

THE UNIVERSITY *of York*

CENTRE FOR HEALTH ECONOMICS

## **UK Population Norms for EQ-5D**

*Paul Kind*  
*Geoffrey Hardman*  
*Susan Macran*

***DISCUSSION PAPER 172***



# **UK Population Norms for EQ-5D**

**Paul Kind  
Geoffrey Hardman  
Susan Macran**

**November 1999**

## **CENTRE FOR HEALTH ECONOMICS DISCUSSION PAPER SERIES**

The Discussion Paper (DP) Series was established in 1984 to make research available quickly to a broad readership drawn from the academic community, professional health care staff and policy makers, both within the UK and internationally. Material published in DP form ranges from work in progress, to edited versions of completed project reports, from papers intended ultimately for journal publication, to those which seek to stimulate immediate debate. Hence the variation in length and complexity of DPs.

In the past, DPs have been subject to a minimum of editorial revision, it being principally seen as the responsibility of individual authors to ensure that appropriate standards were met. Since June 1996, a more formal system of internal peer-review has been introduced to consolidate the high levels of quality that have been achieved in the past. That system involves the refereeing of DPs in draft form, with any recommended revisions being verified independently by a senior member of staff.

DPs are not a substitute for publication in peer-reviewed journals. It is to be hoped that journal editors will recognise the nature of the DP series, and accept that this does not compromise the status of those papers published by the Centre which may later be submitted for consideration in more formal publications. Comments and suggestions on DPs encouraged and should be sent directly to the authors.

### **THE AUTHORS**

Paul Kind (Senior Research Fellow) and Susan Macran (Research Fellow) are members of the York Health Outcomes Research Group at the Centre for Health Economics. Geoff Hardman (Research Fellow) is a member of the Statistical Support Group, also at the Centre for Health Economics.

### **ACKNOWLEDGEMENTS**

The data reported in this Discussion Paper were collected as part of a national survey commissioned by the Department of Health.

### **FURTHER COPIES**

Further copies of this document (at price £12.50 to cover the cost of publication, postage and packing) are available from:

The Publications Office  
Centre for Health Economics  
University of York  
York YO10 5DD

Please make cheques payable to 'The University of York'. Details of other papers can be obtained from the same address or telephone (01904) 433648.

**ABSTRACT**

This discussion paper presents data from the Department of Health funded Measurement and Valuation of Health survey conducted at the Centre for Health Economics in 1993. This was a nationally representative interview survey of 3395 men and women aged 18 or over living in the UK. Amongst other things, the survey collected information on health status using the EuroQoL (EQ-5D) descriptive system. The data is presented as a series of tables of age/sex population norms for the EQ-5D, for both self rated health status and weighted health state index. The tables are likely to be useful for researchers, clinicians, health care providers and policy makers, who are using EQ-5D to evaluate health care and who require baseline values for comparative purposes or for monitoring population variations in health.

## INTRODUCTION

The Measurement and Valuation of Health (MVH) project was funded at the Centre for Health Economics between 1987-1995, by the Department of Health with the remit of developing practical ways for measuring health-related quality of life. Part of that task involved undertaking a national survey to elicit health state valuations from a representative sample of the UK population. The findings from the project have already been extensively reported (Dolan et al, 1995; Williams et al, 1995; Kind et al, 1998).

The survey's principal objective was to collect data on health state valuations using a Time Trade Off (TTO) procedure. However, the survey also gathered data on self-reported health status using the EuroQoL EQ-5D descriptive classification system. EQ-5D is a generic measure of health status which defines health in terms of five dimensions: mobility, self-care, usual activities, pain or discomfort and anxiety or depression. Each dimension is subdivided into three levels which correspond to whether a respondent has no problems, moderate problems or extreme problems. EQ-5D also requires respondents to indicate how good or bad their current health state is on a visual analogue scale (VAS), where 0 represents their worst imagined health state and 100 represents their best imagined health state.

Respondents "health status" can be expressed as their score on the visual analogue scale (EQ-5D<sub>vas</sub>), as a health profile of their scores on the five dimensions or as a unique health state, by combining the different levels from each dimension; EQ-5D defines a total of 243 theoretically possible health states. Each unique health state can be transformed into a weighted health state index score (EQ-5D<sub>index</sub>) using one of the tariffs which were derived from the health valuation part of the survey (Dolan, et al 1995).

This discussion paper presents a series of tables of age/sex population norms for EQ-5D, for both self rated health status (EQ-5D<sub>vas</sub>) using the visual analogue scale and weighted health state index score (EQ-5D<sub>index</sub>)<sup>1</sup>. The tables are likely to be useful for researchers, clinicians health care providers and policy makers who maybe using EQ-5D to evaluate health care and who require baseline values for comparative purposes.

## METHOD

### Sampling

A total of 6080 addresses in the UK were selected using a strategy designed to generate a sample which was representative of the general population with respect to age, gender and social class (see Erens, 1994). Twelve percent of the selected addresses were non-productive in that they were non-residential, empty or untraceable. Individuals in institutions, hostels, homes for the elderly, or bed and breakfast accommodation, were excluded from the sample. Twenty-four percent of individuals who were contacted refused to take part. The final sample consisted of 3395 individuals aged 18 or over. The characteristics of the achieved sample were very similar to those of the general population, as can be seen in Table 1.

---

<sup>1</sup> The data was weighted using the tariff derived from mean values based on individual TTO scores. This is the basic tariff recommended by the MVH group when a weighting system is required for use in economic evaluation.

**Table 1 : Characteristics of MVH survey population compared to general population**

	Health Related Quality of Life survey <sup>1</sup>	General population
<b>Men</b>	46%	48% (1991 census)
aged under 60	34%	37%
<b>Women</b>	54%	52%
aged under 60	41%	37%
<b>Social class</b>		
I/II	30%	30% (1991 census)
IIIN/IIIM	46%	43%
IV/V	25%	24%
<b>Marital status</b>		
single	17%	21% (1992 GHS)
married/cohabiting	60%	64%
separated/divorced/ widowed	15%	23%
<b>Housing tenure</b>		
owner occupier	70%	70% (1991 Census)
<b>Economic activity</b>		
In employment/seeking employment	59%	61% (1991 Census)
retired	19%	20%
permanently sick/disabled	4%	4%
other	19%	17%

<sup>1</sup> For comparison with the Census, the MVH survey data has been weighted to account for the effect of household size on selection probabilities. For comparison with the GHS, data is unweighted. contained fewer individuals who were married or cohabiting and more divorced and widowed respondents than in the general population.

The proportion of men included in the survey is slightly lower than that found in the general population, and this under-sampling extends to the older aged male respondents. Correspondingly there is a higher proportions of women respondents. The sample also contained fewer individuals who were married or cohabiting and more divorced and widowed responders than in the general population.

## Data Collection

Face-to-face interviews were conducted in the respondent's home. As part of the initial phase of the interview respondents were asked to complete a 2-page questionnaire based on the standard format adopted by the EuroQoL Group (see Appendix A). The first of these pages is designed to record information on self-reported problems with each of the 5 dimensions. The second page of the questionnaire records the respondent's self-perceived health status on a standardised 20 centimetre visual analogue scale. Details about the personal background of each respondent were recorded separately by the interviewer. This included information on age, sex, marital status, educational attainment, employment status, housing tenure and smoking behaviour. Interviews took place during the last quarter of 1993. Fieldwork was conducted in association with Social and Community Planning and Research based in London.

Table 2 shows the item response rates for each EQ-5D dimension and for the visual analogue scale.

### Calculating the weighted health state index score (EQ-5D<sub>index</sub>)

The 243 health states defined by the EuroQoL classification can be converted into a weighted health state index score using the table of values in Appendix B. These values were calculated using a regression model developed using the TTO data collected by the MVH survey (Dolan et al, 1995). The following worked example demonstrates how the coefficients obtained from the regression model (shown in table 3) were used to compute the weighted value for each health state.

**Table 2: Item response rates**

Item	Number of cases responding to this item	Number of cases missing on this item
Mobility	3388	7
Self Care	3386	9
Usual Activities	3387	8
Pain/Discomfort	3387	8
Anxiety/Depression	3389	6
Visual Analogue Scale	3381	14

**Table 3: Coefficients for EQ-5D health states**

EuroQoL dimension	Coefficient Level 2	Coefficient Level 3
Mobility	0.069	0.314
Self-care	0.104	0.214
Usual activity	0.036	0.094
Pain / discomfort	0.123	0.386
Anxiety / depression	0.071	0.236
	Constant = 0.081	N3 = 0.269



**Calculating a weighted health state index (EQ-5D<sub>index</sub>) score for health state 11223.**

Full health (11111) = 1.0

Subtract 0.081 (constant) for any state other than 11111.

Subtract zero for level 1 on any dimension (in this example mobility and self care).

Subtract the appropriate value for each dimension at level 2 or level 3 (in this case 0.036 for usual activity, 0.123 for pain/discomfort and 0.236 for anxiety and depression).

Subtract 0.269 if any dimension has a level 3 problem (in this example, anxiety/depression).

Hence the weighted health state index score for health state 11223 is given by

$$1.0 - 0.081 - 0.036 - 0.123 - 0.236 - 0.269 = \mathbf{0.255}$$

**THE TABLES**

The tables are divided into two sections:

- Section 1, presents data on health state expressed as a weighted health state index (EQ-5D<sub>index</sub>);
- Section 2, presents data on self-rated health status as measured by the visual analogue scale (EQ-5D<sub>vas</sub>).

Each section provides data for the whole sample, and then for males and female separately. There are separate tables for educational level, marital status, housing tenure, standard economic region, social class and smoking status and for each table the data is presented in 10 year age bands.

*Educational level* is divided into 5 categories: higher education; further education/ 'A' level or equivalent; 'O' level/CSE or equivalent; no qualifications; other qualifications not specified elsewhere.

*Marital status* is divided into 5 categories: married; cohabiting; separated or divorced; widowed and single.

*Smoking status* is divided into three categories: non-smoker; smoker less than 20 cigarettes per day; smoker more than 20 cigarettes per day. Unfortunately the data does not allow us to distinguish which of the non-smokers are ex-smokers. As many individuals cease smoking because of relatively poor health, it is possible that our figures give a slightly pessimistic view of the health of non-smokers who have never smoked.

*Housing tenure* is divided into 4 categories: owner occupied which includes those individuals who own their property outright or who are buying their property with a mortgage or loan; private rented; public rented which includes individuals who are renting from a local authority, New Town or Housing Association; other household tenure not specified elsewhere.

*Social class* is presented as two categories: non-manual workers and manual workers and is derived from respondents' current or last main job.

*Standard Region* divides Great Britain into 10 geographical areas: North, Yorkshire and Humberside, East Midlands, East Anglia, South East, South West, West Midlands, North West, Wales, Scotland.

### **How to use the tables**

The tables are designed to be used as population norms for comparative purposes. The following points are intended to act as guidelines for users who may be less confident about using the tables and interpreting the data they present.

- Each cell presents the mean, number of cases (n) and standard deviation for the particular population sub-group that it represents.
- Some of the cells, particularly in the tables for males and females contain relatively few cases. As it is sensitive to extreme scores, the mean can be a less useful summary measure of the scores of a population when there are relatively few cases. As a guide, it is suggested that the mean scores presented for cells containing around 30 cases or less be interpreted with caution.
- F ratios (ANOVA) were calculated for each row and column to test for differences between cell means. Significance levels for the F ratios are presented as a p-value at the end of each row and column. Conventionally only p-values of 0.05 or less are considered to be statistically significant. As ANOVA is a comparison of cell means, it is suggested that the significance levels presented for cells which contain around 30 cases or less be interpreted with caution.
- P-values could not be calculated for some rows or columns because they contained empty cells.
- When comparing the data in the tables with any other data, the effect of sample bias should be accounted for where possible. For example, consider the case where a GP with a practice in an area where 65% of the population are in manual occupations wishes to compare the EQ-5D scores obtained from a sample of her patients with the national data presented here. The GP may have established that the age/sex distribution of her sample is not significantly different from the age/sex distribution of the national population, but still needs to account for differences in social class, given that there is a significant difference in the EQ-5D scores for people in non-manual and manual occupations. Instead of using tables A and B to make her comparison, the GP should more appropriately use Tables 1.1.5 and 2.1.5. However if the GP was unsure whether the age/sex distribution of her sample was the same as that of the national sample, it would be more appropriate for her to use tables 1.2.5, 1.3.5, 2.2.5 and 2.3.5 to make comparisons. In principle, any factor that is known to significantly affect an individual's health score (such as social class or education) should be controlled for in the comparison. Of course this is not always possible, which is partly why any comparisons made using these tables should be done with caution.

- Individual scores can be compared with the group means presented in the tables by transforming the individual score into a  $z$  score (or standard score) which indicates where that score stands in relation to all the other scores. A  $z$  score is a measure of how many standard deviations an individual score is from the mean of the distribution. The formula for calculating a  $z$  score is as follows:

$$z \text{ score} = \frac{X - \mu}{\sigma}$$

$X$  = the individual score to be transformed

$\mu$  = population mean

$\sigma$  = population standard deviation

A  $z$  score of  $\pm 2$  or is generally considered to be an extreme high or low score.

#### **Example**

If a 21 year old woman has a weighted health state index (EQ-5D<sub>index</sub>) score of 0.88, is her score high or low compared to women of a similar age? To calculate her  $z$  score we use the mean (0.94) and standard deviation (0.12) for women aged less than 25 from Table A thus:

$$z \text{ score} = \frac{0.88 - 0.94}{0.12} = -0.5$$

Her score is 0.5 standard deviations below the mean score for women aged 18-25 years. Approximately 68% of scores for a group will fall between plus and minus one standard deviation from the mean (i.e. between  $0.94 - 0.12$  and  $0.94 + 0.12$ ), assuming the scores are normally distributed. Therefore, our 21 year old woman's score is not particularly low as compared to the scores of women of a similar age group.

- Group mean scores can be compared with the population means presented in the tables to test whether or not the two groups are significantly different or not, using a two-tailed  $t$ -test for independent samples. The formula for the  $t$ -test statistic is given below:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{s\bar{x}_1 - \bar{x}_2}$$

where

$$s\bar{x}_1 - \bar{x}_2 = \sqrt{\frac{\sigma_1^2(n_1 - 1) + \sigma_2^2(n_2 - 1)}{n_1 + n_2 - 2} \left( \frac{1}{n_1} + \frac{1}{n_2} \right)}$$

$\bar{X}_1$  = study group mean

$\bar{X}_2$  = population mean

$s\bar{x}_1 - \bar{x}_2$  = estimated standard error

$\sigma_1$  = study group standard deviation

$\sigma_2$  = population standard deviation

$n_1$  = study group number of cases

$n_2$  = population number of cases

**Example**

A GP wishes to compare the self-rated health status (EQ-5D<sub>vas</sub>) scores of elderly men registered with his practice, with the national data for men of a similar age. The GP has data from 132 men aged 75 years or more and their mean self-rated health score is 78.26 with a standard deviation of 20. Table B shows that the mean self-rated health score for men aged 75 years or more is 72.90 with a standard deviation of 18.99, based on 107 cases. The score from our GP's sample is higher by 5 points (78.26-72.90=5.36); but is that difference meaningful? Applying a t-test to the comparison will give an indication of the statistical significance of that difference. Thus:

$$t = \frac{78.26 - 72.90}{\sqrt{\frac{(20)^2(132 - 1) + (18.99)^2(107 - 1)}{132 + 107 - 2} \left( \frac{1}{132} + \frac{1}{107} \right)}} = 2.17$$

The value of the t-test statistic is 2.17 with 237 degrees of freedom ( $n_1+n_2 - 2$ ). Using tables of the t distribution it can be seen that the probability that the mean scores of the two groups are not different from each other is less than 0.05. Therefore it can be suggested that the two groups are statistically significant from each other.

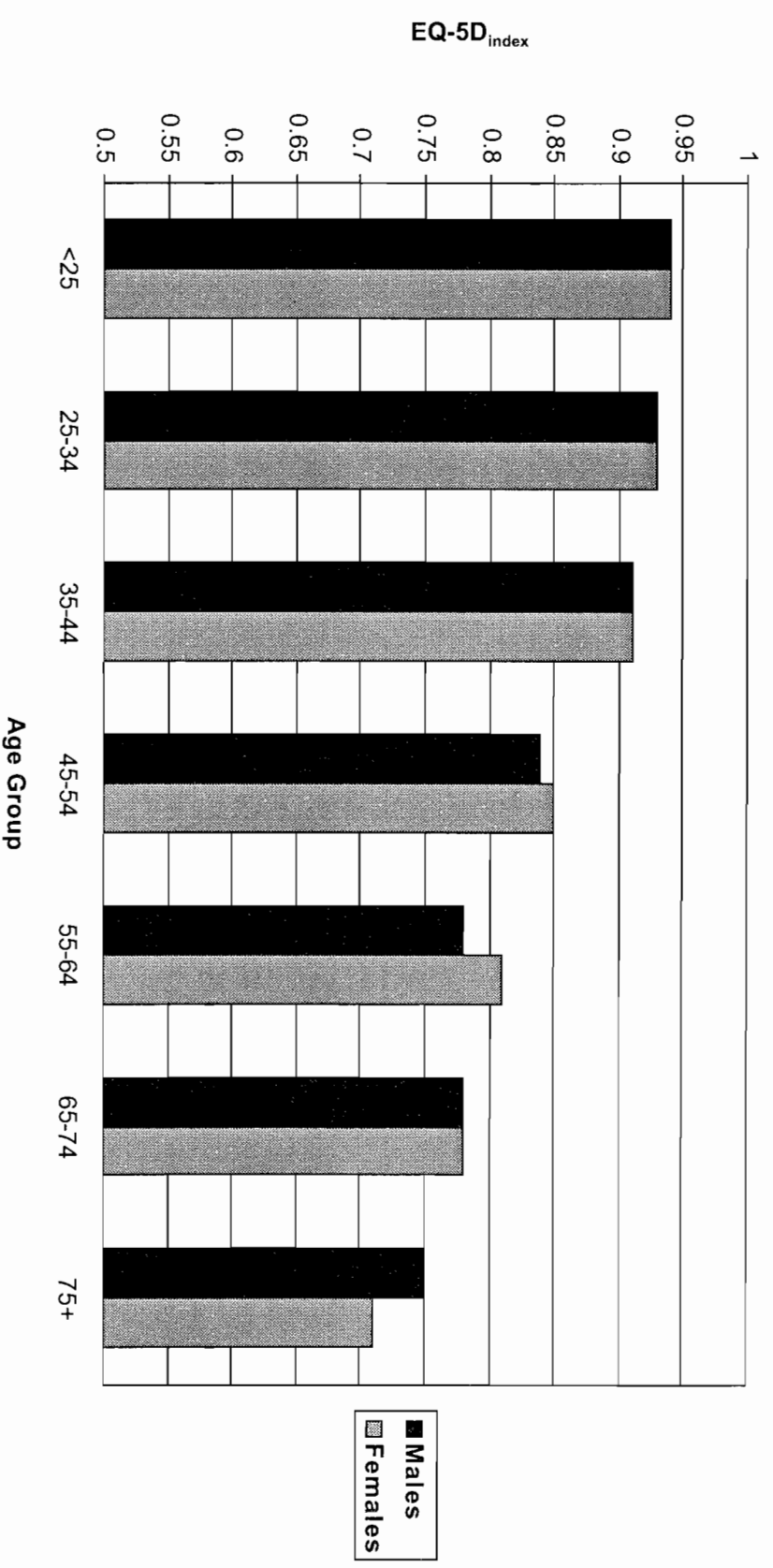
*Users are cautioned against performing a large number of multiple t-tests to compare the means of different groups, as this increases the probability that the results of the t-tests will be significant simply by chance.*

**Index of Tables**Table A: EQ-5D<sub>index</sub> by age and sexTable B: EQ-5D<sub>VAS</sub> by age and sex**Section 1**Table 1.1.1 EQ-5D<sub>index</sub> by age and educational qualificationsTable 1.1.2 EQ-5D<sub>index</sub> by age and marital statusTable 1.1.3 EQ-5D<sub>index</sub> by age and smoking statusTable 1.1.4 EQ-5D<sub>index</sub> by age and housing tenureTable 1.1.5 EQ-5D<sub>index</sub> by age and social classTable 1.1.6 EQ-5D<sub>index</sub> by age and standard regionTable 1.2.1 EQ-5D<sub>index</sub> by age and educational qualifications for malesTable 1.2.2 EQ-5D<sub>index</sub> by age and marital status for malesTable 1.2.3 EQ-5D<sub>index</sub> by age and smoking status for malesTable 1.2.4 EQ-5D<sub>index</sub> by age and housing tenure for malesTable 1.2.5 EQ-5D<sub>index</sub> by age and social class for malesTable 1.2.6 EQ-5D<sub>index</sub> by age and standard region for malesTable 1.3.1 EQ-5D<sub>index</sub> by age and educational qualifications for femalesTable 1.3.2 EQ-5D<sub>index</sub> by age and marital status for femalesTable 1.3.3 EQ-5D<sub>index</sub> by age and smoking status for femalesTable 1.3.4 EQ-5D<sub>index</sub> by age and housing tenure for femalesTable 1.3.5 EQ-5D<sub>index</sub> by age and social class for femalesTable 1.3.6 EQ-5D<sub>index</sub> by age and standard region for females**Section 2**Table 2.1.1 EQ-5D<sub>VAS</sub> by age and educational qualificationsTable 2.1.2 EQ-5D<sub>VAS</sub> by age and marital statusTable 2.1.3 EQ-5D<sub>VAS</sub> by age and smoking statusTable 2.1.4 EQ-5D<sub>VAS</sub> by age and housing tenureTable 2.1.5 EQ-5D<sub>VAS</sub> by age and social classTable 2.1.6 EQ-5D<sub>VAS</sub> by age and standard regionTable 2.2.1 EQ-5D<sub>VAS</sub> by age and educational qualifications for malesTable 2.2.2 EQ-5D<sub>VAS</sub> by age and marital status for malesTable 2.2.3 EQ-5D<sub>VAS</sub> by age and smoking status for malesTable 2.2.4 EQ-5D<sub>VAS</sub> by age and housing tenure for malesTable 2.2.5 EQ-5D<sub>VAS</sub> by age and social class for malesTable 2.2.6 EQ-5D<sub>VAS</sub> by age and standard region for malesTable 2.3.1 EQ-5D<sub>VAS</sub> by age and educational qualifications for femalesTable 2.3.2 EQ-5D<sub>VAS</sub> by age and marital status for femalesTable 2.3.3 EQ-5D<sub>VAS</sub> by age and smoking status for femalesTable 2.3.4 EQ-5D<sub>VAS</sub> by age and housing tenure for femalesTable 2.3.5 EQ-5D<sub>VAS</sub> by age and social class for femalesTable 2.3.6 EQ-5D<sub>VAS</sub> by age and standard region for females

# **TABLES**

Figure A

Weighted Health State Index by Age and Sex



**Table A**

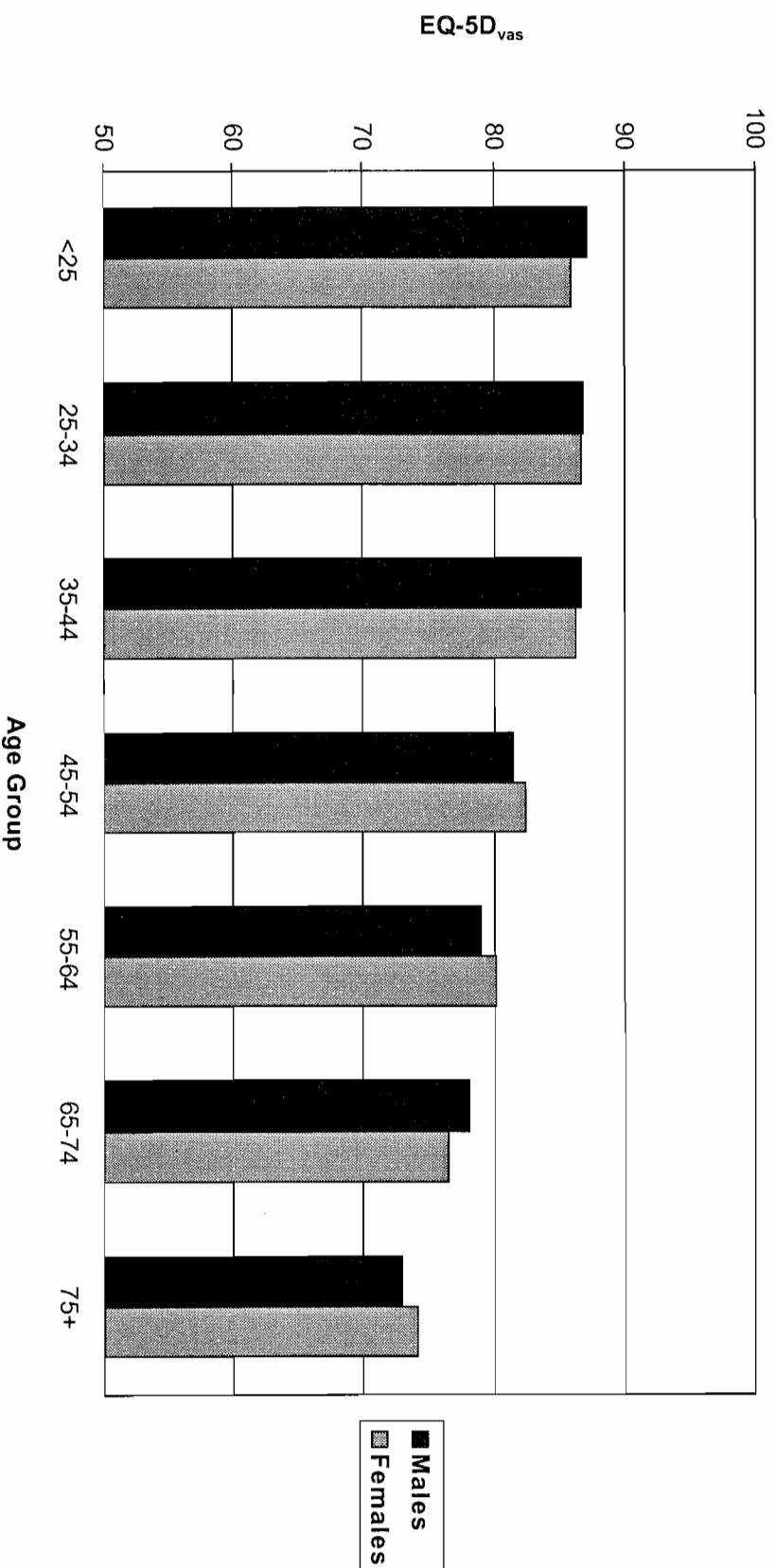
**Weighted Health State Index by Age and Sex**

	Sex			Sig. Level of F Test	
	All	Males	Females		
All	Mean Count Std Deviation	0.86 3392 0.23	0.86 1467 0.24	0.85 1925 0.22	0.504
Age Under 25	Mean Count Std Deviation	0.94 304 0.12	0.94 128 0.12	0.94 176 0.12	0.654
25-34	Mean Count Std Deviation	0.93 753 0.15	0.93 330 0.16	0.93 423 0.15	0.631
35-44	Mean Count Std Deviation	0.91 561 0.16	0.91 256 0.17	0.91 305 0.15	0.691
45-54	Mean Count Std Deviation	0.85 488 0.25	0.84 221 0.27	0.85 267 0.23	0.915
55-64	Mean Count Std Deviation	0.80 484 0.26	0.78 196 0.28	0.81 288 0.26	0.203
65-74	Mean Count Std Deviation	0.78 488 0.26	0.78 228 0.28	0.78 260 0.25	0.892
75+	Mean Count Std Deviation	0.73 314 0.27	0.75 108 0.28	0.71 206 0.27	0.197
Significance Level of F Test					0.000
Significance Level of F Test					0.000
Significance Level of F Test					0.000



Figure B

Self Rated Health Status by Age and Sex



**Table B**

**Self Rated Health Status by Age and Sex**

	All	Sex		Sig. Level of F Test	
		Males	Females		
All	Mean Count Std Deviation	82.48 3378 16.96	82.66 1463 16.96	82.34 1915 16.97	0.612
Age Under 25	Mean Count Std Deviation	86.49 303 13.60	87.15 128 13.86	86.00 175 13.43	0.469
25-34	Mean Count Std Deviation	86.84 753 14.41	86.87 330 14.41	86.82 423 14.42	0.961
35-44	Mean Count Std Deviation	86.56 559 13.79	86.81 255 12.39	86.35 304 14.88	0.698
45-54	Mean Count Std Deviation	82.03 487 18.15	81.56 221 19.23	82.42 266 17.23	0.603
55-64	Mean Count Std Deviation	79.74 480 18.23	78.99 194 19.04	80.26 286 17.67	0.456
65-74	Mean Count Std Deviation	77.32 486 18.05	78.19 228 27.40	76.55 258 18.61	0.317
75+	Mean Count Std Deviation	73.66 310 18.63	72.90 107 18.99	74.07 203 18.47	0.599
Significance Level of F Test		0.000	0.000	0.000	

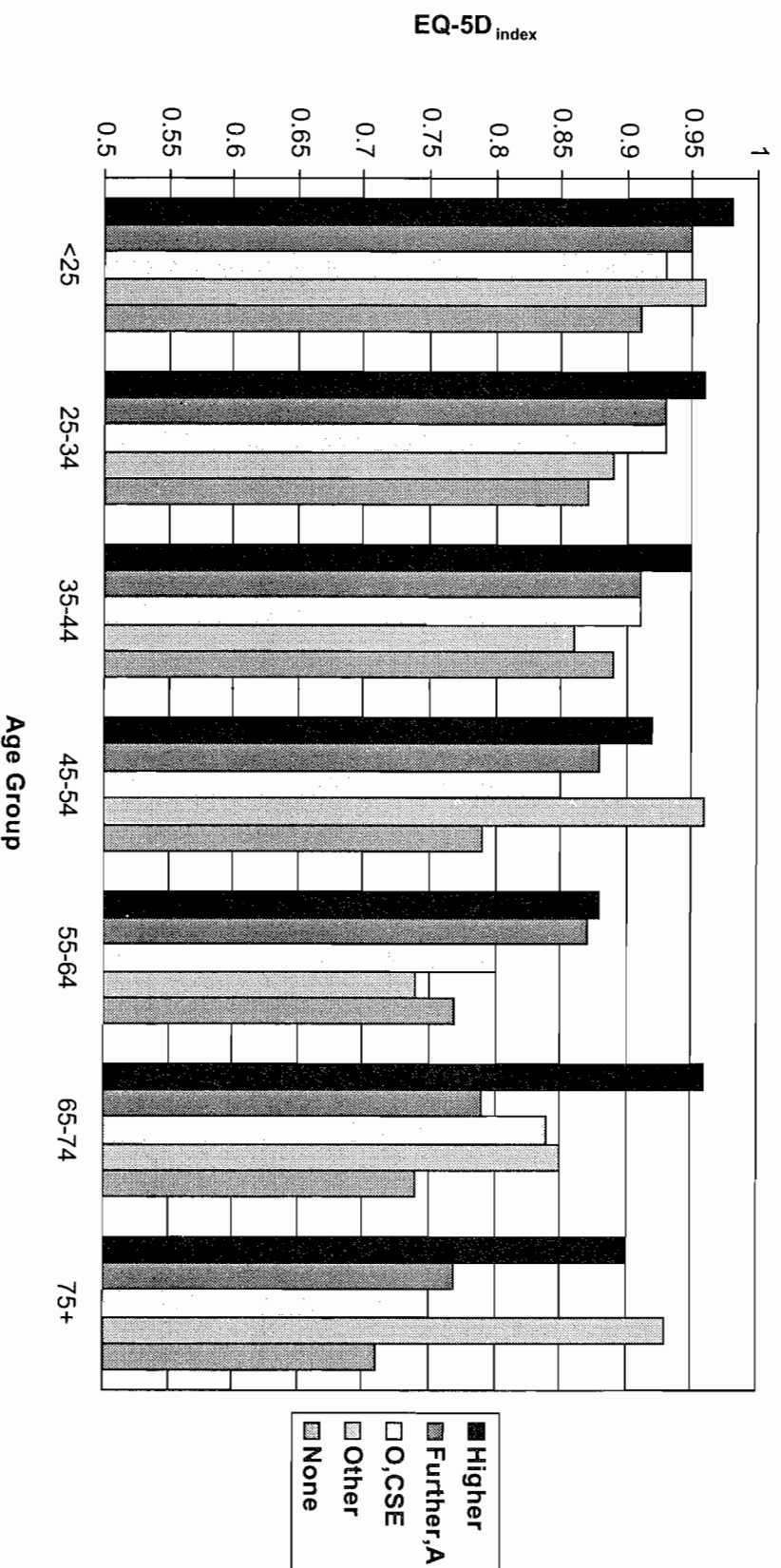
# **SECTION 1**

## **Weighted Health State Index EQ-5D<sub>index</sub>**

**Whole Population  
Males  
Females**

Figure 1.1.1

Weighted Health State Index by Age and Educational Qualifications



**Table 1.1.1**

**Weighted Health State Index by Age and Educational Qualifications**

	Level of Education					Sig. Level of F Test
	Higher	Further <sup>A</sup>	O,CSE	Other	None	
All	Mean 0.94 Count 313 Std Deviation 0.13	0.90 685 0.19	0.89 1049 0.19	0.87 92 0.21	0.78 1251 0.27	0.000
Age Under 25	Mean 0.98 Count 18 Std Deviation 0.07	0.95 102 0.12	0.93 142 0.12	0.96 3 0.07	0.91 39 0.15	0.322
Age 25-34	Mean 0.96 Count 101 Std Deviation 0.09	0.93 224 0.15	0.93 307 0.14	0.89 11 0.18	0.87 110 0.22	0.000
Age 35-44	Mean 0.95 Count 80 Std Deviation 0.12	0.91 137 0.19	0.91 183 0.12	0.86 10 0.15	0.89 151 0.19	0.112
Age 45-54	Mean 0.92 Count 57 Std Deviation 0.16	0.88 79 0.21	0.85 141 0.25	0.96 23 0.09	0.79 187 0.28	0.000
Age 55-64	Mean 0.88 Count 31 Std Deviation 0.19	0.87 72 0.22	0.80 117 0.25	0.74 22 0.31	0.77 241 0.28	0.024
Age 65-74	Mean 0.96 Count 18 Std Deviation 0.09	0.79 47 0.28	0.84 108 0.21	0.85 17 0.17	0.74 298 0.28	0.000
Age 75+	Mean 0.90 Count 8 Std Deviation 0.14	0.77 24 0.23	0.75 51 0.27	0.93 6 0.13	0.71 225 0.28	0.066
Significance Level of F Test						0.019
						0.000
						0.000
						0.023
						0.000

Figure 1.1.2

Weighted Health State Index by Age and Marital Status

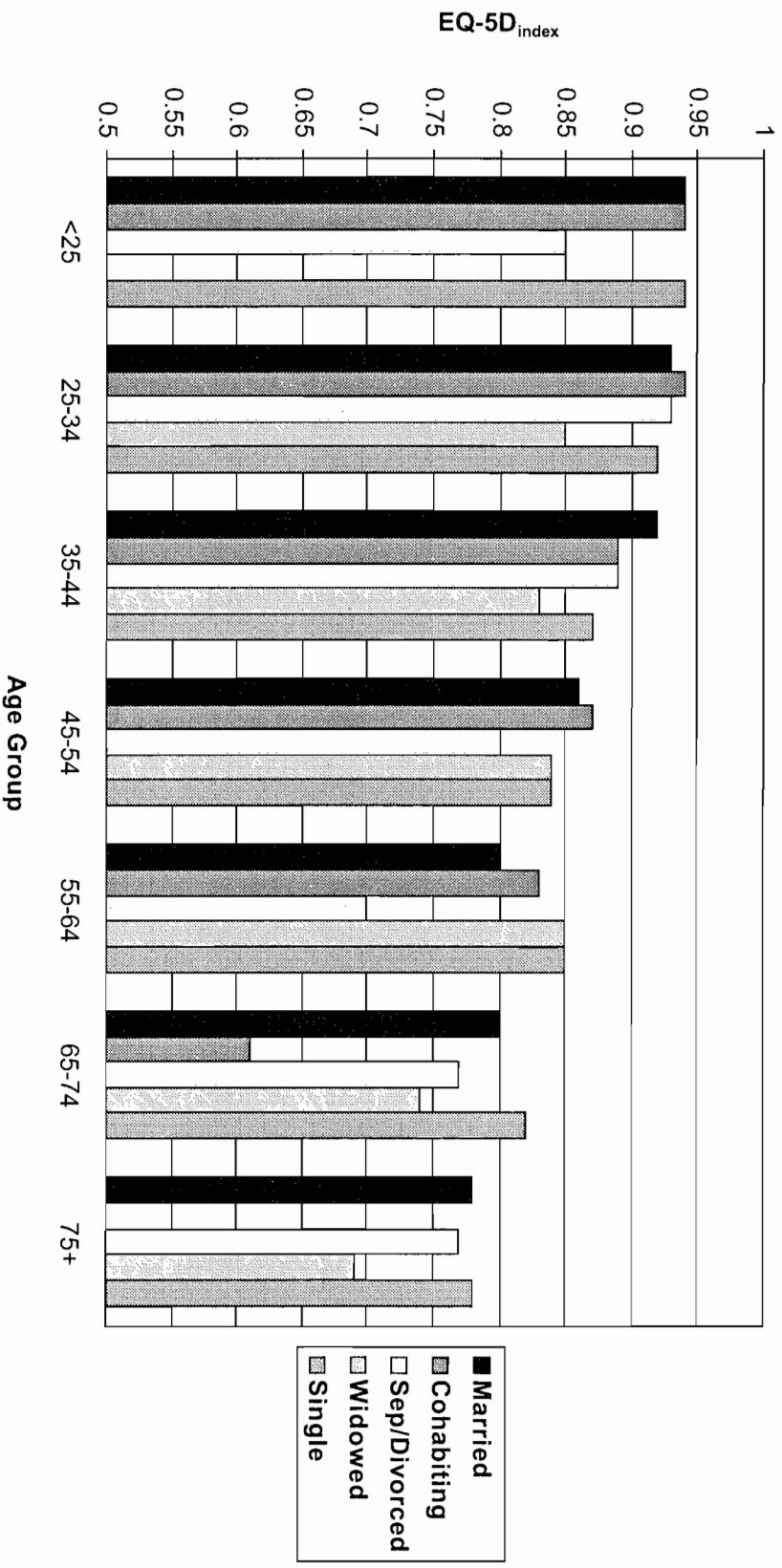
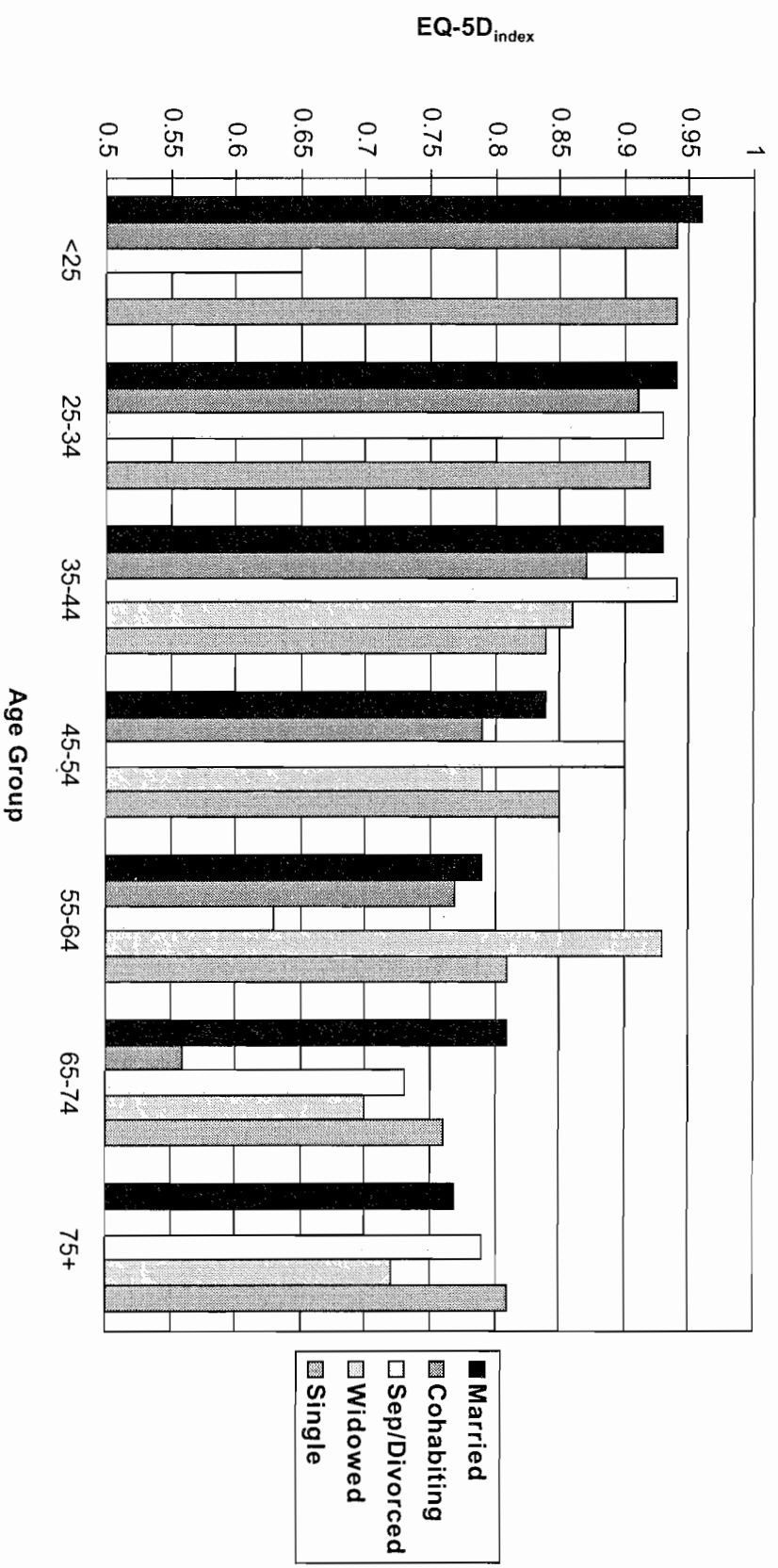


Figure 1.2.2

Weighted Health State Index by Age and Marital Status for Males



**Table 1.2.1**

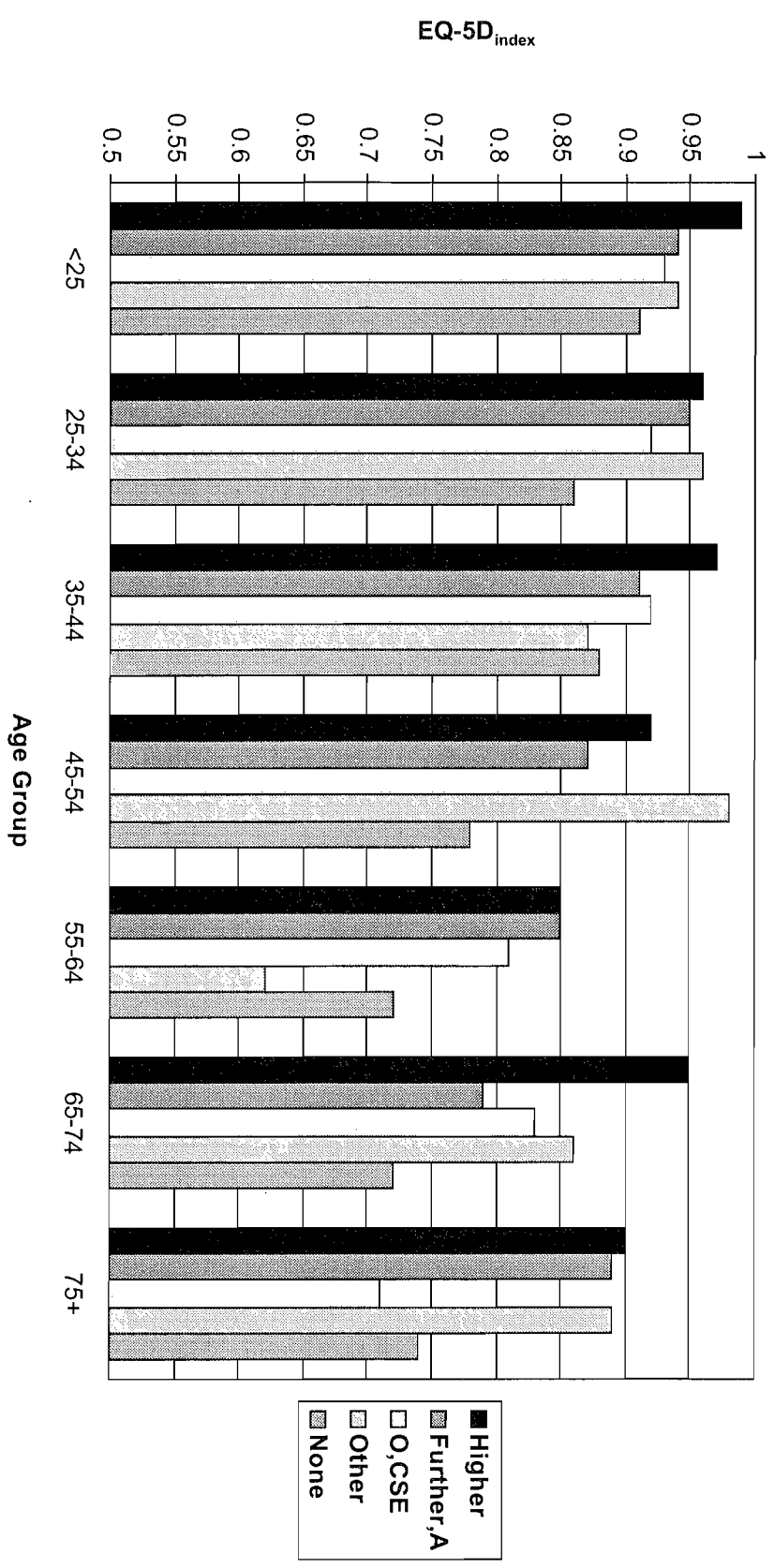
**Weighted Health State Index by Age and Educational Qualifications for Males**

	Level of Education					Sig. Level of F Test	
	Higher	Further A	O,CSE	Other	None		
All	Mean Count Std Deviation	0.94 182 0.12	0.91 343 0.19	0.87 453 0.21	0.84 51 0.25	0.78 436 0.30	0.000
Age Under 25	Mean Count Std Deviation	0.99 11 0.05	0.94 55 0.14	0.93 51 0.11	0.94 2 0.08	0.91 9 0.11	0.659
Age 25-34	Mean Count Std Deviation	0.96 56 0.08	0.95 109 0.14	0.92 122 0.15	0.96 4 0.08	0.86 39 0.28	0.021
Age 35-44	Mean Count Std Deviation	0.97 44 0.08	0.91 74 0.19	0.92 68 0.12	0.87 4 0.15	0.88 66 0.22	0.118
Age 45-54	Mean Count Std Deviation	0.92 29 0.14	0.87 44 0.24	0.85 63 0.27	0.98 11 0.06	0.78 73 0.34	0.044
Age 55-64	Mean Count Std Deviation	0.85 22 0.22	0.85 32 0.21	0.81 59 0.25	0.62 12 0.38	0.72 70 0.32	0.040
Age 65-74	Mean Count Std Deviation	0.95 15 0.09	0.79 24 0.30	0.83 62 0.22	0.86 14 0.18	0.72 113 0.31	0.010
Age 75+	Mean Count Std Deviation	0.90 5 0.14	0.89 5 0.17	0.71 28 0.32	0.89 4 0.15	0.74 66 0.27	0.337
Significance Level of F Test							0.003



Figure 1.2.1

Weighted Health State Index by Age and Educational Qualifications for Males



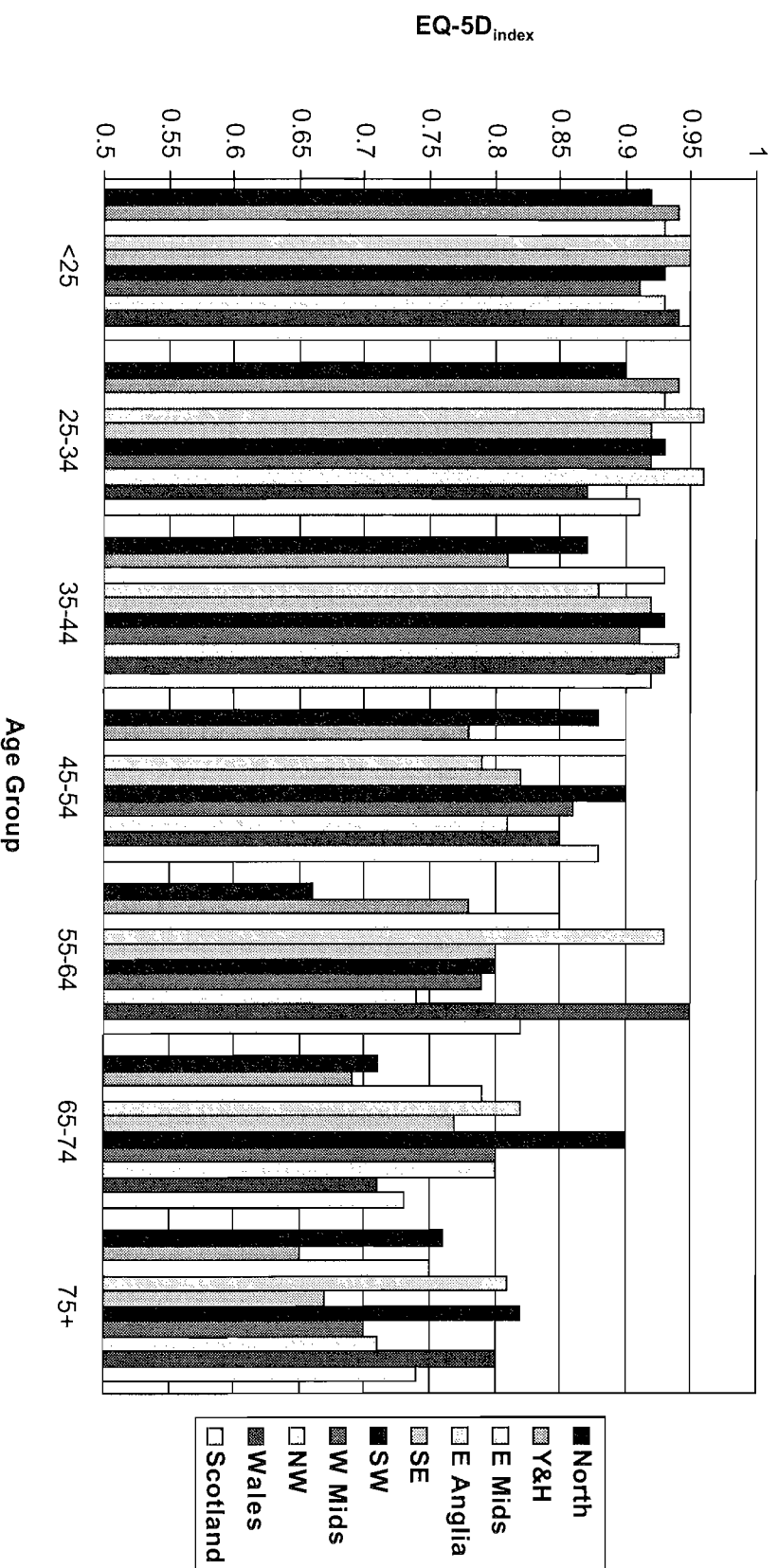
**Table 1.1.6**

**Weighted Health State Index by Age and Standard Region**

	Region										Sig. Level of F Test	
	North	Y&H	E Mids	E Anglia	SE	SW	W Mids	NW	Wales	Scotland		
All	Mean Count Std Deviation	0.81 209 0.26	0.81 266 0.27	0.89 359 0.19	0.88 135 0.18	0.85 840 0.23	0.89 368 0.18	0.85 313 0.23	0.86 424 0.24	0.86 121 0.23	0.86 360 0.23	0.000
Age Under 25	Mean Count Std Deviation	0.92 15 0.19	0.94 29 0.10	0.93 32 0.13	0.95 17 0.10	0.95 82 0.09	0.93 24 0.15	0.91 30 0.15	0.93 26 0.16	0.94 12 0.11	0.95 37 0.09	0.896
Age 25-34	Mean Count Std Deviation	0.90 42 0.16	0.94 52 0.16	0.93 105 0.15	0.96 22 0.10	0.92 176 0.15	0.93 73 0.13	0.92 66 0.17	0.96 104 0.09	0.87 29 0.25	0.91 84 0.19	0.158
Age 35-44	Mean Count Std Deviation	0.87 34 0.20	0.81 44 0.27	0.93 65 0.12	0.88 30 0.21	0.92 141 0.12	0.93 62 0.15	0.91 52 0.17	0.94 59 0.10	0.93 22 0.15	0.92 52 0.14	0.002
Age 45-54	Mean Count Std Deviation	0.88 29 0.22	0.78 32 0.33	0.90 52 0.17	0.79 15 0.31	0.82 127 0.27	0.90 54 0.15	0.86 49 0.23	0.81 81 0.28	0.85 12 0.29	0.88 37 0.21	0.178
Age 55-64	Mean Count Std Deviation	0.66 32 0.36	0.78 48 0.29	0.85 35 0.19	0.93 20 0.12	0.80 125 0.26	0.80 56 0.27	0.79 36 0.23	0.74 61 0.30	0.95 12 0.12	0.82 59 0.21	0.023
Age 65-74	Mean Count Std Deviation	0.71 34 0.30	0.69 34 0.32	0.79 41 0.27	0.82 18 0.17	0.77 119 0.26	0.90 62 0.17	0.80 48 0.25	0.80 60 0.25	0.71 20 0.24	0.73 52 0.31	0.007
Age 75+	Mean Count Std Deviation	0.76 23 0.22	0.65 27 0.24	0.75 29 0.29	0.81 13 0.17	0.67 70 0.31	0.82 36 0.17	0.70 32 0.29	0.71 33 0.27	0.80 12 0.24	0.74 39 0.28	0.204
Significance Level of F Test	0.000										0.015	0.000

Figure 1.1.6

Weighted Health State Index by Age and Standard Region



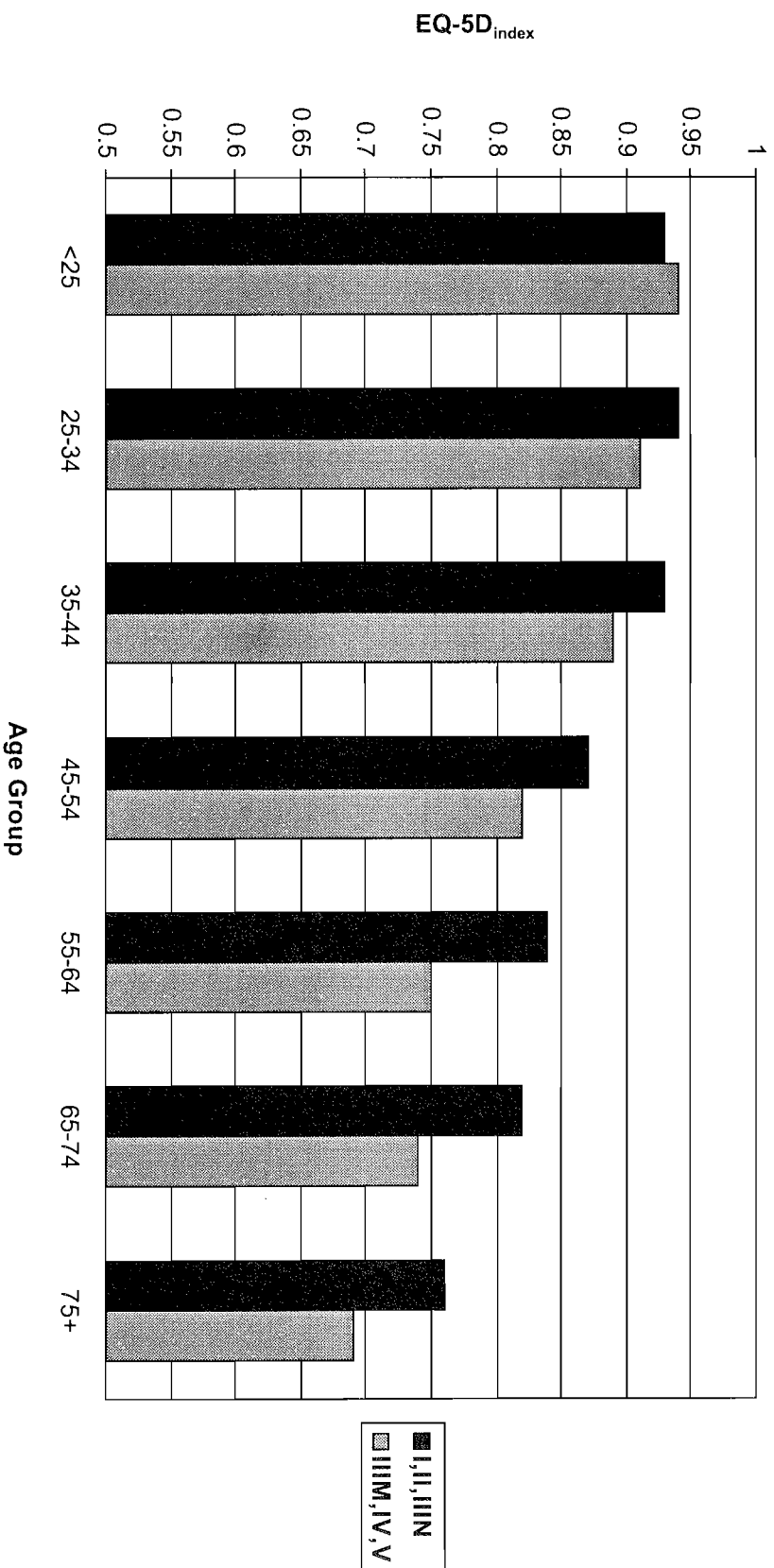
**Table 1.1.5**

**Weighted Health State Index by Age and Social Class**

	Social Class		Sig. Level of F Test	
	Non-manual	Manual		
All	Mean Count Std Deviation	0.88 1780 0.20	0.82 1505 0.26	0.000
Age Under 25	Mean Count Std Deviation	0.93 131 0.14	0.94 140 0.11	0.592
Age 25-34	Mean Count Std Deviation	0.94 460 0.13	0.91 272 0.17	0.004
Age 35-44	Mean Count Std Deviation	0.93 318 0.13	0.89 230 0.19	0.041
Age 45-54	Mean Count Std Deviation	0.87 274 0.24	0.82 211 0.26	0.046
Age 55-64	Mean Count Std Deviation	0.84 245 0.22	0.75 230 0.30	0.001
Age 65-74	Mean Count Std Deviation	0.82 224 0.23	0.74 249 0.29	0.001
Age 75+	Mean Count Std Deviation	0.76 128 0.26	0.69 173 0.28	0.048
Significance Level of F Test			0.000	0.000

Figure 1.1.5

Weighted Health State Index by Age and Social Class

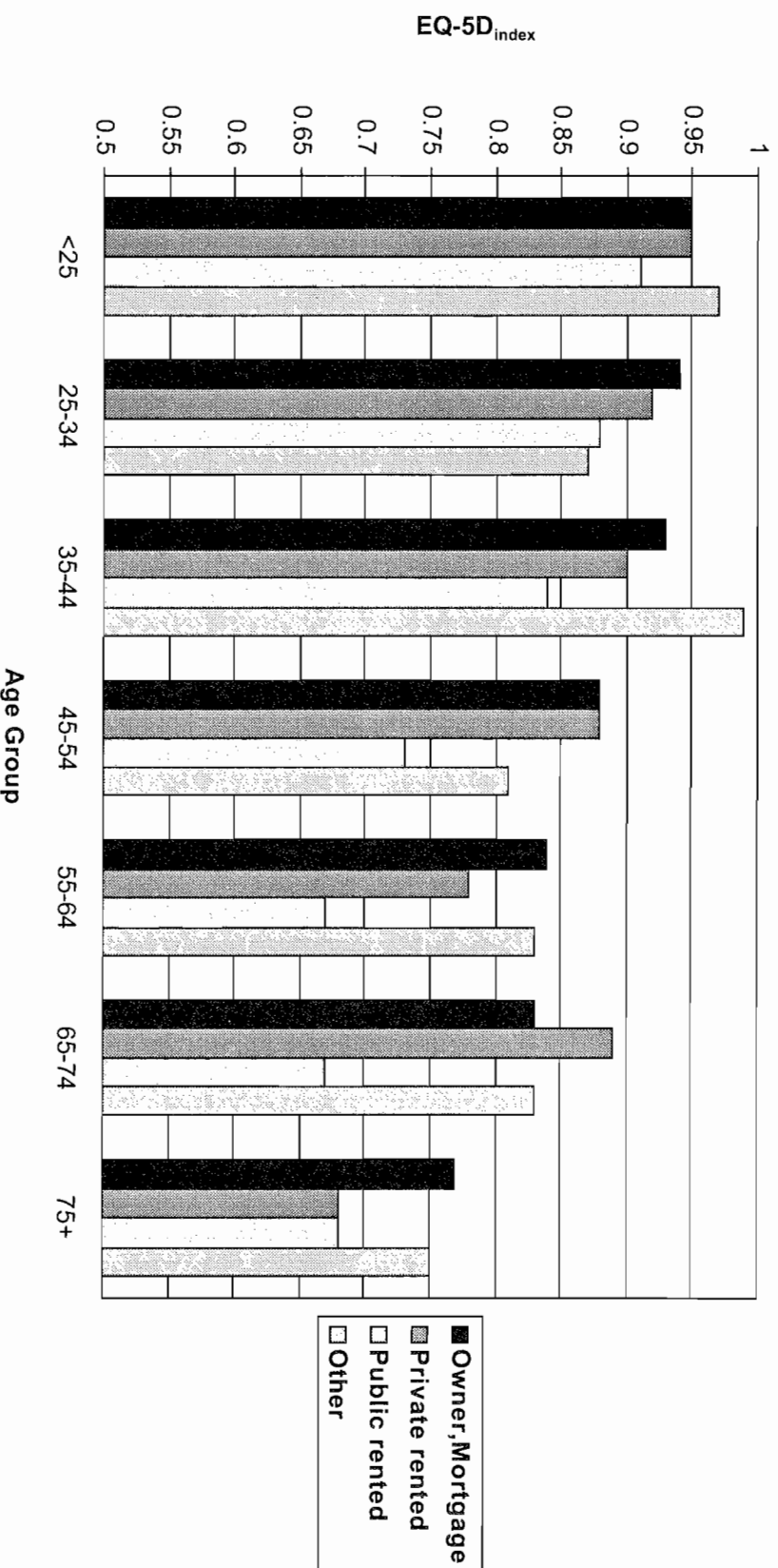


**Table 1.1.4**  
**Weighted Health State Index by Age and Housing Tenure**

	Tenure				Sig. Level of F Test	
	Owner/Mortgage	Private rented	Public rented	Other		
All	Mean Count Std Deviation	0.89 2229 0.19	0.88 262 0.21	0.76 830 0.29	0.88 63 0.18	0.000
Age Under 25	Mean Count Std Deviation	0.95 151 0.11	0.95 59 0.12	0.91 82 0.14	0.97 10 0.06	0.181
Age 25-34	Mean Count Std Deviation	0.94 511 0.13	0.92 78 0.16	0.88 150 0.22	0.87 14 0.17	0.000
Age 35-44	Mean Count Std Deviation	0.93 417 0.14	0.90 36 0.19	0.84 96 0.23	0.99 12 0.04	0.000
Age 45-54	Mean Count Std Deviation	0.88 358 0.22	0.88 23 0.22	0.73 98 0.32	0.81 8 0.28	0.000
Age 55-64	Mean Count Std Deviation	0.84 332 0.23	0.78 27 0.29	0.67 116 0.31	0.83 7 0.27	0.000
Age 65-74	Mean Count Std Deviation	0.83 312 0.22	0.89 15 0.12	0.67 154 0.31	0.83 6 0.15	0.000
Age 75+	Mean Count Std Deviation	0.77 148 0.23	0.68 24 0.33	0.68 134 0.29	0.75 6 0.19	0.043
Significance Level of F Test					0.000	0.064

**Figure 1.1.4**

**Weighted Health State Index by Age and Housing Tenure**



**Table 1.1.3**

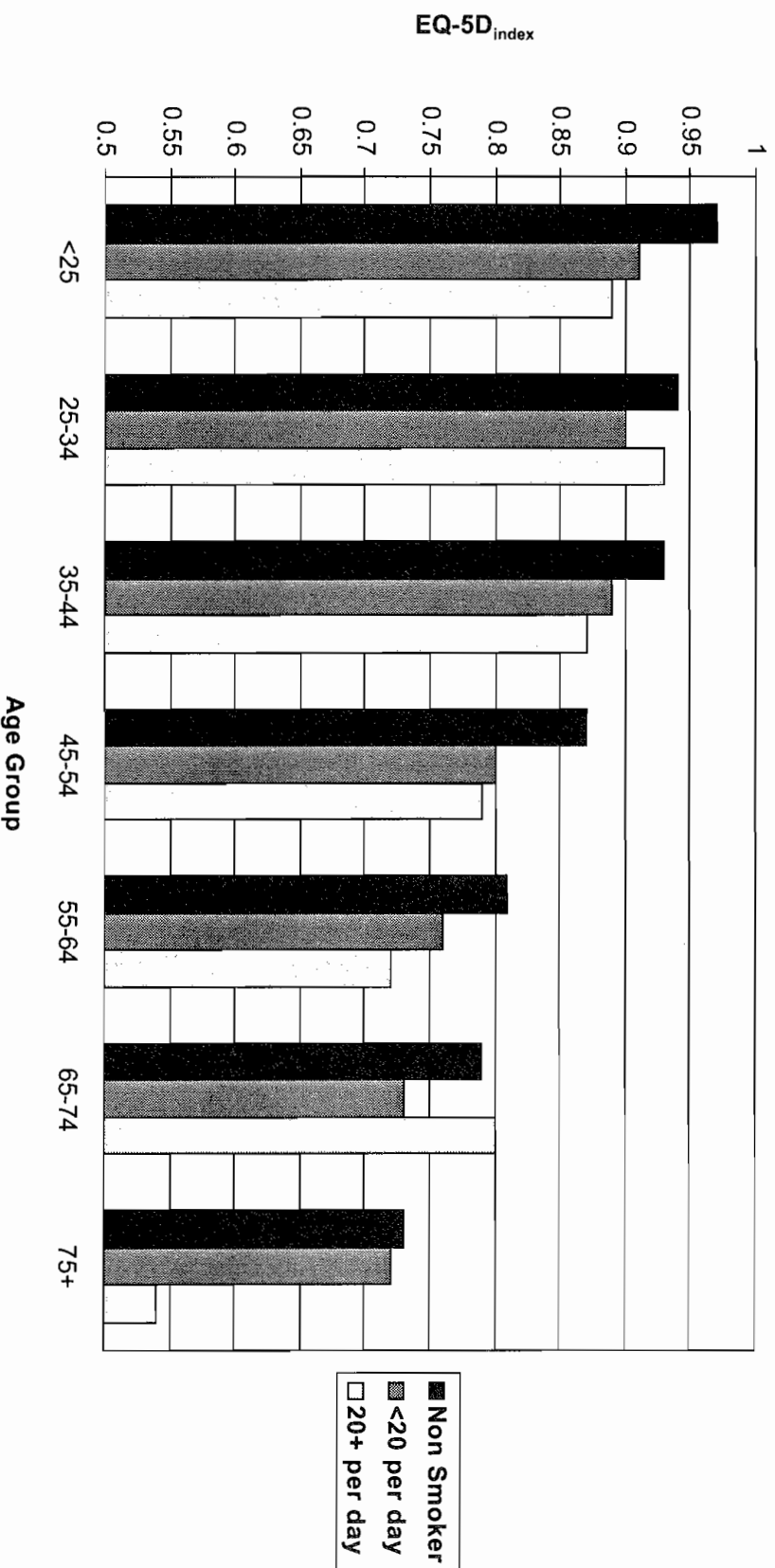
**Weighted Health State Index by Age and Smoking Status**

	Smoker			Sig. Level of F Test	
	Non smoker	<20 pd	20+ pd		
All	Mean Count Std Deviation	0.86 2344 0.22	0.85 694 0.24	0.84 342 0.24	0.174
Age Under 25	Mean Count Std Deviation	0.97 166 0.08	0.91 105 0.15	0.89 33 0.16	0.000
Age 25-34	Mean Count Std Deviation	0.94 472 0.15	0.90 196 0.17	0.93 84 0.15	0.018
Age 35-44	Mean Count Std Deviation	0.93 367 0.14	0.89 116 0.18	0.87 76 0.21	0.012
Age 45-54	Mean Count Std Deviation	0.87 312 0.22	0.80 98 0.30	0.79 75 0.28	0.010
Age 55-64	Mean Count Std Deviation	0.81 364 0.24	0.76 73 0.30	0.72 43 0.29	0.041
Age 65-74	Mean Count Std Deviation	0.79 392 0.26	0.73 67 0.30	0.80 27 0.26	0.249
Age 75+	Mean Count Std Deviation	0.73 271 0.27	0.72 39 0.26	0.54 4 0.39	0.376
Significance Level of F Test					0.000
					0.000
					0.000



Figure 1.1.3

Weighted Health State Index by Age and Smoking Status



**Table 1.1.2**

**Weighted Health State Index by Age and Marital Status**

	Marital Status					Sig. Level of F Test	
	Married	Cohabiting	Separated/Divorced	Widowed	Single		
All	Mean Count Std Deviation	0.87 1843 0.22	0.91 187 0.16	0.83 356 0.24	0.74 430 0.26	0.90 573 0.18	0.000
Age Under 25	Mean Count Std Deviation	0.94 47 0.10	0.94 44 0.12	0.85 12 0.28	. 0 .	0.94 201 0.11	0.084
Age 25-34	Mean Count Std Deviation	0.93 398 0.16	0.94 82 0.13	0.93 86 0.12	0.85 1 .	0.92 185 0.16	0.913
Age 35-44	Mean Count Std Deviation	0.92 398 0.14	0.89 32 0.15	0.89 73 0.18	0.83 4 0.12	0.87 54 0.25	0.071
Age 45-54	Mean Count Std Deviation	0.86 345 0.25	0.87 13 0.19	0.80 72 0.28	0.84 20 0.15	0.84 37 0.26	0.579
Age 55-64	Mean Count Std Deviation	0.80 308 0.27	0.83 10 0.29	0.70 66 0.31	0.85 71 0.19	0.85 29 0.18	0.009
Age 65-74	Mean Count Std Deviation	0.80 262 0.27	0.61 6 0.26	0.77 32 0.23	0.74 144 0.26	0.82 43 0.25	0.102
Age 75+	Mean Count Std Deviation	0.78 85 0.23	. 0 .	0.77 15 0.22	0.69 190 0.29	0.78 24 0.24	0.044
Significance Level of F Test							0.000

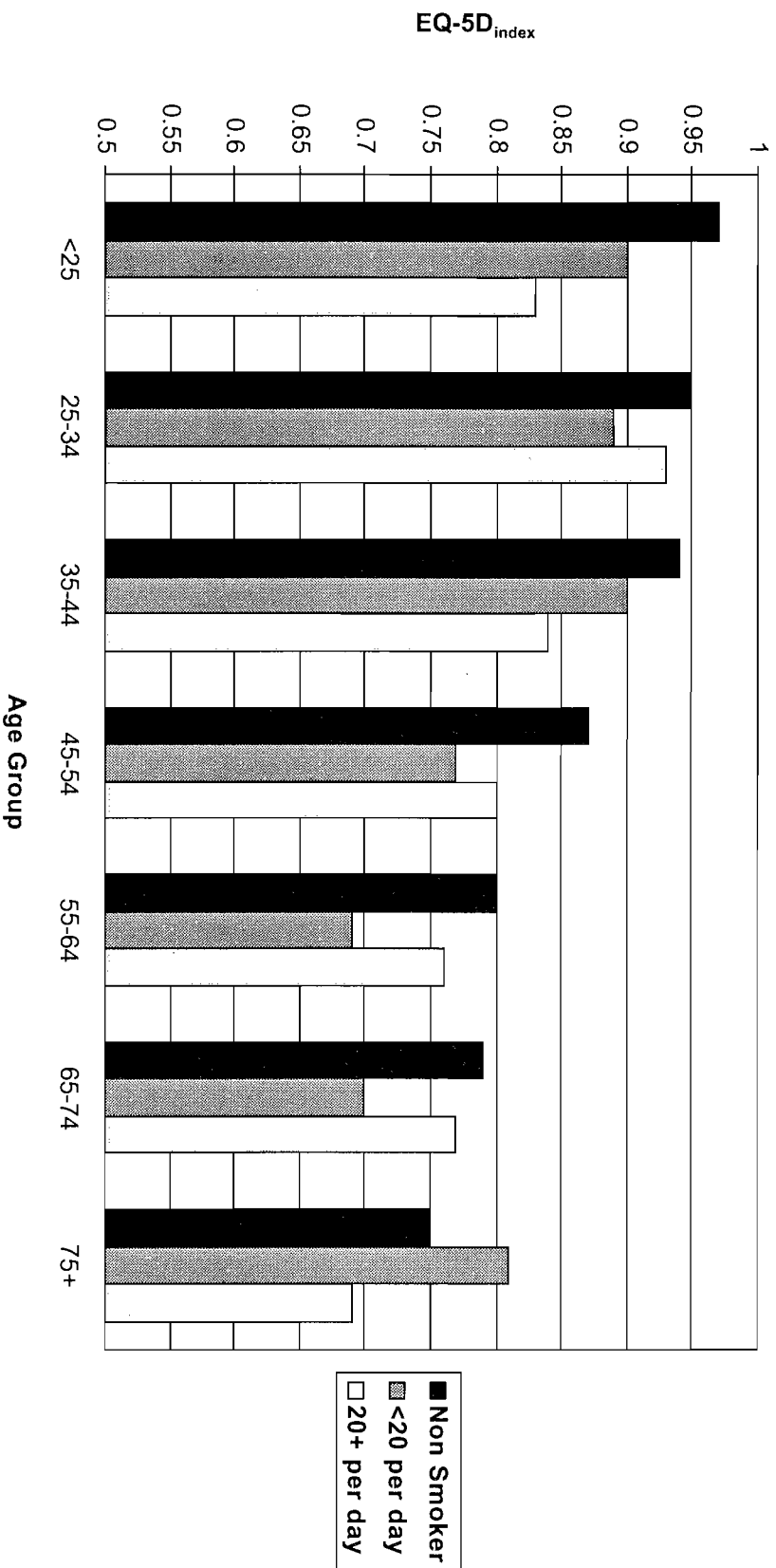
**Table 1.2.2**

**Weighted Health State Index by Age and Marital Status for Males**

	Marital Status					Sig. Level of F Test			
	Married	Cohabiting	Separated/Divorced	Widowed	Single				
All	Mean Count Std Deviation	0.86 890 0.24	0.87 77 0.21	0.84 111 0.26	0.74 100 0.29	0.89 289 0.19	0.000		
Age Under 25	Mean Count Std Deviation	0.96 18 0.09	0.94 12 0.14	0.65 2 0.50	. 0 .	0.94 96 0.11	0.006		
Age 25-34	Mean Count Std Deviation	0.94 166 0.15	0.91 40 0.17	0.93 26 0.10	. 0 .	0.92 98 0.17	0.530		
Age 35-44	Mean Count Std Deviation	0.93 188 0.14	0.87 12 0.13	0.94 17 0.09	0.86 2 0.19	0.84 37 0.28	0.042		
Age 45-54	Mean Count Std Deviation	0.84 160 0.29	0.79 5 0.27	0.90 29 0.20	0.79 5 0.19	0.85 22 0.27	0.830		
Age 55-64	Mean Count Std Deviation	0.79 147 0.27	0.77 4 0.46	0.63 22 0.35	0.93 9 0.16	0.81 14 0.20	0.035		
Age 65-74	Mean Count Std Deviation	0.81 158 0.26	0.56 4 0.31	0.73 9 0.33	0.70 41 0.30	0.76 16 0.27	0.071		
Age 75+	Mean Count Std Deviation	0.77 53 0.25	. 0 .	0.79 6 0.36	0.72 43 0.30	0.81 6 0.16	0.749		
Significance Level of F Test						0.000	0.010	0.000	0.002

Figure 1.2.3

Weighted Health State Index by Age and Smoking Status for Males



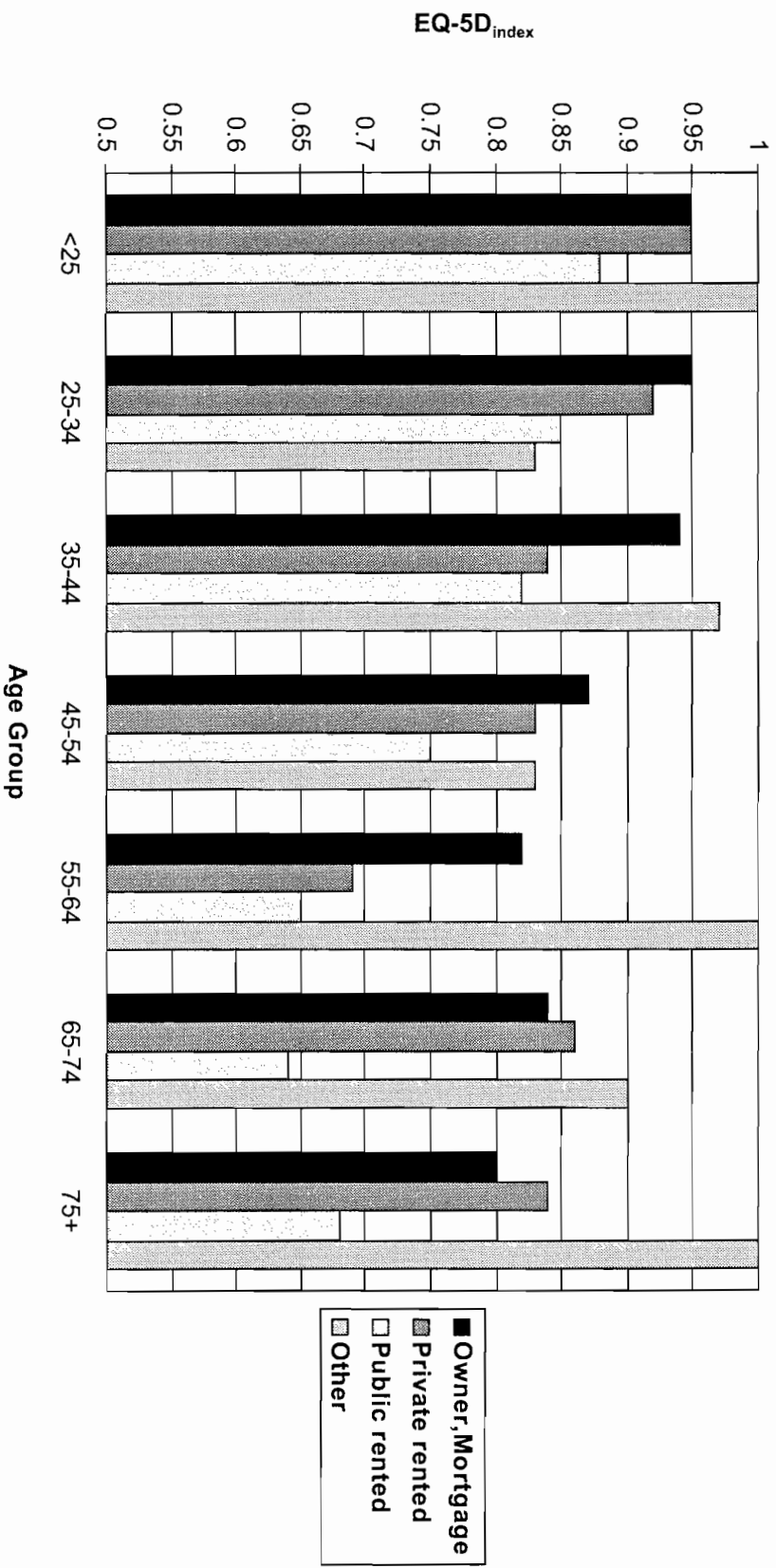
**Table 1.2.3**

**Weighted Health State Index by Age and Smoking Status for Males**

	Smoker			Sig. Level of F Test	
	Non smoker	<20 pd	20+ pd		
All	Mean Count Std Deviation	0.87 1001 0.23	0.84 282 0.25	0.83 175 0.25	0.049
Age Under 25	Mean Count Std Deviation	0.97 73 0.08	0.90 44 0.13	0.83 11 0.21	0.000
Age 25-34	Mean Count Std Deviation	0.95 205 0.13	0.89 84 0.21	0.93 41 0.15	0.010
Age 35-44	Mean Count Std Deviation	0.94 164 0.14	0.90 51 0.18	0.84 39 0.25	0.008
Age 45-54	Mean Count Std Deviation	0.87 142 0.23	0.77 36 0.37	0.80 41 0.31	0.078
Age 55-64	Mean Count Std Deviation	0.80 145 0.26	0.69 26 0.34	0.76 21 0.25	0.165
Age 65-74	Mean Count Std Deviation	0.79 181 0.27	0.70 27 0.31	0.77 19 0.29	0.299
Age 75+	Mean Count Std Deviation	0.75 91 0.29	0.81 14 0.14	0.69 3 0.32	0.657
Significance Level of F Test					
		0.000	0.000	0.081	

Figure 1.2.4

Weighted Health State Index by Age and Housing Tenure for Males



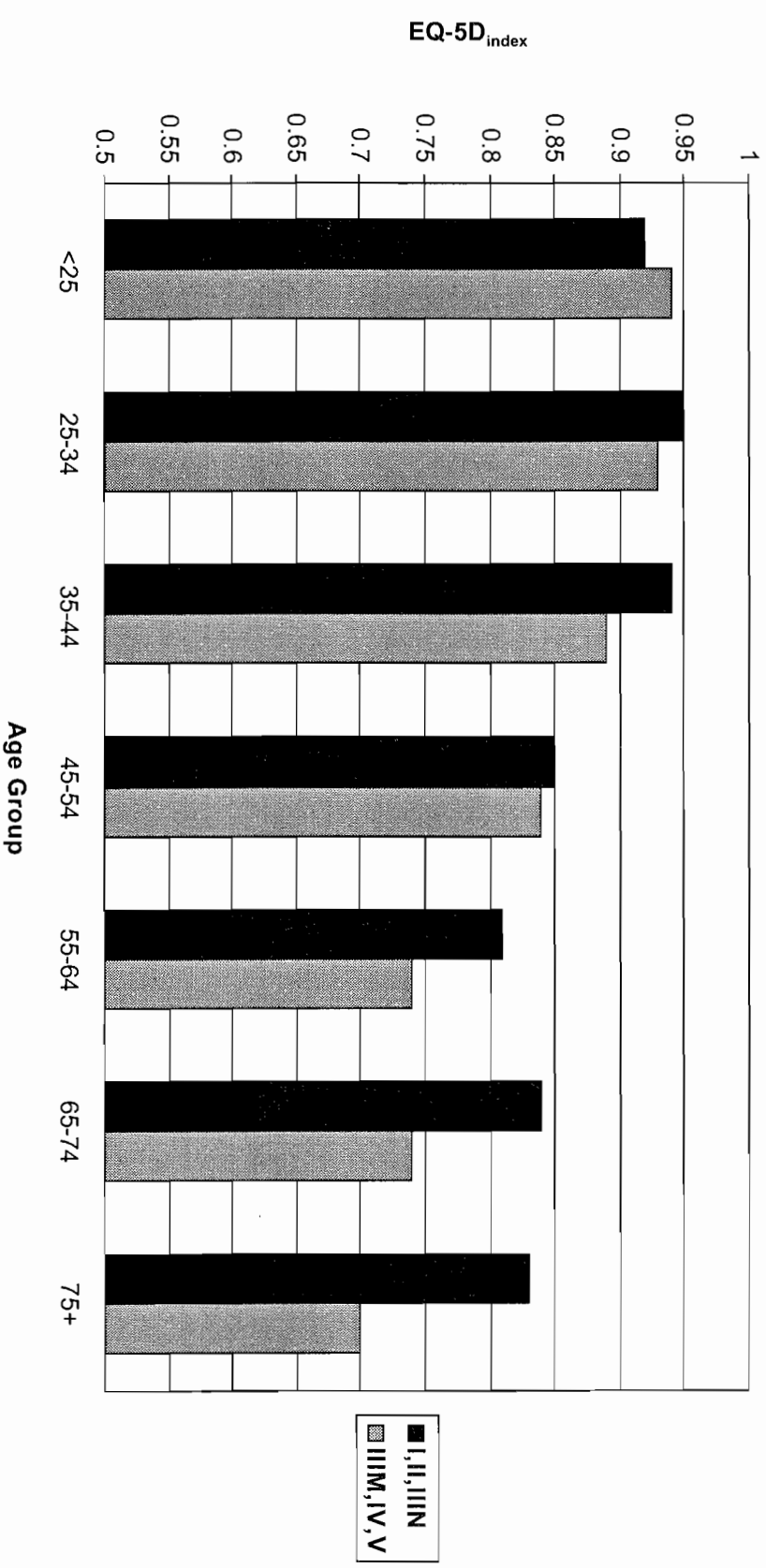
**Table 1.2.4**

**Weighted Health State Index by Age and Housing Tenure for Males**

	Tenure				Sig. Level of F Test		
	Owner/Mortgage	Private rented	Public rented	Other			
All	Mean Count Std Deviation	0.89 1007 0.20	0.88 124 0.21	0.74 305 0.31	0.89 28 0.20	0.000	
Age Under 25	Mean Count Std Deviation	0.95 78 0.11	0.95 25 0.10	0.88 24 0.16	1.00 1 .	0.105	
Age 25-34	Mean Count Std Deviation	0.95 224 0.13	0.92 45 0.14	0.85 52 0.24	0.83 9 0.20	0.000	
Age 35-44	Mean Count Std Deviation	0.94 195 0.12	0.84 18 0.25	0.82 37 0.28	0.97 6 0.06	0.000	
Age 45-54	Mean Count Std Deviation	0.87 161 0.24	0.83 9 0.33	0.75 44 0.34	0.83 6 0.33	0.101	
Age 55-64	Mean Count Std Deviation	0.82 143 0.25	0.69 12 0.31	0.65 38 0.33	1.00 2 0.00	0.002	
Age 65-74	Mean Count Std Deviation	0.84 155 0.23	0.86 5 0.16	0.64 64 0.34	0.90 3 0.18	0.000	
Age 75+	Mean Count Std Deviation	0.80 51 0.19	0.84 10 0.30	0.68 46 0.33	1.00 1 .	0.051	
Significance Level of F Test					0.000	0.017	0.759

Figure 1.2.5

Weighted Health State Index by Age and Social Class for Males





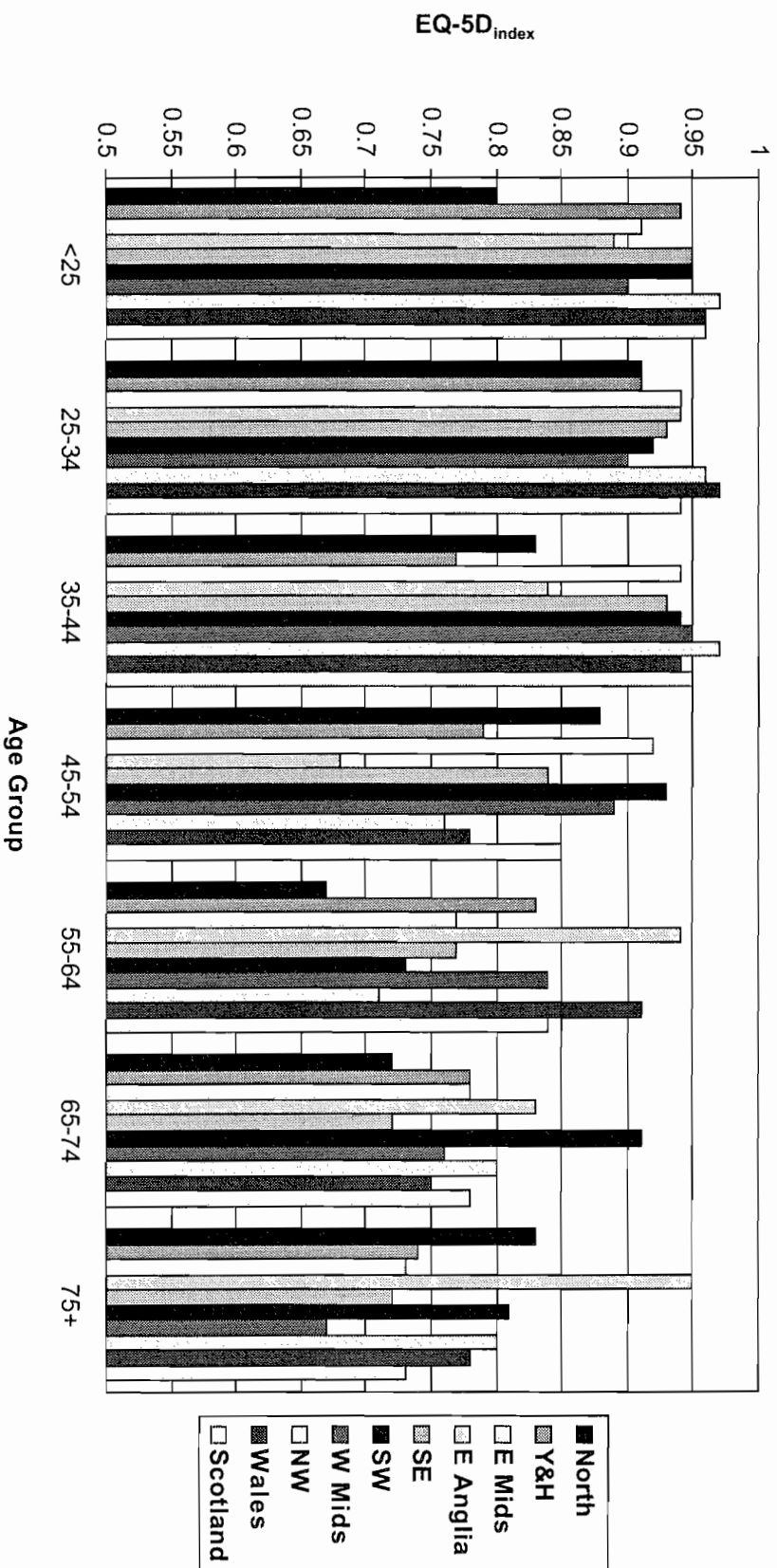
**Table 1.2.5**

**Weighted Health State Index by Age and Social Class for Males**

	Social Class		Sig. Level of F Test	
	Non-manual	Manual		
All	Mean Count Std Deviation	0.89 667 0.20	0.83 762 0.26	0.000
Age Under 25	Mean Count Std Deviation	0.92 51 0.15	0.94 64 0.10	0.448
Age 25-34	Mean Count Std Deviation	0.95 173 0.12	0.93 147 0.18	0.196
Age 35-44	Mean Count Std Deviation	0.94 130 0.10	0.89 122 0.22	0.013
Age 45-54	Mean Count Std Deviation	0.85 98 0.29	0.84 121 0.27	0.699
Age 55-64	Mean Count Std Deviation	0.81 92 0.24	0.74 101 0.31	0.112
Age 65-74	Mean Count Std Deviation	0.84 85 0.22	0.74 140 0.30	0.007
Age 75+	Mean Count Std Deviation	0.83 38 0.22	0.70 67 0.29	0.023
Significance Level of F Test			0.000	0.000

Figure 1.2.6

Weighted Health State Index by Age and Standard Region for Males



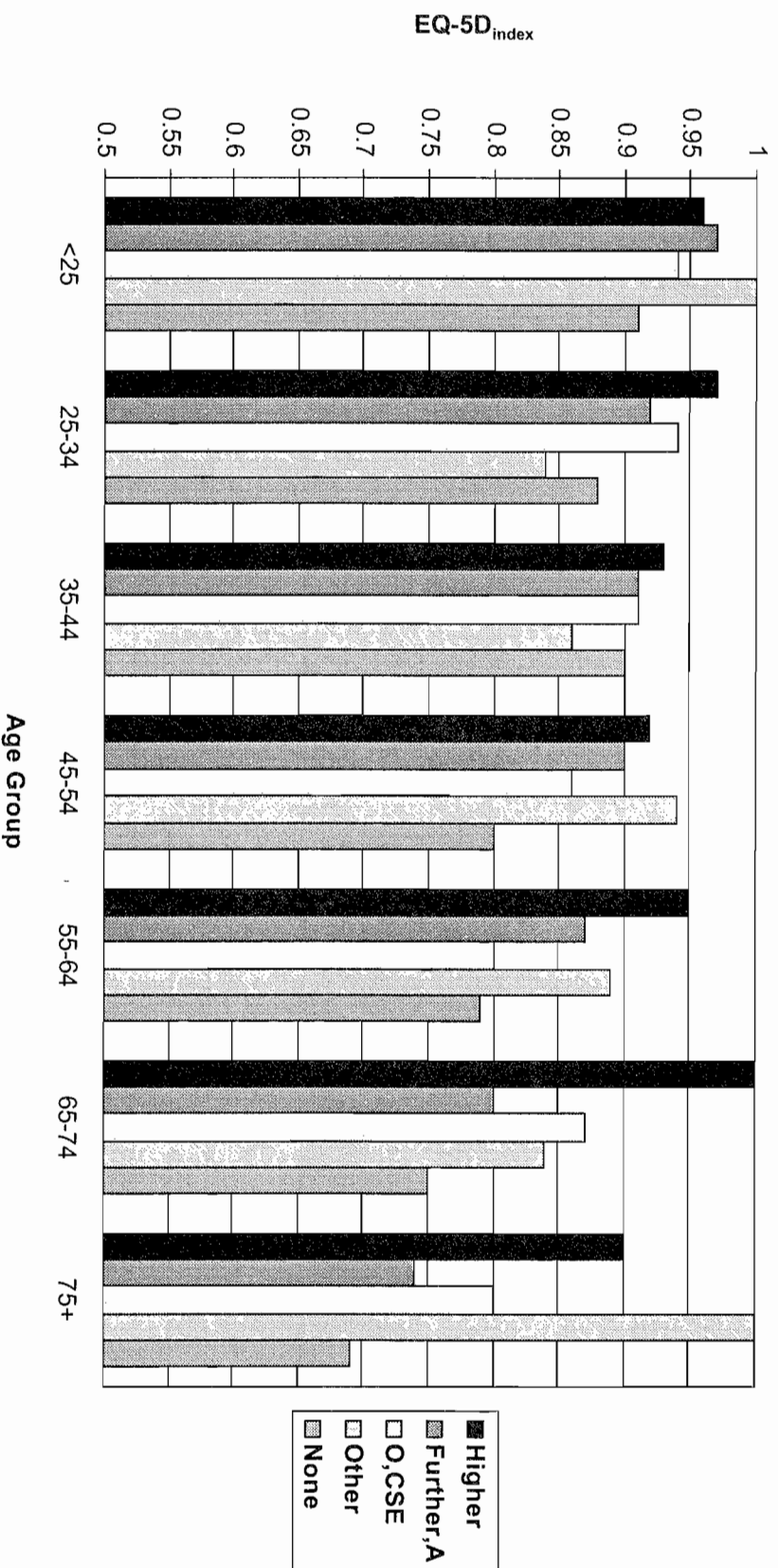
**Table 1.2.6**

**Weighted Health State Index by Age and Standard Region for Males**

	Region										Sig. Level of F Test									
	North	Y&H	E Mids	E Anglia	SE	SW	W Mids	NW	Wales	Scotland										
All	Mean Count Std Deviation	0.81 87 0.30	0.82 111 0.28	0.89 168 0.21	0.86 50 0.22	0.84 348 0.24	0.89 174 0.20	0.86 146 0.23	0.86 181 0.24	0.86 44 0.22	0.87 160 0.21	0.197								
Age Under 25	Mean Count Std Deviation	0.80 5 0.31	0.94 7 0.10	0.91 14 0.16	0.89 6 0.12	0.95 30 0.09	0.95 13 0.08	0.90 12 0.15	0.97 16 0.08	0.96 5 0.09	0.96 20 0.08	0.309								
Age 25-34	Mean Count Std Deviation	0.91 19 0.21	0.91 24 0.21	0.94 50 0.12	0.94 8 0.08	0.93 76 0.16	0.92 31 0.16	0.90 32 0.22	0.96 46 0.10	0.97 5 0.07	0.94 39 0.15	0.880								
Age 35-44	Mean Count Std Deviation	0.83 19 0.25	0.77 21 0.33	0.94 35 0.12	0.84 16 0.26	0.93 56 0.10	0.94 30 0.11	0.95 24 0.09	0.97 29 0.07	0.94 8 0.12	0.95 18 0.08	0.000								
Age 45-54	Mean Count Std Deviation	0.88 11 0.33	0.79 19 0.35	0.92 23 0.19	0.68 5 0.40	0.84 55 0.27	0.93 26 0.14	0.89 24 0.16	0.76 32 0.35	0.78 8 0.34	0.85 18 0.28	0.224								
Age 55-64	Mean Count Std Deviation	0.67 14 0.36	0.83 18 0.23	0.77 10 0.28	0.94 5 0.14	0.77 51 0.29	0.73 27 0.36	0.84 17 0.19	0.71 23 0.30	0.91 4 0.17	0.84 27 0.18	0.559								
Age 65-74	Mean Count Std Deviation	0.72 16 0.34	0.78 12 0.28	0.78 22 0.28	0.83 6 0.14	0.72 53 0.31	0.91 33 0.14	0.76 28 0.30	0.80 25 0.28	0.75 8 0.28	0.78 25 0.27	0.308								
Age 75+	Mean Count Std Deviation	0.83 3 0.30	0.74 10 0.26	0.73 14 0.37	0.95 4 0.10	0.72 27 0.28	0.81 14 0.19	0.67 9 0.39	0.80 10 0.20	0.78 4 0.20	0.73 13 0.26	0.786								
Significance Level of F Test											0.463	0.415	0.001	0.384	0.000	0.001	0.003	0.000	0.341	0.001

Figure 1.3.1

Weighted Health State Index by Age and Educational Qualifications for Females



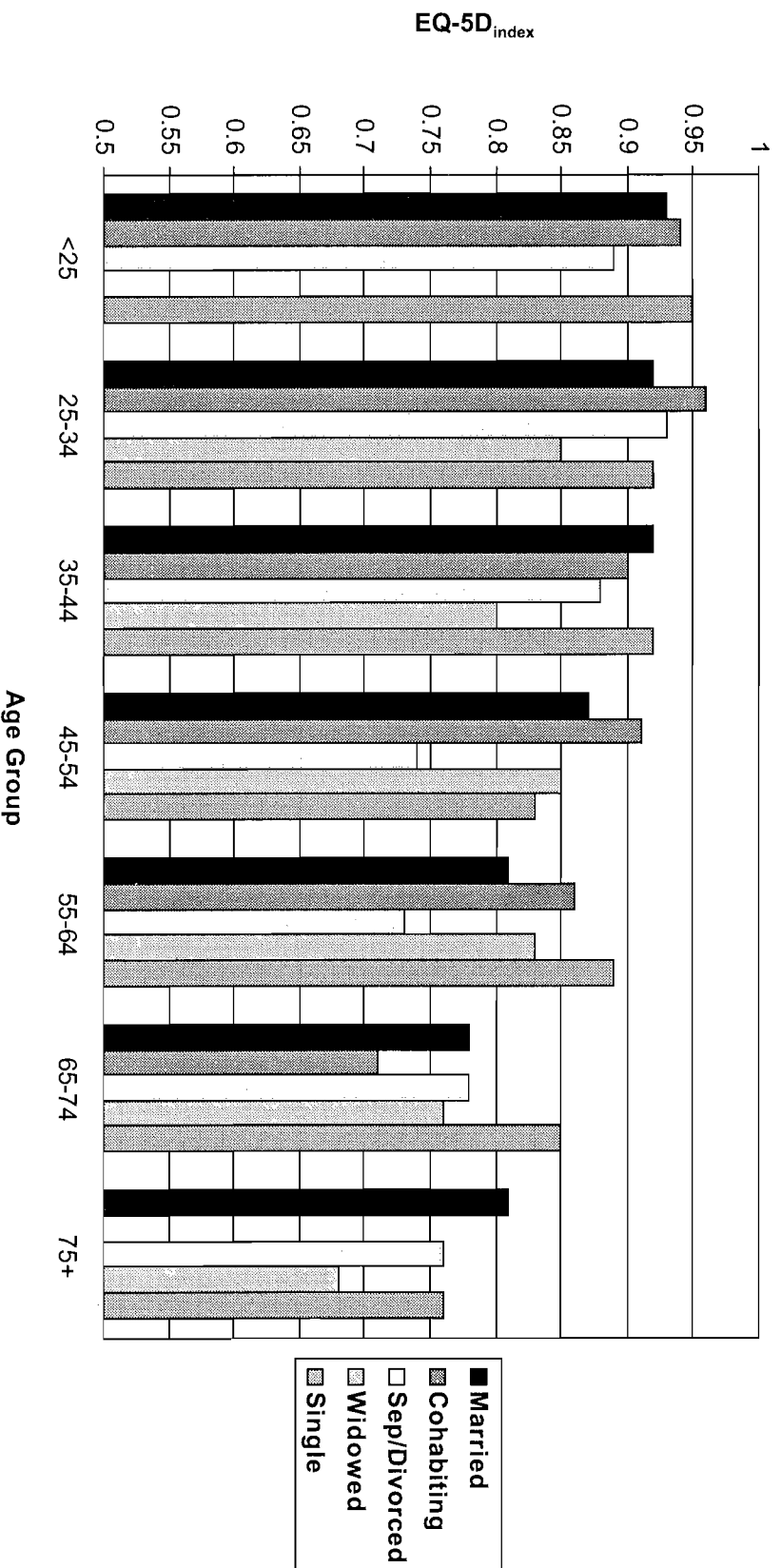
**Table 1.3.1**

**Weighted Health State Index by Age and Educational Qualifications for Females**

	Level of Education					Sig. Level of F Test	
	Higher	Further,A	O,CSE	Other	None		
All	Mean Count Std Deviation	0.94 131 0.14	0.90 342 0.19	0.90 596 0.18	0.90 41 0.14	0.78 815 0.26	0.000
Age Under 25	Mean Count Std Deviation	0.96 7 0.10	0.97 47 0.08	0.94 91 0.13	1.00 1 .	0.91 30 0.16	0.372
Age 25-34	Mean Count Std Deviation	0.97 45 0.09	0.92 115 0.16	0.94 185 0.13	0.84 7 0.21	0.88 71 0.19	0.008
Age 35-44	Mean Count Std Deviation	0.93 36 0.16	0.91 63 0.19	0.91 115 0.13	0.86 6 0.16	0.90 85 0.16	0.834
Age 45-54	Mean Count Std Deviation	0.92 28 0.19	0.90 35 0.15	0.86 78 0.24	0.94 12 0.10	0.80 114 0.25	0.012
Age 55-64	Mean Count Std Deviation	0.95 9 0.09	0.87 40 0.22	0.80 58 0.25	0.89 10 0.10	0.79 171 0.27	0.087
Age 65-74	Mean Count Std Deviation	1.00 3 0.00	0.80 23 0.27	0.87 46 0.19	0.84 3 0.14	0.75 185 0.26	0.021
Age 75+	Mean Count Std Deviation	0.90 3 0.18	0.74 19 0.24	0.80 23 0.19	1.00 2 0.00	0.69 159 0.28	0.144
Significance Level of F Test							0.669
							0.000
							0.000
							0.525
							0.000

Figure 1.3.2

Weighted Health State Index by Age and Marital Status for Females



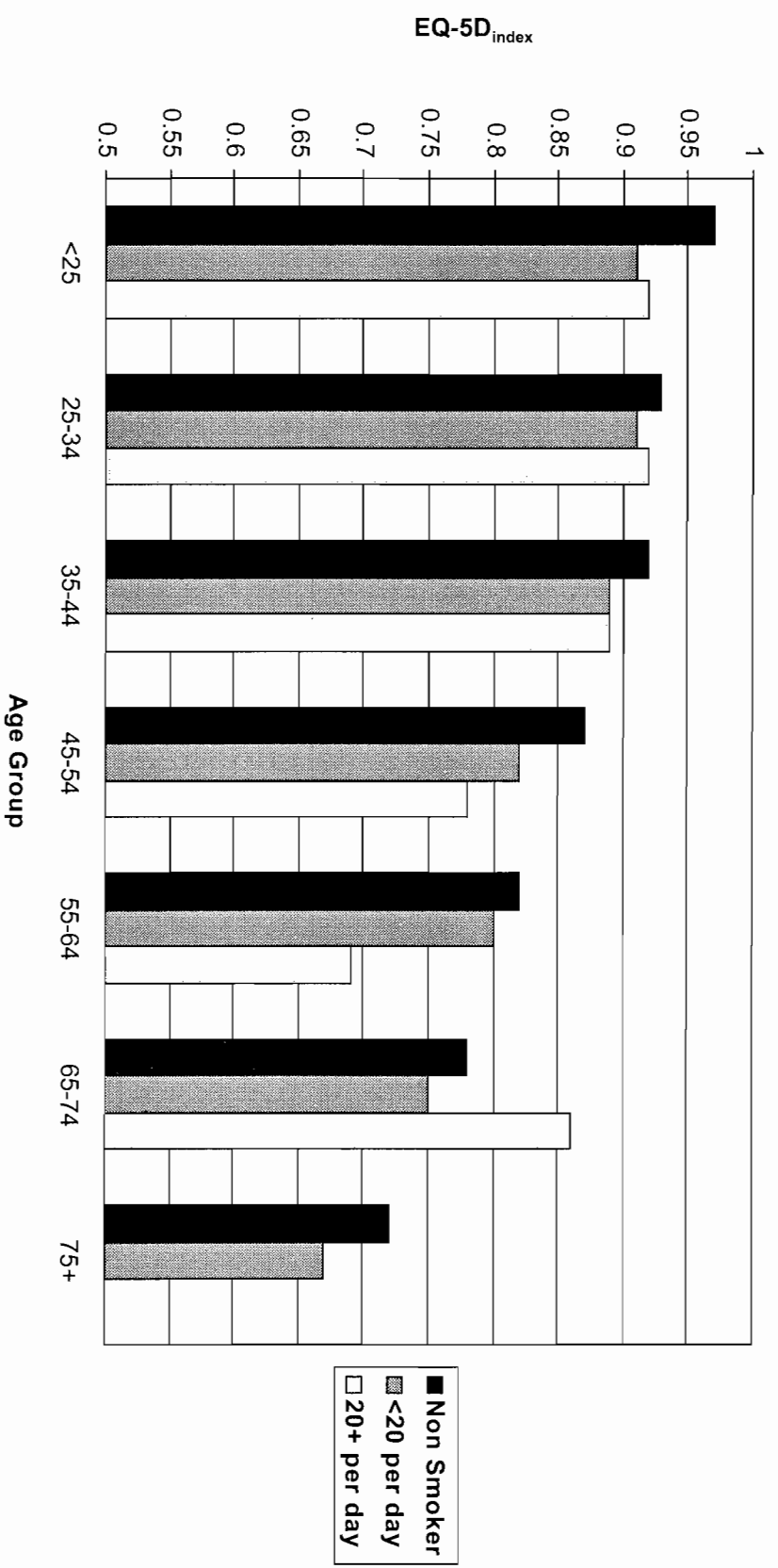
**Table 1.3.2**

**Weighted Health State Index by Age and Marital Status for Females**

	Marital Status					Sig. Level of F Test	
	Married	Cohabiting	Separated/Divorced	Widowed	Single		
All	Mean Count Std Deviation	0.87 953 0.21	0.93 110 0.12	0.83 245 0.24	0.74 330 0.26	0.91 284 0.17	0.000
Age Under 25	Mean Count Std Deviation	0.93 29 0.11	0.94 32 0.11	0.89 10 0.23	. 0 .	0.95 105 0.12	0.539
Age 25-34	Mean Count Std Deviation	0.92 232 0.17	0.96 42 0.08	0.93 60 0.13	0.85 1 .	0.92 87 0.13	0.472
Age 35-44	Mean Count Std Deviation	0.92 210 0.14	0.90 20 0.16	0.88 56 0.19	0.80 2 0.00	0.92 17 0.18	0.565
Age 45-54	Mean Count Std Deviation	0.87 185 0.20	0.91 8 0.12	0.74 43 0.32	0.85 15 0.13	0.83 15 0.25	0.013
Age 55-64	Mean Count Std Deviation	0.81 161 0.27	0.86 6 0.16	0.73 44 0.29	0.83 62 0.20	0.89 15 0.15	0.165
Age 65-74	Mean Count Std Deviation	0.78 104 0.28	0.71 2 0.12	0.78 23 0.19	0.76 103 0.24	0.85 27 0.24	0.569
Age 75+	Mean Count Std Deviation	0.81 32 0.20	. 0 .	0.76 9 0.06	0.68 147 0.28	0.76 18 0.26	0.100
Significance Level of F Test							0.000
Significance Level of F Test							0.013
Significance Level of F Test							0.000
Significance Level of F Test							0.000

Figure 1.3.3

Weighted Health State Index by Age and Smoking Status for Females





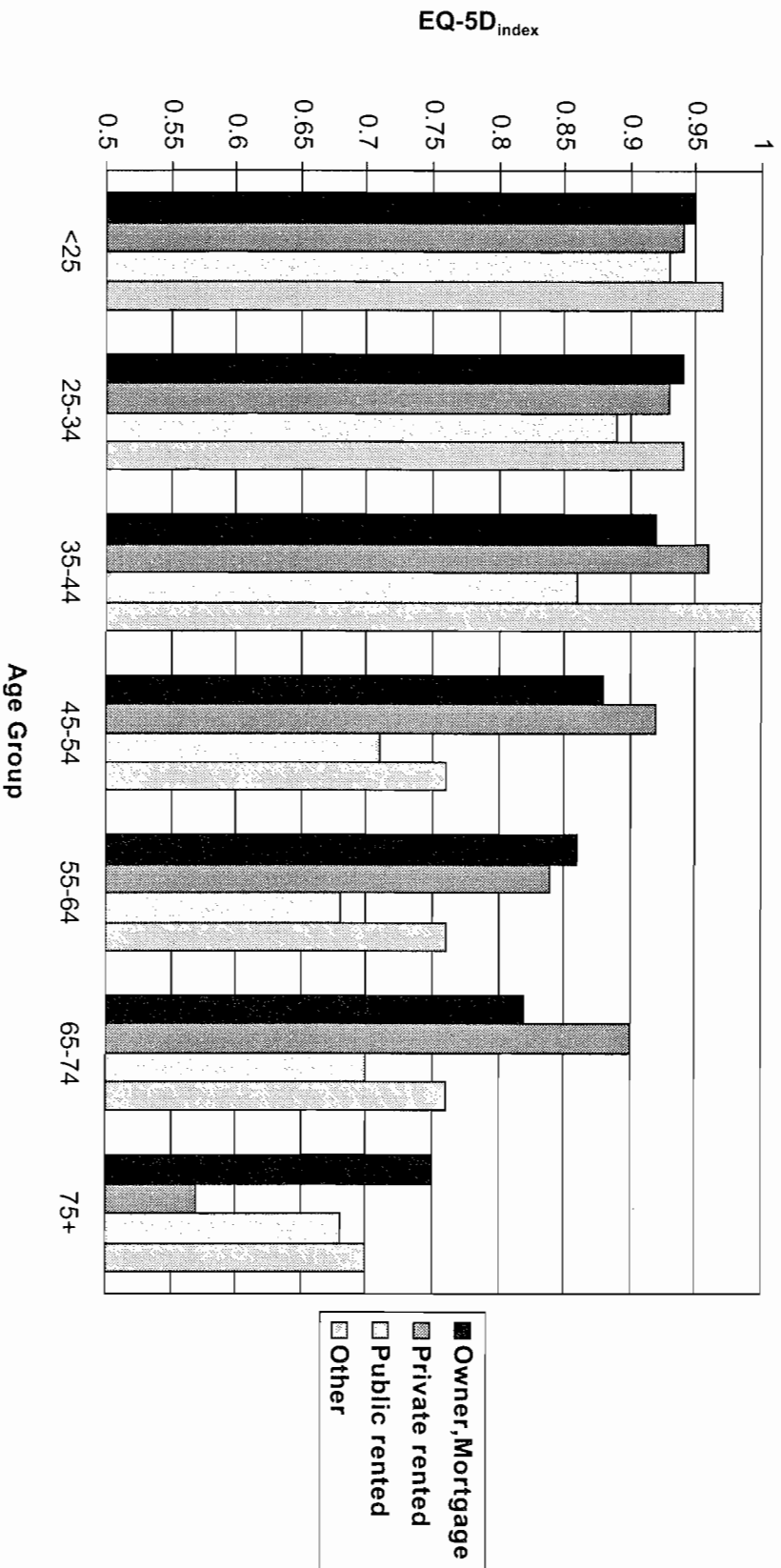
**Table 1.3.3**

**Weighted Health State Index by Age and Smoking Status for Females**

	Smoker			Sig. Level of F Test
	Non smoker	<20 pd	20+ pd	
All	Mean Count Std Deviation	0.85 412 0.23	0.85 167 0.22	0.966
		0.85 1343 0.22		
Age Under 25	Mean Count Std Deviation	0.91 61 0.16	0.92 22 0.12	0.028
		0.97 93 0.08		
Age 25-34	Mean Count Std Deviation	0.91 112 0.14	0.92 43 0.14	0.563
		0.93 267 0.16		
Age 35-44	Mean Count Std Deviation	0.89 65 0.18	0.89 37 0.16	0.300
		0.92 203 0.14		
Age 45-54	Mean Count Std Deviation	0.82 62 0.25	0.78 34 0.25	0.080
		0.87 170 0.21		
Age 55-64	Mean Count Std Deviation	0.80 47 0.28	0.69 22 0.33	0.051
		0.82 219 0.24		
Age 65-74	Mean Count Std Deviation	0.75 40 0.30	0.86 8 0.16	0.478
		0.78 211 0.25		
Age 75+	Mean Count Std Deviation	0.67 25 0.30	0.09 1 .	0.047
		0.72 180 0.26		
Significance Level of F Test				0.000
				0.000
				0.000

Figure 1.3.4

Weighted Health State Index by Age and Housing Tenure for Females



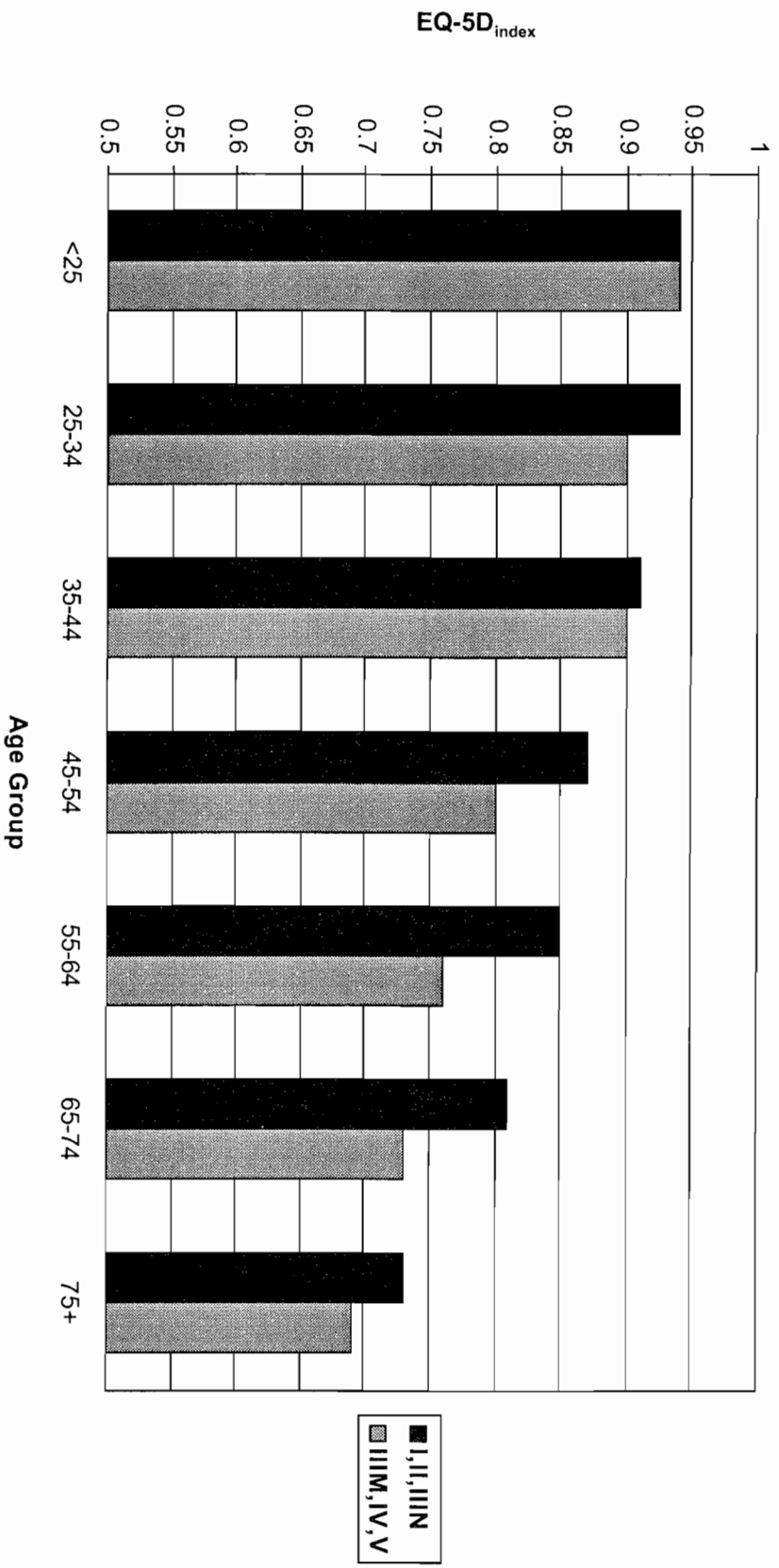
**Table 1.3.4**

**Weighted Health State Index by Age and Housing Tenure for Females**

	Tenure				Sig. Level of F Test			
	Owner/Mortgage	Private rented	Public rented	Other				
All	Mean Count Std Deviation	0.88 1222 0.19	0.89 138 0.21	0.77 525 0.27	0.87 35 0.17	0.000		
Age Under 25	Mean Count Std Deviation	0.95 73 0.11	0.94 34 0.14	0.93 58 0.14	0.97 9 0.07	0.746		
Age 25-34	Mean Count Std Deviation	0.94 287 0.12	0.93 33 0.18	0.89 98 0.20	0.94 5 0.08	0.073		
Age 35-44	Mean Count Std Deviation	0.92 222 0.15	0.96 18 0.09	0.86 59 0.20	1.00 6 0.00	0.056		
Age 45-54	Mean Count Std Deviation	0.88 197 0.19	0.92 14 0.12	0.71 54 0.30	0.76 2 0.05	0.000		
Age 55-64	Mean Count Std Deviation	0.86 189 0.21	0.84 15 0.26	0.68 78 0.30	0.76 5 0.29	0.000		
Age 65-74	Mean Count Std Deviation	0.82 157 0.22	0.90 10 0.11	0.70 90 0.29	0.76 3 0.08	0.001		
Age 75+	Mean Count Std Deviation	0.75 97 0.25	0.57 14 0.32	0.68 88 0.27	0.70 5 0.17	0.084		
Significance Level of F Test					0.000	0.000	0.000	0.004

**Figure 1.3.5**

**Weighted Health State Index by Age and Social Class for Females**



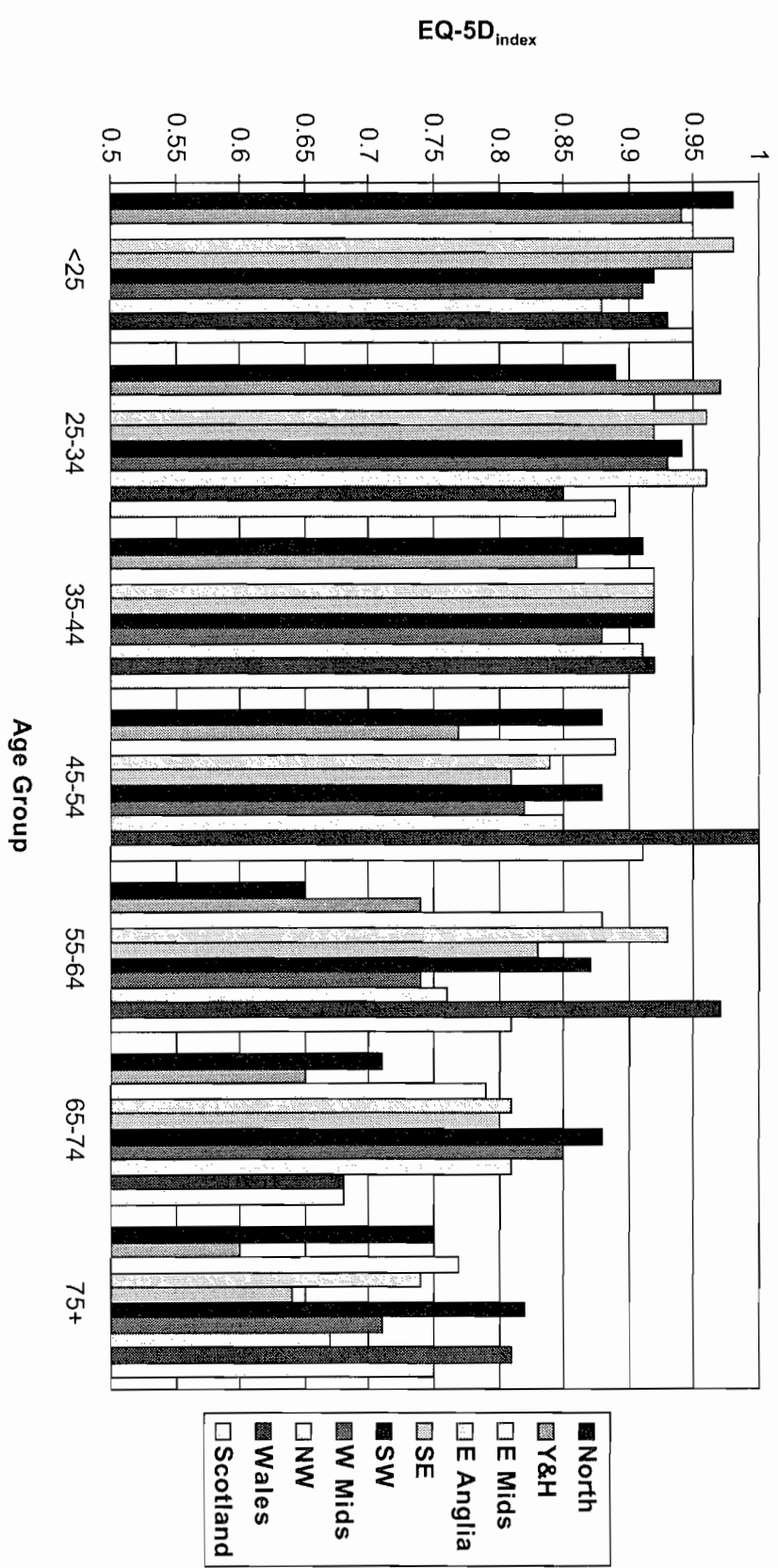
**Table 1.3.5**

**Weighted Health State Index by Age and Social Class for Females**

	Social Class		Sig. Level of F Test	
	Non-manual	Manual		
All	Mean Count Std Deviation	0.88 1113 0.20	0.81 743 0.25	0.000
Age Under 25	Mean Count Std Deviation	0.94 80 0.13	0.94 76 0.12	0.919
Age 25-34	Mean Count Std Deviation	0.94 287 0.13	0.90 125 0.17	0.003
Age 35-44	Mean Count Std Deviation	0.91 188 0.15	0.90 108 0.17	0.730
Age 45-54	Mean Count Std Deviation	0.87 176 0.21	0.80 90 0.26	0.009
Age 55-64	Mean Count Std Deviation	0.85 153 0.20	0.76 129 0.29	0.002
Age 65-74	Mean Count Std Deviation	0.81 139 0.24	0.73 109 0.27	0.021
Age 75+	Mean Count Std Deviation	0.73 90 0.27	0.69 106 0.27	0.327
Significance Level of F Test			0.000	0.000

Figure 1.3.6

Weighted Health State Index by Age and Standard Region for Females



**Table 1.3.6**

**Weighted Health State Index by Age and Standard Region for Females**

	Region										Sig. Level of F Test
	North	Y&H	E Mids	E Anglia	SE	SW	W Mids	NW	Wales	Scotland	
All	Mean 122 Std Deviation 0.24	0.81 0.80 155 0.27	0.89 191 0.18	0.89 85 0.16	0.85 492 0.22	0.89 193 0.16	0.84 167 0.22	0.85 243 0.23	0.86 77 0.23	0.84 200 0.24	0.001
Age Under 25	Mean 10 Std Deviation 0.06	0.94 22 0.10	0.95 18 0.10	0.98 11 0.08	0.95 52 0.09	0.92 11 0.21	0.91 18 0.16	0.88 10 0.24	0.93 7 0.13	0.95 17 0.10	0.679
Age 25-34	Mean 23 Std Deviation 0.12	0.97 28 0.08	0.92 55 0.17	0.96 14 0.11	0.92 100 0.15	0.94 42 0.10	0.93 34 0.11	0.96 58 0.07	0.85 24 0.28	0.89 45 0.21	0.043
Age 35-44	Mean 15 Std Deviation 0.10	0.86 23 0.20	0.92 30 0.12	0.92 14 0.11	0.92 85 0.14	0.92 32 0.18	0.88 28 0.22	0.91 30 0.12	0.92 14 0.18	0.90 34 0.17	0.789
Age 45-54	Mean 18 Std Deviation 0.14	0.77 13 0.32	0.89 29 0.16	0.84 10 0.26	0.81 72 0.27	0.88 28 0.17	0.82 25 0.28	0.85 49 0.22	1.00 4 0.00	0.91 19 0.11	0.439
Age 55-64	Mean 18 Std Deviation 0.38	0.74 30 0.31	0.88 25 0.15	0.93 15 0.11	0.83 74 0.23	0.87 29 0.14	0.74 19 0.26	0.76 38 0.30	0.97 8 0.08	0.81 32 0.23	0.009
Age 65-74	Mean 18 Std Deviation 0.28	0.65 22 0.34	0.79 19 0.27	0.81 12 0.19	0.80 66 0.21	0.88 29 0.20	0.85 20 0.17	0.81 35 0.23	0.68 12 0.23	0.68 27 0.33	0.013
Age 75+	Mean 20 Std Deviation 0.22	0.60 17 0.23	0.77 15 0.21	0.74 9 0.15	0.64 43 0.34	0.82 22 0.15	0.71 23 0.26	0.67 23 0.29	0.81 8 0.27	0.75 26 0.30	0.186
Significance Level of F Test	0.000	0.000	0.005	0.003	0.000	0.056	0.002	0.000	0.042	0.000	

## **SECTION 2**

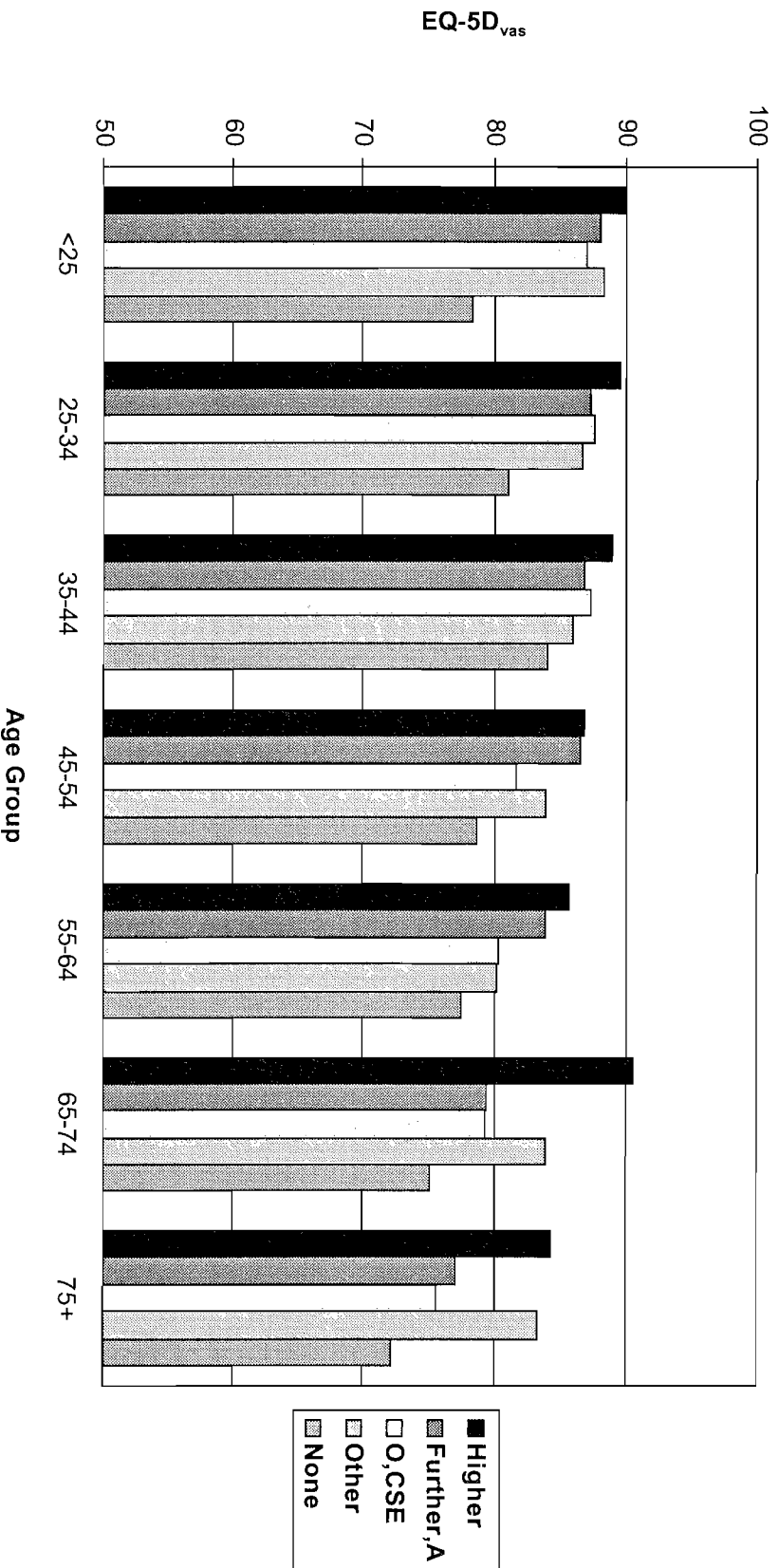
### **Self Rated Health Status EQ-5D<sub>vas</sub>**

**Whole Population  
Males  
Females**



Figure 2.1.1

Self Rated Health Status by Age and Educational Qualifications



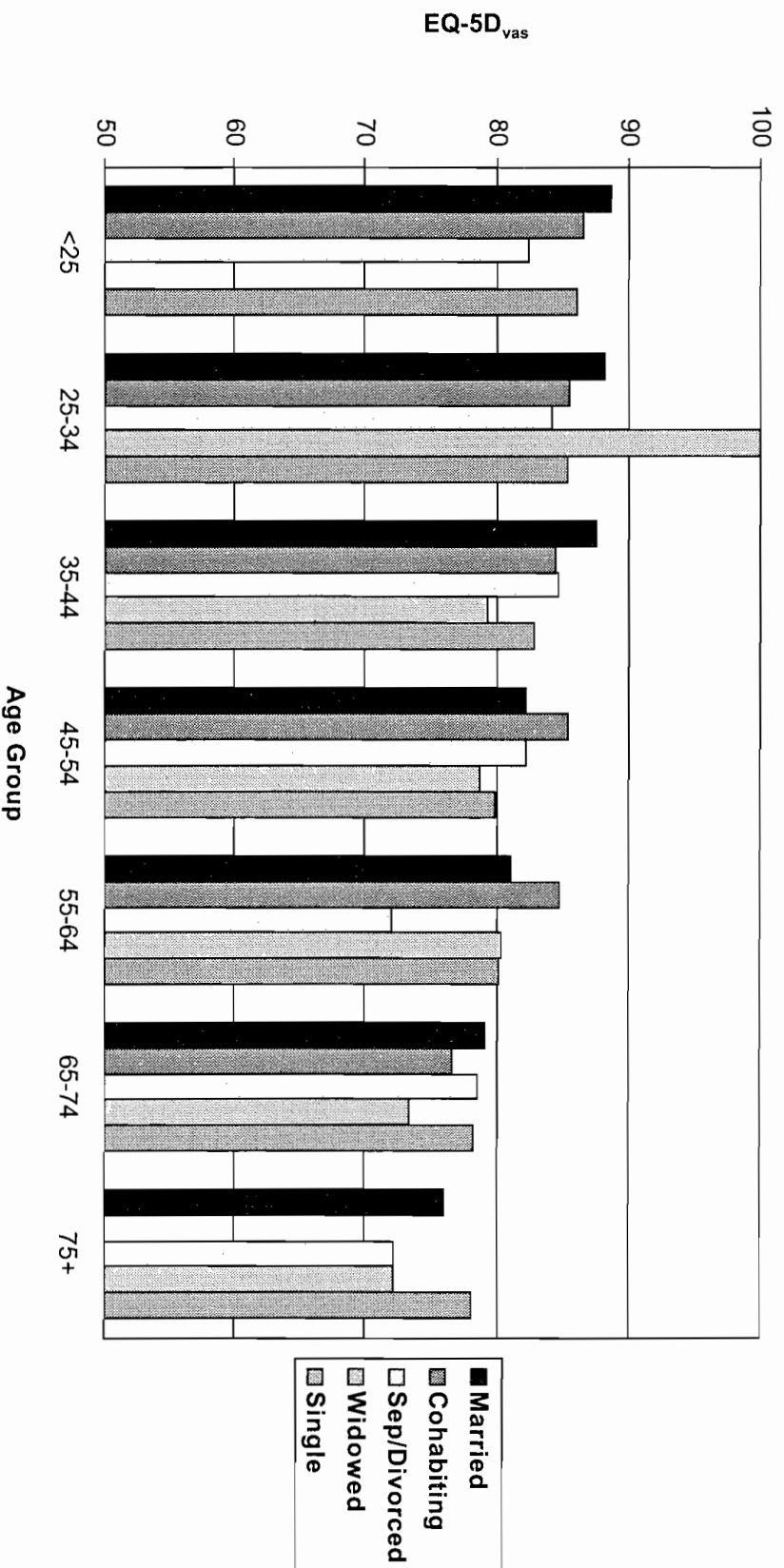
**Table 2.1.1**

**Self Rated Health Status by Age and Educational Qualifications**

	Level of Education					Sig. Level of F Test	
	Higher	Further,A	O,CSE	Other	None		
All	Mean Count Std Deviation	88.50 311 12.55	86.06 682 14.28	84.46 1044 15.70	83.70 92 14.66	77.30 1248 18.99	0.000
Age Under 25	Mean Count Std Deviation	90.00 18 13.41	88.06 102 11.48	87.09 141 13.64	88.33 3 2.89	78.44 39 16.53	0.002
Age 25-34	Mean Count Std Deviation	89.54 101 11.44	87.40 224 14.02	87.62 307 13.99	86.73 11 8.40	81.05 110 17.64	0.000
Age 35-44	Mean Count Std Deviation	89.01 80 13.05	86.90 136 12.73	87.37 182 12.43	86.00 10 21.08	84.01 151 15.75	0.076
Age 45-54	Mean Count Std Deviation	86.86 56 13.88	86.63 79 13.43	81.65 141 19.57	83.91 23 13.96	78.65 187 19.71	0.003
Age 55-64	Mean Count Std Deviation	85.67 30 12.72	83.96 72 15.93	80.31 116 17.84	80.18 22 18.76	77.48 239 19.29	0.028
Age 65-74	Mean Count Std Deviation	90.56 18 11.70	79.43 46 17.61	79.26 107 14.93	83.94 17 11.68	75.12 298 19.25	0.001
Age 75+	Mean Count Std Deviation	84.38 8 10.84	77.13 23 19.89	75.62 50 16.77	83.33 6 9.83	72.22 223 19.10	0.138
Significance Level of F Test							0.556
							0.000
							0.000
							0.898
							0.000

Figure 2.1.2

Self Rated Health Status by Age and Marital Status



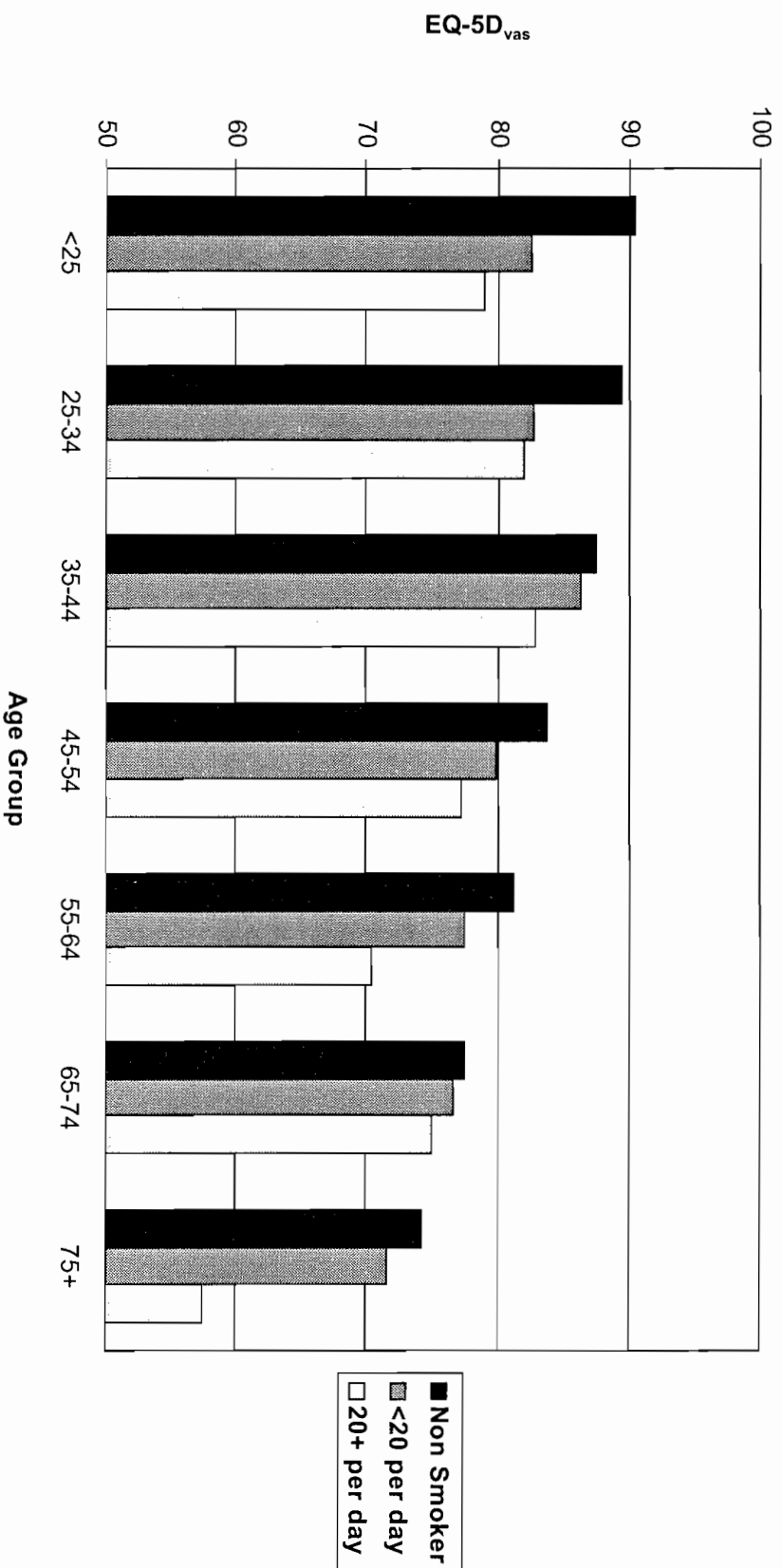
**Table 2.1.2**

**Self Rated Health Status by Age and Marital Status**

	Marital Status					Sig. Level of F Test
	Married	Cohabiting	Separated/Divorced	Widowed	Single	
All	Mean 83.96 Count 1837 Std Deviation 16.11	85.29 185 15.22	80.63 354 17.83	74.36 427 19.07	83.97 572 16.15	0.000
Age Under 25	Mean 88.68 Count 47 Std Deviation 11.97	86.63 43 14.94	82.42 12 12.84	. 0 .	86.18 201 13.72	0.495
Age 25-34	Mean 88.26 Count 398 Std Deviation 13.41	85.57 82 15.46	84.30 86 15.62	100.00 1 .	85.39 185 15.18	0.042
Age 35-44	Mean 87.64 Count 398 Std Deviation 12.10	84.47 32 16.21	84.68 72 15.23	79.25 4 21.88	82.83 53 19.67	0.049
Age 45-54	Mean 82.25 Count 344 Std Deviation 18.59	85.46 13 13.92	82.29 72 16.42	78.65 20 15.71	79.84 37 20.28	0.781
Age 55-64	Mean 81.04 Count 305 Std Deviation 17.42	84.78 9 15.06	72.06 66 22.06	80.42 71 17.68	80.17 29 15.82	0.008
Age 65-74	Mean 79.18 Count 262 Std Deviation 16.45	76.67 6 14.38	78.58 31 18.29	73.29 143 20.19	78.30 43 18.63	0.037
Age 75+	Mean 75.99 Count 83 Std Deviation 19.27	. 0 .	72.13 15 16.61	72.19 188 18.46	78.17 24 18.45	0.264
Significance Level of F Test	0.000	0.797	0.000		0.006	

Figure 2.1.3

Self Rated Health Status by Age and Smoking Status



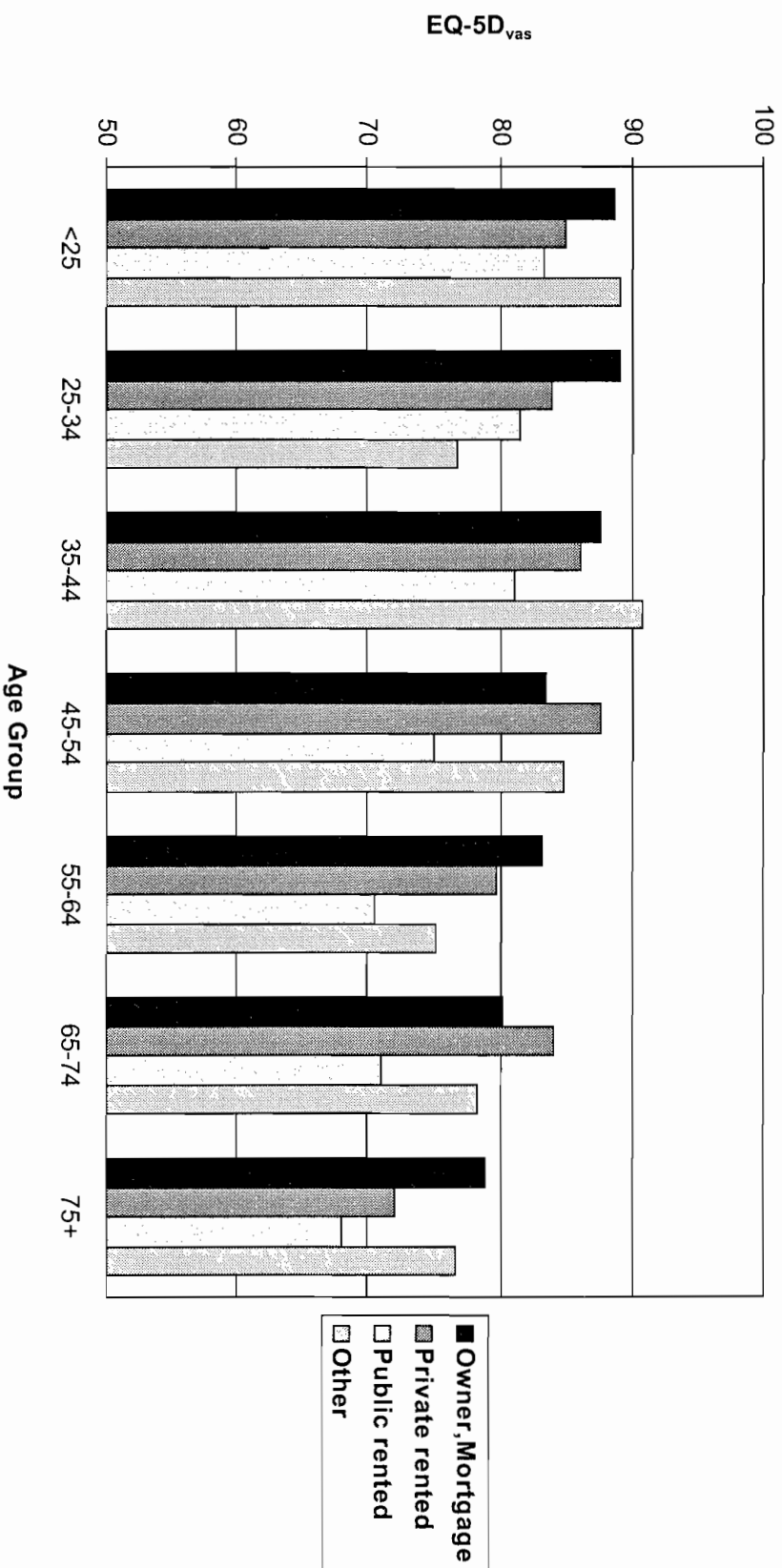
**Table 2.1.3**

**Self Rated Health Status by Age and Smoking Status**

	Smoker			Sig. Level of F Test	
	Non smoker	<20 pd	20+ pd		
All	Mean Count Std Deviation	83.43 2332 16.57	81.14 694 16.61	78.58 341 19.59	0.000
Age Under 25	Mean Count Std Deviation	90.43 165 11.12	82.62 105 15.02	79.06 33 13.88	0.000
Age 25-34	Mean Count Std Deviation	89.39 472 12.42	82.74 196 16.22	82.05 84 16.97	0.000
Age 35-44	Mean Count Std Deviation	87.44 366 13.02	86.32 116 14.62	82.89 75 15.57	0.033
Age 45-54	Mean Count Std Deviation	83.76 311 16.82	79.86 98 18.38	77.28 75 22.08	0.009
Age 55-64	Mean Count Std Deviation	81.25 361 16.94	77.47 73 17.36	70.40 43 25.86	0.001
Age 65-74	Mean Count Std Deviation	77.53 390 18.38	76.66 67 16.54	75.04 27 17.72	0.753
Age 75+	Mean Count Std Deviation	74.22 267 18.79	71.51 39 15.68	57.50 4 29.86	0.152
Significance Level of F Test					
		0.000	0.000	0.003	

**Figure 2.1.4**

**Self Rated Health Status by Age and Housing Tenure**



**Table 2.1.4**

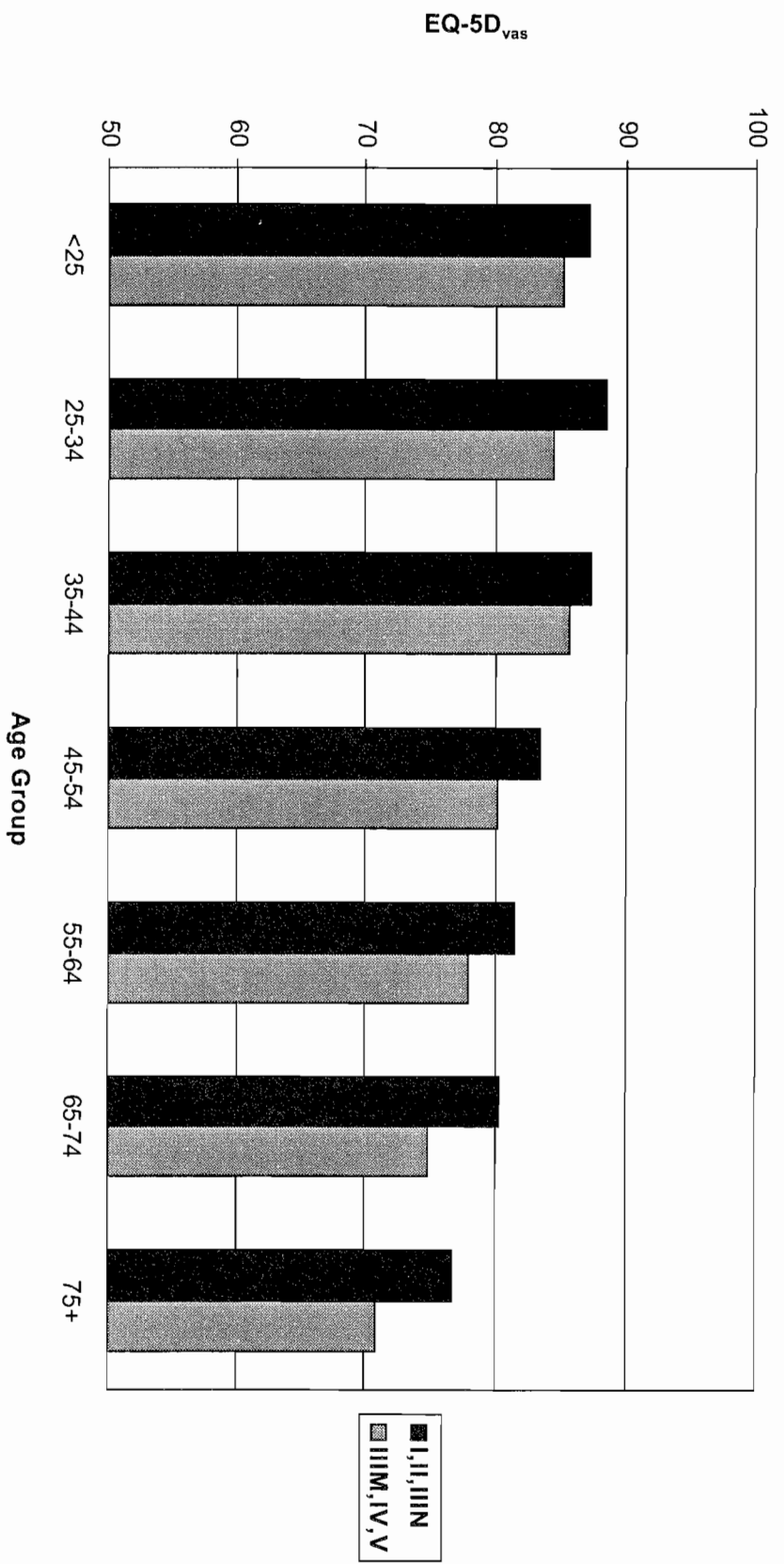
**Self Rated Health Status by Age and Housing Tenure**

	Tenure				Sig. Level of F Test	
	Owner/Mortgage	Private rented	Public rented	Other		
All	Mean Count Std Deviation	85.09 2218 14.71	83.29 262 15.26	75.23 827 20.53	82.40 63 19.17	0.000
Age Under 25	Mean Count Std Deviation	88.62 150 12.36	84.92 59 13.98	83.30 82 15.02	89.10 10 13.96	0.025
Age 25-34	Mean Count Std Deviation	89.09 511 11.54	83.96 78 15.65	81.60 150 18.54	76.86 14 26.78	0.000
Age 35-44	Mean Count Std Deviation	87.71 416 12.53	86.19 36 12.84	81.14 95 18.23	90.75 12 6.00	0.000
Age 45-54	Mean Count Std Deviation	83.46 357 16.70	87.70 23 10.57	75.07 98 22.15	84.88 8 24.56	0.000
Age 55-64	Mean Count Std Deviation	83.14 329 15.39	79.74 27 15.52	70.51 115 22.65	75.14 7 20.82	0.000
Age 65-74	Mean Count Std Deviation	80.16 310 16.15	84.13 15 18.94	70.98 154 20.10	78.33 6 15.06	0.000
Age 75+	Mean Count Std Deviation	78.81 145 16.30	72.00 24 17.05	67.97 133 19.91	76.67 6 13.66	0.000
Significance Level of F Test	0.000	0.000	0.004	0.366		



Figure 2.1.5

Self Rated Health Status by Age and Social Class



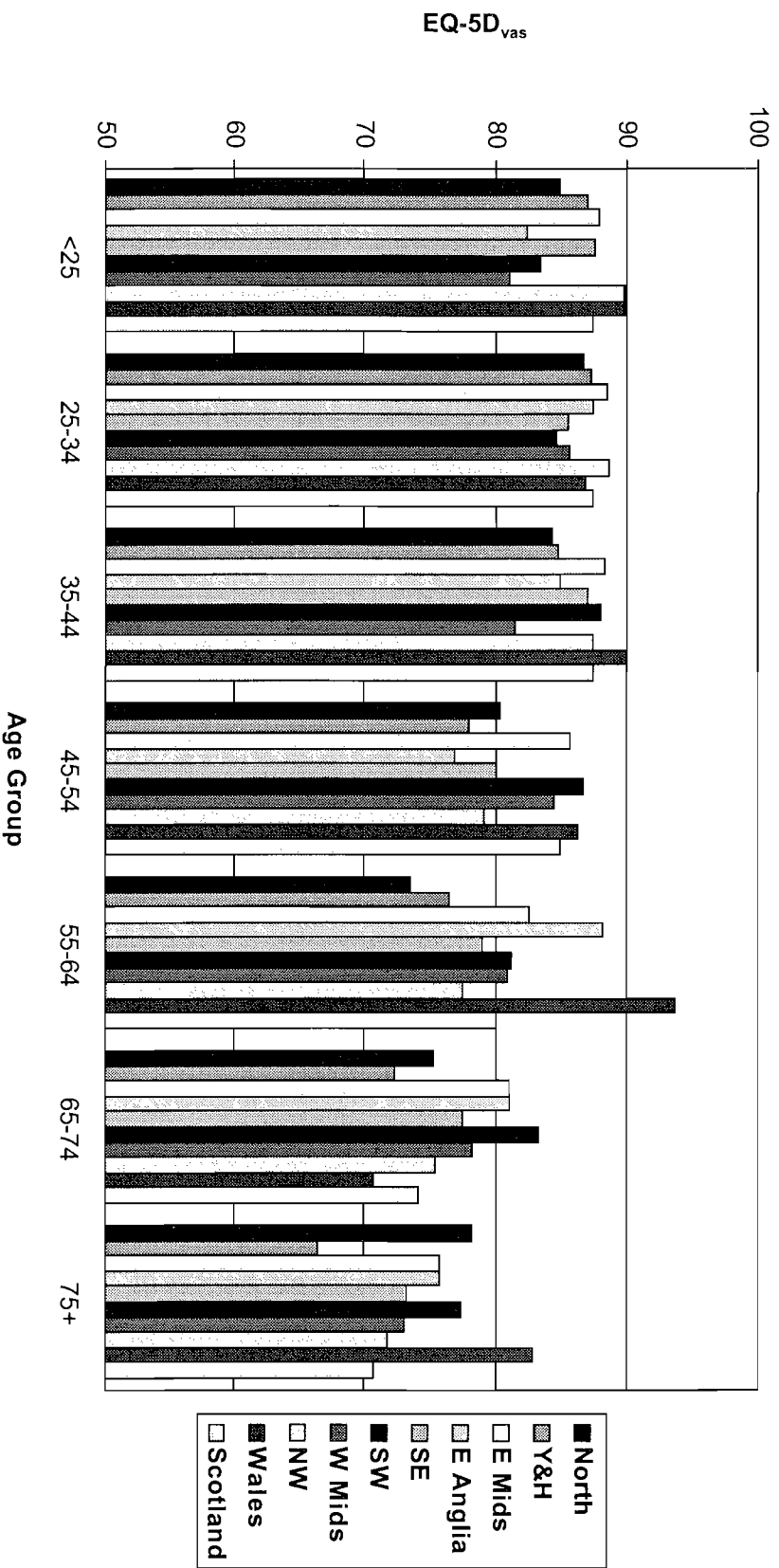
**Table 2.1.5**

**Self Rated Health Status by Age and Social Class**

	Social Class		Sig. Level of F Test	
	Non-manual	Manual		
All	Mean Count Std Deviation	84.63 1772 15.60	79.99 1500 18.19	0.000
Age Under 25	Mean Count Std Deviation	87.24 131 13.52	85.32 139 14.57	0.262
Age 25-34	Mean Count Std Deviation	88.53 460 12.41	84.47 272 16.18	0.000
Age 35-44	Mean Count Std Deviation	87.39 317 13.57	85.73 229 14.12	0.168
Age 45-54	Mean Count Std Deviation	83.44 273 17.06	80.26 211 19.46	0.056
Age 55-64	Mean Count Std Deviation	81.57 243 17.01	77.95 228 19.37	0.031
Age 65-74	Mean Count Std Deviation	80.31 222 17.22	74.84 249 18.41	0.001
Age 75+	Mean Count Std Deviation	76.80 126 17.63	70.78 172 19.08	0.006
Significance Level of F Test			0.000	0.000

Figure 2.1.6

Self Rated Health Status by Age and Standard Region



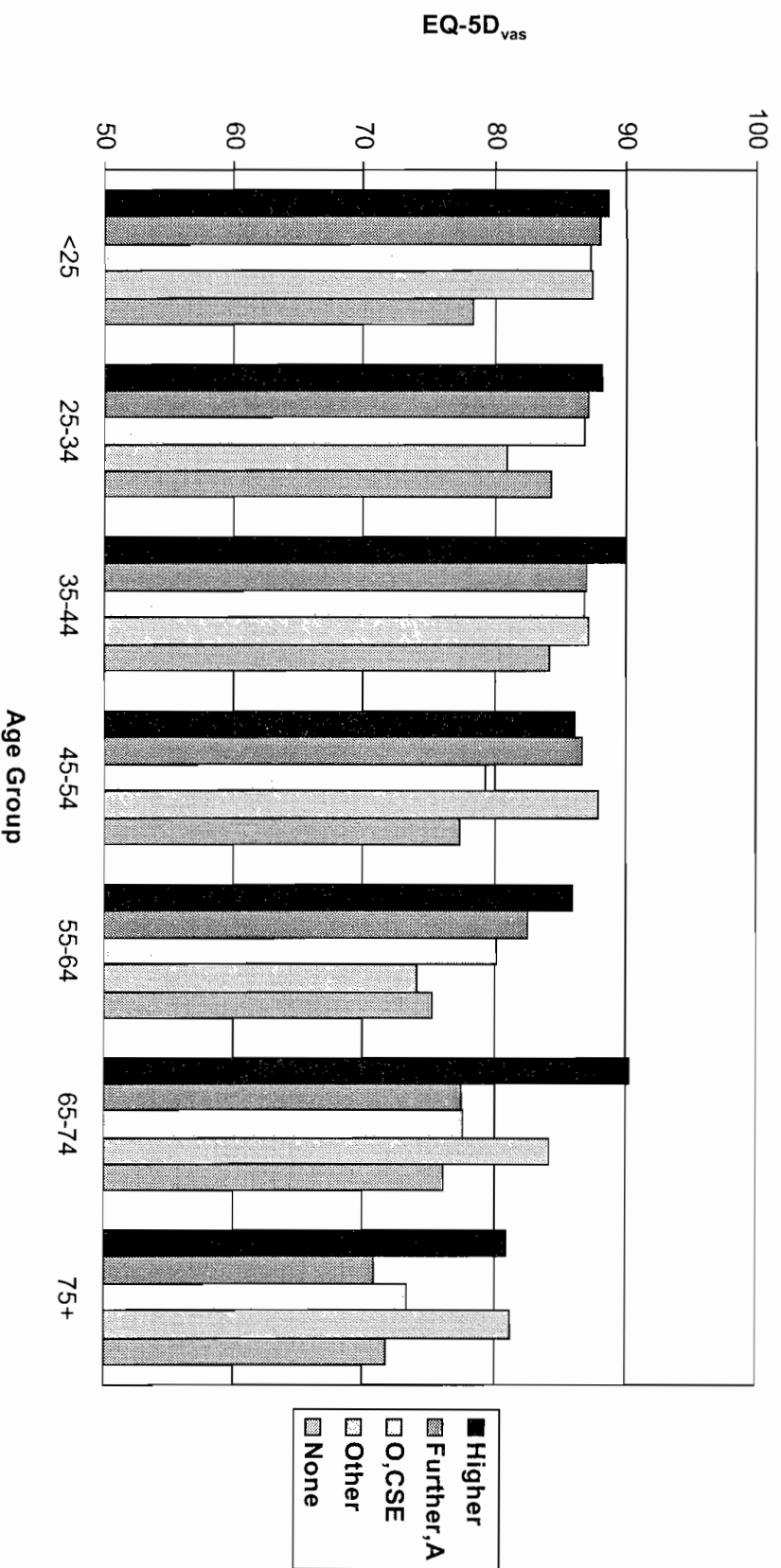
**Table 2.1.6**

**Self Rated Health Status by Age and Standard Region**

	Region										Sig. Level of F Test	
	North	Y&H	E Mids	E Anglia	SE	SW	W Mids	NW	Wales	Scotland		
All	Mean Count Std Deviation	80.58 208 17.82	79.76 266 18.16	85.57 358 14.50	83.26 135 12.42	82.07 838 17.50	84.01 363 15.30	81.43 311 16.71	82.00 423 18.08	85.21 117 17.50	82.24 359 17.79	0.001
Age Under 25	Mean Count Std Deviation	85.00 15 12.68	87.03 29 13.75	88.00 31 11.97	82.47 17 11.65	87.65 82 12.39	83.46 24 14.81	81.07 30 18.06	89.88 26 12.48	89.83 12 12.63	87.54 37 14.15	0.261
Age 25-34	Mean Count Std Deviation	86.79 42 14.02	87.29 52 15.54	88.52 105 13.55	87.45 22 9.68	85.57 176 15.12	84.63 73 14.71	85.71 66 15.03	88.67 104 12.87	86.86 29 18.12	87.51 84 14.18	0.652
Age 35-44	Mean Count Std Deviation	84.44 34 16.02	84.84 44 15.08	88.34 65 9.99	85.00 30 9.52	87.02 141 14.14	88.08 62 14.85	81.51 51 16.38	87.51 59 11.22	90.00 22 14.55	87.45 51 14.05	0.183
Age 45-54	Mean Count Std Deviation	80.34 29 20.71	78.00 32 20.78	85.77 52 14.95	77.00 15 20.92	80.13 127 19.12	86.70 53 10.35	84.49 49 16.51	79.20 81 20.55	86.33 12 18.72	84.97 37 16.64	0.101
Age 55-64	Mean Count Std Deviation	73.45 32 21.57	76.48 48 18.15	82.63 35 15.68	88.20 20 8.85	79.05 124 19.21	81.25 56 18.37	80.97 36 16.32	77.58 60 19.08	93.73 11 7.54	80.00 59 17.82	0.029
Age 65-74	Mean Count Std Deviation	75.35 34 16.77	72.35 34 19.54	81.05 41 14.75	81.11 18 13.44	77.48 119 18.67	83.30 60 15.17	78.31 48 13.74	75.43 60 20.42	70.65 20 20.80	74.17 52 20.97	0.044
Age 75+	Mean Count Std Deviation	78.26 23 17.36	66.44 27 14.72	75.69 29 20.04	75.77 13 8.38	73.26 69 19.43	77.40 35 16.77	73.10 31 21.16	71.70 33 20.80	82.91 11 12.33	70.62 39 19.74	0.239
Significance Level of F Test	0.013	0.000	0.000	0.014	0.000	0.022	0.016	0.000	0.002	0.000		

Figure 2.2.1

Self Rated Health Status by Age and Educational Qualifications for Males



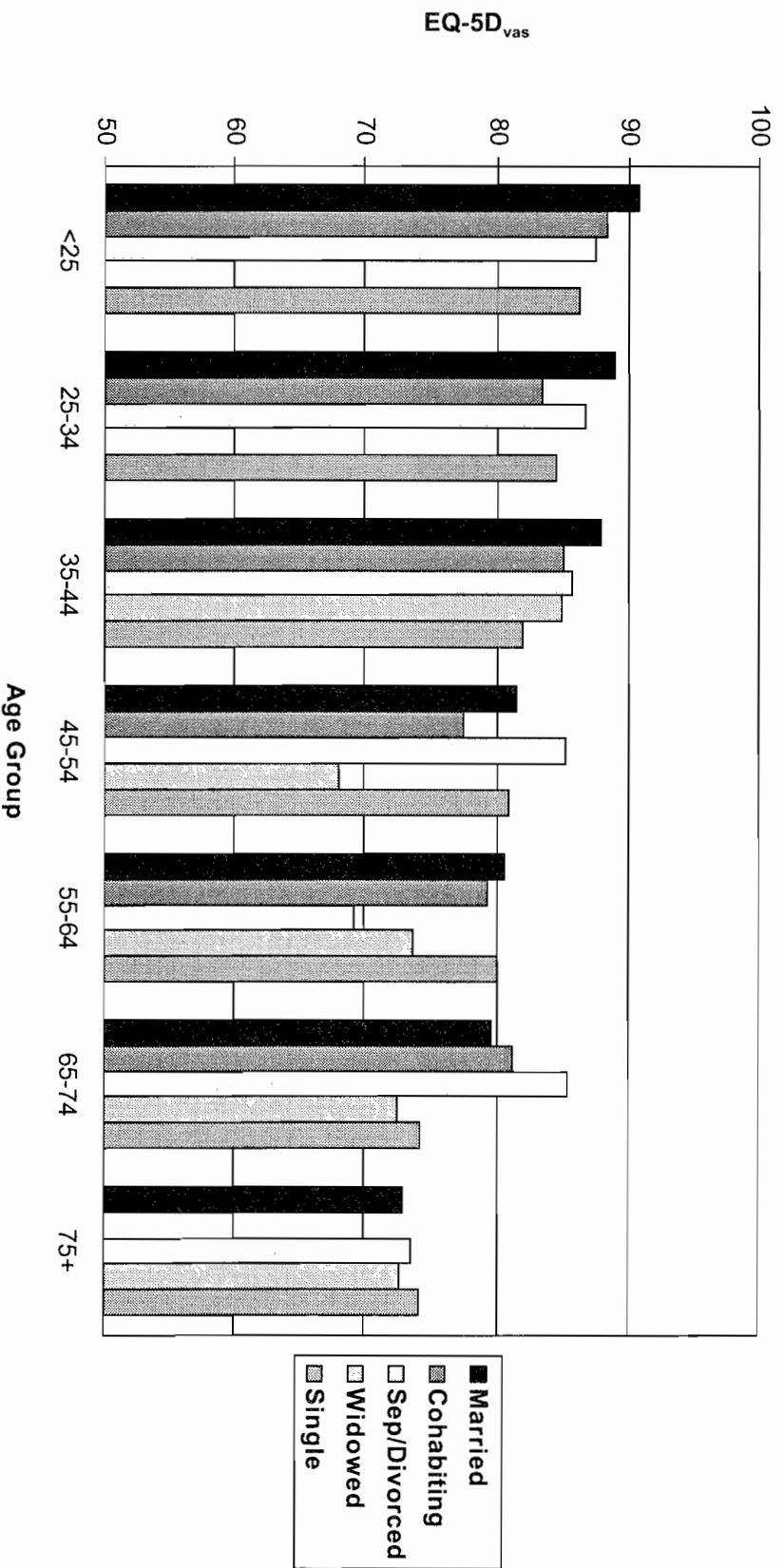
**Table 2.2.1**

**Self Rated Health Status by Age and Educational Qualifications for Males**

	Level of Education					Sig. Level of F Test	
	Higher	Further,A	O,CSE	Other	None		
All	Mean Count Std Deviation	88.11 181 10.95	85.89 342 14.73	82.94 453 16.71	82.53 51 14.93	77.59 434 19.64	0.000
Age Under 25	Mean Count Std Deviation	88.64 11 15.04	88.07 55 11.91	87.35 51 15.67	87.50 2 3.54	78.44 9 13.39	0.420
Age 25-34	Mean Count Std Deviation	88.27 56 10.79	87.18 109 14.27	86.93 122 16.10	81.00 4 7.35	84.38 39 14.41	0.664
Age 35-44	Mean Count Std Deviation	90.07 44 7.93	87.00 73 10.92	86.97 68 11.70	87.25 4 9.22	84.23 66 16.35	0.203
Age 45-54	Mean Count Std Deviation	86.21 29 11.96	86.80 44 13.80	79.30 63 20.35	87.91 11 10.00	77.42 23 73.00	0.033
Age 55-64	Mean Count Std Deviation	86.00 21 12.09	82.56 32 18.40	80.15 59 16.91	74.08 12 23.25	75.26 69 21.37	0.105
Age 65-74	Mean Count Std Deviation	90.33 15 12.27	77.58 24 19.93	77.71 62 15.28	84.29 14 12.65	76.22 113 18.41	0.031
Age 75+	Mean Count Std Deviation	81.00 5 10.84	70.80 5 32.26	73.43 28 16.50	81.25 4 10.31	71.69 65 19.85	0.738
Significance Level of F Test							0.447
							0.008
							0.000
							0.419
							0.003

Figure 2.2.2

Self Rated Health Status by Age and Marital Status for Males



**Table 2.2.2**

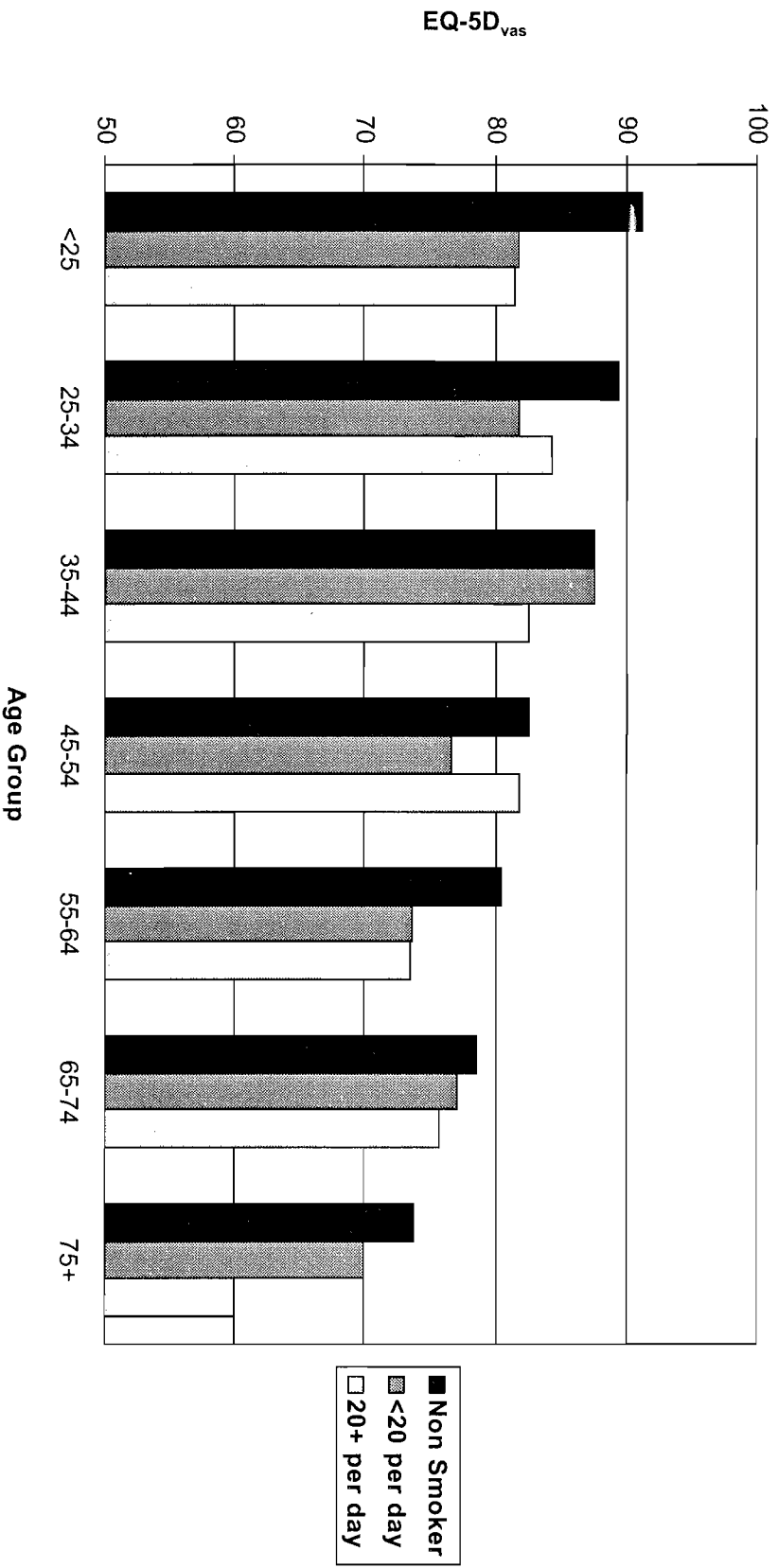
**Self Rated Health Status by Age and Marital Status for Males**

	Marital Status					Sig. Level of F Test
	Married	Cohabiting	Separated/Divorced	Widowed	Single	
All	Mean 83.48 Count 889 Std Deviation 16.23	83.84 76 15.14	81.93 111 18.73	72.68 99 19.71	83.55 288 16.88	0.000
Age Under 25	Mean 90.83 Count 18 Std Deviation 12.47	88.33 12 11.55	87.50 2 10.61	. 0 .	86.30 96 14.45	0.638
Age 25-34	Mean 89.05 Count 166 Std Deviation 12.00	83.48 40 16.31	86.77 26 14.83	. 0 .	84.59 98 16.66	0.037
Age 35-44	Mean 87.96 Count 188 Std Deviation 10.44	85.17 12 12.10	85.76 17 9.86	85.00 2 14.14	81.92 36 20.06	0.106
Age 45-54	Mean 81.51 Count 160 Std Deviation 19.96	77.60 5 18.94	85.28 29 14.51	68.00 5 17.89	81.00 22 19.53	0.436
Age 55-64	Mean 80.68 Count 146 Std Deviation 16.90	79.33 3 25.42	69.18 22 28.28	73.67 9 22.38	80.07 14 16.70	0.100
Age 65-74	Mean 79.56 Count 158 Std Deviation 15.90	81.25 4 12.50	85.44 9 10.98	72.54 41 22.05	74.31 16 19.64	0.098
Age 75+	Mean 72.94 Count 53 Std Deviation 20.92	. 0 .	73.50 6 21.90	72.57 42 17.60	74.17 6 8.61	0.998
Significance Level of F Test						0.000
0.802						0.015
0.086						0.086



Figure 2.2.3

Self Rated Health Status by Age and Smoking Status for Males



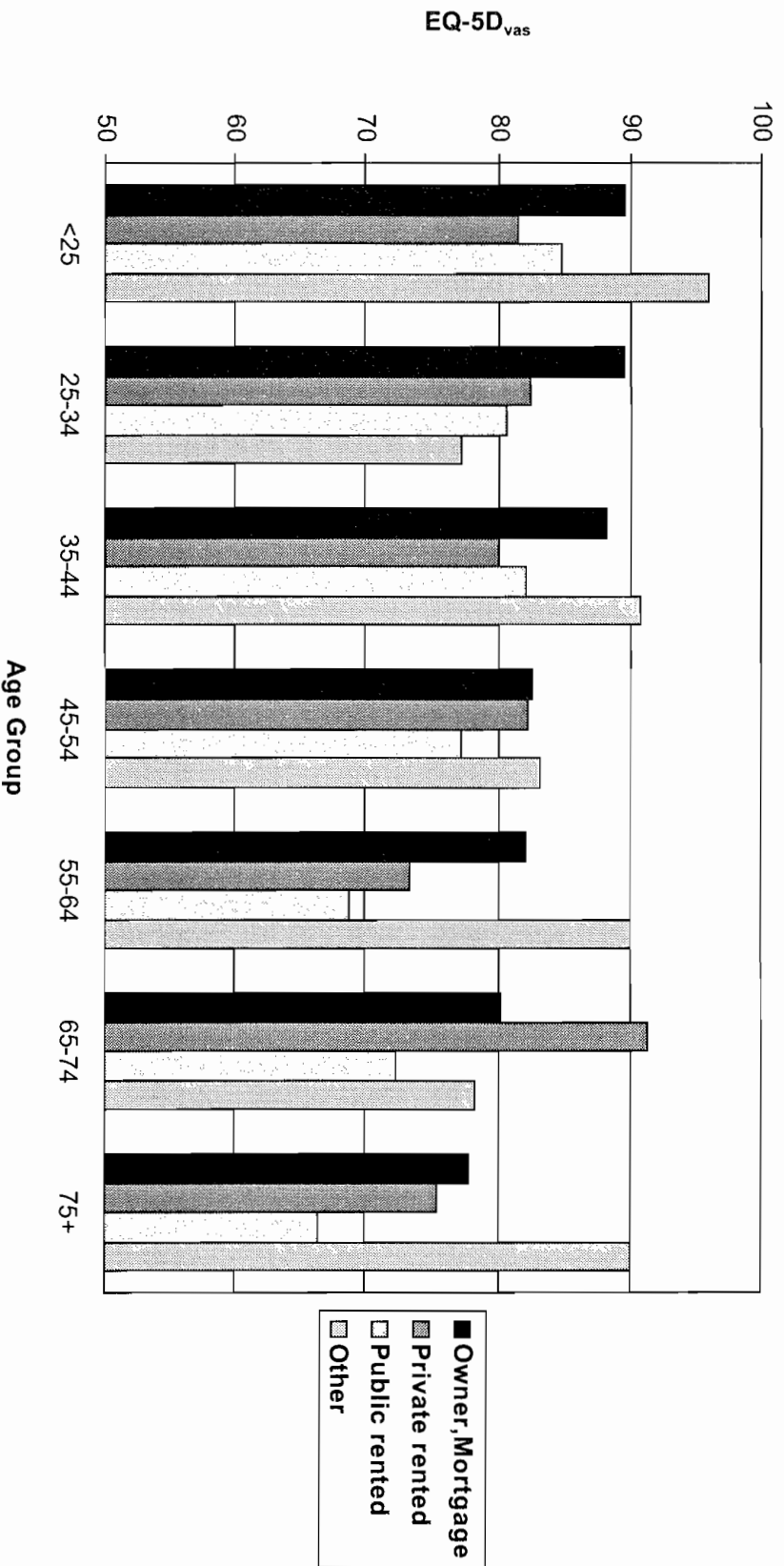
**Table 2.2.3**

**Self Rated Health Status by Age and Smoking Status for Males**

	Smoker			Sig. Level of F Test	
	Non smoker	<20 pd	20+ pd		
All	Mean Count Std Deviation	83.64 998 16.46	80.42 282 17.62	80.56 175 18.31	0.004
Age Under 25	Mean Count Std Deviation	91.21 73 11.70	81.82 44 14.68	81.55 11 15.71	0.000
Age 25-34	Mean Count Std Deviation	89.41 205 12.22	81.87 84 17.98	84.39 41 13.55	0.000
Age 35-44	Mean Count Std Deviation	87.68 163 11.74	87.61 51 11.77	82.59 39 14.87	0.062
Age 45-54	Mean Count Std Deviation	82.65 142 18.37	76.58 36 22.56	81.85 41 19.19	0.241
Age 55-64	Mean Count Std Deviation	80.54 144 17.71	73.69 26 19.89	73.57 21 24.94	0.097
Age 65-74	Mean Count Std Deviation	78.55 181 17.28	77.07 27 17.47	75.74 19 19.36	0.756
Age 75+	Mean Count Std Deviation	73.78 90 19.18	70.00 14 13.01	60.00 3 36.06	0.390
Significance Level of F Test					
		0.000	0.002	0.096	

Figure 2.2.4

Self Rated Health Status by Age and Housing Tenure for Males



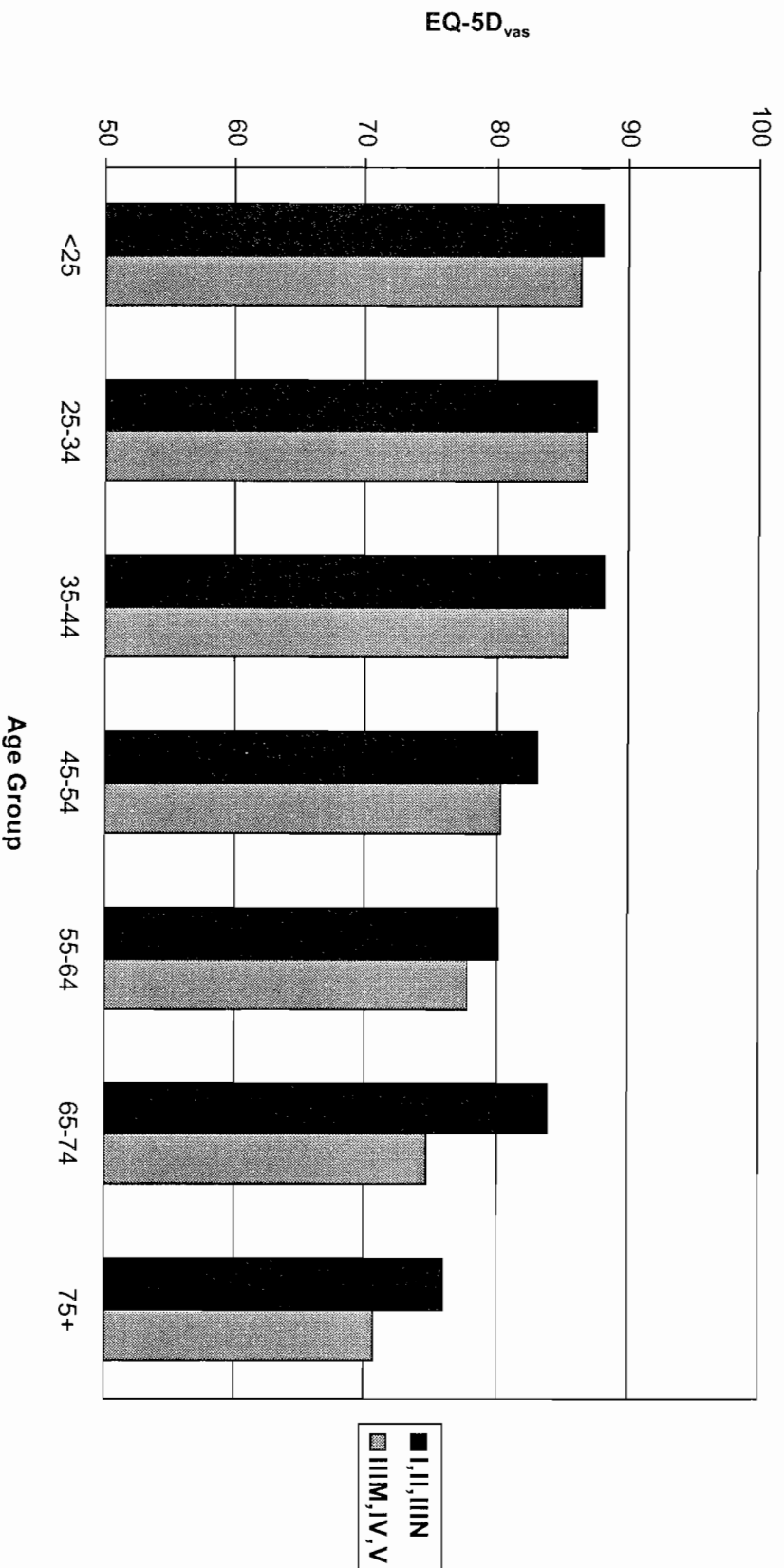
**Table 2.2.4**

**Self Rated Health Status by Age and Housing Tenure for Males**

	Tenure				Sig. Level of F Test			
	Owner/Mortgage	Private rented	Public rented	Other				
All	Mean Count Std Deviation	85.11 1004 16.69	80.82 124 15.09	75.31 304 21.51	83.57 28 21.02	0.000		
Age Under 25	Mean Count Std Deviation	89.55 78 13.41	81.48 25 13.03	84.88 24 14.77	96.00 1 .	0.054		
Age 25-34	Mean Count Std Deviation	89.58 224 11.07	82.44 45 15.86	80.67 52 19.13	77.22 9 27.17	0.000		
Age 35-44	Mean Count Std Deviation	88.21 194 10.49	80.11 18 11.57	82.08 37 19.12	90.83 6 6.65	0.003		
Age 45-54	Mean Count Std Deviation	82.52 161 17.96	82.33 9 12.58	77.23 44 23.14	83.17 6 28.81	0.445		
Age 55-64	Mean Count Std Deviation	82.17 141 15.65	73.33 12 17.69	68.76 38 26.51	90.00 2 0.00	0.001		
Age 65-74	Mean Count Std Deviation	80.28 155 15.61	91.40 5 10.06	72.31 64 20.41	78.33 3 17.56	0.006		
Age 75+	Mean Count Std Deviation	77.82 51 16.82	75.50 10 20.53	66.36 45 19.53	90.00 1 .	0.019		
Significance Level of F Test					0.000	0.000	0.291	0.911

Figure 2.2.5

Self Rated Health Status by Age and Social Class for Males



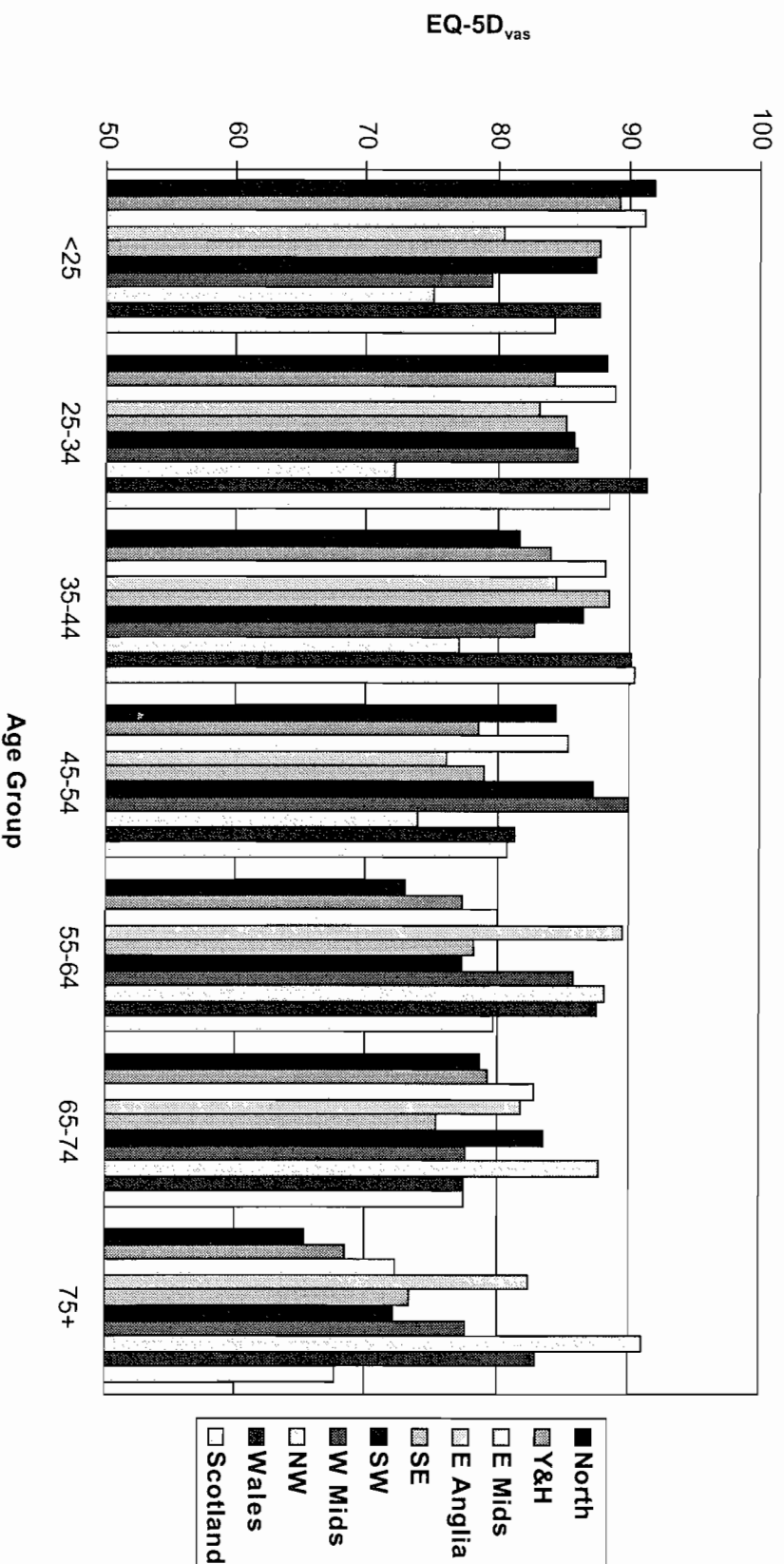
**Table 2.2.5**

**Self Rated Health Status by Age and Social Class for Males**

	Social Class		Sig. Level of F Test	
	Non-manual	Manual		
All	Mean Count Std Deviation	84.95 665 15.18	80.72 761 18.12	0.000
Age Under 25	Mean Count Std Deviation	88.12 51 14.31	86.53 64 14.46	0.558
Age 25-34	Mean Count Std Deviation	87.61 173 12.74	86.84 147 14.59	0.615
Age 35-44	Mean Count Std Deviation	88.19 129 11.37	85.43 122 13.40	0.079
Age 45-54	Mean Count Std Deviation	83.15 98 17.62	80.29 121 20.54	0.276
Age 55-64	Mean Count Std Deviation	80.20 91 17.93	77.81 100 20.18	0.390
Age 65-74	Mean Count Std Deviation	83.87 85 15.28	74.77 140 17.72	0.000
Age 75+	Mean Count Std Deviation	76.11 38 17.27	70.72 67 19.85	0.165
Significance Level of F Test			0.000	0.000

Figure 2.2.6

Self Rated Health Status by Age and Standard Region for Males



**Table 2.2.6**

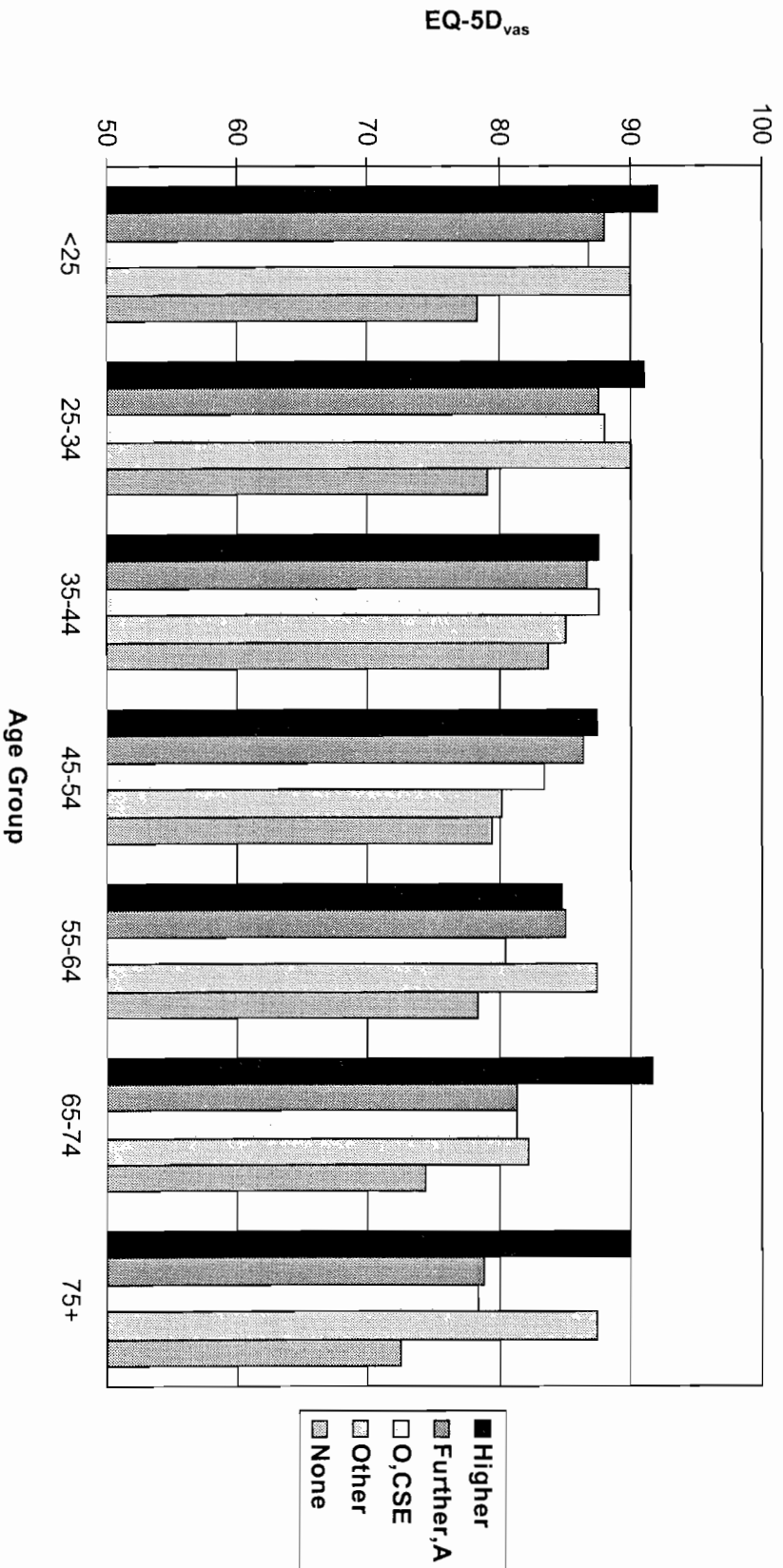
**Self Rated Health Status by Age and Standard Region for Males**

	Region										Sig. Level of F Test									
	North	Y&H	E Mids	E Anglia	SE	SW	W Mids	NW	Wales	Scotland										
All	Mean Count Std Deviation	81.70 86 17.38	80.54 111 18.27	85.82 168 15.25	83.02 50 10.96	81.59 348 17.79	83.52 174 15.45	83.60 144 15.00	81.54 181 19.27	84.95 41 14.42	82.48 160 17.99	0.246								
Age Under 25	Mean Count Std Deviation	92.00 5 8.37	89.29 7 15.76	91.29 14 11.26	80.50 6 12.65	87.77 30 10.20	87.46 13 11.64	79.58 12 21.72	91.06 16 12.46	87.80 5 10.62	84.40 20 17.50	0.432								
Age 25-34	Mean Count Std Deviation	88.32 19 15.85	84.42 24 20.31	88.98 50 12.24	83.25 8 11.44	85.26 76 15.67	85.87 31 13.51	86.16 32 15.03	87.85 46 12.98	91.40 5 9.56	88.49 39 12.78	0.852								
Age 35-44	Mean Count Std Deviation	81.74 19 16.05	84.10 21 14.86	88.23 35 12.04	84.50 16 8.80	88.55 56 13.08	86.67 30 11.58	82.91 23 14.03	88.31 29 8.36	90.13 8 7.57	90.50 18 11.23	0.263								
Age 45-54	Mean Count Std Deviation	84.55 11 23.18	78.53 19 20.75	85.43 23 17.00	76.20 5 18.86	79.04 55 20.02	87.38 26 9.99	90.08 24 6.04	74.03 32 24.90	81.38 8 21.54	80.83 18 20.95	0.086								
Age 55-64	Mean Count Std Deviation	73.08 13 17.72	77.44 18 20.25	80.00 10 20.29	89.60 5 11.33	78.24 51 19.75	77.44 27 22.24	85.88 17 12.89	77.13 23 20.82	87.67 3 11.68	79.78 27 17.42	0.715								
Age 65-74	Mean Count Std Deviation	78.69 16 14.80	79.33 12 13.45	82.91 22 14.86	81.83 6 7.88	75.49 53 19.40	83.64 33 12.70	77.71 28 15.79	72.24 25 23.22	77.50 8 17.11	77.56 25 19.55	0.400								
Age 75+	Mean Count Std Deviation	65.33 3 15.01	68.50 10 13.95	72.36 14 21.50	82.50 4 8.66	73.41 27 18.28	72.14 14 21.36	77.63 8 19.52	75.10 10 20.71	83.00 4 12.62	67.69 13 23.15	0.861								
Significance Level of F Test											0.077	0.194	0.005	0.641	0.000	0.011	0.052	0.000	0.565	0.002



Figure 2.3.1

Self Rated Health Status by Age and Educational Qualifications for Females



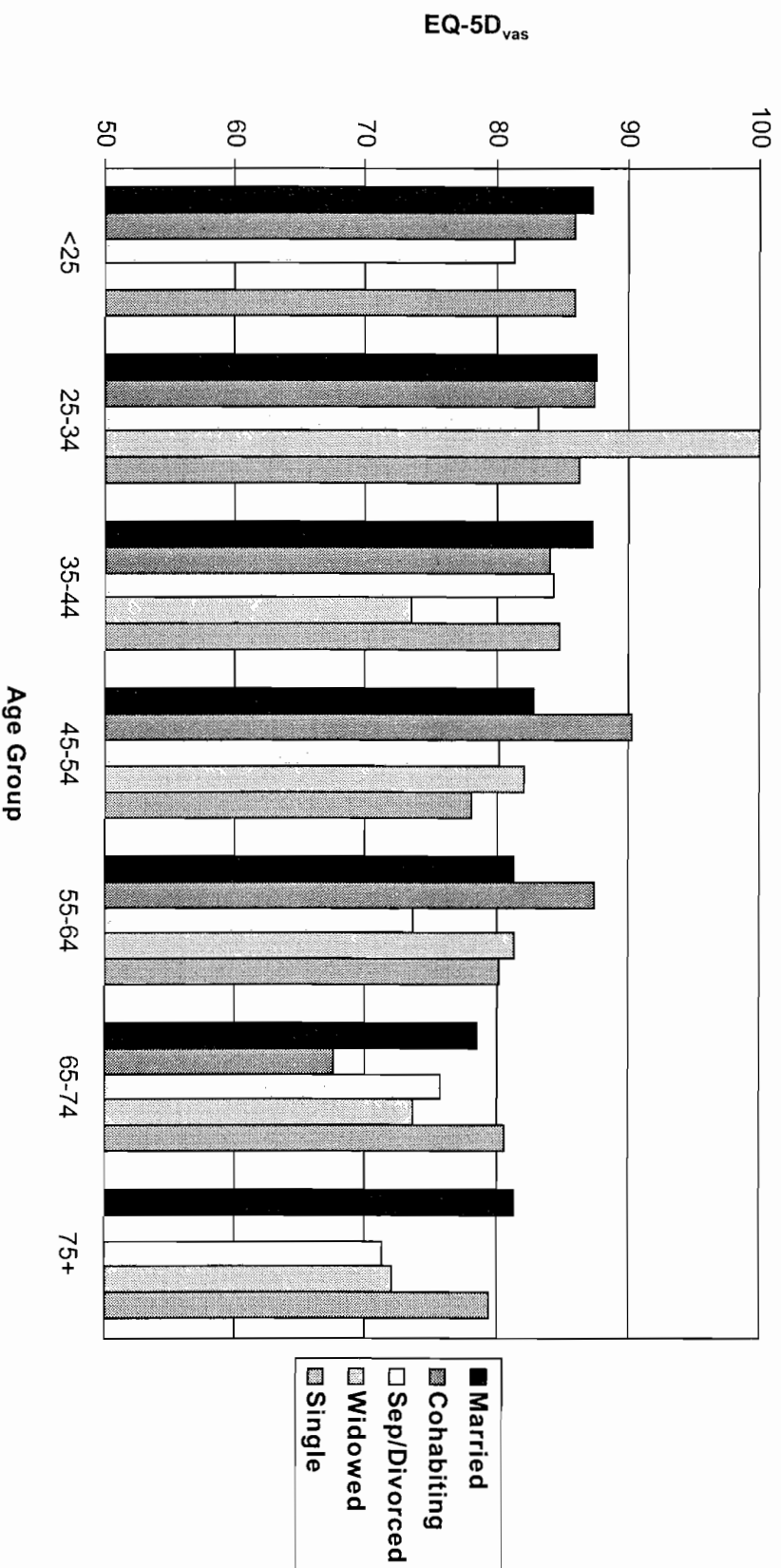
**Table 2.3.1**

**Self Rated Health Status by Age and Educational Qualifications for Females**

	Level of Education					Sig. Level of F Test
	Higher	Further, A	O, CSE	Other	None	
All	Mean 89.05 Count 130 Std Deviation 14.51	86.24 340 13.84	85.61 591 14.79	85.15 41 14.37	77.12 813 18.64	0.000
Age Under 25	Mean 92.14 Count 7 Std Deviation 11.13	88.04 47 11.08	86.93 90 12.44	90.00 1 .	78.43 30 17.57	0.012
Age 25-34	Mean 91.13 Count 45 Std Deviation 12.13	87.61 115 13.83	88.08 185 12.43	90.00 7 7.51	79.21 71 19.03	0.000
Age 35-44	Mean 87.72 Count 36 Std Deviation 17.44	86.79 63 14.65	87.61 114 12.90	85.17 6 27.33	83.84 85 15.37	0.458
Age 45-54	Mean 87.56 Count 27 Std Deviation 15.89	86.43 35 13.14	83.54 78 18.83	80.25 12 16.37	79.43 114 17.22	0.082
Age 55-64	Mean 84.89 Count 9 Std Deviation 14.84	85.08 40 13.79	80.47 57 18.91	87.50 10 7.17	78.38 170 18.38	0.125
Age 65-74	Mean 91.67 Count 3 Std Deviation 10.41	81.45 22 14.87	81.40 45 14.33	82.33 3 6.81	74.45 185 19.76	0.055
Age 75+	Mean 90.00 Count 3 Std Deviation 10.00	78.89 18 15.88	78.41 22 17.07	87.50 2 10.61	72.44 158 18.85	0.137
Significance Level of F Test						0.854
						0.122
						0.000
						0.862
						0.000

Figure 2.3.2

Self Rated Health Status by Age and Marital Status for Females



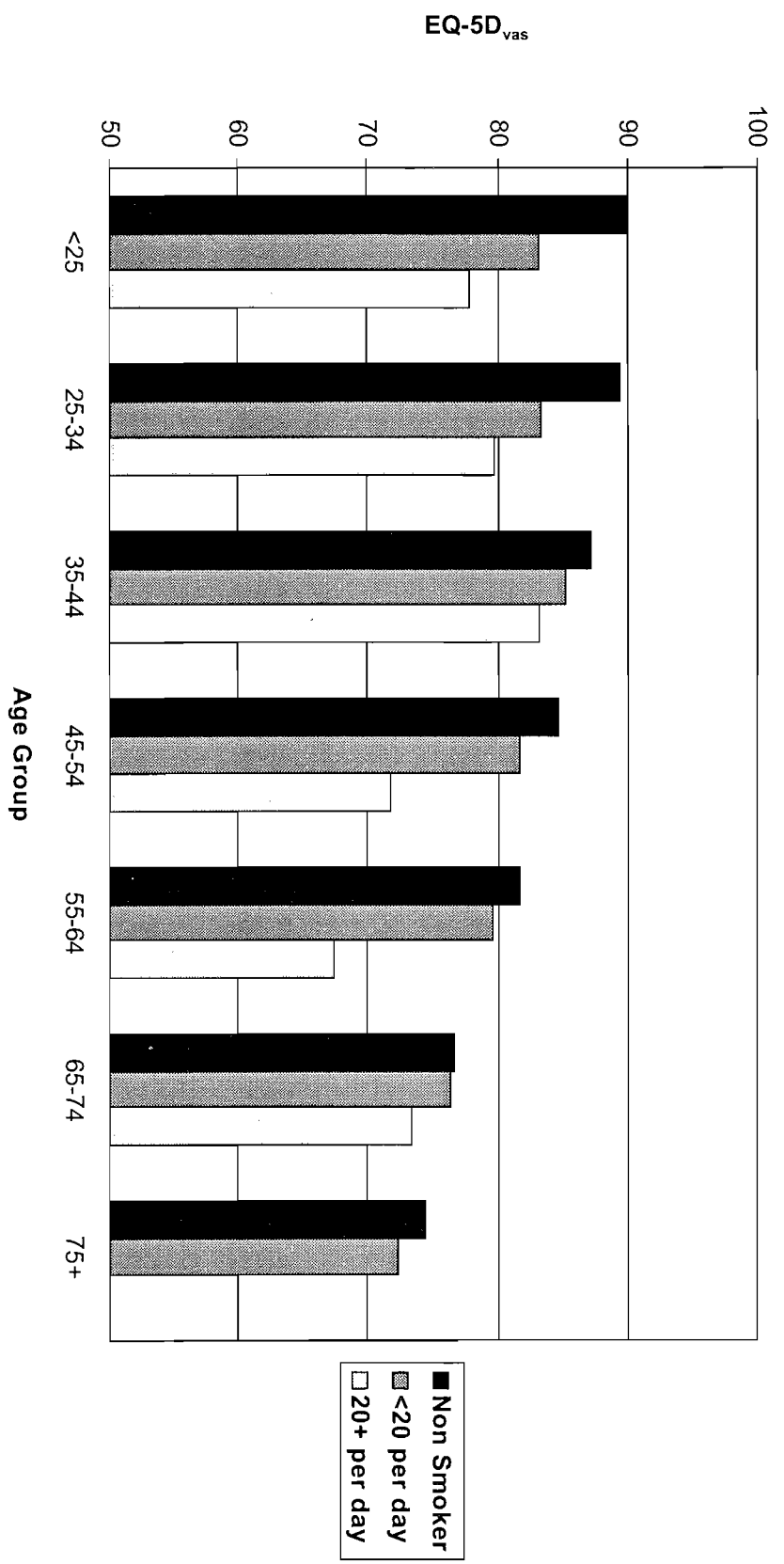
**Table 2.3.2**

**Self Rated Health Status by Age and Marital Status for Females**

	Marital Status					Sig. Level of F Test
	Married	Cohabiting	Separated/Divorced	Widowed	Single	
All	Mean 84.42 Count 948 Std Deviation 15.99	86.30 109 15.25	80.03 243 17.41	74.87 328 18.87	84.40 284 15.40	0.000
Age Under 25	Mean 87.34 Count 29 Std Deviation 11.67	85.97 31 16.19	81.40 10 13.50	. 0 .	86.08 105 13.08	0.693
Age 25-34	Mean 87.70 Count 232 Std Deviation 14.34	87.57 42 14.51	83.23 60 15.95	100.00 1 .	86.29 87 13.35	0.228
Age 35-44	Mean 87.35 Count 210 Std Deviation 13.44	84.05 20 18.54	84.35 55 16.61	73.50 2 33.23	84.76 17 19.26	0.394
Age 45-54	Mean 82.90 Count 184 Std Deviation 17.34	90.38 8 7.44	80.28 43 17.46	82.20 15 13.76	78.13 15 21.91	0.491
Age 55-64	Mean 81.36 Count 159 Std Deviation 17.93	87.50 6 8.80	73.66 44 18.38	81.40 62 16.90	80.27 15 15.54	0.090
Age 65-74	Mean 78.60 Count 104 Std Deviation 17.31	67.50 2 17.68	75.77 22 20.08	73.59 102 19.62	80.67 27 17.96	0.227
Age 75+	Mean 81.37 Count 30 Std Deviation 14.77	. 0 .	71.22 9 13.45	72.08 146 18.76	79.50 18 20.76	0.042
Significance Level of F Test						0.000
Significance Level of F Test						0.503
Significance Level of F Test						0.019
Significance Level of F Test						0.145

Figure 2.3.3

Self Rated Health Status by Age and Smoking Status for Females



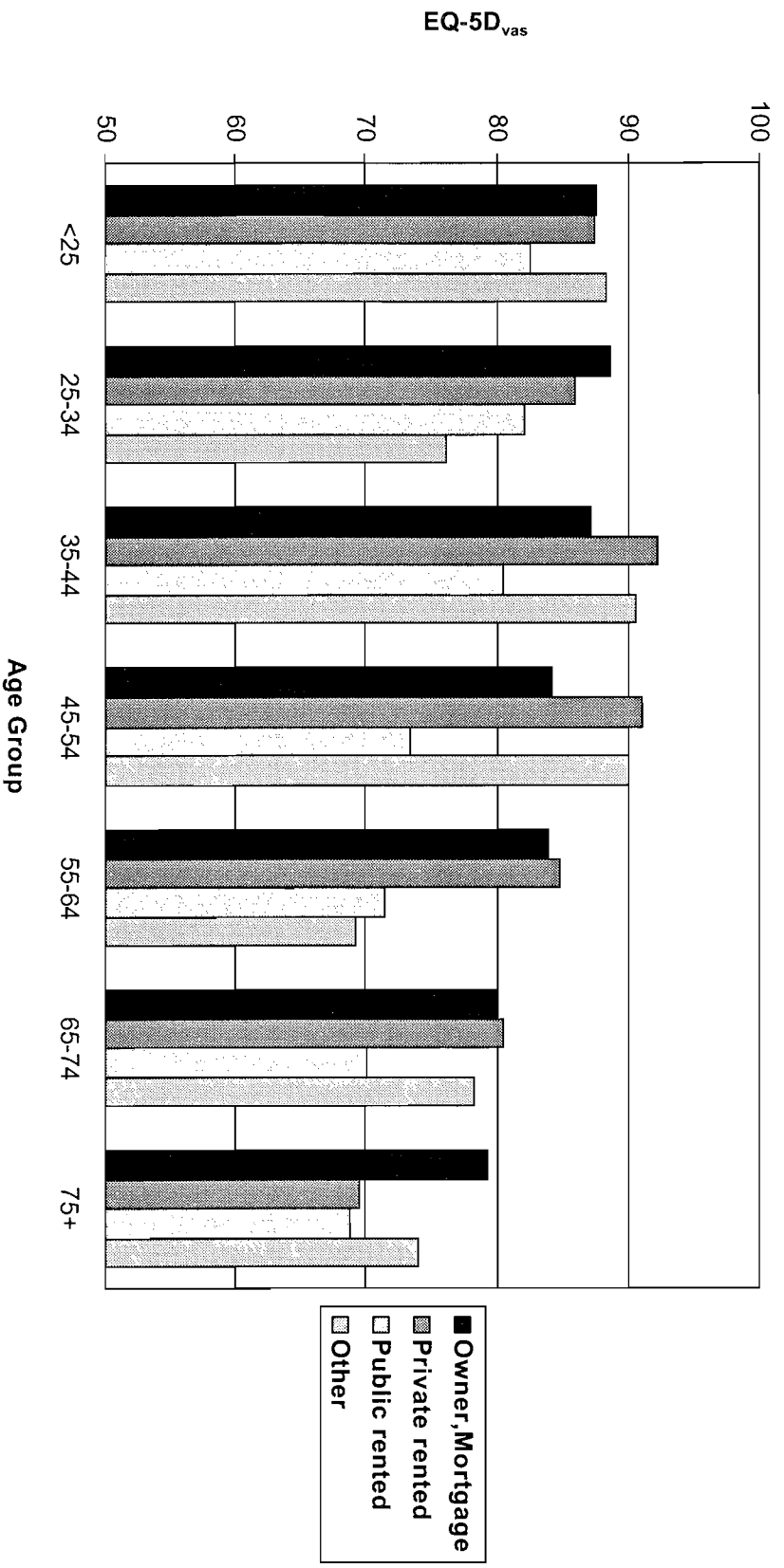
**Table 2.3.3**

**Self Rated Health Status by Age and Smoking Status for Females**

	Smoker			Sig. Level of F Test	
	Non smoker	<20 pd	20+ pd		
All	Mean Count Std Deviation	83.27 1334 16.65	81.63 412 15.88	76.50 166 20.72	0.000
Age Under 25	Mean Count Std Deviation	89.82 92 10.67	83.20 61 15.36	77.82 22 13.08	0.000
Age 25-34	Mean Count Std Deviation	89.37 267 12.59	83.39 112 14.81	79.81 43 19.58	0.000
Age 35-44	Mean Count Std Deviation	87.24 203 13.99	85.31 65 16.54	83.22 36 16.49	0.268
Age 45-54	Mean Count Std Deviation	84.70 169 15.38	81.76 62 15.34	71.76 34 24.28	0.000
Age 55-64	Mean Count Std Deviation	81.71 217 16.44	79.55 47 15.62	67.36 22 26.95	0.001
Age 65-74	Mean Count Std Deviation	76.64 209 19.28	76.38 40 16.10	73.38 8 14.06	0.888
Age 75+	Mean Count Std Deviation	74.45 177 18.63	72.36 25 17.19	50.00 1 .	0.372
Significance Level of F Test					
		0.000	0.003	0.042	

Figure 2.3.4

Self Rated Health Status by Age and Housing Tenure for Females



**Table 2.3.4**

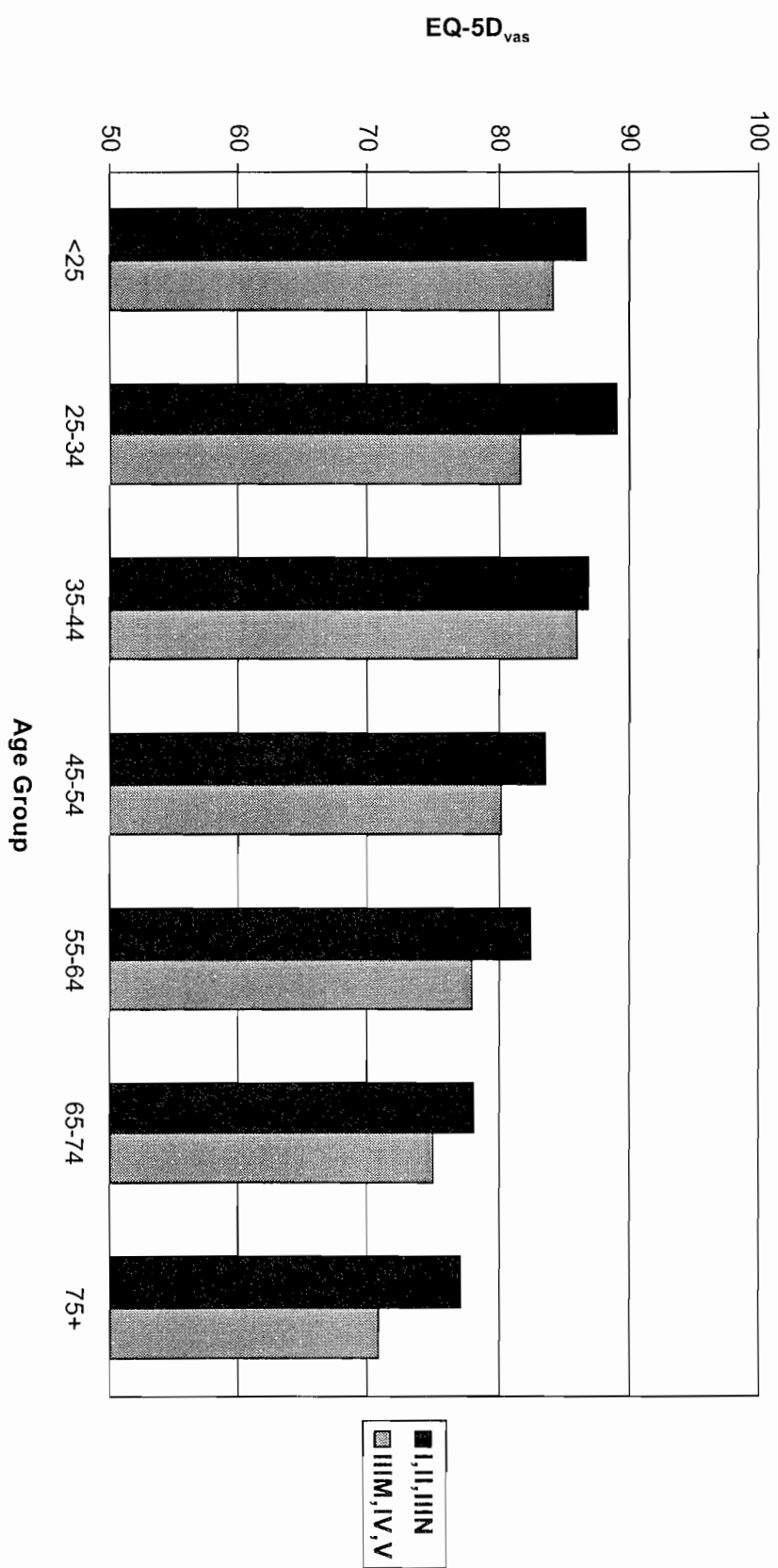
**Self Rated Health Status by Age and Housing Tenure for Females**

	Tenure				Sig. Level of F Test	
	Owner/Mortgage	Private rented	Public rented	Other		
All	Mean Count Std Deviation	85.08 1214 14.74	85.51 138 15.12	75.19 523 19.95	81.46 35 17.81	0.000
Age Under 25	Mean Count Std Deviation	87.61 72 11.12	87.44 34 14.29	82.66 58 15.21	88.33 9 14.58	0.155
Age 25-34	Mean Count Std Deviation	88.71 287 11.90	86.03 33 15.37	82.09 98 18.29	76.20 5 29.22	0.000
Age 35-44	Mean Count Std Deviation	87.27 222 14.09	92.28 18 11.28	80.53 58 17.78	90.67 6 5.92	0.004
Age 45-54	Mean Count Std Deviation	84.22 196 15.59	91.14 14 7.67	73.31 54 21.37	90.00 2 0.00	0.000
Age 55-64	Mean Count Std Deviation	83.87 188 15.19	84.87 15 11.75	71.38 77 20.63	69.20 5 22.26	0.000
Age 65-74	Mean Count Std Deviation	80.05 155 16.72	80.50 10 21.66	70.03 90 19.94	78.33 3 16.07	0.001
Age 75+	Mean Count Std Deviation	79.35 94 16.08	69.50 14 14.37	68.80 88 20.16	74.00 5 13.42	0.001
Significance Level of F Test					0.000	0.312



Figure 2.3.5

Self Rated Health Status by Age and Social Class for Females



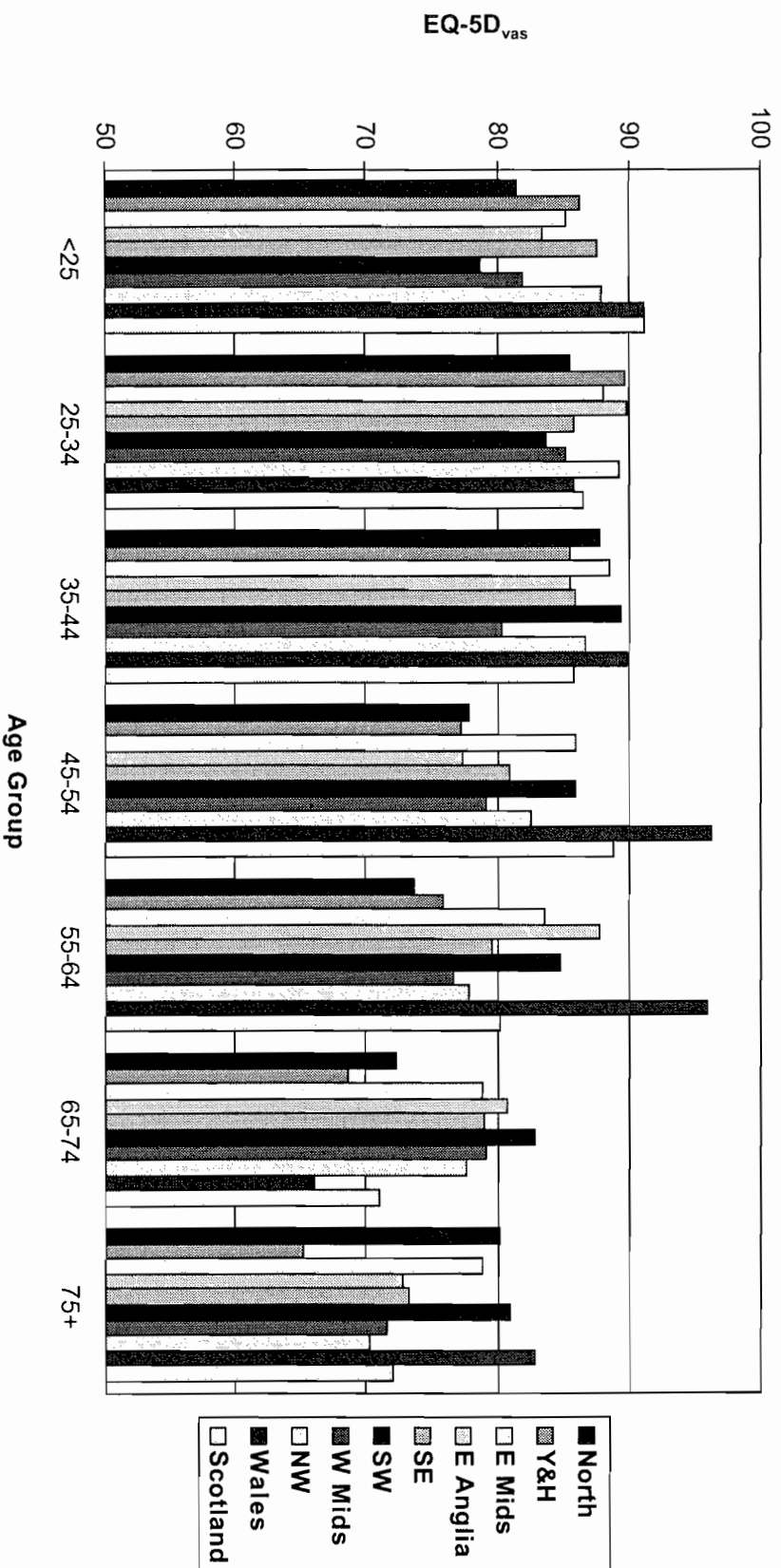
**Table 2.3.5**

**Self Rated Health Status by Age and Social Class for Females**

	Social Class		Sig. Level of F Test	
	Non-manual	Manual		
All	Mean Count Std Deviation	84.43 1107 15.85	79.24 739 18.24	0.000
Age Under 25	Mean Count Std Deviation	86.69 80 13.05	84.28 75 14.68	0.282
Age 25-34	Mean Count Std Deviation	89.08 287 12.19	81.68 125 17.53	0.000
Age 35-44	Mean Count Std Deviation	86.84 188 14.91	86.08 107 14.96	0.676
Age 45-54	Mean Count Std Deviation	83.59 175 16.78	80.21 90 18.02	0.131
Age 55-64	Mean Count Std Deviation	82.39 152 16.44	78.05 128 18.78	0.040
Age 65-74	Mean Count Std Deviation	78.10 137 18.02	74.94 109 19.35	0.186
Age 75+	Mean Count Std Deviation	77.10 88 17.88	70.82 105 18.67	0.019
Significance Level of F Test			0.000	0.000

Figure 2.3.6

Self Rated Health Status by Age and Standard Region for Females



**Table 2.3.6**

**Self Rated Health Status by Age and Standard Region for Females**

	Region										Sig. Level of F Test
	North	Y&H	E Mids	E Anglia	SE	SW	W Mids	NW	Wales	Scotland	
All	Mean 79.79 Count 122 Std Deviation 18.15	79.21 155 18.11	85.36 190 13.84	83.40 85 13.27	82.41 490 17.30	84.46 189 15.19	79.57 167 17.89	82.33 242 17.16	85.34 76 19.04	82.06 199 17.68	0.004
Age Under 25	Mean 81.50 Count 10 Std Deviation 13.34	86.32 22 13.37	85.29 17 12.18	83.55 11 11.55	87.58 52 13.59	78.73 11 17.23	82.06 18 15.75	88.00 10 12.95	91.29 7 14.55	91.24 17 7.74	0.280
Age 25-34	Mean 85.52 Count 23 Std Deviation 12.53	89.75 28 9.54	88.11 55 14.73	89.86 14 7.99	85.81 100 14.77	83.71 42 15.63	85.29 34 15.25	89.33 58 12.85	85.92 24 19.46	86.67 45 15.38	0.633
Age 35-44	Mean 87.87 Count 15 Std Deviation 15.84	85.52 23 15.58	88.47 30 7.08	85.57 14 10.60	86.01 85 14.79	89.41 32 17.46	80.36 28 18.26	86.73 30 13.53	89.93 14 17.64	85.79 33 15.28	0.571
Age 45-54	Mean 77.78 Count 18 Std Deviation 19.30	77.23 13 21.64	86.03 29 13.42	77.40 10 22.85	80.96 72 18.51	86.04 27 10.83	79.12 25 21.19	82.57 49 16.55	96.25 4 2.50	88.89 19 10.30	0.184
Age 55-64	Mean 73.72 Count 18 Std Deviation 24.48	75.90 30 17.10	83.68 25 13.79	87.73 15 8.28	79.62 73 18.94	84.79 29 13.29	76.58 19 18.09	77.86 37 18.21	96.00 8 4.54	80.19 32 18.42	0.035
Age 65-74	Mean 72.39 Count 18 Std Deviation 18.24	68.55 22 21.50	78.89 19 14.72	80.75 12 15.82	79.08 66 18.05	82.89 27 17.99	79.15 20 10.56	77.71 35 18.16	66.08 12 22.45	71.04 27 22.10	0.047
Age 75+	Mean 80.20 Count 20 Std Deviation 17.18	65.24 17 15.44	78.80 15 18.78	72.78 9 6.67	73.17 42 20.35	80.90 21 12.22	71.52 23 21.89	70.22 23 21.13	82.86 7 13.18	72.08 26 18.13	0.141
Significance Level of F Test	0.098	0.000	0.068	0.028	0.000	0.342	0.167	0.000	0.004	0.000	

# **APPENDIX A**

P.1319

## SELF-COMPLETION BOOKLET

Respondent Serial Number:

Card No.:  0  9

901-4

905-6

### OWN HEALTH QUESTIONS

Tick one box in each group to show which statements best describe your own health state today. The boxes on the left are there to help you see the different levels within each group.

#### MOBILITY

- |                          |                                       |                            |
|--------------------------|---------------------------------------|----------------------------|
| <input type="checkbox"/> | I have no problems in walking about   | <input type="checkbox"/> 1 |
| <input type="checkbox"/> | I have some problems in walking about | <input type="checkbox"/> 2 |
| <input type="checkbox"/> | I am confined to bed                  | <input type="checkbox"/> 3 |

907

#### SELF-CARE

- |                          |   |                            |
|--------------------------|---|----------------------------|
| <input type="checkbox"/> | I have no problems with self-care               | <input type="checkbox"/> 1 |
| <input type="checkbox"/> | I have some problems washing or dressing myself | <input type="checkbox"/> 2 |
| <input type="checkbox"/> | I am unable to wash or dress myself             | <input type="checkbox"/> 3 |

908

#### USUAL ACTIVITIES

- |                          |  |                            |
|--------------------------|--|----------------------------|
| <input type="checkbox"/> | I have no problems with performing my usual activities (e.g. work, study, housework, family or leisure activities) | <input type="checkbox"/> 1 |
| <input type="checkbox"/> | I have some problems with performing my usual activities   | <input type="checkbox"/> 2 |
| <input type="checkbox"/> | I am unable to perform my usual activities   | <input type="checkbox"/> 3 |

909

#### PAIN/DISCOMFORT

- |                          |                                    |                            |
|--------------------------|------------------------------------|----------------------------|
| <input type="checkbox"/> | I have no pain or discomfort       | <input type="checkbox"/> 1 |
| <input type="checkbox"/> | I have moderate pain or discomfort | <input type="checkbox"/> 2 |
| <input type="checkbox"/> | I have extreme pain or discomfort  | <input type="checkbox"/> 3 |

910

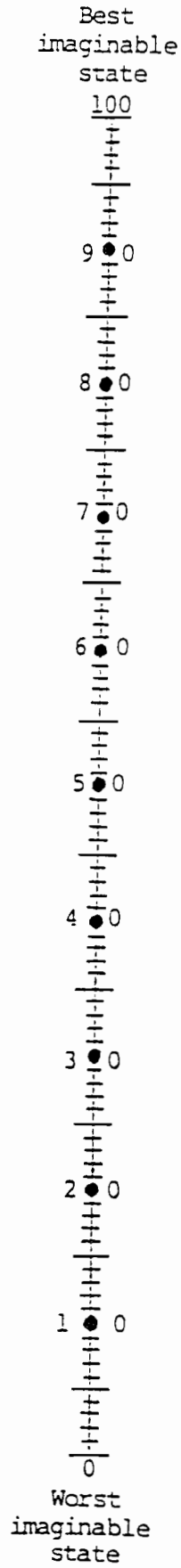
#### ANXIETY/DEPRESSION

- |                          |                                      |                            |
|--------------------------|--------------------------------------|----------------------------|
| <input type="checkbox"/> | I am not anxious or depressed        | <input type="checkbox"/> 1 |
| <input type="checkbox"/> | I am moderately anxious or depressed | <input type="checkbox"/> 2 |
| <input type="checkbox"/> | I am extremely anxious or depressed  | <input type="checkbox"/> 3 |

911

SPARE  
912-80

# CATEGORY RATING THERMOMETER



# **APPENDIX B**



## APPENDIX B

## Estimated weights for EQ-5D health states

1 1 1 1 1	1.000	1 1 1 1 2	0.848	1 1 1 1 3	0.414	1 1 1 2 1	0.796
1 1 1 2 2	0.725	1 1 1 2 3	0.291	1 1 1 3 1	0.264	1 1 1 3 2	0.193
1 1 1 3 3	0.028	1 1 2 1 1	0.883	1 1 2 1 2	0.812	1 1 2 1 3	0.378
1 1 2 2 1	0.760	1 1 2 2 2	0.689	1 1 2 2 3	0.255	1 1 2 3 1	0.228
1 1 2 3 2	0.157	1 1 2 3 3	-0.008	1 1 3 1 1	0.556	1 1 3 1 2	0.485
1 1 3 1 3	0.320	1 1 3 2 1	0.433	1 1 3 2 2	0.362	1 1 3 2 3	0.197
1 1 3 3 1	0.170	1 1 3 3 2	0.099	1 1 3 3 3	-0.066	1 2 1 1 1	0.815
1 2 1 1 2	0.744	1 2 1 1 3	0.310	1 2 1 2 1	0.692	1 2 1 2 2	0.621
1 2 1 2 3	0.187	1 2 1 3 1	0.160	1 2 1 3 2	0.089	1 2 1 3 3	-0.076
1 2 2 1 1	0.779	1 2 2 1 2	0.708	1 2 2 1 3	0.274	1 2 2 2 1	0.656
1 2 2 2 2	0.585	1 2 2 2 3	0.151	1 2 2 3 1	0.124	1 2 2 3 2	0.053
1 2 2 3 3	-0.112	1 2 3 1 1	0.452	1 2 3 1 2	0.381	1 2 3 1 3	0.216
1 2 3 2 1	0.329	1 2 3 2 2	0.258	1 2 3 2 3	0.093	1 2 3 3 1	0.066
1 2 3 3 2	-0.005	1 2 3 3 3	-0.170	1 3 1 1 1	0.436	1 3 1 1 2	0.365
1 3 1 1 3	0.200	1 3 1 2 1	0.313	1 3 1 2 2	0.242	1 3 1 2 3	0.077
1 3 1 3 1	0.050	1 3 1 3 2	-0.021	1 3 1 3 3	-0.186	1 3 2 1 1	0.400
1 3 2 1 2	0.329	1 3 2 1 3	0.164	1 3 2 2 1	0.277	1 3 2 2 2	0.206
1 3 2 2 3	0.041	1 3 2 3 1	0.014	1 3 2 3 2	-0.057	1 3 2 3 3	-0.222
1 3 3 1 1	0.342	1 3 3 1 2	0.271	1 3 3 1 3	0.106	1 3 3 2 1	0.219
1 3 3 2 2	0.148	1 3 3 2 3	-0.017	1 3 3 3 1	-0.044	1 3 3 3 2	-0.115
1 3 3 3 3	-0.280	2 1 1 1 1	0.850	2 1 1 1 2	0.779	2 1 1 1 3	0.345
2 1 1 2 1	0.727	2 1 1 2 2	0.656	2 1 1 2 3	0.222	2 1 1 3 1	0.195
2 1 1 3 2	0.124	2 1 1 3 3	-0.041	2 1 2 1 1	0.814	2 1 2 1 2	0.743
2 1 2 1 3	0.309	2 1 2 2 1	0.691	2 1 2 2 2	0.620	2 1 2 2 3	0.186
2 1 2 3 1	0.159	2 1 2 3 2	0.088	2 1 2 3 3	-0.077	2 1 3 1 1	0.487
2 1 3 1 2	0.416	2 1 3 1 3	0.251	2 1 3 2 1	0.364	2 1 3 2 2	0.293
2 1 3 2 3	0.128	2 1 3 3 1	0.101	2 1 3 3 2	0.030	2 1 3 3 3	-0.135
2 2 1 1 1	0.746	2 2 1 1 2	0.675	2 2 1 1 3	0.241	2 2 1 2 1	0.623
2 2 1 2 2	0.552	2 2 1 2 3	0.118	2 2 1 3 1	0.091	2 2 1 3 2	0.020
2 2 1 3 3	-0.145	2 2 2 1 1	0.710	2 2 2 1 2	0.639	2 2 2 1 3	0.205
2 2 2 2 1	0.587	2 2 2 2 2	0.516	2 2 2 2 3	0.082	2 2 2 3 1	0.055
2 2 2 3 2	-0.016	2 2 2 3 3	-0.181	2 2 3 1 1	0.383	2 2 3 1 2	0.312
2 2 3 1 3	0.147	2 2 3 2 1	0.260	2 2 3 2 2	0.189	2 2 3 2 3	0.024
2 2 3 3 1	-0.003	2 2 3 3 2	-0.074	2 2 3 3 3	-0.239	2 3 1 1 1	0.367
2 3 1 1 2	0.296	2 3 1 1 3	0.131	2 3 1 2 1	0.244	2 3 1 2 2	0.173
2 3 1 2 3	0.008	2 3 1 3 1	-0.019	2 3 1 3 2	-0.090	2 3 1 3 3	-0.255
2 3 2 1 1	0.331	2 3 2 1 2	0.260	2 3 2 1 3	0.095	2 3 2 2 1	0.208
2 3 2 2 2	0.137	2 3 2 2 3	-0.028	2 3 2 3 1	-0.055	2 3 2 3 2	-0.126
2 3 2 3 3	-0.291	2 3 3 1 1	0.273	2 3 3 1 2	0.202	2 3 3 1 3	0.037
2 3 3 2 1	0.150	2 3 3 2 2	0.079	2 3 3 2 3	-0.086	2 3 3 3 1	-0.113

UK Population Norms for EQ-5D

2 3 3 3 2	-0.184	2 3 3 3 3	-0.349	3 1 1 1 1	0.336	3 1 1 1 2	0.265
3 1 1 1 3	0.100	3 1 1 2 1	0.213	3 1 1 2 2	0.142	3 1 1 2 3	-0.023
3 1 1 3 1	-0.050	3 1 1 3 2	-0.121	3 1 1 3 3	-0.286	3 1 2 1 1	0.300
3 1 2 1 2	0.229	3 1 2 1 3	0.064	3 1 2 2 1	0.177	3 1 2 2 2	0.106
3 1 2 2 3	-0.059	3 1 2 3 1	-0.086	3 1 2 3 2	-0.157	3 1 2 3 3	-0.322
3 1 3 1 1	0.242	3 1 3 1 2	0.171	3 1 3 1 3	0.006	3 1 3 2 1	0.119
3 1 3 2 2	0.048	3 1 3 2 3	-0.117	3 1 3 3 1	-0.144	3 1 3 3 2	-0.215
3 1 3 3 3	-0.380	3 2 1 1 1	0.232	3 2 1 1 2	0.161	3 2 1 1 3	-0.004
3 2 1 2 1	0.109	3 2 1 2 2	0.038	3 2 1 2 3	-0.127	3 2 1 3 1	-0.154
3 2 1 3 2	-0.225	3 2 1 3 3	-0.390	3 2 2 1 1	0.196	3 2 2 1 2	0.125
3 2 2 1 3	-0.040	3 2 2 2 1	0.073	3 2 2 2 2	0.002	3 2 2 2 3	-0.163
3 2 2 3 1	-0.190	3 2 2 3 2	-0.261	3 2 2 3 3	-0.426	3 2 3 1 1	0.138
3 2 3 1 2	0.067	3 2 3 1 3	-0.098	3 2 3 2 1	0.015	3 2 3 2 2	-0.056
3 2 3 2 3	-0.221	3 2 3 3 1	-0.248	3 2 3 3 2	-0.319	3 2 3 3 3	-0.484
3 3 1 1 1	0.122	3 3 1 1 2	0.051	3 3 1 1 3	-0.114	3 3 1 2 1	-0.001
3 3 1 2 2	-0.072	3 3 1 2 3	-0.237	3 3 1 3 1	-0.264	3 3 1 3 2	-0.335
3 3 1 3 3	-0.500	3 3 2 1 1	0.086	3 3 2 1 2	0.015	3 3 2 1 3	-0.150
3 3 2 2 1	-0.037	3 3 2 2 2	-0.108	3 3 2 2 3	-0.273	3 3 2 3 1	-0.300
3 3 2 3 2	-0.371	3 3 2 3 3	-0.536	3 3 3 1 1	0.028	3 3 3 1 2	-0.043
3 3 3 1 3	-0.208	3 3 3 2 1	-0.095	3 3 3 2 2	-0.166	3 3 3 2 3	-0.331
3 3 3 3 1	-0.358	3 3 3 3 2	-0.429	3 3 3 3 3	-0.594	unconscious <sup>2</sup>	-
						0.402	

Source : A1 TARIFF BASED ON UK MVH SURVEY (1993)

<sup>2</sup> The value for unconscious is the mean observed value. It does not result from the regression model.