SURVEY OF ENGLISH HOUSING 2006-07 SPSS DATABASES

Geographical Coverage: England

Period covered: April 2006 - March 2007

Files

The data files each give the data at a particular level and are as follows.

Database	Level
ADD06ESS.SAV	Address
HHD06ESS.SAV	Household
FUT06ESS.SAV	Family unit
IND06ESS.SAV	Person
TEN06ESS.SAV	Tenancy group

(Also available from the UKDA in Stata and tab-delimited formats).

Sample size

Consideration always has to be given to the sample sizes involved, as data based on very small samples will not be meaningful. Moreover, the selection of addresses is based on a clustered sample approach and this too can affect the reliability of results for small areas. The survey is designed to produce robust estimates at national level. A limited amount of analysis is also possible at regional level, depending on the sample sizes for the groups concerned. Tabulations must not be too disaggregated or with too many dimensions. In particular the sample sizes for an individual local authority are not only too small to deliver reliable estimates but the clustered sampling means that the households selected within the LA may not fully represent all households in the LA. The local authority variable *sla* is provided to allow users to aggregate groups of LAs for analysis.

Unknown and inconsistent data

Problems can arise with unknown or inconsistent data. When using a variable, it may be necessary to filter out, or code as unknown, all cases except those with possible or reasonable values for the variable. In particular, it should be assumed that variables for which the value is an amount of money (ungrouped) have a known value only if greater than, or equal to, 0. In particular, such variables may have arbitrary negative codes, e.g. CRENT1=-1000 may mean that the premises have unknown business rental. Similar care may need to be taken when using two or more variables which could have inconsistent values e.g., as stated above, net rent should be set to zero (not negative) for tenancy groups where CRENT1>=0 & HBAMTP>=0 & CRENT1<HBAMTP.

Grossing

Data from the SEH should be produced grossed. The grossing factors convert numbers in the sample to numbers in the population (in thousands), and allow for some groups being more likely to respond to the Survey than others. Tables should be grossed by H4B, unless they make use of tenancy group data when the grossing factor H4BT

should be used. H4B is on HHD06ESS.SAV, IND06ESS and TEN06ESS.SAV, H4BT is on TEN06ESS.SAV only.

Linking of files

A household level serial number (HHSERIAL) can be found on all data files.

A household is uniquely identified within an address by the variable HHOLD, which is found on all data files, except ADD06ESS.SAV.

A family unit is uniquely identified within a household by the variable AFAM, which is found on FUT06ESS.SAV and IND06ESS.SAV.

A person is uniquely identified within a household, even across different family units, by PERSNO, which is found on IND06ESS.SAV.

A tenancy group is uniquely identified within a household by TGNUM, which is found on TEN06ESS.SAV and IND06ESS.SAV (members of tenancy groups only).

Household reference person

From April 2001 the SEH, in common with other Government surveys, replaced the traditional concept of the "head of the household" by "household reference person". The household reference person is defined as the "householder" (that is the person in whose name the accommodation is owned or rented). For *joint* householders (joint owners or joint tenants), the household reference person is whoever has the *highest income*. If incomes are the same, the *older* person is defined as the household reference person. Thus the household reference person definition, unlike the old head of household definition, no longer gives automatic priority to male partners.

Documentation

The following documentation is enclosed with the data (Word documents have been converted to PDF and have been grouped together).

Filename	**File type**	**Description**
SEH06 Essex.doc	Word	*This database guide to the SEH*
varlists06.xls	Excel	Lists of all the variables in each data set
design06.doc	Word	Information on the sample design, data collection and response
grossing06.doc	Word	Describes how the sample was grossed up for the estimated totals provided in the report and shows the effect this has on a number of key measures.
Grossing Tabs06.xls	Excel	Tables to support ‘grossing06’

samperror06.doc	Word	Gives the calculated standard errors, confidence intervals and design factors for certain characteristics and details the method used to estimate them.
samptabs1to6.xls	Excel	Tables to support 'samperror06'
questionnaire06.doc	Word	Details all the questions and response categories in the survey divided into sections showing the general routings to each section
defns06.doc	Word	Details some crucial definitions for terms used in the survey and report
dvspecs06.doc	Word	Derived variable specifications
fieldinst06.doc	Word	Field instructions detailing the sample, terms/definitions used within the survey and important field procedures for the interviewers.
questioninst06.doc	Word	Questionnaire instructions providing the background and structure of the survey followed by details of all the questions asked in the interview.
showcards06.doc	Word	Interviewers showcards (2006-07)

Also, the SPSS variables utility gives information about individual variables on the dataset.

Gross income (household level variables - on file H06ESS.SAV).

Variable	Persons	Period	Values
GROSSHRP	HRP	Annual	Ungrouped
WEEKHRP	HRP	Weekly	Ungrouped
WEEKHRP1	HRP	Weekly	Grouped
JOINTINC	HRP & part	Annual	Ungrouped
WEEKJNT	HRP & part	Weekly	Ungrouped
WEEKJNT1	HRP & part	Weekly	Grouped
HYEARGR	Household	Annual	Ungrouped
HWEEKGR	Household	Weekly	Ungrouped
HWEEKGR1	Household	Weekly	Grouped

"HRP" stands for household reference person. "HRP & part" for household reference person and partner; if there is no partner or the partner has no income, the income is that of the household reference person. The ungrouped values are in pounds. It should be noted that income is partly based on the midpoints of groups identified by the respondent and hence does not necessarily give an exact value. Please note that the variables JOINTINC, WEEKJNT and WEEKJNT1 includes the income of the household reference person and the partner of the household reference person, whether married or not, even though the word "spouse" occurs in the variable label.

Social renters (LA and HA tenants) on HHD06ESS.SAV

Rent and Housing Benefit variables

- LRENTBH (in £ per week), is the gross rent paid by social tenants before Housing Benefit
- LRENTAH (in £ per week) is the net rent paid by social tenants after deduction of Housing Benefit.
- LRENTBH1 and LRENTAH1 are grouped versions of these variables.

HBEN is used to determine whether household receives Housing Benefit. LRENTBH-LRENTAH gives the amount received (don't use HB or HBADJ). To avoid problems with unknown data, when tabulating amount of Housing Benefit received, always filter for LRENTBH>=0 AND LRENTAH>=0 AND LRENTBH >= LRENTAH. The value of LRENTBH-LRENTAH (positive or zero) should not be used to determine whether the household receives Housing Benefit as there may be some households known to receive Housing Benefit but with LRENTBH or LRENTAH or both unknown.

Private tenancy groups

Gross rent variables on TEN06ESS.SAV

Useful variables for gross rent (rent before deduction of Housing Benefit) at tenancy group level for private renters are CRENT1 (pence per wk) and CRENTGP1 (grouped). These should always be used as they exclude services, meals, water rates, sewerage rates and business rental. The other variables may include some element of these and hence should not normally be used. All the variables below give a weekly amount.

Variable	Comments
WRENT	Unadjusted (pence)
WRENT1	Unadjusted (£)
WRENTG	Unadjusted (£ grouped)
COMPRENT	Adjusted (pence) (excluding services, meals, water rates sewerage rates and business rental if known
CRENT1	Adjusted (pence) (excluding services, meals, water rates, sewerage rates and business rental (set to unknown (-1000) if business rental unknown)
CRENTGP1	Adjusted (£ grouped) (excluding services, meals, water rates, sewerage rates and business rental (set to unknown (-1000) if business rental unknown)

Note. Care is required in dealing with missing values, e.g. CRENT1=-1000 probably means that the premises have unknown business rental.

Housing Benefit variables on TEN06ESS.SAV

Use PHBEN to ascertain whether a privately renting tenancy group receives Housing Benefit. For amount of Housing Benefit received, use HBAMT (£ per week) or HBAMTP (pence per week). The value of HBAMT or HBAMTP (positive or zero) should not be used to determine whether any in a tenancy group receives Housing Benefit as there may be some groups known to receive Housing Benefit but with the amount unknown.

Net rent variables on TEN06ESS.SAV
Although the database contains variables for net rent (rent after deduction of Housing Benefit) at tenancy group level for private renters, their use is not recommended:

Variable	Comments
NETRENT	Unadjusted (pence)
CRENTNET	Excluding services, meals, water rates, sewerage rates and business rental (pence) (set to unknown (-1,000) if business rental unknown)

This is because the method used to calculate them was different from that used in 1998-99 when the method of dealing with "odd" cases was preferable. It is therefore recommended that net rent is calculated as follows (calling the variable NRENT).

```
Set NRENT to missing.
DO IF CRENT1 GE 0 AND HBAMTP GE 0.
COMPUTE NRENT=CRENT1-HBAMTP.
IF (CRENT1 LT HBAMTP)NRENT=0.
END IF.
```

This method is consistent with the method used for the 1999-00 SEH report and for the database variable CRENTNET in 1998-99. As shown above, net rent should be set to zero for tenancy groups where CRENT1>=0 & HBAMTP>=0 & CRENT1<HBAMTP.

Mortgage interest on HHD06ESS.SAV
MORTN gives amount of mortgage payment in pounds a month. Please note that since 2005-06 MORTN is in pounds a month, whereas previously it was in pounds a week. Please note that from April 2000 there was no longer any Income Tax relief on mortgages.

Satisfaction with landlord (HAS238N) (council or housing association households) on HHD06ESS.SAV
This variable was given a new name (HAS238N instead of HAS238) from 2000-01 onwards because the wording of the question was changed. Respondents were asked about satisfaction with housing services provided by landlord instead of satisfaction with landlord. The variable HAS238N exists for the entire period April 2000 - March 2007.

Satisfaction with landlord (PHA238N) (privately renting tenancies) on TEN06ESS.SAV
This variable was given a new name (PHA238N instead of PHA238) from 2000-01 onwards because the wording of the question has been changed. Respondents were asked about satisfaction with services provided by landlord instead of satisfaction with landlord. The variable PHA238N exists for the entire period April 2000 - March 2007.

Regional variables

- GOVREG2 (on ADD06ESS.SAV and HHD06ESS.SAV) should be used for Government Office Region (Merseyside is now part of the North West Government Office Region and GOVREG2 is coded accordingly).
- GOVREG1 (on HHD06ESS.SAV) gives Government Office region grouped.
- GOREG (on ADD06ESS.SAV and HHD06ESS.SAV) also gives Government Office Region but with separate codes for metropolitan and non-metropolitan areas and with Inner London coded separately from Outer London (the code for North West metropolitan covers both Greater Manchester and Merseyside).
- STAREGGB (on ADD06ESS.SAV and HHD06ESS.SAV) gives the old Standard Statistical Regions.

Other geographical indicators

The following are available for 2006-07 and are on the files ADD06ESS.SAV and HHD06ESS.SAV.

COUNTY	County
SLA	Local authority code, post-1998 (also on TEN06ESS.SAV)

Note that the sample is not large enough to provide data on individual local authorities. The local authority codes are included so that they can be aggregated into groups of local authorities.

Whether accommodation is furnished

At household level, TENURE2 or FURN (both on HHD06ESS.SAV) gives this information for privately renting households. At tenancy group level, these variables will give this information for tenancy groups containing the household reference person and FURNPR (on TEN06ESS.SAV) for other tenancy groups. Note that FURNPR does not usually have a valid value if the tenancy group includes the household reference person.

Location of second home on HHD06ESS.SAV

The locations of second homes in Great Britain are classified by county or country (variable WHSECH1-WHSECH10). The locations of second homes outside Great Britain are given by WHSECAB1 - WHSECAB7.

Department for Communities and Local Government
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2006/07 Survey of English Housing

Appendix A

Definitions and Terms

Area type

ACORN Classification
In 2004/5 the SEH adopted the revised ACORN classification[1], devised by CACI Limited, as a means of classifying areas according to various Census characteristics. An ACORN code is assigned to each Super Output Area (SOA) and this is then copied to all postcodes within the SOA.

The list below shows the five ACORN major categories and the 17 groups. Each ACORN group is further divided into a number of area types (not shown here). The descriptions are CACI's.

Category A: Wealthy Achievers
1 A Wealthy executives
2 B Affluent Greys
3 C Flourishing families

Category B: Urban Prosperity
4 D Prosperous professionals
5 E Educated urbanites
6 F Aspiring singles

Category C: Comfortably Off
7 G Starting out
8 H Secure families
9 I Settled suburbia
10 J Prudent pensioners

Category D: Moderate Means
11 K Asian communities
12 L Post-industrial families
13 M Blue-collar roots

Category E: Hard-Pressed
14 N Struggling families
15 O Burdened singles
16 P High-rise hardship
17 Q Inner City adversity

Urban/Rural classification (settlement size)
(Not an ACORN classification.) This is based on the resident population (in the 2001 Census) of the settlement which contains the selected postcode sector (or the largest part of it). The information about population size can be used flexibly, but those areas with a population of less than 10,000 are sometimes regarded as being rural (this would include many villages and small towns), and those with a population of less than 3,000 as very rural. Similarly those areas with a resident population of at least 10,000 might be taken as being urban, although this would include quite modest towns as well as large cities.

[1] CACI Ltd 2004. All rights reserved.
Source: Office for National Statistics and GRO(s) crown copyright 2001. All rights reserved.

Index of Multiple Deprivation (IMD)
(Not an ACORN classification.) In 1999, a review of the 1998 Index of Local Deprivation (1998 ILD) was commissioned. As a result of this, Indices of Deprivation 2000 (ID2000) were constructed from ward level results (based on 8,414 areas). In 2003/04, the Indices of Deprivation were re-constructed on the basis of Lower Layer Super Output Areas (LLSOAs), an aggregation of Census output areas. Output areas were developed for the 2001 Census and each LLSOA constitutes the addresses covered by approximately five Census Output Areas. Each LLSOA (hereafter referred to as 'area') has a population average of 1,500 people. The overall area Index is referred to as the Index of Multiple Deprivation (IMD). It is based largely on administrative data at area level in seven 'domains': income, employment, health and disability; education and skills; barriers to Housing and Services, Living Environment and Crime. The most deprived area has a rank of 1 and the least deprived has a rank of 32,482.

Arrears

Mortgage arrears was defined as being behind with the mortgage payments at the time of interview.

Rent arrears was defined as being at least two weeks behind with the rent.

Bedroom standard

This indicator of occupation density was developed by the Government Social Survey in the 1960s for use in social surveys. It incoporates assumptions about the sharing of bedrooms that would now be widely considered to be at a margin of acceptability.

A standard number of bedrooms required is calculated for each household in accordance with its age/sex/marital status composition and the relationship of the members to one another. A separate bedroom is required for each married or cohabiting couple, for any other person aged 21 or over, for each pair of adolescents aged 10 – 20 of the same sex, and for each pair of children under 10. Any unpaired person aged 10 – 20 is paired, if possible with a child under 10 of the same sex, or, if that is not possible, he or she is counted as requiring a separate bedroom, as is any unpaired child under 10.

This standard is then compared with the actual number of bedrooms (including bed-sitters) available for the sole use of the household. Bedrooms converted to other uses are not counted as available unless they have been denoted as bedrooms by the residents, bedrooms not actually in use are counted unless uninhabitable. If a household has fewer bedrooms than implied by the standard then it is deemed to be overcrowded. As even a bed-sitter will meet the bedroom standard for a single person household, or for a married/cohabiting couple, single person and couple households cannot be overcrowded according to the bedroom standard.

Continuing households

See Moving Households.

Council Tax Band

For the purposes of the council tax, dwellings are placed into one of eight bands based on their "capital value". Capital values are arrived at by estimating the amount each dwelling might have been sold for on the open market, subject to certain assumptions, if it had been sold on 1 April 1991 (taking account of any significant change to the property since then such as an extension). (Dwellings built since April 1991 are also assigned to tax bands based on notional value in April 1991) Changes in value since then do not normally count - re-valuations may take place if, for example, improvements are made to a property which increase its value, if part of it is demolished, if the physical state of the local area changes, or if the balance between domestic and business use of a dwelling changes, *but general changes in prices within the housing market since 1991 are not taken into account*. The range of values, based on 1991 prices, which each band covers, in England, is as follows:

A: Up to £40,000
B: Over £40,000 and up to £52,000
C: Over £52,000 and up to £68,000
D: Over £68,000 and up to £88,000
E: Over £88,000 and up to £120,000
F: Over £120,000 and up to £160,000
G: Over £160,000 and up to £320,000
H: Over £320,000

Dependent children

Dependent children are persons aged under 16, or single persons aged 16 to 18 and in full-time education.

Deprived area

See Area type

Economic activity

In 2004/5, the harmonised series of economic activity questions were replaced with a single question. Respondents self-report their situation and can give more than one answer.

Working full-time/part-time
The distinction between full-time and part-time is based on respondents' own opinions. Where more than one answer is given, 'working' takes priority over other categories (with the exception that all those over SPA who regard themselves as retired are classified as such, regardless of what other answers they give).

Unemployed
This category covers people who were registered unemployed or not registered unemployed but seeking work.

Retired
This category includes all those over the SPA (65 years for men and 60 for women) who reported being retired as well as some other activity.

Other inactive
All others; they include people who were permanently sick or disabled, full-time students, those looking after the family or home and any other activity.

Ethnic group

From 2001/2, the SEH collected information on the ethnic group of adult household members according to the new harmonised definition used in the 2001 Census. The new definition increased the number of categories (16 categories as compared with 9 in the 1991 census definition).

For tables presenting trends the new categories have been combined to give groupings that are broadly comparable with the categories used in 2000/1 and earlier years.

The sample sizes for many ethnic groups are quite small, so the results shown should be regarded as approximate.

Family Resources Survey (FRS)

This is a continuous survey of 24,000 households per annum commissioned by the Department for Work and Pensions (DWP). The survey, which was launched in October 1992, collects information on income in greater detail than the SEH, and is therefore considered to be the preferred source for analyses relating to income. Like the SEH it collects data on housing tenure, characteristics of the household, housing benefits, rent payments and mortgage payments. Other housing topics covered include accommodation type, number of rooms, number of bedrooms, type of mortgage, use of mortgage protection insurance and central heating by type of fuel.

Family Unit

A family unit is defined as one of the following:

(a) a married or cohabiting couple with no children
(b) a married or cohabiting couple/lone parent and their never-married child(ren), provided these children have no children of their own
(c) one person

Two people of the same sex who described themselves as 'partners' are classified as a cohabiting couple.

In general family units cannot span more than two generations, i.e. grandparents and grandchildren cannot belong to the same family unit. The exception to this is where there is no parent in the household and it is established that a grandparent is acting in place of a parent.

Adopted and step-children belong to the same family unit as their adoptive/step-parents. Foster children, however, are not part of the foster-parents' family unit.

First-Time Buyers

See Recent Entrants to Owner Occupation

Household

A household is defined as one person or a group of people who have the accommodation as their only or main residence and (for a group) either share at least one meal a day or share the living accommodation, that is, a living room or sitting room.

Household Reference Person (replaced Head of Household)

In common with other Government surveys, in 2001/2 the SEH replaced the traditional concept of the "head of the household" with "household reference person". The household reference person (HRP), otherwise known as the "highest income householder", must be a householder (i.e. a person in whose name the accommodation is owned or rented). Where there are joint householders, the person with the *highest income* is selected. If two or more householders have exactly the same income the *oldest* is selected.

The definition of the household reference person, unlike the old head of household definition, no longer gives automatic priority to male partners.

Some tables presenting data only for earlier years have retained the Head of Household definition and the term also appears in the title. Tables showing trends include the term Household Reference Person in the title, but results for years before 2001/2 are actually based on the Head of Household concept. This applies in cases where it is believed that the change of concept has had only a very minor effect on the results.

Housing Associations

These mostly comprise of Registered Social Landlords (RSLs), and also include Local Housing Companies, co-operatives and charitable trusts. (Local Housing Companies are independent non-profit companies that manage tenanted housing. A number of these companies have been set up to run single ex-local authority estates.) Note that the term 'RSLs' was used in place of 'housing associations' from 1997/1998; but the more all-encompassing description of 'housing associations' is now seen as more appropriate.

Head of tenancy

See Tenancy

Household membership

People are regarded as living at the address if they (or the informant) consider the address to be their only or main residence. There are, however, certain rules which take priority over this criterion.

(a) Children aged 16 or over who live away from home for the purposes of work or study and come home only for the holidays are not included at the parental address under any circumstances

(b) Children of any age away from home in a temporary job and children under 16 at boarding school are always included in the parental household.
(c) People who have been away from the address continuously for six months or longer are excluded.
(d) People who have been living continuously at the address for six months or longer are included even if they have their main residence elsewhere.
(e) Addresses used only as second homes are never counted as main residences.

Household type

The main classification of household type uses the following categories:

(a) Married/cohabiting couple with no children or with non-dependent child(ren) only
(b) Married/cohabiting couple with dependent child(ren)
(c) Lone parent family (one parent with dependent child(ren))
(d) Other multi-person household (includes flat sharers, lone parents with non-dependent children only and households containing more than one couple or lone parent family). Previously described as 'large adult household'.
(e) One male
(f) One female

The married/cohabiting couple and lone parent household types (categories a-c) may include one-person family units in addition to the couple/lone parent family.

Housing Benefit

Social Security benefit administered by local authorities which is designed to help people who rent their homes and have difficulty meeting their housing costs.

Council tenants on Housing Benefit get a rent rebate which means that their rent due is reduced by the amount of that rebate. Private and housing association tenants usually receive Housing Benefit (or rent allowance) personally, although sometimes it is paid direct to the landlord.

This benefit is means tested, both in terms of income and capital (savings of more than £16,000 will normally disqualify). Before paying housing benefit the local authority usually refers the case to the Rent Service to make an individual rent assessment. The Rent Officer decides if the rent is reasonable for the local market, if the tenant occupies too big a home, and if the rent is higher than the middle range of local rents. Local authorities do not refer all cases to the Rent Service. The exceptions are primarily Local Authority Housing and registered Housing Association lettings (unless the Local authority considers the rent unreasonably high or the tenant's accommodation unreasonably large).

Income

Tables usually show the gross weekly income of the household reference person (where the household reference person is not living with a spouse/partner) or the joint weekly income of the couple (when the household reference person is married or cohabiting). 'Gross' income is income before any deductions for tax or National Insurance contributions.

Index of Multiple Deprivation

See Area type

Labour Force Survey (LFS)

This is very large ONS household survey, 48,000 households per annum, which is primarily a labour market survey. The information collected relevant to housing includes tenure, and household characteristics, including economic activity. (The amount of housing data collected was reduced when the SEH was set up; previously the LFS included a special housing trailer.) Its larger sample size makes the LFS the preferred source for many analyses in terms of housing tenure.

Lodgers

In the SEH a lodger is defined as someone who rents a room, or in a few cases two rooms, in the landlord's own home and shares facilities with the landlord. Close relatives of the landlord (spouse, partner, parent, sibling or child) are excluded even if they say they pay rent. Three separate groups of lodgers are distinguished:

- Lodgers living as part of their landlord's household
- Lodgers forming a separate household (according to the standard survey definition) but sharing the landlord's home. This group is not easily identifiable. The criteria used here are that they were privately renting households with no more than two unshared rooms and who shared a bathroom with their landlord
- Lodgers who are staying temporarily or for part of the week with a household, for example people who are working away from home. Under the standard survey definition such people do not form part of the household with whom they are lodging because they have a main residence elsewhere.

Marital status

Marital status is based on the informant's opinion and may differ from legal marital status.

Unrelated adults of the same or opposite sex are classed as cohabiting if they consider themselves to be living together as a couple. Cohabiting takes precedence over other categories.

Mortgages

Repayment mortgage
A mortgage in which the regular payments (usually monthly) include both interest on the outstanding amount and a capital repayment element. Assuming that the interest rate is unchanged payments will be constant over the term of the mortgage, however over time the mix of interest and capital repayment changes. Initially most of the payment goes towards paying the interest, however the capital repayment element has the effect of slightly reducing the outstanding loan. As the outstanding mortgage reduces, the interest element reduces as well, and since the total payment remains the same the capital repayment element increases. Towards the end of the term most of the regular payment comprises capital repayment and interest is a relatively small component; at the end of the term the full amount of the original loan will have been repaid.

Endowment mortgage
A mortgage in which the borrower makes two separate regular payments during the term of the mortgage, one to the lender to pay the interest on the loan, and one to a life insurance company under a 'with profits' endowment policy intended to repay the original loan. The life (or joint lives) of the borrower(s) is insured for a fixed sum to which profits called reversionary bonuses are added every year. The fixed sum insured plus reversionary bonuses (plus in some cases a terminal bonus) are paid by the insurance company at the end of the term of the endowment policy, which is also the term of the mortgage, or on the death of the insured.

Pension Mortgage
As in the case of an endowment mortgage there are two regular payments. One is to the lender to pay the interest on the loan, and the other is a contribution to a pension plan; the fund built up through the plan is used to repay the mortgage when its term expires. The customer gets full tax relief on the contributions to the pension plan, and this type of mortgage is particularly suited to the self-employed, partners or directors who own more than 5 per cent of their company.

PEP, ISA and Unit Trust Mortgages
Like endowment and pension mortgages these are "interest only" mortgages i.e., during the term of the mortgage the borrower makes interest payments to the mortgage lender and the original loan is repaid at the end of the fixed term. In this case the repayment vehicle is a PEP (now defunct), an ISA or a Unit Trust. PEPs and ISAs benefit from tax relief.

Interest only mortgage

All-in-one Mortgages

This is a type of flexible mortgage which allows a person to link together different accounts – for example a current account, a savings account and a mortgage (as well as any other loans). There are two types of all-in-one account, current account mortgages and offset mortgages.

Moving households

A moving household is usually a household which has been at the present address for less than twelve months. In some tables, it includes households resident for less than three years, in order to give a larger sample for analysis.

A new household is one where neither the household reference person nor their spouse/partner occupied the household reference person's previous (permanent) accommodation in either of their names. SEH does not differentiate between previous accommodation within England and outside of England (including abroad).

Continuing households are those households where the household reference person or their spouse/partner occupied their previous (permanent) accommodation in their names. This must be their previous accommodation.

New household

See Moving Households.

New tenancy group

See tenancy group membership.

Non self-contained accommodation

See Type of Accommodation.

Postcode sector

Postcode sectors are a standard geographic unit comprising the first part (or outward code) of the full postcode and the first digit of the second part (or inward code). For example, the postcode sector for the full postcode NR3 1GN is NR3 1. Postcode sectors are of similar size to electoral wards. In January 2006 there were approximately 7,715 postcode sectors in England.

Recent Entrants to Owner Occupation

Recent entrants to owner occupation are defined as households who purchased their accommodation within the three years prior to interview from other tenures or as a new household.

Recent entrants to owner-occupation will often be first-time buyers, however, this definition will also include those re-entering owner-occupation.

First time buyers are those who have *never* previously owned their accommodation.

Region

Analyses in this report are based on the Government Office Regions, as shown in the following table. This table also shows how the Government Office Regions relate to the old standard statistical regions which were used in the 1993/4 report, and other DOE housing surveys which preceded the SEH.

Government Office Region	County or former county	Standard Statistical Region
North East	Cleveland Durham Northumberland Tyne and Wear	North
North West (inc. Merseyside)	Cumbria	
	Cheshire Greater Manchester Lancashire Merseyside	North West
Yorkshire and the Humber	Humberside North Yorkshire South Yorkshire West Yorkshire	Yorkshire and Humberside
East Midlands	Derbyshire	East Midlands

	Leicestershire	
	Lincolnshire	
	Northamptonshire	
	Nottinghamshire	
West Midlands	Hereford and Worcester	West Midlands
	Shropshire	
	Staffordshire	
	Warwickshire	
	West Midlands	
South West	Avon	South West
	Cornwall	
	Devon	
	Dorset	
	Gloucestershire	
	Somerset	
	Wiltshire	
East	Cambridgeshire	East Anglia
	Norfolk	
	Suffolk	
	Bedfordshire	South East
	Essex	
	Hertfordshire	
South East	Berkshire	
	Buckinghamshire	
	East Sussex	
	Hampshire	
	Isle of Wight	
	Kent	
	Oxfordshire	
	Surrey	
	West Sussex	
London	Greater London	London

The following grouped regions are sometimes used where sample sizes do not permit full analysis by Government Office Region. These do not have any official basis.

Government Office Region	Grouped region
North East	North
North West	
Yorkshire and the Humber	
East Midlands	Midlands
West Midlands	
South West	South
East	
South East	
London	South - except where shown separately

Rents

Local authority and HA tenants
Rents are based on the amount paid per week, adjusted to take account of any rent holiday. Water rates are not included in rent.

Private tenants

Comparable weekly rent is defined as the charge for the accommodation less any additional charges for services which would not be eligible for Housing Benefit, such as fuel or TV licences. Water rates are not included in rent.

Right-to-buy

A scheme which enables local authority secure tenants with at least two years tenancy to buy their homes at a discount price. It is targeted at well-established public tenants, with the discount increasing in rough proportion to the years they have been paying rent.

Rooms

These are defined as habitable rooms, including kitchens at least 2 metres (6.5 foot) wide and excluding rooms which are used for business purposes and those not normally used for living in (such as bathrooms, toilets, storerooms, pantries, cellars and garages). Shared kitchens are not included in the room count.

Rural/urban area

See area type.

Second homes

Second homes are properties, owned or rented by a household member, which are not the household's main residence. However, properties which are the main residence of someone else, or which the owner intends to sell because they have moved are not counted as second homes.

Socio-Economic Classification

In 2001/2 the SEH adopted the new National Statistics Socio-Economic Classification (NS- SEC), which is based on the new Standard Occupational Classification (SOC2000) The categories used are:

(1) Employers in large organisations; Higher managerial occupations; Higher professional occupations

(2) Lower professional and higher technical occupations; Lower managerial occupations; Higher supervisory occupations

(3) Intermediate occupations

(4) Employers in small organisations; Own account workers

(5) Lower supervisory occupations; Lower technical occupations

(6) Semi-routine occupations

(7) Routine occupations

These are the Analytic Classes of the NS-SEC except for NS-SEC class 8 "Never worked and long-term unemployed".

Occupational details were collected for economically active and retired people. Unemployed people are coded according to their last occupation, and retired people are coded according to their previous main occupation.

Tenancy

The renting agreement whereby tenants rent the accommodation or occupy it free of charge. In the Survey of English Housing this term is not used in its strict legal sense but covers any agreement, written or unwritten, including those that are strictly licenses to occupy.

Tenancy Reference Person (replaced Head of tenancy)

In 2001/2 the SEH introduced a new concept "tenancy reference person" to replace the old "head of tenancy". As in the case of the household reference person, priority is no longer given to the male partner, but to the member of the tenancy group with the highest income. The tenancy reference person is defined as the person in whose name the accommodation is rented. If it is rented jointly, the person with the highest income is selected.

Tenancy group membership

Everyone covered by the same renting agreement who shares the legal status conferred by the agreement and whose accommodation is paid for by a single rent.

A new tenancy group is one where neither the tenancy reference partner nor their spouse/partner rented the tenancy reference persons previous (accommodation) in either of their names.

Tenancy group type

The main classification of tenancy group type uses the following categories:

One adult (aged 16-59)
Two adults (aged 16-59)
Married/cohabiting couple with dependent child(ren)
Lone parent with dependent child(ren)
Large mainly adult
(includes lone parents with non-dependent children and tenancy groups containing more than one couple or lone parent family as well as house and flat sharers)
Two adults (at least one aged 60 or over)
One adult (aged 60 or over)

Tenure

Owners

Owner occupied accommodation, is accommodation which is either owned outright, being bought with a mortgage or being bought as part of a shared ownership scheme.

Social renters
This category includes households renting from

(a) the Council / Local Authority including Arms Length Management Organisations (ALMOs) and Housing Action Trusts;
(b) Housing Associations (mostly Registered Social Landlords - RSLs), Local Housing Companies, co-operatives and charitable trusts. Note that the term 'RSLs' was used in place of 'housing associations' from 1997/8; but the more all-encompassing description of 'housing associations' is now seen as more appropriate.

Private renters
This sector covers all other tenants including all whose accommodation is tied to their job. It also includes people living rent-free (for example, people living in a flat belonging to a relative) and squatters.

Type of accommodation

Non self-contained accommodation
Households are classified as living in non self-contained accommodation if they share a kitchen, bathroom or toilet with another household, or if they share a hall or staircase which is needed in order to get from one part of the accommodation to another.

Households which share a common entrance hall, but otherwise have all their accommodation behind their own front door are not counted as living in non self-contained accommodation.

(It is likely however that in 1999/00 some households of this last type were incorrectly classified as non-self contained, leading to higher estimates in this group than in previous years. Any such over-estimate would be at the expense of 'self contained flat' accommodation types. This was corrected half way through the survey year in 2000/1.)

Bedsit
One room with no separate bathroom.

Studio flat
One bedroom and own bathroom (and kitchen in some cases).

Type of letting

Assured and Assured Shorthold Lettings
Under the 1988 Housing Act, all tenancies starting after the 14th January 1989 are Assured (including Assured Shorthold) unless they fall into one of the excluded categories, for example business lettings or lettings by resident landlords.

Before March 1997, tenants had to be given a notice in writing to say that a tenancy was an Assured Shorthold. From March 1997, the rules changed and all new tenancies were Assured Shortholds unless the agreement specifically stated that they were not. Assured Shorthold lettings are for a fixed period of six months or more. The landlord can regain possession of the property six months after the beginning of the tenancy provided that two

months notice is given. In the case of an assured letting the tenant has the right to remain in the property unless the landlord can prove grounds for repossession. The landlord does not have an automatic right to repossess the property when the tenancy comes to an end.

Regulated lettings
In general these are lettings that began before January 1989, since before that date most private tenancies were regulated lettings, unless they fell into one of the excluded categories. A few lettings after that date will also be regulated tenancies. With a regulated letting either the landlord or the tenant can apply to the Rent Officer for a registration of a fair rent. The registered rent then becomes the maximum that the landlord can legally charge. The landlord cannot evict the tenant without a possession order from the courts and this can only be granted in certain circumstances.

Lettings not accessible to the public
Lettings not accessible to the public are mostly lettings by employers to their employees and rent-free lettings to friends or relatives of the landlord in private houses or flats. Accommodation in halls of residence and student accommodation on campus is excluded from the survey (on the grounds that they are classed as communal establishments) but other lettings in houses or flats off campus by universities and colleges to their students are included. Being inaccessible to the public is not a legal category as such but most of the groups listed may be outside the Rent Act or Housing Act with regards to security of tenure.

Resident landlord lettings
Resident landlord lettings are tenancies where the landlord lives in the same building. This includes converted houses where they live in different parts of the same property (however long ago it was converted). In a purpose built block the landlord and tenant must live in the same flat for the letting to qualify as a resident landlord letting. Thus some tenants with a resident landlord have a self-contained flat within the landlord's house. Others are lodgers renting just one or two rooms and sharing amenities such as the bathroom or kitchen with the landlord.

No security lettings
No security lettings are accessible to the public but are outside the provisions of most tenancy legislation. They include lettings where the landlord provides meals and a substantial amount of attendance, lettings for the purpose of a holiday and lettings where a licence to occupy (but not a tenancy) was granted to the occupant.

Urban/rural area

See Area type.

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Appendix B

Survey design and response

Sample design

The SEH sample is selected from the small user version of the postcode address file (PAF), i.e. the version that excludes 'large users' such as businesses and institutions which receive a substantial volume of post. The PAF is the Post Office's list of all delivery points in the country and the 'small user' PAF is the file of delivery points which receive fewer than 50 items of mail each day. (The addresses at which people live are 'smaller users' in terms of postal delivery, but the small user PAF also includes non-residential addresses.)

A two-stage sample design is used with postcode sectors, which are similar in size to wards, as the primary sampling units (PSUs). (See Appendix A for the definition of postcode sectors). The design involves both stratification and clustering.

The first stratifier used was Government Office Region. Except in London a distinction was made between metropolitan areas (i.e. Metropolitan Districts and the Outer Metropolitan Area around London) and non-metropolitan areas, resulting in 16 regions as follows:

1 North East Metropolitan
2 North East Non-Metropolitan
3 North West Metropolitan
4 North West Non-Metropolitan
5 Yorkshire and Humberside Metropolitan
6 Yorkshire and Humberside Non-Metropolitan
7 East Midlands Non-Metropolitan
8 West Midlands Metropolitan
9 West Midlands Non-Metropolitan
10 South West Non-Metropolitan
11 Eastern Metropolitan
12 Eastern Non-Metropolitan
13 Inner London
14 Outer London
15 South East Metropolitan
16 South East Non-Metropolitan

Within each region, postcode sectors were further stratified according to selected housing and economic indicators from the 2001 Census. Sectors were initially ranked according to the proportion of households in privately rented accommodation and six roughly equal sized (in terms of addresses) bands were created for each of the 16 regional strata. Within each of the 96 bands thus created, sectors were re-ranked according to the proportion of households living in local authority accommodation and two roughly equal sized bands were produced. The resulting 192 bands were similar in size, in terms of the number of addresses they contained. Finally, within each of the 192 bands, sectors were re-ranked according to the proportion of household reference persons in non-manual occupations (socio-economic groups 1 to 6 and 13).

The stratification did not alter the sampling probabilities as the SEH does not sample disproportionately from strata, (so a sector in stratum 1 had the same chance of selection as a sector in, say, stratum 78). The stratification ensures that the sample is representative in terms of important subgroups, such as different regions and tenures. If the sample frame were not stratified in this way there would be a risk that by chance a particular subgroup

could be over or under-represented, for example the sample could predominantly cover the North of England, and under-represent the South.

Once the stratification was carried out the first stage of sampling took place. This was to sample 1,176 sectors with probability proportional to the size of the sector (i.e. the number of addresses in that sector). This was done by taking the complete stratified list of all the postcode sectors in England and calculating the cumulative sum of the addresses down the list. The postcode sectors for the SEH are selected using list sampling, a sampling interval of N/1,176 is used, where N is the total number of addresses in England at the date when the sample is drawn (21,749,567 in early 2006). This gave a sampling interval, I, of approximately 18,495. A random start, R, between 1 and 18,495 was taken and the 1,176 sectors were selected by taking those containing the Rth address, the (R+I)th address, the (R+2I)th address and so on, working down the cumulative address total. So if the random start was 153 the sectors selected for SEH would be those containing the 153rd address, the 18,647th address, the 37,142nd address, and so on. Having selected 1,176 postcode sectors, 98 sectors were allocated to each month of the year so as to provide, as far as possible, a nationally representative sample each quarter.

As the sectors were selected with probability proportional to size, the selection of an equal number of addresses per sector resulted in a sample with equal selection probabilities. This means that every address in England had the same probability of selection. Within each sector 25 addresses were selected using the same method as at the previous stage. A sampling interval of M/25 and a random start between 1 and M/25 was used, where M was the number of addresses in that sector. (As the probability that a sector was selected was M/I, where I was the sampling interval, the overall probability that an individual address was selected was [M/I] x [25/M] = [25/I] i.e. the product of the probability that a sector was selected, and the probability of selection of an address within the chosen sector.) The 25 selected addresses in each sector represented one interviewer assignment for one month.

The total set sample size of the SEH is 29,400 addresses each year (25 addresses in 1,176 postcode sectors). The delivery point count for England at the time of the PSU selection was 21,749,567. The sampling fraction was therefore 29,400/21,749,567 = 1/740. (This can also be derived as 25/I, see previous paragraph, where I was 18,495.) There is a very low probability of an individual address being selected in two successive years (1 in 503,000) so that there is no need to take steps to exclude this outcome.

Conversion of addresses to households

Eight per cent of the sampled addresses were ineligible, most commonly because they were empty but addresses were also ineligible if they did not contain any private households (for example, institutions and addresses used solely for business purposes). Most of the remaining eligible addresses contained just one household. Where an address was multi-occupied (i.e. occupied by more than one household), interviews were sought with all households at the address.

Table B1 The sample of addresses and households

ADDRESSES	
Selected addresses	29 400
Ineligible addresses:	
Demolished or derelict	130

Non-residential address e.g. business	285
Address occupied, but no resident household, e.g. second home	191
Institution/communal establishment	36
Vacant/empty housing unit	1 490
Address not traced	16
Other ineligible	333
Total ineligible	2 481
Eligible addresses	26 919
HOUSEHOLDS	
Extra ineligible households identified at multi-household Addresses	83
Extra eligible households identified at multi-household addresses	476
Total effective sample of households[1]	27 395
Non contact	1 298
Refusal	6 774
Other unproductive	1 817
Total number of households interviewed	17 506
Total number of households used for analysis	17 489

[1] *Eligible addresses plus extra eligible households (i.e. 26,919+476)*

Seventeen of the household interviews were not used in the analysis because their tenure was not known.

Data collection

Interviews took place week by week throughout the year beginning 12 April 2006 using computer assisted personal interview (CAPI). Interviews were sought with the household reference person or their spouse/partner at each household. In certain circumstances when the household reference person or spouse/partner was not available, an interview was conducted with another responsible adult (usually, though not necessarily, another household member). This was necessary in only 3 per cent of interviews.

Interviewers working on the SEH form part of the NatCen field force. Before working on SEH, they attend a briefing session and are accompanied in the field by a supervisor.

Response

Table B2 shows the response rate achieved among eligible households for England as a whole and for each Government Office Region. Overall, 5 per cent of households could not be contacted despite repeated attempts, 25 per cent refused to take part and 7 per cent were classified as unproductive for other reasons. Thus, overall, interviews were achieved with 64 per cent of eligible households. As in earlier years, the lowest response rate was achieved in London and the highest in the North East.

At the co-operating households, 2,097 privately renting tenancy groups were identified. A private renter's interview was carried out with 2,028 tenancy groups, 97 per cent of those eligible.

Table B2 Response by Government Office Region, 2006/07

Government Office Region	Interview	Non-contact	Refusal	Other unproductive	Total
					percentages
England	64%	5%	25%	7%	100
North East	72%	5%	18%	4%	100
North West	66%	6%	23%	6%	100
Yorkshire and the Humber	68%	3%	23%	6%	100
East Midlands	68%	3%	25%	4%	100
West Midlands	62%	5%	27%	6%	100
East	65%	3%	27%	6%	100
London	53%	7%	27%	12%	100
South East	65%	4%	24%	7%	100
South West	65%	5%	24%	6%	100

Appendix C

Grossing and weighting

As in previous years, results are presented in this report as estimated total numbers of households, and as percentages based on those numbers rather than directly on the sample numbers. This annex describes how the sample was grossed up to provide the estimated totals, and shows the effect on a number of key measures: tenure, household size, household type and economic status.

Outline of the grossing and weighting

The grossing and weighting method is the "cascade" method that has been used from 1994/5 onwards, and is very similar to the method developed for the Housing Trailer to the 1991 Labour Force Survey[13]. The 1993/4 SEH was a little different, in that a special adjustment to LFS tenure and household size proportions was used[14].

There are several stages. The first is to use the sampling fraction and response rate. Broadly, if the end result of sampling and non-response is that there is an interview for one in a thousand households, the grossing factor is one thousand. The initial grossing compensates for different response rates among households that were more or less difficult to find at home, measured by the number of calls needed to make contact. Households that were harder to contact receive a bigger grossing factor than those that were easier to contact (see "Sampling fraction and response rate" below).

The remaining stages adjust the factors so that there is an exact match with population estimates, separately for males and females and for broad age groups. An important feature of the SEH grossing is that this is done by adjusting the factors for whole households, not by adjusting the factors for individuals. The population figures being matched are those for the household population and exclude people who are not covered by the SEH, that is those in bed-and-breakfast accommodation, hostels, residential care homes and other institutions. There is a final stage which applies only to private tenancy groups. This compensates for the small dropout between the main stage of the survey and the private renters module.

The effect of grossing and weighting

Tables C1 to C4 show the effects of grossing and weighting on a number of key household characteristics. The main points are:

Tenure (Table C1) – the proportion of households renting privately was increased from 11.1% to 12.3%, a similar increase to 2005/06. There was a fall in the proportion of outright owners, from 31.8% to 30.2%.

Household size (Table C2) – one person households increased from 26.6% to 27.9% while the proportion with four or more persons fell from 21.2% to 20.1%. Both changes were similar to those in 2005/06.

Household type (Table C3) – apart from one person households, the largest effect was on couples with dependent children, reduced from 23.2% to 21.6%, a similar

change to that in 2005/06. The proportion of lone parent households with dependent children was also reduced slightly, from 7.2% to 6.8%.

Economic status of household reference person (Table C4) – grossing increased the proportion of household reference persons in full time employment from 50.9% to 52.4%, a larger increase than in 2005/06. The proportion of retired people was reduced from 28.3% to 26.5%, a larger decrease than in 2005/06.

The stages of grossing and weighting

The outline above described the stages briefly. In order, they were as follows.

Sampling fraction and response rate

1. Calculate factors from the sampling fraction and response rates. Response rates were calculated separately according to the number of calls needed to make contact. Hard to contact households who do, eventually, give an interview tend to be different from those found more easily. In particular they are more likely to be private renters and to be small households. Response rates fall as the number of calls needed to make contact (or for the interviewer to conclude that contact will not be made) increases. The effect, therefore, is to give a higher grossing factor to the households interviewed only after many calls. To avoid random effects due to small sample size, numbers of calls were grouped into four ranges:

   1 or 2

   3

   4 or 5

   6 or more.

Age composition of the household

2. Calculate correction factors to achieve an exact match with ONS figures for the population by age group. The figures include only people in the private household population, excluding those in institutions. The method employs household types defined in terms of the youngest person in the household. It starts with all households with children under 5. The correction factor for these households is simply the number of children in the population aged under 5 divided by the initial estimate from the previous stage of grossing. The next step is to deal with households with children aged 5 to 15 *but none younger*. Their correction factor gets the number of children aged 5 to 15 right, after allowing for those in households with younger children, whose numbers were fixed in the first step. The method proceeds up the age ranges in similar fashion. A refinement from age 20 upward is to introduce a further division, into households that consist of people in the youngest age group only and those with older persons. The aim is to correct for the under-representation in the sample of young adults in households consisting only of young adults, relative to young adults still living in the parental home or with their own children. From age 30 upwards, the age groups are broad (30 to 44, for example) as response does not vary rapidly with age at ages above 30. The method is described more fully in reference 1.

Age and sex

3. Calculate correction factors to get the numbers of each sex right within each age group. In the young adult and the middle aged groups there are too few men and two many women, both in the original sample and in the estimates resulting from the first two stages of grossing. The method still keeps to household factors. Households are again allocated to types based on the age of the youngest person in the household but this time based also on whether the people in the youngest age group are all male, all female or there are members of both sexes. The method proceeds up the age ranges as for the previous stage. No adjustment is made to households with children up to age 15 (correction factor 1.0). No adjustment is made, either, to households with both males and females in the youngest age group. Factors are calculated for households with all males or all females in the youngest age group to give an exact match with the population figures for the age group by sex.

Region

4. Finally, calculate correction factors to give an exact match with the total population figures in each region, with the metropolitan areas in each region treated as separate regions and Inner London treated separately from Outer London. The factors correct for response rates that are lower in some regions than in others. Response rates are lower in London, and especially in Inner London.

Private tenancy groups

5. A small percentage (less than 5%) of the tenancy groups identified in the household interview do not provide a useable interview. Uplifts are therefore applied to the grossing factors used for tenancy group tables (but not for privately renting households). Nearly all of the loss of tenancy groups after a successful household interview comes from lodgers forming part of their landlord's household, and from tenancy groups in multi-tenancy households. These two groups together are therefore given a higher uplift factor than the other groups.

[13] Department of the Environment. *Housing in England: Housing Trailers to the 1988 and 1991 Labour Force Surveys*. HMSO, 1993.

[14] Hazel Green and Jacqui Hansbro. *Housing in England 1993/94*. HMSO, 1995

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Appendix D

Sampling errors

Sources of error in surveys

Like all estimates based on samples, the results of the SEH are subject to various possible sources of error. The total error in a survey estimate is the difference between the estimate derived from the data collected and the (unknown) true value for the population. The total error can be divided into two main types: systematic error and random error.

Systematic error, or bias, covers those sources of error which will not average to zero over repeats of the survey. Bias may occur, for example, if certain sections of the population are omitted from the sampling frame, if non-respondents to the survey have different characteristics to respondents, or if interviewers systematically influence responses in one way or another. When carrying out a survey, substantial efforts are put into the avoidance of systematic errors but it is possible that some may still occur.

The most important component of random error is sampling error, which is the error that arises because the estimate is based on a sample survey rather than a full census of the population. The results obtained for any single sample may, by chance, vary from the true values for the population but the variation would be expected to average to zero over a number of repeats of the survey. The amount of variation depends on the size of the sample and the sample design and weighting method.

Random error may also arise from other sources, such as variation in the informant's interpretation of the questions, or interviewer variation. Efforts are made to minimise these effects through interviewer training and through pilot work.

Confidence intervals

Although the estimate produced from a sample survey will rarely be identical to the population value, statistical theory allows us to measure the accuracy of any survey result. The standard error can be estimated from the values obtained for the sample and this allows calculation of confidence intervals which give an indication of the range in which the true population value is likely to fall.

This report gives the 95% confidence intervals around selected survey estimates. The interval is calculated as 1.96 times the standard error on either side of the estimated percentage or mean since, under a normal distribution, 95% of values lie within 1.96 standard errors of the mean value. If it were possible to repeat the survey under the same conditions many times, 95% of these confidence intervals would contain the population value. This does not guarantee that the intervals calculated for any particular sample will contain the population values but, when assessing the results of a single survey, it is usual to assume that there is only a 5% chance that the true population value falls outside the 95% confidence interval calculated for the survey estimate.

Confidence intervals for percentages and means

The 95% confidence interval for a sample percentage estimate, p, is given by the formula:

$$p \pm 1.96 \times se(p)$$

where se (p) represents the standard error of the percentage estimate.

For results based on a simple random sample (srs), which has no clustering or stratification or weighting, estimating standard errors is straightforward. In the case of a percentage, the standard error is based on the percentage itself (p) and the subsample size (n):

$$se(p) = \sqrt{p(100 - p)/n}$$

When, as in the case of the SEH, the sample design is not simple random, the standard error needs to be multiplied by a design factor (deft). The design factor is the ratio of the standard error with a complex sample design to the standard error that would have been achieved with a simple random sample of the same size. The 95% confidence interval for a percentage from the SEH is therefore calculated as:

$$(1) \qquad p \pm 1.96 \times deft \times \sqrt{p(1 - p)/n}$$

The 95% confidence interval for a mean (x) is given by:

$$(2) \qquad x \pm 1.96 \times deft \times \sqrt{\mathrm{var}(x)/n}$$

The standard errors (taking account of sample design and weights), design factors and 95% confidence intervals for selected percentages and means estimated from the SEH are given in Tables D1-D2 for households and D4-D5 for private renters tenancy groups. The errors shown are for weighted data.

Confidence intervals for grossed estimates

Tables D3 and D6 shows sampling errors for selected grossed estimates for households and tenancy groups respectively.

The gross number of households of a particular type (g) can be represented by:

$$g = c/n \times N$$

where c = the number of households of a particular type in the sample
n = the total sample size
N = the total number of households in England

As explained in Appendix C, the SEH sample was grossed to population totals so that there is no sampling error associated with N. The sampling error of the grossed estimate (g) can therefore be represented by the error associated with (c/n), that is, the proportion of such households in the sample. The standard errors and confidence intervals for the grossed

estimate can therefore be calculated simply by multiplying the corresponding errors for the percentage estimates by the weighted sample total.

The above method has been used to derive the errors for grossed estimates based on the full sample. For estimates based on subsamples (including tenancy groups), a slight refinement has to be applied because the weighted number of households in the subsample is not fixed by population figures. The characteristic has first to be expressed as a percentage of the total sample and then the method above can be applied.

How to estimate sampling errors for other characteristics

For percentages based on the full sample of households, standard errors can be estimated using formula (1)[1]. The sample size n is the unweighted sample total, 17,489. The design factor should be the factor for a variable in Table D1 or D2 which is likely to be clustered in the same way. Errors for grossed estimates can be calculated using the method described above.

For estimates based on subsamples, the summary tables show unweighted subsample sizes for selected characteristics or an approximation is given by the number of thousands in the corresponding cell in the tables. The design factor could be taken as the factor for a similar characteristic. However, design factors for characteristics based on subsamples are generally smaller than those for characteristics based on the total sample. Therefore, if the design factor for the characteristic is close to 1.0, it is probably sufficient to use the SRS standard error for estimates based on a subsample.

[1] There is no simple method for users to make their own estimates of the sampling errors of means.