

# Statistical Bulletin

# Trends in life expectancy by the National Statistics Socio-economic Classification 1982–2006



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**Coverage:** England and Wales **Theme:** Health & Care

This bulletin presents the first estimates of life expectancy at birth and at age 65 classified by the National Statistics Socio-economic Classification (NS-SEC) for men and women over a series of five-year periods between 1982 and 2006. This can be interpreted as a measure of trends in socio-economic health inequalities in England and Wales over a 25-year period.

NS-SEC has been the measure of socio-economic class used in official statistics since 2001, replacing the historical Registrar General's social class. The previously published series 'Trends in life expectancy by social class 1972–2005' has been updated to include the year 2006 in the final period and is also shown in these results. It is planned that the NS-SEC series will be updated periodically and that, subject to consultation, this will be the last time that life expectancy by social class will be published by ONS.

# **Main findings**

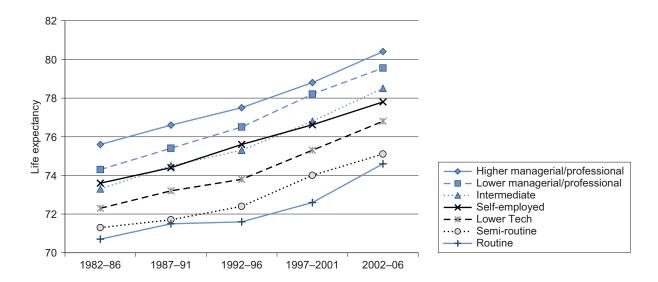
#### Life expectancy for males by NS-SEC

- Inequalities in male life expectancy by socio-economic status increased across most of the study period, despite improvements over time for all classes
- The difference in male life expectancy at birth between the most and least advantaged classes rose from 4.9 years in 1982–86 to 6.2 years in 1997–2001. A slight fall to 5.8 years in 2002–06 was not statistically significantly different from the previous period
- In the period 2002–06, life expectancy at birth for males whose parent(s) had an occupation which was classified as 'Higher managers and professionals', such as directors of major organisations, doctors and lawyers, was 80.4 years compared with those born to parents classified to 'Routine' occupations, such as labourers and cleaners whose life expectancy was 74.6 years (Figure 1).

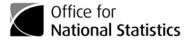


Figure 1 Life expectancy by NS-SEC class, males at birth

England and Wales Years



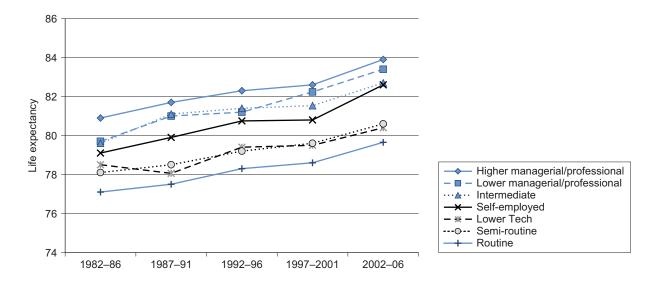
- The greatest growth in life expectancy at birth for males between 1982–86 and 2002–06 was experienced by those in the lower managerial and professional class, such as school teachers and social workers, at 5.3 years
- The least growth in life expectancy at birth was experienced by those in the two least advantaged classes, Semi-routine and Routine occupations, at 3.8 and 3.9 years respectively
- At age 65, the life expectancy of men classified by occupation as Higher managerial and professional was 18.8 years compared with 15.3 years for those assigned to the 'Routine occupations' class in the period 2002–06



## Life expectancy for females by NS-SEC

Figure 2 Life expectancy by NS-SEC class, females at birth





- Inequalities in female life expectancy by socio-economic status persisted across the study period, despite improvements over time for all classes
- The difference in female life expectancy at birth between the most and least advantaged classes rose slightly from 3.8 years in 1982-86 to 4.2 years in 2002–06. There was no statistically significant pattern over time
- For females at birth in the period 2002–06, those whose parents who had an occupation which was classified as 'Higher managerial and professional' had a life expectancy of 83.9 years compared with 79.7 years for those in the 'Routine' class (Figure 2)
- For females, the greatest growth in life expectancy at birth was experienced by those in 'Lower managerial and professional' occupations (3.7 years) and the least by those in 'Lower supervisory and technical' occupations, such as supervising sales assistants and catering supervisors (1.9 years)
- At age 65, life expectancy for women classified by occupation as Higher managerial and professional was 21.7 years compared with 18.5 years for those assigned to the Routine occupations class in 2002–06



## **RESULTS**

#### **NS-SEC** classes

The full version of the NS-SEC classification has seven occupation-based classes used for analysis. This may be aggregated into a 3-class 'condensed' NS-SEC, consisting of 'Managerial and professional', 'Intermediate' and 'Routine and manual occupations'.

The estimates are presented both for the 7-class and the 3-class 'condensed' NS-SEC. The life expectancy of those not classified by occupation is also shown.

## Life expectancy of males by NS-SEC

Tables 1a and 1b show life expectancy by NS-SEC for males at birth and at age 65 respectively.

Table 1a shows that for men, there was a clear gradient in life expectancy at birth from the most to the least advantaged, throughout the period 1982 to 2006. NS-SEC classes 5 (Lower supervisory and Technical) and 6 (Semi-routine) had the largest gap between any two adjacent analytical classes in 2002–06, at 1.7 years. The range in years between the classes with the highest and the lowest life expectancies at birth widened over time from 4.9 years in 1982–86 to 6.2 years in 1997–2001. The gap narrowed to 5.8 years in 2002–06 but this was not a statistically significant change.

The pattern of the range in life expectancy across classes over time was similar for the 3-class version of NS-SEC, with the Managerial and professional grouping having a life expectancy of 80 years in 2002–06 compared with 75.4 years for the Routine and manual class. The gap in life expectancy between these two groups increased from 3.4 years in 1982–86 to 4.6 years in 2002–06.

Those unclassified by occupation had consistently lower life expectancy than the analytic classes.

Table 1b suggests that a similar pattern across the classes was observed for males age 65 as for those at birth. The gap widened from 2.3 years in 1982–86 to 4.1 years in 1997–2001 and then narrowed to 3.5 years in 2002–06.

Table 2 shows the change in life expectancy for males for each NS-SEC class over the whole study period and in the most recent period to allow comparison of classes over time.

Table 3 shows the corresponding estimates by Registrar General's social class for comparison with those by NS-SEC. The previous estimates were published for the period 1972–2005 and are now updated to include 2006 in the latest reported period.



Table 1a Life expectancy by NS-SEC class, males at birth

England and Wales									١	ears/
	198	32–86	1987	<b>'–</b> 91	199	2–96	199	7–2001	200	2-06
NS-SEC	LE :	95% CI (+/-)	LE (	95% CI +/-)	LE	95% CI (+/-)	LE	95% CI (+/-)	LE	95% CI (+/-)
	At bir	th								
Analytic classes										
1. Higher managerial & professional	75.6	0.7	76.6	0.6	77.5	0.6	78.8	0.7	80.4	0.6
2 Lower managerial & professional	74.3	0.7	75.4	0.6	76.5	0.6	78.2	0.5	79.6	0.5
3 Intermediate	73.3	0.8	74.5	0.8	75.3	0.8	76.8	0.8	78.5	0.8
4 Small employers & own a/c workers	73.6	0.8	74.4	0.8	75.6	0.7	76.6	0.7	77.8	0.7
5 Lower supervisory & technical	72.3	0.6	73.2	0.6	73.8	0.6	75.3	0.6	76.8	0.6
6 Semi-routine	71.3	0.6	71.7	0.6	72.4	0.6	74.0	0.6	75.1	0.6
7 Routine	70.7	0.5	71.5	0.5	71.6	0.5	72.6	0.5	74.6	0.5
Range highest-lowest	4.9		5.1		5.9		6.2		5.8	
Condensed NS-SEC										
Managerial & professional	74.8	0.5	75.9	0.4	77.0	0.4	78.4	0.4	80.0	0.4
Intermediate	73.5	0.5	74.5	0.5	75.5	0.5	76.7	0.5	78.1	0.5
Routine & manual	71.4	0.3	72.0	0.3	72.5	0.3	73.8	0.3	75.4	0.3
Range highest-lowest	3.4		3.9		4.5		4.6		4.6	
Unclassified	60.2	1.4	60.3	1.2	65.8	1.3	67.2	1.2	71.5	1.1
All Men	71.7	0.2	72.6	0.2	73.8	0.2	75.2	0.2	77.0	0.2



Table 1b Life expectancy by NS-SEC class, males at age 65

**England and Wales** Years 1982-86 1987-91 1992-96 1997-2001 2002-06 LE 95% LE 95% LE 95% LE 95% **NS-SEC** 95% LE CI CI CI CI CI (+/-) (+/-)(+/-) (+/-) (+/-) At age 65 **Analytic classes** 1. Higher managerial & professional 15.9 0.5 16.6 0.5 15.2 0.6 18.1 0.5 18.8 0.4 Lower managerial & professional 15.4 0.4 16.0 0.4 17.2 0.4 15.1 0.5 18.2 0.4 3 Intermediate 13.9 0.5 15.0 *0.5* 15.7 0.5 16.4 0.5 17.5 0.5 Small employers & own a/c workers 14.0 0.5 14.7 0.5 15.5 0.5 16.1 0.5 17.5 0.5 Lower supervisory & technical 15.3 0.3 13.4 13.7 0.3 14.5 0.3 16.4 0.4 0.4 Semi-routine 12.9 0.4 13.3 0.3 13.8 0.3 14.7 0.4 15.6 0.4 Routine 12.9 0.3 13.1 0.3 13.4 0.3 14.0 0.3 15.3 0.3 Range highest-lowest 2.3 2.8 3.2 4.1 3.5 **Condensed NS-SEC** Managerial & professional 15.1 15.6 0.3 16.2 0.3 17.6 0.3 18.4 0.3 0.4 Intermediate 13.9 14.8 0.4 15.6 0.4 16.2 0.3 17.5 0.4 0.3 Routine & manual 13.0 13.3 0.2 13.9 0.2 14.6 0.2 15.8 0.2 0.2 Range highest-lowest 2.1 2.3 2.4 3.0 2.7 Unclassified 10.2 0.4 14.2 11.1 0.3 11.2 0.6 12.0 0.7 0.7 All Men 13.1 13.7 0.1 14.5 0.1 15.5 0.1 16.7 0.1 0.1



Table 2 Change in life expectancy at birth and at age 65 by NS-SEC, males

England and Wales		Years								
NS-SEC										
At birth	Change between 1982–86 and 2002–06	Change between 1997–01 and 2002–06								
Analytic classes										
1. Higher managerial & professional	4.8	1.6								
2 Lower managerial & professional	5.3	1.4								
3 Intermediate	5.2	1.7								
4 Small employers & own a/c workers	4.2	1.2								
5 Lower supervisory & technical	4.5	1.5								
6 Semi-routine	3.8	1.1								
7 Routine	3.9	2.0								
Condensed NS-SEC										
Managerial & professional	5.2	1.6								
Intermediate	4.6	1.4								
Routine & manual	4.0	1.7								
Unclassified	11.3	4.3								
All Men	5.3	1.8								
At age 65										
Analytic classes										
1. Higher managerial & professional	3.6	0.7								
2 Lower managerial & professional	3.1	1.0								
3 Intermediate	3.6	1.1								
4 Small employers & own a/c workers	3.5	1.4								
5 Lower supervisory & technical	3.0	1.1								
6 Semi-routine	2.7	0.9								
7 Routine	2.5	1.3								
Condensed NS-SEC										
Managerial & professional	3.3	0.9								
Intermediate	3.6	1.3								
Routine & manual	2.8	1.2								
Unclassified	3.1	2.2								
All Men	3.6	1.3								

Table 2 shows that the Routine occupations class had the greatest increase in life expectancy of any class between the periods 1997–2001 and 2002–06. It also shows that, over the whole study period, the Routine class had the second lowest increase in life expectancy at birth and the Routine and manual grouping had the lowest aggregate increase of the NS-SEC classes.



Table 3 Life Expectancy at birth and at age 65 by Registrar General's social class, males

England and Wales Years

	1972	-76	1977-	-81	1982	-86	1987	<b>–</b> 91	1992	-96	1997-	-2001	2002	2–06
Social Class	LE	95% CI (+/-)		95% CI +/-)	LE	95% CI (+/-)	LE	95% CI (+/-)	LE	95% CI (+/-)	LE	95% CI (+/-)	LE	95% CI (+/-)
	At bir	th												
I Professionals	71.9	1.2	74.4	1.2	75.1	1.1	76.2	1.0	77.9	0.9	79.5	0.9	80.4	1.0
II Managerial & Tech	71.9	0.6	72.6	0.6	74.1	0.5	75.0	0.5	76.0	0.5	77.9	0.5	79.4	0.5
IIIN Skilled non- manual	69.5	0.8	71.1	0.7	72.5	0.7	74.4	0.7	75.2	0.7	76.9	0.7	78.6	0.7
IIIM Skilled manual	70.0	0.4	70.0	0.4	71.7	0.4	72.7	0.4	73.7	0.4	74.7	0.4	76.5	0.4
IV Semi-skilled manual	68.3	0.7	69.0	0.6	71.0	0.6	70.8	0.6	72.8	0.6	73.4	0.6	75.7	0.6
V Unskilled manual	66.5	1.1	67.4	1.1	67.7	1.0	68.6	1.0	68.5	1.0	71.3	0.9	73.0	1.1
Range	5.4		7.0		7.3		7.6		9.4		8.2		7.4	
All men	69.3	0.3	70.1	0.3	71.7	0.2	72.6	0.2	73.7	0.2	75.2	0.2	77.0	0.2
Non-manual	71.2	0.4	72.3	0.4	73.7	0.4	75.0	0.4	76.1	0.4	77.8	0.4	79.3	0.4
Manual	69.1	0.3	69.4	0.3	71.0	0.3	71.7	0.3	72.9	0.3	74.0	0.3	75.9	0.3
Difference	2.1	0.5	2.9	0.5	2.7	0.5	3.3	0.5	3.2	0.5	3.8	0.5	3.4	0.5
	At ag	e 65												
Professionals	14.0	0.9	15.5	0.9	15.5	0.8	15.8	0.7	17.0	0.7	18.2	0.6	18.6	0.6
I Managerial & Tech	13.3	0.4	14.2	0.3	14.5	0.3	15.0	0.3	15.6	0.3	17.0	0.3	18.1	0.3
IIIN Skilled non- manual	12.6	0.4	13.3	0.4	13.6	0.4	14.3	0.4	15.3	0.4	16.6	0.4	17.5	0.5
IIIM Skilled manual	12.2	0.2	12.5	0.2	13.1	0.2	13.6	0.2	14.3	0.2	15.2	0.2	16.3	0.3
IV Semi-skilled manual	12.2	0.3	12.1	0.3	12.7	0.3	12.8	0.3	13.9	0.3	14.0	0.3	15.8	0.4
V Unskilled manual	11.6	0.4	11.8	0.4	11.6	0.4	12.0	0.5	12.5	0.5	13.1	0.5	14.5	0.7
Range	2.5		3.7		3.9		3.7		4.5		5.1		4.1	
All men	12.3	0.1	12.6	0.1	13.1	0.1	13.7	0.1	14.5	0.1	15.5	0.1	16.7	0.2
Non-manual	13.1	0.3	14.0	0.3	14.3	0.2	14.9	0.2	15.7	0.2	17.1	0.2	18.0	0.3
Manual	12.1	0.2	12.3	0.2	12.7	0.2	13.2	0.2	14.0	0.2	14.6	0.2	16.0	0.2
Difference	1.0	0.3	1.7	0.3	1.6	0.3	1.7	0.3	1.7	0.3	2.5	0.3	2.0	0.3



Comparison with Table 3, showing life expectancy by social class for males, suggests that the range of life expectancies across classes was similar for both NS-SEC and RG social class. The difference between the most and least advantaged classes was not as great for NS-SEC as for social class, at 5.8 years in 2002–06 for NS-SEC compared with 7.4 years for social class.

The main reason for this is probably that Social Class V, 'unskilled manual occupations', was a more narrowly defined class than 'Routine occupations' in the NS-SEC schema and contained a higher proportion of the most disadvantaged individuals in terms of both socioeconomic status and occupationally-related mortality risk. In both cases there was a slight narrowing of the range in the most recent period. This narrowing was statistically significant for social class at age 65. At birth the widest gap between social classes I and V was in 1992–96 rather than 1997–2001. This was almost certainly a result of the small size and consequently wide confidence interval (in excess of one year) for social class V.

#### Life expectancy of females by NS-SEC

Tables 4a and 4b, 5 and 6 show the corresponding information for females.

Table 4a shows that there was also a persistent socioeconomic gradient for females. The range between the highest and lowest life expectancy was smaller than for men (4.2 years compared with 5.8 years for men in the period 2002–06).



Table 4a Life expectancy by NS-SEC class, females at birth

England and Wales									`	Years
	1982	-86	1987	' <del>-</del> 91	<b>–91</b> 1992		1997	7–2001	2002	2–06
NS-SEC	LE	95% CI (+/-)	LE	95% CI (+/-)	LE	95% CI (+/-)	LE	95% CI (+/-)		95% CI (+/-)
	At bir	th								
Analytic classes										
Higher managerial & professional	80.9	1.1	81.7	1.0	82.3	0.9	82.6	0.8	83.9	0.7
Lower managerial & professional	79.7	0.7	81.0	0.6	81.2	0.5	82.2	0.5	83.4	0.5
3 Intermediate	79.6	0.7	81.1	0.7	81.4	0.6	81.5	0.6	82.7	0.6
4 Small employers & own a/c workers	79.1	1.0	79.9	0.9	80.7	0.9	80.8	0.8	82.6	0.8
5 Lower supervisory & technical	78.5	0.9	78.1	0.8	79.4	0.7	79.5	0.7	80.4	0.7
6 Semi-routine	78.1	0.6	78.5	0.6	79.2	0.6	79.6	0.5	80.6	0.6
7 Routine	77.1	0.6	77.5	0.6	78.3	0.5	78.6	0.5	79.7	0.5
Range highest-lowest	3.8		4.2		4.0		4.0		4.2	
Condensed NS-SEC										
Managerial & professional	80.1	0.6	81.2	0.5	81.5	0.5	82.3	0.4	83.5	0.4
Intermediate	79.6	0.6	80.7	0.5	81.1	0.5	81.4	0.4	82.7	0.4
Routine & manual	77.7	0.4	78.0	0.4	78.9	0.3	79.2	0.3	80.2	0.3
Range highest-lowest	2.4		3.2		2.6		3.1		3.3	
Unclassified	71.5	1.1	73.1	1.0	74.2	1.2	75.8	0.9	76.9	0.9
All Women	77.4	0.2	78.3	0.2	79.2	0.2	79.9	0.2	81.1	0.2



Table 4b Life expectancy by NS-SEC class, females at age 65

	1982	2–86	1987	7–91	1992–96		1997–2001		2002	2–06
NS-SEC	LE	95% CI (+/-)	LE	95% CI (+/-)	LE	95% CI (+/-)	LE	95% CI (+/-)	LE (	95% CI (+/-)
	At age	65								
Analytic classes										
1. Higher managerial & professional	19.7	1.0	20.1	0.8	20.8	0.7	20.9	0.6	21.7	0.6
2 Lower managerial & professional	18.9	0.6	19.4	0.5	19.3	0.4	20.3	0.4	21.1	0.4
3 Intermediate	18.3	0.6	19.5	0.5	19.6	0.4	19.8	0.4	20.5	0.4
4 Small employers & own a/c workers	18.6	0.8	18.9	0.7	19.6	0.6	19.1	0.6	20.5	0.6
5 Lower supervisory & technical	18.7	0.7	17.6	0.5	18.3	0.5	18.3	0.5	18.8	0.5
6 Semi-routine	17.4	0.5	17.6	0.4	18.3	0.4	18.4	0.3	19.4	0.3
7 Routine	16.7	0.4	17.4	0.4	17.7	0.3	17.8	0.3	18.5	0.3
Range highest-lowest	3.0		2.7		3.1		3.1		3.2	
Condensed NS-SEC										
Managerial & professional	19.1	0.5	19.6	0.4	19.7	0.4	20.5	0.3	21.3	0.3
Intermediate	18.4	0.5	19.3	0.4	19.6	0.4	19.6	0.3	20.5	0.3
Routine & manual	17.3	0.3	17.5	0.2	18.0	0.2	18.1	0.2	18.9	0.2
Range highest-lowest	1.7		2.1		1.6		2.3		2.4	
Unclassified	16.2	0.2	16.2	0.3	16.3	0.3	16.6	0.4	17.4	0.5
All Women	17.0	0.1	17.5	0.1	18.0	0.1	18.5	0.1	19.5	0.1

For female life expectancy, the range between the most and least advantaged did not show the same pattern as for men. There was no significant difference between any of the estimates of range in life expectancy across the classes between 1982–86 and 2002–06, and no sign of any narrowing of the range in 2002–06. As for men, there was a clear difference between the 'Routine and manual' group and the 'Intermediate' group. For women, this difference was greater as a



proportion of the overall range across the classes. This persistent gap between the 'Intermediate' and 'Routine and manual' groups can be seen in Figure 2.

Table 4b suggests that the inequalities at age 65 for women were similar to those at birth, with a substantial gap between the 'Intermediate' and 'Routine and manual' groups, but a smaller gap between 'Managerial and professional' occupations and 'Intermediate' occupations than for men.

Table 5 suggests that the greatest growth in life expectancy over the period occurred for Lower managerial and professional occupations (as for men), and for Self-employed and own account occupations. These classes increased in life expectancy by 3.7 years and 3.5 years respectively over the period. The three 'Routine and manual' classes were those with the least increase in life expectancy over the study period.



Table 5 Change in life expectancy at birth and at age 65 by NS-SEC

**England and Wales** Years **NS-SEC** At birth Change between 1982-86 and Change between 1997-2002-06 2001 and 2002-06 **Analytic classes** 1. Higher managerial & professional 3.0 1.3 2 Lower managerial & professional 1.2 3.7 Intermediate 3.1 1.2 Small employers & own a/c workers 1.8 3.5 Lower supervisory & technical 0.9 1.9 Semi-routine 2.5 1.0 Routine 2.6 1.1 **Condensed NS-SEC** Managerial & Professional 3.4 1.2 Intermediate 3.1 1.3 Routine & Manual 2.5 1.0 Unclassified 5.4 1.1 **All Women** 3.7 1.2 At age 65 **Analytic classes** 1. Higher managerial & professional 2.0 0.8 Lower managerial & professional 2.2 8.0 2.2 0.7 Intermediate Small employers & own a/c workers 1.9 1.4 Lower supervisory & technical 0.1 0.4 Semi-routine 2.0 1.0 Routine 1.8 0.7 Condensed NS-SEC Managerial & professional 2.2 8.0 Intermediate 2.1 8.0 Routine & manual 1.6 8.0 Unclassified 1.2 8.0 **All Women** 2.5 0.9



Table 6 Life Expectancy at birth and at age 65 by Registrar General's social class, females

	1972-	-76	1977-	-81	1982-	-86	1987-	-91	1992-	-96	1997–2	2001	2002-	-06
Social Class	LE	95% CI (+/-)	LE	95% CI (+/-)	LE	95% CI (+/-)	LE	95% CI (+/-)	LE	95% CI (+/-)	LE	95% CI (+/-)		95% CI (+/-)
	At bir	rth												
l Professionals	79.0	1.9	80.1	1.7	80.7	1.3	81.1	1.1	83.8	1.1	82.5	1.0	85.2	1.1
II Managerial & Tech	77.1	0.6	78.3	0.6	78.8	0.5	80.7	0.5	81.3	0.5	81.7	0.5	83.1	0.8
IIIN Skilled non- manual	78.3	0.7	78.2	0.7	79.0	0.6	80.0	0.5	80.7	0.5	81.6	0.5	82.5	0.5
IIIM Skilled manual	75.2	0.6	76.3	0.5	77.3	0.5	77.9	0.5	79.1	0.4	79.4	0.4	80.6	0.5
IV Semi-skilled manual	75.3	0.7	75.9	0.6	77.5	0.6	77.4	0.5	78.1	0.5	78.7	0.5	79.9	0.6
V Unskilled manual	74.2	1.2	75.6	1.0	75.9	0.9	76.6	0.9	77.4	0.9	77.8	0.9	78.3	1.2
Range	4.8		4.4		4.8		4.5		6.4		4.7		6.9	)
All women	75.3	0.3	76.5	0.2	77.4	0.2	78.3	0.2	79.1	0.2	79.9	0.2	81.1	0.2
Non-manual	77.7	0.4	78.4	0.4	79.0	0.4	80.4	0.3	81.2	0.3	81.7	0.3	82.9	0.3
Manual	75.2	0.4	76.0	0.4	77.2	0.3	77.5	0.3	78.4	0.3	78.9	0.3	80.0	0.3
Difference	2.5	0.6	2.4	0.5	1.9	0.5	2.9	0.5	2.8	0.4	2.8	0.4	2.9	0.5
	At ag	e 65												
Professionals	19.1	1.7	20.0	1.5	18.9	1.1	19.0	0.8	21.1	0.9	20.7	0.8	22.0	0.9
I Managerial & Tech	17.2	0.4	17.8	0.4	18.2	0.4	19.2	0.3	19.7	0.3	20.0	0.3	21.0	0.3
IIN Skilled non- nanual	17.9	0.6	17.7	0.4	18.2	0.4	18.7	0.3	19.2	0.3	19.8	0.3	20.1	0.3
IIM Skilled manual	16.4	0.5	16.9	0.4	16.9	0.3	17.2	0.3	18.1	0.3	18.2	0.3	18.8	0.4
V Semi-skilled manual	16.9	0.4	16.8	0.3	17.5	0.3	17.3	0.3	17.4	0.3	17.9	0.3	19.0	0.3
/ Unskilled manual	16.6	0.7	16.4	0.6	16.2	0.5	16.3	0.5	16.6	0.5	16.8	0.5	17.7	0.6
Range	2.5		3.6		2.7		2.7		4.5		3.9		4.2	)
All women	16.3	0.1	16.7	0.1	17.0	0.1	17.5	0.1	18.0	0.1	18.5	0.1	19.5	0.2
Non-manual	17.5	0.3	17.9	0.3	18.2	0.2	18.9	0.2	19.5	0.2	19.9	0.2	20.6	0.2
Manual	16.6	0.3	16.8	0.2	17.0	0.2	17.1	0.2	17.5	0.2	17.8	0.2	18.7	0.2
Difference	0.9	0.4	1.1	0.4	1.2	0.3	1.8	0.3	2.0	0.3	2.1	0.3	1.9	0.3

In comparison with the results by social class, shown in Table 6, the range between the most and least advantaged was smaller and more stable for NS-SEC than for social class. Aggregated 3-class NS-SEC showed a similar pattern to the non-manual/manual divide by social class at birth, although at age 65 the range in life expectancy by NS-SEC reduced in the period 1992–96 and increased again in the final two periods, whereas for social class, very little change occurred in the estimates of the manual/non-manual divide during these periods.



# **Background notes**

- 1. Life expectancy. Period expectation of life at a given age for a particular NS-SEC class is an estimate of the average number of years a person of that age would survive if he or she experienced the age-specific mortality rates for that NS-SEC class for the time period in question throughout the rest of his or her life. Period life expectancies are a useful measure of mortality rates actually experienced in a given period and provide an objective means of comparison of the trends in mortality over time between different populations. Life expectancy is obtained from statistical life tables which are derived using age-specific mortality rates. In this case, these were estimated for each NS-SEC class in five-year age bands, using deaths and person-years survived at risk occurring in each five year period from 1982.
- 2. Data sources and methods. The figures used in this statistical bulletin were derived from the ONS Longitudinal Study (LS), a 1 per cent sample of the population of England and Wales. Information about the LS can be found at: <a href="https://www.ons.gov.uk/about/who-we-are/our-services/longitudinal-study">www.ons.gov.uk/about/who-we-are/our-services/longitudinal-study</a>

The methods used to assign sample members to an NS-SEC class and to calculate mortality rates by age and sex for the derivation of life expectancies are described in detail in Johnson B (2011) 'Deriving trends in life expectancy by the National Statistics Socio-economic Classification using the ONS Longitudinal Study', *Health Statistics Quarterly* 49 which can be found at: <a href="https://www.statistics.gov.uk/cci/article.asp?ID=2643">www.statistics.gov.uk/cci/article.asp?ID=2643</a>



# 3. NS-SEC. Examples of occupations in various NS-SEC classes

# Box 1 National Statistics Socio-economic Classification Analytic classes\*

Analy	tic class	Examples of occupations included					
1	Higher professional and higher managerial	Senior officials in national and local government; directors and chief executives of major organisations; Civil engineers, medical practitioners, physicists.					
2	Lower managerial and professional	Teachers in primary and secondary schools, quantity surveyors, public service administrative professionals, social workers, nurses, IT technicians					
3	Intermediate	NCOs and other ranks in the Armed Forces, graphic designers, medical and dental technicians, Civil Service administrative officers and local government clerical officers, counter clerks, school and company secretaries					
4	Small employers and own account workers	Hairdressing and beauty salon proprietors, shopkeepers, dispensing opticians in private practice, farmers, self-employed taxi drivers					
5	Lower supervisory and technical	Bakers and flour confectioners, screen-printers, plumbers, electricians and motor mechanics employed by others, gardeners, rail transport operatives					
6	Semi-routine	Pest control officers, clothing cutters, traffic wardens, scaffolders, assemblers of vehicles, farm workers, veterinary nurses and assistants, shelf fillers					
7	Routine	Hairdressing employees, floral arrangers, sewing machinists, van, bus and coach drivers, labourers, hotel porters, bar staff, cleaners and domestics, road sweepers, car park attendants					
* NS-S	NS-SEC User Manual, Office for National Statistics (2002)						



The main set of classes used for analytical purposes is shown in Box 1 (above). NS-SEC is designed so that it can be aggregated into larger groups, in particular the three class 'condensed NS-SEC'

Sometimes, class 1 (Higher managerial and professional), is split into 1.1 Employers in large establishments and higher managerial occupations, and 1.2 Higher professional occupations. In the associated article in Health Statistics Quarterly describing the process of obtaining these estimates, this latter distinction was made, but given the relatively small size of these subgroups, it was decided to present only the estimates for the whole of class 1 aggregated as 'Higher managerial and professional' in this bulletin.

- 4. Replacement of Registrar General's social class. Registrar General's social class based on occupation remained almost unchanged in structure for most of the 20th Century. Deaths have not been classified by ONS using Registrar General's social class since the introduction of NS-SEC in 2001, and future censuses will not use this classification. Therefore, subject to consultation, it is proposed to update the 'Life expectancy by NS-SEC' series over time and discontinue the series by social class. Five-year intervals were used to provide large enough numbers to ensure that the estimates were sufficiently robust.
- 5. Details of the policy governing the release of new data are available from the media relations office.
- 6. National Statistics are produced to high professional standards set out in the Code of Practice for Official Statistics. They undergo regular quality assurance reviews to ensure that they meet customer needs. They are produced free from any political interference.
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