# Estimating the size and composition of the lesbian, gay, and bisexual population in Britain 

Peter J. Aspinall<br>University of Kent

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University of Kent

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Kent

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Research Team
Equality and Human Rights Commission
Arndale House
Arndale Centre
Manchester
M4 3AQ

Email: research@equalityhumanrights.com
Telephone: 01618298500
Website: www.equalityhumanrights.com

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- YouGov survey commissioned by Equality and Human Rights Commission (data prepared by Gavin Ellison and Briony Gunstone, 19 March 2009)

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## Executive summary

## Introduction

The University of Kent was commissioned by the Equality and Human Rights Commission (the Commission) in November 2008 to investigate ways of measuring the lesbian, gay and bisexual population (LGB) of Great Britain (GB), for which there is no currently reliable estimate. The absence of reliable population data means that it is impossible to develop representative samples of LGB people in research.

From 2010, the Integrated Household Survey (IHS) will provide the biggest dataset on those people who are willing to identify as LGB in the context of the household. The Scottish government has also indicated that a sexual orientation question will be included in all major social surveys it funds in the future. This project was devised in order to progress thinking in defining an approach or approaches to estimating the size of the LGB population of GB. Achieving a reliable and accurate measure of this population is critical for promoting equality and challenging discrimination on the grounds of sexual orientation. Comprehensive information about LGB people is required in order to develop appropriate service provision, address inequalities and allocate resources fairly.

## Concepts - sexual orientation and sexual identity

The concept of sexual identity, that is, how we think of ourselves in terms of our sexual orientation, is used in most data collection on sexual orientation, including routine monitoring forms and government and other social survey questions. The Office for National Statistics (ONS, 2009) defines sexual identity, thus: 'Self-perceived sexual identity is a subjective view of oneself. Essentially, it is about what a person is, not what they do. It is about the inner sense of self, and perhaps sharing a collective social identity with a group of other people. The question on sexual identity is asked as an opinion question ... it is up to respondents to decide how they define themselves.'

Very few surveys ask about other dimensions of sexual orientation, such as sexual attraction/desire or sexual behaviour, and most that do are in the context of mental or sexual health. Measuring sexual orientation in routine settings through the use of the dimensions of attraction/desire or behaviour is unsatisfactory. Attraction/desire lacks a social focus and is difficult to construe as a collective or social identity of the kind that comprises the other strands now used in equality monitoring, and which are legally protected. Sexual
behaviour is too intrusive a concept to be used in routine monitoring settings but such questions have an important place in health surveys. The concept of sexual identity has a saliency in the wider society. It is the most appropriate concept to use in routine settings, such as surveys and monitoring, as it is the dimension that links most strongly with discrimination and disadvantage.

## 'Best' available question

Question content, wording, and categorisation for sexual orientation has been extensively tested, including that undertaken by the ONS's Sexual Identity Project via Omnibus Survey field trials. This body of evidence indicates that the question included on the IHS in 2009 is optimal (see text box below). The evidence base accrued via these testing and evaluation exercises shows that the wording: 'which of the options [...] best describes how you think of yourself?' is preferable to: 'which of these [...] do you consider yourself to be?' 'How you think of yourself' recognises that a process of 'best fit' is involved and not one where categories are assumed to be exact descriptors of a person's sexual orientation. When asked how they would answer the question, the Ellison and Gunstone survey (2009) ${ }^{1}$ 'other' group respondents indicated that they would give more informative responses when the 'best describes' question wording was used, although ONS question testing showed little difference in the distributions.

Keeping the response categories to the minimum needed (including an 'other' category but dispensing with others such as 'prefer not to say', 'unsure', etc.) gives better quality data as, in their absence, respondents will use more meaningful responses. The IHS question includes one closed 'other' option only. 'Heterosexual/straight' is used, as testing revealed that some people did not understand the term 'heterosexual' on its own.

Ask all aged 16 or over
Interviewer: Allocate all cards, then ask the question to all
[Indicate to interviewers which showcard should be given to each respondent]
Which of the options on this card best describes how you think of yourself? Please just read out the number next to the description.
(Only if concurrent interview)
The numbers on each card are different for each person.
27. Heterosexual/Straight
21. Gay/Lesbian
24. Bisexual
29. Other
(Spontaneous Don't know/Refusal)

## Problematic questions, labels and categories

Certain questions, labels and categories can be problematic when asking about sexual orientation in survey settings. Labelling the question as 'sexual orientation’, ‘sexual identity', 'or 'sexuality' have all caused concern or confusion among some respondents. ONS has decided not to use a question title but to allow the question and response categories to define the nature of the question. Terms used to describe the question in any discussion - and more directly to describe the results - need to be carefully considered and defined. Care is also needed in the use of response categories. The term 'homosexual' is still used in a few social surveys. Many regard this as an imposed term that is offensive, has medical connotations, and is best avoided. The term 'gay or lesbian' is satisfactory. As all surveys tend to collect information on gender, this wording is sensitive to those women who prefer the term 'gay' as a self-descriptor to 'lesbian'. Including response categories such as 'trans', 'transgendered' and 'transsexual' in sexual orientation questions is inappropriate as they are not a form of sexual orientation. A small number of social survey questions ask about sexual orientation in response categories ordered as a continuum ('completely heterosexual', 'mainly heterosexual', etc.). The evidence base indicates that the main categories lesbian, gay, bisexual and heterosexual/straight are reasonably discrete in their capture and that scaled classifications are unnecessary.

## Question administration

Maintaining confidentiality when collecting data, especially in household settings where other members may be present, is important as sexual orientation is a highly sensitive and confidential dimension of identity. Most government surveys that involve face-to-face interviews now use computer technology to record the respondents' answers, either: Computer Assisted Personal Interviewing (CAPI), where the question is read out by the interviewer, or Computer Assisted Self Interviewing (CASI), where the question is self-completed by the respondent and other people should not be able to see or hear the identity selected. Thus, administering the question by CASI protects against inadvertent disclosure. The alternative is to use a concealed show card where the category options are identified with a letter or number (which are different for each person in the household) and the respondent is asked only to give the letter/number. This method is used in the IHS. The Ellison and Gunstone online survey (2009) for the Commission of over 5,000 people indicates that all methods involving interviewing in a person's home, whether face-to-face or by telephone, may incur misreporting, especially when another person is present. Respondents report that they would be least likely to conceal their sexual orientation (by switching to another sexual orientation category) when self-completion online surveys are used. The results are hypothetical, in that they reveal people's intentions, which may not reflect how they will actually behave. Self-completion online surveys protect confidentiality and eliminate any interviewer effects, but offer fewer opportunities for quality control.

## The size of the LGB population

There is no reliable current information on the size of the LGB population. Estimates range from 0.3 per cent to 10 per cent using different measures and sources. None of these estimates correct for the possibility of higher than average rates of non-reporting and misreporting among LGB people. The only official estimate of five-seven per cent by the Department of Trade and Industry, is based on a wide set of published sources drawn from a range of national settings and using various dimensions of sexual orientation. The size of the LGB group in ten government and other social surveys based on identity questions indicates a range of 0.3 per cent to three per cent and around two per cent in population-based surveys. The four ONS Omnibus Survey trials give findings of 1.4 per cent to 2.5 per cent LGB or 1.9 per cent in the first three trials combined. The Citizenship Survey gives a lower proportion of 1.5 per cent. Other sources have estimated the population to be
as high as 10 per cent. None of these surveys provides an adequate basis for estimating the true size of the LGB population of GB.

## Estimating the size of the LGB population in the future

Researchers tend to use self-reported sexual orientation measures in surveys. Evidence from Berg and Lien (2006) and Ellison and Gunstone (2009) suggests that certain proportions of the LGB group may choose to misreport their sexual orientation in survey and monitoring settings, or may not answer the question. Consequently, the estimates available from a variety of survey sources are likely to underestimate the true size of the group. Any estimates of the LGB population using self-reported measures of sexual orientation will need to be adjusted by applying statistical measures to correct for underascertainment (underascertainment means that those counted in surveys will not represent the full size of the LGB population because of misreporting and non-response).

The IHS offers the best opportunity to obtain the most accurate information on the size of the LGB population who are willing to identify in the context of a household. An estimate should be available in 2010. However, it is important to emphasise what the IHS is likely to measure; that is, those people who are willing to identify their sexual orientation in this context (within rather than outside the household), given the mode of administration (use of a concealed showcard in a concurrent interviewing context). It is clearly problematic to claim that such an estimate will be representative of the overall LGB population. Consequently, future claims about the size of this population based on this source should be cautious and seen as providing only a context-specific estimate.

A question on sexual orientation in the upcoming United Kingdom (UK) censuses has been ruled out. Clearly there are sensitivities and barriers, including the fact that the Census form is frequently completed by a householder on behalf of all household members. This would probably result in an undercount of the LGB population among those who are reluctant to declare their sexual identity to other household members. However, a voluntary question would mean that household members could opt out of answering it. Sexual orientation will remain the only statutory equality strand not captured by the 2011 Census whose outputs will serve public policy needs until the early 2020s. The provision of a voluntary question would have yielded important information on how the question is answered and some insights into the geographical distributions of the LGB populations. The
measure of the size of these populations that it would have yielded, though imperfect as a result of privacy concerns, would nevertheless have been useful in policy and practice. Moreover, the data from both the Census and IHS would have provided a valuable resource that could have been investigated through the use of statistical models and other methods to obtain better measures of the size of the LGB group.

## Improving estimates of the LGB population in the future

The evidence suggests that all surveys will underestimate the true size of the LGB population in the near future. As survey data accumulates, it should be possible to develop and apply statistical modelling approaches that will provide more accurate measures of the LGB population, although, to date, such approaches have not been applied to British data.

Once the evidence base (of local surveys) accumulates, it may be possible to use capture-recapture methods to better estimate the size of the LGB population. Aaron et al. (2003) used the capture-recapture method to estimate the size of the lesbian population in a US county. The method relies upon choosing a discrete geographical area: in such a location, at least two datasets would be required, with records of the names and address of LGB respondents. Using the numbers of individuals caught in both samples (the recaptures) and the numbers caught in just one sample, it is possible to estimate the number not caught in either sample, thus providing an estimate of the total population size. As capture-recapture methods require names and addresses, which may be problematic given the sensitivities of disclosure in the LGB population, the method may be more difficult to operationalise in this population.

Similarly, once survey datasets become available, probability modelling could be used to improve upon the size estimates of the LGB population. Using 1991-2000 US General Social Survey data, Berg and Lien (2006) developed a model to obtain better estimates of the frequency of same-sex behaviour by correcting for non-response and misreporting. Following application of the model, 7.1 per cent of men and 4.1 per cent of women, or 15.8 million Americans in total, were found to be not exclusively heterosexual. Correcting for misreporting and non-response bias increased the overall same-sex frequency estimate by more than 4 million; a third more than would have been estimated otherwise.

The application of such model approaches in the British context is currently limited by the non-availability of large datasets that include sexual orientation, but there may be scope to apply such methods in the future. One candidate is the IHS, with predicted achieved sample sizes of 276,000 for 2009 and 144,000 for 2010. Also, the GP Patient Survey asked a question on sexual orientation (along with all the other equality strands) for the first time in the period 6 April 2009-6 July 2009. Questionnaires are being mailed to around 1.4 million adults quarterly who are registered with a GP (around 5 million being invited to take part over a year): based on previous response rates, this survey should yield data for at least 2 million adults. Both these datasets should provide a valuable resource for secondary data analysis, subject to data protection and other access requirements.

In addition, test-retest reliability methods have the potential to throw light on the consistency with which respondents self-ascribe their sexual orientation and reasons for inconsistent reporting (including misreporting). Such validation or follow-up surveys are used to check the accuracy of respondents' answers by asking the same question sets again, providing evidence on the proportion of times the response on the initial survey was not the same as on re-interview. Differences in response are then usually investigated through indepth interviews with the respondent. The conduct of such interviews in a confidential setting may yield the kind of information on misreporting and item non-response that would enable correction factors to be derived. These validation surveys are frequently used by Census agencies to establish consistency of reporting and gross error rates across ethnic/racial groups. Random samples of item non-responders and of responders could be drawn to provide robust data. In the absence of a question on sexual orientation in the 2011 Census, the obvious candidates for follow-up surveys would be those yielding large numbers of achieved responses, such as the IHS and GP Patient Survey, but clearly depending on scope for recontact.

## Opportunities for collecting sexual orientation data in existing/proposed surveys and other sources

Sexual orientation information is important to the aims and objectives of certain surveys, for example, the Citizenship Survey and British Crime Survey. However, these are not adequate for estimating the size of the LGB population nationally as sample sizes are too small. Information on sexual behaviour has been important in interpreting data on sexual health risks in the National Survey of Sexual Attitudes and Lifestyles (NATSAL), and this decennial survey is likely to include such questions in the future, with the
addition of sexual identity. More collection of data is needed on all dimensions of sexual orientation to investigate how they overlap. The investigation of sexual orientation intersected by other equality dimensions has been limited by the small sample sizes in the surveys that have collected sexual orientation data. Most knowledge in this area is currently derived from questions about same-sex couples in ONS surveys. A question on sexual identity is currently missing in a number of other important surveys - such as the Health Survey for England and UK Household Longitudinal Study - where clear arguments could be made for its inclusion. Progress is being made, however, on the inclusion of sexual orientation questions on other surveys, such as the National Health Service (NHS) GP Patient Survey.

There are, too, other opportunities for expanding the collection of sexual orientation data to achieve different objectives. For example, the inclusion of sexual orientation on the annual staff censuses of the NHS's medical and dental staff and non-medical workforce would send a powerful message to other employers about the need for such collection (the NHS being the UK's largest employer). There is also substantial scope for knowledge transfer from social survey settings (especially the knowledge base established by the ONS Sexual Identity Project) to routine monitoring for equal opportunities purposes in local government and other statutory bodies.

## Asking about sexual orientation in the 2011 Census and national surveys

Collecting data on personal characteristics (including sexual orientation) in national survey data is acceptable to heterosexual/straight people and the LGB group, according to findings from the Ellison and Gunstone survey (2009).

Sexual orientation has been excluded from the recommended question set for the upcoming 2011 Census. However, the Ellison and Gunstone survey (2009) shows that most lesbian and gay respondents (around 60 per cent) support the introduction of a non-compulsory sexual orientation question in the 2011 Census, twice the proportion in the heterosexual/straight group (28 per cent). Support is more limited among bisexual people ( 36 per cent) compared with gays/lesbians. Moreover, around only a fifth of respondents in the heterosexual/straight group ( 22 per cent) and bisexual group ( 20 per cent) oppose the introduction of a sexual orientation question and around just 13 per cent of gays/lesbians. The remainder of respondents don't mind its introduction. Thus, the views of the different sexual orientation groups do not
present a significant barrier to asking about sexual orientation in the upcoming Census, with three out of five gays/lesbians supporting this.

## The demographics of the LGB population

Relatively little is known about the composition of the LGB group in demographic terms, including its socio-economic profile. Most of what is known is based on either same-sex couples who have declared that they are co-resident in social surveys (such as the 2001 Census or Labour Force Survey) or surveys based on convenience or purposive samples. Use is made of two population-based surveys - the 2003 Health Counts Survey and 2007 Citizenship Survey - and the Ellison and Gunstone survey (2009) (of people on YouGov's panel) to add to this knowledge base in the areas of demographics and socio-economic position. Clearly, one major drawback is the relatively small LGB populations in these sources, where modest measurement problems can lead to potentially serious errors in inference. When data on the sexual orientation categories are stratified by demographic and socio-economic characteristics, the cell counts can be so small as to be of questionable validity (especially as the data may contain selection biases). Any demographic and socio-economic profiles of the LGB population should be interpreted as providing indicative evidence only and treated with substantial caution.

The LGB group is a heterogeneous category according to these indicative findings. There is some evidence that bisexual men and women in particular differ from lesbians and gay men in their identity, behaviour, attraction, socioeconomic circumstances, and experiences of disadvantage. There are also differences between lesbians and gay men in these respects, though to a lesser degree than observed differences with bisexual people. Findings should be reported separately for all three groups where possible, along with aggregated LGB results.

Some of these differences are difficult to interpret. For example, there is some evidence that a higher proportion of the LGB group are educated to degree/other higher education level which appears to translate into higher incomes. However, it is difficult to assess to what extent these differences may be partially explained by processes of selection into participation in surveys and panel membership. Moreover, careful attention needs to be accorded to comparators.

## 1 Background

The UK government accepts the right to equal treatment as a universal human right and 'sexual orientation' is recognised as one of the seven statutory equality strands or dimensions, along with sex, race/ethnicity, disability, religion, trans and age. ${ }^{2}$ There is now a substantial body of evidence that people experience discrimination and disadvantage based on these dimensions. Government policy is therefore focused on eliminating discrimination and disadvantage across these strands (recognising that intersections among them can create complex and multiple forms of disadvantage), reducing inequality, protecting human rights, and building good relations through positive duties.

There is now a strong requirement to collect data by sexual orientation to provide the statistical information needed to meet current and future legislative requirements. This includes monitoring equal opportunities for employment and the Equality Act (Sexual Orientation) Regulations 2007 extends the prohibition of discrimination on the grounds of sexual orientation to the provision of goods, facilities and services and exercise of public duties. Further, the Equality and Human Rights Commission has a legal duty under the Equality Act (2006) to monitor and evaluate progress towards equality and human rights, taking account of all the equality strands: this duty is being exercised through the joint development of an Equality Measurement Framework currently encompassing some 48 indicators. Sexual orientation data is also needed to monitor social inequalities generally, to provide data for the LGB communities, and to provide benchmark population estimates.

Sexual orientation has not been a data item in the decennial Census and it is not planned to be part of the question set in the upcoming 2011 Census. Until recently most general government surveys have excluded sexual orientation, notable exceptions being the 2007 Citizenship Survey and British Crime Survey. The question has also been asked on some ad hoc (for example Fair Treatment at Work Survey) and annual (for example Northern Ireland Life and Times) surveys. Only in January 2009 was a question on sexual identity introduced to the IHS, encompassing all seven ONS component social surveys (Labour Force Survey, Annual Population Survey, General Lifestyle Survey, English Housing Survey, Living Costs and Food Survey, Life Opportunities Survey and Omnibus/Opinions Survey). This question has been formally adopted by the cross-government National Statistics Harmonisation Group as a harmonised standard. Questions on sexual orientation are
currently absent from a number of other surveys, such as the Health Survey for England. This lack of official data collection on sexual orientation has had a number of consequences. It is not currently possible to accurately estimate the overall size of the heterosexual, lesbian/gay and bisexual groups and their geographical distribution. An overall size estimate will only become available after 2010 from the ONS IHS. Policymakers and service providers therefore do not have the data to measure need in the LGB group, to prepare business cases for resources, to allocate resources efficiently, and to monitor equality of opportunity in key sectors such as employment, education, housing and health services against a national benchmark.

In this official data collection vacuum, evidence has emerged from some workforce monitoring and research studies that the LGB group is discriminated against in a range of ways, including the lack of, or poor quality, culturally insensitive, service provision, bullying and verbal and physical attacks. For example, six out of 10 lesbian and gay schoolchildren experience homophobic bullying (Hunt and Jensen, 2007) and many contemplate suicide as a result (Rivers, 2000). Ellison and Gunstone (2009) asked adults (aged 16+) about their experiences of disadvantage and discrimination as a result of their sexual orientation. In the previous 12 months, significant proportions of people in the LGB groups reported such experiences: 10 per cent or more of gay men, lesbians, and bisexual people had experienced stress and low selfesteem; 13 per cent of gay men or lesbians had felt frightened and 17 per cent had experienced name calling. While the need for accurate data is acknowledged, so too are the difficulties involved in its collection. Issues of privacy, confidentiality and concerns over disclosure require modes of data collection that assure respondents that others (including other household members who may be present at the time of the data collection) will not be aware of their responses. Given the sensitivities surrounding the acquisition and recording of such information, data collection clearly invokes more general principles of confidentiality, anonymity and adherence to a code of ethical responsibilities.

Over the last few years the ONS sexual identity project has invested substantial efforts into identifying 'safe' ways of asking the question. While acceptance of the question has been fairly high and refusal rates low, some groups have emerged as hard-to-enumerate, including the elderly, those in lower socio-economic groups and the less educationally qualified, and people in minority ethnic groups (some surveys have identified South Asians in particular). Furthermore, the extent of misreporting remains unknown.

Although some evidence has been obtained from Ellison and Gunstone (2009) this has been about how respondents might behave in the data collection context rather than actual behaviour in answering questions. While this has provided important opinion evidence relating to respondents' concerns, it may not be predictive of actual behaviour. As a result of these difficulties, the full size of the LGB group remains unknown.

Indirect methods of data capture such as survey data on same-sex coresident couples have yielded only a limited evidence base. This is because such data depends on respondents voluntarily declaring their same-sex coresidency (as in the 2001 Census where it was not a direct question) and such couples represent only a segment of the full LGB population including those who are not currently in a partnership. Similar drawbacks concerning representativeness affect civil partnership data. Moreover, the distribution of the LGB population is not even, with some evidence of concentration in large metropolitan areas and some seaside towns (Duncan and Smith, 2004). This makes sampling problematic, with geographically clustered sample designs used in some surveys being at risk of producing atypical samples.

Further, debate remains around which concept of sexual orientation to use (identity, behaviour or desire), the overarching concept (terms such as sexual orientation, sexual identity and sexuality have been used), the language relating to the question stem, and the response categories listed in the question (such as heterosexual, straight, lesbian, gay, bisexual and a wide range of residual categories).

Most social surveys have used the concept of sexual identity and this has been the case in those questions tested in the ONS Sexual Identity Project, and in the question agreed for inclusion on the IHS suite of surveys, although the question is not titled as such. Debate has also focused on such issues as whether the question should be voluntary and whether there should be one or more categories like 'prefer not to answer', 'not sure', 'don't know' and 'refused', which may lead to a higher rate of item non-response.

Clearly, progress is now being made. A question on sexual identity has been included on the IHS (the first data being reported in 2010), the Home Office Citizenship Survey 2007, the 2007/8 British Crime Survey (but only in the selfcompletion module), the NHS GP Patient Survey 2009, and on a number of other ad hoc and routine surveys. However, there has been a lack of progress in other areas, most notably the decision not to include a sexual orientation
question on the 2011 Census (although there are significant technical barriers) and the omission of sexual orientation from much routine data collection and monitoring across public service provision.

### 1.1 Aims of the project

The Equality and Human Rights Commission commissioned this project in late October 2008. The aims of the project were twofold. Firstly, the overarching aim was to define an approach or approaches to measuring the LGB population of Great Britain, including the exploration of statistical techniques or models to facilitate this; a second aim was to move the Commission closer to an understanding of who constitutes the Great Britain LGB population.

Some of the substantive issues identified were:

- Which definitions of sexual orientation/identity have been used as a measure of the LGB population and what are their strengths and weaknesses? Which definitions should be included in a comprehensive measure of the LGB population? What time period should the measure apply to?
- Is the collection of new information needed on subsamples of the LGB population who are unlikely to identify in official surveys, in order to develop reliable estimates (and, if so, what information, how collected, and whether it can be combined with survey data to improve estimates)?
- Assuming a single question is asked in any given survey (for example, those willing to identify as LGB in the household in the IHS), are there supporting questions usually asked (or that might be asked) which would help provide a more comprehensive measure?
- Where measures of the LGB population in surveys (for example, IHS) are likely to provide only a partial measure, can a simple statistical technique be used to improve these population estimates (and, if so, what technique)?
- Is it possible or desirable to develop a statistical model in order to provide an accurate measure of the Great Britain LGB population (if yes, what would the model do, on what data would it be based, and what would be involved in developing it)?
- Are there opportunities emerging in existing or proposed surveys, for example IHS, NATSAL or others, for developing more comprehensive measures of the LGB population in Great Britain using a combined
approach? What are the implications of combining different questions and/or the same question asked in different surveys?
- Are there opportunities to ask questions about sexual orientation in other surveys and what are they? How might this improve our ability to provide accurate measures of the Great Britain LGB population?

This report endeavours to look at the current position with regard to conceptualisation of sexual orientation, how the question is asked, and the categories used. It reviews the evidence on the size of the LGB group and the utility of proxy measures like same-sex co-resident couples and civil partnership data. It also attempts to look at who the LGB group are in terms of socio-demographic variables, using some recent population-based survey evidence ( 2007 Citizenship Survey and Health Counts, a survey of people in East Sussex, Brighton and Hove 2003). Finally, it focuses on the scope for asking about sexual orientation in a wider array of data collection settings.

### 1.2. Report structure

The following gives a brief description of what the reader can find in each of the chapters.

Chapter 2: The conceptualisation of sexual orientation.
This chapter includes how sexual orientation is constructed in legislation and the wider policy context; the main dimensions of identity, sexual attraction, and sexual behaviour; the overlap across these dimensions; the dynamic nature of sexual orientation; categorisation and terminology for sexual orientation (heterosexual/straight, gay, lesbian, bisexual, asexual, residual categories, and transgender), and public preferences and categorisation.

Chapter 3: The inclusion of questions on sexual orientation in policy contexts. This chapter includes the overarching label or question stem used for sexual orientation; coverage of questions on sexual orientation; question and response categories for identifying sexual orientation; the language used to instruct survey respondents, and question and response categories for attraction/desire and behaviour.

Chapter 4: Evidence on the size of the LGB population.
This chapter includes the Department for Trade and Industry (DTI) LGB population estimate; the Women and Equality Unit LGB population estimate; other LGB population estimates; findings on the LGB population from
government and other social surveys, and the use of same-sex couples data for thinking about the LGB population.

Chapter 5: The scope to collect sexual orientation in official data collection and monitoring.
This chapter includes the acceptability of asking about sexual orientation in large national surveys; acceptability of asking about sexual orientation in the 2011 Census; acceptability of asking about sexual orientation in other contextspecific situations; effect upon respondent answers of who they are with; and the scope for collecting sexual orientation data in central and local government contexts.

Chapter 6: Improving estimates of the LGB population.
This chapter includes non-response, misreporting, subgroups difficult to capture (age groups, ethnic groups, socio-economic groups, other groups, question administration contexts); strategies to improve estimates of the size of the LGB population (donor imputation, capture-recapture methods, probability modelling of non-response and misreporting, and use of weighting/raising factors).

Chapter 7: What survey research can tell us about the composition of the LGB population.
This chapter includes conceptualisation of the LGB population (internal validity, external validity, testing hypotheses for LGB samples); evidence from probability samples of the LGB population (Citizenship Survey 2007; Health Counts Survey 2003), and evidence from purposive samples of the LGB population.

Chapter 8: General conclusions.
This chapter includes the overall conclusions of the report.

## 2 The conceptualisation of sexual orientation

### 2.1 Introduction

This chapter introduces the topic of this report by examining how sexual orientation is constructed with respect to definitions in legislation and regulations; its function as an overarching or umbrella term that encompasses the dimensions of sexual identity, attraction/desire, and sexual behaviour; the overlap of these dimensions in individuals; and the dynamic nature of these dimensions, especially in young people. It then proceeds to examine the question categories that have been used in surveys and other data collection, including substantive categories, residual categories, and the position of asexual and trans-gender identities. Finally, it looks at public preferences for terminology and how these compare with question categories.

### 2.2 How sexual orientation is constructed

There are no firm guidelines in UK legislation on how sexual orientation should be constructed. In the Employment Equality (Sexual Orientation) Regulations 2003, 'sexual orientation' is defined as 'an orientation towards:

- persons of the same sex
- the opposite sex, or
- both sexes'. ${ }^{3}$

Sexual orientation is similarly defined in section 35 of the Equality Act 2006. The 2009 equality bill is somewhat more explicit, indicating that 'sexual orientation' '... relates to a person's feelings rather than their actions'; it offers examples based on the dimension of attraction: ${ }^{4}$

- A man who experiences sexual attraction towards both men and women is 'bisexual' in terms of sexual orientation even if he has only had relationships with women.
- A man and a woman who are both attracted only to people of the opposite sex from them share a sexual orientation.
- A man who is attracted only to other men is a gay man. A woman who is attracted only to other women is a lesbian. So a gay man and a lesbian share a sexual orientation.

Three main constructs are used to measure sexual orientation in the wider policy literature: identity, desire/attraction and behaviour. Some surveys (but
not all) indicate that sexual attraction gives the largest capture, followed by sexual behaviour; sexual identity being the smallest group.

### 2.3 Sexual identity

Sexual orientation as a measure of collective social identity has been most frequently used in policy contexts and routine data collection and monitoring. The reasons are both conceptual and pragmatic. The concept of groups, that is, broad-based social identities, has entered the vocabulary of equality governance. The government's White Paper Fairness for all, on the establishment of the Commission, referred to 'protected groups', 'groups of people ... who are - or soon will be - protected by discrimination legislation in respect of less favourable treatment based on particular characteristics or personal circumstances': the list encompasses:

Men and women; people of different racial groups; people who have or have had a disability; people of different sexual orientations; people of different religions or beliefs (or none); people of different ages; and people who intend to undergo, are undergoing, or have undergone gender reassignment.
(DTI et al., 2004: 17)

The Office for National Statistics' (ONS) definition emphasises both the personal, subjective and collective nature of sexual identity:

> Self-perceived sexual identity is a subjective view of oneself. Essentially, it is about what a person is, not what they do. It is about the inner sense of self, and perhaps sharing a collective social identity with a group of other people. The question on sexual identity is asked as an opinion question, it is up to respondents to decide how they define themselves in relation to the four response categories available. It is important to recognise that the question is not specifically about sexual behaviour or attraction, although these aspects might relate to the formation of identity. A person can have a sexual identity while not being sexually active. Furthermore, reported sexual identity may change over time or in different contexts (for example at home versus in the workplace. (Haseldon and Joloza, 2009: 6)

The 2006 Equality Act defines 'group' as 'a group or class of persons who share a common attribute' with respect to the aforementioned dimensions. Stonewall Cymru (2004) defines lesbian, gay and bisexual (LGB) people as a
'community of interest' in the context of 'a group of people connected by a common interest or characteristic rather than a geographical location'. The fact that equality monitoring has utilised such collective identities - broad social categories through which individuals define themselves - strengthens the case for identity.

### 2.4 Sexual attraction

Sexual attraction is an ill-defined concept that has been construed in many different ways (such as desire, appeal, wanting, etc.). Scales of attraction have been devised to measure this dimension, asking about degrees of attraction to one's own sex only, the opposite sex and both sexes. For example in one version the Adult Psychiatric Morbidity Survey 2006/7 asked about 'sexual feelings, whether or not you have any sexual partners', the five response categories ranging on a scale from 'Entirely heterosexual (attracted to persons of the opposite sex)' to 'Entirely homosexual (attracted to persons of the same sex)'.

Attraction/desire is not a collective social attribute and it is difficult to construe a satisfactory social measure of this dimension. As Appiah has written: '...someone who has a gay identity is doing more than simply acknowledging the fact that he has homosexual desires' (Appiah, 2005: 70). Attraction/desire is also a fairly amorphous and fluid concept and may be context specific.

### 2.5 Sexual behaviour

Sexual behaviour has been conceptualised in a variety of ways. Another version of the Adult Psychiatric Morbidity Survey 2006/7 defined 'sexual experience' as 'any kind of contact with another person that you felt was sexual (it could be just kissing or touching, or intercourse, or any other form of sex)'. Again, scales are frequently used, this survey offering a five-point scale of 'sexual experience' ('Only with women/men (or a woman/man), never with a man/woman; More often with women/men, and at least once with a man/woman; About equally often with women/men and men/women; More often with men/women, and at least once with a woman/man; Only with men/women (or a man/woman), never with a woman/man; I have never had any sexual experience with anyone at all').

Sexual behaviour has most frequently been operationalised in the context of sexual health surveys. Clearly, there are many potential definitions and
measures, both with respect to type of behaviour and the period over which it is measured. However, given the personal nature of sexual behaviour, it is not suitable for use in the contexts of equality monitoring and routine data collection. For example, ONS (2009: 7) has reported that '... testing showed that respondents were not in favour of asking about sexual behaviour in a social survey context, nor would it be appropriate in general purpose government surveys'. Further, it is difficult to construct behaviour as a collective social measure. Again, Appiah (2005: 69) observes: '.. . if all there is to an identity is a conventional set of behaviours, and you are capable of them, then you can choose whether to adopt the identity. But when the criteria for ascribing a certain identity include things over which you have no control as in the case with gender, race and sexual orientation - then whether you identify with that identity, whether, for example, you think of yourself as gay and act sometimes as a gay person, is not only up to you.' What Appiah alludes to here is that while we make choices it is our culture and society that determine the options among which we choose.

### 2.6 Overlap of identity, attraction and behaviour

There is only limited survey data from the UK - but more from the US - that has measured the degree of overlap between these three concepts and the extent to which any one is predictive of the others. Data on sexual attraction from the US National Health and Social Life Survey shows that a higher proportion of men and women report a sexual attraction to people of the same sex than identify as LGB people. BASS Line (Dodds et al., 2008) reported that, among African origin respondents, some same-sex sexual attraction was more common for men ( 12.7 per cent) than women ( 7.8 per cent), as was exclusive or predominantly same-sex sexual attraction ( 7.6 per cent $v 2.2$ per cent). Also, sexual behaviour measures tend to capture larger groups (Black et al., 2000), although there are many different measures. Again, in BASS Line, 10.3 per cent of men had both opposite and same-sex partners (someone they had had intercourse with) in the last year and 4.9 per cent same-sex partners only; by contrast, 5.7 per cent of women had had both opposite and same-sex partners, and just 2.2 per cent same-sex partners only. There was no measure of identity.

The extent to which sexual behaviour and identity measures capture the same individuals varies widely across survey samples. Garofalo et al. (1998) examined the association between sexual identity and health risk behaviours among a representative school-based sample of adolescents: LGB orientation
was significantly associated with sexual risk behaviours, including early initiation of sexual intercourse.

In a population of Norwegian youth, same-sex experiences in girls were reported among 27.4 per cent. However, only 8.1 per cent confirmed samesex romantic attraction (Hegna and Larsen, 2007).

Among UK studies, the BASS Line (Dodds et al., 2008) survey found that sexual desire was not accurately predictive of sexual behaviour. Men and women who engage in sexual intercourse with same sex and with oppositesex partners tended to identify their desire as one that is heterosexual. Even in the same-sex partners only group, 12.1 per cent of men and 32.4 per cent of women reported that they were only attracted to the opposite sex.

Sigma Research's 'First, service' (a 2002 report based on two surveys among lesbian and bisexual women) found that less than five per cent of lesbians had had sex with a man in the last year. Thus, while self-identification as 'lesbian', 'dyke' or 'gay' does not preclude sex with men, most lesbians had sex with women only (Henderson et al., 2002).

Further findings are available from the purposive Ellison and Gunstone survey (2009) that explored the extent to which multiple allegiances across attraction/desire, sexual behaviour and sexual identity are possible (that is, at the same point in time). This area of conceptualisation was investigated for the dimensions of attraction and sexual behaviour, tabulated against respondents' self-perceived sexual identity.

The survey findings showed that the proportions who were exclusively attracted to their relevant gender increased between the ages <25 and 25+ age groups for heterosexual/straight men (81 to 90 per cent), heterosexual/straight women ( 75 to 82 per cent), gay men ( 85 per cent to 87 per cent), and lesbians (61 per cent to 78 per cent). However, there was heterogeneity across all sexual orientation groups (especially the bisexual groups, as might be expected) in both age groups. For example, 18 per cent of young heterosexual/straight women sometimes had feelings of sexual attraction to a woman/women, although more often to a man/men. Thirty-three per cent of young lesbians sometimes had feelings of sexual attraction towards a man/men though more often to a woman/women, this falling to 17 per cent in the older age group. Such multiple attractions probably make sexual attraction/desire a poor candidate for routine monitoring where the need may be for concise and mutually exclusive categories.

### 2.7 The dynamic nature of sexual orientation

Among the broad identities now used in equalities monitoring and human rights contexts, some are fixed, such as age, others relatively fixed such as gender, while others may change through time like religion and whether the person has a disability or not. Some collective identities are more likely to be fluid, change over time, and to be sensitive to situation and context. Sexual identity and perhaps other dimensions of sexual orientation fall into this latter category.

It is known that sexual identity changes over time but there is a paucity of evidence on how much it changes and at what stages in the life-course. An attempt to more accurately measure the dynamic nature of sexual orientation was made in the Ellison and Gunstone survey (2009). A baseline measure was taken of what respondents considered themselves to be in this online sample of 5,190 people. ${ }^{5}$ Respondents were asked if they had always considered themselves to be this way. Ninety-eight per cent of heterosexual/straight respondents replied that they had, but only threequarters ( 76 per cent) of gays/lesbians, half ( 50 per cent) of bisexual people, and around 60 per cent of 'other'. However, it should be noted that the LGB respondents to this survey had previously identified as LGB in order to be sampled by Ellison and Gunstone.

The data from the respondents to the Ellison and Gunstone survey shows that over a relatively short period of adolescence/early adulthood, a pattern of more than one allegiance over the period was common. Consideration should be given to asking about the changing nature of sexual orientation over the life course in datasets, in order to try to capture change over time.

### 2.8 Categorisation and terminology for sexual orientation

There has been extensive debate about the categories that should be used in surveys and other collection of data on sexual orientation. This debate has focused on both terminology for the lesbian, gay, bisexual and heterosexual groups and upon categories designed for those who do not identify with one of these groups, or who would prefer not to give a sexual orientation.

## Heterosexual or straight category

A number of definitions are available. Diversity Solutions (Jones, 2008: 68) states that heterosexual is 'the general term used to describe men and women who are sexually attracted to people of the opposite sex' (interestingly using the concept of attraction and not identity) and straight 'the alternative word in common use'. With respect to assisting the respondent with the meaning of response categories, ONS (2009: 14), too, offers that '... heterosexual or straight might mean, for example, that a person is attracted to people of the opposite sex.'

Some surveys, such as Health Counts, use the label 'straight or heterosexual', an approach that is of value as there is evidence of misunderstanding of the term 'heterosexual' (Breitenbach, 2004; ONS, 2009). 'Heterosexual/straight' is the term used in ONS's recommended question.

## Gay category

'Gay' has emerged as the term of choice among men. However, 'gay' has been shown in some studies to be a term of choice for identity by women too (Young et al., 2005). Jones (2008: 68), too, indicates that the term can apply to both men sexually attracted to other men and women sexually attracted to other women (again placing the focus on attraction). A few monitoring forms (for example Government Office for the North East) specify 'gay man' and 'lesbian'. Some data collections use the term 'gay or lesbian', identifying the sex of the respondent from data collected on gender.
'Homosexual' is a general term that, in the past, was frequently used to describe people sexually attracted to others of the same sex (especially men). It has unfortunate medical connotations and is seen by some as an imposed identity. Jones (2008: 68) argues that 'it should not be used to describe individuals since it is offensive to many lesbians and gay men when used out of context.' In the ONS focus groups, the term 'homosexual' was cited as '... being old fashioned with negative connotations and was felt to favour the concept of behaviour due to its use by the medical profession and the media': the recommendation was not to use it. The origins of the term in a disease model and its perception by many as an imposed term make it unsatisfactory as a category option for use in routine settings. Only two examples of 'homosexual (gay or lesbian)' have been found on monitoring forms. Surprisingly, the term is still used as a response category in some government
surveys, such as the Northern Ireland Life and Times Survey, which uses the response category: 'I am "gay" or "lesbian" (homosexual)' ${ }^{6}$ as does the Newham Household Panel Survey. It is also used as a synonym ('gay or lesbian or homosexual') in the Employees' Awareness, Knowledge and Exercise of Employment Rights Survey 2005 and Fair Treatment at Work Pilot Survey 2005.

## Lesbian category

The category lesbian (defined by Jones [2008: 69] as 'a woman who identifies as a lesbian is sexually attracted to other women') appears to be widely accepted, especially when presented as 'lesbian/gay'. 'Gay' is a term of choice of some women in this category, especially those in the younger age groups. These general findings (of the ONS Sexual Identity Project focus groups, for example) are in accord with the self-nominated labels of choice of lesbian women. In two purposive samples (combined sample, $\mathrm{n}=2,401$ ) of lesbians and bisexual women, women were asked what term they usually used to describe themselves sexually. Over half ( 58.6 per cent) chose 'lesbian', 17.1 per cent 'gay', 8.8 per cent 'bisexual', 7.9 per cent 'dyke' (asked on only one survey: 9.9 per cent of 1,905 ), and 7.7 per cent 'I don't usually use a term/any other term' (Henderson et al., 2002). ${ }^{7}$

## Bisexual category

Similarly, the term bisexual (defined by Jones [2008: 66] as 'a person who identifies as bisexual is sexually attracted to both men and women') appears to be acceptable. While some in the ONS focus groups considered 'bisexual' a 'medical' or 'scientific' term, there was no consensus on a suitable alternative (suggestions including 'bi-curious', 'gender-apathetic', 'open', 'pansexual', and 'polyamorous') (ONS, 2009). The term has widespread saliency in the wider society and does not appear to present any difficulties when used on data collection and monitoring forms.

## Asexual category

The absence of the term 'asexual' from surveys (or similar terms as 'asexual' has multiple meanings), that is, the insistence that everyone should have sexuality, perhaps merits comment. In the Ellison and Gunstone survey (2009) significant proportions of the 25 and under age group in some sexual orientation categories said that they had no sexual attraction to anyone. In the

BASS Line survey among African origin respondents (Dodds et al., 2008), 6.1 per cent of respondents said that they were not sexually attracted to anyone ( 8.0 per cent of women and 4.3 per cent of men). If people do not think of themselves as having feelings of sexual attraction/desire and/or have no sexual partners, this could be a factor that contributes to the large missing data found in some surveys. The ONS Sexual Identity Project considered that 'further thought be given to an "asexual" category. ${ }^{8}$ In its latest guidance (ONS 2009: 19) it argues that an 'other' option should be provided for this group: 'While the three substantive categories might cover all sexual identities, some people, such as those who describe themselves as asexual, may feel no sense of sexual identity at all. They may be unhappy about being forced to choose one of the three that are offered'.

However, only one official data collection has been found that includes it as a specific category in the sexual orientation set: the Department for Work and Pensions recruitment form.

## Residual categories

Most monitoring and data collection forms include one or more residual categories such as 'Other', 'Unsure', and 'Prefer not to say'. One or two agencies recommend the inclusion of 'questioning or unsure' in the set (O'Loan et al., 2006). When data collection first introduced sexual orientation to the list of 'equal opportunities' dimensions, such categories were common and seen as necessary for those who had concerns about giving a sexual orientation or who were unfamiliar with the question. However, testing programmes have revealed that they do inflate the unusable segment of data (that is, none of heterosexual, LGB): if they are listed as categories people will use them. Moreover, testing in the ONS Sexual Identity Project showed that the inclusion of an explicit 'Prefer not to say' category also increased item non-response (ONS, 2009). Current best practice now is to keep such categories to a minimum. For example, Jones (2008: 13) states: 'The inclusion of "Object to answer" or "Prefer not to say" options may result in persistent under-reporting if the categories enter the mainstream equality monitoring practice of UK public bodies and elsewhere. This may result in under-reporting of minority sexual identity by all communities'. The only one of the set of ONS recommended questions that retains a 'Prefer not to say' option is the self-completion paper or web-based question (it is omitted from the face-to-face and telephone versions), on the grounds that '... the respondent must be given the option to indicate that they do not want to
answer the question as there is no interviewer there to code refused.' (ONS, 2009: 13.)

Of the various residual categories, only the 'other' category has survived in the ONS-recommended face-to-face and telephone questions, but without a free text field 'for privacy reasons'. However, we do know something of the 'other' group. The ONS Sexual Identity Project quantitative trials revealed that they comprised mainly those who were heterosexual/straight but did not understand the terminology, non-heterosexual/straight people who were anticategorisation, and transgender participants (ONS, 2009). In the 2009 Ellison and Gunstone survey, those who ticked 'Other' mainly comprise: people who did not wish to disclose; people in various 'trans' categories; people who consider themselves asexual/nonsexual; people who consider themselves fluid, between categories or curious; and people who object to the concept of labelling in principle. The following open responses give a flavour of the reasons why some respondents selected 'other':
> 'My sexuality varies. The best label is perhaps bisexual but that implies parity between homo- and heterosexual tendencies which is inaccurate.'
> 'My sexuality is personal and private and my views should not be shared.'
> 'Generally straight, but the lines are often confused with transgendered females.'
> 'Pansexual. I don't think that gender expression can be confined to two genders and my attraction is not based on whether someone is male/female or anything else.'
> (Ellison and Gunstone, 2009)

## Trans

It is inappropriate to list 'trans' as a category under sexual orientation as it is an entirely different concept and such people may be heterosexual, gay, lesbian or bisexual (Mitchell and Howarth, 2009). ${ }^{9}$ Moreover, their low prevalence in the population raises issues of confidentiality in monitoring contexts: a reported zero per cent selected the category 'transsexual' in the 2001 Civil Service Diversity Survey ( $n=7,863$ ), two in the Health Counts survey ( 0.03 per cent, $n=5,983$ ), and 0.3 per cent in the DWP staff survey of 2005 ( $n=68,314$ ). Wider definitions give larger capture: one per cent of 5,109
respondents considered themselves to be 'trans' (people who are transgender, transsexual and transvestite) in the Ellison and Gunstone survey (2009). They were fairly evenly distributed across the transgender, transsexual, transvestite and other trans categories.

### 2.9 Public preferences and categorisation

The public may prefer different response options to heterosexual/straight, lesbian, gay, bisexual and other. For example, with respect to ethnicity/race, open response categories in classifications record the descriptions of people who do not feel that the pre-designated categories meet their needs. 'Black British' emerged as a salient identity in the 1991 Census by this means. Similarly, Jones (2008: 13) has cautioned that the meanings of some accepted and sub-textual words may change and that this may result in misreporting or under-reporting of minority sexual identity: 'Meanings and acceptability of colloquial words such as "straight" change over time, and sometimes very quickly ... some LGB people consider the word "straight" to be offensive when, within a particular context, its use implies negative meanings for minority sexual identity words.' The word 'gay' is used as a pejorative term in school playgrounds across the UK (Hunt and Jensen, 2007). ${ }^{10}$ As Jones (2008: 45) argues, such usage does indicate the need for regular review of terms used on equal opportunities monitoring forms and other data collection. The ONS focus groups, too, acknowledged that 'there was a general recognition that terms come into and go out of fashion', recommending that agencies 'periodically review the administration and question wording to take into account that acceptability may change over time and similarly conceptualisation of sexual identity and use of language.'

Despite much testing of sexual orientation questions, our knowledge base on terminology for the LGB group remains poor. This is partly the result of traditions of question development in the UK. These development programmes (including those for the Census) tend to follow a desk process of question development (with, perhaps, some limited cognitive testing and focus group work) and then to pilot those questions in small-scale trials. The questions are then revised and subject to further field testing, scaling up to large trials and question testing 'rehearsals'. It is predominantly an agencyled, reactive process for the communities described by the categories. How questions are developed in official censuses and surveys is somewhat different in the US. For example, in the lead-up to the 2000 US Census, surveys were undertaken in large, representative population samples to
explore preferences for a range of ethnic/racial terms: these findings were then fed into the question development process. In the UK only a couple of surveys have been identified - reported on in Sigma Research's First Service - that endeavoured to obtain the preferences of lesbians and bisexual people for different terms (Henderson et al., 2002).

The other option, of course, is to have an entirely open response or free text question. This has occasionally been used in the context of ethnicity but frequently yields a plethora of answers which then have to be reassigned to a manageable number of categories for analysis purposes. This approach probably wouldn't work in the case of sexual orientation. As Hickson (Anon, 2006) observes: '... respondents could be asked to describe their identity but that was open. Some may just describe themselves as uninhibited or adventurous. Heterosexuals may struggle with finding a word for their identity. The problem is that sexual language is not universal - the response will depend on the question and will form the reality. ${ }^{11}$ While free text (open response) may be unsuitable for sexual identity questions that need the context of pre-designated categories, there are arguments for having an 'other' open response (rather than closed) category among the options: such categories provide information on those who find the pre-designated categories unsatisfactory and a means of monitoring the changing use of language and emergence of new terms. ${ }^{12}$

### 2.10 Conclusions

While legislation does not define the dimension to be used, sexual orientation is regarded as an overarching term that includes sexual identity, sexual attraction, and sexual behaviour. Sexual identity has been chosen as the most relevant for equality monitoring as it is more acceptable to the public than sexual behaviour and has a strong relationship with experiences of disadvantage and discrimination. Measures of attraction and behaviour lack a strong basis as collective social identities. In health and other contexts additional questions on these other dimensions may be needed. The conceptual consistency with which individuals choose across the different dimensions varies across datasets. Sexual identity is known to be dynamic, to change over time, and to be sensitive to situation and context. Data from the 2009 Ellison and Gunstone survey shows that people may change their sexual orientation over short periods of time.

The categorisation that should be used in sexual orientation questions is contested but a consensus has emerged around the substantive categories of 'heterosexual/straight' (the latter being needed as some respondents do not understand 'heterosexual'), 'gay/lesbian' (as gender is invariably collected), and 'bisexual'. Further, the use of multiple residual categories like 'unsure' and 'Prefer not to say' is known to add to the proportion of data that is unusable and to contribute to item non-response. An 'other' category is generally retained and, if open response (as recommended here), can provide useful evaluative information on the utility of the main pre-designated categories. It also provides for those who describe themselves as 'asexual' for whom specific categorisation is only rarely offered. Transgender should not be a category in the sexual orientation question. The fact that the meanings of colloquial words such as 'straight' may change indicates the need for regular review of terms used on equality monitoring forms.

## 3 Inclusion of questions on sexual orientation in policy contexts

### 3.1 Introduction

This chapter focuses on terminology and categorisation for sexual orientation in policy contexts, especially official surveys. In brief this chapter addresses the coverage of questions on sexual orientation in government surveys and other policy contexts, the questions/question stems and response categories that have been used in these surveys, the language used to instruct survey respondents (including the phraseologies 'do you consider yourself to be ...' and 'which ... best describes'), and question and response categories for attraction and behaviour.

### 3.2 The overarching label or question stem used for sexual orientation

Most surveys use one of three different options, almost always a stand-alone term but sometimes combined, as in the case of the combined term 'sexuality/sexual orientation' (used in the Health Counts survey).

- sexual identity
- sexuality
- sexual orientation
- omission of an overarching label.

The term used in equalities legislation is 'sexual orientation'. However, in its first Omnibus Survey Trial, Office for National Statistics (ONS) indicated that it preferred the term 'sexual identity' and used this in the question title. Some respondents had difficulty in interpreting the term 'sexual identity', thinking it related to gender. Although 'sexual orientation' is the salient term in legislation and policy documents, its understanding as an umbrella term encompassing the dimensions of identity, attraction and behaviour limits its utility as a question title, but probably remains the best candidate if the question is titled.

Again, consideration is needed in choosing a term to describe the question (if it is untitled) in any discussion and more directly to describe the survey findings. In a careful appraisal of the advantages and disadvantages of using the terms 'sexual identity' and 'sexual orientation', the Equality Network in Scotland concludes that the term 'sexual orientation' should be retained (Equality Network, 2008). This is in accord with practice, the term 'sexual
orientation' being widely used in questions about self-identity on equality and diversity monitoring forms by employers and service provides across the UK.

### 3.3 Coverage of questions on sexual orientation

An examination of questionnaires in the Economic and Social Data Services' Question Bank and other sources indicate that questions on sexual orientation are missing on many that ask about the other equality strands.

Table 1 Coverage of questions on sexual orientation in official surveys, censuses and other data collection

| Survey | Sexual orientation <br> question |  |  |
| :--- | :--- | :---: | :---: |
| Component surveys of the Integrated Household Survey <br> (IHS) |  |  |  |
| Labour Force Survey, 2009 | Yes |  |  |
| Annual Population Survey, 2009 | Yes |  |  |
| General Lifestyle Survey, 2009 | Yes |  |  |
| English Housing Survey, 2009 | Yes |  |  |
| Living Costs and Food Survey, 2009 | Yes |  |  |
| Omnibus/Opinions Survey, 2009 | Yes |  |  |
| Other cross-sectional government surveys |  |  |  |
| Citizenship Survey | Yes |  |  |
| British Crime Survey | Yes |  |  |
| GP Patient Survey (IPSOS MORI and NHS) ${ }^{2}$, 2009 | Yes |  |  |
| Northern Ireland Health and Social Wellbeing Survey, 2001 |  |  |  |
| Scottish Crime and Justice Survey, 2008/9 | Yes |  |  |
| Scottish Health Survey, 2009 | Yes |  |  |
| Health Survey for England, 2007 ${ }^{4}$ | Yes |  |  |
| British Social Attitudes, 2006 | No |  |  |
| Welsh Health Survey, 2007 | No |  |  |
| Annual School Census (PLASC) | No |  |  |
| 2011 UK Censuses | No |  |  |
| Longitudinal surveys |  |  | No |
| UK Longitudinal Household Survey |  |  |  |
| Life Opportunities Survey (the longitudinal disability survey) | Yo |  |  |

Notes: ${ }^{1}$ Available only in the conditional-access 'interpersonal violence' data file. Alkire et al. (2009: 426) report in Summer 2009 that: 'following discussions with the HO, the BCS sexual orientation variable, which is included in the self-completion module, has been released to the Essex archive. We recommend that this variable is released to Essex with future BCS data releases'. ${ }^{2}$ Introduced in the quarter 6 April 2009-6 July 2009, the results for which will be published in January 2010. ${ }^{3}$ Not asked on 2005/6 Survey. ${ }^{4}$ Latest questionnaire available.

The Scottish government has decided that a harmonised sexual orientation question similar to that developed through the ONS sexual identity project will be added to all of their funded surveys in the near future. These comprise the Scottish Crime and Justice Survey, the Scottish Household Survey, the

Scottish Health Survey, and probably the Scottish House Condition Survey. A question on sexual orientation is also to be asked on the NHS Scotland GP Access Survey (which is mailed to around 500,000 GP patients) in November 2009.

The need to include all the equality strands in the indicators being developed for the Equality Measurement Framework (EMF) may catalyse inclusion of sexual orientation on other surveys and datasets. The team developing the EMF (Alkire et al., 2009) recommend that a question on sexual orientation is included in a wide range of surveys to enable more indicators to be monitored by sexual orientation: the Family Resources Survey, the Wealth and Assets Survey, the successor to the Living in Wales Survey, the English Longitudinal Study of Ageing, the Childcare and Early Years Parents Survey (for parents), the National Travel Survey, Understanding Society (part of the UK Household Longitudinal Survey), the British Election Study, Scottish Household Survey, Skills for Life Survey, and Scottish Social Attitudes Survey. Their report also makes a generic plea, that the sexual orientation question developed by ONS '... becomes a standard part of the demographic information collected in all major surveys, as soon as practicable.' (Alkire et al., 2009: 407.)

If we look at a small set of the indicators (48 of which have been identified across 10 domains, comprising 88 measures overall), those for health, the lack of data on sexual orientation is apparent. Several of these indicators will be sourced from the Health Survey for England, the Scottish Health Survey, and the Welsh Health Survey. Only within Scotland will sexual orientation be included (where it is under development for the Scottish Health Survey). In specialist consultation Alkire et al. (2009: 86) report 'the possibility of embedding the seven equality characteristics and social class within the Connecting for Health NHS system.'

### 3.4 Questions and response categories for identifying sexual orientation

The categorisation and terminology for sexual orientation is covered in some depth in Chapter 2 and a sexual orientation question has now been asked in a number of official surveys. A broad consensus among data users and the lesbian, gay and bisexual (LGB) community has developed in support of the categories 'lesbian', 'gay', 'bisexual' and 'heterosexual' (LGBH) and usually one residual category such as 'other' and/or 'prefer not to say'. The Gay and Lesbian Association of Doctors and Dentists (2005) and Stonewall, for
example, have suggested the use of LGBH categories, and 'other', as well as a choice not to disclose (Hunt and Fish, 2008).

A consortia of government departments (Cabinet Office, Office of the Deputy Prime Minister, Home Office and Department of Trade and Industry) used the LGBH categories and 'prefer not to say' in its pilot. The NHS Standard Application Form uses these categories too, with 'I would rather not answer', all listed under a 'sexuality' banner. The 2006 National Mental Health and Learning Disability Ethnicity Census used 'heterosexual', 'lesbian or gay’ and 'bisexual', with 'other' and 'do not wish to answer' to improve response rates (Healthcare Commission 2005). These response categories were also used on the General Register Office for Scotland's small-scale postal test on 'sexual orientation'. Table 2, which summarises the use of overarching generic labels and response categories, shows that the LGBH categories have now become standard but with some variation in use of residual categories.

A few surveys have used a continuum to measure sexual orientation. For example, the Policing for London Survey 2000 used the response options 'completely heterosexual', 'mainly heterosexual', 'bisexual', 'mainly gay or lesbian', and 'completely gay or lesbian'. A similar wording is used by one of the versions of the Adult Psychiatric Morbidity Survey: 'entirely heterosexual (attracted to persons of the opposite sex)', 'mostly heterosexual, some homosexual feelings', 'bisexual (equally attracted to men and women), 'mostly homosexual, some heterosexual feelings)', 'entirely homosexual (attracted to persons of the same sex)', and 'other'. Another version of this survey used the same options as the Policing for London Survey (but with the addition of 'other'). These questions increase the number of response options and add complexity to the question. They also make the assumption that some people's sexual orientation is intermediate between the main response categories and this is not fully substantiated by the responses to such questions and other evidence. For example, in the Lesbian and Bisexual Women's Health Survey 2007, nearly all ( 99.5 per cent) of 4,432 lesbian women reporting sexual identity and male partnership did not have a male partner at present (Hunt and Fish, 2008).

There may be a case for using these more fine-grained categories in surveys of young people whose sexual identity is developing, but they are probably of limited utility in general population surveys. Moreover, with such continuums, the consistency with which people are able to assign themselves to, say, the
'mainly gay or lesbian' as opposed to 'bisexual' category may be low. Such categorisations are too cumbersome to be of utility in routine monitoring contexts.

Table 2 Sexual orientation/sexuality survey questions on identity and response categories

| Survey questions | LGBH categories |
| :--- | :--- |
| Northern Ireland Life and Times Survey <br> (asked since 2000) <br> Can you tell me which of these best <br> describes you? | I am 'gay' or 'lesbian' (homosexual) <br> I am heterosexual or 'straight' <br> lam bisexual <br> Other (write in) <br> I do not wish to answer this question |
| Northern Ireland Health and Social <br> Wellbeing Survey (2001) <br> Which of the following statements best <br> describes you? | Heterosexual - that is, 'straight' <br> Homosexual - that is, 'gay' or 'lesbian' <br> Bisexual |
| Don't know |  |


| Civil Service Diversity Survey (2001) If you have no objections to stating your sexuality, please could you state it here? | Bisexual <br> Gay man Heterosexual Lesbian |
| :---: | :---: |
| Citizenship Survey (2007) <br> Which of the following best describes your sexual identity? | W. Heterosexual or straight <br> P. Gay or lesbian <br> H. Bisexual <br> S. Other (how would you describe your sexual identity?) <br> G. or would you prefer not to say? |
| British Crime Survey (2007/8) <br> Please choose a category from this list which best describes how you think of yourself. | 1. Heterosexual or straight <br> 2. Gay or lesbian <br> 3. Bisexual <br> 4. Don't Know <br> 5. Do not want to answer |
| Newham Household Panel Survey (2002- <br> 6) <br> Please tell us what best describes you. | I am heterosexual or 'straight' <br> I am 'gay' or 'lesbian' (homosexual) <br> I am bisexual <br> If none of the above applies. (Please write) I am $\qquad$ <br> I do not wish to answer this question |
| National Mental Health and Ethnicity Census 2005 Service User Survey (2005) Which of the categories on this card would you say describes your sexual orientation? | M. Heterosexual (like people of the opposite sex) <br> Z. Gay male or lesbian female (like people of the same sex) <br> P. Bisexual (like people of both sexes) <br> C. Transgender |
| National Mental Health and Learning Disability Ethnicity Census (2006) <br> Which of the following terms would you use to describe your sexual orientation? | Heterosexual <br> Lesbian or gay <br> Bisexual <br> Other <br> Do not wish to answer |
| National Statistics Omnibus Survey Trial 1 (July/August 2006) <br> Which of the following best describes your sexual identity? | Heterosexual <br> Gay or lesbian <br> Bisexual <br> Other (please specify) <br> Prefer not to say |
| National Statistics Omnibus Survey Trial 2 (November/December 2006) <br> Type the number of your answer then press Enter. Do you consider yourself to be ... | Heterosexual or Straight Gay or Lesbian Bisexual Other (please specify) Prefer not to say |
| National Statistics Omnibus Survey Trial 3 (July/August 2007) <br> Type the number of your answer then press Enter. Do you consider yourself to be ... <br> (split design: response options reordered) | 1. Heterosexual or Straight <br> 2. Gay or Lesbian <br> 3. Bisexual <br> 4. Other (please specify) <br> 5. Prefer not to say? <br> Group 1 (as above); group 2: 2, 3, 1,4, 5. |


| National Statistics Omnibus Survey Trial 4 <br> (November 2007-January 2008) | Heterosexual/Straight <br> Gay/Lesbian <br> Split design. <br> Qn. A: Which of the options on this card best <br> describes how you think of yourself? <br> Qn. B: Looking at this card, which of these do <br> you consider yourself to be? |
| :--- | :--- |
| Other |  |

In conclusion, then, while there is some variation in the categories used, post survey evaluations and other data suggest that the following may be optimal:

- 'Heterosexual/straight': as not everyone understands the term 'heterosexual' and 'straight' is a colloquial term (although this needs to be monitored with regard to acceptability by the LGB community).
- 'Gay/lesbian': as most surveys collect gender, it is satisfactory to offer both terms in the same category. Some lesbians are known to use 'gay' as the first term of choice.
- 'Bisexual': this term seems to be widely accepted and understood; there are no satisfactory substitutes and no synonyms widely used in its place by community members.
- 'Other (please specify)': a free text field is preferable to monitor terms that respondents prefer and possibly the emergence of new terminology, even if free text fields are not analysed.

Findings of the ONS Sexual Identity Project now indicate that categories like 'prefer not to say' are unnecessary and tend to be used by respondents as a way of avoiding answering the question and, thereby, contributing to the unusable data and also item non-response.

Finally, it is interesting to note that the legal use of the term 'sexual orientation' - 'an individual's sexual orientation towards persons of the same sex as him or her, persons of the opposite sex, or both' (as in section 35 of the Equality Act 2006) - has not spawned like classifications, with one exception. The Equality Commission for Northern Ireland has recommended the question: ${ }^{13}$

My sexual orientation is towards someone:

1. Of the same sex (this covers gay men and lesbians)
2. A different sex (this covers heterosexual men and women)
3. Of the same sex and of the opposite sex (this covers bisexual men and women).

This wording has been used on equal opportunities monitoring forms by the Northern Ireland Civil Service and Northern Ireland Office, Northern Ireland Policing Board, and the University of Ulster, for example.

### 3.5 The language used to instruct survey respondents

It will be seen from Table 2 that respondent instructions vary. There are three variants of the question, those that ask: (1) Please state (your sexuality) here;
(2) 'Do you consider yourself to be (...)' with respect to the listed response categories; (3) Which of the response categories '(...) best describes your sexual identity' or similar wording. The last version is the one most often used.

The language these questions use to elicit respondents' identities is important. Sexual identity is clearly a subjective facet of identity, respondents making their own subjective or personal decisions: we do not have an evidence base on the cognitive processes involved and on the extent to which respondents might differentially draw on such domains as identity, attraction and behaviour. Most of the questions used in government surveys and data
collection are sensitive to this fact, by asking respondents which category 'best describes' them, how they 'think' of themselves, or what they 'consider' themselves to be. The two versions above, (2) and (3), are explicitly subjective in using such phraseology. One asks what the person considers themselves to be and the other which category best describes their sexual identity: both yield to the respondent's personal, self-ascribed aspect of sexual identity; the individual is the final arbiter and it is his/her choice that is paramount and not some external measure. Some surveys such as Health Counts and the Count Me In service user survey use the conditional tense. Similar wording is found in Census questions on ethnicity, which Morning (2008: 249) variously describes as showing '... deference to the individual's choice of self-recognition'; a 'strategy of recognizing the subjectivity of identity', '... something with which one is affiliated, as opposed to... something that one is', 'the difference between an essential being [...] and a constructed belonging to'.

Such questions contrast with version (1) which asks the respondent only to state their sexual identity from a list of category options, the assumption being that the categories objectively represent the range of sexual identities available, without conceding that the 'fit' may not be exact. Such questions could be regarded as 'essentialist' in the sense that they are assumed to be adequate to capture the respondents' sexual identity without reference to a subjective formulation. Type (2) and especially type (3) yield to the respondents' agency in making a choice, implicitly indicating that none of the options may exactly describe the person's sexual identity. Given the sensitivities around asking a sexual orientation question, the type (3) question is to be recommended.

### 3.6 Questions and response categories for attraction and behaviour

Few official surveys have used sexual orientation questions based on the dimensions of attraction and behaviour. Those that have have been confined almost entirely to questionnaires on sexual or mental health (Table 3), notably, the National Survey of Sexual Attitudes and Lifestyles (NATSAL), 2000 and the Adult Psychiatric Morbidity Survey, 2006/7.

Table 3 Sexual orientation/sexuality survey questions on attraction and behaviour and response categories

| Survey questions | LGBH categories |
| :---: | :---: |
| Attraction |  |
| National Survey of Sexual Attitudes and Lifestyles 2000 | I have felt sexually attracted ... <br> 1 (K) Only to (females/males), never to (males/females) <br> 2 (C) More often to (females/males), and at least once to a (male/female) <br> 3 (F) About equally often to (females/males) and to (males/females) 4 (L) More often to (males/females), and at least once to a (female/male) <br> 5 (D) Only ever to (males/females), never to (females/males) <br> 6 (N) I have never felt sexually attracted to anyone at all <br> 7 Refused |
| Adult Psychiatric Morbidity Survey 2006/7 <br> Version A1: Which statement best describes your sexual orientation? This means sexual feelings, whether or not you have had any sexual partners. | Entirely heterosexual (attracted to persons of the opposite sex) <br> Mostly heterosexual, some homosexual feelings <br> Bisexual (equally attracted to men and women) <br> Mostly homosexual, some heterosexual feelings <br> Entirely homosexual (attracted to persons of the same sex) |
| Sexual partnerships and behaviour |  |
| National Survey of Sexual Attitudes and Lifestyles 2000 | Sexual experience is any kind of contact with another person that you felt was sexual (it could be just kissing or touching, or intercourse or any other form of sex). I have had some sexual experience ... 1 (R) Only with (females/males) (or a (female/male), never with a (male/female) 2 (Q) More often with (females/males), and at least once with a (male/female) 3 (T) About equally often with (females/males) and with (males/females) 4 (B) More often with (males/females), and at least once with a (female/male) 5 (Z) Only with (males/females) (or a (male/female), never with a (female/male) 6 (W) I have never had any sexual experience with anyone at all 7 Refused |


| Adult Psychiatric Morbidity Survey 2006/7 <br> Version A2: Have your sexual partners been ... | Only opposite sex <br> Mainly opposite sex but some same-sex partners <br> Mainly same sex but some opposite-sex partners <br> Only same sex <br> I have not had a sexual partner |
| :---: | :---: |
| Adult Psychiatric Morbidity Survey 2006/7 <br> Version B2. Sexual experience is any kind of contact with another person that you felt was sexual (it could be just kissing or touching, or intercourse, or any other form of sex). Has your experience been ... | Only with women/men (or a woman/man), never with a man/woman More often with women/men, and at least once with a man/woman, <br> About equally often with women/men and men/women <br> More often with men/women, and at least once with a woman/man Only with men/women (or a man/woman), never with a woman/man I have never had any sexual experience with anyone at all |
| Lesbian and Bisexual Women's Health Survey $2007^{\dagger}$ <br> [also: Gay men's Sex Survey 2007] In the last year, have you had sex with ... | Women only <br> Men only <br> Both women and men <br> No one |
| Lesbian and Bisexual Women's Health Survey $2007^{\dagger}$ <br> In the last five years, have you had sex with ... | Women only <br> Men only <br> Both women and men <br> No one |
| Lesbian and Bisexual Women's Health Survey 2007 <br> Do you have a female partner at the moment? | No <br> Yes, one female partner <br> Yes, more than one female partner |
| Lesbian and Bisexual Women's Health Survey 2007 <br> Do you have a male partner at the moment? | No, <br> Yes, one male partner <br> Yes, more than one male partner |

Notes: ${ }^{\dagger}$ Similar questions were asked on the National Survey of Sexual Attitudes and Lifestyles I and II. The time periods asked about were in the last year, last five years, and ever.

Such questions are probably unsuitable for routine equalities monitoring, lacking a strong social dimension that characterises the other equality strands. They are also more intrusive and likely to raise substantially greater concerns about disclosure than questions on sexual identity. Clearly, in the case of questionnaires on sexual and mental health, there is a context for asking such questions.

### 3.7 Conclusions

While the term used in equalities legislation is 'sexual orientation', the overarching label or question stem adopted in surveys differs, the variants including sexual identity, sexuality, sexual orientation, or no label at all. There is, currently, patchy coverage of questions on government surveys. While the component surveys of the IHS - comprising the Labour Force Survey, Annual Population Survey, General Lifestyle Survey (formerly General Household Survey), English Housing Survey, Living Costs and Food Survey, Life Opportunities Survey and Omnibus/Opinions Survey - all collect data on sexual identity and will report in 2010, some other government surveys do not. It will be important to know whether the longitudinal elements of the IHS will re-ask the sexual identity question in successive waves.

There is some variation in the question wording and categories on the almost 20 surveys currently collecting sexual orientation data. Nearly all use discrete categories rather than a scale, and most of the substantive categories use the same or very similar labels. The language used to instruct survey respondents is predominantly that of choosing the option that 'best describes' how they think of themselves. Questions on sexual attraction/desire and sexual behaviour tend to use scales, while those on partners explore the gender mix of partners.

## 4 Evidence on the size of the LGB population

### 4.1 Introduction

In the absence of current reliable data on the size of the lesbian, gay and bisexual (LGB) population in Great Britain, this chapter evaluates a number of estimates, notably those of the Department for Trade and Industry (DTI) and the Women and Equality Unit but also some other local and national estimates. Estimates are also given of the size of the LGB population and missing data group in around eight government surveys, none of which has been designed to provide national estimates. The size of the LGB and missing data groups is also given for the four Omnibus Survey Trials undertaken as part of the Office for National Statistics (ONS) Sexual Identity Project (again, none of which were designed to produce such estimates). Finally, the use of same-sex couples' data is investigated for thinking about the LGB population.

### 4.2. The DTI LGB population estimate

In its final regulatory impact assessment for the Civil Partnership Act 2004, the DTI argued that 'there is very little reliable data about the size of the LGB population' and offered an estimate of five-seven per cent:

> Whilst no specific data is available, a wide range of research suggests that LGB people constitute $5-7$ per cent of the total adult population. The total England and Wales adult population in 2002 was approximately 42.1 million; therefore a $5-7$ per cent range would mean that the LGB population would be 2.10 million to 2.95 million people. Scotland's total adult population in 2002 was 4.1 million; therefore a $5-7$ per cent range would mean that the LGB population would be 200,000 to 290,000 people. Northern Ireland's total adult population in 2002 was 1.30 million; therefore a $5-7$ per cent range would mean that the LGB population be 65,000 to 90,000 people (DTI, 2003: 13$)^{14}$

However, this size estimate is based on the findings of a number of different and disparate sources. The DTI cite the following (DTI, 2003: 13, fn. 14):
(i) The National Survey of Sexual Attitudes and Lifestyles (NATSAL 2000) of 16-44 year olds, found that 5.4 per cent of men and 4.9 per cent of women had ever had a same-sex partner compared with just 2.6 per cent of both genders who had had recent experience [in Johnson et al., Sexual behaviour
in Britain: Partnerships, Practices and HIV Risk Behaviours, The Lancet, 2001; 358 (9296): 1835-42].
(ii) About five per cent of those questioned in exit polls identified themselves as 'gay' in US Voter News Service exit polls 1996 and 2000.
(iii) Plug, E and Berkhout, P (2001) found that about five per cent of their Dutch sample had gay, lesbian or bisexual sexual preferences in Effects of Sexual Preferences on Earnings in the Netherlands.
(iv) About six per cent of a national sample of Americans identified as gay or lesbian in Yankelovich Monitor Research (1994).
(v) Laumann et al. (2004) found the incidence of homosexual desire was just over seven per cent of both men and women in the USA.
(vi) Janus and Janus (1993) found that nine per cent of men and five per cent of women identified as gay or lesbian.
(vii) Some studies have found higher estimates, such as Kinsey (1948) and Sell et al. (1995), while
(viii) Others using estimates of cohabiting same-sex couples have found much lower estimates, for example the Labour Force Survey finds just 0.2 per cent of UK households consist of same-sex couples.

After evaluating the sources, it is clear that they are proportions relating to a mixture of sexual orientation dimensions (behaviour, identity, desire, and coresident same-sex couples), to a variety of national settings (Britain, USA, Netherlands), and different population subgroups. The figures have acquired an authority via frequent citation that is probably not justified given the evidence upon which they are based. Some have taken the five-seven per cent estimate and used it to lever up estimates from what is perceived to be a sound base. For example, based on this range, Cant and Taket et al. (2004: 6) argue that: 'Given the traditional patterns of movement to large cities by LGBT populations, the figure might well be higher in London itself. Hickman et al. (1997) argue that 'gay men are 8.6 per cent of the male population of inner London. The 2001 Census indicates that the total population of London is approximately $7,172,000$. If we argue that the LGBT population is at least seven per cent we can surmise that we are talking about a population group in the region of 500,000 . That makes it considerably more than the total population of Bristol $(380,000)$, nearly twice as many as Nottingham $(266,000)$ and on a par with Bradford $(467,000)$.'

### 4.3 The Women and Equality Unit LGB population estimate

The Women and Equality Unit (2003: 76) based costings for pensions and benefits on the assumption that five per cent of the UK population aged over 16 is LGB, an estimate that is consistent with 'findings from a range of sources including the National Surveys of Sexual Attitudes and Lifestyles 2000.' The 1990 and 2000 National Surveys of Sexual Attitudes and Lifestyles (NATSAL I and II) provide a behavioural measure only - and not one of sexual identity - which included asking respondents if they had had a samesex partner in the last five years and in their lifetime. For five years, among men, 1.5 per cent responded affirmatively in 1990 and 2.6 per cent in 2000 (Johnson et al., 2001). Among women, the proportions were 0.8 and 2.6 per cent respectively. For lifetime, the responses for men were 3.6 and 5.4 per cent respectively and, for women, 1.8 per cent and 4.9 per cent. While these may approximate to period prevalence rates based on same-sex practice, they are not informative with respect to self-identification.

### 4.4 Other LGB population estimates

Other agencies have quoted a figure of 10 per cent based on the work of Kinsey, including, for example, Ireland's Second Commission on the Status of Women (1993). Breitenbach (2004: 27) also argues that it is feasible to operate on the assumption that a certain proportion of the population (up to 10 per cent) is LGBT. In Brighton and Hove (colloquially the 'gay capital' of England), which probably has the largest percentage of LGB population of any local authority, estimates based on local surveys vary. Browne (2007) estimated that 14 per cent of the Brighton and Hove population belonged to LGBT groups, while Blair-Stevens et al. (2007) placed the proportion much lower at $8-10$ per cent. All such estimates are questionable as they are not based on robust evidence at the population level.

Many official bodies take a much more cautious approach. The Scottish Public Health Observatory notes: 'Reliable information on the size of the LGB population is absent.... This estimate (5-7 per cent of the UK population) should be used with caution. It relied on information collected in other countries that may be quite different to Scotland. Also, it is not clear how the different studies included defined sexual orientation'. ${ }^{15}$ ONS concluded: 'There is no firm data on the size of the LGB population but they are thought to form a small population group,. ${ }^{16}$ A Commission Review of Equality Statistics also points to 'very large variations in the reported rates of the size
of the LGB population' in response to differences in the concepts and question wording used (Walby et al., 2008: 33).

### 4.5 Findings on the LGB population from government and other social surveys

There have now been a number of social surveys which have included questions on sexual orientation, usually focusing on social identity. While none of these have been designed to provide national estimates of the size of the LGB population, they are, however, informative. These surveys were limited in their population or geographical coverage (there was only one Great Britain-wide general population survey) and varied in terms of design and sampling methods.

Betts (2008) reviewed ten public sector surveys as part of ONS's Sexual Identity Project. Estimates were not available for two of the 10 surveys (which focused on mental health patients and so were the least typical of those reviewed). Minimum and maximum percentage rates are reported for each substantive sexual identity category and type of missing value. The category percentages are based on total cases and not just valid cases. The ranges are shown for all surveys and separately for interviewer-administered and selfadministered (Table 4).
Table 4 Size of the LGB and missing data groups in selected survey datasets

|  |  | Substantive categories |  |  |  |  |  | Missing data |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Survey mode |  | Heterosexual | Lesbian/ Gay | Bisexual | LGB <br> total | Other/ none | All Subst. | Don't know | Do not wish to answer | Ref | Blank | All missing |
| All | Min Max | $\begin{aligned} & 70.4 \\ & 98.9 \end{aligned}$ | $\begin{aligned} & 0.0 \\ & 2.0 \end{aligned}$ | $\begin{aligned} & 0.2 \\ & 2.0 \end{aligned}$ | $\begin{aligned} & 0.3 \\ & 3.0 \end{aligned}$ | $\begin{aligned} & 0.0 \\ & 4.7 \end{aligned}$ | $\begin{aligned} & 75.0 \\ & 99.8 \end{aligned}$ | $\begin{aligned} & 1.6 \\ & 1.6 \end{aligned}$ | $\begin{gathered} 1.3 \\ 15.0 \end{gathered}$ | $\begin{aligned} & 0.2 \\ & 9.0 \end{aligned}$ | $\begin{gathered} 1.4 \\ 10.0 \end{gathered}$ | $\begin{array}{\|l\|} 0.2 \\ 25.0 \end{array}$ |
| Int.-admin | Min Max | $\begin{aligned} & 87.8 \\ & 98.9 \end{aligned}$ | $\begin{aligned} & \hline 0.5 \\ & 2.0 \end{aligned}$ | $\begin{aligned} & 0.2 \\ & 1.2 \end{aligned}$ | $\begin{aligned} & 0.9 \\ & 2.4 \end{aligned}$ | $\begin{aligned} & 0.0 \\ & 0.7 \end{aligned}$ | $\begin{aligned} & 90.9 \\ & 99.8 \end{aligned}$ | $\begin{aligned} & 1.6 \\ & 1.6 \end{aligned}$ | $\begin{aligned} & 1.3 \\ & 1.3 \end{aligned}$ | $\begin{aligned} & 0.2 \\ & 9.0 \end{aligned}$ | n/a | $\begin{array}{\|l\|} \hline 0.2 \\ 9.0 \end{array}$ |
| Self-admin | Min Max | $\begin{aligned} & 70.4 \\ & 95.3 \end{aligned}$ | $\begin{aligned} & 0.0 \\ & 1.0 \end{aligned}$ | $\begin{aligned} & 0.3 \\ & 2.0 \end{aligned}$ | $\begin{aligned} & 0.3 \\ & 3.0 \end{aligned}$ | $\begin{aligned} & 0.9 \\ & 4.7 \end{aligned}$ | $\begin{aligned} & 75.0 \\ & 98.6 \end{aligned}$ | n/a | $\begin{gathered} 8.5 \\ 15.0 \end{gathered}$ | n/a | $\begin{gathered} 1.4 \\ 10.0 \end{gathered}$ | $\begin{array}{\|l} 1.4 \\ 25.0 \end{array}$ |

Source: Betts, P. 2008 (January). Developing survey questions on sexual identity: UK experiences of administering survey questions on sexual identity/orientation. London: Office for National Statistics.
Notes: The eight surveys are: Northern Ireland Life and Times Survey (2005); Policing For London Survey (2000); Employees’ Awareness, Knowledge and Exercise of Employment Rights Survey (2005); Fair Treatment at Work Survey (2005); British Social Attitudes Survey (2005); Newham Household Panel Survey (2002-6); Scottish Census Small Scale Test (2005); and Civil Service Diversity Survey (2001).

The main finding is that rates of LGB respondents, combined, ranged from 0.3 per cent to three per cent. Even taking the maximum size estimate, this is only 40-60 per cent that of the range suggested by the DTI. Moreover, Betts notes: 'The surveys which recorded the highest rates of LGB respondents were not of the general population.' They might reflect different compositions, with regard to sexual identity, among the specific populations sampled (civil servants and people currently or recently employed) compared with the general population. Indeed, the highest estimate of LGB respondents among any of the general population surveys was 2.1 per cent. Whether the survey was interview-administered or self-administered made little difference to the proportions identifying as LGB.' (Betts, 2008: 12-13).

It is useful to compare the findings from this set of eight surveys with the four Omnibus Survey Trials conducted as part of ONS's Sexual Identity Project (Table 5).

Table 5 Size of the LGB and missing data groups in the four Omnibus Survey Trials (ONS Sexual Identity Project)

|  | Trial 1 | Trial 2 | Trial 3 | Trial 1, 2 and <br> 3 combined | Trial 4 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Mode | CASI | CASI | CASI (some <br> CAPI) | CASI | CAPI |
| Heterosexual <br> or Straight | 92.0 | 96.8 | 95.1 | 94.7 | 96.8 |
| Gay <br> Lesbian | 1.3 | 0.8 | 1.2 | 1.1 | 0.9 |
| Bisexual | 1.2 | 0.6 | 0.7 | 0.8 | 0.7 |
| Other | 0.9 | 0.3 | 0.6 | 0.6 | 0.7 |
| Prefer not to <br> say | 4.6 | 1.5 | 2.4 | 2.8 | - |
| Don't know | - | - | - | - | 0.5 |
| Refusal | - | - | - | - | 0.5 |
| Unweighted <br> bases | 2126 | 1907 | 2389 | 6422 | 3429 |
|  | $\mathbf{2 . 5}$ | $\mathbf{1 . 4}$ | $\mathbf{1 . 9}$ | $\mathbf{1 . 9}$ | $\mathbf{1 . 6}$ |
| Per cent LGB |  |  |  |  |  |

[^0]These trials give findings of 1.4 per cent to 2.5 per cent LGB or 1.9 per cent in the first three trials combined. There were no significant differences across the trials in the proportion of respondents describing themselves as gay or lesbian, bisexual or other. These proportions are consistent with the highest estimate ( 2.1 per cent) of LGB respondents among any of the general population surveys reported by Betts (2008). They are also in accord with the findings of the Health Counts survey(a survey of the health of people in East Sussex, Brighton and Hove, 2003, which included the high prevalence area of Brighton and Hove ( $n=5,983$ ). While 7.4 per cent failed to answer, 2.8 per cent identified as LGB, 0.3 per cent were 'unsure' and 0.4 per cent answered 'other'. Data from the 2007 Citizenship Survey (which has an ethnic boost) gives a lower proportion, 1.5 per cent (of 14,095 respondents, including 521 non-respondents to the sexual orientation question) identifying as LGB.

Collectively, these surveys point to an LGB population estimate of around 2.0 -2.5 per cent when capture is based on general population samples and the question asked focuses on the identity dimension of sexual orientation. Caution is required in interpreting these findings from survey questions and the four ONS trials. Firstly, some respondents who are LGB may elect to use categories like 'prefer not to say' or 'don't know', although only one per cent utilised residual categories ('don't know' and 'refused') in the fourth Omnibus Survey Trial. Further, an unknown proportion of respondents may be misreporting their sexual orientation for social desirability reasons or for fear of discrimination. Finally, geographical coverage may affect results. It is known from data on same-sex couples and civil partnership registrations that the LGB population is not evenly distributed across the country: consequently, surveys based on a clustered sample design may distort estimates, although general population probability samples should not be affected.

### 4.6 Use of same-sex couples data for thinking about the LGB population

In the absence of robust data on the size of the LGB group, other data sources have been used as proxies to look at various characteristics of this population. For example, data on same-sex couples, that is, people living together (usually co-resident) in a cohabitation relationship or as a registered civil partnership who are prepared to declare their living arrangements in surveys, has been used to look at the distribution of the LGB population, albeit a highly specific segment. Clearly, such sources substantially undercount the population identifying as LGB but they may, nevertheless, be of utility in
revealing stable geographical patterns (and thereby providing a system of weights for national data on the size of the LGB population).

How such couples are captured varies across datasets. Some surveys such as the 2001 Census did not ask a direct question on same-sex couples but identified such couples through information given in the question on household relationships. Further, such couples may choose not to declare their relationship, so much of the data provides only a measure of declaring same-sex couples who are co-resident and is, therefore, a substantial undercount. It clearly excludes couples who are not co-resident including the living-apart-together (LAT) group.

Among data sources, the 2001 Census estimates 39,000 same-sex households ( 78,000 persons), below 0.3 per cent of all couples. ${ }^{17}$ The Census validation process detected that there was an inflated number of same-sex couples, both with and without children. The main reasons were: the form filler ticked the wrong sex for one person, duplicate instances of the same person, 'partner' being imputed when the relationship matrix was incomplete or inconsistent, the One Number Census process adding a person into an existing household, and the Household Composition Algorithm deriving an incorrect family type. A set of automated checks, including analysis of first names to check whether the wrong sex had been ticked, was carried out to identify people who fell into the above categories. Where couples could not be decided automatically, the record's validity was decided manually. A few households containing more than one potential same-sex couple were passed straight to manual checking.

The number of same-sex couples counted in the 2001 Census in England and Wales was 88,322 (that is, couples rather than people in couples). Of these, 39,261 were found to be genuine ( 44.5 per cent). A further 18.0 per cent were imputed by the One Number Census process, 12.3 per cent were caused by the wrong sex being ticked, and 25.2 per cent were due to imputed relationship information. This information was collected to produce a Same Sex Couples database. To date, no data has been corrected or flagged on the Census Output Database. Consequently, there is no scope to commission special (customised) tables from the ONS Same Sex Couples Database. All we have is the same-sex household count. The approach adopted to the identification of same-sex couples in England and Wales is placed in a broader context by Festy (2007). Data is available for the whole of Great Britain (and Northern Ireland).

The ONS Longitudinal Study and Samples of Anonymised Records exclude imputed values but the sampling fraction from the full Census is so small in these datasets that they are of limited utility for the relatively small population of same-sex co-resident couples.

The use of this Census data for policy purposes has been fairly limited. Lynda Clarke, London School of Hygiene and Tropical Medicine, and Jo Miles, the Law Commission, have registered a project on cohabitation using the ONS Longitudinal Study. ${ }^{18}$ One area of investigation relates to same-sex couples: 'These individuals could be analysed by reference to age, economic status, socio-economic position and housing tenure. It would be relatively a small sample (at most one per cent of around 78,500 - see table UV93 from Census 2001), but still probably the largest demographic analysis of same-sex couples to date'. The investigators also speculate that it might be possible to get some sense of long-term same-sex relationships by looking back at returns for 1991 to see what the household composition was at that point (but with difficulties relating to identifying the same individuals). Data on same-sex couples has been analysed and mapped by Simon Duncan and Darren Smith (2004) for the whole of Great Britain (including Scotland), providing important information on geographical patterns.

Some of the government social surveys also collect data on same-sex couples. General Household Survey and Labour Force Survey (LFS) data is available from 1996; outputs split cohabiting same-sex couples into two groups: those with children and those without children. The spring 2004 LFS, for example, estimates 65,000 same-sex households (130,000 individuals), 0.28 per cent of the adult population. Some use has been made of the LFS data. Arabsheibani et al. $(2004,2005)$ use it to look at wage differentials in same-sex (male and female) households v other households: they pool data from the Q1 1996 to Q4 2004 LFS to obtain a sample of 730,000 individuals, including 1,300 gay men and 849 lesbian women. Longhi and Platt (2008) have also used this data to look at pay gaps and pay penalties across equality areas.

The main drawback of the Census data is that it is only a partial count. Using US data Black et al. (2000) estimated that only about one-third of gay and lesbian couples report themselves as such in the Census, and Duncan and Smith (2004: 16), too, suggest 'a generous trebling of the reported figure' to obtain a true estimate. While such proportions raise concerns about selection bias with respect to those who declare their same-sex couple status, the
strong geographical variations revealed may be of utility to local authorities without survey data in addressing how they develop strategies to incorporate this equality strand and in investigating the public health implications of samesex partnerships.

Recent research (Aspinall and Mitton, 2008) showed a moderately strong linear relationship between numbers of same-sex couples in the Census and Civil Partnerships at local authority level ( $r^{2}=0.5516$ ). Such data (as it accrues) and that on same-sex couples from the decennial Census may offer a source of weightings for synthetic estimates of sexual orientation at a small area level, once data starts to accrue from the Integrated Household Survey (IHS).

### 4.7 Conclusions

There are currently no reliable estimates of the size of the LGB population in Great Britain. Sexual orientation has not been asked in a decennial census in Britain and the surveys that currently ask about sexual orientation have not been designed to provide national estimates of the LGB population. Largescale social surveys indicate that around 2.0-2.5 per cent of the population identify as LGB in questions on sexual identity, although none of these surveys - including those used to test questions in the ONS Sexual Identity Project - were designed to provide such estimates.

While these and other estimates are set against the benchmark of five-seven per cent suggested by the DTI, that estimate is, itself, of questionable validity, comprising data for different dimensions and from highly disparate surveys. It is, therefore, unsatisfactory to assume a significant undercount when setting this survey data against the DTI estimate. Some other sources estimate the population to be as high as 10 per cent but without a supporting evidencebase. In the absence of a reliable benchmark or gold standard measure, reliance has to be placed on the best survey evidence but with the caveat that such estimates may encompass significant measurement error. Although it is claimed that the achieved sample sizes on the IHS will give a robust estimate of the LGB population in 2010, it is clear that this will be in the context of persons responding within a household and during a process of concurrent interviewing.

As the collection of sexual orientation data becomes more routine and acceptable, one would expect that estimates would become more consistent
and reliable. Moreover, the introduction of a sexual orientation question on major government social surveys should consolidate this process. It is unlikely, however, that a definitive size of the LGB group, based upon selfdeclared identity, can be established for some time.

## 5 The scope to collect sexual orientation in official data collection and monitoring

### 5.1 Introduction

The scope to collect sexual orientation data in official contexts depends on both the acceptability to respondents of answering such questions in these settings and also on the development of suitable question formats.

### 5.2 Asking about sexual orientation in large national surveys, the 2011 Census and other context specific situations

A number of questions were asked in the 2009 Ellison and Gunstone survey to explore respondents' attitudes to such questions and their acceptability in different contexts. Such information provides useful background to investigations of the scope to collect sexual orientation information in censuses, surveys, and monitoring. Around three-quarters ( 75 per cent) of heterosexual or straight respondents found it acceptable to collect information on sexual orientation in national surveys; the proportions were, again, higher in gay or lesbian ( 90 per cent) and bisexual ( 81 per cent) respondents. Respondents were asked whether they supported, opposed or did not mind the introduction of a non-compulsory question on sexual orientation in the 2011 Census, though were not asked whether they would respond to the Census in any circumstance. Most LGB (84 per cent) and heterosexual (79 per cent) respondents supported or did not mind the inclusion of a noncompulsory sexual orientation question in the 2011 Census. Respondents were asked if they might answer the sexual orientation question differently depending on the type of survey and the circumstances in which it took place. For this sample, online surveys, and interviews by person and telephone in the respondents' own home without the intrusion of others, are likely to minimise misreporting or not answering the question. The respondents suggested they would be most likely to misreport or not answer the question if interviewed at home when others can see or hear, or completing a monitoring form when applying for a new job (Ellison and Gunstone, 2009).

### 5.3 The scope for collecting sexual orientation data in central and local government contexts

The 2007 Equality Review recommended 'that as a matter of urgency ONS [Office for National Statistics] completes preparatory work regarding a question on sexual orientation to allow it to be introduced into the Integrated

Household Survey; and harmonised questioning on sexual orientation should then be agreed and used by ONS, Communities and Local Government and Home Office in the Integrated Household Survey, the Citizenship Survey and the British Crime Survey'. ONS responded to this recommendation by introducing a new survey question on sexual identity (ONS, 2008). From January 2009 ONS has collected data on sexual identity in its major continuous surveys. The surveys that have included the new question are: Annual Population Survey, Labour Force Survey, English Housing Survey, Living Costs and Food module (formerly Expenditure and Food Survey), General Lifestyle module (formerly General Household Survey), and Opinions module (formerly Omnibus Survey). These surveys upon which ONS has led have been incorporated into the IHS.

The question ONS has asked is: 'Which of the options on this card best describes how you think of yourself? Please just read out the number next to the description.' The response options are: 'Heterosexual/Straight', 'Gay/Lesbian', 'Bisexual', and 'Other' (although ONS will not be collecting the details of the 'other' ways in which people would describe themselves). As with other ONS surveys, an individual may say that they do not wish to answer the question or that they do not know which answer best describes them. Special show cards are being used to ensure that someone in the same room as the respondent at the time of the interview cannot know how they have answered. The first data from these surveys will not be available until 2010 as the surveys are conducted over the period of a year. However, ONS anticipate that: '.. the size of the surveys means that, for the first time, it will be possible to provide reliable estimates of the LGB communities at a national and regional level as well as to be able to carry out detailed analysis of the age, sex and other aspects of these communities' (ONS, 2008a: 64). Clearly, as data accrues over a number of years permitting pooling, it should be possible to provide estimates for smaller geographies and for other demographic subgroups. In addition (and as recommended by the Equalities Review), questions on sexual orientation were included on the 2007 Citizenship Survey and the 2007/8 British Crime Survey, though only in the self-completion module.

Given this important first step towards obtaining reliable, population-based data on sexual orientation by ONS, Communities and Local Government, and the Home Office, it is appropriate to ask whether sexual orientation should be collected on other surveys and, indeed, whether it should be mainstreamed in the way other equality strands (such as ethnic group) have been.

Some questions on the behavioural dimension of sexual orientation are asked in sexual health surveys (such as the National Surveys of Sexual Attitudes and Lifestyles series). Given the evidence for elevated rates of mental health conditions and of risky health-related behaviours (such as smoking) in the LGB group, there may be a case for asking a question on sexual orientation in the Health Survey for England or in selected modules of this survey.

There is, too, a case for including sexual orientation in employment monitoring in spite of the findings of the 2009 Ellison and Gunstone survey, so that it will become routinised and more acceptable to respondents. A lead has already been taken by the NHS: applications for employment in the NHS are now directed through the NHS central portal to the 'model application form', in which sexual orientation is mandatory. There may be scope to introduce sexual orientation as one of the standard data items collected in the annual NHS staff censuses. As the largest single employer in the UK, this could have an important 'example effect' for other large public sector employers. Most government departments now include sexual orientation on job application forms, following a pilot in the Cabinet Office, the Office of the Deputy Prime Minister, the Home Office, and Department of Trade and Industry.

Practices in local government appear to be much more fragmented. The most comprehensive data we have dates back to 2003 (ODPM, 2003). Then only one in nine (11 per cent) councils had implemented targeted initiatives to increase wider participation, representation and leadership of people with different sexual orientations. None of the responding local authorities held records on the sexual orientation of their councillors. Only three per cent of survey respondents had records on the sexual orientation of their staff. Only three per cent had records on sexual orientation within their local population. Only one in nine (11 per cent) had implemented targeted initiatives or programmes to ensure that services met the needs of sexual orientation groups. A recent survey of equality strands included in local authority job application 'equal opportunities monitoring' forms ( $n=113$, based on a search of local authority websites), found that sexual orientation was included on only 10 ( 8.8 per cent), compared with ethnic group on 108 ( 95.6 per cent). Sexual orientation was included on only five ( 6.6 per cent) of 76 NHS trust job application forms (Aspinall and Mitton, 2008).

### 5.4 Conclusions

The Ellison and Gunstone survey (2009) data suggests that all forms of data collection will currently undercount the size of the LGB group. Others share this concern. Stonewall has stated that: '... our research suggests that the first few times surveys monitor for sexual orientation, there is a reluctance to answer questions on sexual orientation and to answer accurately. Therefore there will be a considerable time-lag before the data will come close to reflecting the experiences of LGB people.' (Quoted by Alkire et al., 2009: 408). Similarly, the team developing the Equality Measurement Framework (EMF) express the view that: 'It is to be expected that a proportion, possibly a high proportion, of LGB people who are not out will decline to answer the sexual identity question in surveys, or report themselves as straight.' (Alkire et al., 2009: 408). Its concern is that the experiences of the two groups may differ. It therefore recommends that indicators on inequality by sexual identity based on survey data are supplemented with in-depth research through organisations trusted by LGB people, to help provide insights on the experiences of LGB people who are not 'out', in relation to each of the EMF ten domains. It is clear that the data that emerges from the IHS, the suite of Scottish government surveys, and other new data collections will need very careful interpretation with respect to context and setting.

## 6 Improving estimates of the LGB population

### 6.1 Introduction

This chapter looks at the scope for improving estimates of the lesbian, gay and bisexual (LGB) population with respect to the different sources of nonresponse and also the likelihood of misreporting. Firstly, non-response is reviewed in a number of government social and other surveys that have asked a sexual orientation question. Secondly, evidence is drawn from the four question trials undertaken by the Office for National Statistics (ONS) Sexual Identity Project and evaluations of other survey research to identify hard-to-enumerate groups, notably older people, people in ethnic minority groups, and people without qualifications and in lower socio-economic groups. Finally, strategies are investigated to improve estimates of the size of the LGB population, given non-response and misreporting.

### 6.2 Non-response

Non-response - and thus the potential for non-response bias - is present in nearly all surveys and can be reduced by adopting fieldwork procedures that endeavour to obtain high cooperation rates. 'Unit non-response' - the failure to interview all sampled persons - can be adjusted for if some demographic information is available on the sampled persons. However, in intervieweradministered surveys that include questions on sexual orientation, 'item nonresponse' - the failure to obtain and record items of information for the interviewed persons - is likely to be the major problem, especially if the respondents to this question differ significantly from the non-respondents.

An examination of a number of recent surveys that have asked about sexual orientation reveal that the main source of measurement error is item nonresponse. This may encompass a failure to answer the question or use of residual categories like 'prefer not to say' or 'unsure'. The size of this nonresponse varies enormously across different data collection settings. A recent review of UK workforce surveys found that non-response was as high as 4260 per cent in some of these surveys, with 'prefer not to say' respondents (110 per cent) also contributing (Aspinall and Mitton, 2008). A critical measure in such surveys is the rate ratio; that is, the rate of those identifying as LGB to unusable data (item non-response and other uninformative categories such as 'prefer not to say'). In the surveys reviewed, the ratios varied from 1:1 (Scottish Parliamentary Corporate Body), 1:2.1 (Police Federation of England and Wales), 1:2.4 (Bristol City Council) and 1:2.7 and 1: 2.4 (Metropolitan

Police Authority 2004 and 2005 Panels) to 1:3.5 Civil Service and 1:6.7 (GRO[S]), the proportion of unusable data nearly always exceeding the proportions identifying as LGB. In the Health Counts survey, for example, 7.4 per cent of the 5,983 respondents gave no answer, while 0.3 per cent selected 'unsure' and 0.4 per cent 'other', the LGB count ( $n=165$ ) being outnumbered by this unusable data $(n=479)$ by a ratio of 1:2.9. However, more recent surveys, especially the tests undertaken as part of the ONS Sexual Identity Project, have achieved much better rate ratios. This has come about through methodological improvements relating to question wording (for example the use of the combined term 'heterosexual/straight', the elimination of residual categories such as 'prefer not to say', and the use of more confidential measures of data capture such as concealed show cards identifying sexual orientation categories by unique numbers specific to the person being interviewed). In Omnibus Survey Trials one-three combined 2.8 per cent of respondents had utilised 'prefer not to say' (4.6 per cent in trial one, 1.5 per cent in trial two, and 2.4 per cent in trial three). In trial four, 0.5 per cent spontaneously indicated 'don't know' and 0.5 per cent spontaneously refused. In the final stage testing of a proposed question on sexual identity undertaken between April and September 2008 (the General Lifestyle Survey [GLF] split sample trial), the item non-response was 5.4 per cent (comprising 4.0 per cent refusals and 1.4 per cent 'don't know'). This was substantially higher than in trial four (1.0 per cent) where the question had been administered in a similar way and the bases were similar (trial four, $n=3,249$, v GLF trial, $n=3,443$ ). The move from interviewing only one adult in the household to concurrent interviewing was found to have been unlikely to have been responsible for the rise.

However, given that difficult to enumerate groups - the non-responders - can usually be identified and described in survey data with respect to the data items to which they do respond, it is feasible to adjust response rates for under-enumeration in those subsectors of the population where it is known to occur.

### 6.3 Misreporting

The other source of measurement error - intentional misreporting - is much more difficult to capture; that is, persons who are LGB who choose to pass as heterosexual or straight for social desirability reasons or reasons related to fear of discrimination. While there have been some attempts in a US context to measure such misreporting using complex modelling methodologies (Berg
et al., 2008), these approaches are clearly not applicable to routine data collection settings. Data on misreporting now available in Ellison and Gunstone (2009) may help in assessing the validity of findings from different kinds of surveys that ask a question on sexual orientation. This purposive data sample explores opinions about how respondents would report in certain data collection contexts and how this would differ from their self-declared sexual orientation. Clearly, it accesses respondents' intentions rather than their actual behaviour and these findings need to be treated with caution, yet they are currently the best available on misreporting.

### 6.4 Sub-groups who are difficult to capture

There is an accumulating body of survey and other evidence that shows that some population subgroups are more difficult to capture than others.

## Age groups

A wide range of survey evidence suggests that people in older age groups are less likely to respond to sexual orientation questions than other age groups. In the Health Counts survey, the proportions of those that gave no answer increased with age, notably, in the 55-64 ( 5.3 per cent), 65-74 (eight per cent) and the 75+ age groups ( 23.5 per cent) compared with younger groups 18-34 (3.1 per cent), 35-44 ( 2.6 per cent), and 45-54 ( 3.9 per cent) and were much higher among females than males in the older age groups (for example 9.0 per cent [ $n=42$ ] v 6.9 per cent [ $n=30$ ], 65-74; 29.8 per cent [ $n=141$ ] v 14.9 per cent [ $n=52$ ], $75+$ ).

In the first and second ONS Omnibus Survey Trials the question was skipped in interviews more often with older respondents: 13.5 per cent (55-64), 22.2 per cent (66-74), and 41.2 per cent ( 75 and over) but only 5.4 per cent (16$24), 6.2$ per cent ( $25-44$ ), and 8.3 per cent (45-54). These converted into statistically significant higher odds ratios for those aged 45 or over compared with the 16-24 reference group (1.00); in the case of the 75 and over group the OR was 17.05 (7.98-36.42). In the third Omnibus Survey Trial the proportion of interviews in which the sexual identity question was not asked increased with the age of the respondent, rising gradually from 1.3 per cent in the $16-24$ group to 2.1 per cent in the $65-74$ group, but jumping to 7.0 per cent in the 75 and over group: the main reasons given by interviewer for not asking the question being that the respondent had problems with hearing, comprehension or memory. Older respondents have also been reported to be
more likely to respond to the question when administration is via Computer Assisted Personal Interviewing (CAPI) rather than Computer Assisted Self Interviewing (CASI) as they may lack computer skills. Finally, In the GLF split pilot sample (undertaken April-September 2008), rates of refusal were the same across the 25-44 and 45-64 age groups (3.2 per cent) but increased to 5.8 per cent and 6.5 per cent in the 65-74 and $74+$ age groups, respectively (although the 'don't know' group showed little variation).

## Ethnic group

There is also some evidence that some minority ethnic groups may be more likely to be non-responders. In the first and second Omnibus Survey Trials interviewers were more likely to skip the question with 'Asian' respondents (27.3 per cent) than 'White' respondents (13.4 per cent), an odds ratio of 5.90 ( 95 per cent Cl 3.71 to 9.40 ) against the 'White' reference group. The 'Mixed', 'Black' and 'Other' groups were similar to the 'White' group. The third Omnibus Survey Trial provided some evidence that respondents from minority ethnic groups over-utilise the 'prefer not to say' option: a higher proportion of respondents in London ( 5.5 per cent) chose 'prefer not to say' compared with all regions ( 2.4 per cent), but this fell to 2.7 per cent when respondents from ethnic minority groups were removed from the analysis. In the fourth Omnibus Survey Trial, five of the 15 responses recorded as 'don't know' were attributed by interviewers to difficulties: '.. in relation to the conceptual understanding or acceptance of the question due to religious/cultural belief or due to difficulties in translating the concept into another language.' In the final test - the GLF split pilot - a higher item non-response was found among minority ethnic groups, especially the Chinese (20 per cent), Black or Black British (16.7 per cent), and mixed groups (12.5 per cent); the Asian or Asian British group (9.9 per cent) was still higher than White ( 5.0 per cent). Asking the sexual identity question after religion appears to have contributed to the high non-response in the Black group, suggesting a clash between the respondent's sexual and religious identities.

Betts's (2008: 26) analysis of a suite of ten public sector surveys reported that in the Newham Household Panel Survey:

In all waves those giving their ethnic origin as 'white' were significantly more likely to answer the question; whilst those giving their ethnic origin as 'Asian' or 'Other' were significantly less likely to answer the question. All 'Asian' categories displayed this tendency. Around a third
of respondents from Asian origins did not answer the sexuality questions compared with around 1 in 7 of those with a 'White' ethnic origin.

Betts also reports that respondents whose first language was not English were, on average, slightly more likely to answer 'none of the above' and much more likely to answer 'I do not wish to answer this question'.

The reasons for higher non-response or utilisation of residual options by respondents from minority ethnic groups are likely to be complex and may include problems with language or comprehension, differences in socioeconomic position, and cultural/religious beliefs that reject the minority sexual orientations.

## Socio-economic position

There is some evidence that socio-economic position (as measured by educational qualifications and socio-economic classification) may affect response rates in surveys. In the first and second Omnibus Survey Trials interviewers skipped past the sexual identity question in 8.3 per cent of interviews with those in managerial and professional occupations, 12.4 per cent of interviews with those in intermediate occupations, and 18.6 per cent of interviews with those in routine and manual occupations: this translated into an odds ratio of 1.67 (1.28 to 2.17 ) for skipping the sexual orientation question in the routine and manual group against the managerial and professional reference group. These findings are also reflected in likelihood of skipping the question amongst respondents with different educational qualifications. Interviewers were less likely to skip the question when interviewing those with a qualification at or below degree level ( 6.7 per cent) than those without a recognised qualification ( 27.3 per cent), an odds ratio of 2.04 (1.38 to 3.00) against the degree or equivalent reference group. In the third Omnibus Survey Trial, however, no relationship was found between choosing 'prefer not to say' and socio-economic group.

In the GLF split sample pilot, respondents reporting to have a degree qualification had a lower item non-response rate and a higher proportion reporting LGB than those who did not report having a degree. Non-response was lowest in managerial and professional occupations, followed by intermediate occupations, and highest in routine and manual occupations. The never employed and long-term unemployed groups had higher nonresponse than those in non-classified occupations.

## Other groups

The GLF split sample pilot found that men and women are equally likely to answer the question on sexual orientation; that having children in the household was not, in itself, a major factor in overall non-response; and that non-response varied little by marital status.

## Question administration contexts

Given the sensitivity of the sexual orientation question to context and setting, the mode of data collection is very important, especially where others may be present at the time of data collection. The main survey modes are:

- interview surveys: CAPI; that is, the question is read out by the interviewer
- interview surveys: CASI; that is, the question is self-completed by the respondent
- telephone interview surveys, and
- mailed or online self-completion surveys: that is, the question is self-completed by the respondent without an interviewer being present.

With regard to CAPI, ONS recommends that in the context of concurrent multiple interviews in a household context, answer categories should be presented to respondents on showcards, each individual being presented with a different showcard with a unique, non-sequential set of numbers for the answer categories, to ensure that confidentiality is maintained across interviewees. Moreover, when CAPI is used the response options should not be visible on the interviewer's computer screen, again to maintain privacy. Clearly, these concerns about privacy are also relevant in the context of telephone interviewing.

Different modes of questionnaire administration may affect different population subgroups, for example CASI may be unsuitable for older people who may be ill at ease with computer technology. CAPI in concurrent household interviews may be problematic when asking visually impaired people, those who are unable to read, and those requiring interpreters or signers for the deaf.

ONS also warns about other administration contexts, recommending that there should be no administration by proxy (that is, where a response is given
for an individual by someone else present). Where an interpreter is needed, privacy must be assured and the interpreter must be a professional. It is important to note that the ONS Sexual Identity question is administered using showcards. These are presented during an interview with respondents answering with a letter that corresponds with their chosen answer category each unique depending on the showcard they have been given. As there is no audio CASI, nor Braille format, surveys using only this method are likely to undercount those within the LGB group with sight or learning impairments.

### 6.5 Strategies to improve estimates of the size of the LGB population, given non-response and misreporting

The key elements of data quality that have been investigated in the survey context are non-response and misreporting. While non-respondents can be characterised with respect to other variables in the dataset (such as age, gender, ethnic group, and socio-economic position), misreporting is much more difficult to detect. Moreover, if one accepts that non-response and misreporting impact significantly on what might be termed the 'true size' of the LGB population, are there ways of adjusting survey findings to take these factors into account? A number of methods have been used by analysts to try to adjust estimates to take into account these factors.

### 6.6 Donor imputation

'Donor imputation' is the imputing of a missing response for sexual identity in a record by taking the value from a complete record (including a valid response to the sexual identity question) with matching values on a number of key variables like age, sex, household characteristics, etc. The difficulty with using this method in the context of sexual identity is that the LGB population is not well characterised with respect to such key variables (which are difficult to identify as this population is usually very small in surveys). Donor imputation is a probabilistic method and the populating of a record with a missing sexual identity is based on the concept of drawing upon 'lookalike' respondents who have a similar socio-demographic profile and sexual identity recorded. It has been used to impute missing ethnic group in the UK decennial Census but has been shown to perform poorly with respect to ethnic minority groups in an analysis based on the ONS Longitudinal Study (Platt et al., 2005). This approach is not recommended in our current state of knowledge about the socio-demographic profile of the different sexual identity groups and no examples of its use have been found in this context.

### 6.7 Capture-recapture methods

Capture-recapture methods are useful in circumstances where surveys fail to capture all individuals present within a population of interest. In its simplest form (the so-called 'two sample' model), the first sample provides the individuals for marking, while the second sample provides the recaptures. Using the numbers of individuals caught in both samples (the recaptures) and the numbers caught in just one sample, it is possible to estimate the number not caught in either sample, thus providing an estimate of the total population size.

Capture-recapture methods have been used to estimate the size of the lesbian population of Allegheny County, Pennsylvania, USA (Aaron et al., 2003). Lesbians were identified in the mailing lists of four organisations (a community centre, an event promoter, a foundation and a lesbian health research project) that serve the lesbian and gay population. To maintain confidentiality of names, representatives of the organisations were instructed on matching procedures. The names and addresses on the mailing lists were manually cross-referenced/linked, enabling those appearing more than once to be identified. Capture-recapture is a statistical method that utilises the overlap between the lists to determine the degree of underascertainment of the raw count of lesbians on the lists and therefore to provide an estimate of the total lesbian population.

A total of 2,185 unique women were identified from the four lists or 0.6 per cent of the adult female population of this county. On the basis of the capturerecapture modelling, the number of lesbians in the county was estimated at 7,031 ( 95 per cent confidence interval 5,850 to 8,576 ), or 1.97 per cent of the adult female population. While this study demonstrated the usefulness of this approach to determine the size of the lesbian population in a defined geographical area, it clearly has limitations. Such methods depend upon access to multiple sources and the ability to cross reference and link names and addresses. The sensitive and confidential nature of personal information on sexual orientation that such lists contain can be addressed by training the list owners to undertake the matching or to supervise use of the lists, although this may be time-consuming and costly. Moreover, the method depends on a woman's willingness to have her name included on a mailing list and the many that are known not to want to be identified as lesbian cannot be counted. Thus, this method can only capture the population of lesbians that are 'out' and identify with and participate in the lesbian community.

Clearly, this method has the potential to provide accurate and reliable estimates of those women who are visible or active in the lesbian community. The feasibility of undertaking such studies has been raised by the increasing number of investigations of the lesbian or gay population in particular areas that use such mailing lists for case identification. In the case of the US study such capture-recapture methods increased the size of the lesbian community more than three-fold compared with the raw count of unique women identified from the four lists.

Once the evidence base (of local surveys) accumulates, it may be possible to use capture-recapture methods to better estimate the size of the LGB population. The method relies upon choosing a discrete geographical area: in such location, at least two datasets would be required, with records of the names and address of LGB respondents. As capture-recapture methods require names and addresses, which may be problematic given the sensitivities of disclosure in the LGB population, the method may be more difficult to operationalise in this population.

### 6.8 Probability modelling: non-response and misreporting

A few strategies have been developed by US researchers to adjust size estimates for misreporting and non-response. Berg and Lien (2006) have developed a parametric probability model, encompassing the missing-atrandom and missing-completely-at-random hypotheses as testable parameter restrictions, which simultaneously deals with misreporting and non-response and has the capability of producing superior size estimates. The statistical model is fitted to 1991-2000 US General Social Survey data to consistently estimate the frequency of same-sex behaviour. After correcting for simultaneous non-response and misreporting, 7.1 per cent of US males and 4.1 per cent of females ( 15.8 million people) were not exclusively heterosexual/straight, the model adding four million or one-third more than would be estimated otherwise. The average non-responder was less welleducated and significantly older than average. Among women, moving from the lowest to the highest income bracket, or from the highest to lowest age group ( 72 to 18 years) reduced the average non-heterosexual woman's nonresponse probability by more than 45 percentage points. However, females with degrees were more likely to non-respond. Misreporting was most likely for those who had high income, were young and lived in small cities.

These authors (Berg and Lien, 2009) report further examples of the use of probability modelling with regard to the association between self-reported nonheterosexuality and self-reported lying, finding very large positive effects for women (especially young women) and more modest effects for men. They conclude that 'the possibility of differential rates of misreporting by gender and sexual orientation should probably be considered in future empirical research concerning non-heterosexual populations' as such systematic misreporting can play a very large role, especially when expected benefits of concealing non-heterosexuality are large.

No examples have been found of the application of this approach to sexual identity data in the UK. Moreover, its technical complexity and demands on data make it impractical in current circumstances as a means of improving size estimates. The application of such model approaches in the British context is currently limited by the non-availability of large datasets that include sexual orientation, but there may be scope to apply such methods in the future. One candidate is the Integrated Household Survey (IHS), with predicted achieved sample sizes of 276,000 for 2009 and 144,000 for 2010. Also, the GP Patient Survey asked a question on sexual orientation (along with all the other equality strands) for the first time in the period 6 April 2009-6 July 2009. Questionnaires are being mailed to around 1.4 million adults quarterly who are registered with a GP (around 5 million being invited to take part over a year): based on previous response rates, this survey should yield data for at least 2 million adults. Both these datasets should provide a valuable resource for secondary data analysis, subject to data protection and other access requirements.

### 6.9 Test and retest

In addition, test-retest reliability methods have the potential to throw light on the consistency with which respondents self-ascribe their sexual orientation and reasons for inconsistent reporting (including misreporting). Such validation or follow-up surveys are used to check the accuracy of respondents' answers by asking the same question sets again, providing evidence on the proportion of times the response on the initial survey was not the same as on re-interview. Differences in response are then usually investigated through indepth interviews with the respondent. The conduct of such interviews in a confidential setting may yield the kind of information on misreporting and item non-response that would enable correction factors to be derived. These validation surveys are frequently used by Census agencies to establish
consistency of reporting across ethnic/racial groups. For example, OPCS/GRO(S) (1995) undertook a Census Validation Survey (CVS), reporting gross error rates - that is, the proportion of times the response on the Census form was not the same as that given in the CVS interview - for the four main ethnic groups. An evaluation study compared responses in the 1990 US Census race question with those reported in a 1990 Census re-interview for identical persons (McKenney et al., 1993). Similar validation exercises have been undertaken for racial data in the 2000 US Census (Bentley et al., 2003)

Random samples of item non-responders and of responders could be drawn from surveys to provide robust data. In the absence of a question on sexual orientation in the 2011 Census, the obvious candidates for follow-up surveys would be those yielding large numbers of achieved responses, such as the IHS and GP Patient Survey.

### 6.10 Use of weighting/raising factors

Some use has been made of the application of 'weighting' or 'raising' factors to adjust for under-enumeration in some of the other equality strands, notably ethnic group. There are, however, problems in operationalising this approach in the case of sexual orientation. Firstly, the proportion of the population who identify as LGB is likely to be small. As Black et al. (2000) have shown empirically, modest measurement problems can lead to serious errors in inference in such circumstances. Secondly, although in surveys of sexual orientation we can characterise non-respondents in terms of their demographic characteristics, we do not have robust data on how nonrespondents would have assigned across the array of category options. Such data is yielded by test-retest (or validation) surveys that explore the initial response of the respondent and that on retest. Such data that we have is USbased, confined to particular segments of the population, and available for small samples (Schrimshaw et al., 2006). Again, this approach does not provide a ready point of access to improved size estimates at the present time.

### 6.11 Conclusions

Significant item non-response or the use of uninformative categories has been reported in most social and general purpose surveys asking questions about sexual orientation. Non-response appears to be higher in some groups than others, notably, the elderly, people in lower socio-economic groups or without educational qualifications, and people in ethnic minority groups. Question administration contexts may also be important, some question testing having shown, for example, that CASI techniques may be inappropriate for elderly people. Strategies to adjust for non-response and misreporting are currently limited. Donor imputation has yielded poor results in the context of ethnic group. However, as survey data accumulates, it should be possible to develop and apply other statistical approaches. Capture-recapture techniques may offer scope as the number of surveys of the LGB population in particular geographical areas increases. Also, US researchers have demonstrated the utility of probably modelling to adjust for item non-response and misreporting. Once large survey datasets become available, this method could be used to improve the size estimates of the LGB population. In addition, test-retest reliability methods have the potential to throw light on the consistency with which respondents self-ascribe their sexual orientation and reasons for inconsistent reporting (including misreporting). Again, surveys are needed that would yield large numbers of achieved responses.

## 7 What survey research can tell us about the composition of the LGB population

### 7.1 Introduction

This chapter looks at evidence from random sample (probabilistic) and convenience sample (purposive) surveys and how they can be integrated to give a more comprehensive picture of the composition of the lesbian, gay and bisexual (LGB) group in demographic and socio-economic terms. It examines how these types of evidence differ, what their strengths and weaknesses are, and how they can be used in ways that fully utilise the evidence base available.

Firstly, important differences are explored between random and purposive samples. While a few surveys based on random samples have provided some information about the composition of the LGB population, the count of the LGB group in such samples is frequently very small. A more extensive knowledge base on the LGB group is available from purposive samples where respondents are selected by convenience methods. Both types of evidence are important but an awareness of their strengths and weaknesses is needed, especially with regard to the potential for bias.

### 7.2 Conceptualisation of the LGB population

As has been noted, most of the government social surveys have clearly operationalised sexual orientation in terms of sexual identity, the response categories providing a well-defined set of options. Qualitative research using purposive samples frequently adopts a broader definition, combining, for example, capture based on sexual identity and sexual behaviour. In consequence, these samples may be more heterogeneous as research and survey evidence has shown that dimensions based on identity, behaviour and desire do not always correspond in the same individuals. Some who have sex with same-sex partners do not identify as gay or lesbian. Similarly, significant proportions of those who identify as gay or lesbian have reported heterosexual experience. While the 'bisexual' group is almost always treated as a discrete category in random sample surveys, qualitative research frequently captures gay and lesbian groups based on any orientation to same-sex partners, adding further heterogeneity. This frequent lack of compatibility between probabilistic and purposive samples with respect to commonality of definition needs to be taken into account when integrating findings from these different sources.

## Internal validity

How LGB men and women are included in samples used in probabilistic and purposive survey designs will affect the internal validity of the studies. As we have seen, probabilistic samples of the LGB population can be subject to a number of biases. Firstly, because of concerns about confidentiality and discrimination, LGB respondents may choose not to participate in random sample surveys. Others may participate but misreport their sexual orientation for the same reasons, thereby contributing to information bias. While item non-response (failure to answer the question on sexual orientation in surveys) can be controlled for as these respondents can be characterised by other demographic variables, people who intentionally misreport their sexual orientation cannot easily be identified and controlled for. In qualitative research based on opportunistic sampling, respondents normally choose whether to participate or not (rather than being pre-selected). Such selfselection is more likely to capture respondents who are happy for it to be known to others that they are LGB and less likely to capture those who have concerns about disclosure or who choose to misreport.

## External validity

One of the main advantages of surveys that use probability samples based on the general population is that they can be generalised to the LGB population as a whole and compared with findings for whole population samples. This issue of generalisability of findings is important and provides a key distinction between the two types of evidence. Even with probability samples, while the sample may theoretically represent the full target population, there will be participants who choose not to participate or to disclose their sexual orientation. With purposive or opportunity samples, however, there is no source that provides us with a listing of all the potential participants, including those who are non-respondents or misreporters. The validity of the findings can only be based on those who choose to respond. This makes comparison with LGB populations identified in probability samples and in other opportunistic samples problematic. LGB people recruited via opportunity samples (such as those recruited via organisations or events specifically for LGB people) may provide a different profile of LGB respondents to those recruited in probabilistic samples: they may, for example, be more likely to be 'out' with respect to their LGB status, more likely to be in younger age groups, more likely to be mobile, and perhaps more likely to have significant differences in lifestyle. Some have doubted whether purposive samples can
provide any basis for comparison with the population a whole. For example, the Solarz report concluded that making quantitative comparisons between the LGB population and the heterosexual population cannot be justified until such time that representative population-based samples are available in which misreporting is known to be minimal (Solarz, 1999). These validity problems are crucial in evaluating evidence from purposive samples.

## Testing hypotheses for LGB samples

The pitfalls of interpreting data where the population of interest comprises a very small percentage of the total population are many. Modest measurement problems can lead to serious errors in inference. In the case of the LGB population, we do not even have reliable sampling frames. Much of our knowledge about, for example, health in this population is based on opportunistic samples where problems of selection bias and the definition of the population included contribute significantly to problems of interpretation. Great caution must be taken in interpreting findings from both surveys based on probabilistic samples: because of their frequent small count (base) of the LGB population, difficult to measure non-response, and frequently unmeasured misreporting or information bias; and purposive samples that incur external validity problems. Findings from both sources cannot currently be generalised to the LGB population as a whole and they are not a satisfactory basis for making comparisons with the heterosexual population or the population as a whole. At best these findings can only offer indicative evidence and great caution is needed in making any interpretation of the data that extends beyond the immediate samples in question.

### 7.3 Evidence from probability samples of the LGB population: the Citizenship Survey 2007

The Citizenship Survey (also known as the Communities Study) has been conducted on a biennial basis since 2001 (the second in 2003, the third in 2005 and the current wave in 2007/8). The survey provides an evidence base for the work of the Department for Communities and Local Government, principally on the issues of community cohesion, community engagement, race and faith, volunteering and civil renewal. The survey is also used extensively for developing policy and for performance measurement. The survey moved to a continuous design in 2007, enabling data to be made available on a quarterly basis from late 2007. A full aggregated dataset is
released once collection for the four quarters is complete. It is intended that the survey will proceed on a continuous basis in future.

The Citizenship Survey, 2007 dataset includes a total sample of 14,095 people aged 16 and over, resident in England and Wales. This comprised a core sample of 9,336 people and a minority ethnic boost of 4,759 , required to ensure that sufficient responses are received to enable analysis by detailed ethnic group and religion. The Citizenship Survey, 2007 was one of the few government surveys to ask a question on sexual orientation prior to initiation of collection on the Integrated Household Survey (IHS). The question was:

## Textbox 1 Citizenship survey question.

## Sexual identity <br> SIDIntro

The next question is about sexual identity. We are asking this question because the government department funding this study, Communities and Local Government, is responsible for helping to reduce all forms of prejudice and discrimination in society.

Looking at this card, which of the options best describes your sexual identity? Please just read out the letter next to the description.

## SId

Showcard 48
Which of the following best describes your sexual identity?
(1) W ... Heterosexual or straight
(2) P ... Gay or lesbian
(3) H ... Bisexual
(4) S ...Other
(5) G ... or would you prefer not to say?

SIdO
How would you describe your sexual identity?

Table 6 Responses to the sexual identity question

| Value labels |  | Unweighted frequency | percentage |
| :--- | :---: | :---: | :---: |
| Value 1 | Heterosexual or straight | 13,046 | 92.56 |
| Value 2 | Gay or lesbian | 122 | 0.87 |
| Value 3 | Bisexual | 85 | 0.60 |
| Value 4 | Other | 23 | 0.16 |
| Value 5 | or would you prefer not to say? | 298 | 2.11 |
| Non-response |  | 521 | 3.70 |
| All cases |  | 14,095 | 100.00 |

Source: Citizenship Survey 2007
Table 6 shows that 3.7 per cent of respondents failed to answer the question and a further 2.1 per cent chose the 'prefer not to say option', yielding a nonresponse rate of 5.8 per cent. Among those that gave a response ( $n=13,574$ ), 1.5 per cent identified as LGB. The following analyses are undertaken on the unweighted data. Given that the Citizenship Survey contains a significant ethnic minority boost (around a third of the sample), they cannot be interpreted as generalisable to England and Wales.

## Age

Table $7 \quad$ Age profile of respondents by sexual identity category

|  | Respondent age (five categories) |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $16-29$ | $30-39$ | $40-49$ | $50-64$ | $65+$ | Total |
| Heterosexual or <br> straight | $\mathbf{2 , 4 6 1}$ | $\mathbf{2 , 8 2 7}$ | $\mathbf{2 , 4 4 6}$ | $\mathbf{2 , 6 9 7}$ | $\mathbf{2 , 6 0 7}$ | $\mathbf{1 3 , 0 3 8}$ |
| Row per cents | $\mathbf{1 8 . 9}$ | $\mathbf{2 1 . 7}$ | $\mathbf{1 8 . 8}$ | $\mathbf{2 0 . 7}$ | $\mathbf{2 0 . 0}$ | $\mathbf{1 0 0 . 0}$ |
| Gay or lesbian | 29 | 30 | 34 | 18 | 11 | 122 |
| Row per cents | 23.8 | 24.6 | 27.9 | 14.8 | 9.0 | 100.0 |
| Bisexual | 26 | 17 | 23 | 10 | 9 | 85 |
| Row per cents | 30.6 | 20.0 | 27.1 | 11.8 | 10.6 | 100.0 |
| LGB | $\mathbf{5 5}$ | $\mathbf{4 7}$ | $\mathbf{5 7}$ | $\mathbf{2 8}$ | $\mathbf{2 0}$ | $\mathbf{2 0 7}$ |
| Row per cents | $\mathbf{2 6 . 6}$ | $\mathbf{2 2 . 7}$ | $\mathbf{2 7 . 5}$ | $\mathbf{1 3 . 5}$ | $\mathbf{9 . 7}$ | $\mathbf{1 0 0 . 0}$ |
| Other | 3 | 2 | 10 | 4 | 4 | 23 |
| Row per cents | 13.0 | 8.7 | 43.5 | 17.4 | 17.4 | 100.0 |
| Or would you prefer <br> not to say? | 45 | 60 | 40 | 62 | 91 | 298 |
| Row per cents | 15.1 | 20.1 | 13.4 | 20.8 | 30.5 | 100.0 |
| Total | 2,564 | 2,936 | 2,553 | 2,791 | 2,722 | 13,566 |

[^1]Table 7 and Figure 1 show that older respondents (aged 50-64 and 65+) were under-represented in the gay or lesbian and bisexual categories and over-represented in the 'prefer not to say' category. This may indicate that the LGB categories are under-counted at older ages, as several studies have suggested, although prevalence may also be lower in these groups. There is no evidence of under-representation in the youngest age group (16-29).

Figure 1 Percentage of respondents in age bands by sexual identity category


[^2]
## Gender

Table $8 \quad$ Gender profile of respondents by sexual identity category

|  | Respondent sex |  |  |
| :--- | :---: | :---: | :---: |
|  | Male | Female | Total |
| Heterosexual or straight | $\mathbf{5 , 8 0 7}$ | $\mathbf{7 , 2 3 7}$ | $\mathbf{1 3 , 0 4 4}$ |
| row per cents | $\mathbf{4 4 . 5}$ | $\mathbf{5 5 . 5}$ | $\mathbf{1 0 0 . 0}$ |
| Gay or lesbian | 74 | 47 | 121 |
| Row per cents | 61.2 | 38.8 | 100.0 |
| Bisexual | 37 | 47 | 84 |
| Row per cents | 44.0 | 56.0 | 100.0 |
| LGB | $\mathbf{1 1 1}$ | $\mathbf{9 4}$ | $\mathbf{2 0 5}$ |
| Row per cents | $\mathbf{5 4 . 1}$ | $\mathbf{4 5 . 9}$ | $\mathbf{1 0 0 . 0}$ |
| Other | 7 | 16 | 23 |
| Row per cents | 30.4 | 69.6 | 100.0 |
| Or would you prefer not to say? | 102 | 196 | 298 |
| Row per cents | 34.2 | 65.8 | 100.0 |
| Total | 6,027 | 7,543 | 13,570 |

Source: Citizenship Survey 2007
Note: 13,570 valid cases ( 96.3 per cent); 525 missing cases ( 3.7 per cent); 14,095 total cases (100.0 per cent). Unweighted data.

Table 8 and Figure 2 show that male respondents were over-represented in the gay or lesbian category and that female respondents were overrepresented in the prefer not to say category. Other surveys have shown that older female respondents may be undercounted in the LGB groups.

Figure 2 Percentage of male and female respondents by sexual identity category


Source: Citizenship Survey 2007

## Ethnic group

The Citizenship Survey asked respondents for their ethnic group using the 2001 Census 16-category classification. A total of 13,570 respondents provided answers to the questions on ethnic group and sexual identity.

Table 9 and Figure 3 show that the percentage of respondents who declared a lesbian or gay sexual identity varied from none in the Bangladeshi group to 2.27 per cent in the Black Other group (the latter based on just one case out of 44). Proportions were below the White group ( 0.98 per cent) in the four South Asian and African categories. There was also little variability in the bisexual population, ranging from none in the Bangladeshi and Black Other categories to 1.44 in the Black African category (Figure 4). Proportions answering 'prefer not to say' exceeded five per cent in two of the South Asian categories and were also high in the Chinese category (Figure 5). The four Omnibus Survey trials indicated a probable undercount of the LGB group in the South Asian categories. Clearly, extremely small bases in the ethnic categories make any analysis problematic.

Figure 3 Percentage of respondents who are gay or lesbian by ethnic group


Source: Citizenship Survey 2007
Table $9 \quad$ Ethnic group profile of respondents by sexual identity category

|  | Ethnic group 11 categories: numbers and (column percentages) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | White | Asian Indian | Asian Pakistani | Asian Bangladeshi | Asian Other | Black Caribbean | Black - <br> African | Black other | Mixed Race | Chinese | Other | Total |
| Heterosexual or straight | $\begin{gathered} 8,121 \\ \text { (96.8 per } \\ \text { cent) } \\ \hline \end{gathered}$ | $\begin{gathered} 1,223 \\ \text { (95.1 per } \\ \text { cent) } \\ \hline \end{gathered}$ | 733 <br> $\left.\begin{array}{c}97.0 \text { per } \\ \text { cent }\end{array}\right)$ <br> 3 | 243 <br> (94.6 per cent) | 245 <br> (92.8 per cent) | 743 <br> (94.9 per cent) | $\begin{gathered} 720 \\ \text { (94.5per } \\ \text { cent) } \\ \hline \end{gathered}$ | 42 $\left.\begin{array}{c}95.5 \text { per } \\ \text { cent }\end{array}\right)$ | 446 <br> (94.9 per cent) | 143 (92.3 per cent) | 383 <br> (94.8 per cent) | 13,042 |
| Gay or lesbian | $\begin{gathered} 82 \\ (1.0 \text { per } \\ \text { cent }) \end{gathered}$ | 5 (0.4 per cent) |  | 0 | $\begin{gathered} 1 \\ (0.4 \text { per } \\ \text { cent }) \end{gathered}$ | 14 (1.8 per cent) | $\begin{gathered} 2 \\ (0.3 \text { per } \\ \text { cent }) \\ \hline \end{gathered}$ | 1 $(2.3$ per cent) | $\begin{gathered} 7 \\ (1.5 \mathrm{per} \\ \text { cent }) \end{gathered}$ | $\begin{gathered} 2 \\ (1.3 \text { per } \\ \text { cent }) \end{gathered}$ | $\begin{gathered} 5 \\ (1.2 \text { per } \\ \text { cent) } \end{gathered}$ | 122 |
| Bisexual | $\begin{gathered} 46 \\ (0.5 \text { per } \\ \text { cent) } \end{gathered}$ |  |  | 0 | $\begin{gathered} 2 \\ (0.8 \text { per } \\ \text { cent }) \end{gathered}$ |  | $\begin{gathered} 11 \\ (1.4 \text { per } \\ \text { cent }) \end{gathered}$ | 0 | $\begin{gathered} 6 \\ (1.3 \text { per } \\ \text { cent }) \end{gathered}$ | $\begin{gathered} 2 \\ (1.3 \text { per } \\ \text { cent) } \end{gathered}$ | $\begin{gathered} 3 \\ (0.7 \text { per } \\ \text { cent) } \end{gathered}$ | 85 |
| LGB | $\begin{aligned} & 128 \\ & (1.5 \text { per } \\ & \text { cent }) \end{aligned}$ | 12 <br> (0.9 per cent) | cent) | 0 <br> (0.0 per cent) | $\begin{gathered} 3 \\ (1.1 \text { per } \\ \text { cent }) \end{gathered}$ | 20 (2.6 per cent) | 13 <br> (1.7 per cent) | (2.3 per cent) | 13 (2.8 per cent) | 4 <br> (2.6 per cent) | 8 (1.2 per cent) |  |
| Other | $\begin{gathered} 11 \\ (0.1 \mathrm{per} \\ \text { cent }) \\ \hline \end{gathered}$ |  |  | 0 | $\begin{gathered} 1 \\ (0.4 \text { per } \\ \text { cent }) \\ \hline \end{gathered}$ |  | $\begin{gathered} 4 \\ (0.5 \mathrm{per} \\ \text { cent }) \\ \hline \end{gathered}$ | $\begin{gathered} 1 \\ (2.3 \text { per } \\ \text { cent }) \end{gathered}$ | $\begin{gathered} 1 \\ (0.2 \text { per } \\ \text { cent) } \end{gathered}$ | $\begin{gathered} 1 \\ (0.6 \text { per } \\ \text { cent }) \end{gathered}$ | 0 | 23 |
| Or would you prefer not to say? | $\begin{gathered} 129 \\ \text { (1.5 per } \\ \text { cent) } \\ \hline \end{gathered}$ |  |  | 14 (5.4 per cent) | $\begin{gathered} 15 \\ (5.7 \text { per } \\ \text { cent }) \\ \hline \end{gathered}$ | 19 (2.4 per cent) | $\begin{gathered} 25 \\ (3.3 \text { per } \\ \text { cent }) \\ \hline \end{gathered}$ | 0 | $\begin{gathered} 10 \\ (2.1 \mathrm{per} \\ \text { cent }) \\ \hline \end{gathered}$ | $\begin{gathered} 7 \\ (4.5 \text { per } \\ \text { cent }) \\ \hline \end{gathered}$ | $\begin{gathered} 13 \\ (3.2 \mathrm{per} \\ \text { cent }) \\ \hline \end{gathered}$ | 298 |
| Total | 8389 | 1286 | 756 | 257 | 264 | 783 | 762 | 44 | 470 | 155 | 404 | 13,570 |

Note: 13,570 valid cases ( 96.3 per cent); 525 missing cases (3.7 per cent); 14,095 total cases (100.0 per cent)

Figure 4 Percentage of respondents who are bisexual by ethnic group


[^3]Figure 5 Percentage of respondents answering 'prefer not to say' by ethnic group


[^4]
## Income

Table 10 Income profile of respondents by sexual identity category

|  | Respondent income 8 categories |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{l}\text { Under } \\ £ 5,000\end{array}$ | $£ 5,000-£ 10,000$ | $£ 15,000-£ 20,000-£ 30,000$ | $£ 50,000-£ 75,000$ | Total |  |  |  |  |
| $£ 14,999$ | $£ 19,999$ | $£ 29,999$ | $£ 49,999$ | $£ 74,999$ | or more |  |  |  |  |$]$

Source: Citizenship Survey 2007
Note: 11,895 valid cases ( 84.4 per cent); 2,200 missing cases ( 15.6 per cent); 14,095 total cases (100.0 per cent)

Table 10 and Figure 6 show that the gay and lesbian category outperforms the heterosexual or straight category in all the higher income bands (those of $£ 20,000$ or more); the bisexual group performs worse than the heterosexual or straight group in all these bands (having the highest proportion in all four bands below $£ 20,000$ bar for one). The high proportion of respondents in the lowest income band (<£5,000) for the 'prefer not to say' category (Figure 7) may suggest that their failure to assign to one of the LGBH categories may be related to social class/socio-economic position.

Similar findings (the high incomes of the lesbian and gay groups) have been reported in other data. Arabsheibani et al. $(2004,2005)$ analysed Labour Force Survey data to show that gay men and lesbians (identified as same-sex partners) both earned more on average than their heterosexual counterparts. However, gay men may be subject to discrimination in pay as they earned less than what heterosexual men with similar characteristics earned (although the gay male pay penalty was significantly lower in London than elsewhere), while lesbians appeared to be paid more than their heterosexual counterparts. In an analysis of a UK Association of University Teachers 2000/1 staff survey
containing information on salaries and rank, Frank (2006) found no evidence that LGB staff suffered disadvantage in salaries relative to heterosexual/straight people, but there was evidence that gay/bisexual men suffered from 'glass ceilings' comparable to those faced by heterosexual women. Findings from other national contexts are broadly in accord with these studies. Antecol et al. (2008) used data from the 2000 US Census to show that lesbian women earned more than heterosexual/straight women irrespective of marital status, while gay men earned less than their married heterosexual counterparts but more than their cohabiting heterosexual counterparts. Using confidential data that asked adults about their sexual orientation, Carpenter (2008) found that gay men had 12 per cent lower personal incomes and lesbians 15 per cent higher personal incomes than otherwise similar heterosexual men and women, although different labour force patterns accounted for some of the income differentials.

Figure 6 Banded income of respondents by sexual identity category


[^5]Figure 7 Banded income of respondents by 'prefer not to say' category


Source: Citizenship Survey 2007

## Partner's income

As with respondent's income, partner's income (Table 11 and Figure 8) was much higher in the gay or lesbian group than in the heterosexual or straight group. Similarly, the proportion of respondents whose partner's income was below $£ 10,000$ was highest in the bisexual group and lowest in the gay or lesbian group, the heterosexual or straight group occupying an intermediate position.

Table 11 Income profile for partners of respondents by sexual identity category

|  | No income or <br> $<£ 10,000$ | $£ 10,000-$ <br> $£ 24,999$ | $£ 25,000-$ <br> $£ 39,999$ | $\mathbf{£ 4 0 , 0 0 0 +}$ | Total |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Heterosexual <br> or straight | $\mathbf{2 , 3 2 8}$ | $\mathbf{2 , 0 4 7}$ | $\mathbf{9 9 3}$ | $\mathbf{6 4 9}$ | $\mathbf{6 , 0 1 7}$ |
| Row per cents | $\mathbf{3 8 . 7}$ | $\mathbf{3 4 . 0}$ | $\mathbf{1 6 . 5}$ | $\mathbf{1 0 . 8}$ | $\mathbf{1 0 0}$ |
| Gay or lesbian | 9 | 11 | 8 | 6 | 34 |
| Row per cents | 26.5 | 32.4 | 23.5 | 17.6 | 100 |
| Bisexual | 14 | 10 | 2 | 1 | 27 |
| Row per cents | 51.9 | 37 | 7.4 | 3.7 | 100 |
| LGB | $\mathbf{2 3}$ | $\mathbf{2 1}$ | $\mathbf{1 0}$ | $\mathbf{7}$ | $\mathbf{6 1}$ |
| Row per cents | $\mathbf{3 7 . 7}$ | $\mathbf{3 4 . 4}$ | $\mathbf{1 6 . 4}$ | $\mathbf{1 1 . 5}$ | $\mathbf{1 0 0}$ |
| Other | 3 | 1 | 0 | 1 | 5 |
| Row per cents | 60.0 | 20.0 | 0.0 | 20.0 | 100 |
| Or would you <br> prefer not to <br> say? | 50 | 41 |  |  |  |
| Row per cents | 48.5 | 39.8 | 8.7 | 2.9 | 100 |
| Total | 2404 | 2110 | 1012 | 660 | 6186 |

Source: Citizenship Survey 2007
Note: 6186 valid cases ( 43.9 per cent); 7909 missing cases ( 56.1 per cent); 14,095 total cases (100.0 per cent)

Figure 8 Banded income for partners of respondents by sexual identity category


Source: Citizenship Survey 2007

## Qualifications

Table 12 and Figure 8 show important differences in qualifications across the sexual identity categories. Of gay or lesbian respondents, 51.4 per cent had a degree or equivalent or higher education below degree level; higher than the heterosexual or straight group ( 36.7 per cent) or any of the other categories. The 'prefer not to say' category had the smallest proportion ( 29.3 per cent) of respondents with these top level qualifications. The proportion of respondents with no qualifications was lowest (10.1 per cent) in the gay or lesbian category and highest ( 28.4 per cent) in the 'prefer not to say' category. The high proportion of respondents with no qualifications in the 'prefer not to say category' may indicate that the use of this category rather than one of the sexual identity categories (LGBH) is high among those with low socioeconomic position.
Table 12 Qualifications profile of respondents by sexual identity category

| Qualifications derived |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Degree or equivalent | Higher education below degree level | A level or equivalent | GCSE grades A-C or equivalent | GCSE grades D-E or equivalent | Foreign and other qualifications | No qualifications | Total |
| Heterosexual or straight | 2,799 | 1,103 | 1,493 | 2,033 | 523 | 406 | 2,261 | 10,618 |
| Row per cents | 26.4 | 10.4 | 14.1 | 19.1 | 4.9 | 3.8 | 21.3 | 100 |
| Gay or lesbian | 42 | 14 | 20 | 16 | 5 | 1 | 11 | 109 |
| Row per cents | 38.5 | 12.8 | 18.3 | 14.7 | 4.6 | 0.9 | 10.1 | 100 |
| Bisexual | 28 | 6 | 10 | 12 | 4 | 3 | 13 | 76 |
| Row per cents | 36.8 | 7.9 | 13.2 | 15.8 | 5.3 | 3.9 | 17.1 | 100 |
| LGB | 70 | 20 | 30 | 28 | 9 | 4 | 24 | 185 |
| Row per cents | 37.8 | 10.8 | 16.2 | 15.1 | 4.9 | 2.2 | 13.0 | 100 |
| Other | 6 | 1 | 1 | 3 | 2 | 0 | 5 | 18 |
| Row per cents | 33.3 | 5.6 | 5.6 | 16.7 | 11.1 | 0 | 27.8 | 100 |
| Or would you prefer not to say? | 46 | 17 | 23 | 27 | 20 | 21 | 61 | 215 |
| Row per cent | 21.4 | 7.9 | 10.7 | 12.6 | 9.3 | 9.8 | 28.4 | 100 |
| Total | 2,921 | 1,141 | 1,547 | 2,091 | 554 | 431 | 2,351 | 11,036 |

[^6]Figure 9 Percentage of respondents with different levels of qualifications by sexual identity category


Source: Citizenship Survey 2007
Again, there is evidence from other national contexts of large differences in educational attainment. Black et al. $(2000,2007)$ use same-sex couple data from the 1990 and 2000 US Censuses to show that coupled gay men and lesbians have higher average educational attainment. Using the 2003 and 2005 Canadian Community Health Survey, Carpenter (2008) showed that relative to heterosexual males, self-identified gay men in Canada are disproportionately likely to have at least a bachelor's degree ( 37.6 per cent $v$ 22.1 per cent). Compared with heterosexual females, self-identified lesbians in Canada are also more likely to have at least a bachelor's degree (34.4 per
cent v 22.1 per cent). Patterns of educational attainment amongst gay and lesbian couples in Canada are similar to those of men and women in same sex unmarried partner couples from the 2000 US Census (as reported by Black et al., 2007): Carpenter (2008) reports that '... educational distributions among gays and lesbians in the US have thicker tails than those among Canada's gays and lesbians' (that is, sexual minorities in the US are more likely to have both very low and very high educational attainment than sexual minorities in Canada.

## Deprivation category of place of residence

Table 13 Living in areas of deprivation profile of respondents by sexual identity category

|  | English Indices of Multiple Deprivation 2004, Index of Multiple Deprivation, deciles |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $0.59-$ <br> $>5.74$ <br> (least <br> deprived) | $\left\|\begin{array}{l} 5.75- \\ >8.34 \end{array}\right\|$ | $\begin{gathered} 8.35- \\ >10.95 \end{gathered}$ | 10.96- | $\begin{aligned} & 13.72- \\ & >17.02 \end{aligned}$ | $\begin{aligned} & 17.03-21.15> \\ & >21.1 \end{aligned}$ | $\begin{array}{\|} 21.16- \\ >26.61 \end{array}$ | $\left\lvert\, \begin{aligned} & 26.62- \\ & >34.20 \end{aligned}\right.$ | $\begin{aligned} & 34.21- \\ & >45.22 \end{aligned}$ | $\begin{array}{\|c\|} \hline 45.23- \\ >86.36 \\ \text { (most } \\ \text { deprived) } \end{array}$ | Total |
| Heterosexual or straight | 992 | 991 | 1,037 | 1,021 | 1,124 | 1,072 | 1,270 | 1,537 | 1,718 | 1,750 | 12,512 |
| Row per cents | 7.9 | 7.9 | 8.3 | 8.2 | 9.0 | 8.6 | 10.2 | 12.3 | 13.7 | 14.0 | 100 |
| Gay or lesbian | 5 | 8 | 8 | 6 | 12 | 5 | 17 | 21 | 22 | 18 | 122 |
| Row per cents | 4.1 | 6.6 | 6.6 | 4.9 | 9.8 | 4.1 | 13.9 | 17.2 | 18 | 14.8 | 100 |
| Bisexual | 4 | 4 | 6 | 6 | 11 | 6 | 5 | 8 | 14 | 20 | 84 |
| Row per cents | 4.8 | 4.8 | 7.1 | 7.1 | 13.1 | 7.1 | 6.0 | 9.5 | 16.7 | 23.8 | 100 |
| LBG | 9 | 12 | 14 | 12 | 23 | 11 | 22 | 29 | 36 | 38 | 206 |
| Row per cents | 4.4 | 5.8 | 6.8 | 5.8 | 11.2 | 5.3 | 10.7 | 14.1 | 17.5 | 18.4 | 100 |
| Other | 0 | 0 | 3 | 2 | 2 | 2 | 1 | 3 | 6 | 4 | 23 |
| Row per cents | 0 | 0 | 13 | 8.7 | 8.7 | 8.7 | 4.3 | 13 | 26.1 | 17.4 | 100 |
| Or would you prefer not to say? | 14 | 22 | 16 | 24 | 25 | 21 | 22 | 41 | 49 | 51 | 285 |
| Row per cents | 4.9 | 7.7 | 5.6 | 8.4 | 8.8 | 7.4 | 7.7 | 14.4 | 17.2 | 17.9 | 100 |
| Total | 1,015 | 1,025 | 1,070 | 1,059 | 1,174 | 1,106 | 1,315 | 1,610 | 1,809 | 1,843 | 13,026 |

Source: Citizenship Survey 2007
Note: 13,026 valid cases ( 92.4 per cent); 1069 missing cases ( 7.6 per cent); 14,095 total cases (100.0 per cent)

Table 13 and Figure 9 show that the highest proportion ( 7.9 per cent) of respondents living in least deprived areas (based on the 2004 Index of Multiple Deprivation) was found in the heterosexual or straight category.

Proportions were lower in the gay or lesbian (4.1 per cent) and bisexual (4.8 per cent) categories.

With respect to the most deprived category, proportions were similar in the heterosexual or straight (14.0 per cent) and gay or lesbian (14.8 per cent) categories but higher in the bisexual category ( 23.8 per cent).

Figure 10 Percentage of respondents living in areas of differing deprivation by sexual identity category


## Source: Citizenship Survey 2007

## Cohabitation

Table 14 and Figure 10 show that the highest proportion of respondents indicating that they were cohabiting is found in the gay or lesbian category. The proportion in the bisexual category is also higher than for the heterosexual or straight category.

Table 14 Cohabitation profile of respondents by sexual identity
category

|  | If respondent cohabiting |  |  |
| :--- | :---: | :---: | :---: |
|  | No | Yes | Total |
| Heterosexual or straight | $\mathbf{1 2 , 1 6 2}$ | $\mathbf{8 8 4}$ | $\mathbf{1 3 , 0 4 6}$ |
| Row per cents | $\mathbf{9 3 . 2}$ | $\mathbf{6 . 8}$ | $\mathbf{1 0 0}$ |
| Gay or lesbian | 98 | 24 | 122 |
| Row per cents | 80.3 | 19.7 | 100 |
| Bisexual | 77 | 8 | 85 |
| Row per cents | 90.6 | 9.4 | 100 |
| LGB | $\mathbf{1 7 5}$ | $\mathbf{3 2}$ | $\mathbf{2 0 7}$ |
| Row per cents | $\mathbf{8 4 . 5}$ | $\mathbf{1 5 . 5}$ | $\mathbf{1 0 0}$ |
| Other | 22 | 1 | 23 |
| Row per cents | 95.7 | 4.3 | 100 |
| Or would you prefer not to say? | 292 | 6 | 298 |
| Row per cent | 98 | 2 | 100 |
| Total | 12,651 | 923 | 13,574 |

Source: Citizenship Survey 2007
Note: 13,574 valid cases ( 96.3 per cent); 521 missing cases ( 3.7 per cent); 14,095 total cases (100.0 per cent)

Figure 11 Percentage of respondents cohabiting by sexual identity category


[^7]
## Legal partnership status

Table 15 Legal partnership status of respondents by sexual identity category

|  | Respondent partnership status |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Single, never married and never in legally recognised civil partnership | Married and living with husband/ wife or in legally recognised civil partnership | Married and separated or in a legally recognised civil partnership | Divorced or civil partnership legally dissolved | Widowed | Total |
| Heterosexual or straight | 3,693 | 6,395 | 578 | 1,197 | 1,174 | 13,037 |
| Row per cent | 28.3 | 49.1 | 4.4 | 9.2 | 9 | 100 |
| Gay or lesbian | 86 | 14 | 2 | 14 | 5 | 121 |
| Row per cents | 71.1 | 11.6 | 1.7 | 11.6 | 4.1 | 100 |
| Bisexual | 47 | 24 | 5 | 5 | 3 | 84 |
| Row per cents | 56.0 | 28.6 | 6.0 | 6.0 | 3.6 | 100 |
| LGB | 133 | 38 | 7 | 19 | 8 | 205 |
| Row per cents | 64.9 | 18.5 | 3.4 | 9.3 | 3.9 | 100 |
| Other | 9 | 5 | 4 | 3 | 2 | 23 |
| Row per cents | 39.1 | 21.7 | 17.4 | 13.0 | 8.7 | 100 |

Source: Citizenship Survey 2007
Note: 13,563 valid cases ( 96.2 per cent); 532 missing cases ( 3.8 per cent); 14,095 total cases (100.0 per cent)

Figure 12 Percentage of respondents in different forms of legal partnership by sexual identity category


Source: Citizenship Survey 2007.
Table 15 and Figure 12 show that a much higher proportion of respondents in the gay or lesbian category were in the 'single, never married and never in legally recognised civil partnership' group than in the heterosexual or straight category. A majority of bisexual respondents was also in this category. The proportions in the 'married and living with husband/wife or in a legally recognised civil partnership' were low in the gay or lesbian and bisexual groups. In the heterosexual or straight group they comprised almost half (49.1 per cent) of responses.

Similar patterns have been reported in Canada. Carpenter (2008) used the 2003 and 2005 Canadian Community Health Survey to show that gay men and lesbians are much less likely to be in a partnership than heterosexuals: about 31 per cent of gay men and 39 per cent of lesbians are partnered compared with 63 per cent and 65 per cent of heterosexual men and women, respectively.

## Limiting long-term illness

It is not possible to draw conclusions about the prevalence of morbidity (as measured by limiting long-term illness/disability) across sexual identity categories in Table 16 and Figure 13. Limiting long-term illness has a strong relationship with age and without age standardisation the data are not amenable to interpretation. Where counts are small use is made of indirect standardisation. However, in this case the reference group is an aggregate of a core sample and an ethnic boost (rather than a randomly selected sample) so this method is not applicable.

Table 16 Limiting long-term illness/disability profile of respondents by sexual identity category

|  | Derived limiting long-term <br> illness/disability |  |  |
| :--- | :---: | :---: | :---: |
|  | No | Yes | Total |
| Heterosexual or straight | $\mathbf{1 0 , 4 2 9}$ | $\mathbf{2 , 6 1 2}$ | $\mathbf{1 3 , 0 4 1}$ |
| row per cent | $\mathbf{8 0 . 0}$ | $\mathbf{2 0 . 0}$ | $\mathbf{1 0 0 . 0}$ |
| Gay or lesbian | 100 | 22 | 122 |
| row per cent | 82 | 18 | 100 |
| Bisexual | 63 | 22 | 85 |
| row per cent | 74.1 | 25.9 | 100 |
| LGB | $\mathbf{1 6 3}$ | $\mathbf{4 4}$ | $\mathbf{2 0 7}$ |
| row per cent | $\mathbf{7 8 . 7}$ | $\mathbf{2 1 . 3}$ | $\mathbf{1 0 0}$ |
| Other | 16 | 7 | 23 |
| row per cent | 69.6 | 30.4 | 100 |
| or would you prefer not to say? | 218 | 77 | 295 |
| row per cent | 73.9 | 26.1 | 100 |
| Total | 10,826 | 2,740 | 13,566 |

Source: Citizenship Survey 2007
Note: 13,566 valid cases ( 96.2 per cent); 529 missing cases ( 3.8 per cent); 14,095 total cases (100.0 per cent)

Figure 13 Percentage of respondents with limiting long-term illness/disability by sexual identity category


[^8]National statistics socio-economic classification (NS-SEC) (seven categories)
Table 17 NS-SEC profile of respondents by sexual identity category

|  | Higher/lower managerial and professions | Intermediate occupations/small employers | Lower supervisory and technical/semiroutine | Routine occupations | Never worked/ long-term unemployed | Full time students | Not stated/ classified | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Heterosexual or straight | 4,246 | 2,462 | 3,306 | 1,462 | 1,005 | 421 | 133 | 13,035 |
| row per cent | 32.6 | 18.9 | 25.4 | 11.2 | 7.7 | 3.2 | 1 | 100 |
| Gay or lesbian | 50 | 27 | 24 | 12 | 1 | 7 | 1 | 122 |
| row per cent | 41.0 | 22.1 | 19.7 | 9.8 | 0.8 | 5.7 | 0.8 | 100 |
| Bisexual | 31 | 17 | 13 | 10 | 7 | 6 | 1 | 85 |
| row per cent | 36.5 | 20.0 | 15.3 | 11.8 | 8.2 | 7.1 | 1.2 | 100 |
| LGB | 81 | 44 | 37 | 22 | 8 | 13 | 2 | 207 |
| row per cent | 39.1 | 21.3 | 17.9 | 10.6 | 3.9 | 6.3 | 1.0 | 100.0 |
| Other | 4 | 5 | 8 | 3 | 3 | 0 | 0 | 23 |
| row per cent | 17.4 | 21.7 | 34.8 | 13.0 | 13.0 | 0.0 | 0.0 | 100 |
| or would you prefer not to say? | 60 | 41 | 90 | 52 | 36 | 13 | 6 | 298 |
| row per cent | 20.1 | 13.8 | 30.2 | 17.4 | 12.1 | 4.4 | 2 | 100 |
| Total | 4,391 | 2,552 | 3,441 | 1,539 | 1,052 | 447 | 141 | 13,563 |

Source: Citizenship Survey 2007
Note: 13,563 valid cases ( 96.2 per cent); 532 missing cases ( 3.8 per cent); 14,095 total cases (100.0 per cent)
As might be expected (given findings on income below) a higher proportion of respondents are in higher/lower managerial occupations and professions in the gay or lesbian group than in the heterosexual or straight group (Table 17, Figure 14). The low proportion of 'prefer not to say' respondents in this category is also consistent with other findings in this dataset.

Figure 14 Percentage of respondents in seven NS-SEC categories by sexual identity category


Source: Citizenship Survey 2007

## Government office region

Figure 15 and Table 18 show that respondents were present in the sample from all government office regions. However, the highest proportions were resident in London: around a quarter ( 26.7 per cent) of the heterosexual or straight category but 36.9 per cent of the LGB categories. London boroughs had some of the highest proportions of people in declaring same-sex coresident households in the 2001 Census.
Table 18 Government office region profile of respondents by sexual identity category

|  | Government Office Region |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | North East | North West | Yorkshire and the Humber | East Midlands | West Midlands | East of England | London | South East | South West | Wales | Total |
| Heterosexual or straight | 557 | 1,480 | 1,101 | 1,165 | 1,272 | 1,093 | 3,342 | 1,601 | 901 | 534 | 13,046 |
| row per cent | 4.3 | 11.3 | 8.4 | 8.9 | 9.8 | 8.4 | 25.6 | 12.3 | 6.9 | 4.1 | 100 |
| Gay or lesbian | 2 | 11 | 13 | 8 | 6 | 12 | 45 | 15 | 10 | 0 | 122 |
| row per cent | 1.6 | 9 | 10.7 | 6.6 | 4.9 | 9.8 | 36.9 | 12.3 | 8.2 | 0 | 100 |
| Bisexual | 2 | 7 | 2 | 6 | 7 | 3 | 31 | 19 | 7 | 1 | 85 |
| row per cent | 2.4 | 8.2 | 2.3 | 7.1 | 8.2 | 3.5 | 36.5 | 22.4 | 8.2 | 1.2 | 100 |
| LGB | 4 | 18 | 15 | 14 | 13 | 15 | 76 | 34 | 17 | 1 | 207 |
| row per cent | 1.9 | 8.7 | 7.2 | 6.8 | 6.3 | 7.2 | 36.7 | 16.4 | 8.2 | 0.5 | 100 |
| Other | 0 | 1 | 2 | 3 | 2 | 1 | 10 | 3 | 1 | 0 | 23 |
| row per cent | 0.0 | 4.3 | 8.7 | 13.0 | 8.7 | 4.3 | 43.5 | 13.0 | 4.3 | 0.0 | 100 |
| Or would you prefer not to say? | 5 | 37 | 12 | 17 | 29 | 24 | 122 | 32 | 7 | 13 | 298 |
|  | 1.7 | 12.4 | 4 | 5.7 | 9.7 | 8.1 | 40.9 | 10.7 | 2.3 | 4.4 | 100 |
| Total | 566 | 1,536 | 1,130 | 1,199 | 1,316 | 1,133 | 3,550 | 1,670 | 926 | 548 | 13,574 |

[^9]Figure 15 Percentage of respondents resident in government office regions by sexual identity category


Source: Citizenship Survey
These analyses are based on extremely small numbers and in some cases some of the cells have counts of just one or two. They cannot be interpreted as providing evidence of significant differences in the selected measures across the sexual identity categories. At best, they offer only indicative evidence. They are perhaps of most value as pointers to hypotheses that can be developed and tested in more robust data. Clearly, some of the differences identified are of potentially substantive interest, especially those relating to socio-economic position such as educational qualifications, income and socioeconomic class. Moreover, some of these indicative findings are consistent in broad terms with those reported in US and Canadian studies. While some of these relationships have been investigated in same sex couple data, the accrual of findings from the IHS in the next few years will provide an opportunity for their more systematic investigation.

### 7.4 The Health Counts Survey 2003

Health Counts was a one-off survey of people in East Sussex, Brighton and Hove undertaken in 2003. The survey primarily focused on health issues: general health, health and daily activities, health in general, use of health services (doctor/GP, hospital, dentist, optician, complementary services, pharmacist, cervical smear testing and breast screening), health-related behaviour (smoking, alcohol, exercise, and diet), health insurance, questions about the respondent's area/neighbourhood, and the respondent's demographics (age, marital status, ethnic group, sexual orientation, housing tenure, housing type, fuel poverty, children and adults in the household, carer role, and economic activity).

The question on sexual orientation asked:

This question is designed to help us assess the health of particular groups in the community. We appreciate it is sensitive and you may prefer not to answer it.
70. How would you describe your sexuality/sexual orientation?

Please circle one number only
Straight/heterosexual 1
Gay 2
Lesbian 3
Bisexual 4
Transgendered 5
Unsure 6
Other 7

Of the total of 5,983 respondents to this survey, 440 (7.4 per cent) failed to answer the question on sexuality/sexual orientation. Valid responses included 165 in the LGB group ( 2.8 per cent overall and 3.0 per cent of valid responses), two transgendered, and a further 39 in residual categories (unsure and other) (Table 19).

Table 19 Responses to the sexuality/orientation question

| Sexuality/sexual orientation | No. | Per cent |
| :--- | :---: | :---: |
| No answer | 440 | 7.4 |
| Straight/heterosexual | 5,337 | 89.2 |
| Gay | 90 | 1.5 |
| Lesbian | 40 | 0.7 |
| Bisexual | 35 | 0.6 |
| Transgendered | 2 | 0.0 |
| Unsure | 16 | 0.3 |
| Other | 23 | 0.4 |
| Total | 5,983 | 100.0 |

Source: Health Counts Survey 2003
This survey asks a small number of questions about the respondents that provide a point of access to their socio-economic position: whether they experience fuel poverty, whether they are covered by a health insurance scheme, and what their housing tenure is.

## Fuel poverty

Respondents were asked: 'Are there times in the winter when you cannot keep your home warm enough?'

Table 20 Times in winter when respondent cannot keep home warm enough by sexual identity category

|  | No answer | Most of the <br> time | Quite often | Only <br> occasionally | Never | Total |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| No answer | 200 | 16 | 24 | 56 | 144 | 440 |
| Straight/ |  |  |  |  |  |  |
| heterosexual | $\mathbf{2 3}$ | $\mathbf{1 7 0}$ | $\mathbf{3 0 6}$ | $\mathbf{1 , 3 9 8}$ | $\mathbf{3 , 4 4 0}$ | $\mathbf{5 , 3 3 7}$ |
| row per cent | $\mathbf{0 . 4}$ | $\mathbf{3 . 2}$ | $\mathbf{5 . 7}$ | $\mathbf{2 6 . 2}$ | $\mathbf{6 4 . 5}$ | $\mathbf{1 0 0}$ |
| Gay | 0 | 7 | 5 | 23 | 55 | 90 |
| Lesbian | 0 | 2 | 2 | 7 | 29 | 40 |
| Bisexual | 0 | 2 | 6 | 8 | 19 | 35 |
| LGB | $\mathbf{0}$ | $\mathbf{1 1}$ | $\mathbf{1 3}$ | $\mathbf{3 8}$ | $\mathbf{1 0 3}$ | $\mathbf{1 6 5}$ |
| row per cent | $\mathbf{0 . 0}$ | $\mathbf{6 . 7}$ | $\mathbf{7 . 9}$ | $\mathbf{2 3 . 0}$ | $\mathbf{6 2 . 4}$ | $\mathbf{1 0 0}$ |
| Transgendered | 0 | 0 | 0 | 1 | 1 | 2 |
| Unsure | 0 | 2 | 0 | 6 | 8 | 16 |
| Other | 0 | 2 | 1 | 8 | 12 | 23 |
| Total | 223 | 201 | 344 | 1,507 | 3,708 | 5,983 |

Source: Health Counts Survey 2003

Figure 16 Times in winter when respondent cannot keep home warm enough by sexual identity category


Source: Health Counts Survey 2003
Table 20 and Figure 16 suggest important differences in fuel poverty across the sexual orientation groups. The lesbian and heterosexual categories experience the least fuel poverty and the bisexual category the most.

## Private health insurance

Respondents were asked: 'Are you covered by a health insurance scheme (for example, BUPA or PPP) which pays the cost of private medical treatment?

Table 21 Whether respondent is covered by a health insurance scheme by sexual identity category

|  | No answer | Yes | No | Total |
| :--- | :---: | :---: | :---: | :---: |
| No answer | 45 | 47 | 348 | 440 |
| Straight/heterosexual | $\mathbf{9 8}$ | $\mathbf{1 , 0 8 1}$ | $\mathbf{4 , 1 5 8}$ | $\mathbf{5 , 3 3 7}$ |
| Row per cents | $\mathbf{1 . 8}$ | $\mathbf{2 0 . 3}$ | $\mathbf{7 7 . 9}$ | $\mathbf{1 0 0}$ |
| Gay | 2 | 15 | 73 | 90 |
| Lesbian | 0 | 6 | 34 | 40 |
| Bisexual | 1 | 5 | 29 | 35 |
| LGB | $\mathbf{3}$ | $\mathbf{2 6}$ | $\mathbf{1 3 6}$ | $\mathbf{1 6 5}$ |
| Row per cents | $\mathbf{1 . 8}$ | $\mathbf{1 5 . 8}$ | $\mathbf{8 2 . 4}$ | $\mathbf{1 0 0}$ |
| Transgendered | 0 | 0 | 2 | 2 |
| Unsure | 1 | 1 | 14 | 16 |
| Other | 1 | 4 | 18 | 23 |
| Total | 148 | 1,159 | 4,676 | 5,983 |

Source: Health Counts Survey
Figure 17 Whether respondent is covered by a health insurance scheme by sexual identity categories


Source: Health Counts Survey 2003
Table 21 and Figure 17 show few differences in health insurance cover, 20.3 per cent of heterosexuals having cover and somewhat fewer (15.8 per cent) in the LGB groups.

## Housing tenure

Table 22 and Figure 18 show that owner-occupation was highest in the heterosexual group but also high in the lesbian group; rates were lower in the gay and bisexual groups, especially the latter.

Table 22 Housing tenure of respondents by sexual identity category

|  | Owner- <br> occupied | Per cent | Renting: <br> private <br> furnished | Renting: <br> private <br> unfurnish <br> ed. | Renting: <br> houssocing <br> asson | Renting: <br> local <br> authority | Percentage <br> renting | Other | No answer |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hetero |  |  |  |  |  |  |  |  |  |
| sexual | 3,912 | 73.3 | 152 | 351 | 188 | 244 | 17.5 | 471 | 19 |
| Gay | 46 | 51.1 | 12 | 14 | 2 | 9 | 41.1 | 6 | 1 |
| Lesbian | 25 | 62.5 | 3 | 3 | 2 | 2 | 25.0 | 4 | 1 |
| Bisexual | 12 | 34.3 | 3 | 5 | 3 | 6 | 48.6 | 6 | 0 |
| LGB | 83 | 50.3 | 18 | 22 | 7 | 17 | 38.8 | 16 | 2 |

Source: Health Counts Survey 2003

Figure 18 Housing tenure of respondents by sexual identity category


Source: Health Counts Survey 2003
Evidence from UK surveys is limited and that from other national contexts of limited comparability. Some analysis has been undertaken of the same-sex couples data in the 2000 US Census. Jepsen and Jepsen (2009) find that same-sex couples are less likely to own a home than are married couples. The average value of houses owned by same-sex male couples is similar to the average value of houses owned by married couples. However, houses owned by same-sex female and cohabiting couples have lower average values than those owned by married couples. Similar findings are reported by Leppel (2007): same-sex couples are more likely than unmarried opposite-sex couples to own rather than rent homes but less likely to do so than married couples. Same-sex couples are not more likely to own homes in centre city areas than elsewhere, while married couples are less likely to own homes in
the city. Among high-income same-sex households, women are more likely than men to own homes but less likely to do so in US centre city areas.

### 7.5 Evidence from purposive samples of the LGB population

The following evidence relating to the LGB population is based on research in which data capture has utilised purposive sampling (the selection of respondents through convenience sampling, including snowballing, networking methods, and contact through particular organisations). While it is not possible to draw statistical inferences through such methods, the ability to accrue large samples and to explore detailed research questions relating to the LGB population yields a rich evidence base.

Recruitment to these research samples is often via community groups (such as those that advertise in Gay Times, Diva, etc.); mailing lists of gay and lesbian organisations and community projects; contact at gay and lesbian fetes, pride, and Mardi Gras events; bars, clubs and other social spaces frequented by the LGB population; and LGB bookstores. These recruitment strategies do yield samples that are biased towards men and women in their twenties and thirties. In some of the research studies subjects are recruited on the basis of multiple criteria. For example, in Sexual Health for All (Sigma Research), the inclusion criteria were same sex active in last five years and/or LGB identity. In the Lesbian and Bisexual Women's Sex Survey (Sigma Research) the inclusion criteria were same sex active in last 12 months and/or LGB identity. The samples produced by these methods may also be characterised by geographical clustering and in some cases focus on areas with a known high concentration of the LGB population, such as London, Manchester, Leeds and other large cities and areas that have proved traditionally attractive as areas of residence, such as Brighton and Hove. Consequently, such purposive samples are of limited utility in investigations across the life course, of national patterns and distributions, and of the LGB population who are not actively engaged with LGB groups, activities and events. Moreover, they frequently capture the white population: Sigma Research's 'First, service' (2002) notes that the samples preclude any observations on ethnic group differences in women's sexual health needs and further research is required with ethnic minority women. In spite of these shortcomings, they yield important data about the demographics of the groups they capture.

The LGB studies reported on are: (i) First, service 2002 (referred to as FS), which combines findings (for women) from Sexual Health for All 2000 (Sigma

Research) and Lesbian and Bisexual Women's Sex Survey 2000 (Sigma Research) [lesbian and bisexual women]; (ii) Lesbian and Bisexual Women's Health Survey 2007 (LBWHS_07) (Sigma Research) [lesbian and bisexual women]; and (iii) Gay Men's Sex Survey (2007) (GMSS_2007). The following paragraphs report on partnership status, household living arrangements, income and generic health status where these were reported on in the studies.

## Partnerships

With respect to the lesbian population, in Sigma Research's two combined samples of predominantly exclusively same-sex active women (FS), a quarter ( 24.8 per cent) of respondents ( $n=2,362$ ) had no regular partner, 70.8 per cent female partner(s) only, 1.1 per cent both female(s) and male(s) partners, and 3.3 per cent male partners only. Similar findings are reported in the LBWHS_07 survey which provides findings for lesbians and bisexual females separately. Of lesbians, 29.9 per cent ( $n=4,499$ ) did not have a female partner at present, 68.0 per cent had one female partner, and just 2.1 per cent more than one female partner. As might be expected, a much higher proportion of bisexual respondents ( 60.7 per cent) did not have a female partner at present, while just over a third ( 35.4 per cent) did. Again, multiple (female) partners was exceptional, at 3.9 per cent. The lesbian sample was almost exclusively lesbian, 99.5 per cent ( $n=4,432$ ) indicating that they did not have a male partner at present and just 0.5 per cent that they had one or more male partners. Of women identifying as bisexual, 29.6 per cent had one current male partner (a slightly lower proportion than those who had one female partner). Among bisexuals, a very small proportion (seven per cent) had both female and male partner(s) at present: 61 of 861 bisexual people.

A somewhat different question was asked in the GMSS_2007 among gay and bisexual men. Around 47.2 per cent of gay men indicated that they were in a partnership with a man (including civil partnerships), although only 16.3 per cent of bisexual men were in such a partnership with a man. Scarcely any (0.7 per cent of 5281) gay men were in a marriage with a woman (again reinforcing the picture of being exclusively gay), although 21.4 per cent of bisexual men ( $\mathrm{n}=518$ ) were. Similarly, just 0.1 per cent of gay men were in a relationship with a woman but not married (and 9.7 per cent of bisexual men). Around half of gay and bisexual men indicated that they were in none of the listed partnerships or were 'other', suggesting a higher rate of no partner than amongst lesbian and bisexual women.

GMSS_2007 also asked about gender of sexual partners. Gay men ( $n=5,291$ ) had almost exclusively men only partners ( 91.7 per cent), 6.5 per cent had none, 0.1 per cent women only, and 1.7 per cent both men and women. Bisexual males were a more heterogeneous group, 10.4 per cent having no sexual partners, 6.0 per cent women only, 48.3 per cent both men and women, and 35.3 per cent men only.

## Legal partnership status

The Sigma Research surveys did not ask a question on marital status. However, this information is available in the 2009 Ellison and Gunstone survey ( $n=5,190$ ). Fifty-six per cent of heterosexual/straight respondents were married to a person of the opposite sex, compared with just one per cent of gays/lesbians, 31 per cent of bisexual people, and 16 per cent of the 'Other' group. Thirteen per cent of gays/lesbians were in a registered same-sex civil partnership. Seventy-nine per cent of gays/lesbians were never married and never registered in a same-sex civil partnership, substantially higher than bisexual people ( 54 per cent) and heterosexual/straight people (30 per cent).

## Household living arrangements

In the FS sample, almost a quarter (23.6 per cent) of respondents ( $n=2,396$ ) lived alone, while 45.5 per cent lived with a female partner. Similarly, in the LBWHS_2007 23.1 per cent of 4,501 lesbian women lived alone and rather fewer bisexual women ( 17.4 per cent of 868 ). Again, 42.6 per cent (similar to the FS sample) lived with a female partner, although a much smaller proportion (17.1 per cent) of female bisexuals did (a similar proportion - 16.6 per cent - living with a male partner). With respect to lesbian women, these figures suggest that same-sex co-resident couples represent between twofifths and a half of this demographic group (predominantly in the younger age groups). The proportion living with a female partner is substantially higher than that reported in the 1990 National Surveys of Sexual Attitudes and Lifestyles study: of the 40 women who had sex with another woman in the last five years, 28 per cent were cohabiting with a same-sex partner (Johnson et al., 2004). This might be explained by the increasing acceptability of samesex partnerships and their subsequent legal recognition over the succeeding decade or two.

## Living with children

In the LBWHS_2007 10.3 per cent of 4,501 lesbians were living with children, as were a similar proportion of bisexual females ( 10.9 per cent of 868 ). In the case of lesbians living with children, around three-quarters (77.2 per cent) were living with biological children (a higher proportion -94.7 per cent - in the case of bisexual women).

## Socio-economic position

Years in full-time education post 16: The LBWHS_2007 shows similar findings for lesbians and bisexual females with respect to years in full-time education, post 16. Of 4,498 lesbians, 9.6 per cent and a similar proportion of bisexual women ( 8.3 per cent of 865 respondents) had no years in full-time education post 16. Again, similar proportions had five or more years in fulltime education post 16: 48.5 per cent of lesbians and 46.9 per cent of bisexual people.

These findings are somewhat different to the LGB profile of YouGov panel members. Of 4,658 panel members, 17.9 per cent finished full-time education at 16 or under, the remainder finishing full-time education at higher ages or still being in full-time education. No breakdown of the separate LGB categories is available. Clearly, many factors could account for the differences, including differences in age profile.

Employment status: Similar proportions of lesbians (4.8 per cent of 4,496) and bisexual women ( 5.8 per cent of 865 ) were unemployed in the LBWHS_2007. However, a much higher proportion of bisexual women (29.9 per cent of 865) were students than lesbians (16.5 per cent of 4,496 respondents). Although a slightly higher proportion of bisexual women than lesbians were on long-term sick leave/disabled ( 4.4 per cent v 3.8 per cent), age-specific rates were substantially higher at older ages (forties, 50+), for example 14.3 per cent v 4.8 per cent at $50+$ ).

Occupational category: Respondents in the LBWHS_2007 were invited to assign themselves to one of eight occupational categories. Similar proportions of lesbians and bisexual women were in modern professional ( 43.9 per cent v 40.8 per cent) and traditional professional ( 9.1 per cent $v 11.1$ per cent) occupations; similar proportions were in routine manual and service occupations ( 5.1 per cent v 5.8 per cent).

Household income: Household incomes tended to be higher for lesbians than bisexual women (Figure 19). A finding of the analysis of probability samples (2007 Citizenship Survey) also showed higher incomes in the lesbian and gay groups compared with the bisexual group.

Figure 19 Household income bands of lesbian and bisexual respondents


Source: Lesbian and Bisexual Women's Health Survey 2007. Table reports from Sigma Research for the Equality and Human Rights Commission Project, Measuring the LGB population in the UK.
Note: The question asked: 'What is the gross household income (before any deductions for Income Tax and National Insurance contributions) that you received in the last year from all sources?' Respondents were invited to tick one of the nine options shown in the key.

Again, the findings of these purposive samples offer only indicative evidence. They are valid only within the context of the particular studies and cannot be generalised to the wider LGB population. As with the survey data, they are a useful evidence base for generating hypotheses about the LGB population, especially as some of the findings accord with the picture emerging from the survey evidence.

### 7.6 Conclusions

Relatively little is known about the composition of the LGB group in demographic terms, including its socio-economic profile. Most of what is known is based on either same-sex couples who have declared that they are co-resident in social surveys (such as the 2001 Census or Labour Force Survey) or surveys based on convenience or purposive samples. This chapter has therefore examined evidence from random sample (probabilistic) and convenience sample (purposive) surveys and how they can be utilised to give a more comprehensive picture of the composition of the LGB group.

Firstly, it has indicated how these types of evidence differ with respect to internal and external validity, what their strengths and weaknesses are, and how they can be used in ways that fully utilise the evidence base available. Use is then made of two population-based probability surveys: the 2003 Health Counts Survey and 2007 Citizenship Survey to add to this knowledge base in the areas of demographics and socio-economic position. Clearly, one major drawback is the relatively small LGB populations in these sources, where modest measurement problems can lead to potentially serious errors in inference. When data on the sexual orientation categories are stratified by demographic and socio-economic characteristics, the cell counts can be so small as to be of questionable validity. Any demographic and socio-economic profiles of the LGB population should be interpreted as providing indicative evidence only and treated with substantial caution. At best, they are perhaps of most value as pointers to hypotheses that can be developed and tested in more robust data.

According to these indicative findings from the probability samples, the LGB group is a heterogeneous category and there is some evidence that bisexual men and women in particular differ from lesbians and gay men in their identity, behaviour, attraction, socio-economic circumstances and experiences of disadvantage. There are also differences between lesbians and gay men in
these respects, though to a lesser degree than observed differences with bisexuals. Findings should be reported separately for all three groups where possible, along with aggregated LGB results.

Again, the findings from a number of purposive samples offer only indicative evidence. They are valid only within the context of the particular studies and cannot be generalised to the wider LGB population. As with the survey data, they are a useful evidence base for generating hypotheses about the LGB population, especially as some of the findings accord with the picture emerging from the survey evidence. Some of these differences are difficult to interpret. For example there is some evidence that a higher proportion of the LGB group are educated to degree/other higher education level which appears to translate into higher incomes. However, it is difficult to assess to what extent these differences may be partially explained by processes of selection into participation in surveys and panel membership. Moreover, careful attention needs to be accorded to comparators.

## 8 General conclusions

There is now a case for mainstreaming sexual orientation on all government social surveys that ask about the other equality strands (as has been recommended by the Equality Measurement Framework [EMF]) and, indeed, in all routine data collection settings.

However, statistics are likely to remain imperfect because of concerns around stigma and disclosure, the nature of the concept of sexual orientation and sometimes ill-defined boundaries between categories, and the changing use of language and meaning of terminology. However, as the case of ethnic monitoring has demonstrated, as the collection of sexual identity data becomes routine its acceptability is likely to increase with commensurate increases in the completeness and quality of the data.

Current difficulties in collecting data should not deter agencies from initiating sexual orientation data collection as collection, in itself, is likely to contribute to an increasing acceptance of sexual orientation as an equality strand and a preparedness to accurately assign in such questions. Moreover, as with ethnicity data collection, the ability to investigate the quality of the data collected and to remain close to it rapidly leads to better classifications and data capture. One such opportunity has been missed - the 2011 Census although many government departments, including the Department of Trade and Industry and the National Health Service (NHS) have funded initiatives with regard to data collection. Moreover, the use of online surveys has been little investigated, although these allow for privacy in answering the question and, according to the Ellison and Gunstone survey, may minimise misreporting.

Other matters, such as the collection of equal opportunities data on trans people, need to be accorded attention. 'Transgender' is frequently a category coat-tailed on to the sexual orientation question, even though trans people may be straight, gay, lesbian or bisexual, or omitted altogether. Trans currently represents a significant gap in the EMF as none of the existing household surveys or main administrative sources ask about it. Clearly, one difficulty is obtaining statistically significant results, given the low population prevalence of transgender persons.

The findings of this report give cause for optimism. Following the completion of the Office for National Statistics' (ONS) Sexual Identity Project, sexual orientation has been added to the suite of surveys that comprise the Integrated Household Survey (IHS) and the NHS GP Patient Survey. The Scottish government has decided that a question similar to that developed through the ONS sexual identity project will be added to all surveys funded by the Scottish government in the near future, including the Scottish Health Survey. Candidate questions have now been developed by ONS for different data collection contexts (face-to-face interviews, telephone, and selfcompletion) and guidance offered on how to ask the question (Haseldon and Joloza, 2009). This, should, in itself, catalyse the monitoring of this equality strand in different settings. Moreover, the release of findings from the IHS in early 2010 will, for the first time, yield an evidence base on the lesbian, gay and bisexual (LGB) group nationally, that can be exploited via secondary data analysis. This, in turn, is likely to open opportunities for the application of various statistical modelling methodologies and evaluative techniques (such as capture-recapture, probability modelling, and test-retest approaches) that will provide more robust estimates of the size of the LGB population by adjusting for misreporting and non-response.

Although our current knowledge of the socio-demographic and other characteristics of the LGB population is still limited, the evidence base has expanded substantially in the last few years and continues to do so. Some of this research is demonstrating the utility of online surveys which probably minimise non-response and misreporting, such as the recently released findings of a major study of the experiences of LGB and trans staff and students in higher education (Valentine, Wood and Plummer, 2009). There is probably scope, now, to apply systematic review methodologies to some of this literature. However, major gaps remain. The limited evidence available suggests that much of the monitoring data collected by statutory bodies such as local authorities and NHS trusts omits sexual orientation or collects it in a sub-optimal way. There is clearly scope here for more effective knowledge transfer from the ONS Sexual Identity Project and, perhaps, performance monitoring and incentivisation schemes that have been effective in raising the quality and completeness of ethnicity data collected in GP and hospital settings.

## Endnotes

${ }^{1}$ The study is unique in capturing a wide range of perspectives from over 5,000 online survey respondents, including 2,199 who currently identify as heterosexual/straight and 2,731 who currently identify as LGB. Survey respondents were recruited from a self-selected online research panel of around 235,000 adults in England, Wales and Scotland in a two-stage process. In the first stage, a sample of 75,000 panel members was identified, containing all those who had responded to an earlier Oracle survey that carried a question on sexual orientation. In the second stage, a sub-sample was drawn. This sub-sample consisted of all those who had indicated in the Oracle survey that they were lesbian, gay or bisexual, or had answered 'other', or had preferred not to answer ( 5,567 in total), plus a random sample of 3,995 of the remaining heterosexual respondents. The results have been weighted by age, gender, employment, socio-economic classification, region and educational level using both national data and information from the wider panel.

The chosen methodology has the benefit of allowing a large sample of people who have previously identified their sexual orientation as LGB to be included in the study. In addition, online self completion surveys enable the respondent to experience some distance from the interviewer. An important caveat must be applied from the outset: even by weighting the results, it is impossible to know whether the composition of the sample by sexual orientation reflects that of the general population. This applies equally to responses throughout the survey. The LGB population remains unknown.
${ }^{2}$ The groups are defined in government official documents as 'men and women', 'people of different racial groups', 'people who have or have had a disability', 'people of different sexual orientations', 'people of different religions or beliefs (or none)', 'people of different ages', and 'people who intend to undergo, are undergoing, or have undergone gender reassignment'. The 2009 equality bill lists as 'protected characteristics': age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex, and sexual orientation.
${ }^{3}$ http://www.opsi.gov.uk/si/si2003/20031661.htm. [Accessed 2 October 2009]
${ }^{4}$ Equality bill. Bill 85-I. 54/4. 24 April 2009. Paras. 67-9.
http://www.publications.parliament.uk/pa/cm200809/cmbills/085/voli/2009085i.pdf. [Accessed 2 October 2009]
${ }^{5}$ The question asked: 'We would like to begin by simply asking you whether you consider yourself to be: Straight/Heterosexual, Gay/Lesbian, Bisexual or Other (please explain).
${ }^{6}$ http://www.ark.ac.uk/nilt/2007/main07.pdf. [Accessed 2 October 2009]

7 'Lesbian' was the preferred term at all ages; the term 'gay' was most common among those in their twenties and thirties. Women <20 were much more likely than older women to identify as 'bisexual'. Preferred terms for sexuality were strongly related with the gender of the current regular partners.
${ }^{8}$ http://www.stats.gov.cn/english/specialtopics/iaos/Papers/CS_6_1.ppt. [Accessed 2 October 2009]
${ }^{9}$ The terms 'trans people' and "transgender people' are both often used as umbrella terms for people whose gender identity and/or gender expression differs from their birth sex, including transsexual people (those who intend to undergo, are undergoing or have undergone a process of gender reassignment to live permanently in their acquired gender), transvestite/cross-dressing people (those who wear clothing traditionally associated with the other gender either occasionally or more regularly), androgyne/polygender people (those who have non-binary gender identities and do not identify as male or female), and others who define as gender variant.
${ }^{10} \mathrm{http}: / / \mathrm{www}$. stonewall.org.uk/documents/school_report.pdf. [Accessed 2 October 2009]
${ }^{11}$ Anon. Conference report: Queering statistics - issues associated with estimating the lesbian, gay and bisexual (LGB) population. Population Trends 2006; 123: 5-6.
${ }^{12}$ ONS indicates that in the IHS question 'Please specify' is not included with the 'Other' category for privacy reasons
${ }^{13}$ Equality Commission for Northern Ireland. 2007 (April). Section 75 of the Northern Ireland Act 1998. Monitoring Guidance for Use by Public Authorities. Belfast: Equality Commission for Northern Ireland.
${ }^{14}$ DTI. Final Regulatory Impact Assessment: Civil Partnership Act 2004. Available from: http://www.dti.gov.uk/files/file23829.pdf. [Accessed 2 October 2009]

15 http://www.scotpho.org.uk/home/Populationgroups/lgbpeople/lgb_intro.asp. [Accessed 2 October 2009]

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http://www.statistics.gov.uk/about/consultations/downloads/2011Census_assessment_sexual _orientation.pdf. [Accessed 2 October 2009]
${ }^{17}$ ONS. Standard Table (Table UV93).
${ }^{18}$ CeLSIUS. Cohabitation - deaths, same gender couples and transitions in relationship status and economic well-being. Project number 30049.
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## Contacts

## England

Arndale House
Arndale Centre
Manchester M4 3AQ
Helpline:
Main number
08456046610
Textphone
08456046620
Fax
08456046630

## Scotland

The Optima Building
58 Robertson Street
Glasgow G2 8DU

## Helpline:

Main number
08456045510
Textphone
08456045520
Fax
08456045530

Wales
3rd Floor
3 Callaghan Square
Cardiff CF10 5BT

## Helpline:

Main number
08456048810
Textphone
08456048820
Fax
08456048830

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This report examines how sexual orientation is conceptualised, the inclusion of questions on sexual orientation in policy contexts, and the evidence currently available on the size and composition of the lesbian, gay and bisexual (LGB) population. It considers the scope to widen routine data collection on sexual orientation and to provide improved estimates of the size of the LGB population in Britain.

## What is already known on this topic:

- There are currently no reliable estimates of the size of the LGB population in Britain.
- The composition of the LGB population is unknown.
- The ONS developed a sexual identity question that was included in the Integrated Household Survey (IHS) in 2009.


## What this report adds:

Estimates of the LGB population in Britain range from 0.3 per cent to 10 per cent using different measures and sources.

- Evidence suggests that certain proportions of the LGB population may choose to misreport their sexual orientation in survey and monitoring settings, or may not answer the question. Consequently, the estimates available from a variety of survey sources are likely to underestimate the true size of the group.
- Any estimates of the LGB population using self-reported measures of sexual orientation will need to be adjusted by
applying statistical measures to correct for underascertainment.
$\square$ The IHS offers the best opportunity to obtain the most accurate information on the size of the LGB population who are willing to identify in the context of a household. An estimate should be available in 2010. Future claims about the size of this population based on this source should be cautious and seen as providing only a context-specific estimate.
- Additional strategies - such as the use of capture-recapture methods, the probability modelling of non-response and misreporting, and test-retest reliability methods - could be fully exploited to obtain better estimates of the LGB population.

There is important progress regarding the inclusion of sexual orientation questions in routine data collection settings, though they are missing from several sources to date.

- There is some evidence that bisexual men and women in particular differ from lesbians and gay men in characteristics of their identity, behaviour, attraction, socio-economic circumstances and experiences of disadvantage.


[^0]:    Source: Malagoda M, Traynor J. 2008 (September). Developing survey questions on sexual identity: Report on National Statistics Omnibus Trial 4. London: Office for National Statistics. Notes: Weighted percentages and unweighted bases shown. Four cases of missing data (where data was not entered or interviewer comments were not made) were excluded from the table.
    CAPI: Computer Assisted Personal Interviewing
    CASI: Computer Assisted Self Interviewing

[^1]:    Source: Citizenship Survey 2007
    Note: 13,566 valid cases ( 96.2 per cent); 529 missing cases ( 3.8 per cent); 14,095 total cases (100.0 per cent). Unweighted data.

[^2]:    Source: Citizenship Survey 2007

[^3]:    Source: Citizenship Survey 2007

[^4]:    Source: Citizenship Survey 2007

[^5]:    Source: Citizenship Survey 2007

[^6]:    Source: Citizenship Survey 2007
    Note: 11,036 valid cases ( 78.3 per cent); 3,059 missing cases ( 21.7 per cent); 14,095 total cases ( 100.0 per cent)

[^7]:    Source: Citizenship Survey 2007

[^8]:    Source: Citizenship Survey 2007

[^9]:    Source: Citizenship Survey 2007
    Note: 13,574 valid cases ( 96.3 per cent); 521 missing cases ( 3.7 per cent); 14,095 total cases (100.0 per cent)

