An Examination of Poverty and Sexual Orientation in the UK

SC Noah Uhrig
Institute for Social and Economic Research
University of Essex

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Non-Technical Summary

Commissioned by the Joseph Rowntree Foundation, this report reviews research concerning sexual orientation and poverty, contributing to understanding the links between poverty and inequality. Although much research documents inequality related to sexuality, the specific issue of material disadvantage is rarely if ever addressed. This report is motivated by three research questions:

1. What evidence is there of a link between specific sexual orientations and poverty?
2. If there is a link between sexual orientations and poverty, how and why has this changed over time in the UK and other countries?
3. What should be included in UK anti-poverty strategies in relation to sexual orientation?

The economic impact of sexuality related stigma, harassment and discrimination occurs when economically related institutions, such as employers, schools, local authorities, etc. either deliberately or incidentally exclude people based on their sexuality. This report is a synthesis of print material from North America, Europe and the UK, as well as top-line findings from the UK Household Longitudinal Study (UKHLS). Key results suggest that there is some material disadvantage for gay men, and bisexual men and women. Any poverty experienced by lesbians is most likely to be a consequence of their status as women rather than their sexuality, per se. The report highlights various factors related to poverty and sexuality including the problems of youth homelessness, aging and retirement, health inequalities, educational attainment, school bullying, employment experiences including earnings, and wealth creation.

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Abstract
Is there a link between sexuality and poverty? If so, has this relationship changed over time? What anti-poverty policies might be relevant to address issues related to sexuality and poverty? The report synthesises literature and adds top-line findings from the UK Household Longitudinal Study. It finds that gay men, and bisexual men and women experience some degree of material disadvantage as compared to heterosexuals. Lesbian disadvantage may be more related to their status as women than their sexuality. Recommendations concern alleviating sexuality related homelessness, school bullying, health inequalities, earnings disparities and social care needs in old age.

Keywords: Sexual orientation; Poverty; Homelessness; Aging and retirement; Health inequality; Earning inequality; UK Household Longitudinal Study

JEL Classification: I30, Z13, I14, I24, J31

Contact details:
SC Noah Uhrig
Institute for Social & Economic Research
University of Essex
Wivenhoe Park
Colchester, CO4 3SQ
scnuhrig@essex.ac.uk
TEL: (01206) 873790

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1. Introduction

For decades the British equalities agenda has focused on redressing inequalities relating to gender and race/ethnicity, and this has given rise to a large and influential body of academic and policy relevant research in these areas. In recent years, researchers have widened their scope, casting a critical eye on the social and economic consequences of dimensions such as age, disability and religious belief. However, despite sexual orientation being included in all major UK equalities legislation over the past decade, policy-relevant quantitative analyses of inequalities due to sexual orientation remain relatively scarce (Allen and Demo 1995; Aspinal and Minton 2008; Betts 2008; Grusky 2001; Mitchell, Howarth, Kotecha, and Creegan 2009; Purdam, Wilson, Afshami, and Olsen 2008). In particular, a cursory glance at the literature suggests that very little is known about links between sexual orientation and poverty in the UK. Poverty can be defined as a situation where a person's material resources are not sufficient to meet minimum needs, including social participation. Consequently, poverty is an inability to make choices and experience opportunities, in violation of human dignity. It means a lack of basic capacity to participate effectively in society (Gordon 2005).

Poverty, or material disadvantage, faced by sexual minorities is likely to be a function of stigma, harassment and discrimination as a consequence of sexual status (Arend 2005; Badgett 2001). The social nature of the economy means that discrimination on the grounds of sexuality is possible or even likely if members of dominant groups, say heterosexuals, have a distaste for sociation of any form with lesbian, gay or bisexual people (Badgett 2001)[1]. Distaste might be the product of social norms, or rules about how members of a society should behave, that forbid certain kinds of sexual practice or that define appropriate affectional and sexual partners -- typically as those of the opposite sex. Insofar as non-conformity can offend moral sensibilities, members of society that do not conform to such norms can experience stigmatisation (Murphy, Gorbach, Weiss, Hucks-Ortiz, and Shoptaw 2013). The economic impact of being seen as a member of a disfavoured group can be exacerbated when economically related institutions, such as employers, schools, local authorities, etc,... either deliberately or incidentally exclude certain kinds of people (Badgett 2001).

In this review, I address three core questions:

- What evidence is there of a link between specific sexual orientations and poverty?
- If there is a link between sexual orientations and poverty, how and why has this changed over time in the UK and other countries?
- What should be included in UK anti-poverty strategies in relation to sexual orientation?

Heteronormativity is the word social scientists give to the cultural regime that preferences heterosexual relationships and sexuality over all other forms of sexual expression (Plummer 2001). Homophobia is a negative or fearful attitude about homosexuals or homosexuality, whilst bi-phobia and trans-phobia refer to similarly negative views of bisexuals, transsexuals or transgender people (Ayala, Bingham, Kim, Wheeler, and Millett

[1] It should be noted that amongst sexual minorities, gays and lesbians could be viewed as dominant groups exercising distaste for sociation, amongst other things, with bisexuals, transexuals, transgendered people, or others.

2012; Gibbs 1997). Attitudinal research suggests that tolerance towards sexual minorities in the UK is increasing (Copas, Wellings, Erens, Mercer, McManus, Fenton, Korovessis, MacDowall, Nanchahal, and Johnson 2002; Cowan 2007). In 1987, 75 per cent of people thought homosexuality was always or mostly wrong, while by 2008 only 32 per cent held this position (Ward and Carvel 2008). While this remarkable shift in public attitudes implies strong generational differences in lived experience amongst lesbian, gay and bisexual (LGB) communities, public attitudes towards sexual minorities may not filter into subjective experiences in everyday social situations LGB people face, nor in any improvement in the material conditions underpinning their lives regardless of age.

The present review collates and synthesises existing literature on the links between sexual orientation and poverty with special attention to any methodological biases inherent in the evidence base underpinning it. Described are the ways sexual orientation may influence processes linked to poverty. This review also presents top-line statistics on the links between income based relative poverty and sexual orientation from the UK Household Longitudinal Study: *Understanding Society* (UKHLS). This data is one of the few data sets containing sub-samples of the LGB population large enough for robust statistical analysis and comparison with the heterosexuals.

The review contains several sections. It begins by assessing problems associated with doing research on sexual minorities, specifically the problems of small sample sizes and operationalising sexuality itself. It then provides an initial summary of literature on sexuality and poverty before presenting findings from the UKHLS on this matter. It then discusses specific critical issues associated with sexuality and material disadvantage: youth homelessness; aging and retirement; health; educational attainment; school bullying; discrimination in hiring, employment, promotions and earnings; housing; and savings and household finances. The report concludes with specific policy recommendations in each of these areas.

2. Methodology: The problem of data

In conducting research into LGB elders aged 50+ in the UK, Heaphy, Yip, and Thompson (2004, pp 883) state that "[a] representative sample is impossible in a study of this kind because the non-heterosexual population is hidden." Regardless of the age of the target population, research into LGB issues is plagued by three problems: rarity in the general population, geographic clustering, and problems with classification of respondents by sexuality. The first two problems influence study designs, visibly the choice between community and population surveys. The latter is a matter of ontology that can have particular consequences for analyses of material disadvantage.

Population surveys vs Community surveys

Researchers into LGB issues generally distinguish between two types of studies: community surveys and population surveys. Community surveys involve purposive recruitment of sample respondents through membership agencies, advertisements in publications or notice boards at community centres, bars, clubs, or other places frequented by the target group of interest. Often study participants are networked in some fashion, such that each is asked to provide the names of other likely participants in a technique known as snow-ball sampling. These procedures are used because researchers would like to access a particular, often marginal population. Once accessed, such participants are available for both qualitative and quantitative data collection (Badgett 2001).

Population studies, on the other hand, use techniques of probability sampling. The advantage of population studies is that they are more representative of a target population and

will invariably contain relevant comparison groups. Populations with rare statuses or whom are geographically concentrated could be under-represented in such samples. Stratification techniques can be used to ensure representativeness of certain sub-populations, however even with these techniques some groups still remain hidden. One way around this is to screen a probability sample for the rare trait, though this can be sometimes be prohibitively costly.

Community studies of LGB populations tend to be favoured because population studies are rarely large enough to have sufficient numbers of LGB people for robust analyses. Community studies are not ideal, however, because they can be extremely biased by selection. That is, the type of respondents that are accessed are quite unlikely to be representative of general experiences. A study of school bullying, for example, could enlist those young people who are disproportionately bullied leading to a picture of the experience that is rather skewed. Indeed, Heaphy, Yip, and Thompson (2004) remark about their community sample of LGB elders that their "data should ... be treated as exploratory and generalisation is discouraged." The sample they were able to assemble through formal and informal networks, publications/newsletters/internet, national/local user groups, and snowballing was 97.4 percent white, overwhelmingly educated as 51.9 percent of women and 45.1 percent of men had undergraduate degrees, a little more than a one-third had income over £20,000 (in 2001/2), 16.2 percent had income less than £10,000, most owned their own homes (81.4 percent of women and 76.2 percent of men). Indeed, 50 percent of the women and 67.1 percent of men in their sample classed themselves as financially secure. As data presented below indicate, the general LGB population in the UK does not share these characteristics.

Measurement of sexual orientation

Categorisation based on sexuality is a further challenge in doing research on sexual minorities. According to Laumann, Gagnon, Michael, and Michaels (1994), sexuality has at least three dimensions: attraction, behaviour and identity. When someone is sexually attracted to a member of the same sex, engages in sexual activity with members of the same sex and publicly identifies themselves as homosexual, the three components align in a relatively clear-cut fashion. For many people, however, the three components do not always align. For example, someone could be attracted to both sexes, engage in sex with both sexes but self-identify as heterosexual to avoid stigma or because they honestly believe that this is their identity. Others could be attracted to the same sex, never actually engage with anyone sexually, yet publicly identify as heterosexual for similar reasons (Badgett 2001; Laumann, Gagnon, Michael, and Michaels 1994; Plug and Berkhout 2008). Gender and biological sex are often intertwined in problematic ways with issues of sexuality (see e.g., Butler 1990; Willer, Rogalin, Conlon, and Wojnowicz 2013). For this reason, research on sexual minorities often include or attempt to describe the experiences of transgendered or transsexual individuals, as well as those who are intersexed -- having ambiguous genitalia such that biological sex may not always be clear. For example, male to female transgendered women could be sexually attracted to women, never have sex with them and identify as lesbian. Indeed, the combinations of traits and statuses, behaviours and identities becomes so complex that any presentation of self other than heterosexual with gender as clearly masculine or feminine aligned with sex that is clearly male or female becomes denigrated, stigmatised, harassed, victimised or even murdered (see e.g., Roberts 22 August 2013 who reports on a recently murdered young gender non-conforming Jamaican).

Clearly, operationalisation of sexuality for research in social surveys is problematic. Given the complex nature of sexuality in terms of attraction, behaviour and identity, and its complications with gender and biological sex, how one goes about categorising for purposes of tractable analysis is not entirely clear. Self-identification is perhaps the most relevant were

sexual minority status not a stigmatised and concealable characteristic (Purdam, Wilson, Afshami, and Olsen 2008). Identity, however, may not be relevant for all age groups such as young people for whom sexual identity may not be fully developed (Savin-Williams and Ream 2003a; Savin-Williams and Ream 2003b). Identity may also be problematic as a matter of disclosure, particularly when the survey mode is not conducive to revealing confidential information. The well-known problem of social desirability bias means that any measure of sexual orientation is, in fact, hampered by problems of endogeneity (Badgett 1995; Badgett 2001; Plug and Berkhout 2008).

Statistical Reporting

Throughout this report, I will endeavour to identify whether the research reported comes from a population based or community based survey. I will further attempt to report the means by which sexuality is defined and measured, though this is also not always clear from research reports. Reported findings do vary, often considerably, depending on how the research was done. It should be noted that most literature on the lives and experiences of sexual minorities comes from North America, with research from various European countries comprising a related and often scanty secondary corpus. Research on sexuality in the UK is quite limited, and often qualitative in nature. One reason for this is perhaps a lack of available data resources. This situation, however, is changing as a number of large population based studies in the UK have started to obtain information on sexuality.

The Office for National Statistics (ONS), since 2010, has incorporated a question on sexual identity in the UK Labour Force Survey. Respondents are asked to self-identify as "heterosexual or straight", "gay or lesbian", "bisexual", or "other"[2] (Haseldon and Joloza 2009; Wilmot 2007). These data are released as part of the ONS's Integrated Household Studies and the ONS are beginning to report annually on the distribution of this categorisation of sexual identity in the UK population. These data are collected via interviewer administration so confidentiality in reporting is a concern. Most recent estimates published by the ONS (2012) suggest that only 1.5 percent of the UK population identifies as gay, lesbian or bisexual and that those aged 16-24 are most likely to self-identify (2.6 percent) whilst those over age 65 are least likely (0.4 percent). Income is not released as part of the IHS data, however, and the UK LFS itself does not release data on sexual identity. For these reasons, population level data from the ONS on individual material conditions, employment and so forth relevant for research on poverty are simply not available.

The UK Household Longitudinal Study (UKHLS) asked in Wave 3 (2011-12) through self-completion a modified form of the ONS sexual identity question of all adult respondents aged 16+. The UKHLS differs by offering respondents a 'Prefer not to say' option that the ONS does not use. These data, along with all income measures, have only recently been released in November 2013. UKHLS data suggest a somewhat different picture as compared to the IHS data in terms of prevalence and distribution of sexual minority status within the UK. Table 1 shows that approximately 4.3 percent of 16-24 year olds self-identify as gay, lesbian or bisexual, whilst 0.7 percent of over 65+ self identify this way. A total of 2.3 percent of the sample self-identifies as gay, lesbian or bisexual. These results compared with population estimates from the IHS suggest that self-identification remains somewhat

[2] "Other" could include several terms of self-identification including asexual, transsexual, transgender, queer, or pansexual, as well as people who chose not to define their sexuality or for whom no words provide them with an adequate description of their sexual self. This category could also include people who simply do not understand the meaning of the other options presented to them. For a discussion of this particular categorisation, please see Wilmot (2007) and Haseldon and Joloza (2009).

confidential, particularly for young people, who would seem to feel free to report a minority identity on a self-completion instrument but not an interviewer administered instrument.

Table 1 UK Sexual Identity by Age, UKHLS Data. Base: 40,610 UK adults aged 16+ (weighted)

	Heterosexual or Straight	Gay or Lesbian	Bisexual	Other	Prefer not to Say
16-24	91.6%	1.8%	2.6%	1.3%	2.8%
25-34	93.5%	1.6%	1.5%	1.1%	2.4%
35-44	94.1%	1.9%	0.8%	0.8%	2.4%
45-54	94.0%	1.6%	0.8%	1.0%	2.6%
55-64	95.0%	0.8%	0.5%	0.8%	2.9%
65+	93.4%	0.4%	0.4%	1.4%	4.5%
Total	93.7%	1.3%	1.0%	1.1%	3.0%

Note: 44 "Don't know" responses were recoded to "other" whilst 42 "Refuse" responses were recoded to "Prefer not to say".

Throughout the remainder of this report, I will provide rudimentary analyses from the UKHLS as this is the largest and most robust data currently available in the UK for research on sexual minorities. Even with a weighted sample of 40,610 adults, however, the size of the LGB population is quite small so it remains statistically inappropriate to present geographic analyses at the country level. Nevertheless, these data are useful in shedding light on the experiences of LGB people in UK and the links between sexual orientation and poverty, in particular.

3. Poverty Incidence by Sexual Orientation

A significant gap in evidence in the UK involves poverty statistics related to sexual orientation. Whilst research into the lives of sexual minorities has addressed issues of stigma, discrimination, harassment and other forms of status inequality, very little research has focused on material disadvantage or poverty, per se. Two studies using population based surveys in the US confirm that self-identified gay men, lesbians and bisexuals tend to experience poverty at higher rates than heterosexuals, particularly lesbians and bisexuals (Albelda, Badgett, Schneebaum, and Gates 2009; Prokos and Keene 2010). One community study of self-identified lesbians and gay men living in Cork and Dublin suggests that lesbians and gay men experience poverty (Robson and Byrne 1995). And one further community study of sexual minorities in Glasgow also indicates that self-identified sexual minorities experience poverty there (John and Patrick 1999). However, both the Irish study and the Scottish study lack relevant comparison groups.

Albelda et al (2009) examine poverty in three different US data sets. Each study contained relevant comparison groups -- gays, lesbians, bisexual men and women, and heterosexual men and women -- with sampling designs allowing for generalisations across groups. The authors defined poverty against the US official poverty income threshold, called the "Federal Poverty Line" (FPL), which represents an amount of income a family requires to meet food expenses only and is updated annually to account for price inflation. Since the FPL does not incorporate housing, transport, health or other basic costs, households were defined as 'poor' if their net income was lower than 200 percent of the FPL. Using the Public Use Microdata Sample of the 2000 US Census (2000 PUMS), the authors could examine only couples identified as same-sex or opposite sex based on relationship information, single person households therefore could not be incorporated into the analysis. Approximately 5.4 percent of heterosexual couples were poor, but 6.9 percent of lesbian couples and 4.0 percent of gay male couples met the threshold. Once controls for age, family size, disability status,

region and other matters were taken into account, the poverty rate for lesbian couples was approximately 2.9 points higher than for heterosexual couples, and poverty rates for gay male couples were approximately 1 point higher. Reliant on other US data, the authors suggest that poverty rates for gay men and lesbians are conservative since single person households were excluded from the sample. The authors also examined child poverty rates and found that although gay male and lesbian couples were less likely to have children in them, children living in gay male and lesbian couples were nearly twice as likely to experience poverty as children living in heterosexual couples (20.9 percent in gay male couples, 19.7 percent in lesbian couples vs 9.4 percent in heterosexual couples).

In a related analysis, Prokos and Keene (2010) examined only households with dependent children in the 2000 PUMS and found poverty rates for gay and lesbian families with dependent children to be twice heterosexual married families with dependent children (12 percent each of gay couples and lesbian couples vs 6 percent of heterosexual married couples). In a multivariate model where age, education, employment status, work hours, citizenship, region, and urbanicity are controlled, the authors found that lesbian families with children are significantly more likely to be poor than gay families with children, and both were significantly more likely to be poor as compared to heterosexual married couples.

In the National Survey of Family Growth (NSFG), Albelda et al (2009) were able to calculate the number of individuals in poor households though the data set was limited to 18-44 year olds given the survey's focus on fertility. They found that self-identified bisexual women and lesbians were significantly more likely to experience poverty as compared to heterosexual women (24 percent vs 19 percent), but that there was no difference in poverty rates between bisexual or gay men and heterosexual men.

In the California Health Interview Survey (CHIS), Albelda et al (2009) found that poverty may be locally specific. Whereas the NSFG suggested that lesbians and bisexual women were more likely to suffer poverty than heterosexuals, the CHIS suggested no difference in poverty rates for women. Compared to the NSFG, gay or bisexual men in CHIS were significantly less likely to experience poverty (7 percent of gay or bisexual men vs 12 percent of heterosexual men). Thus, it would seem that sexual orientation is unrelated to poverty in California but not nationally.

Funded by the Irish Combat Poverty Agency, the Gay and Lesbian Equality Network (GLEN) and the NEXUS Research Cooperative conducted a community survey on sexual orientation and poverty in September to October 1993 (Robson and Byrne 1995). Although somewhat dated, this report represents the earliest consideration of links between sexual orientation and poverty, largely addressing the question of whether stigma associated with sexual non-normativity results in material disadvantage. With a focus solely on Dublin and Cork, the sample was constructed using snowball methods resulting in 159 responses. Investigators defined an indicator of poverty for individuals as being unemployed or having an income of less than 70 percent of average income plus lacking at least one "primary item" for affordability reasons though “primary items” were never defined in the report. Using this definition, researchers found that approximately 20.8 percent of the sample were at risk for poverty. Based on European Community Household Panel Survey data for Ireland in 1994, the European Commission (2010) calculated that just less than 20 percent of the total Irish population was at risk of poverty. For those willing to compare these statistics, one might conclude that the risk of poverty amongst gays and lesbians in Dublin and Cork was no different from the general Irish population.

In 1999, the Glasgow Women’s Library commissioned a study mirroring the GLEN/NEXUS report. This work focused on poverty experiences of lesbians and gays in Glasgow (John and Patrick 1999). Fieldwork covered the period November 1998 and February 1999 through community sampling and snowball methods, resulting in 137

responses. Although the report itself has been archived without key appendices containing charts and figures, the authors report on receipt of means tested state benefits and on the 1999 Households Below Average Income (HBAI) 'poverty line' of £71 per week for a single person. Approximately 20 percent of the sample was in receipt of means tested state benefits, while 28 percent reported incomes below the HBAI cut-off. Scottish trend data for individuals in poverty in all of Scotland for 1998/99 suggested that exactly 20 percent of the Scottish individual population experienced relative poverty before housing costs (60 percent of same year median income), with exactly 19 percent of individuals experiencing absolute poverty (60 percent of inflation adjusted median income) (Kaye 2007). Although poverty rates in Glasgow may or may not be higher than Scottish national averages, one might conclude that Glaswegian sexual minorities were more likely to experience poverty than others in Scotland generally.

Data from UKHLS provides a more up-to-date snapshot of poverty by sexual orientation across all of the UK. Table 2 provides poverty statistics by sexual orientation for all adults in the UKHLS data, whilst Table 3 and Table 4 contain parallel results broken out for men and women, respectively. Data presented in these tables should be interpreted with some caution as the sexual orientation is measured using self-identification, which itself may be endogenous. That means that if the willingness to disclose a minority sexual identity is related to socio-economic status, poverty statistics may be biased. Poverty, here, is defined on household equivalised income before housing costs using both 50 percent and 60 percent of median household income as thresholds. Table 2 shows gays and lesbians are somewhat more likely to be poor according to both measures, whilst bisexuals are somewhat more likely to be poor only the 60 percent of median income measure, however none of these differences are statistically significant. Note, if lower socioeconomic groups are less likely to disclose minority sexual identities, then these figures could be underestimates of poverty incidence for minority sexual orientations.

Examining various other components of material well-being there are some differences across sexual orientation groups worth noting. Bisexuals are significantly more likely to be behind in paying council tax, and behind with either some or all of their household bills. Bisexuals are more likely to be in receipt of income support. Subjectively, gays, lesbians and bisexuals are all optimistic financially as they are significantly more likely to expect to be better off in a year's time as compared to heterosexuals.

Considering results for men shown in Table 3, gay men and bisexual men are somewhat more likely to be in poverty according to routine definitions, however these figures are not statistically significant. In terms of meeting household needs, gay men and bisexual men are also more likely to report being behind with their rent or mortgage, their council tax, and some or all of their household bills, though only the result for bisexual men concerning all household bills is statistically significant. Considering state benefits, however, belies a degree of material disadvantage for gay men. Gay and bisexual men are significantly more likely to be in receipt of certain state benefits. Gay men are significantly more likely to be in receipt of income support, housing benefit and council tax benefit as compared to heterosexual men. Bisexual men are significantly more likely to be in receipt of income support. These results imply that gay men and bisexual men do in fact face some materially disadvantage, and were it not for key income transfers, gay men in particular might be worse off in poverty terms than heterosexual men.

Results in Table 4 show a different picture for the experience of lesbians and bisexual women. Lesbians are no more nor no less likely to be in poverty than heterosexual women. Bisexual women are more likely to be in poverty using the 60 percent of median income threshold although this finding is not statistically significant. According to most other measures, lesbians seem to be no different or somewhat materially advantaged as compared

to heterosexual women. In particular, they are more likely to report *not* being behind with rent or mortgage payments, or council tax payments. Whilst they are significantly more likely to be in receipt of job seeker's allowance, this may not be particularly unusual if lesbians are more likely to be in work as compared to heterosexual women (see the section on Labour supply below). Moreover, lesbians are significantly less likely to be in receipt of child benefit or tax credit and indeed live in households without children. And, findings for subjective financial expectations suggest significant material optimism amongst lesbians.

Table 2 Key Poverty Statistics by Sexual Orientation. UKHLS Data. Base: 40,610 adults aged 16+ (unweighted)

	Heterosexual or Straight	Gay or Lesbian	Bisexual	Other
Poverty (Equiv HH Income < 50% of Median)	6.9%	8.2%	7.8%	***12.9%***
Poverty (Equiv HH Income < 60% of Median)	12.8%	13.6%	16.1%	***22.6%***
Household behind with rent or mortgage	11.3%	8.9%	14.2%	***21.9%***
Household behind with paying council tax	7.0%	5.1%	***12.0%***	***12.9%***
Household up-to-date with bills?				
up-to-date	94.7%	94.7%	***87.7%***	***88.4%***
behind with some	4.7%	4.9%	***10.1%***	***10.4%***
behind with all	0.6%	0.4%	***2.2%***	1.2%
Receives state benefits:				
Income Support	3.5%	4.8%	***6.2%***	***10.9%***
Job Seeker's Allowance	2.5%	3.6%	3.7%	***4.7%***
Housing Benefit	8.8%	9.9%	10.8%	***17.5%***
Any Disability Benefit	9.2%	10.9%	8.4%	***13.7%***
Council Tax Benefit	10.6%	10.5%	10.3%	***19.6%***
Any of the above	18.4%	18.9%	19.5%	***32.1%***
Child Benefit	23.9%	***5.3%***	20.0%	27.8%
Child Tax Credit	15.2%	***4.2%***	16.8%	***21.9%***
Any Other State Benefit	34.7%	***19.3%***	***28.6%***	36.3%
How do you think you will be financially next year?:				
better off	24.3%	***28.8%***	***34.9%***	27.2%
worse off than you are now	20.4%	20.3%	19.9%	***16.4%***
about the same	55.4%	51.0%	***45.2%***	56.5%
No. Consumer Durables missing (max 13)	2.86	2.96	***3.27***	***3.54***
Access to the Internet	97.1%	98.0%	***94.4%***	***94.1%***
Broadband connection	97.8%	97.7%	96.3%	96.2%
Lives with children in HH	60.1%	***19.1%***	60.6%	***71.2%***
Lives with children aged 0-11 in HH	43.4%	***10.9%***	41.9%	***53.1%***
Observations	38,008	476	406	424

Notes: Figures shown in ***bold italic*** are significantly different ($p < 0.05$) from all heterosexuals. Note that significance tests are for absolute differences.

Table 3 Key Poverty Statistics by Sexual Orientation for Men. UKHLS Data. Base: 16,703 adult men aged 16+ (unweighted)

	Heterosexual or Straight	Gay	Bisexual	Other
Poverty (Equiv HH Income < 50% of Median)	6.7%	8.1%	7.6%	9.6%
Poverty (Equiv HH Income < 60% of Median)	12.0%	13.4%	15.8%	***18.6%***
Household behind with rent or mortgage	10.9%	12.3%	14.2%	***25.6%***
Househld behind with paying council tax	6.9%	7.3%	9.4%	***15.8%***
Household up-to-date with bills?				
up-to-date	95.1%	94.5%	91.9%	***86.0%***
behind with some	4.3%	4.8%	5.8%	***12.9%***
behind with all	0.6%	0.7%	***2.3%***	1.2%
Receives state benefits:				
Income Support	2.2%	***4.7%***	***5.8%***	***7.6%***
Job Seeker's Allowance	3.4%	2.9%	4.1%	***8.1%***
Housing Benefit	6.7%	***11.3%***	7.5%	***13.4%***
Any Disability Benefit	8.4%	10.9%	7.5%	***15.7%***
Council Tax Benefit	8.1%	***12.0%***	8.1%	***14.5%***
Any of the above	15.9%	18.9%	18.5%	***32.0%***
Child Benefit	10.7%	***1.1%***	12.7%	14.0%
Child Tax Credit	8.0%	***1.1%***	***13.3%***	***12.8%***
Any Other State Benefit	30.6%	***21.8%***	31.2%	33.1%
How do you think you will be financially next year?:				
better off	26.6%	27.3%	32.3%	28.4%
worse off than you are now	20.8%	21.4%	21.0%	16.6%
about the same	52.6%	51.3%	46.7%	55.0%
No. Consumer Durables missing (max 13)	2.84	3.03	3.07	***3.44***
Access to the internet	97.1%	98.8%	95.7%	95.1%
Broadband connection	98.0%	98.0%	97.5%	96.3%
Lives with Children in HH	55.2%	***12.7%***	60.1%	***77.9%***
Lives with Children 0-11 (inclusive) in HH	40.0%	***8.4%***	41.0%	***60.5%***
Observations	16,703	275	173	172

Notes: Figures shown in ***bold italic*** are significantly different ($p < 0.05$) from heterosexual men. Note that significance tests are for absolute differences.

Table 4 Key Poverty Statistics by Sexual Orientation for Women. UKHLS Data. Base: 22,735 adult women aged 16+ (unweighted)

	Heterosexual or Straight	Lesbian	Bisexual	Other
Poverty (Equiv HH Income < 50% of Median)	7.0%	8.2%	7.9%	***15.4%***
Poverty (Equiv HH Income < 60% of Median)	13.4%	13.7%	16.3%	***25.6%***
Household behind with rent or mortgage	11.7%	***4.4%***	14.3%	***19.3%***
Househld behind with paying council tax	7.0%	***2.1%***	***13.9%***	***10.9%***
Household up-to-date with bills?				
up-to-date	94.3%	95.0%	***84.5%***	***90.0%***
behind with some	5.0%	5.0%	***13.4%***	***8.8%***
behind with all	0.7%	0.0%	***2.2%***	1.2%
Receives state benefits:				
Income Support	4.4%	5.0%	6.4%	***13.1%***
Job Seeker's Allowance	1.8%	***4.5%***	3.4%	2.4%
Housing Benefit	10.5%	8.0%	13.3%	***20.2%***
Any Disability Benefit	9.9%	11.0%	9.0%	12.3%
Council Tax Benefit	12.6%	8.5%	12.0%	***23.0%***
Any of the above	20.4%	18.9%	20.2%	***32.1%***
Child Benefit	34.3%	***11.0%***	***25.3%***	37.3%
Child Tax Credit	20.8%	***8.5%***	19.3%	***28.2%***
Any Other State Benefit	38.0%	***15.9%***	***26.6%***	38.5%
How do you think you will be financially next year?:				
better off	22.4%	***30.8%***	***36.8%***	26.3%
worse off than you are now	20.0%	18.7%	19.1%	16.2%
about the same	57.6%	***50.5%***	***44.2%***	57.5%
No. Consumer Durables missing (max 13)	2.87	2.86	***3.42***	***3.61***
access to the internet	97.1%	96.9%	***93.4%***	***93.3%***
broadband connection	97.6%	97.3%	***95.4%***	96.2%
Lives with Children in HH	63.9%	***27.9%***	60.9%	66.7%
Lives with Children 0-11 (inclusive) in HH	46.1%	***14.4%***	42.5%	48.0%
Observations	21,305	201	233	252

Notes: Figures shown in ***bold italic*** are significantly different ($p < 0.05$) from heterosexual women. Note that significance tests are for absolute differences.

Results for bisexual women, however, imply greater material disadvantage. Bisexual women are significantly more likely to report being behind with council tax payments and to be behind in paying some or all of household bills. In terms of state benefits, bisexual women are more likely in some instances to receive state benefits though none of these differences are statistically significant. Interestingly, bisexual women are significantly more likely to lack more consumer durables (specifically colour TVs, video or DVD players, tumble driers, and land-line telephones), and are significantly less likely to have the Internet or broadband as compared to heterosexual women. Nevertheless, bisexual women are subjectively more optimistic financially as significantly more expect to be better off in a year's time as compared to heterosexual women.

Although we do not know what "other" sexuality actually means for respondents, many respondents use this category to describe themselves. Whilst the categories, gay, lesbian, and bisexual have some degree of cultural currency, those who select 'other' could include people who describe themselves as transsexual, transgender, asexual, polysexual, pansexual, queer, non-sexual, or also include people who simply do not have words to describe their sexuality or even might not ever choose to do so.

A rough glance at some of the age, sex and ethnic characteristics of the "Other" category suggest that the categorisation system used to measure sexual orientation may not be relevant. As compared to white British, mixed race respondents are 2.1 times more likely to select the "Other" category, Asians are 3.1 times more likely, blacks are 2.2 times and Arabs are 5.5 times more likely. There is a similar association with "Prefer not to say" where Asians are 4.4 times more likely to select this category as compared to white British, blacks are 2.7 times more likely and Arabs are 2.2 times more likely.

UKHLS respondents who use "other" to describe their sexual identity are however very likely to experience material disadvantage. However, these results may mask the association between ethnic minority status and material disadvantage given the preference for saying "Other" amongst various ethnic groups and so should be interpreted with caution. As compared to heterosexuals, this group is significantly more likely to experience poverty regardless of the measure: using 50 percent of median income 12.1 percent experience poverty; using 60 percent of median income 22.9 percent experience poverty. This group is significantly more likely to be behind in payment of rent or mortgage, and with council tax. They are over three times more likely to receive income support, two times more likely to receive housing benefit, significantly more likely to receive disability benefit and council tax benefit. These findings are paralleled in Table 3and Table 4 when these poverty statistics are split by sex. It should be noted that this categorisation of "other" rarely appears in social surveys and a fuller exploration of who these people are and how they live their lives using UKHLS data is beyond the scope of this review.

4. Family & Housing

Family composition and housing situations are related to poverty. For example, households with dependents either as children, long-term sick or disabled, or retirees will have greater needs and could have fewer people available to generate income for the household (Albelda, Badgett, Schneebaum, and Gates 2009). Little is known about the distribution of sexual minorities across family types or household structures in the UK. However, findings in Table 2 and Table 3 indicate that lesbians and gay men are significantly less likely to live with children, though bisexuals are about as likely as heterosexuals to live with children. The GLEN report in Ireland and the Glasgow study on poverty both highlight two family and housing related issues germane to the study of sexual orientation and poverty, namely youth homelessness and elderly isolation (see, e.g., John and Patrick 1999; Robson and Byrne 1995). Youth homeless is often attributed to problems young people face in

developing a non-normative sexual identity. Since housing is a fundamental need, this is clearly a poverty related issue. Elderly isolation, on the other hand, also stems from stigma associated with sexual identity and relates more to social participation, receipt of support and care, and the ways that sexuality affects the provision of these needs.

Youth Homelessness

Research suggests that lesbian, gay and bisexual youth have a particularly high risk of confronting homelessness as a consequence of their sexuality (Coker, Austin, and Schuster 2010; Cull, Platzer, and Balloch 2006; Dunne, Prendergast, and Telford 2001; Dunne, Prendergast, and Telford 2002; Gattis 2009; Zerger, Strehlow, and Gundlapalli 2008). Homelessness can arise for voluntary or involuntary reasons. For example, in a community study of self-identified young LGB Londoners aged 16-21 years old in 1984, almost 11 percent reported being thrown out of the family home as a consequence of their sexual orientation (Trenchard and Warren 1984). Family scholars argue that homelessness becomes problematic for LGB youth because " ... lesbians and gay men must create a self out of (or despite) the heterosexual self that is culturally given to them..." (Blasius 1994, pp 191). That is, sexual minorities are born into heterosexual families and most oftentimes need to re-create a sense of self from whole cloth. The process of 'coming-out' to family members and developing one's own identity can be traumatic and is often highlighted as the mechanism driving both mental and physical health problems as well as problematic social relationships for young people leading to a housing crisis (Dunne, Prendergast, and Telford 2001; Willoughby, Malik, and Lindahl 2006).

Estimates from North America suggest that LGB youth comprise between 15 and 36 percent of homeless youth -- a far larger proportion than one might expect given the distribution of sexual minority status in the population (Bailey, Camlin, and Ennett 1998; Fournier, Austin, Samples, Goodenow, Wylie, and Corliss 2009; Freeman and Hamilton 2008; Gangamma, Slesnick, Toviessi, and Serovich 2008; Leslie, Stein, and Rotheram-Borus 2002; Moon, McFarland, Kellogg, Baxter, Katz, MacKellar, and Valleroy 2000; Noell and Ochs 2001; Rew, Whittaker, Taylor-Seehafer, and Smith 2005; Van Leeuwen, Boyle, Salomonsen-Sautel, Baker, Garcia, Hoffman, and Hopfer 2006; Whitbeck, Chen, Hoyt, Tyler, and Johnson 2004). A significant body of quantitative literature considers the North American case of homelessness, with a focus both on its causes and consequences, notably for LGB youth. Homeless LGB youth are more likely than homeless heterosexual youth to report they ran away to avoid experiences of sexual abuse or physical abuse (Rew, Whittaker, Taylor-Seehafer, and Smith 2005). Problems with disclosure of sexual identity were identified as reasons for either choosing to leave the family home or being forced to do so (Rew, Whittaker, Taylor-Seehafer, and Smith 2005; Whitbeck et al. 2004). In a community study that compared homeless to non-homeless self-identified LGB youth in New York City, Rosario, Schrimshaw, and Hunter (2012) found that homelessness was more likely if initiation of same-sex sexual behaviour was at an earlier age, though they found that disclosure of sexual identity to family members was not predictive of homelessness. Alcohol and illegal drug use started at an earlier age for homeless than non-homeless LGB youth suggesting externalisation of mental health problems related to sexual identity may be the trigger factor in families rather than sexual identity disclosure. They also found that homeless LGB youth were more likely to be sexually abused than non-homeless LGB youth, suggesting family characteristics are a contributory factor to a housing crisis.

In the UK, population estimates have never been made or attempted so there is no robust statistic information with which to gauge the nature of the problem. However, a community based assessment of self-identified LGB youth in Reading from the late 1990s suggests that as many as 13 percent of LGB young people were or had experienced homeless

(Dunne, Prendergast, and Telford 2002; O'Connor and Molloy 2001). Although there is no estimate of the proportion of the homeless who are LGB in the UK, Dunne, Prendergast, and Telford (2002) were persuaded to examine the problem of LGB homelessness based on anecdotal reports from homelessness service providers. It was felt that through the 1990s LGB youth were becoming a larger share of the homeless population (Dunne, Prendergast, and Telford 2001; Dunne, Prendergast, and Telford 2002).

Risk factors and outcomes associated with homelessness amongst LGB people in the UK have never been quantified, though qualitative evidence suggests that the experience of homelessness is particularly severe and problematic for LGB people in the UK (Cull, Platzer, and Balloch 2006; Dunne, Prendergast, and Telford 2002; O'Connor and Molloy 2001). In the late 1990s, Dunne, Prendergast and Telford (2002) conducted a series of in-depth qualitative interviews with 20 LGB young people in London and Manchester as well as focus group discussions with 10 homelessness workers. In early 2000s, O'Connor and Molloy (2001) interviewed 33 LGB, and transgendered, homeless young adults in 6 UK cities along with several service providers across the country. More recently, Cull, Platzer, and Balloch (2006) examined LGB, and transgendered, youth homeless in Brighton and Hove during the early 2000s. They conducted in depth interviews with 44 youth who were homeless or had been homeless in the past, as well as interviews with 21 local service providers. These studies suggest that the nature of LGB homelessness shared characteristics of the homeless generally: most were male; a large portion came directly from local authority care; physical, emotional and/or sexual abuse was not uncommon; drug dependence was likely, as were other health problems; many experienced interrupted schooling; many had a history of self-harm and/or prostitution.

Dunne, Prendergast, and Telford (2002) and Cull, Platzer, and Balloch (2006) both report that sexual identity development triggered the housing crisis for a sizable minority of their respondents. However, O'Connor and Molloy (2001) found that the link between sexuality and homelessness to be more indirect -- comparable to the quantitative work of Rosario and colleagues in the US. That is, in the UK, a housing crisis for LGB young people might be more indirectly linked with sexual identity through drug and alcohol abuse, early onset of sexual risk taking, and/or physical or sexual abuse in the home. Some homeless youth were found to have left rural communities because of perceived homophobia to live 'on the streets' in London, Manchester or Brighton where there was a sizeable gay/lesbian community (Cull, Platzer, and Balloch 2006; Dunne, Prendergast, and Telford 2002).

More striking, however, was the reported LGB experience in homeless shelters and with other services for the homeless. Harassment and victimisation from other shelter guests was not uncommon (O'Connor and Molloy 2001). Many respondents reported feeling safer sleeping rough as this avoided problems with homophobia from other shelter residents. Safety was a particular problem for transexual and transgendered homeless youth.

Negative experiences with local authority homelessness applications where their needs as LGB were not taken seriously was not uncommon. At issue was not having a local connection, particularly when the housing crises resulted from fleeing the family home to be in a city or community with a larger, more visible, LGB community. Highlighted by all UK studies into LGB homelessness was the problem of reliable record keeping by agencies and service providers on the sexuality of their clients (Cull, Platzer, and Balloch 2006; Dunne, Prendergast, and Telford 2001; Dunne, Prendergast, and Telford 2002; O'Connor and Molloy 2001).

It should be noted that there is no recent research considering the problem of sexual orientation and homelessness in the UK. Risk factors and consequences have never been quantified. For these reasons, it is difficult to discern whether the link between sexuality and

homelessness remains relevant in the UK, or whether service provision, record keeping and other issues highlighted have been addressed.

Aging and Retirement

A second issue related to housing and family life is the experience of LGB elderly, in particular in planning for, and the experience of, retirement. Most research has focused on issues related to social support, health and caring with results suggesting LGB people experience feelings of isolation and loneliness, as well a real experience of isolation in old age. Living alone can be related to problems with obtaining social care, social participation, and general social support. A much sparser literature addresses household financial arrangements in retirement of LGB people. This literature focuses on couples largely because of significant data limitations.

Access to social support services can be particularly problematic for elderly LGB people in the UK. As Heaphy, Yip, and Thompson (2004) explain:

> "[M]ainstream and local communities tend to encourage and enforce a 'heterosexual panorama' through legal, social and everyday sanctions against public displays of 'homosexuality'. Indeed, while there is increasing tolerance of homosexuality, many [LGB over 50s] were keenly aware of the risks of being open about their sexuality (e.g. abuse and violence). Such risks could compromise their sense of belonging to local communities ... and put considerable pressure on them to remain ' closeted ' in all manner of community interactions. This, in turn, negatively affected the quality of their relationships in the local communities and of the local supports that they could access at times of crisis." (pp 892)(pp 892)(pp 892)(pp 892)(pp 892)(pp 892)(pp 892)(pp 892)

In the US, Gates (2010) calculates that as much as 83 percent of LGB people over the age of 55 are fully unwilling to disclose their sexual identity. Furthermore, evidence suggests that American LGB elders are significantly less likely to access medical care as compared to non-LGB elders (Gardner, de Vries, and Mockus 2013). Implied to also occur in qualitative research in the UK (Fenge and Jones 2012), this is often argued to be a consequence of unwillingness to be open about one's sexual identity. As Table 1 indicates, over 65s in the UKHLS are significantly more likely to "prefer not to say" when asked about sexual identity. *Age Concern*, in 2001, acknowledged that this 'invisibility' meant older LGB faced particular risks of exclusion at all levels of social policy affecting their lives (Heaphy and Yip 2006, pp 443; Smith and Calvert 2001).

Many LGB Britons over age 50 came of age in a cultural context where sexuality was defined as pathological. Social and legal sanctions worked against disclosure and a positive sense of self during periods of identity formation when these generations were in their late teens and early 20s. For some, this lead to 'freedom from families' much like the experiences documented of young LGB homeless youth who left their families to be amongst larger LGB communities. Others, maintained strong social and emotional ties to family which often meant an inability to 'escape'. While either path could lead to isolation and loneliness, the former was less likely to do so (Heaphy and Yip 2003).

In a community sample of self-identified lesbian and gay elders aged 50+, about one-third in regular contact with social services considered them welcoming to lesbian or gay clients, and about the same proportion would be willing to be open about their sexuality with social service providers (Heaphy, Yip, and Thompson 2004). It should be noted, however, that this sample was strongly biased in favour of materially advantaged lesbian and gay elders. Nevertheless, lesbian and gay men over 50 felt the need to present oneself as respectable in all settings, including in seeking social and health care, even when the

environment might be accepting of homosexuality. One respondent remarked it was inappropriate to 'shove it down people's throats' (Heaphy, Yip, and Thompson 2004). One way to interpret such statements is that over 50s may feel social pressure to conceal their identities and to engage socially with others with a degree of comportment that suggests that they might actually not be gay or lesbian. Many lesbian and gay elders felt that being open about their sexuality risked prejudice, harassment and breaches of confidentiality (Heaphy and Yip 2006).

Social isolation can be most readily identified by the distribution of sexual minorities across household types, with particular attention to housing situations where people are living alone. Data from UKHLS on the distribution of sexual identity categories across household types is shown in Table 5. Results suggest that upon totalling pensioner and non-pensioner numbers together, gay men are about 2.6 times more likely to live alone than heterosexual men, but that heterosexual men are about 1.5 times more likely to live in a couple relationship, and are a little more than 3 times more likely to live in housing situations with children. Considering women, lesbians are about as likely as heterosexual women to live alone (0.96), are slightly less likely to live in couples (0.9), but heterosexual women are nearly twice as likely to live in housing situations with children (1.92). Bisexual men are slightly more likely than heterosexual men to live alone (1.38) and to live in situations with children (1.11), but significantly less likely to be in a couple (0.70). Although at only 3.1 percent of bisexual men, the rate of lone parenthood amongst bisexual men is more than twice heterosexual men. Bisexual women are less likely than heterosexual women to live alone (0.84) and to live in a couple (0.80) but more likely to live in situations with children (1.12).

These household structure characteristics shed light on the material needs, and likely household resources, of sexual minorities in the UK. The striking absence of children in the lives of gay men and lesbians implies a degree of freedom from providing the living expenses of children and potential material advantage. On the other hand, fewer children could result in a greater experience of social isolation and social care needs in old age. Moreover, bisexuals seem to have very similar household structures as compared to heterosexuals yet as will be seen later suffer health and earnings inequalities somewhat worse that gay men and lesbians which most likely contribute to their greater material disadvantage.

Table 5 Sexual Orientation by Household Type broken by sex UKHLS Data. Base: 40,610 adults aged 16+ (weighted)

		Alone, pensionable	Alone, not pensionable	Single Parent	Couple, no children	Couple, pensioner no children	Couple, with children	Other HH types, childless	Other HH types, with children	Total
Men	Heterosexual or straight	4.6%	9.7%	1.1%	14.5%	17.4%	23.4%	19.0%	10.2%	100.0%
	Gay men	3.7%	33.2%	1.5%	30.2%	4.4%	3.6%	17.7%	5.7%	100.0%
	Bisexual men	3.2%	16.6%	3.1%	7.1%	7.3%	24.5%	27.3%	10.9%	100.0%
	Other	5.9%	10.5%	2.0%	4.3%	12.5%	24.0%	23.5%	17.4%	100.0%
	Prefer not to say	8.3%	13.5%	2.3%	6.4%	18.8%	16.1%	23.9%	10.6%	100.0%
	Total	4.7%	10.3%	1.1%	14.4%	17.1%	22.9%	19.3%	10.2%	100.0%
Women	Heterosexual or straight	10.8%	5.7%	6.8%	12.1%	14.9%	21.4%	17.4%	10.9%	100.0%
	Lesbian	1.4%	14.6%	4.3%	38.8%	6.4%	8.4%	18.6%	7.6%	100.0%
	Bisexual women	2.5%	11.4%	10.9%	14.1%	5.7%	18.7%	22.5%	14.1%	100.0%
	Other	11.9%	6.5%	12.5%	7.3%	15.1%	14.0%	21.2%	11.5%	100.0%
	Prefer not to say	16.5%	5.2%	7.5%	7.5%	16.3%	17.1%	17.7%	12.2%	100.0%
	Total	10.8%	5.8%	6.9%	12.2%	14.8%	21.0%	17.5%	10.9%	100.0%

Considering adults over the age of 50, the results become slightly more pronounced. Table 6 contains results for UKHLS respondents aged 50+ with a simplified categorisation of household types. Gay men are about 2.7 times more likely to live alone compared to heterosexual men, whilst bisexual men are also more likely to live alone (1.34). Compared to heterosexual women, lesbians are significantly less likely to live alone (0.43) whilst bisexual women are about equally likely to live alone (0.97). This preponderance of gay and bisexual men living alone is of particular concern for the link between poverty and sexual orientation.

Table 6 Sexual Orientation by Simplified Household Type, respondents aged 50+, broken by sex. UKHLS Data. Base: 17,597 adults aged 50+ (weighted)

		Alone	Couple	Other Situations	Total
Men	heterosexual or straight	18.9%	58.4%	22.8%	100.0%
	gay men	51.6%	40.7%	7.7%	100.0%
	bisexual men	25.2%	62.9%	11.9%	100.0%
	other	27.0%	43.1%	29.9%	100.0%
	prefer not to say	28.6%	46.3%	25.1%	100.0%
	Total	19.6%	57.7%	22.7%	100.0%
Women	heterosexual or straight	28.9%	46.8%	24.3%	100.0%
	lesbian	12.5%	62.8%	24.7%	100.0%
	bisexual women	28.0%	50.9%	21.2%	100.0%
	other	32.9%	41.9%	25.3%	100.0%
	prefer n	35.4%	39.9%	24.8%	100.0%
	Total	29.1%	46.6%	24.3%	100.0%

5. Health

Health is often viewed as a human resource in the production of material well-being (Albelda, Badgett, Schneebaum, and Gates 2009; Badgett 2001). Unhealthy individuals can suffer poverty because they will not have the physical, emotional or mental capacity to provide for their needs. Also, those with poor health may have different or, in fact, greater material needs than people with better health (Albelda, Badgett, Schneebaum, and Gates 2009). Perhaps because of its historic link with gay male sex, health inequalities related to HIV dominate much of the research linking LGB health and poverty (See e.g., Haile, Padilla, and Parker 2011). Whilst HIV prevalence and its consequences are important, I provide here a review of research on LGB health that is more general.

Some researchers contend that poor LGB health results from a lifestyle that is not conducive to good health. This is often argued to be a thinly veiled critique of 'the gay scene' -- a lifestyle centred on bars and clubs with easy access to drugs and alcohol (Mitchell, Howarth, Kotecha, and Creegan 2009). However, not all LGB people participate in 'the gay scene' and, indeed, there is otherwise no singular 'LGB lifestyle' (Hunt and Fish 2008). Academic literature offers a more analytically powerful framework for explaining general health inequalities across sexual orientation groups -- minority stress theory.

Minority stress theory, a form of social stress theory, posits that members of minority groups experience additional stress not experienced by the majority group simply because of their membership of the minority group (Brooks 1981; Meyer 1995; Meyer 2003). The concept of minority stress applied to LGB populations is based on the premise of societal heteronormativity -- or 'heterosexism' (Meyer 1995). Heterosexual sexual relations are primary, taken for granted, and

are of greater worth and esteem (Butler 1990; Herek 1990), therefore sexual minorities are subjected to stress related to stigmatization (Meyer 1995). Since heterosexism is pervasive, stress associated with sexual minority status is chronic and is rooted in cultural values often outside of the individual's control to change (Meyer 1995). This literature articulates various stressors specific to LGB populations (King, Semlyen, See Tai, Killaspy, Osborn, Popelyuk, and Nazareth 2007; Meyer 1995; Meyer 2003). First, internalized homophobia, bi-phobia or trans-phobia is how one directs negative societal attitudes about homosexuality, bisexuality, or transgender/transsexuality toward the self. Second, stigma relates to expectations of rejection and discrimination as a consequence of minority sexual identity. Third, there are actual experiences of discrimination and violence related to being a sexual minority. Finally, unlike many minority groups where the minority status identifier is visible such as skin colour, sexual minority status can often be socially concealed, introducing the additional stresses of monitoring concealment and disclosure as well as the experience of any consequences of that disclosure. '[I]t is likely that the social hostility, stigma and discrimination that most LGB people experience is likely to be at least part of the reason for the higher rates of psychological morbidity observed' (King et al. 2007). Thus, these stressors are unique to sexual minorities and occur in addition to the stressful daily and life events that may be experienced by everyone.

Through a number of qualitative interviews with working class Lesbians in the north of England and in Scotland, Taylor (2007) found that monitoring of behaviour to avoid negative consequences was common. In particular, the intersection of working class background and lesbian identity caused significant stress in the lives of many of her sample. This is not surprising as Frable et al (1998) showed that homosexuality, per se, was concealable and that amongst students at an elite private university students who concealed their sexuality had lower self-esteem as compared to students who did not conceal or did not have a concealable stigma. More recently, Sedlovskaya et al (2013) showed that gay men can maintain public and private personalities as a consequence of their sexuality, and that this divergence between public and private lives increases the prevalence of depressive symptoms.

Mental health. LGB populations tend to have higher rates of both internalised issues, such as depression or anxiety disorder, and externalised issues such as drug and alcohol dependence, self-harm, parasuicide, and suicide itself (King et al. 2007). For example, Lehavot and Simoni (2011) examined mental health and substance abuse in a community sample of 1,381 self-identified lesbian and bisexual women. Direct measures of minority stress were included in a structural equation model. The authors found that minority stress was a significant explanatory factor in models of mental health problems, with strong indirect effects on substance abuse operative through mental distress.

In a systematic meta-analysis of existing health research where sexual orientation was measured[3], King et al (2007) found that depression and anxiety disorders (either over a period of 12 months or a lifetime) were at least 1.5 times higher, while alcohol and other substance dependence over 12 months was also 1.5 times higher. With a community sample of self-identified LGB, and transgender, people in Lambeth, Keogh et al (2006) found that 41 per cent of respondents reported mental and emotional health issues within the last year and over half attributed mental and emotional health issues to their sexual identity. Research indicates that LGB people are also more likely than heterosexuals to have consulted a mental health professional (King, McKeown, Warner, Ramsay, Johnson, Cort, Wright, Blizard, and Davidson 2003). Amongst sexual minorities, bisexuals seem to suffer worse mental health as, in a community sample of self-identified LGB people, Dobinson et al (2003) found that bisexual people reported poorer mental health than either heterosexual or lesbian and gay men.

[3] The authors do not report how sexual orientation was measured, nor the full details of the sampling of each study in the meta analysis.

Low self-esteem and high anxiety experienced as a consequence of minority stress has been linked to deliberate self-harm (Poteat and Espelage 2007; Ryan and Rivers 2003). Skegg et al (2003) found that gay and bisexual men were more than five and a half times more likely to self-harm than heterosexuals peers. Hunt and Fish (2008) analyse a community sample of self-identified lesbians and bisexual women and find that 20 percent of lesbian and bisexual women deliberately harm compared to 0.4 per cent of the general population, while about 50 percent of lesbian and bisexual girls under the age of 20 have self-harmed compared to about 7 percent of teenagers generally.

In a survey of 98 gay and bisexual young men recruited in gay pubs and clubs in Edinburgh, Stonewall (Stonewall. 2003) found about 26 percent had attempted suicide, with about 54 percent reporting seriously considered suicide at some point in their life. In their meta-analysis of psychological morbidity, King et al (King et al. 2007) found a that gay men and bisexuals were two times more likely to attempt suicide than heterosexuals (See also Warner, McKeown, Griffin, Johnson, Ramsay, Cort, and King 2004). The problem is particularly acute for young LGB people. Greco and Glusman (1998) report that LGB young people's suicide rates are two to three times higher than heterosexual peers, accounting for 30 per cent of completed adolescent suicides.

Physical Health. There is significant evidence that LGB populations suffer worse physical health – vis., poor general health status as well as increased risk for cancer, heightened diagnoses of cardiovascular disease, asthma, diabetes, and other chronic conditions (Lick, Durson, and Johnson 2013; Lick, Tornello, Riskind, Schmidt, and Patterson 2012). Health researchers have recently started to examine allostatic load as a marker of the physiological consequences of minority stress. Allostatic load is a composite measure of chronic stress and has been shown to be associated with cognitive decline, increased frailty, poorer self-rated health, mobility, depressive symptoms, and chronic conditions (Beckie 2012; Juster, McEwen, and Lupien 2010). Juster *et al*. (2013) found in a small community based Canadian sample that gay and bisexual men had lower allostatic load levels than heterosexual men. In contrast, Arheart *et al*. (2013) found in a US population-based study that LGB people were 35% more likely than heterosexuals to have high allostatic load. No research has examined the allostatic load of LGB people in the UK. It should be noted that UKHLS data could be used to examine allostatic load and sexual orientation, however such an analysis is beyond the scope of this report.

Hunt and Fish (2008) studied the health of lesbian and bisexual women using a community sample in the UK. They found that approximately two-thirds had ever smoked, compared with only half of heterosexual women. Hagger-Johnson et al (2013) examining data from the Longitudinal Survey of Young People in England on 18/19 year olds found that lesbian and gay young adults were significantly more likely to smoke, drink heavily and binge drink in particular. They found, however, that bisexuality was associated with smoking prevalence but not heavy or binge drinking. In a comparative study of largely US data sets, Ziyadeh et al (2007) found lesbians and bisexual women were more likely to drink heavily or binge drink as compared to heterosexual age mates. This population also seems to be more likely than their heterosexual peers to start consuming alcohol at an earlier age (Greenwood, White, Page-Shafer, Bein, Osmond, Paul, and Stall 2001). Examining UK data, Malley (2001) suggests that heavy drinking among lesbians persists across the life course, in contrast to heterosexual women who seem to drink less as they age. While Mitchell et al (2001) report both lesbians as well as gay men have higher rates of alcohol consumption than heterosexuals in the UK, using population data in the US Trocki et al (2005) found that gay men are no more likely than heterosexuals to drink heavily or binge drink (See also Drabble, Midanik, and Trocki 2005).

Given smoking prevalence is high amongst LGB people, it is not surprising that LGB populations show an increased risk of lung cancer. Smoking may also increase the chance of anal cancer in men (Palefsky, Holly, Efirdc, Da Costa, Jay, Berry, and Darragh 2005) and cervical cancer in women (Fish and Wilkinson 2000). Anderson et al (2004) found that anal cancer was 20 times more common in gay men than the general population. According to Hunt and Fish (2008),

one in 12 lesbian and bisexual women aged between 50 and 79 has been diagnosed with breast cancer, compared to one in 20 of all women. Hunt and Fish (2008) go on to report that fifteen percent of lesbian and bisexual women over the age of 25 have never had a cervical smear test, compared to seven percent of women in general. It is argued that these morbidity rates for lesbians are a direct consequence of perceived stigma in the health service, but also a belief that not having sex with men means lower risk of genital problems.

Table 7 shows a simple regression using UKHLS data of sexual orientation on the SF-12 measures of physical and mental health (For details on the SF-12 measures, please see Ware, Kolinski, and Keller 1995). With only age controlled, these data clearly show that compared with heterosexual men and women, sexual minorities, particularly bisexuals, have poorer physical and mental health.

Table 7 Regression of SF 12 Physical Health and Mental Health scores on sexual orientation controlling for age, broken by gender. UKHLS Wave 3 data. T-scores shown in parentheses.

	Men		Women	
	SF12 Physical Health Score	SF 12 Mental Health Score	SF 12 Physical Health Score	SF 12 Mental Health Score
Heterosexual (omitted)	----	----	----	----
Gay/Lesbian	-2.493**	-4.175***	-0.371	-1.911*
	(-3.22)	(-5.33)	(-0.48)	(-2.15)
Bisexual	-1.552*	-5.375***	-3.403***	-6.910***
	(-1.98)	(-5.90)	(-3.70)	(-6.83)
Other	-5.921***	-2.426*	-2.872***	-3.624***
	(-6.42)	(-2.45)	(-4.23)	(-4.23)
Prefer not to Say	-2.006***	-1.644***	-2.963***	-0.787
	(-3.81)	(-3.48)	(-6.10)	(-1.68)
Age	0.110***	-0.059**	0.158***	0.009
	(4.86)	(-2.66)	(7.18)	(0.42)
Age^2	-0.003***	0.001***	-0.004***	0.001***
	(-14.02)	(5.77)	(-17.48)	(3.84)
Constant	54.047***	50.024***	52.621***	46.039***
	(115.67)	(97.71)	(113.54)	(91.94)
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$				

These findings underscore how social exclusion affects the lives of sexual minorities in the UK. Marginalisation in the form of minority stress can have lasting life-long consequences on the physical and mental health. Sexual minorities in the UK may have greater care needs over the life course, including likely worse health in old age, both of which are strong correlates of poverty experience. Poorer health can be related to impaired social participation, vis., in education and training, in labour markets, and as a matter of social interaction in communities. Whilst more research needs to be conducted to fully test these relationships, UKHLS evidence implies that sexual minorities in the UK do not necessarily have the same mental and physical health resources as heterosexuals through which to fully engage in UK society.

6. Education

Education is the cornerstone of human capital creation (Becker 1981). Ordinary models of earnings hinge on educational qualifications and continued training. For example, research on the gender pay gap has long attributed recent gains in female pay to long-term trends towards greater

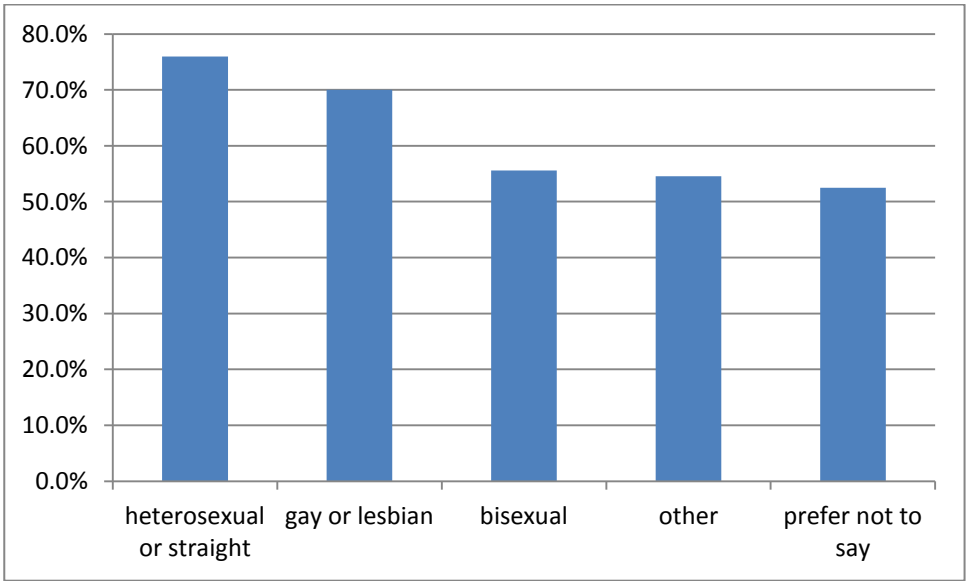
female educational attainment (Blackaby, Clark, Leslie, and Murphy 1997). Inequality in education, therefore, can be translated into differential labour market outcomes. If educational attainment varies with sexuality, labour market outcomes, with attendant consequences for poverty, are likely to follow suit (Badgett 2001).

Educational Attainment

Given issues related to mental health and sexuality, and the problem of youth homelessness, there is surprisingly little research into sexual orientation and educational aspirations or attainment. No research about educational attainment and sexuality exists in the UK. Nevertheless, research into wage differentials across sexual orientation groups with UK Labour Force Survey data suggest that gay men and lesbians in couples are more highly educated than heterosexual men and women in couples, and that this educational advantage accounts for the lion's share of wage differentials between sexual orientation groups (Arabsheibani, Marin, and Wadsworth 2007; Arabsheibani, Marin, and Wadsworth 2005).

Using UKHLS data, Figure 1 shows the proportion of 16-19 year olds still in school who aspire to receive A-levels. Here, only a slightly lower proportion of gay or lesbian students, about 70 percent, are interested in getting A-levels as compared to heterosexual students (76 percent). This difference is not statistically significant. However, significantly fewer bisexual students, about 55 percent, aspire to get A-levels with similar results for those saying they have an "other" sexual orientation or prefer not to say.

Figure 1: Aspirations for A-levels by sexual orientation, UKHLS Data. Base: 1,071 16-19 year olds still in school.



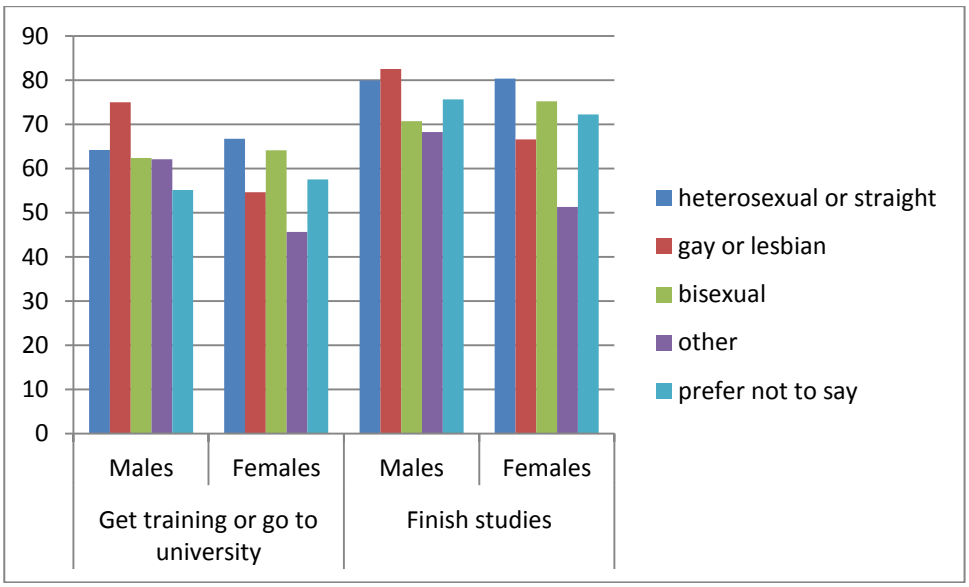
Most published evidence on educational aspirations and attainment comes from the US National Study of Adolescent Health (AdHealth), a nationally representative, school-based longitudinal study of 20,745 American students in grades 7 through 12. The survey has asked about same-sex attraction, behaviour and identity between four sweeps of data collection conducted in 1995, 1996, 2001, and 2008/9.

Pearson, Muller, and Wilkinson (2007) analysed 1995, 1996 and 2001 AdHealth data that had been linked to school transcripts to examine academic success. The authors examined whether lower success might be linked to school integration, stigma associated with same-sex attraction, and whether there were differences by gender. They found that same-sex attracted boys perform academically more poorly than opposite-attracted boys and that this is somewhat related to school-related emotional distress and substance use. Same-sex attracted girls, however, did not exhibit poor academic performance.

Pearson, Muller, and Wilkinson (2007) results have been extended more recently with addition of a 4th sweep of US AdHealth data collected in 2008/9 when participations were 24 to 32 years old. Ueno, Roach, and Peña-Talamantes (2012) argue that sexual orientation is dynamic, noting that initial same-sex sexual behaviour or even stated attraction might not necessarily translate into a life-time of same-sex relationships or even identity (Laumann, Gagnon, Michael, and Michaels 1994). Moreover, initiation of same-sex sexual activity might provide constraints or opportunities that lead to subsequent achievements. Focusing on same-sex behaviour as a measure of sexual orientation, Ueno, Roach, and Peña-Talamantes (2012) find that among American women, those who report same-sex contact obtain lower educational degrees than those without such contact regardless of its timing and continuity. Among American men, those who report their first same-sex contact in young adulthood obtain higher degrees than others[4]. Using sexual attraction rather than sexual behaviour to identify sexual minorities in the same data, Walsemann, Lindley, Gentile, and Welihindha (2013) found American women attracted to the same-sex only in adulthood had lower educational attainment compared to women attracted to the opposite-sex in adolescence and adulthood. American men attracted to the same-sex in adolescence only had lower educational attainment compared to men attracted only to the opposite-sex in adolescence and adulthood. Walsemann, Lindley, Gentile, and Welihindha (2013) also found that adolescent experiences and academic performance attenuated educational disparities among men and women. Adjustment for adolescent experiences revealed a suppression effect, that women attracted to the same-sex in adolescence and adulthood had lower predicted probabilities of having a high school diploma or less compared to women attracted only to the opposite-sex in adolescence and adulthood. This implies that sexual minority status operates against women's achievement in these data, but not necessarily for men.

Turning to UK data, young adults in the UKHLS were asked the likelihood of various life outcomes including the likelihood of receiving training or a university degree, as well as the likelihood of finishing study at a university. Figure 2 contains these results. Significance tests suggest no differences across sexual orientation groups for males, but significant differences for females. Lesbians or women with "other" sexual orientations think they are less likely to go to university, and to finish their degree if they do end up going to university.

Figure 2 Likelihood of educational outcomes by sexual orientation, UKHLS Data. Base 3,507 16-24 year olds



[4] Note that this is a different result from what might be implied by Pearson, Muller and Wilkinson (2007) who use attraction rather than behaviour to categories sexual minorities, even though the analysis is of the same data set.

Table 8 shows education attainment in the form of highest qualification by sexual orientation. The table contains relative risk ratios derived from a multinomial logit model that allows for age to be controlled. The results for men show that there is no statistically significant difference between gay and bisexual men and heterosexual men in educational attainment. However, those who self identify as "other" or "prefer not to say" are significantly less likely than heterosexual men to receive qualifications. Considering the results for women, lesbians are over 3 times more likely than heterosexual women to obtain a university degree, with higher odds in all other types of qualifications though these are not significant results. Bisexual women are no different from heterosexual women in their educational attainment. As with men, women who claim 'other' identity and 'prefer not to say' are significantly less likely to obtain qualifications as compared to heterosexual women.

Table 8 Highest qualification by sexual orientation, age adjusted. UKHLS Data. Base: 49,015 adults aged 16+ (weighted). Shown are relative risk ratios (please see table notes).

		Degree	Other higher degree	A-level etc.	GCSE etc.	Other qual.	No qual.
Men	Heterosexual / Straight	-----	-----	-----	-----	-----	-----
	Gay	1.95	1.43	1.24	1.00	1.51	-----
	Bisexual	1.24	0.78	0.96	1.05	0.64	-----
	Other	***0.39***	0.52	***0.48***	***0.46***	1.23	-----
	Prefer not to Say	***0.39***	***0.37***	***0.31***	***0.50***	1.06	-----
Women	Heterosexual / Straight	-----	-----	-----	-----	-----	-----
	Lesbian	***3.05***	1.71	2.00	1.86	1.95	-----
	Bisexual	0.85	0.71	0.91	0.80	1.05	-----
	Other	***0.13***	***0.27***	***0.21***	***0.34***	0.71	-----
	Prefer not to Say	***0.47***	***0.39***	***0.60***	***0.60***	***0.67***	-----

Notes: Figures shown in ***bold-italics*** are statistically significant $p < 0.05$. Results are from a multinomial logistic regression where age is controlled. Relative risk ratios are ordinarily interpreted like odds ratios relative to the omitted category, heterosexuals in this analysis.

School bullying, a special case of minority stress

The UK literature that does cover educational attainment addresses it only obliquely and as an outcome of homophobic bullying experienced by young people at school. Most UK researchers maintain that homophobic bullying can adversely affect people's experiences of education and therefore might influence their career prospects negatively (Dunne, Prendergast, and Telford 2001). The specific case of homophobic bullying in schools is an example of how minority stress takes form in the everyday lives of LGB young people. Early exit from education and other problems arising from homophobic treatment can have direct consequences for the risk of poverty and limitations of employment opportunities (John and Patrick 1999). Discussions of youth homelessness noted previously touch on this issue.

Bullying is abuse, intimidation or aggressive domination of others through the use of force, threat or coercion. Most young people in the UK experience harassment or victimisation from their

peers, with a significant amount happening on school grounds (Warwick, Aggleton, and Douglas 2001; Warwick, Chase, and Aggleton 2004). In the early 1990s, Whitney & Smith suggest that as many as 27 percent of junior/middle school children and 10 percent of secondary school children are bullied 'sometimes' or more often (Whitney and Smith 1993). Most bullying involves verbal abuse of a sexual nature, typically concerning the sexual orientation of the victim (Rivers 2001a).

Incidence rates of homophobic bullying can vary dramatically from study to study, perhaps largely due to the nature of the samples from which incidence is calculated as well as the specific behaviours monitored. However, research in the UK suggests no discernible pattern of change in homophobic bullying prevalence over the past 30 years.

Trenchard and Warren's (1984) seminal work on sexual orientation and bullying analysed a community sample of slightly more than 400 LGB Londoners aged 16-21. The sample was drawn using snowball methods through the media and service providers. The key findings were that 58 percent of LGB young people experiencing verbal abuse, with 39 percent experiencing violence or harassment specifically at school. Approximately 21 percent experiencing physical abuse, with boys more likely to experience physical attacks (27 percent). Almost 11 percent of the sample reported being thrown out of the family home as a consequence of their sexual orientation. Approximately 7 percent reported institutional pressure at school to change their orientation. Being a community sample of LGB young people, it is not clear how comparable these rates are to the experiences of heterosexual students.

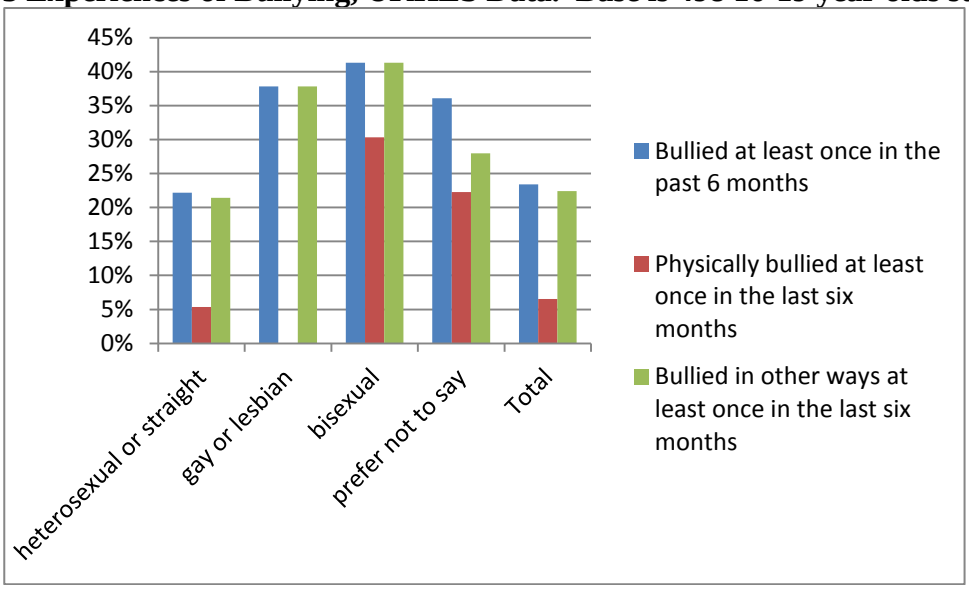
Ian Rivers and his colleagues have looked at the problem of homophobic bullying in the UK studying 190 LGB youth and young adults derived from a community, snow-ball sample drawn in 2001 (Rivers 2001a; Rivers 2001b; Rivers and Carragher 2003; Rivers and Cowie 2006; Rivers and Noret 2008). Rivers and Duncan (2002) find that approximately two-thirds LGB young people are bullied regularly. However, this study lacks relevant comparison cases so one cannot determine whether bullying was any more likely amongst LGB students.

Using a community based survey of 1,614 LGB, and transgender, young people in Great Britain recruited on-line, Stonewall reports in 2012 about 55 percent of LGB young people experience homophobic bullying. About 53 percent experience verbal bullying, 23 percent experience cyber bullying and about 16 percent receive physical abuse. A shocking 6 percent of LGB pupils are subjected to death threats at school (Stonewall. 2012). Again, without relevant comparison cases, incidence rates are somewhat meaningless.

Where comparisons can be drawn across sexual orientation groups using population survey data, research suggests that LGB young people suffer significantly higher rates of victimisation via bullying than heterosexual young people (McNamee 2006; McNamee, Lloyd, and Schubotz 2008; Poteat and Espelage 2007; Poteat, Mereish, DiGiovanni, and Koenig 2011; Rivers 2001a; Rivers and Cowie 2006; Schubotz and O'Hara 2011). The only UK based population study of homophobic bullying was conducted in Northern Ireland in the late 2010s. Schubotz & O'Hara (2011) found that 70 percent of same-sex attracted 16 year old boys experience bullying at school compared to only 28 percent of their opposite attracted peers, whilst 62 percent of same-sex attracted girls are bullied compared to 37 percent of their peers.

Among 16-19 year olds still in school, UKHLS data shown in Figure 3 slightly lower rates of bullying than community studies or work in Northern Ireland. Approximately 22 percent of heterosexual students experience any bullying -- physical or otherwise -- whereas nearly 38 percent of lesbian or gay students and 41 percent of bisexual students experience bullying. Bullying in 'other ways' is more common than physical bullying -- most likely this includes name calling, taunting, taking belongings and/or social isolation of the victim. Bisexual students are particularly vulnerable to both physical and other kinds of bullying.

Figure 3 Experiences of Bullying, UKHLS Data. Base is 498 16-19 year olds still in school.



Whilst the consequences of being victimised or bullied are often quite severe regardless of sexual orientation (Davidson and Demaray 2007; Stadler, Feifel, Rohrmann, Vermeiren, and Poustka 2010), research suggests that these experiences have more severe consequences for LGB adolescents than for their heterosexual peers (Poteat, Mereish, DiGiovanni, and Koenig 2011; Rivers 2001a; Rivers and Cowie 2006; Schubotz and O'Hara 2011). Pilkington & D'Augelli (1995) argue that the fear of being socially isolated from a peer group results in LGB youth remaining hidden about their experiences and consequently suffering higher levels of stress leading to profound effects. Thus, early victimisation experiences lead to poorer health outcomes for LGB people.

In the UK, suicidal ideation is significantly higher for victimised LGB youth (Rivers and Cowie 2006; Schubotz and O'Hara 2011) and they are more likely than non-victimised LGB youth to contemplate self-harm (Rivers 2001a). UK studies have also found higher rates of depression among victimised LGB youth as compared to non-victimised LGB youth (Rivers and Cowie 2006; Schubotz and O'Hara 2011). Similarly, incidence of tobacco, alcohol and drug use was significantly higher amongst same sex attracted students as compared to other-sex attracted peers and this has been linked to externalising minority stress (See e.g., Hagger-Johnson et al. 2013; Rivers and Carragher 2003; Rivers and Noret 2008; Schubotz and O'Hara 2011).

For student victims of harassment or violence at school, a natural response will be to want to avoid situations where the harassment or violence is likely to occur. Of particular concern to the accumulation of human capital is the problem of truancy amongst bullying victims. For example,

> "I got harassed and slagged and threatened and started dodging school" (Gay man aged 24, quoted in John and Patrick 1999)
>
> "My focus was on how to deal with my sexuality rather than my education" (Gay man aged 28 quoted in John and Patrick 1999)
>
> "I left school at 16 did not sit my exams" (Lesbian aged 33 quoted in John and Patrick 1999)

Homophobic victimisation matters for all students, not just LGB youth. In a population study from the US, Reis & Saewyc examine the effects of homophobic bullying regardless of the sexual identity of the victim and found that heterosexual students were 3 times more likely to be truant than non-victimised heterosexuals (Reis and Saewyc 1999). Amongst LGB students, victims are 4 times more likely than students not victimised to be truant from school because they feel unsafe (Garofalo, Wolf, Kessel, Palfrey, and DuRant 1998). Malcom et al (2003) found that two-

thirds of same-sex attracted youth who experienced bullying absented themselves from school. In a community study of self-identified LGB students, Rivers & Cowie (2006) found that approximately 27 percent of victimised British LGB missed school because they felt unsafe vs 5 percent of non-victimised LGB students. In a series of qualitative interviews with working class lesbians in the north of England and Scotland, Taylor (2007) found that being absent from school was not uncommon.

Even when LGB students attend class, bullying and victimisation can affect their school performance negatively. In a community study of self-identified LGB students, Rivers and Cowie (2006) found that amongst British students who experience homophobic bullying, 24 percent received GCSE grades below C whereas only 17 percent of non-harassed students performed at that level. With a population sample of 16 and 17 year olds in Northern Ireland, Schubotz & O'Hara (2011) found that 73 percent of heterosexual girls were satisfied with their school achievement whereas only 48 percent of lesbian and bisexual girls were satisfied.

Research in the UK concerning bullying over the past decade has largely focused on school based or voluntary sector responses to its occurrence (Buston and Hart 2001; Crowley, Hallam, Harré, and Lunt 2001; Mishna, Newman, Daley, and Solomon 2009; Robertson and Monsen 2001; Taylor 2007; Warwick, Aggleton, and Douglas 2001; Warwick, Chase, and Aggleton 2004). Warwick et al (2004) examined a community sample 207 teachers in England and Wales about the problem of homophobic bullying. Ninety-seven percent were aware of verbal or physical bullying happening in their schools. Strikingly, 82 percent were aware of homophobic incidents and 26 percent were aware of physical incidents involving homophobia. Schools are often viewed as heterosexist institutions where gay and lesbian identities are marginalized within classrooms (Epstein and Johnson 1994; Epstein and Johnson 1998). Given the shift in public attitudes towards homosexuality in recent years however, this view of schools as homophobic institutions may be shifting, at least in some locations. McCormack and Anderson (2010) examined a 'Standard sixth-form college' in southern England and found that boys were able to express physical tactility and emotional intimacy without it being homosexualised, suggesting that homophobia in some schools is marginalised.

Hartup & Stevens (1997) conducted a meta-analysis of school policies, victimisation and mental health outcomes and found that school support mechanisms significantly mediate the effects of victimisation on self esteem. In a community study of LGB students, Rivers and Cowie (2006) found that 22 percent of LGB bullying victims report receipt of abuse at school but only 16 percent who disclose that it exists report its nature as being homophobic. They further found that 39 percent of victims report abuse to parent but only 15 percent disclose it being homophobic. Naylor and Cowie (1999) examined a community sample of 52 schools with well-established anti-bullying policies and systems of peer support. In such schools, the proportion of children who remained silent about their bullying experiences was far lower than a comparison community sample of schools without such policies.

Judging from these findings, rates of homophobic bullying in the UK would seem to have not changed since the early 1980s. Between 50 and 70 percent of LGB young people continue to experience homophobia in schools notwithstanding broad changes in the social climate around homosexuality over the past 30 years. Bullying clearly affects mental health, school attendance and school performance – all of which are implicated in educational achievement and human capital creation. It is paradoxical, however, that gay men and lesbians, in particular, still achieve high education given this evidence of victimisation in schools. On the one hand, there may be links between concealment of sexual identity and achievement, or even resilience to bullying and achievement, that research has yet to uncover. Alternatively, it may be the case in the UK that young gay men and lesbians anticipate labour market discrimination and are therefore motivated to remain in education so as to insulate against its effects (Arabsheibani, Marin, and Wadsworth 2005 pp 335). Of course none of this highlights any relationship between school victimisation and achievement amongst bisexuals.

Those with higher educational attainment are often found to be least likely to experience poverty or social exclusion. Data on poverty incidence, particularly amongst gay and bisexual men, do not necessarily correspond with this finding. That is, gay men are somewhat more likely to have higher qualifications than heterosexual men but exhibit some characteristics of poorer living conditions. One reason could be poorer health, but it could also be labour market exclusion. These questions suggest a need for further research into how educational attainment happens for sexual minorities and how this might be linked to health outcomes later in life on the one hand and labour market outcomes on the other.

7. Employment

Although households could derive income from various sources, earnings are the single largest contributor to most families' incomes (Tilly and Albelda 1994). Remuneration from employment, whether when engaged with an employer or through self-employment, is highly relevant for the likelihood of experiencing poverty. Similarly, the long-term consequences of employment in the form of pensions or savings from labour income make a significant contribution to the likelihood of experiencing poverty in old age. In this section, I examine the links between sexual orientation and employment experiences, particularly with respect to labour supply decisions, hiring and promotion within firms, the distribution of sexual minorities across occupations, and pay disparities across sexual orientation groups.

Labour supply

Given that labour income is central to examinations of material disadvantage, an initial question concerns whether the distribution of labour supply is equal across sexual orientation groups. Research on labour supply has relied on data sources that only permit examination of couples. That is, in most large population samples both in the US and the UK, sexual orientation could only be inferred from the relationship status between householders and other household members, vis., in labour force surveys and/or current population surveys. Since 1990 in the US, it has been possible to infer same-sex sexual orientation, but not bisexuality or other sexual categories, from the US census, based on household relationships. A similar approach has been used in the UK with Labour Force Survey data prior to 2010 when sexual orientation was asked.

Using 2000 U.S. Census data Antecol and Steinberger (2013) examine labour supply decisions of lesbian couples versus heterosexual couples. The authors distinguish between women who specialise in market production (i.e., primary earners within couples) and those who specialise in household production (i.e., secondary earners). They find a larger gap in labour market participation amongst primary earners, with lesbian primary earners significantly more likely to work, and work more hours, as compared to heterosexual women who are primary earners. Once the presence of children is incorporated into labour supply models, the gap in decisions to work and work hours between married heterosexual women and lesbians who are secondary earners disappears, with a slight attenuation in the gap amongst primary earners.

Comparing UK Labour Force Survey to US Census data, Arabsheibani, Marin, and Wadsworth (2007) find differences between the US and UK in labour force participation. Once controls for age, education, race, and health are incorporated in participation models, the authors find that in both the US and the UK gay men living in couples are less likely to participate in the labour market than heterosexual married men. However, in both the US and the UK lesbians in couples participate in the labour market at rates are about 10 to 12 points higher than heterosexual women.

Earnings

A significant body of literature has focused on earnings differentials across sexual orientation groups. This has been viewed as core evidence of discriminatory experiences faced by

sexual minorities. This research can be divided into studies based on sexual orientation derived from relationship status, akin to labour supply research using UK Labour Force Survey or US Census data, and studies based on individual sample surveys where sexual orientation is derived from self-reported identity, attraction or behaviour.

Since the early 1990s, researchers have been examining pay gaps between gay men, lesbians and heterosexual men and women in the US. Comparisons are drawn between gay men and heterosexual men, and lesbians with heterosexual women. It should be noted that only one paper seems to evaluate pay differentials of self-identified bisexuals where a pay penalty was found for bisexual men and women as compared to heterosexual men and women respectively (Berg and Lien 2002). Results concerning gay and lesbian pay can be divided into how sexual orientation is identified in these models. Using cohabitation status as an indicator, largely reliant on US Census data, results from the US clearly indicate a gay pay penalty and a lesbian pay premium (Allegretto and Arthur 2001; Antecol, Jong, and Steinberger 2007; Clain and Leppel 2001; Elmsie and Tebaldi 2007; Gates 2009; Klawitter and Flatt 1998). The gay pay penalties identified tend to be between 25 and 35 percent, whereas lesbian premiums seem to be around 15 to 25 percent using these data sources. Using same-sex sexual behaviour as a measure of sexual minority status, largely using pooled US General Social Survey data for various years, researchers also typically find a gay male pay penalty of about 30 percent (Badgett 1995; Badgett 2001; Berg and Lien 2002; Black, Makar, Sanders, and Taylor 2003; Blandford 2003; Carpenter 2007; Cushing-Daniels and Yeung 2009; Martell 2010). Only two studies using this approach found a lesbian pay premium, however (Black, Makar, Sanders, and Taylor 2003; Blandford 2003). Self-reported sexual identity as a means of measuring sexual minority status was rare. Analysing the US Centers for Disease Control Behavioral Risk Factor Surveillance System data for 1996-2000, Carpenter (2004) found a penalty for gay men and lesbians both. Analysing 2001 California Health Interview Survey data, Carpenter (2005) found no effects of sexual identity on earnings, suggesting that there may be a strong regional influence on the link between material disadvantage and sexual orientation in the US.

In the UK, a series of papers by Arabsheibani and colleagues documents pay differentials based on sexual orientation using UK Labour Force Survey Data. Their work is similar to analyses in the US where sexual orientation is observed through cohabitation patterns. Note, this approach is not ideal as it does not include those who live in a same-sex relationship but do not reveal it in the survey, those who might identify as LGB but otherwise live in a relationship with an opposite-sex person, nor does it include any LGB people who are single or live alone. Analysing pooled data from 1996 Q1 to 2002 Q4, Arabsheibani, Marin, and Wadsworth (2005) find a gay male pay penalty whilst lesbians earn a pay premium. UK gay men would earn around 5 log points more if they were paid at the same rate as heterosexual men with the same human capital characteristics. In particular, income returns to education are lower for gay men than for heterosexual men, and the income returns for living in London are lower for gay men than heterosexual men (Arabsheibani, Marin, and Wadsworth 2005). UK lesbians, on the other hand, would earn *less* if their characteristics were rewarded at the same rate as heterosexual women.

More recently,Arabsheibani, Marin, and Wadsworth (2007) pool a longer time series of UK LFS Data -- 1996 Q1 to 2004 Q4. Comparing like-for-like using statistical controls, they find no difference in earnings across gay men and heterosexual men in couples. However, lesbians in couples seem to have an aggregate 6 percent pay advantage over heterosexual women in couples.

These findings corroborate other research in the UK. Analysing data from 2000/2001 that overlaps with the UK LFS data Arabsheibani and colleagues analyzed, both Frank (2006) and Booth and Frank (2008) found no significant effect of sexual orientation on pay. Analysing more recent pooled LFS data from 2004 Q4 to 2007 Q3, Longhi and Platt (2008) found that men in same-sex couples are not disadvantaged in their pay as compared to men in heterosexual couples. Longhi and Platt, however, compare lesbian couples to men in heterosexual couples and find a significant pay penalty though not too dissimilar to the pay of heterosexual women regardless of their relationship status.

Apart from Frank (2006) and Booth and Frank (2008), there are no studies of pay differentials in the UK using measures of sexual orientation other than cohabitation patterns. Both of these studies can be distinguished, however, because they focus solely on UK academics and pay arrangements from more than a decade ago. All extant research, also, has only focused on gay men and lesbians as distinct from heterosexuals. There is no evidence that bisexuals experience pay differentials.

A very rough analysis of UKHLS data for earnings differentials is shown in Table 9. The models shown predict log hourly wage with sexual identity, whilst education qualifications, age and the presence of children are controlled. Note that the dependent variable has not be screened for outliers and a full complement of econometric controls are also not included. Considering these results, there is no difference in earnings amongst gay men and heterosexual men, however lesbians do seem to experience a pay premium as compared to heterosexual women ($\hat{b}$ = 0.124, $p < 0.001$). Bisexual men earn less than heterosexual men ($\hat{b}$ = -0.125, $p < 0.05$) as do men identifying as 'other' sexuality ($\hat{b}$ = -0.143, $p < 0.01$) and those who prefer not to say ($\hat{b}$ = -0.121, $p < 0.001$). Bisexual women and women who self identify as 'other' sexuality do not differ in their earnings as compared to heterosexual women, whilst women who 'prefer not to say' their sexuality earn significantly less than heterosexual women ($\hat{b}$ = -0.075, $p < 0.05$). Although these models are only rough and require more robust econometric detailing, the results correspond somewhat with US findings using individual level data. The only difference is that UKHLS data do not seem to show a significant gay male pay penalty typically found in the US.

Table 9 Regression of log hourly wage on sexual orientation controlling for education, age and the presence of children, split by sex. UKHLS Data. Base: 22,324 employed adults aged 16+ (weighted). Shown are coefficients with standard errors in parentheses.

	Men	Women
Heterosexual/Straight	–––	–––
Gay/Lesbian	-0.005	0.124***
	(0.05)	(0.03)
Bisexual	-0.125*	-0.034
	(0.06)	(0.06)
'Other' sexuality	-0.143**	-0.057
	(0.05)	(0.04)
Prefer not to say	-0.121***	-0.075*
	(0.03)	(0.04)
No Qualification	–––	–––
Degree of equivalent	0.572***	0.529***
	(0.03)	(0.02)
A level or equivalent	0.298***	0.244***
	(0.03)	(0.02)
GCSE or equivalent	0.205***	0.174***
	(0.03)	(0.02)
Other qualification	0.139***	0.086***
	(0.04)	(0.02)
Age	0.060***	0.044***
	(0.00)	(0.00)
Age^2	-0.001***	-0.000***
	(0.00)	(0.00)
Children aged 0-2 in HH	0.033	0.100***
	(0.02)	(0.02)
Children aged 3-4 in HH	0.008	0.023
	(0.02)	(0.02)
Children aged 5-11 in HH	0.037*	-0.007
	(0.02)	(0.01)
Constant	1.986***	2.234***
	(0.06)	(0.06)
Notes: * = $p < 0.05$; ** = $p < 0.01$; *** = $p < 0.001$		

Hiring, promotion, termination of employment

Apart from pay differentials, other aspects of job quality can influence material well-being. Skills sets and likely productivity are not the only concerns for employers when hiring. Conducting participant observation work with 120 professionals in the US during the mid-2010s, Rivera (2012) found that employers often sought candidates that also shared commonality in various areas including leisure pursuits, experiences and self-presentation styles. In fact, Rivera's data suggest that shared culture can be highly salient and often outweighs concerns about absolute productivity. Whilst her findings are relevant for the distribution of LGB across occupations, this work similarly suggests barriers to career advancement LGB people.

There have been various tests of hiring practices across a number of labour markets in Europe. Called "correspondence tests", this experimental work routinely finds disfavour amongst

employers in hiring gay men with less of an effect on lesbians (Ahmed, Andersson, and Hammarstedt 2013; Drydakis 2009; Patacchini, Ragusa, and Zenou 2012; Weichselbaumer 2003). In fact this is true even in societies thought to be more tolerant towards sexual minorities such as Sweden (Ahmed, Andersson, and Hammarstedt 2013). Where job offers are made, wages tend to be somewhat lower for both gay or lesbian applicants than heterosexual applicants (Patacchini, Ragusa, and Zenou 2012).

Research in this area for the UK is limited. Frank (2006) examined the experiences of UK academics and found evidence that gay and bisexual men systematically failed to be promoted to top ranks (See also Booth and Frank 2008). In a community survey for Stonewall Wales, Robinson and Williams (2003) found that 20 percent of Welsh respondents concealed their sexuality in the workplace, and that women were less likely to be 'out' at work than men. Moreover, 25 percent report being dismissed from their job because of their sexual orientation; men were more likely to report being dismissed from a job than women for this reason. Denvir and colleagues reviewed UK employment tribunal cases between 2004 and 2006 in reaction to anti-discrimination legislation related to sexual orientation (Denvir, Broughton, Gifford, and Hill 2007). The authors found that 470 tribunal cases were brought during that period on grounds of sexual orientation largely dominated by allegations of bullying and harassment.

Denvir and colleagues went on to conducting qualitative interviews with 15 claimants. They found that employers tended to respond to complaints internally by formally disciplining or demoting *complainants* until they felt they had no option but to resign. In other words, it was often felt that employers used disciplinary procedures unfairly. Indeed, a common theme was bullying or harassment by superiors, not just work colleagues. The authors note that one of the barriers to raising complaints revolved around issues of confidentiality, vis., a desire to conceal sexual identity at work to avoid further problems in the work place: "If you don't want to be 'out' at work then there is very little you can do even if you think you've been treated unfairly" (Denvir, Broughton, Gifford, and Hill 2007, quote from claimant, pp 35). The authors highlight extended problems some claimants faced including difficulty in obtaining references, being black-listed in their local communities as being trouble-makers (as well as everyone now knowing their sexual orientation) or needing to move to a new city or town. All of these outcomes can promote joblessness with consequences on experiences of poverty.

Other claimants reported more severe health issues, suggesting further links to material well-being through health:

> "I nearly had a mental breakdown, I actually went down the self harm route and I knew that I was suffering from mega depression … I am a reasonably strong and tough person, but … I ended up so ill [and] somebody else would have just actually thrown themselves off the building. And I tell you what, I came very very close to it. I'm still seeing a psychologist and I'm on anti depressants." (Quote from lesbian, HR manager in Denvir, Broughton, Gifford, and Hill 2007, pp 136)

> "I hadn't worked, I was so depressed and so ill. I think I was on the verge of a nervous breakdown to be honest because it got me so low, all the things that happened. I mean I was shot at with a gun, I had damage to my property, my car. Name calling, telephone calls, you know, humiliation, intimidation, just everything that it got to a point when I did attempt to take my own life. And that is not me at all, that is not me at all … And I actually ended up living, you know the curtains were drawn all the time, I used to just come home and go to bed, shut everything else out, not answer the phone, move my car up the road. So I just wanted to disappear really, it was terrible, really really bad, really bad. And they had no idea of the damage that they caused, they've just got no idea, none at all." (Quote from gay, male, IT manager in Denvir, Broughton, Gifford, and Hill 2007, pp 137)

It should be noted that amongst the claimants interviewed, Denvir, Broughton, Gifford, and Hill (2007) found 3 were heterosexual and were harassed or bullied in the work place as though they might be homosexual. This reflects that continued low status and stigma associated with sexual minorities in the UK.

Occupational segregation

There is some evidence that the occupational distribution of gay and lesbian workers suggests systematic decision making to avoid workplace discrimination, harassment, and conflict. Indeed, Arabsheibani, Marin, and Wadsworth (2007) suggest that lesbian and gay employees may locate to specific areas of the country which are perceived to be more tolerant and this may be directly related to higher or comparable incomes, particularly for gay men, in recent years.

Analysing US General Social Survey data for 1994 to 2008, Martell (2010) argues that estimated wage penalties of 12 to 18 percent experienced by gay men in the US reflect a compensating differential. Gay men accept lower earnings in exchange for the ability to work in a workplace more tolerant of their sexual identity. These findings mirror work by Plug and colleagues. Plug, Webbink, and Martin (2014) analysed occupational distributions using Australian twin data collected between 1988 and 1990. The twin data was useful because twins were asked about their own and their twin's sexual orientation, as well as about a range of occupational information including disclosure of sexuality at the workplace. They found that lesbians and gays with a publicly disclosed sexual identity shy away from prejudiced occupations. Adopting a number of control variables and alternative explanations, their results are consistent with prejudice based theories of employer and employee discrimination against gay and lesbian workers, leading to some degree of disadvantage in labour market positions for gays and lesbians in the Australian labour market.

Through a series of qualitative interviews with workers in Brighton, Ryan-Flood (2004) found that gay and lesbian workers actively pursue certain careers in order to avoid workplaces they perceived would be homophobic. Several of her respondents suggest that doing so meant that they would forego financial advantages elsewhere (2004). Ryan-Flood quotes one interviewee as saying "I think I've made deliberate choices not to go into certain professions because of that ... I think I've made decisions based on the fact that, you know, I can't be who I am, and I know that in terms of money I could have gone off and earned a lot of money somewhere else." (Ryan-Flood 2004).

8. Housing Wealth

As implied in relation to youth homelessness, shelter is a critical need that all people share. Homelessness was discussed previously as a matter of family relationships largely because most researchers identify some type of familial breakdown or stress as driving a housing crisis for LGB people, particularly youth. Nevertheless, home ownership represents for many people their largest financial asset. For those approaching retirement and the related health care needs of old age, the ability to rely on housing wealth is paramount to understanding experiences of poverty in old age.

No research into the material aspects of home-ownership and sexual orientation exist for the UK. Most analyses of the matter come from the US or from Sweden. Concerning home tenure, Leppel (2007) analysed the decision to own rather than rent a home using US Census data with couple relationship status to determine sexual identity, distinguishing same-sex from opposite sex married and cohabiting couples. Home tenure was modelled as a function of couple characteristics as well as aspects of the residence, and the presence of antidiscrimination housing laws in the state or area of residence based on sexual orientation. Lepper does not compare the sexual orientation of couples directly, however. Nevertheless, she finds that married couples are less likely to own central city homes, whereas same-sex couples show no preference. Furthermore, only for same-sex couples with high household incomes, she found that lesbians were more likely to own a home than gay men.

Considering the question of whether same-sex couples experience discrimination in the rental market, Ahmed, Andersson, and Hammarstedt (2008) examine discrimination against lesbian couples whilst Ahmed and Hammarstedt (2009) assess discrimination against gay male couples in the Sweden. In both studies, the authors construct heterosexual and homosexual couples with identical characteristics apart from implied sexuality. Ahmed, Andersson, and Hammarstedt (2008) sent parallel applications to 423 apartments via the main housing internet site in Sweden which covers the entire country during a two-week period in early Autumn of 2007. Controlling for the timing of applications, geographical area, type of landlord (private person or company), apartment size and rental costs, they found no significant difference between heterosexual couples and lesbian couples in responses from landlords, nor in invitations to viewings. Ahmed and Hammarstedt (2009) conducted parallel research to compare heterosexual couples to gay male couples. Through 408 parallel rental applications during a two-week period in early Spring 2007, they found significant discrimination effects, even when controlling for application timing, geographical area, landlord type, apartment size and rental cost. The heterosexual couple received contact from landlords in 56 percent of applications whereas the gay male couple received contact in only 44 percent of applications. Of contacts from landlords, 53 percent of the contacts the heterosexual couple received were positive whereas only 41 percent of gay male contacts were positive. The heterosexual couple received immediate invitations to view the property in 29 percent of applications whereas the gay male couple received such invitations in only 21 percent. Approximately 12 percent of landlords contacted the heterosexual couple only, whilst only 1 percent of landlords contacted the homosexual couple only. From this experiment, one might conclude that gay men are more likely to be discriminated against in rental markets than lesbians. Whether these results would also hold in UK housing markets is unknown.

In terms of home ownership, the only analyses relevant to studies of poverty and sexual orientation come from the US. Concerned about discrimination in mortgage markets, Jepsen and Jepsen (2009) analyse 2000 PUMS to examine whether rates of home ownership vary with sexuality. It should be noted that their analysis is limited by the data to identify sexual orientation through relationship status. They found that same-sex couples were less likely to own a home than married couples. Although the average value of houses owned by gay male couples was statistically similar to the average value of houses owned by married couples, houses owned by lesbian couples and cohabiting couples had lower average values than those owned by married couples. Consistent with arguments about discrimination in mortgage markets, they found that same-sex couples were slightly less likely to have a mortgage compared to married couples.

There is no peer-reviewed literature on home tenure patterns by sexual orientation groups in the UK. Whilst any sensitive econometric analysis of the matter is beyond the scope of this review, Table 10 shows housing tenure for both all adults aged 16+ by sexual orientation derived from a multinomial logistic regression where age and living in London can be controlled. The sample is constrained to exclude respondents who would be considered to still be living with their parents or otherwise in ‘the family home’. Shown are relative risk ratios. Consistent with some of the US research, gay men, lesbians and bisexuals are all more likely to live in rental accommodation as compared to heterosexuals. The odds of owning a home can be calculated from these data and the results indicate that gay and bisexual men are significantly less likely to own their own home as compared to heterosexual men. Bisexual women are no different from heterosexual women in their propensity to own their home, however lesbians are significantly more likely to own their own home as compared to heterosexual women. Men and women, both, who self-identify as ‘other’ are significantly more likely to live in local authority or housing association housing.

These findings suggest that gay and bisexual men are particularly disadvantaged in terms of housing wealth as compared to lesbians and bisexual women. That is, gay and bisexual men will not be able to trade housing wealth for other financial resources as they age quite as readily as others. And, since gay men are more likely to approach old age alone, without the resources of a partner or support of children, lack of housing wealth could result in a significantly higher likelihood of

poverty in old age. The reasons for housing wealth inequality related to sexuality in the UK are as yet unclear as this is a sorely under researched area.

Table 10 Home tenure by sexual orientation, controlling for age and London. UKHLS. Base: 35,541 adults aged 16+ not currently living in the family home (weighted). Shown are relative risk ratios (see table notes).

		Own outright or with mortgage	Rent	Local authority or housing association
Men	Heterosexual / Straight	-----	-----	-----
	Gay	-----	***1.63***	1.50
	Bisexual	-----	***1.69***	1.62
	Other	-----	1.52	***2.22***
	Prefer not to say	-----	***2.23***	***2.66***
Women	Heterosexual / Straight	-----	-----	-----
	Lesbian	-----	***1.75***	0.55
	Bisexual	-----	***2.10***	1.20
	Other	-----	1.25	***2.43***
	Prefer not to say	-----	***1.77***	***1.58***

Notes: Numbers shown in ***bold-italics*** are statistically significant $p < 0.05$. Results are from a multinomial logistic regression where age is controlled. Relative risk ratios are ordinarily interpreted like odds ratios relative to the omitted category, heterosexuals in this analysis.

9. Savings and Household Finances

Apart from housing wealth, savings and other financial assets, vis., pensions or annuities, form the backbone of wealth for most families. Very little is known about household financial management of same-sex versus opposite sex couples. Moreover, savings propensities and other financial matters are invariably never discussed when considering the well-being of sexual minorities (Burgoyne, Clarke, and Burns 2011; Stiers 1999; Weeks, Heaphy, and Donovan 2001). In addressing this topic, Negrusa and Oreffice (2011) write that they could locate no research investigating sexual orientation and the propensity to save, much less any literature on the household economics of same-sex couples or sexual minorities more generally. In their analysis of 2000 PUMS, Negrusa and Oreffice (2011) model the ratio of mortgage payments to house value as a measure of the propensity to save. They predict this as a function of couple characteristics and a range of other controls. They find that sexual orientation is strongly related to household financial decisions, notably that same-sex couples tend to have a higher propensity to save. This is particularly true for lesbian couples who were found to pay an additional 8.6 percent of their average annual mortgage as compared to heterosexual or gay male couples. Upon controlling for the type of relationship -- married vs cohabiting -- gay male couples were disadvantaged compared to heterosexual married or cohabiting couples, whilst lesbian couples remained advantaged in savings propensities. The authors suggest that this is related to the relative life expectancy differences between men and women, such that any sort of couple with at least one female will be inherently more risk averse and be motivated to divert more resources into savings as a consequence of greater female longevity. Once the presence of children is introduced into the

models, however, the findings suggest that childlessness allows same-sex couples to divert more resources into savings, but that the overall gender effect remains strong for lesbian couples.

Heaphy and colleagues found that there was a presumption that partners and social care providers would be the main providers of instrumental care amongst LGB elders. In a community study of lesbian and gay elders over age 50 in the early 2000s, Heaphy, Yip, and Thompson (2004) find only 19.6 percent of women and 11 percent of men had made any sort of plans for times of serious illness. In times of crisis, most said that they would rely on social services, sell their homes to finance personal care, and turn to whomever they could find who was willing. However, without relevant comparison cases, it is difficult to discern whether this situation would be any different from heterosexuals or bisexuals approaching old age.

Evidence of financial preparations for retirement across sexual orientation groups is extremely sparse both internationally and in the UK. Heaphy, Yip, and Thompson (2004) found that if confronted with financial difficulties, LGB elders would tend to rely on their partners or friends rather than their families. Little is actually known about the financial arrangements of same-sex couples. However, Burgoyne, Clarke, and Burns (2011) study this issue with a community sample of lesbians and gay men in the UK. As with Heaphy and colleagues, their sample was overwhelming better educated than average with a preponderance of respondents having above average incomes. They found that about half of same-sex couples took steps to safeguard their partners interests, even though couples were less likely to engage in total pooling of resources than married heterosexual couples. Indeed, the overall distribution of money management across various systems was no different to what might be expected of unmarried heterosexual couples without children. Surprisingly, they found that money matters were not polarised along gender lines such that gay male and lesbian couples showed broadly similar patterns in financial arrangements.

More recent evidence from the US suggests that gay and lesbian couples are actually better financially prepared for retirement as compared to heterosexuals (Negrusa and Oreffice 2011). Based on 2000 PUMS, Negrusa and Oreffice (2011) compare social security and retirement income of same-sex and opposite sex couples whose household head is aged between 60 and 80. This is the same data resource in which Albelda, Badgett, Schneebaum, and Gates (2009) found gay and lesbian couples to generally be disadvantaged in terms of absolute poverty. Negrusa and Oreffice (2011) found, however, that same-sex households had significantly more retirement income than opposite-sex households, controlling for age, education and other socioeconomic characteristics. They found that same-sex couples received approximately $5,785 more in annual retirement income than married couples. The authors note that childlessness across the lifecourse may have contributed to a larger financial holding in retirement for LGB couples. Nevertheless, elderly LGB people in the US, like those living in the UK, are more likely live alone. This particular analysis, being limited only to couples, cannot be interpreted to conclusively establish same-sex privilege in retirement for this reason (Negrusa and Oreffice 2011).

Considering retirement arrangements by sexual orientation in the UK, an early review of the UK pension situation by Smith and Calvert (2001) found little evidence of equal pension take-up across sexual orientation groups. The authors note that although 'stakeholder pension schemes' allowed individuals to nominate a partner of their choice, there was little evidence that such schemes were taken up at rates sufficient to counter-act heteronormative policy assumptions concerning financial planning of retirement. As of 2001, Smith and Calvert wrote that few public sector pension schemes made provisions for same-sex partners.

In preparing this review, I have found no current evaluation of pension schemes to ascertain whether provisions are more equitable in light of civil partnership and anti-discrimination legislation in recent years. Moreover, research into the household economic arrangements of retirees by sexual orientation has yet to be conducted in the UK. Whether patterns of wealth creation vary by sexuality and couple arrangements in the UK remains an open question. Therefore, the contribution of savings and household financial differences by sexuality as it relates to poverty likelihoods, particularly for older people, remains unknown.

10. Summary

Whilst most literature addressing the lives of sexual minorities focuses on experiences of stigma, discrimination, and harassment across a range of domains, very little research attends to the material consequences and life chances resulting from such inequality. Whilst inequality in treatment and opportunity can contribute to the experience of poverty, it need not do so. This review has focused on the core problem of poverty itself and sexual orientation, and articulates available research that can be used to understand this link. There is a clear paucity of good research that can be used to scrutinise this problem. Therefore, this review contributes top line findings from UKHLS data concerning key areas including poverty incidence and matters related to poverty experiences including health outcomes, education experiences, earnings, household structures and wealth. Clearly, the analyses of UKHLS presented in this report require further examination, checking and rigour. Nevertheless, the findings presented mostly corroborate parallel evidence from other countries suggesting they hold a degree of accuracy.

Gay men. The review and UKHLS findings for gay men suggest that they are somewhat more likely to experience poverty than heterosexual men. Although standard measures poverty incidence are not statistically significant using UKHLS data, the results clearly show that gay men are more likely to be in receipt of income support, housing benefit and council tax benefit. This suggests some problems with providing for their needs.

There are a number of areas where gay men are disadvantaged as compared to heterosexual men, and highlighted in this report are a few specific issues that can have consequences for poverty experiences. Young men are generally more likely to experience homelessness and there is some literature that suggests that gay men are over-represented amongst homeless populations. Gay boys are significantly more likely to experience school victimisation and bullying which increases the risk of suicide, parasuicide, school truancy and depression, whilst at the same time reduces school performance. Although gay men high slightly higher odds of obtaining a university degrees as compared to heterosexual men, this finding is not statistically significant. Gay men's health is significantly poorer than heterosexual men's health – both physically and mentally. However, gay men have comparable earnings to heterosexual men even though there is some evidence that gay men trade tolerant occupations for high pay or pay that is otherwise commensurate with their levels of human capital. Gay men are more likely to be in rental accommodation as compared to heterosexual men. Gay men are also significantly more likely to live alone and this is especially true amongst men over age 50. Since gay men are less likely to have children, it is likely that gay elders experience significant social isolation and when combined with less housing wealth, the risk of poverty in old age would seem much higher.

Lesbians. Lesbians are about as likely as heterosexual women to experience poverty. UKHLS data show, however, that lesbians are significantly less likely to be behind with payment of their rent or mortgage, less likely to be behind in payment of council tax, yet are significantly more likely to be in receipt of job seeker's allowance. This is not surprising as some evidence suggests that lesbians are significantly more likely to participate in the labour market as compared to heterosexual women. Young lesbians are significantly likely to experience homophobic bullying in schools with associated problems of school truancy, depression, poor school performance and alarming rates of self-harm. Evidence suggests that lesbians experience poorer health over the life course, although UKHLS data suggest that only mental health is somewhat poorer than heterosexual women. Lesbians are, nevertheless, significantly more likely than heterosexual women to obtain university degrees. UKHLS data are also comparable to studies elsewhere that find a pay premium for lesbians, even when controlling for motherhood. Like gay men, however, lesbians are significantly more likely to live in rental accommodation than heterosexual women, however lesbians are also significantly more likely than heterosexual women to live in owned accommodation. Taken together, these findings suggest that lesbian experience in the UK is less disadvantageous materially than gay men. However, the comparator group is heterosexual women

and what remains outside this report is any disadvantage occurring as a consequence of sex. As women, lesbians may be disadvantaged relative to men though perhaps not always in the same ways as heterosexual women.

Bisexual men and women. Research into the lives of bisexuals is severely limited in the UK as well as internationally. UKHLS data provide some of the first insights into the lives of bisexual men and women for two reasons. First, data resources often do not contain relevant measures to be able to identify bisexual people. And, secondly, sample sizes are often not large enough to do meaningful statistical analyses when self-identification of bisexuality is obtained in social surveys. UKHLS has a large enough sample of self-identified bisexual people to perform statistical analyses of this meaningful subgroup.

Bisexual men are almost four percentage points more likely to experience poverty than heterosexual men, although using standard measures of poverty risks this finding is not statistically significant. Nevertheless, bisexual men are nearly four times more likely than heterosexual men to be behind in payment of all household bills and are more than twice as likely to receive income support, both of which suggest some real difficulties in meeting material needs. In other ways, bisexual men are strikingly similar to heterosexual men. They are just as likely as heterosexual men to live in homes with children, they are just as likely to receive child benefit and somewhat more likely to receive child tax credit than heterosexual men.

Bisexual women are nearly three percentage points more likely to experience poverty than heterosexual women, although this finding is not statistically significant. Nevertheless, as compared to heterosexual women, bisexual women are almost two times more likely to be behind in payment of council tax, about 2.3 times more likely to be behind with some of their household bills and more than three times more likely to be behind with all of their household bills. Bisexual women are about as likely to be in receipt of various state benefits as compared to heterosexual women. Bisexual women are about as likely as heterosexual women to live in households with children, even young children. They are, however, strikingly less likely to have access to the internet.

Bisexual men and women are somewhat more disadvantaged than heterosexuals across a number of other areas which may contribute to a greater incidence of poverty amongst them. In education, little is known about bisexual boys experiences of bullying and harassment and sample sizes in UKHLS are too small to differentiate bisexual boys from other children. Nevertheless, bisexual young people seem to have lower educational aspirations than heterosexual and gay or lesbian youth. However, UKHLS data suggest that educational outcomes are comparable to heterosexual men and women. Health outcomes are rarely differentiated for bisexuals as compared to either gay men, lesbians or heterosexual men and women in the literature. Nevertheless, in the UKHLS, we find that both bisexual men and women experience poorer health, particularly bisexual women's mental health. The literature is virtually silent on the bisexual employment experiences, however UKHLS data suggest that bisexual men and women both suffer a pay penalty as compared to heterosexual men and women. In old age, bisexuals might appear to be similar to heterosexuals as they are as likely to have children and are not particularly likely to differ in terms of housing arrangements such as living alone or with a partner or spouse. For these reasons, these findings would seem to account for greater likely material disadvantage for bisexual men and women as compared to heterosexuals. Their incomes are significantly lower than heterosexuals, yet having children and poor health when combined with lower incomes and lower housing wealth all contribute to their greater likelihood of poverty as compared to heterosexuals.

Other findings. This review has largely focused on the main categories of sexual identity: gay men, lesbians, bisexual men and women. This is perhaps because there is more research into aspects of material disadvantage and the its drivers related to the life experiences of people who self-identify into these categories. UKHLS data provide evidence that those who self-identify as "other" experience significant material disadvantage with poverty rates often two times higher than heterosexuals generally, and when compared to heterosexual men and women separately. "Others" are likely to be behind with rent or mortgage payments, and with some or all of their household

bills. They are also likely to be in receipt of most main state benefits including income support, housing benefit, disability benefits, and council tax benefits.

As discussed in the report, "other" identity could include a range of self-identification categories besides gay, lesbian or bisexual. However, given a rough demographic assessment, it seems likely that both "Other" and "Prefer not to say" are associated with age, gender and ethnicity. In this regard, one can see that sexual identity remains socially constructed, and consequently it may be endogenous to factors more directly related to outcomes of interest. For example, older Britons are more likely to prefer not to disclose their sexuality than younger generations. Moreover, ethnic minorities are also more likely to self-identify as "Other" as compared to the white British population. Since both the elderly and ethnic minorities are more likely to experience poverty, issues of age and ethnicity intersect with attempts to unpack links between poverty and sexuality. Poverty findings for "Others" in the UKHLS may mask more relevant disadvantage by age and ethnicity. It may be the case that ethnic minority and elderly people with non-normative sexuality are more likely to report 'Other' or 'Prefer not to say'. If this were true, then sexuality is a further layer on top of disadvantage these groups may already experience. Therefore, additional information about attraction and behaviour may be both more relevant and more useful in researching links between sexual orientation and various other outcomes.

Policy Recommendations

This review highlights a few areas where anti-poverty policy might fruitfully be targeted.

Homophobic bullying. The literature reviewed clearly shows that homophobic bullying in schools is a nasty and horrific problem that can result in significant mental and physical health problems, as well as inhibit the development of human capital through education. Given links between school bullying and school outcomes, those who are particularly vulnerable to school bullying will undoubtedly suffer poorer life outcomes as a consequence. Policy reports from the early 2000s have already called for specific actions to reduce the incidence and effects of homophobic bullying (Buston and Hart 2001; Warwick, Chase, and Aggleton 2004). Specific recommendations include: (1) improve the counselling and support services for victims of homophobic bullying, (2) improving teacher awareness, (3) incorporate formal anti-bullying and no tolerance statements in school policy as a means of altering culture, (4) and promote student organisations through which sexual minorities can be supported, as well as develop self-esteem and resiliency to the experiences of victimisation in schools. It may be worth conducting a dedicated population based study of school bullying from a schools perspective to assess the *current* state of school policy, teacher and administrator approaches to the problem, and the school experiences of adolescents across the UK.

Homelessness. Whilst there is no evidence to suggest that sexual minorities are more likely to experience homelessness in the UK relative to others, much less detailed statistical analysis of links between sexuality and homelessness, qualitative material reviewed in this report clearly indicate that the experience of homelessness for sexual minorities is particularly harsh and, oftentimes, brutal. In this regard, it is important to recognise that a portion of the homeless population is a sexual minority, and homeless sexual minorities may have specific needs somewhat different to others. Policy reports specific to this area from nearly a decade ago have called for specific actions targeted at addressing sexuality related housing crises (Cull, Platzer, and Balloch 2006; O'Connor and Molloy 2001). Specific recommendations in this area include: (1) LGBT only supported accommodation and specialist support workers ,(2) improved safety of existing housing and homelessness services, (3) increase awareness of LGB, and transgender, issues in local housing authorities, vis., with respect to how or why a housing crisis might result from sexuality, and (4) better and more complete statistical monitoring of service use and provision. Policies aimed at preventing a housing crisis for LGB and transgendered young people might include all those mentioned previously concerning school bullying, as well as addressing family discord occasioned by the presentation of a minority sexuality amongst youth. Finally, research into homelessness and

sexuality is largely over 10 years old. Moreover, legislative and social change during this period has been breathtaking. For these reason, as with school bullying, the evidence base for generating homelessness policy relevant to sexual minorities needs refreshing.

Mental and Physical Health. Evidence presented in this review shows that the development of minority sexual identities, oftentimes in hostile school or home environments, can generate significant minority stress. Whilst attitudes towards homosexuality and the legal environments in sexual minorities live their lives are changing, this report highlights continued significant health inequalities across all sexual identity categories. Of particular concern is significantly poorer health for bisexual men and women. Good health can be a resource akin to human capital in that those in good physical and mental health might be better able to provide for their material needs. Poor health can increase material needs whilst at the same time limit provisioning for those needs. Recommendations in this area concern improving resiliency to minority stress, including both externalised and internalised responses to it. Here, it is incumbent upon GPs, consultants, psychological services, local authorities and social care services to be aware of sexuality related health inequalities. Specific recommendations might include: (1) improved staff training to better understand the health needs of sexual minorities and the health issues that they are likely to present, (2) improve sensitivity to sexuality in the health service such that sexual minorities can feel secure in disclosing their identity, attraction and behaviour when it is relevant, and (3) improved statistical monitoring so that poor service provision can be quickly identified and remedied.

Aging and Retirement. Elder LGB people are likely to experience social exclusion in the receipt of social care and community support in old age. Highlighted in the report is the propensity of elders, particularly gay men, to live alone. This raises particular concerns about isolation and the inability to meet material needs, including social participation, as a consequence. As with health, education and homelessness, recommendations revolve around (1) improved awareness among social service workers of LGB elder issues, vis., related to disclosure of sexuality and confidentiality, (2) improved sensitivity to the needs that sexual minorities might have as distinct from others, particularly around issues of social isolation, and (3) improved statistical monitoring of social support service provision for quality and to better understand how much is provided to LGB elders. There is a clear lack of policy relevant research into retirement planning of LGB people in the UK. In particular, in light of recent marriage and civil partnership legislation, little is actually known about how financial arrangements are made, and whether invisibility in pension provisioning remains and issue for same-sex couples.

Recommendations specific to lesbians and bisexual women. This review largely establishes that lesbians as compared to heterosexual women are unlikely to be disadvantaged materially. On the other hand, bisexual women do appear to experience more material disadvantage as compared to heterosexual women, particularly around meeting housing costs, accessing material goods, educational achievement, having low pay, and experiencing poorer health. Policies which address the ways in which women are materially disadvantaged relative to men will undoubtedly benefit both lesbians and bisexual women, particularly with respect to work place equality. Furthermore, similarities between heterosexual women and bisexual women in terms of child care needs, in particular, would render gender based poverty alleviation policy highly relevant for bisexual women. Reducing bisexual invisibility and highlighting minority stress experienced by bisexual women may also go a long way towards improving their life chances across all areas.

Recommendations specific to gay and bisexual men. Gay and bisexual men are both likely to experience material disadvantage to some extent. However, other aspects of bisexual men's lives differentiate them from gay men in important ways that could account for greater material disadvantage. As with other areas, policies that support bisexual visibility, and reduce or enhance resiliency to minority stress experienced by bisexual men would be helpful in improving their life chances. Also, supporting bisexual men as fathers would similarly be helpful. Policies that improve wealth creation, vis., housing wealth, amongst single gay men would be useful for addressing likely poverty in old age.

The continuing problem of data. Much of the research reviewed in this report relies on community studies of self-identified gay men or lesbians, and sometimes bisexual men and women. UK data resources are scant and only recently have good quality samples providing some information on sexuality and a range of life outcomes been made available in the form of the UKHLS and IHS. However this need for good quality data is somewhat being redressed as sexuality is now being measured in a few other data resources including the Longitudinal Study of Young People in England, the forthcoming sweep of the Millennium Cohort survey, the most recent round of the Work Employment Relations Survey, and the various rounds of the National Survey of Sexual Attitudes and Lifestyles. Thus, research capacity is improving though as yet not ideal. The IHS does not release income information, for example, and many of these studies just mentioned are general purpose studies that may make then unsuitable for studies of sexuality, per se. There remain clear areas where sexuality matters and data is not forthcoming, and extant research is quite old, such as homelessness and retirement. Finally, sexual identity may not be the most appropriate means of measuring sexuality in social surveys. Indeed, results from UKHLS could be interpreted to imply that claiming specific sexual identities is most likely endogenous such that observed variation across sexuality groups could result from underlying processes associated with identity formation and claiming. Therefore, better data that allows for unpicking sexual classification and how this might be related to material outcomes and life chances remains sorely needed.

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