



**Greater Norwich Housing Market  
Assessment  
Under-occupation of Housing**

**Draft 21 February 2007**

## 1 SUMMARY AND CONCLUSIONS

### 1.1 WHAT IS UNDER-OCCUPATION?

We define an under-occupied property to be one in which one or more bedrooms are not in regular use as bedrooms.

The government has a definition for over-occupation. Refer to the methodology – section 3. The government definition sets a minimum number of bedrooms for a household based on the composition of the household. We could use this definition. We could define under-occupation to mean having more bedrooms than the minimum required to avoid over-occupation.

#### Over-occupation – an Example using the Government Definition

A household of two parents and two teenage sons requires two bedrooms. The teenage sons are expected to share a room. The household is overcrowded if they have one bedroom. The household ‘under-occupies’ if it has three bedrooms even if all three bedrooms are used as bedrooms.

The example shows that the government definition would identify under-occupation in circumstances most might regard as fully occupied.

For our purposes a less minimalist approach is more useful. So we choose to define under-occupation to mean a property with one or more bedrooms not in regular use. This approach has advantages. It fits in well with the available data and it is likely to be seen as reasonable.

### 1.2 HEADLINE RESULTS

Using our definition of under-occupation over half (51.9%) of households across the Greater Norwich sub-region under-occupy.

Small households are most likely to under-occupy...

- 83.9% of single person households occupy properties with two or more bedrooms.
- 66.6% of two people households occupy properties with three or more bedrooms.

Under-occupation is most likely to occur in properties with five or more bedrooms (89.4%). But under-occupation is more likely in three bedroom properties (63.1%) than in four bedroom properties (49.5%).

There is some variation by tenure. The social rented sector has...

- The highest rates of under-occupation for two-bedroom properties.
- The lowest rates of under-occupation for three-bedroom properties.

Rates of under-occupation are similar across the three districts and 10 housing market areas in Greater Norwich.

### 1.3 CONCLUSIONS

Under-occupation is a significant factor in local housing markets.

National trends towards smaller households will tend to increase the incidence of under-occupation.

In Norwich city we project that small – one and two bedroom properties – will form a large part of the supply of new housing (see report on Property Types and Property Sizes). This may reduce the incidence of under-occupation.

We must assume that a proportion of new households buying or renting in the market will choose to under occupy. The Opinion Research Service Housing Need and Stock Condition Survey report allows for this in their methodology when calculating demand.

## 2 UNDER-OCCUPATION

The table shows under-occupation by tenure, household size and property size for Greater Norwich.

Under-occupation for Tenure, Household Size and Property Size

<b>Property/Household Type</b>		<b>Number</b>	<b>Number Under-occupied</b>	<b>%age Under-occupied</b>
All households		151171	78525	51.9%
Tenure	Owned	104764	57725	55.1%
	Rented from council	21274	9495	44.6%
	Other social rented	7912	3147	39.8%
	Private rented or living rent free	17221	8158	47.4%
	All Tenures	151171	78525	51.9%
Household Size	1 person	44879	37656	83.9%
	2 people	57838	38523	66.6%
	3 to 4 people	40768	2346	5.8%
	5 or more people	7686	0	0.0%
	All Household Sizes	151171	78525	51.9%
Property Size	1 - Bed	12316	0	0.0%
	2 - Bed	41380	18671	45.1%
	3 - Bed	68211	43015	63.1%
	4 - Bed	23381	11580	49.5%
	5+ Bed	5883	5259	89.4%
	All Property Sizes	151171	78525	51.9%

Source: 2001 census for number of households in each tenure.

The level of under-occupation is based on a comparison of household size with property size. See methodology - section 3 - for detail of comparison.

Overall, nearly 52% of properties are under-occupied.

The results from the Opinion Research Services - Housing Need and Stock Condition dataset give a figure of 54% of properties under-occupied. ORS and

the census use different definitions of property size and so we would expect some difference in the results.

Under-occupation does vary by tenure. But tenure differences are in part due to differences in the property size profile for each tenure.

The other social rented category (housing associations, housing co-operatives and charitable trusts) has the lowest proportion of under-occupied homes at just under 40%. Property rented from the local council<sup>1</sup> is also less likely to be under-occupied. Local councils and other social landlords tend to have smaller properties.

#### Under-occupation by Tenure and Property Size

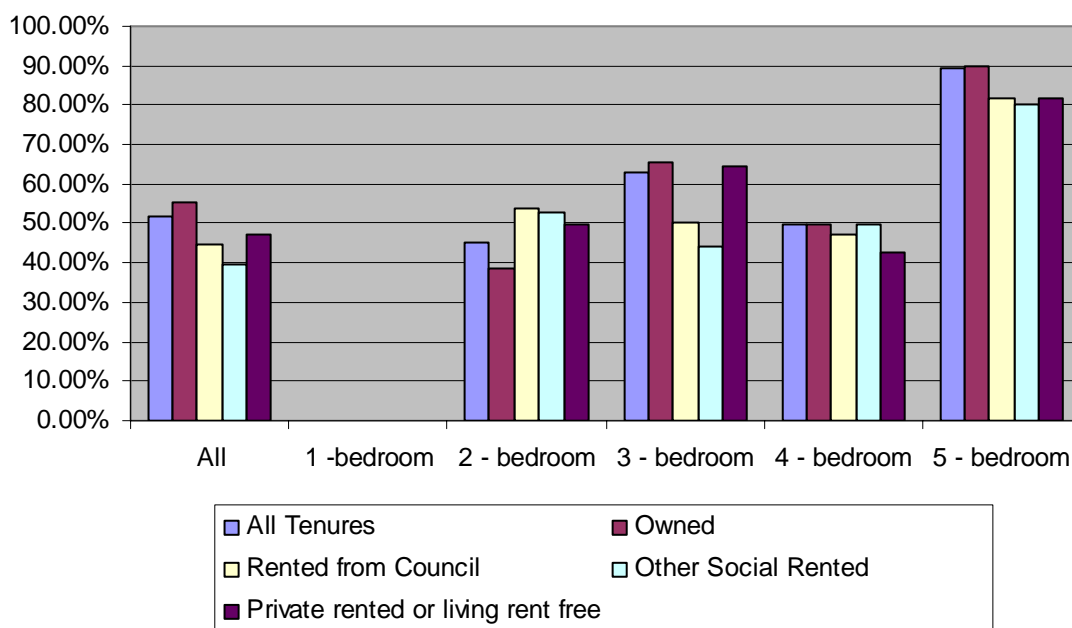
	All	1 - bedroom	2 - bedroom	3 - bedroom	4 - bedroom	5 - bedroom
All Tenures	151171	12316	41380	68211	23381	5883
%age by Bedroom size	100.0%	8.1%	27.4%	45.1%	15.5%	3.9%
Number under-occupied	78525	0	18671	43015	11580	5259
%age under-occupied	51.9%	0.0%	45.1%	63.1%	49.5%	89.4%
Owned	104764	4778	21775	51388	21431	5392
%age by Bedroom size	100.0%	4.6%	20.8%	49.1%	20.5%	5.1%
Number under-occupied	57725	0	8411	33735	10720	4859
%age under-occupied	55.1%	0.0%	38.6%	65.6%	50.0%	90.1%
Rented from Council	21274	3128	9618	8054	379	95
%age by Bedroom size	100.0%	14.7%	45.2%	37.9%	1.8%	0.4%
Number under-occupied	9495	0	5174	4064	179	78
%age under-occupied	44.6%	0.0%	53.8%	50.5%	47.3%	81.5%
Other Social Rented	7912	1627	3934	2114	190	48
%age by Bedroom size	100.0%	20.6%	49.7%	26.7%	2.4%	0.6%
Number under-occupied	3147	0	2079	935	95	38
%age under-occupied	39.8%	0.0%	52.9%	44.2%	50.0%	80.3%
Private rented or living rent free	17221	2784	6053	6654	1382	348
%age by Bedroom size	100.0%	16.2%	35.1%	38.6%	8.0%	2.0%
Number under-occupied	8158	0	3006	4281	586	284
%age under-occupied	47.4%	0.0%	49.7%	64.3%	42.4%	81.7%

Source: 2001 census for number of households in each tenure.

Two bedroom properties in the social rented sector are more likely to be under-occupied than in the market sector. This reflects the large numbers of single people renting two bedroom properties from social landlords. In contrast three bedroom properties are less likely to be under-occupied than in the market sector (owned and rented privately).

<sup>1</sup> At the time of the 2001 census South Norfolk Council had over 4,000 rented properties.

Under-occupancy by Property Size and Tenure



Source: 2001 Census

Under-occupation is clearly linked to the size of the property. One-bedroom properties cannot be under-occupied<sup>2</sup>. Five bedroom properties are most likely to be under-occupied. Three bedroom properties are more likely to be under-occupied (63.1%) than four bedroom properties (49.5%). In the social rented sector two bedroom properties are most likely to be under-occupied<sup>3</sup>.

There is very little variation in under occupation by district or housing market area.

Under-occupation by District and Housing Market Area

	Sub region, District or Housing Market Area	Percentage of Properties Under-occupied
Sub Region	Greater Norwich	52%
Districts	Broadland District	52%
	Norwich City	51%
	South Norfolk District	53%

<sup>2</sup> One person is sufficient to fully occupy a studio or one bedroom property. The census excludes empty properties from the dataset.

<sup>3</sup> Five bedroom properties are more likely to be under-occupied but these represent less than 1% of the stock.

	Sub region, District or Housing Market Area	Percentage of Properties Under-occupied
Housing Market Areas	Aylsham	53%
	Beccles/Bungay	54%
	Broads	54%
	Diss	53%
	Harleston	54%
	Long Stratton	52%
	Norwich HMA	52%
	Reepham	54%
	Wroxham	57%
	Wymondham	52%

Source: 2001 census.

### 3 METHODOLOGY

#### 3.1 DATA SOURCES

We have two sources of information the ORS dataset and the 2001 census.

The ORS dataset is the more recent data source (2005/06) but it has a number of disadvantages...

1. ORS records the household type but not the household size. For some household types we can assume a household size, for example single person and adult couple households. Other household types cover a range of household sizes, for example an adult couple with dependant child(ren) might have one, two, three, four or even more children.
2. We can only select two criteria when selecting data from the ORS dataset. We must select household type and property size as our criteria and so can only analyse the ORS data at the overall level. For example we cannot look at under occupation by tenure or housing market area.
3. The ORS dataset is a sample, albeit a very large sample.

The census dataset is less recent (2001). It has more information about household size. We can analyse the data by tenure and by district and housing market areas.

### 3.2 ASSUMPTIONS

#### Number of Bedrooms

The census records properties by number of rooms available to the household.

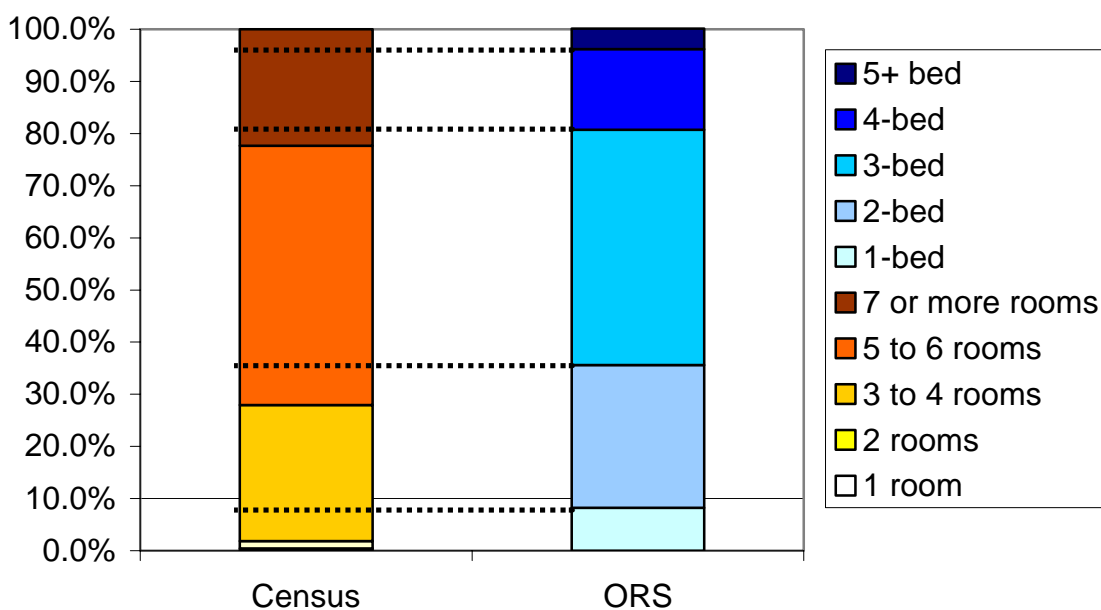
The census defines the number of rooms as ‘The number of rooms available to the household excluding bathrooms; toilets; halls or landings and rooms that can only be used for storage. It also does not include any rooms shared with another household such as a shared kitchen.’

Using this definition we make the following assumptions about the link between the census room definition and the number of bedrooms.

Number of Rooms	Bedroom Size
1 room	Studio
2 rooms	One bedroom
3 to 4 rooms	Two bedroom
5 to 6 rooms	Three bedroom
7 or more rooms	Four+ Bedrooms

A comparison with the ORS dataset shows that this breakdown does not entirely match the breakdown by bedroom size found by ORS. The following graph shows the differences.

#### Comparison of Census Room Numbers with ORS Bedroom Sizes



Source: 2001 Census and ORS Dataset

Most 3 to 4 room properties have two bedrooms but it is clear that some have only one bedroom.

We convert room numbers to bedroom sizes using the following table.

Bedrooms	%age from ORS dataset	Components by room number				
		1	2	3or 4	5 or 6	7+
1	8.2%	0.5%	1.4%	6.3%		
2	27.4%			19.8%	7.6%	
3	45.1%				42.1%	3.0%
4	15.5%					15.5%
5	3.9%					3.9%
%ages by Room Number		0.5%	1.4%	26.1%	49.7%	22.4%

Using this table we convert properties by room number into properties by bedroom size. The following example from the Aylsham housing market area illustrates the approach.

Aylsham – Households by Property Room Size and Household Size

	ALL HOUSE-HOLDS	1 room	2 rooms	3 to 4 rooms	5 to 6 rooms	7 or more rooms
<b>All households</b>	<b>4124</b>	<b>9</b>	<b>27</b>	<b>967</b>	<b>1969</b>	<b>1152</b>
1 person	1097	6	21	501	440	129
2 people	1671	0	6	365	832	468
3 to 4 people	1137	3	0	98	609	427
5 or more people	219	0	0	3	88	128

Source: 2001 Census

Aylsham – Households by Property Bedroom Size and Household Size

	ALL HOUSE-HOLDS	1 - bedroom	2 - bedroom	3 - bedroom	4 - bedroom	5 - bedroom
<b>All households</b>	<b>4124</b>	<b>269</b>	<b>1035</b>	<b>1822</b>	<b>797</b>	<b>201</b>
1 person	1097	148	447	390	89	22
2 people	1671	94	404	767	324	81
3 to 4 people	1137	27	167	573	295	74
5 or more people	219	1	16	92	89	22

Source: 2001 Census and conversion table.

We use the conversion table to convert properties by room number into properties by bedroom size.

As an example all one and two room properties become 1-bedroom properties. We allocate the 3 and 4 room properties to one and two bedroom properties in the ratio 6.3 to 19.8.

So the number of one-bedroom properties is  $9 + 27 + 967 \times 6.3/(6.3+19.8) = 269$ .

### Under-occupation

The table below shows all households recorded in the 2001 Census for the Aylsham housing market area. The shaded area indicate households that under-occupy

We make two assumptions...

1. The bedroom sizes corresponding to each of the census room sizes. (Refer to previous section.)
2. The combination of property sizes and household sizes that constitute under or over-occupation.

	ALL HOUSE-HOLDS	1 - bedroom	2 - bedroom	3 - bedroom	4 - bedroom	5 - bedroom
<b>All households</b>	<b>4124</b>	<b>269</b>	<b>1035</b>	<b>1822</b>	<b>797</b>	<b>201</b>
1 person	1097	148	447	390	89	22
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5 or more people	219	1	16	92	89	22

A household under-occupies if it has one or more bedrooms that are not in regular use. It follows...

- A one-person household under-occupies any property with two or more rooms.
- A two-person household under-occupies any property with three or more rooms. This gives a conservative estimate for under-occupation. Many two-person households will use only one-bedroom.
- Most three or four person households require at least three bedrooms and some will use four. .
- Most five+ person households will require four or more bedrooms.

Given the format of the data no assumption will give the correct outcome in all circumstances. The assumptions are intended to provide a best estimate of under-occupation.

### 3.3 DEFINITIONS

#### Under-occupation

A household under-occupies a property if the property has more bedrooms than the household needs.

The Department for Communities and Local Government gives a definition of a very minimum standard in terms of the number of bedrooms required by a household...

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

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

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

We might conclude that a household under-occupies if it has more bedrooms than this minimum standard. But two important issues arise...

1. Many households under-occupy using the minimum standard. For example, a three-bedroom house occupied by two parents and two teenage girls – each with their own room – is under-occupied according to the minimum standard.
2. The available data does not allow for this detailed level of analysis.

The solution is to only consider those properties that the data shows must be or is likely to be under-occupied. So a single person with two or more bedrooms must under-occupy.

This means our definition of under-occupation is one where a household has one or more bedrooms that are not in regular use as bedrooms.