

## Appendix G. Survey representativeness: comparisons with other survey data.

Section 5.1 of the report provides an overview of the representativeness of the three survey samples, drawn from comparisons with other surveys and data sources. This Appendix provides further details of those comparisons.

Comparisons are made under the following headings: age and gender; economic status; housing tenure; educational attainment; marital status; ethnicity; and smoking prevalence.

### Age and gender

As stated in the main report, the survey samples under-represent the young (especially in Manchester) and over-represent the elderly; however, these are corrected through the application of the survey weighting. Figures G1, G3 and G5 show the *unweighted* age and gender breakdown of the three samples compared with published population estimates from ONS (Office for National Statistics) for 2010. Figures G2, G4 and G6 show the same comparisons, but based on the *weighted* survey data.

**Figure G1**

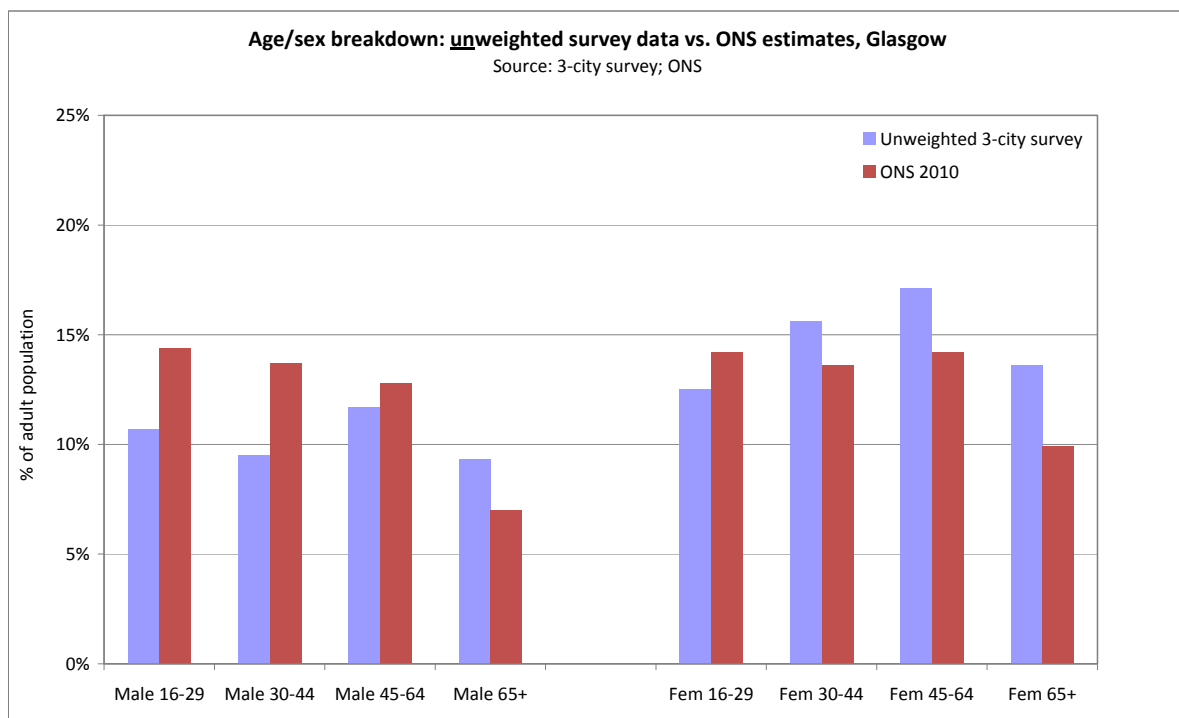


Figure G2

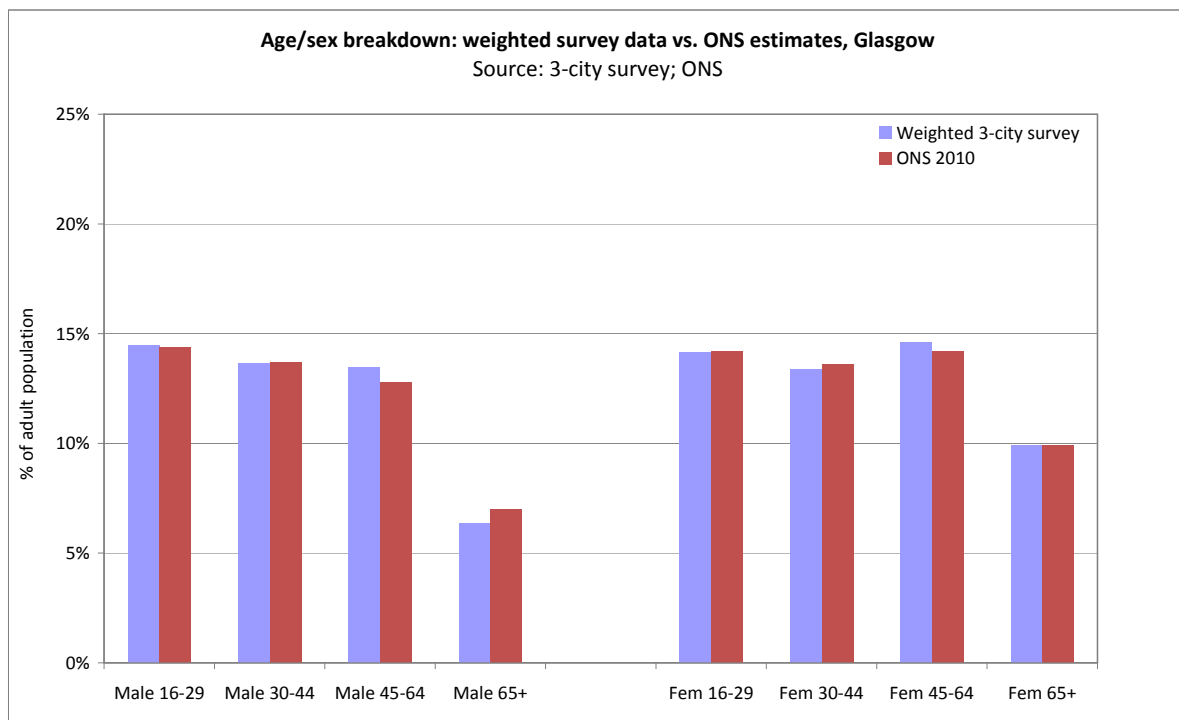


Figure G3

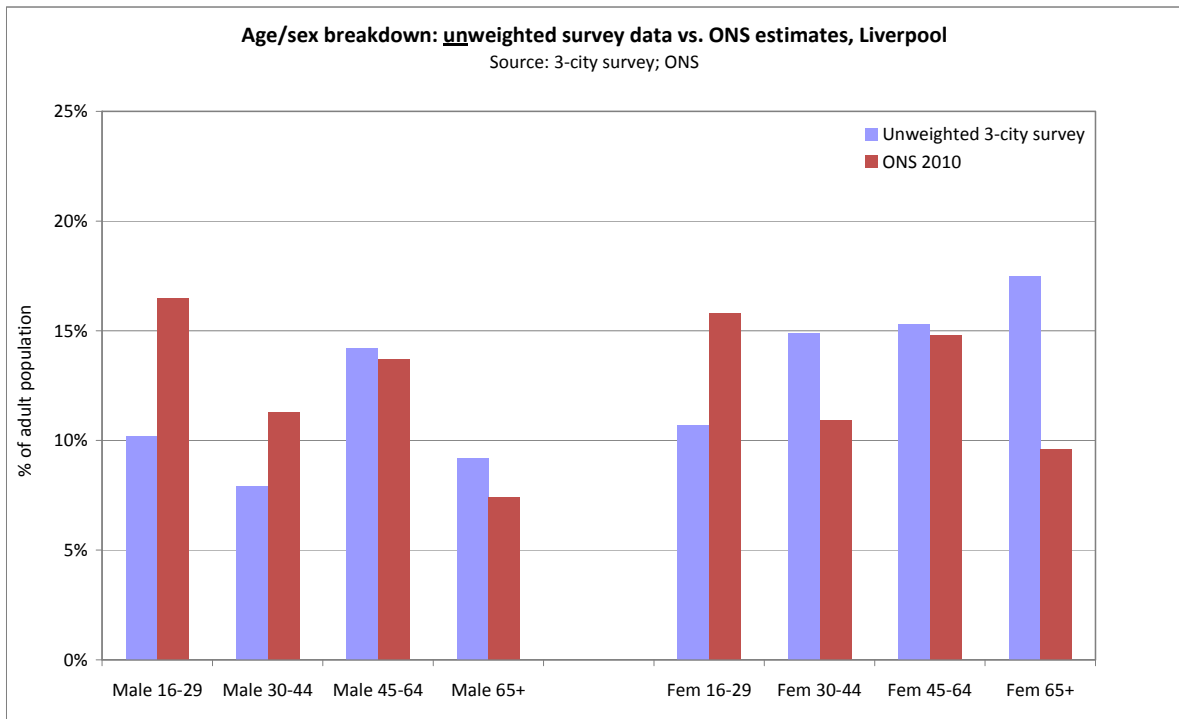


Figure G4

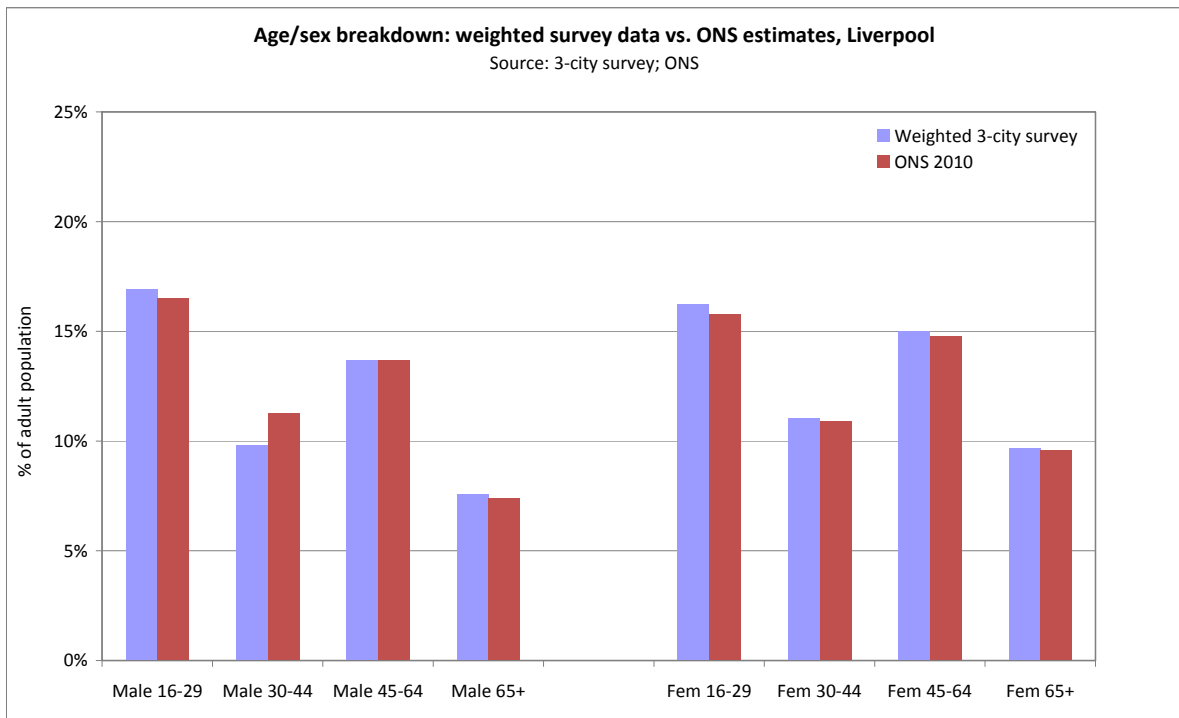


Figure G5

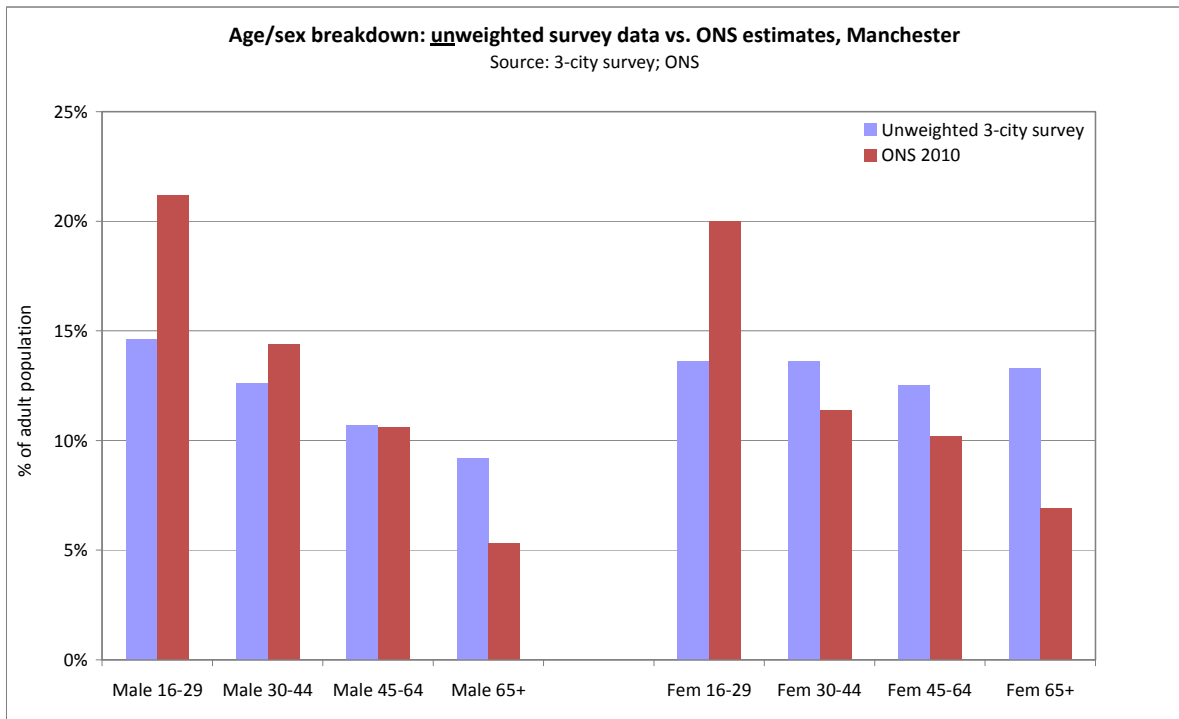
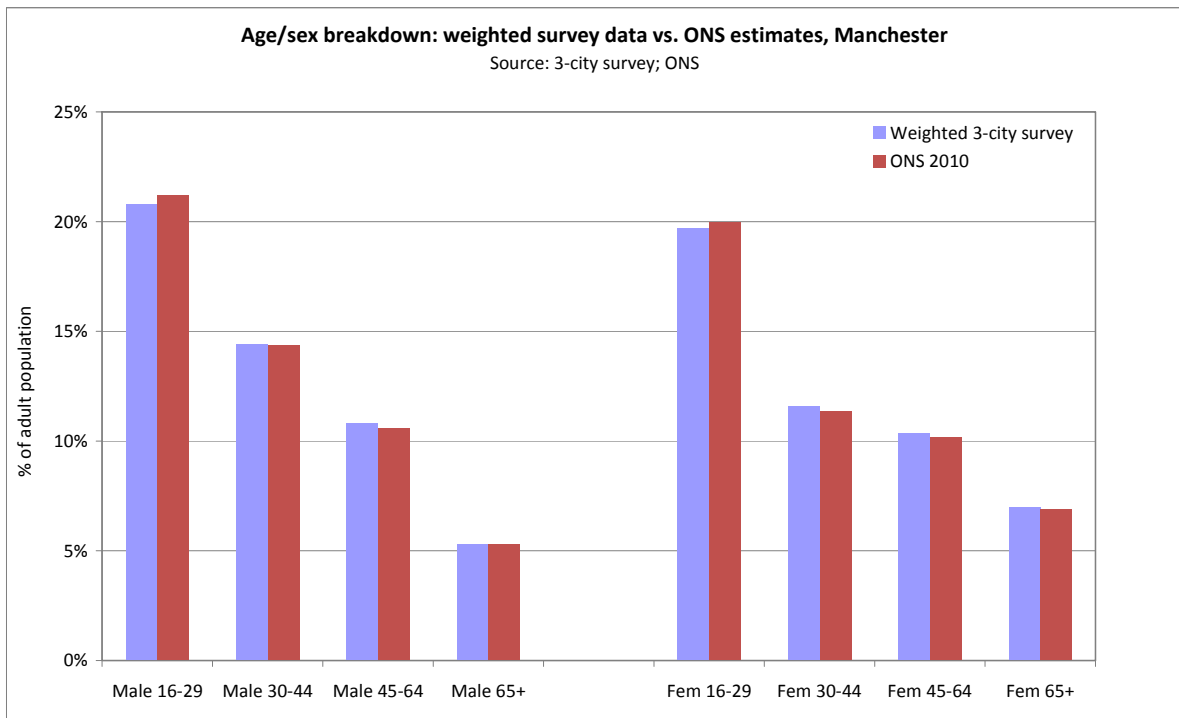


Figure G6



## Economic status

Figures 3-5 in the main report compared aspects of 'economic activity' of the samples with data from the 2001 and (for Liverpool and Manchester) 2011 Census. This showed that the samples were characterised by having higher percentages of people who were unemployed and who were looking after their home and family, and lower percentages of people who were employed. These are confirmed by separate comparisons with data from the Annual Population Survey (APS) from 2010/11 for people aged 16-64, shown in Figures G7-G9. These comparisons also suggest that the three-city survey over-represents students: however, the census data showed that that was not the case, and these differences probably reflect inaccuracy of the APS data.

**Figure G7**

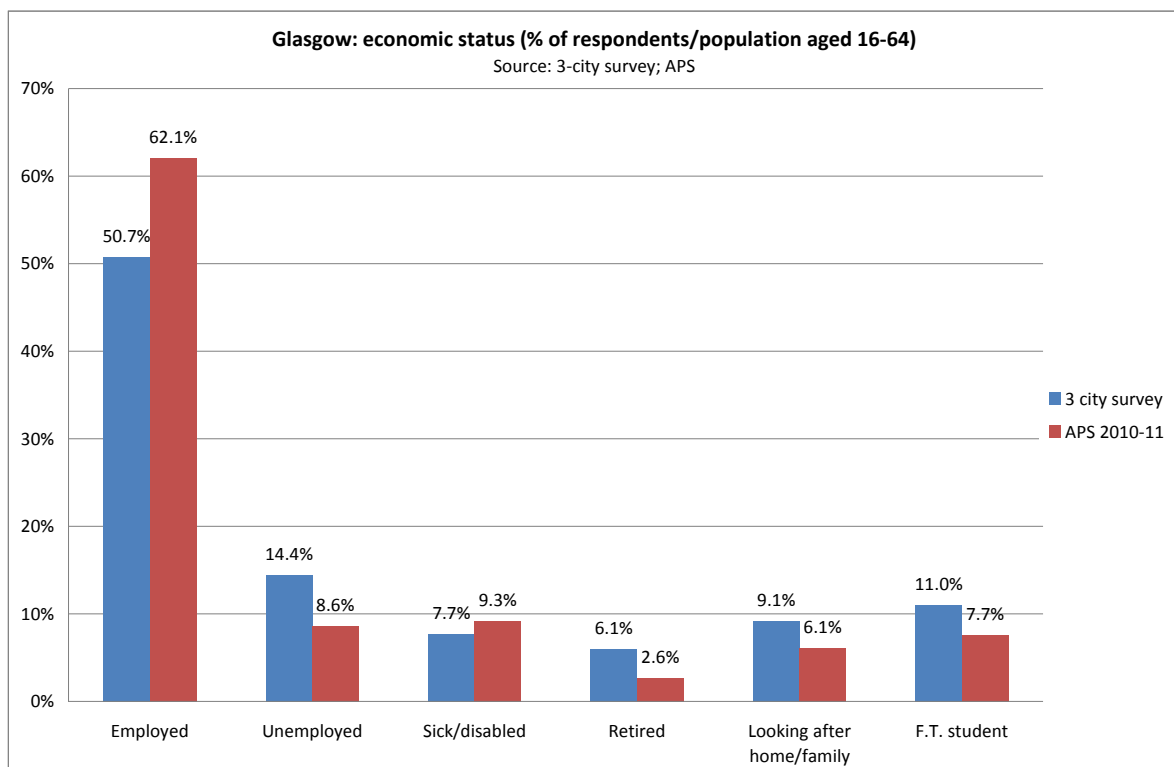


Figure G8

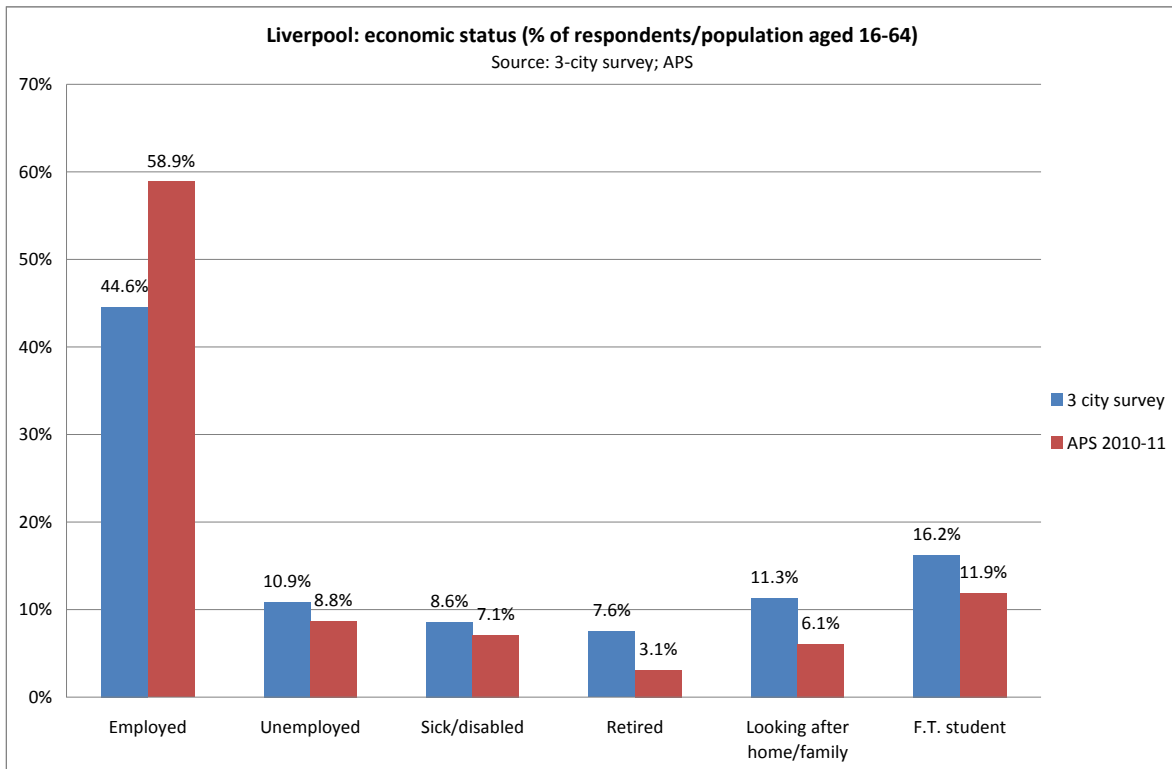
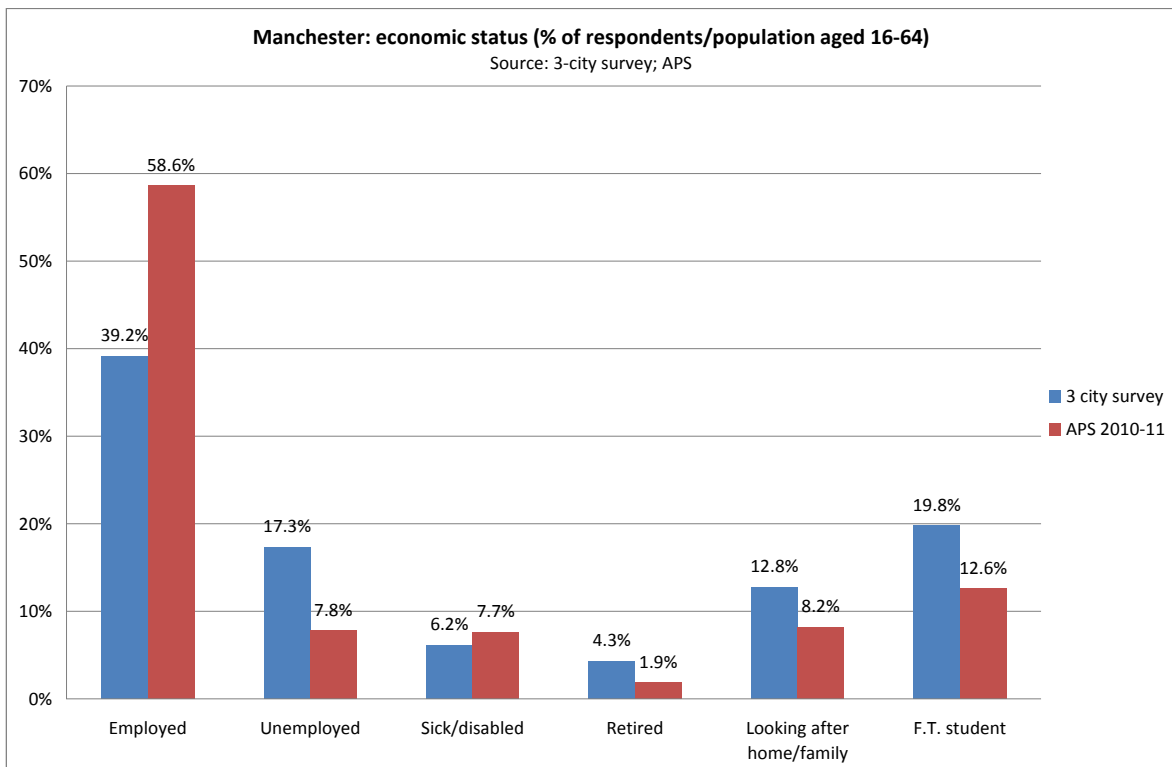


Figure G9



## Housing tenure

Housing tenure was categorised as: owner-occupied (including owned without and with a mortgage); social rented (including those who rented from the local authority and from housing associations); and private rented. For Liverpool and Manchester, comparisons were made with 2011 Census data; for Glasgow, comparisons were made with 2010 estimates from Glasgow City Council. Figures G10-G12 show that the survey samples are broadly representative of the general population with regard to this indicator.

**Figure G10**

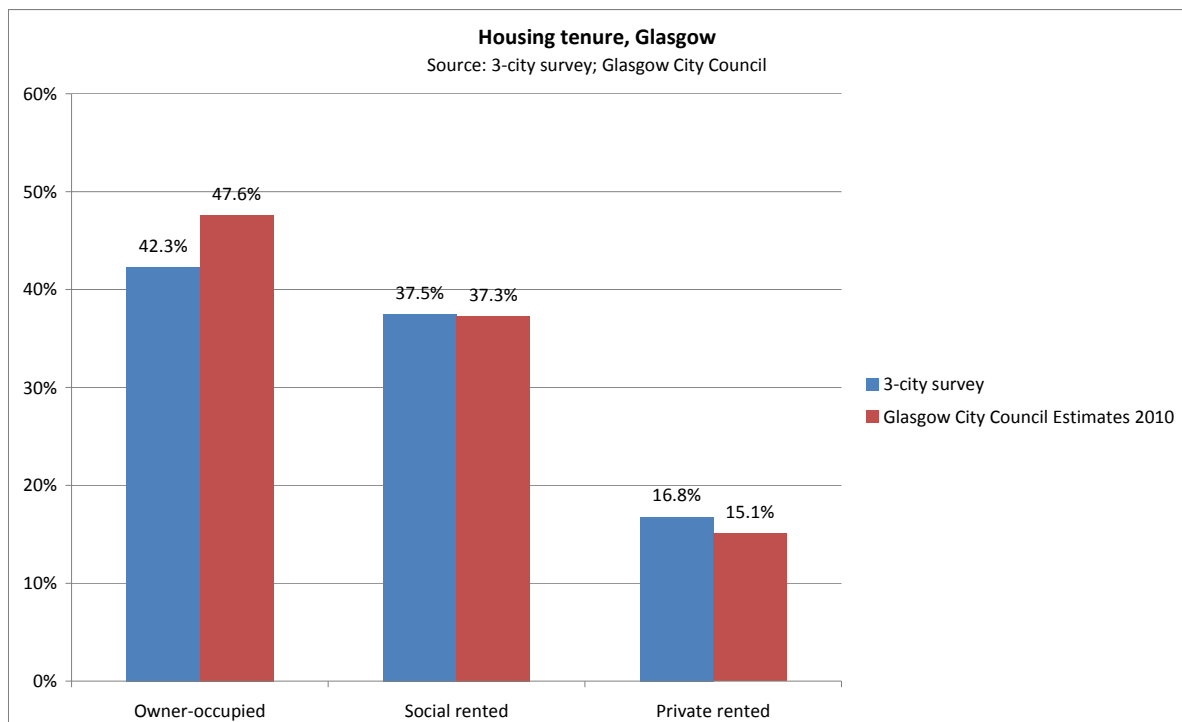
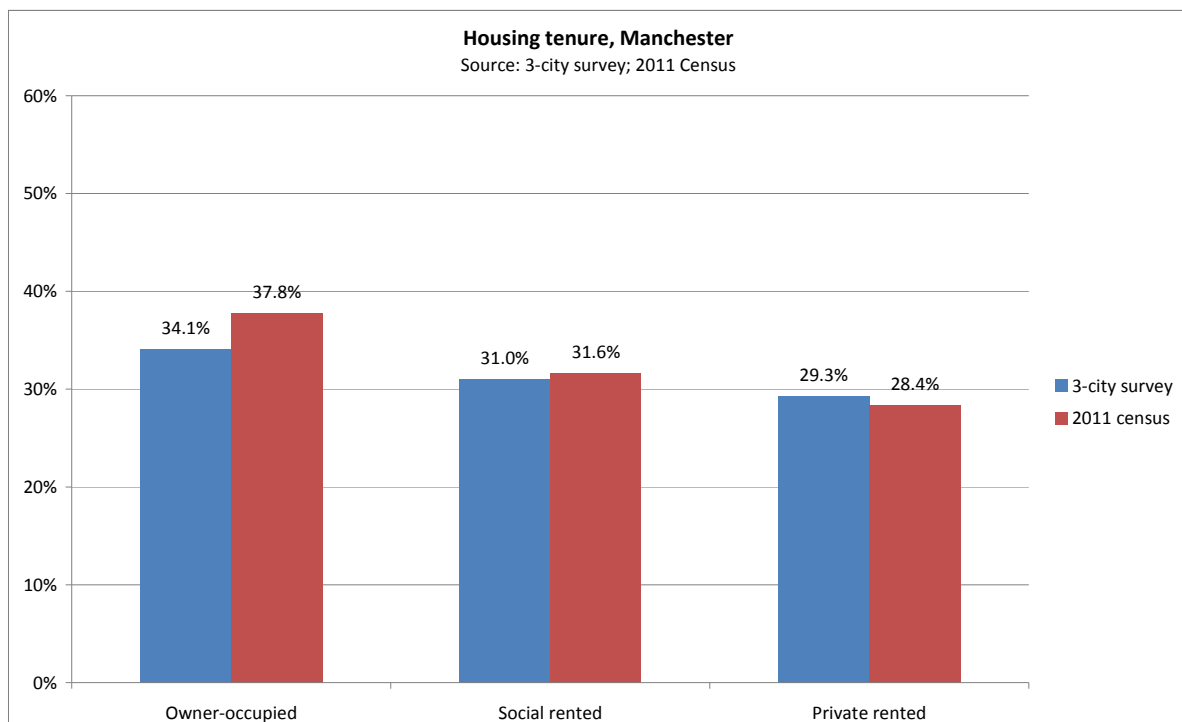


Figure G11



Figure G12





## Educational attainment

As stated in the main report, in comparison to the APS, the three-city survey seems to under-sample those with degree level qualifications in Glasgow and Manchester, but not in Liverpool: this is shown in Figure G13. At the other end of educational spectrum, there were very similar percentages of the survey sample with no educational qualifications in Glasgow and Liverpool compared with the APS, but not in Manchester: this was shown in Figure 7 in the main report, reproduced here as Figure G14.

**Figure G13**

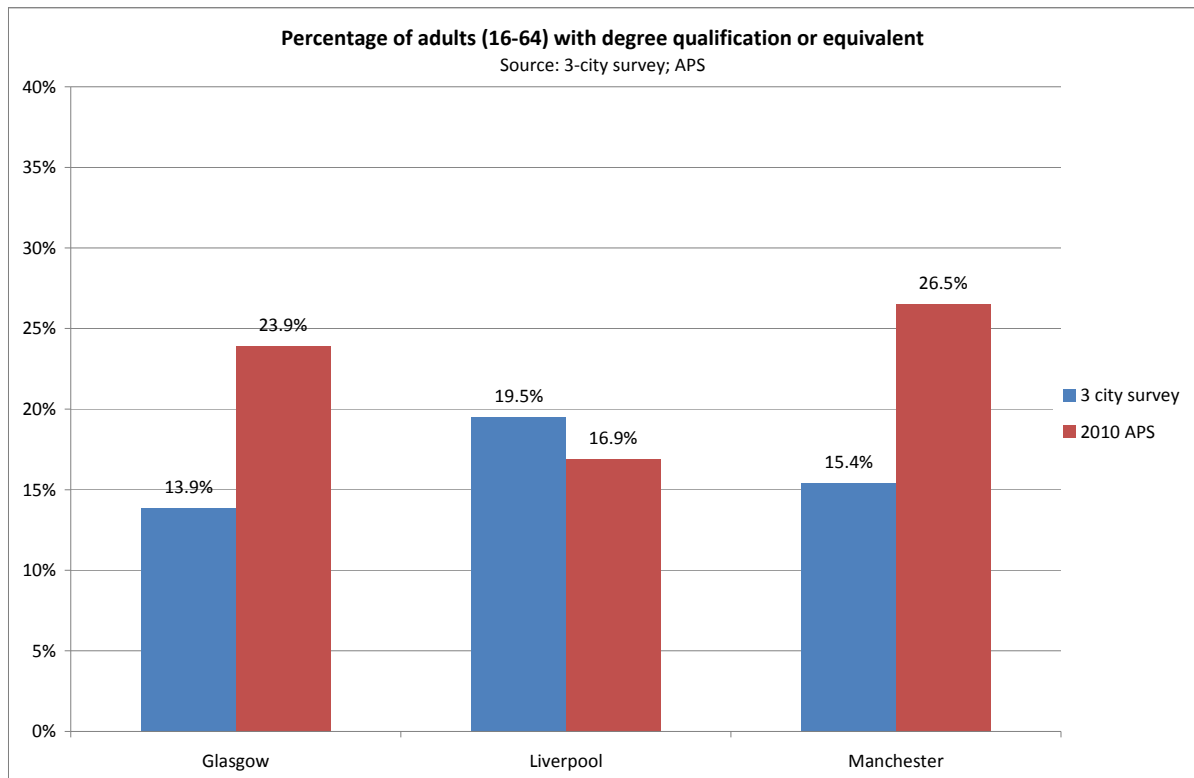
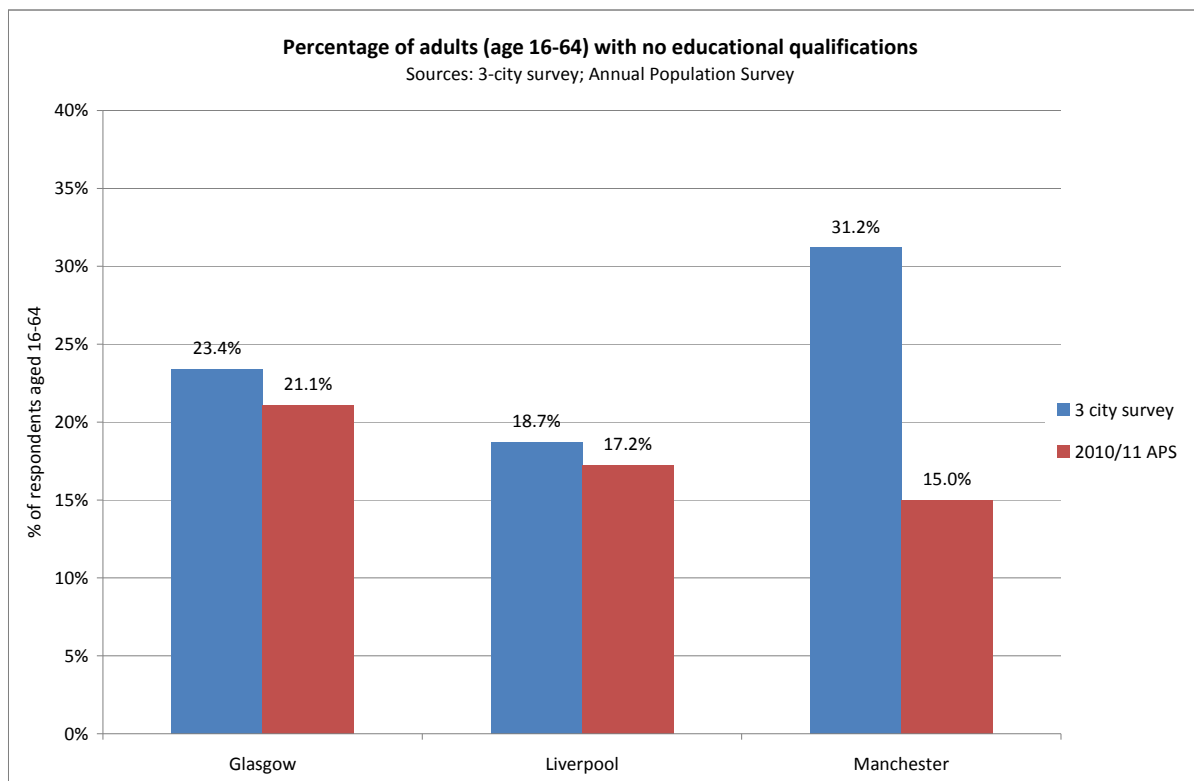


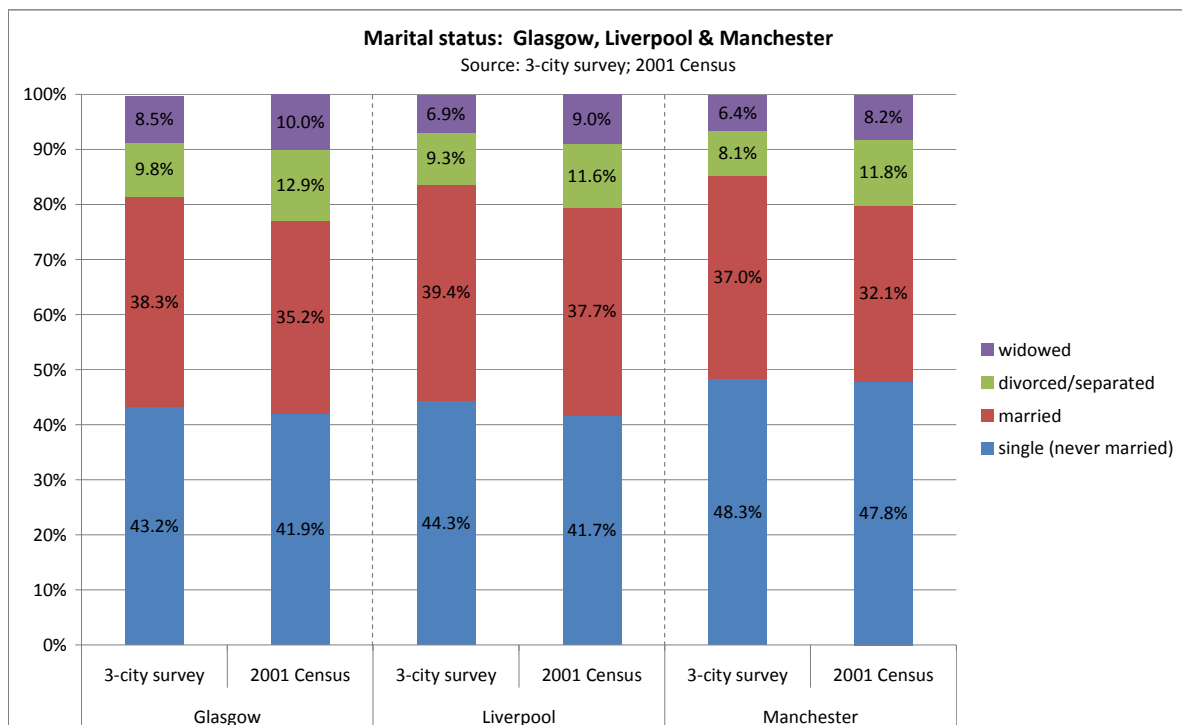
Figure G14



### Marital status

Figure G15 compares the marital status breakdown of the three samples with census data (for consistency, 2001 Census data are used for all three cities here). This suggests that the samples are generally very representative in this regard.

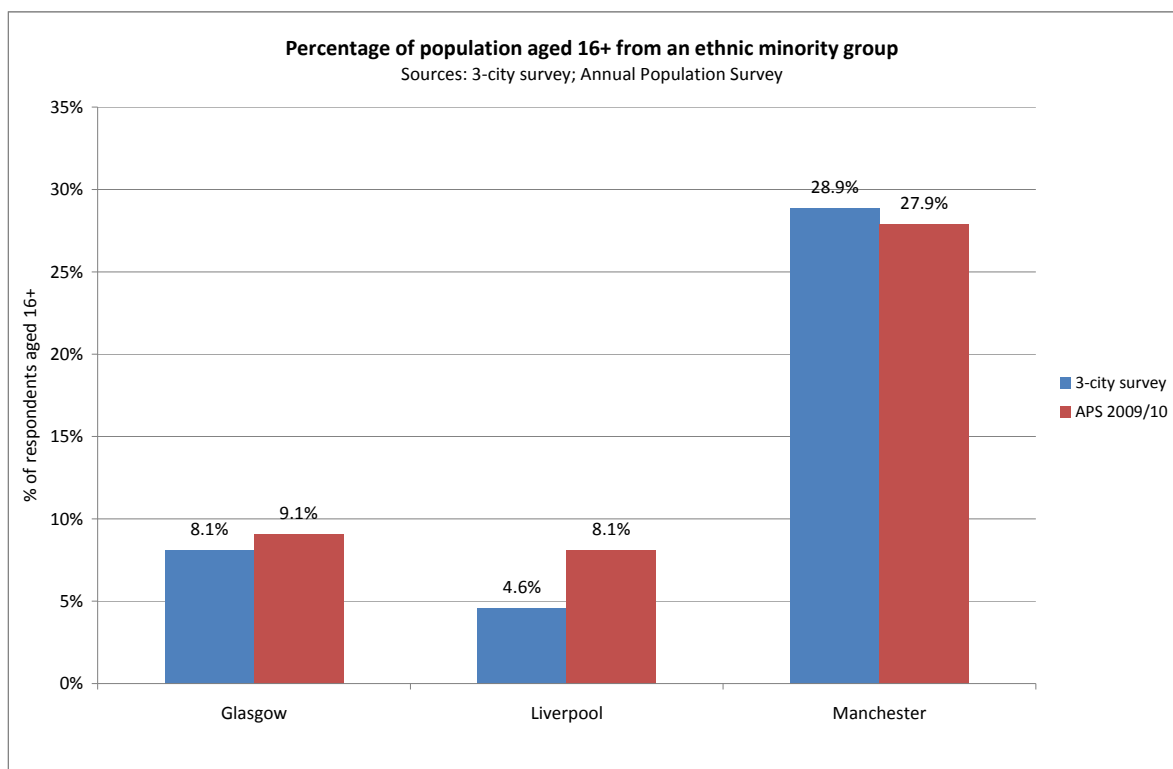
Figure G15



### Ethnicity

Figure 8 in the main report showed that with regard to the percentage of the samples classed as belonging to an ethnic minority, the three-city survey was very representative of Glasgow and Manchester, but slightly less so of Liverpool. This is shown again here as Figure G16.

Figure G16



### Smoking prevalence

Finally, Figure 6 in the main report showed the samples to be highly representative in relation to the percentages classed as current smokers.

### Summary

In summary, these comparisons show – as was expected given the response rate – that there are differences between the profiles of the samples and the general population. This is particularly true of aspects of economic activity, for which the Manchester sample is particularly affected. However, other data suggest the samples are reasonably representative in other ways (marital status, housing tenure, ethnicity, smoking prevalence, those in full time education and so on).

As stated in the main report, the differences that have been highlighted emphasise the importance of analysing the data by means of multivariate statistical regression modelling analyses to ensure that variations between the cities are independent of differences in the characteristics of the samples (e.g. higher unemployment among Manchester respondents).