14.3
Not computer literate/don't know how to use one	50.0	62.5	0.0	44.6	46.8	43.9	45.5	25.0	50.6	47.8
No need for a computer/not interested	53.8	25.0	0.0	66.2	60.1	29.7	24.7	0.0	40.5	34.9
No time/too busy	15.4	6.3	0.0	3.1	5.2	24.3	13.0	0.0	16.8	18.0
Someone else in the household uses it	0.0	0.0	0.0	3.8	2.9	2.7	1.3	12.5	4.9	3.9
Lack of information about where to go to use computers or on what is available	7.7	12.5	0.0	1.5	3.5	8.1	11.7	25.0	2.1	5.3
Don't like going to places that are mixed sex	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.9	0.7
Don't see people from my culture using it	0.0	0.0	0.0	0.0	0.0	0.7	1.3	0.0	0.6	0.7
Problems reading and writing in English	0.0	25.0	100.0	3.8	5.8	12.8	14.3	25.0	21.3	18.2
No software available in my language	0.0	0.0	0.0	0.0	0.0	2.7	5.2	0.0	3.7	3.6
Other	11.5	0.0	0.0	16.9	14.5	6.1	6.5	0.0	4.9	5.3
<b>All responses</b>	<b>26</b>	<b>16</b>	<b>1</b>	<b>130</b>	<b>173</b>	<b>148</b>	<b>77</b>	<b>8</b>	<b>328</b>	<b>561</b>





**Figure A9.1: Percentage of respondents in work who felt computer skills were essential to their work**



**Figure A9.2: Percentage of sampled population who felt computer skills will be essential in future to getting on in their job or to getting a new job**

**Table A9.5: Views on the importance of computer skills for children**

	Female	Male	16-24	25-44	45-59/64	60/65+	All ages	White	Mixed	South Asian	Black	Chinese & Other
<i>Computer skills are essential to my children's work now</i>												
Agree	79.5	79.6	78.8	79.8	86.8	72.6	79.8	75.7	76.8	81.9	81.5	67.3
Disagree	11.0	9.8	12.7	11.4	5.1	11.0	10.5	12.9	14.5	8.3	10.9	9.6
Don't know	3.3	2.8	2.6	2.8	3.9	3.7	3.1	2.3	2.9	4.1	2.1	3.8
No opinion	6.2	7.8	5.9	6.0	4.3	12.8	6.6	9.0	5.8	5.7	5.5	19.2
<b>All</b>	<b>854</b>	<b>721</b>	<b>306</b>	<b>784</b>	<b>257</b>	<b>219</b>	<b>1566</b>	<b>387</b>	<b>69</b>	<b>636</b>	<b>433</b>	<b>52</b>
<i>Computer skills will be essential to children's work in the future</i>												
Agree	90.7	87.2	93.8	91.1	89.5	77.2	89.4	84.2	91.3	90.7	92.6	75.0
Disagree	2.1	3.3	0.7	1.8	3.5	7.8	2.7	5.2	2.9	1.4	2.1	3.8
Don't know	2.9	2.5	2.3	2.7	3.1	3.2	2.7	2.8	2.9	3.0	2.1	3.8
No opinion	4.2	6.9	3.3	4.5	3.9	11.9	5.2	7.8	2.9	4.9	3.2	17.3
<b>All</b>	<b>854</b>	<b>720</b>	<b>306</b>	<b>783</b>	<b>257</b>	<b>219</b>	<b>1565</b>	<b>387</b>	<b>69</b>	<b>635</b>	<b>433</b>	<b>52</b>

**Table A9.6: Reasons for undertaking ICT training (percentages)**

	To get a new job	To increase self-confidence	To widen my horizons	For personal development	To get qualifications	To help with child's education	To develop skills	Because I enjoy learning new skills	To fill in spare times	To succeed in my work life	To earn more money	Other	All
<i>Gender</i>													
Female	23.2	15.6	20.9	24.3	22.4	6.5	36.9	14.8	3.4	28.5	4.9	19.0	263
Male	31.8	10.1	24.7	25.8	22.7	2.0	35.4	13.6	3.0	34.8	8.6	18.2	198
<i>Age</i>													
16-24	29.4	11.2	20.6	24.1	27.6	0.6	37.6	16.5	2.9	24.1	7.1	21.8	170
25-44	28.1	14.1	22.1	26.5	22.1	6.8	34.9	12.9	2.4	34.5	6.8	18.1	249
45-59/64	14.7	23.5	35.3	26.5	5.9	8.8	41.2	14.7	8.8	32.4	2.9	11.8	34
60/65+	0.0	0.0	22.2	0.0	0.0	0.0	22.2	11.1	11.1	77.8	0.0	0.0	9
<b>All ages</b>	<b>27.1</b>	<b>13.4</b>	<b>22.5</b>	<b>25.1</b>	<b>22.5</b>	<b>4.5</b>	<b>36.1</b>	<b>14.3</b>	<b>3.2</b>	<b>31.4</b>	<b>6.5</b>	<b>18.6</b>	<b>462</b>
<i>Ethnic group</i>													
White	20.0	11.8	15.5	23.6	17.3	4.5	31.8	9.1	1.8	37.3	3.6	27.3	110
Mixed	21.9	12.5	18.8	15.6	21.9	6.3	28.1	21.9	12.5	28.1	3.1	9.4	32
South Asian	33.3	10.9	25.5	29.1	20.0	4.2	43.6	15.8	2.4	29.7	9.7	15.8	165
Black	26.5	19.1	25.0	25.7	27.9	5.1	32.4	15.4	2.2	28.7	5.1	16.9	136
Chinese & Other	25.0	5.0	25.0	10.0	35.0	0.0	40.0	10.0	10.0	35.0	10.0	20.0	20
<i>Economic position</i>													
In work	25.0	13.8	24.2	26.7	16.7	4.6	35.0	15.8	1.3	35.0	5.0	20.4	240
Unemployed	40.7	9.3	18.5	25.9	22.2	0.0	35.2	9.3	5.6	22.2	11.1	18.5	54
Student	34.7	12.5	23.6	26.4	43.1	0.0	43.1	13.9	4.2	30.6	13.9	16.7	72
Inactive	18.6	15.5	19.6	19.6	21.6	10.3	35.1	13.4	6.2	27.8	2.1	15.5	97

**Table A9.7: Actions which would encourage people to use computers (percentages of non-users)**

Action	Female	Male	Aged 16-24	Aged 25-44	Aged 45-59/64	Aged 60/65+	All ages	White	Mixed	South Asian	Black	Chinese & Other
Training and support	31.6	30.4	52.8	42.0	25.9	12.0	31.3	23.4	60.0	29.5	36.5	33.3
Financial help	23.7	26.9	30.2	32.1	22.9	13.0	24.9	19.3	32.0	24.0	30.0	33.3
help with reading and writing	22.5	21.8	20.8	31.2	16.9	12.0	22.2	7.6	16.0	31.0	19.2	46.7
more/better public facilities available in the area	15.8	9.6	15.1	15.7	12.7	8.9	13.2	14.0	24.0	11.6	13.8	13.3
Information available in my language	11.4	13.8	17.0	17.3	10.8	4.7	12.5	2.9	12.0	18.2	8.9	40.0
More information about ICT facilities in the area	11.6	10.9	11.3	17.0	9.6	3.6	11.4	7.0	24.0	11.9	12.3	13.3
Software available in my language	9.5	10.6	5.7	14.2	9.6	3.6	9.8	3.5	4.0	14.3	6.9	40.0
More/better childcare facilities	12.5	4.5	15.1	15.7	3.0	2.1	9.3	6.4	40.0	10.0	6.4	6.7
More facilities for people of my ethnic or religious background	8.4	8.7	5.7	9.9	9.6	6.3	8.6	2.3	12.0	10.0	9.9	20.0
help with getting/doing a job	2.8	5.1	1.9	7.1	1.8	0.5	3.8	3.5	0.0	5.5	1.5	6.7
access to broadband	3.5	3.2	1.9	5.9	1.2	1.6	3.4	1.8	0.0	2.1	7.4	0.0
None of these	39.4	44.9	26.4	24.1	50.6	67.2	41.5	60.8	20.0	35.6	39.4	26.7
<b>All non-users</b>	<b>431</b>	<b>312</b>	<b>53</b>	<b>324</b>	<b>166</b>	<b>192</b>	<b>192</b>	<b>171</b>	<b>25</b>	<b>329</b>	<b>203</b>	<b>15</b>

**Table A9.8: Purposes to which current non-users might put a PC (percentage of non-users)**

	Female	Male	Aged 16-24	Aged 25-44	Aged 45-59/64	Aged 60/65+	All ages	White	Mixed	South Asian	Black	Chinese & Other
to look for job vacancies	16.6	18.2	32.7	28.8	9.8	0.5	17.3	13.9	54.2	14.8	19.2	26.7
to help me do my job	9.3	11.7	15.4	17.8	4.9	1.6	10.4	5.8	20.8	8.3	16.2	13.3
for own study/learning	30.6	23.8	42.3	38.4	18.3	14.1	27.7	19.1	58.3	28.0	29.3	53.3
to help children with learning	34.6	25.1	32.7	49.4	21.3	7.3	30.8	18.5	41.7	37.2	30.3	13.3
for leisure	13.1	14.7	28.8	16.9	11.6	6.8	13.9	16.2	29.2	11.4	13.1	20.0
for e-mails	18.0	19.5	30.8	21.6	18.9	10.9	18.8	16.2	37.5	15.4	23.7	20.0
for buying goods and service	11.7	11.7	17.3	15.6	10.4	5.2	11.8	12.1	37.5	9.5	12.1	6.7
for Internet/web surfing	13.8	14.3	28.8	19.4	9.8	5.2	14.1	13.9	33.3	9.5	17.7	33.3
for correspondence	12.4	14.7	15.4	13.8	15.9	10.4	13.5	12.1	25.0	10.2	16.2	40.0
for household finances	7.2	7.2	13.5	8.1	6.7	4.7	7.3	5.8	25.0	6.2	7.6	13.3
for Other	0.5	1.0		0.3	1.2	1.0	0.7	1.7			1.0	
If I could use PC, would not use	33.6	36.5	9.6	18.1	43.3	60.9	34.5	47.4	8.3	33.8	30.3	13.3
<b>Current non-users</b>	<b>428</b>	<b>307</b>	<b>52</b>	<b>320</b>	<b>164</b>	<b>192</b>	<b>728</b>	<b>173</b>	<b>24</b>	<b>325</b>	<b>198</b>	<b>15</b>

**Table A9.9: Minority language software used by ethnic group (percentage of respondents who have ever used a PC)**

Use software in:	White	Mixed	South Asian	Black	Chinese & Other	Total
Arabic	0.5	6.8	4.9	2.3	5.6	3.2
Other	3.4	2.3	1.0	1.4	19.4	2.7
Punjabi	0.5	0.0	4.9	0.5	0.0	2.0
French	2.9	0.0	1.4	0.9	0.0	1.5
Urdu	0.0	0.0	4.2	0.0	0.0	1.5
Somali	0.0	2.3	0.0	2.8	0.0	0.9
Pushto	2.0	0.0	0.3	0.5	0.0	0.8
Spanish	1.5	2.3	0.0	0.9	0.0	0.8
Bengali	0.0	0.0	1.4	0.0	0.0	0.5
Gujerati	0.0	0.0	1.4	0.0	0.0	0.5
Portuguese	1.0	0.0	0.0	0.5	2.8	0.5
Cantonese	0.0	0.0	0.0	0.0	5.6	0.3
Tamil	0.0	0.0	0.7	0.0	0.0	0.3
Akan	0.0	0.0	0.3	0.0	0.0	0.1
Assyrian	0.0	0.0	0.3	0.0	0.0	0.1
Farsi	0.0	0.0	0.0	0.0	2.8	0.1
Greek	0.5	0.0	0.0	0.0	0.0	0.1
Igbo/Yoruba/Hausa	0.0	0.0	0.0	0.5	0.0	0.1
Polish	0.5	0.0	0.0	0.0	0.0	0.1
<i>Any minority language</i>	<i>11.7</i>	<i>11.4</i>	<i>17.4</i>	<i>9.4</i>	<i>36.1</i>	<i>14.3</i>
<b>All who have used PCs</b>	<b>205</b>	<b>44</b>	<b>287</b>	<b>213</b>	<b>36</b>	<b>785</b>

**Table A9.10: Percentage who will not use a PC, by each reason given for not using a PC**

	Female	Male	Aged 16-24	Aged 25-44	Aged 45-59/64	Aged 60/65+	All ages	White	Mixed parentage	South Asian	Black	Chinese & Other
Cost/cannot afford it	15.6	22.7	8.0	12.6	33.3	28.6	17.5	28.9	0.0	13.3	22.4	14.3
Do not have access to a computer	16.9	29.5	0.0	12.7	40.0	36.8	21.6	43.5	0.0	17.9	14.7	33.3
Not computer literate/dont know how	40.1	41.2	13.3	23.5	46.9	66.7	40.3	50.6	14.3	43.4	34.7	11.1
No need for a computer/not interested	50.6	54.7	11.1	34.5	55.6	68.0	52.2	61.5	12.5	50.0	51.5	12.5
No time/too busy	18.7	17.1	9.1	15.1	15.4	33.3	16.0	22.2	0.0	19.7	15.0	50.0
Someone else in the household uses it	28.6	16.7	0.0	23.1	28.6	50.0	25.9	20.0	0.0	31.6	0.0	-
Lack of information about where to g	22.2	5.6	0.0	4.3	0.0	50.0	8.8	16.7	0.0	18.8	9.1	0.0
Don't like going to places that are m	0.0	0.0	0.0	0.0	-	0.0	0.0	-	-	0.0	-	-
Don't see people from my culture using	0.0	0.0	-	0.0	0.0	-	0.0	-	-	0.0	-	-
Problems reading and writing in English	29.4	31.8	14.3	18.8	45.8	56.3	29.7	20.0	0.0	32.1	40.0	0.0
No software available in my language	0.0	25.0	0.0	20.0	0.0	50.0	15.0	-	-	18.2	25.0	0.0
Other	43.8	39.1	0.0	11.8	54.5	60.0	41.8	60.0	100.0	15.8	44.4	0.0
<b>All</b>	<b>33.6</b>	<b>36.5</b>	<b>9.6</b>	<b>18.1</b>	<b>43.3</b>	<b>60.9</b>	<b>34.5</b>	<b>47.4</b>	<b>8.3</b>	<b>33.8</b>	<b>30.3</b>	<b>13.3</b>
<i>All non-users</i>	<i>144</i>	<i>112</i>	<i>5</i>	<i>58</i>	<i>71</i>	<i>117</i>	<i>251</i>	<i>82</i>	<i>2</i>	<i>110</i>	<i>60</i>	<i>2</i>

## Appendix 9.2 Logistic regressions relating to barriers to ICT use

The logistic regression model estimates each probability for a given respondent to the national survey, based on a number of their characteristics which the descriptive statistics suggest would influence their ICT usage patterns. The coefficients on each of the variables measure the independent influence of each of these variables relative to a ‘missing’ category (as outlined in Appendix 4.2). The detailed results from the logistic regression model are presented in Table A9.11.

**Table A9.11: Logistic regression of probability of not having used ICT**

Variable	B	S.E.	Wald	Sig.	Exp(B)
<i>Female</i>	0.5630	0.1827	9.4986	0.0021	1.7559
Mixed parentage	-0.8827	0.6515	1.8360	0.1754	0.4137
<i>South Asian</i>	1.0748	0.2388	20.2657	0.0000	2.9295
Black	0.1500	0.2248	0.4454	0.5045	1.1619
Chinese and other	-0.5160	0.6162	0.7013	0.4023	0.5969
aged 25 to 44	0.7137	0.3201	4.9712	0.0258	2.0415
<i>aged 45 to 59/64</i>	2.0036	0.3449	33.7450	0.0000	7.4154
<i>aged 60/64 plus</i>	2.4972	0.4078	37.5048	0.0000	12.1479
single adult 60+	0.5739	0.3833	2.2423	0.1343	1.7752
two adults both under 60	-0.1456	0.3660	0.1583	0.6907	0.8645
two adults, one 60 plus	-0.0385	0.3975	0.0094	0.9229	0.9623
3+ adults	-0.0953	0.3715	0.0657	0.7976	0.9091
1 parent family child under 16	0.1995	0.3364	0.3515	0.5533	1.2208
2 parents, at least one child under 16	-0.5579	0.3145	3.1464	0.0761	0.5724
2 or more couples living together	0.2496	0.4529	0.3037	0.5816	1.2835
other household	-0.6407	0.7788	0.6769	0.4107	0.5269
<i>Unemployed</i>	0.7748	0.2980	6.7600	0.0093	2.1701
Student	-1.5545	1.0213	2.3168	0.1280	0.2113
<i>Inactive</i>	1.0104	0.2313	19.0833	0.0000	2.7468
<i>Intermediate skill</i>	-1.1235	0.2535	19.6401	0.0000	0.3251
low skill	0.0792	0.1798	0.1941	0.6595	1.0824
under £110	0.1042	0.2496	0.1743	0.6764	1.1098
£111-£170	0.0747	0.2176	0.1179	0.7313	1.0776
£170-£350	-0.0246	0.2377	0.0107	0.9176	0.9757
Not in London	-0.3009	0.1731	3.0219	0.0821	0.7402
<i>Poor English skills</i>	1.1952	0.2110	32.0788	0.0000	3.3044
Eyesight problems	0.0418	0.2248	0.0346	0.8524	1.0427
Other disability	-0.1034	0.3002	0.1186	0.7305	0.9018
<i>Constant</i>	-3.9351	0.4636	72.0579	0.0000	0.0195

### Goodness of fit statistics

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1077.915	0.261	0.418

**Table A9.12: Logistic regression of probability of being self-trained in ICT skills**

Variable	B	S.E.	Wald	Sig.	Exp(B)
<i>Female</i>	-0.5137	0.1447	12.5944	0.0004	0.5983
Mixed parentage	-0.1245	0.3103	0.1609	0.6883	0.8830
<i>South Asian</i>	-0.6405	0.1733	13.6664	0.0002	0.5270
<i>Black</i>	-0.5214	0.1818	8.2259	0.0041	0.5937
Chinese and other	0.5679	0.3285	2.9884	0.0839	1.7646
aged 25 to 44	-0.0682	0.1716	0.1582	0.6908	0.9340
aged 45 to 59/64	-0.1969	0.2271	0.7522	0.3858	0.8213
aged 60/64 plus	-0.5984	0.4131	2.0983	0.1475	0.5497
<i>single adult 60+</i>	-1.5961	0.6050	6.9603	0.0083	0.2027
two adults both under 60	-0.0006	0.2397	0.0000	0.9980	0.9994
two adults, one 60 plus	-0.7475	0.4532	2.7209	0.0990	0.4736
3+ adults	0.0241	0.2558	0.0089	0.9250	1.0244
1 parent family child under 16	0.0638	0.2470	0.0666	0.7963	1.0658
2 parents, at least one child under 16	0.1480	0.2042	0.5254	0.4685	1.1595
2 or more couples living together	-0.4898	0.4327	1.2815	0.2576	0.6127
other household	-0.9627	0.7745	1.5452	0.2139	0.3819
Unemployed	-0.2578	0.2102	1.5036	0.2201	0.7728
Student	-0.0171	0.2621	0.0043	0.9479	0.9830
<i>Inactive</i>	-0.5374	0.1831	8.6108	0.0033	0.5843
Intermediate skill	0.0845	0.1660	0.2594	0.6106	1.0882
low skill	-0.2127	0.1560	1.8603	0.1726	0.8084
under £110	-0.1262	0.2470	0.2610	0.6095	0.8814
£111-£170	-0.0604	0.2044	0.0874	0.7675	0.9413
£170-£350	0.2947	0.1700	3.0052	0.0830	1.3427
<i>Not in London</i>	-0.4404	0.1411	9.7487	0.0018	0.6438
Constant	0.1081	0.2814	0.1476	0.7008	1.1142

*Goodness of fit statistics*

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1551.451	0.093	0.141

**Table A9.13: Logistic regression of probability of having undertaken formal training in ICT skills**

Variable	B	S.E.	Wald	Sig.	Exp(B)
<i>Female</i>	0.5971	0.1414	17.8368	0.0000	1.8169
Mixed parentage	0.0661	0.3129	0.0446	0.8327	1.0683
South Asian	0.1136	0.1738	0.4272	0.5133	1.1203
<i>Black</i>	0.6077	0.1813	11.2327	0.0008	1.8361
Chinese and other	-0.3837	0.3978	0.9304	0.3348	0.6814
aged 25 to 44	-0.5085	0.1560	10.6215	0.0011	0.6014
<i>aged 45 to 59/64</i>	-1.4088	0.2384	34.9315	0.0000	0.2444
<i>aged 60/64 plus</i>	-2.6978	0.4563	34.9532	0.0000	0.0674
single adult 60+	0.4317	0.5213	0.6858	0.4076	1.5399
two adults both under 60	0.1182	0.2469	0.2293	0.6321	1.1255
<i>two adults, one 60 plus</i>	1.2011	0.4208	8.1487	0.0043	3.3237
3+ adults	0.1198	0.2626	0.2080	0.6483	1.1272
1 parent family child under 16	-0.1134	0.2404	0.2227	0.6370	0.8928
2 parents, at least one child under 16	0.1574	0.2111	0.5559	0.4559	1.1705
2 or more couples living together	0.6313	0.3599	3.0766	0.0794	1.8801
other household	1.1390	0.5184	4.8276	0.0280	3.1235
<i>Unemployed</i>	-0.6042	0.2055	8.6405	0.0033	0.5465
Student	0.3041	0.2465	1.5219	0.2173	1.3554
<i>Inactive</i>	-1.0319	0.1782	33.5294	0.0000	0.3563
<i>Intermediate skill</i>	0.6256	0.1550	16.2859	0.0001	1.8693
Low skill	-0.2079	0.1563	1.7685	0.1836	0.8123
Under £110	0.3242	0.2285	2.0130	0.1560	1.3829
£111-£170	-0.1318	0.1923	0.4696	0.4931	0.8765
£170-£350	-0.1810	0.1740	1.0814	0.2984	0.8344
Not in London	0.2019	0.1424	2.0105	0.1562	1.2237
<i>Constant</i>	-0.7599	0.2868	7.0189	0.0081	0.4677

*Goodness of fit statistics*

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1618.28	0.170	0.242



**Table A9.14: Logistic regression of probability of having “non-existent” self-assessed computer skills**

Variable	B	S.E.	Wald	Sig.	Exp(B)
Female	0.0536	0.1520	0.1243	0.7244	1.0551
Mixed parentage	0.0124	0.3550	0.0012	0.9721	1.0125
<i>South Asian</i>	<i>0.7869</i>	<i>0.1838</i>	<i>18.3306</i>	<i>0.0000</i>	<i>2.1967</i>
Black	-0.1018	0.1879	0.2938	0.5878	0.9032
Chinese and other	-0.5123	0.4459	1.3196	0.2507	0.5991
<i>aged 25 to 44</i>	<i>1.0856</i>	<i>0.2093</i>	<i>26.9062</i>	<i>0.0000</i>	<i>2.9613</i>
<i>aged 45 to 59/64</i>	<i>1.9597</i>	<i>0.2468</i>	<i>63.0483</i>	<i>0.0000</i>	<i>7.0975</i>
<i>aged 60/64 plus</i>	<i>2.9757</i>	<i>0.3677</i>	<i>65.5038</i>	<i>0.0000</i>	<i>19.6031</i>
single adult 60+	0.4052	0.4130	0.9630	0.3264	1.4997
two adults both under 60	-0.0848	0.2684	0.0998	0.7521	0.9187
two adults, one 60 plus	-0.3125	0.3815	0.6711	0.4127	0.7316
3+ adults	-0.2657	0.2947	0.8128	0.3673	0.7667
1 parent family child under 16	0.0740	0.2550	0.0841	0.7718	1.0768
2 parents, at least one child under 16	-0.3087	0.2247	1.8870	0.1695	0.7344
2 or more couples living together	-0.0430	0.3827	0.0126	0.9106	0.9579
other household	-0.8082	0.6265	1.6644	0.1970	0.4456
<i>Unemployed</i>	<i>0.9467</i>	<i>0.2087</i>	<i>20.5872</i>	<i>0.0000</i>	<i>2.5773</i>
<i>Student</i>	<i>-1.5018</i>	<i>0.5447</i>	<i>7.6018</i>	<i>0.0058</i>	<i>0.2227</i>
<i>Inactive</i>	<i>1.3759</i>	<i>0.1728</i>	<i>63.4064</i>	<i>0.0000</i>	<i>3.9587</i>
<i>Intermediate skill</i>	<i>-0.9612</i>	<i>0.1814</i>	<i>28.0834</i>	<i>0.0000</i>	<i>0.3824</i>
<i>low skill</i>	<i>0.4310</i>	<i>0.1516</i>	<i>8.0802</i>	<i>0.0045</i>	<i>1.5387</i>
under £110	0.1843	0.2283	0.6518	0.4195	1.2023
<i>£111-£170</i>	<i>0.5344</i>	<i>0.1906</i>	<i>7.8640</i>	<i>0.0050</i>	<i>1.7064</i>
£170-£350	0.0901	0.1794	0.2521	0.6156	1.0943
Not in London	0.0539	0.1471	0.1343	0.7140	1.0554
<i>Constant</i>	<i>-2.6292</i>	<i>0.3334</i>	<i>62.1797</i>	<i>0.0000</i>	<i>0.0721</i>

*Goodness of fit statistics*

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1489.563	0.331	0.446

**Table A9.15: Logistic regression of probability of cost being a barrier to ICT usage**

Variable	B	S.E.	Wald	Sig.	Exp(B)
Female	0.0750	0.1782	0.1773	0.6737	1.0779
Mixed parentage	0.6556	0.3695	3.1476	0.0760	1.9264
South Asian	0.4300	0.2233	3.7089	0.0541	1.5373
Black	0.4287	0.2207	3.7720	0.0521	1.5353
Chinese and other	0.4088	0.4731	0.7467	0.3875	1.5050
aged 25 to 44	0.5110	0.2387	4.5842	0.0323	1.6670
aged 45 to 59/64	-0.0194	0.3078	0.0040	0.9497	0.9808
aged 60/64 plus	-0.2705	0.4134	0.4282	0.5129	0.7630
single adult 60+	0.2736	0.4206	0.4231	0.5154	1.3147
two adults both under 60	-0.3592	0.3242	1.2277	0.2678	0.6982
two adults, one 60 plus	0.1533	0.4136	0.1374	0.7109	1.1657
3+ adults	-0.7253	0.3922	3.4206	0.0644	0.4842
1 parent family child under 16	-0.0332	0.2813	0.0140	0.9059	0.9673
2 parents, at least one child under 16	-0.5549	0.2672	4.3139	0.0378	0.5741
2 or more couples living together	-0.5153	0.5060	1.0371	0.3085	0.5973
other household	-0.8816	0.7914	1.2410	0.2653	0.4141
Unemployed	1.1176	0.2427	21.2084	0.0000	3.0574
Student	-0.6008	0.5092	1.3920	0.2381	0.5484
<i>Inactive</i>	<i>0.7895</i>	<i>0.2226</i>	<i>12.5821</i>	<i>0.0004</i>	<i>2.2022</i>
Intermediate skill	-0.5279	0.2175	5.8916	0.0152	0.5898
low skill	0.0101	0.1764	0.0033	0.9544	1.0101
<i>under £110</i>	<i>0.8103</i>	<i>0.2416</i>	<i>11.2516</i>	<i>0.0008</i>	<i>2.2486</i>
<i>£111-£170</i>	<i>0.8566</i>	<i>0.2111</i>	<i>16.4593</i>	<i>0.0000</i>	<i>2.3551</i>
<i>£170-£350</i>	<i>0.6927</i>	<i>0.2188</i>	<i>10.0217</i>	<i>0.0015</i>	<i>1.9991</i>
Not in London	0.3577	0.1772	4.0746	0.0435	1.4301
<i>Constant</i>	<i>-3.2334</i>	<i>0.3992</i>	<i>65.5976</i>	<i>0.0000</i>	<i>0.0394</i>

*Goodness of fit statistics*

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1173.625	0.088	0.156

## **Appendix 10.1**

The following Tables (A10.1 and A10.2) summarise the significant explanatory variables in each of the logistic regression models detailed in previous Appendices.

It should be noted that not all independent variables were included in all models.

**Table A10.1: Results of logistic regressions – variables statistically significant at the 1 per cent level**

Variable	Used Internet	Used Internet at home	Internet in public	Used PC: study	Used PC: leisure	Used PC: e-mail	Not used ICT	Self-trained	Formal training	Have Home internet	Non-exist. skills	Cost
Female							+	-	+			
Mixed parentage												
<i>South Asian</i>			-		-	-	+	-		-	+	
Black		-						-	+	-		
Chinese and other												
<i>aged 25 to 44</i>			-						-		+	
<i>aged 45 to 59/64</i>	-		-		-	-	+		-	-	+	
<i>aged 60/64 plus</i>	-		-			-	+		-	-	+	
single adult 60+								-				
two adults both under 60												
two adults, one 60 plus									+			
3+ adults				+						+		
1 parent family child under 16												
2 parents, at least one child under 16												
2 or more couples living together												
other household												
<i>Unemployed</i>							+		-	-	+	+
Student			+	+							-	
<i>Inactive</i>	-		-				+	-	-	-	+	+
<i>Intermediate skill</i>			+				-		+		-	
<i>low skill</i>			-	-						-	+	
under £110										-		+
£111-£170										-	+	+
£170-£350												+
Not in London								-				
Have or own a PC			+									
Ever used a PC	+	+										
Used Internet at work												
Used Internet at place of study												
Used Internet at someone else's house		+										
Poor English ability							+					
Eyesight problems												
Other disability												
Constant	-	-	+				-		-		-	-

**Table A10.2: Results of logistic regressions – variables statistically significant at the 5 per cent level**

Variable	Used Internet	Used Internet at home	Internet in public	Used PC: study	Used PC: leisure	Used PC: e-mail	Not used ICT	Self-trained	Formal training	Have Home Internet	Non-exist. skills	Cost
Female	-				-	-	+	-	+	-		
Mixed parentage												
<i>South Asian</i>	-		-		-	-	+	-		-	+	
Black		-			-			-	+	-		
Chinese and other	-											
<i>aged 25 to 44</i>			-				+		-		+	+
<i>aged 45 to 59/64</i>	-		-	-	-	-	+		-	-	+	
<i>aged 60/64 plus</i>	-		-	-	-	-	+		-	-	+	
single adult 60+								-				
two adults both under 60												
two adults, one 60 plus				+					+			
3+ adults		+		+						+		
1 parent family child under 16		+		+						+		
2 parents, at least one child under 16		+								+		-
2 or more couples living together												
other household									+			
<i>Unemployed</i>							+		-	-	+	+
Student			+	+							-	
<i>Inactive</i>	-		-	-	-	-	+	-	-	-	+	+
<i>Intermediate skill</i>			+				-		+		-	-
<i>low skill</i>	-	-	-	-		-				-	+	
under £110	-	-								-		+
£111-£170	-									-	+	+
£170-£350												+
Not in London				-				-				+
Have or own a PC			+									
Ever used a PC	+	+										
Used Internet at work		+										
Used Internet at place of study												
Used Internet at someone else's house		+										
Poor English ability							+					
Eyesight problems												
Other disability												
Constant	-	-	+		+		-		-		-	-



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