

# **West Midlands Regional Housing Strategy 2005**

Measures of Stress and Occupancy West  
Midlands HMAs



The  
University  
Of  
Sheffield.

**The University of Sheffield**



**Town and Regional Planning**

## Measures of Stress and Occupancy West Midlands HMAs

- 1 As part of work commissioned by the West Midlands Regional Housing Partnership, the University of Sheffield developed a measure of housing stress for use in work assessing regional housing conditions. This note is concerned with that measure which rests on indicators of occupancy of dwellings based on Output Area (OA) data from the 2001 Census.
  
- 2 The various stress indicators are tabulated in Tables 1, 2 and 3. Table 1 considers values for the indicator for urban and rural areas within the Region. Table 2 and Table 3 set out average values for HMAs and Local Authority Districts respectively. The Urban:Rural Indicator derives from the settlement classification of OAs published alongside the Government's Rural Strategy in 2004. The variables are:
  - percentage of households in shared dwellings
  - percentage of households below the occupancy standard
  - rooms per household
  - persons per room, and
  - a composite indicator of stress
  
- 3 The final variable is intended as a composite indicator of stress. It is a weighted combination of a series of occupancy measures. It has been calculated by estimating *number* of households below the occupancy standard that might be expected on the basis of the general (regression) relationship of that measure to the *number* of households in shared dwellings, the *number* of households in unshared dwellings, the *number* of habitable rooms in the output area, the number of *persons* in the area, and a dummy indicating whether the OA is in the urban domain, the rural domain (town) or the rural domain (non-town). It has then been expressed as a percentage of households in the output area.

**Table 1: Measures of Housing Stress;  
West Midlands Region  
Rural and Urban  
Comparisons**

		Urban	Rural	Total
Percentage of households in shared Dwellings	Mean	<b>0.19</b>	<b>0.06</b>	<b>0.17</b>
	SD	1.21	0.88	1.17
	Min	0.00	0.00	0.00
	Max	35.50	32.22	35.50
Percentage of households below the Occupancy Standard	Mean	<b>6.24</b>	<b>2.55</b>	<b>5.66</b>
	SD	6.03	2.84	5.81
	Min	0.00	0.00	0.00
	Max	65.74	35.29	65.74

Rooms per Household	Mean	<b>5.35</b>	<b>6.23</b>	<b>5.49</b>
	SD	0.78	0.85	0.85
	Min	2.63	3.49	2.63
	Max	9.75	9.38	9.75
Persons per Room	Mean	<b>0.48</b>	<b>0.42</b>	<b>0.47</b>
	SD	0.18	0.22	0.19
	Min	0.27	0.26	0.26
	Max	5.81	3.33	5.81
Modelled Pct of Households Below Occupancy	Mean	<b>7.23</b>	<b>2.99</b>	<b>6.57</b>
	SD	4.64	5.40	5.01
	Min	0.00	0.00	0.00
	Max	84.22	62.24	84.22

**Table 2: Measures of Housing Stress; West Midlands Region**

	Sharing Dwellings	Below Standard	Rooms per Household	Persons per Room	Predicted Measure
Central	0.19	6.67	5.35	0.49	7.35
North	0.10	3.98	5.48	0.46	6.39
South	0.14	4.07	5.81	0.43	4.75
West	0.13	3.48	5.94	0.43	4.19
Region	0.17	5.66	5.49	0.47	6.57

**Table 3: Measures of Housing Stress; West Midlands**

<b>District</b>	<b>HMA</b>	<b>Sharing Dwellings</b>	<b>Below Standard</b>	<b>Rooms per Household</b>	<b>Persons Per Room</b>	<b>Predicted Measure</b>
Birmingham	Central	0.32	10.05	5.21	0.52	8.64
Cannock Chase	Central	0.16	4.44	5.36	0.48	6.80
Coventry	Central	0.29	7.99	5.17	0.52	8.76
Dudley	Central	0.10	4.53	5.33	0.47	6.82
Lichfield	Central	0.08	2.95	5.93	0.43	4.45
North Warwickshire	Central	0.02	3.10	5.63	0.45	4.77
Nuneaton & Bedworth	Central	0.13	4.36	5.39	0.47	6.46
Rugby	Central	0.23	3.36	5.66	0.44	5.39
Sandwell	Central	0.11	6.64	5.10	0.49	8.22
Solihull	Central	0.04	3.79	5.83	0.44	4.93
South Staffordshire	Central	0.01	3.14	5.86	0.45	4.39
Tamworth	Central	0.07	4.31	5.50	0.48	6.29
Telford	Central	0.06	4.34	5.64	0.46	5.75
Walsall	Central	0.13	5.76	5.32	0.48	7.38
Wolverhampton	Central	0.31	6.71	5.24	0.48	7.80
East Staffordshire	North	0.16	3.90	5.73	0.44	5.08
Newcastle Under Lyme	North	0.08	3.75	5.47	0.50	6.99
Stafford	North	0.07	2.86	5.92	0.43	4.28
Staffordshire Moorlands	North	0.01	2.78	5.68	0.44	5.20
Stoke	North	0.14	5.16	5.07	0.47	8.19
Bromsgrove	South	0.02	2.53	6.04	0.43	3.83
Malvern Hills	South	0.10	3.15	6.11	0.41	3.42
Redditch	South	0.29	5.93	5.48	0.47	6.82
Stratford	South	0.04	2.95	6.05	0.40	3.06
Warwick	South	0.16	5.67	5.67	0.44	5.71
Worcester	South	0.33	5.06	5.50	0.45	6.23
Wychavon	South	0.07	3.10	6.00	0.42	3.73
Wyre Forest	South	0.10	4.00	5.60	0.44	5.34
Bridgnorth	West	0.14	2.52	5.95	0.54	6.11
Herefordshire	West	0.09	3.93	5.94	0.41	3.97
North Shropshire	West	0.07	3.02	6.07	0.42	3.29
Oswestry	West	0.46	3.54	5.77	0.43	4.94
Shrewsbury	West	0.13	3.69	5.89	0.42	4.19
South Shropshire	West	0.06	2.85	6.06	0.40	3.19
<i>Total</i>		<i>0.17</i>	<i>5.66</i>	<i>5.49</i>	<i>0.47</i>	<i>6.57</i>