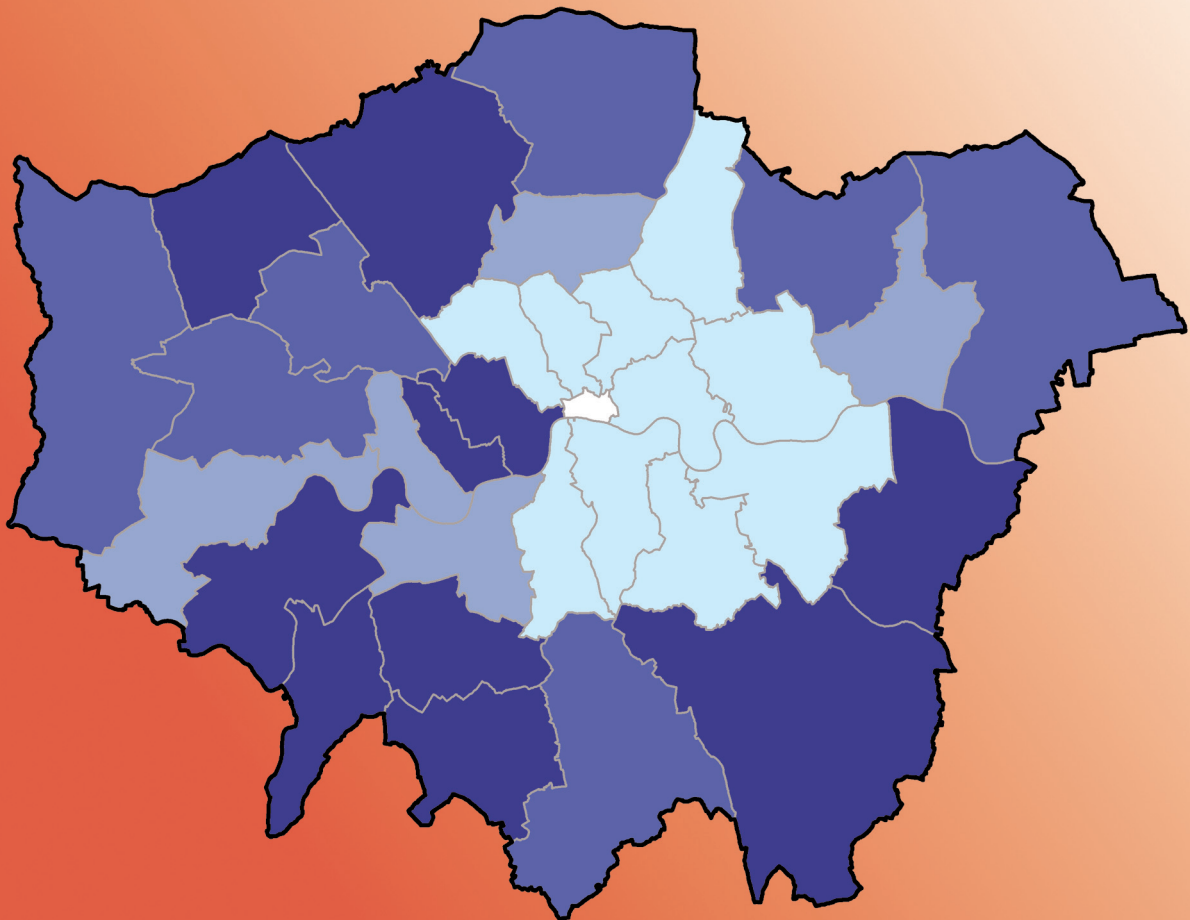


Data Management and Analysis Group

Borough Life Tables 2000-02



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Borough Life Tables 2000-02

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The data presented on the front cover of this *Briefing* are the 2000-02 Male Life Expectancy at birth by borough. Please refer to Table 1 on page 7 for the full results, including Female Life Expectancies.

Introduction

As part of the regular process of updating the database of the GLA demographic projection models, life tables are recalculated every five years. The life tables presented in this *Briefing* cover the calendar years 2000 to 2002. The tables for the three borough groups (Central, Rest of Inner and Outer) will be used in the borough population projections, starting with the GLA 2004 Round due to be released in Summer 2005.

The life table represents the mortality of a specific population at a point in time and enables consistent comparison between different populations at a point in time or the same population at different times. The table provides the life history of a hypothetical cohort, as it is diminished by deaths at each year of age. Life tables may be seen as a standardisation process linking data on a population's age structure and numbers of deaths recorded at each age. In one sense the life table is a simple population projection model that represents the long-term stable age-structure of a population resulting from a constant set of death rates and a constant number of births each year.

There are a number of basic assumptions used in the preparation of the life table:

- The population is closed - ie there is no migration
- The cohort starts from a fixed number of births, eg 100,000, spread evenly through the year
- At each age the deaths are evenly distributed throughout the year (except in the first year of life and for the final age group in the table)
- The tables are constructed separately for each gender due to their different patterns in mortality

The individual borough life tables are not used in the projection process since, even with three years' data, there are too few total events (around 6 thousand on average) to produce robust survival rates for each single year of age. However, the borough tables are valuable in themselves for the different mortality patterns and outcomes that they show.

Comparisons are made with the two previous sets of borough life tables, prepared using data for 1990-92 and 1995-97.

Data

Two sets of data are used to calculate the life table:

- Deaths by gender and single years of age
- Populations by gender and single years of age

In the tables presented here, the deaths relate to the three calendar years 2000 to 2002, and are for single years of age 0 to 89 and 90+. Additional details on the ages of infant deaths in London are also used.

For the population denominators, it is usual to take the mid-year population estimates for the middle year to which the deaths data relate, in this case mid-2001. However, there is a problem in taking this standard approach. There were particularly few births in the UK in the latter part of the First World War, followed by very high numbers in the years immediately following the armistice. This equates to there being relatively few 82

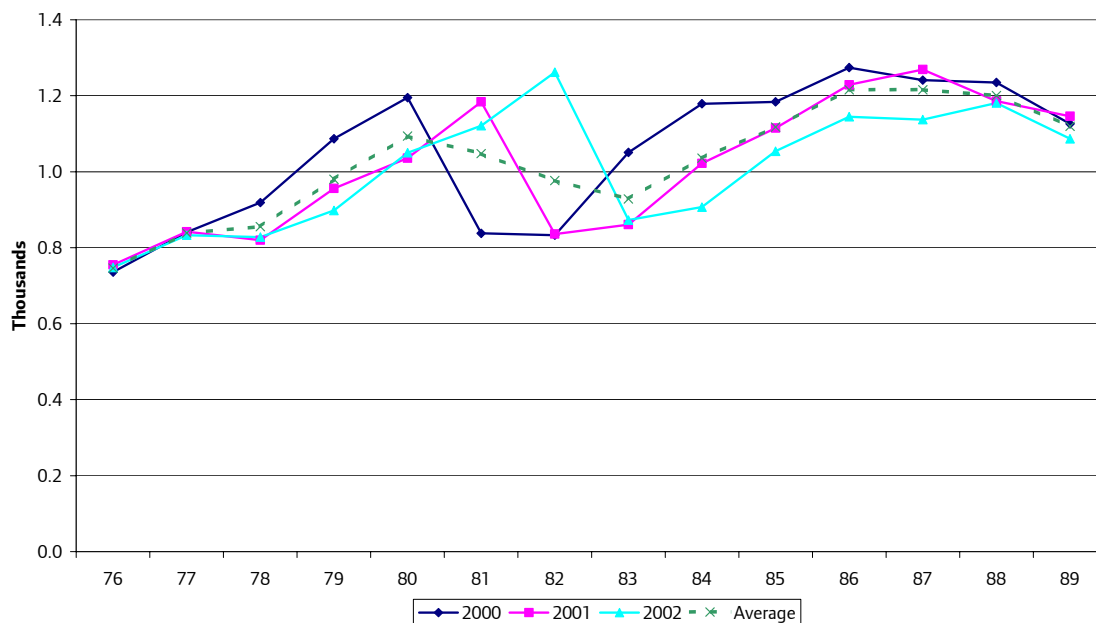
and 83 year olds in 2001 compared with high populations of 80 and 81 year olds. This dip also affects the pattern of deaths as, for the affected age-groups, there are relatively fewer/more people 'at risk' of dying in each of the years 2000 to 2002 as the cohorts age. Hence in each year there would be less/more deaths than would be expected. Due to the very high levels of mortality at these ages, it is important that the population at risk is corrected before calculating the initial 'raw' mortality rates for the life table.

When the deaths by single years of age are averaged over the three data years and compared to the population at risk, the mid-2001 estimate, there will be either relatively too few or too many people at risk at single years of age in the eighties. To allow for this phenomenon the average of the three population estimates for mid-2000 to mid-2002 was taken to provide a better estimate of the average populations at risk over the three years. The two following charts show clearly the affected cohorts, using female deaths and populations as the example. Chart 1 shows that London had over a third more women aged 81 compared to 82 at mid-2001, with similar relationships for the same cohorts in 2000 and 2002. The averaged population smoothes this discontinuity. Chart 2 shows that in 2001 there were almost 50% more deaths of women aged 81 than 82. There are similar patterns relating to the same cohorts in 2000 and 2002. The charts also show the smoother patterns of the average populations and average numbers of deaths used in the construction of the life tables.

Chart 1: Female population by age, ONS Mid-Year Estimates, 2000-02

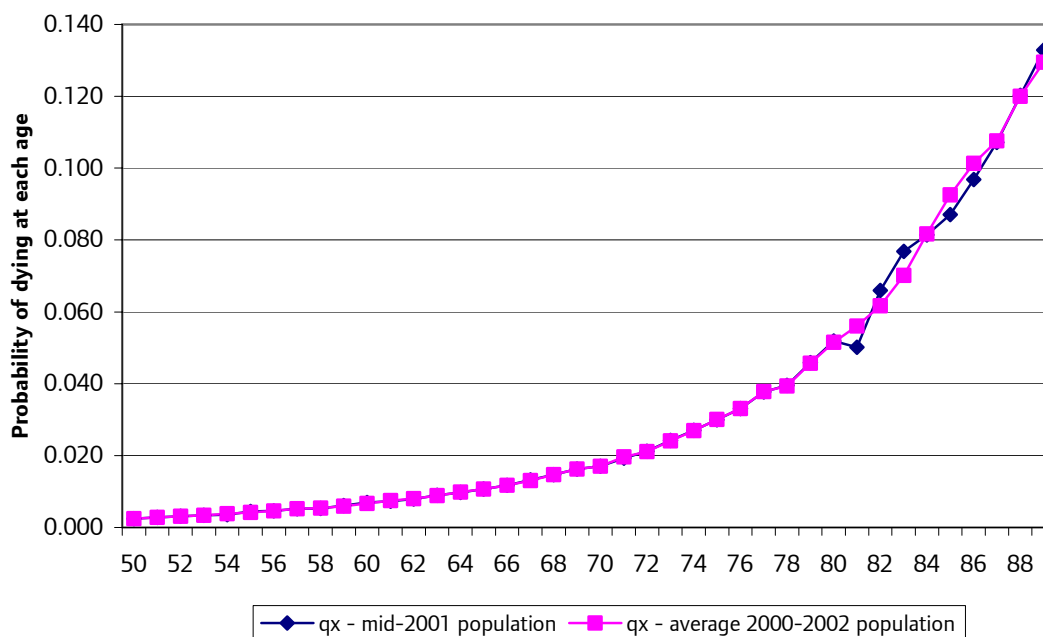


Chart 2: Female deaths by age, ONS Vital Statistics, 2000-02



To assess the impact of these low births at the end of the First World War, crude age-specific mortality rates for Greater London were created using the averaged deaths and, as the population at risk, (i) the mid-2001 population and (ii) an average population for mid-2000 to mid-2002. Chart 3 illustrates this effect for females. Although the differences amongst the rates are relatively small, it is clear that there is a 'First World War' effect – with a far smoother pattern of mortality rates between ages 80 and 87 using the average population. The differences for males follows a similar pattern.

Chart 3: Proportions of females dying 50 to 89 years old (q_x)



Therefore, to remove these anomalies the life tables were created using an average of mid-2000 to mid-2002 populations at all ages.

The Life Table Calculations

All the columns in the life table originate from the 'central death rates' (m_x), which are calculated from the original deaths and populations data, once they have been converted to q_x values, the life table probabilities of dying. The only exceptions to the basic calculations are in the first year of life and in the last year used in the life table; in the tables here this is 90+. The grid below shows the general calculations, as well as those that differ at the first and last years.

Age	Probability of dying between exact ages x and x+1	Probability of surviving between exact ages x and x+1	Number of deaths between exact ages x and x+1	Survivors at exact age x	Person years lived between exact ages x and x+1 (= persons aged x last birthday)	Total years lived after exact age x	Expectation of life: average number of years lived after exact age x
x	q_x	p_x	d_x	l_x	L_x	T_x	e_x
0	$m_0 = d_0 / \text{Births}$	$p_x = 1 - q_x$	$d_x = l_x - l_{x+1}$	100,000	$L_0 = l_1 + (d_0 * a_0)$ (where a_0 = average life lived by those dying at age 0)	$T_x = L_x + T_{x+1}$	$e_x = T_x / l_x$
1 2 3 : : 87 88 89	$m_x = d_x / P_x$ (Where d_x = deaths at age x, P_x = population at age x) $q_x = m_x / (1 + 0.5m_x)$			$l_x = l_{x-1} * p_{x-1}$	$L_x = 0.5 * (l_x + l_{x+1})$		
90 +	$q_{90+} = 1.0$			$L_{90+} = l_{90+} / m_{90+}$	$T_x = L_x$		

The First Year of Life

The first year of life is different from other years due to the fact that deaths are much more likely in the first few days, weeks and months and so are not evenly distributed throughout the year. For example, 71% of the deaths of female children aged under 1 year old in 2001, occurred in the first month of life. Therefore it cannot be assumed, as in other ages, that the average death occurs mid-way through the year.

To account for this a_0 , the average age of death of those dying at age 0, is calculated using deaths of infants broken down into shorter time periods, in this case the available data for deaths of infants was:

- Under 1 month
- 1 month or more but less than 3 months
- 3 months or more but less than 6 months
- 6 months or more but less than 9 months
- 9 months or more but less than 12 months

An average number of days of life (t_x) is calculated for each period using the mid-point of the band, eg for 'under 1 month' the mid-point is 15 days. By multiplying these average ages of death by the number of deaths (d_x) in each time period, a total days of life lived by all infant deaths is calculated ($\sum(d_x * t_x)$). To obtain the average age of death of infants, in years;

$$a_0 = \frac{\text{Total days of life}}{\text{Total deaths} * 365} = \frac{\sum(d_x * t_x)}{\sum(d_x) * 365}$$

The 2000-02 values of a_0 in London were:

- boys: $a_0 = 0.14207$
- girls: $a_0 = 0.15043$

Girls have lower death rates in infancy than boys and so those infant girls that do die survive longer on average than infant boys who die.

The Last Year of the Life Table

The last year of the life table is generally a grouped age with no upper age limit. In these calculations this is 90 and over. Some of the variables within the life table need to be addressed slightly differently to the rest of the table. The table on the previous page shows this, with explanation below.

q_{90+r} , the final death rate, is always 1.0. This is because the entire population is assumed to die out. This results in d_{90+r} , the number of deaths in the age group, being equal to l_{90+r} , the population in the age group.

The number of person years lived after 90, L_{90+r} , is equal to the survivors at exactly 90 years old divided by the original central death rate, ie l_{90+r}/m_{90+r} . Therefore, T_{90+r} , the total years lived after 90, is equal to L_{90+r} .

The full life table for Greater London is in Appendix A.

Life Table Results for 2000-02

Comparisons across London

Tables 1 and 2 show results for life expectancies at selected ages (0, 16, 50 and 75 years old) for the London boroughs for 2000-02. Results are also shown for the Central boroughs, the Rest of Inner boroughs, all Inner boroughs, Outer boroughs, the London Plan Sub-Regions and Greater London.

Expectation of life at birth in London was 75.86 years for males and 80.82 years for females. In general, life expectation was higher in Outer London than in Inner, although as a group the Central boroughs had higher expectancies, in fact Kensington & Chelsea has the highest life expectancies in London for both males and females.

For these selected ages, the lowest male life expectancies are in Tower Hamlets, with the exception of the expectation at age 75, which is lowest in Waltham Forest. For the females, the lowest expectations of life are in Newham, again with the exception of age 75, which is lowest in Tower Hamlets.

Throughout London, females have greater life expectancies than males at all ages. In London the difference in expectation at birth is 4.96 years, with larger differences tending to occur in Inner London, 5.60 years overall, than in Outer London, 4.61 years. Chart 4 compares male and female life expectancies at birth by borough.

The greatest gender difference in expectation of life at birth is in Camden at 6.37 years. Southwark, Tower Hamlets and Lambeth all have gender differences in expectation of life at birth greater than six years while Sutton (3.61 years) and Croydon (3.96 years) have differences of less than four years. Gender difference in expectation of life at birth

tends to be higher in boroughs where overall expectations are lower and where male expectations are relatively low.

Camden also has the greatest gender differences at ages 16 and 50, however, at age 75, when the gender difference is far lower, the greatest difference is seen in Hackney. At age 75 Croydon has the lowest difference of only 1.43 years. Chart 5 compares the gender differences in life expectancies at birth and at age 75.

London Plan Sub-Regions (SRDFs)

The South London sub-region has the highest expectation of life at birth for both males (77.27 years) and females (81.43 years) of the five SRDFs, while Central London has the lowest male life expectancy (75.04 years) and East London and the Thames Gateway has the lowest for females (80.13 years).

Generally, Central London and East London and the Thames Gateway tend to have lower than average life expectancies, ie lower than Greater London as a whole, while the West, North and South London sub-regions have higher than average expectancies. This reflects the fact that the latter regions are predominantly made up of Outer boroughs with higher expectancies, while the former group are generally Inner boroughs.

Table 1: Selected Life Expectancies: London Boroughs: 2000-02

	Males				Females			
	e ₀	e ₁₆	e ₅₀	e ₇₅	e ₀	e ₁₆	e ₅₀	e ₇₅
Camden	74.45	58.96	27.37	10.22	80.81	65.46	32.70	11.93
Kensington and Chelsea	78.58	63.21	30.87	11.92	83.95	68.38	35.25	14.13
Westminster, City of	77.09	61.84	29.63	11.15	82.63	67.26	34.31	13.37
Central Boroughs *	76.65	61.27	29.24	11.08	82.36	66.94	34.01	13.04
Hackney	74.41	59.17	27.51	10.09	80.04	64.89	32.09	13.06
Hammersmith and Fulham	75.80	60.43	28.28	10.37	81.57	66.04	33.27	12.94
Haringey	74.81	59.64	27.43	9.18	80.13	64.84	32.12	11.81
Islington	73.72	58.45	26.76	9.36	79.31	63.84	31.29	12.08
Lambeth	73.35	58.13	26.52	9.46	79.40	64.00	31.33	11.67
Lewisham	74.12	58.86	26.80	8.98	79.10	63.80	31.14	11.49
Newham	73.53	58.40	26.22	9.24	78.88	63.55	30.82	11.56
Southwark	73.77	58.61	26.94	9.82	80.08	64.82	32.15	12.20
Tower Hamlets	72.77	57.41	25.61	8.97	78.96	63.70	30.86	11.24
Wandsworth	75.39	59.92	27.61	9.48	80.20	64.70	31.78	11.84
Rest of Inner Boroughs	74.14	58.88	26.94	9.46	79.71	64.37	31.63	11.92
Inner Boroughs *	74.67	59.39	27.44	9.81	80.27	64.92	32.14	12.16
Barking and Dagenham	74.88	59.34	27.06	9.36	79.67	64.06	31.14	11.53
Barnet	77.67	62.13	29.72	10.20	81.81	66.18	33.32	12.14
Bexley	76.94	61.47	29.00	9.90	81.19	65.61	32.49	11.84
Brent	76.08	61.04	28.69	10.17	81.51	66.21	33.37	12.79
Bromley	77.54	62.10	29.76	10.27	82.04	66.43	33.40	12.29
Croydon	76.63	61.36	29.07	10.39	80.58	65.18	32.31	11.83
Ealing	75.96	60.64	28.35	9.97	80.95	65.48	32.48	11.99
Enfield	76.81	61.44	29.04	9.68	81.05	65.47	32.54	12.12
Greenwich	74.21	58.94	27.17	9.44	80.12	64.66	31.91	11.88
Harrow	78.12	62.88	30.19	10.80	83.03	67.46	34.35	13.41
Havering	76.70	61.21	28.56	9.28	80.87	65.34	32.32	11.65
Hillingdon	76.37	60.97	28.69	9.94	81.43	65.75	32.71	12.03
Hounslow	75.26	59.95	27.65	9.45	80.10	64.61	31.57	11.57
Kingston upon Thames	77.65	62.03	29.31	10.06	81.69	65.83	32.57	11.73
Merton	77.18	61.65	29.08	10.19	81.78	66.08	32.95	12.51
Redbridge	76.68	61.42	28.98	9.79	81.57	66.12	33.00	12.49
Richmond upon Thames	77.87	62.59	29.81	10.22	82.17	66.38	33.24	12.53
Sutton	77.01	61.48	28.81	9.71	80.62	65.07	32.14	11.60
Waltham Forest	74.44	59.39	27.14	8.74	79.68	64.24	31.35	11.53
Outer Boroughs	76.54	61.19	28.79	9.89	81.15	65.61	32.62	12.06
Greater London *	75.86	60.55	28.32	9.86	80.82	65.36	32.46	12.09
SRDF's								
Central London	75.04	59.74	27.84	10.13	80.76	65.35	32.55	12.34
East London and the Thames Gateway *	75.06	59.75	27.61	9.47	80.13	64.75	31.86	11.84
West London	76.26	61.00	28.66	10.11	81.39	65.90	32.92	12.39
North London	76.19	60.89	28.56	9.59	80.83	65.34	32.48	11.95
South London	77.27	61.85	29.33	10.18	81.43	65.82	32.78	12.07
Maximum	78.58	63.21	30.87	11.92	83.95	68.38	35.25	14.13
Minimum	72.77	57.41	25.61	8.74	78.88	63.55	30.82	11.24
Median	76.02	60.80	28.45	9.86	80.84	65.40	32.40	11.96

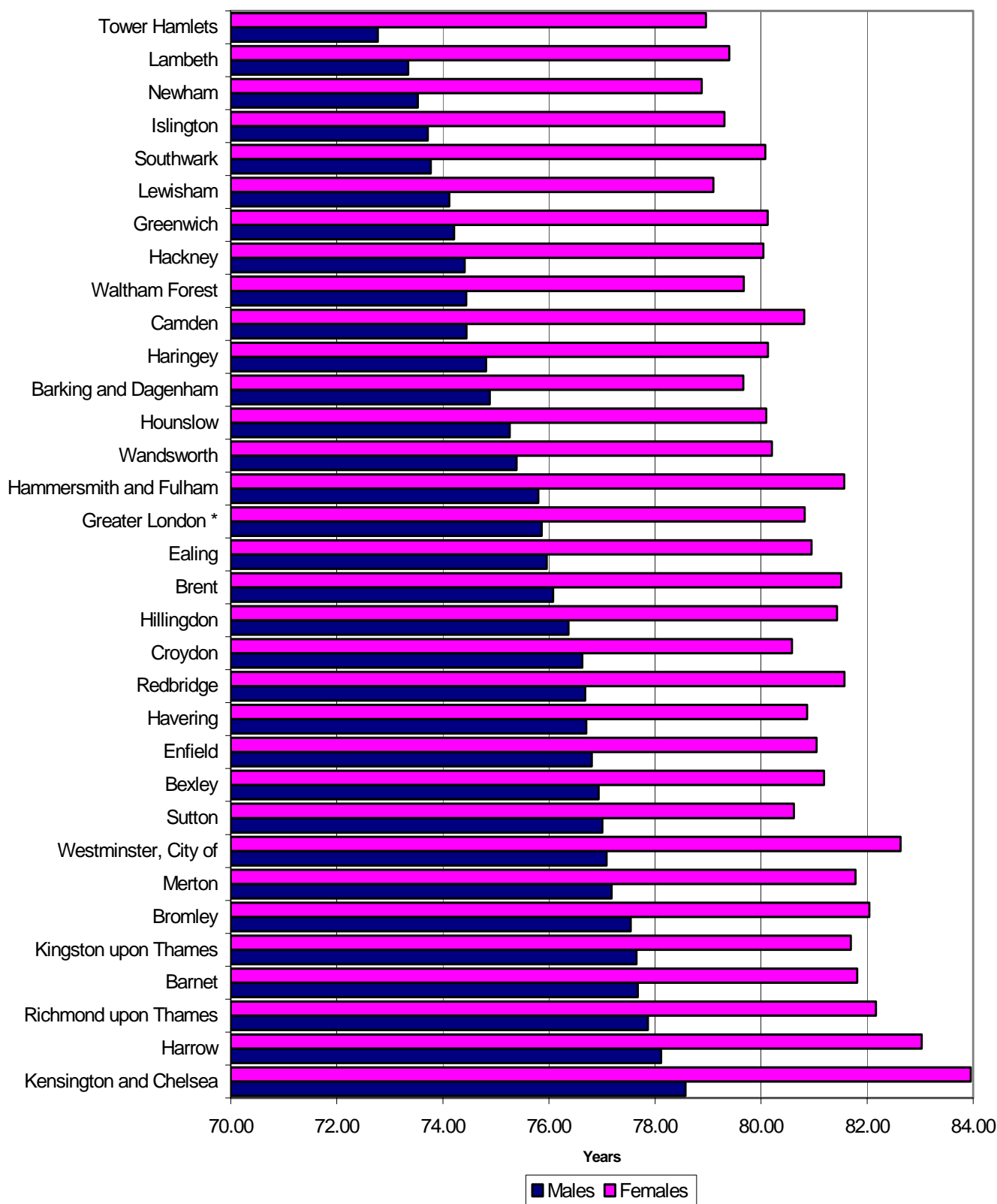
* includes data for the City of London, which has too small a population to provide a statistically significant Life Table

**Table 2: Gender difference between selected Life Expectancies:
London Boroughs: 2000-02**

	Gender difference			
	e ₀	e ₁₆	e ₅₀	e ₇₅
Camden	6.37	6.49	5.33	1.71
Kensington and Chelsea	5.38	5.17	4.38	2.22
Westminster, City of	5.54	5.42	4.68	2.22
Central Boroughs *	5.71	5.67	4.76	1.95
Hackney	5.64	5.72	4.57	2.97
Hammersmith and Fulham	5.77	5.61	4.99	2.58
Haringey	5.31	5.20	4.70	2.63
Islington	5.59	5.39	4.52	2.72
Lambeth	6.05	5.86	4.81	2.21
Lewisham	4.98	4.94	4.34	2.52
Newham	5.35	5.15	4.60	2.32
Southwark	6.31	6.21	5.21	2.38
Tower Hamlets	6.19	6.30	5.25	2.26
Wandsworth	4.81	4.78	4.17	2.36
Rest of Inner Boroughs	5.57	5.49	4.69	2.46
Inner Boroughs *	5.60	5.53	4.70	2.35
Barking and Dagenham	4.78	4.71	4.08	2.17
Barnet	4.14	4.05	3.60	1.93
Bexley	4.25	4.14	3.49	1.93
Brent	5.44	5.17	4.68	2.62
Bromley	4.50	4.33	3.64	2.02
Croydon	3.96	3.82	3.24	1.43
Ealing	5.00	4.84	4.13	2.02
Enfield	4.24	4.03	3.50	2.43
Greenwich	5.91	5.72	4.73	2.44
Harrow	4.92	4.58	4.16	2.60
Havering	4.16	4.13	3.76	2.37
Hillingdon	5.06	4.78	4.01	2.09
Hounslow	4.84	4.67	3.92	2.12
Kingston upon Thames	4.04	3.80	3.26	1.67
Merton	4.60	4.43	3.87	2.33
Redbridge	4.89	4.71	4.02	2.70
Richmond upon Thames	4.30	3.79	3.43	2.31
Sutton	3.61	3.59	3.33	1.90
Waltham Forest	5.23	4.85	4.21	2.79
Outer Boroughs	4.61	4.42	3.83	2.17
Greater London *	4.96	4.82	4.13	2.23
SRDF's				
Central London	5.71	5.61	4.71	2.21
East London and the Thames Gateway *	5.07	4.99	4.25	2.37
West London	5.13	4.90	4.27	2.29
North London	4.64	4.45	3.92	2.36
South London	4.15	3.96	3.45	1.89
Maximum	6.37	6.49	5.33	2.97
Minimum	3.61	3.59	3.24	1.43
Median	4.99	4.81	4.17	2.31

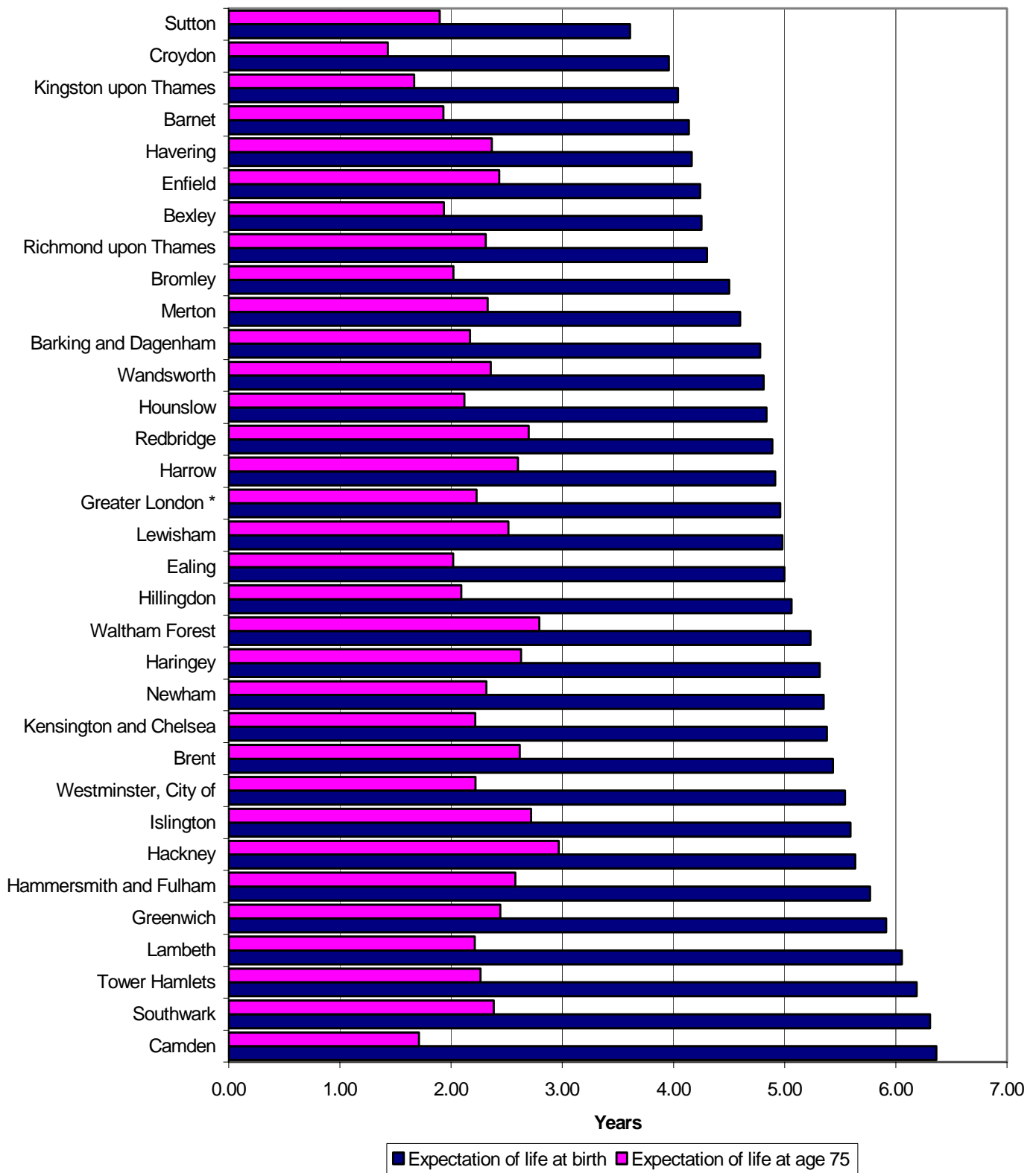
* includes data for the City of London, which has too small a population to provide a statistically significant Life Table

Chart 4: Comparison of expectation of life at birth, 2000-02



* includes data for the City of London, which has too small a population to provide a statistically significant Life Table

Chart 5: Comparison of gender difference in expectation of life at birth and at age 75, 2000-02



* includes data for the City of London, which has too small a population to provide a statistically significant Life Table

Life Table Results 1990-92 to 2000-02

The London Research Centre calculated borough life tables similar to those presented here for years 1990-92 and 1995-97. The denominator populations were the ONS mid-year estimates available at the time. In February 2003 and October 2004 ONS issued revisions to all borough populations for years between 1981 and 2000. The comparisons presented here are based on the original LRC work. There are no plans to calculate revised life tables using the updated estimates. It is therefore possible that some conclusions presented below for individual boroughs could be affected by having used incorrect base populations.

Since 1990-92, there has been an increase in expectation of life at birth across all areas in London. For males, life expectancy at birth has increase by 2.72 years, while for females the increase has been less, at 1.51 years.

The increase in life expectancy has been generally less for females than it has for males. This catching up of male life expectancies is a phenomena seen in most western high life expectancy populations.

Since 1990-92, for both males and females, life expectancy at birth has increased most in Kensington & Chelsea, Hammersmith & Fulham and Westminster. In Kensington & Chelsea and Hammersmith & Fulham, well over half the increase occurred since 1995-97.

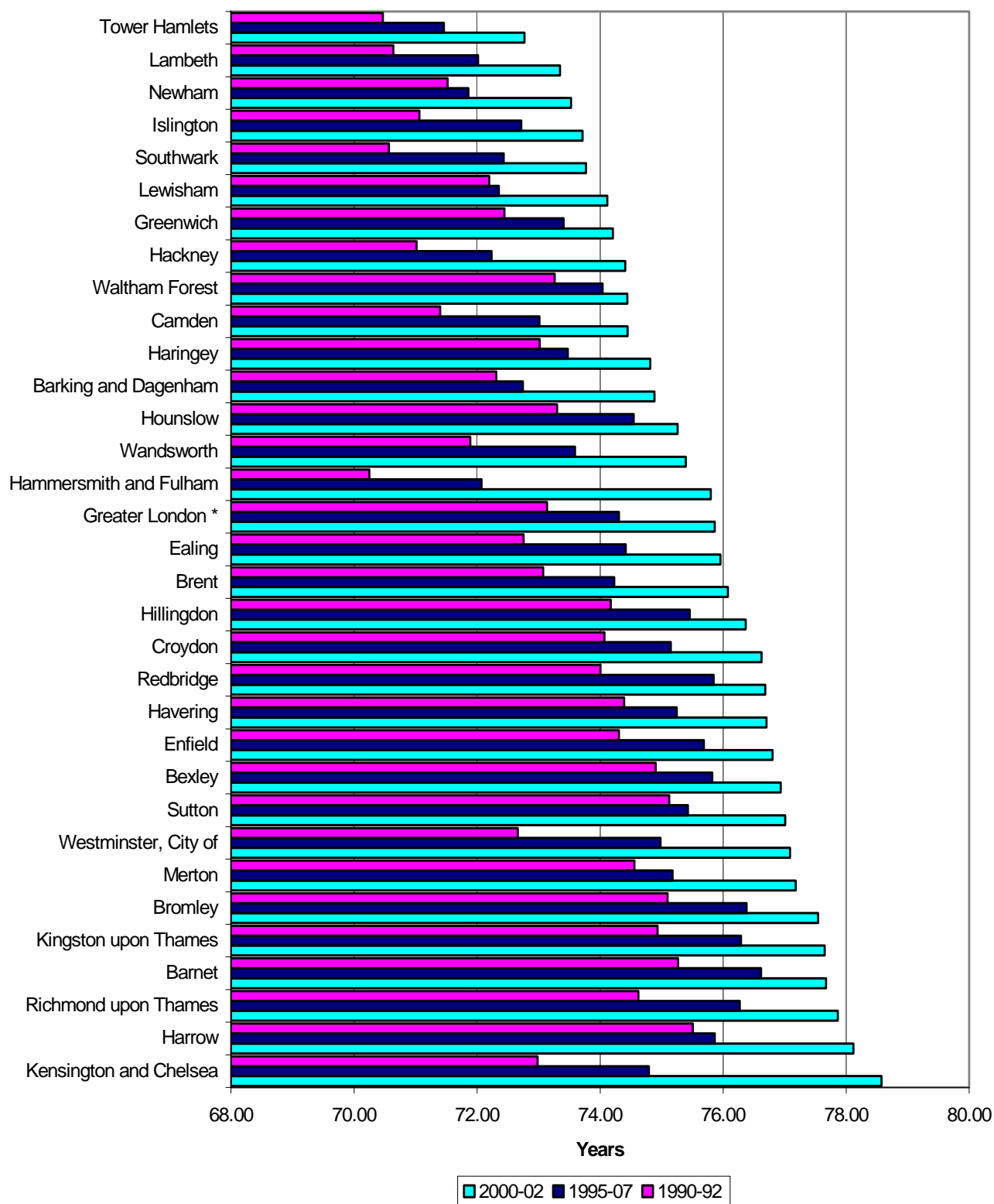
The smallest increases were more varied between males and females. Since 1990-92 male life expectancy in Waltham Forest has increased by less than 1.2 years, while the lowest change for females, was in Tower Hamlets at 0.43 years. However, Bexley, Hounslow, Lewisham, Newham, Sutton, Tower Hamlets and Waltham Forest are among the ten boroughs with the lowest changes for both males (2.3 years or less) and females (1.1 years or less).

Comparisons of life expectancy since 1990-92 can be seen in Charts 6 and 7.

The larger increases in male life expectancy show that the gender gap is closing. In 1990-92 life expectancy at birth for London's females was 6.17 years higher than for males. This compares with 5.56 years in 1995-97 and 4.96 years in 2000-02.

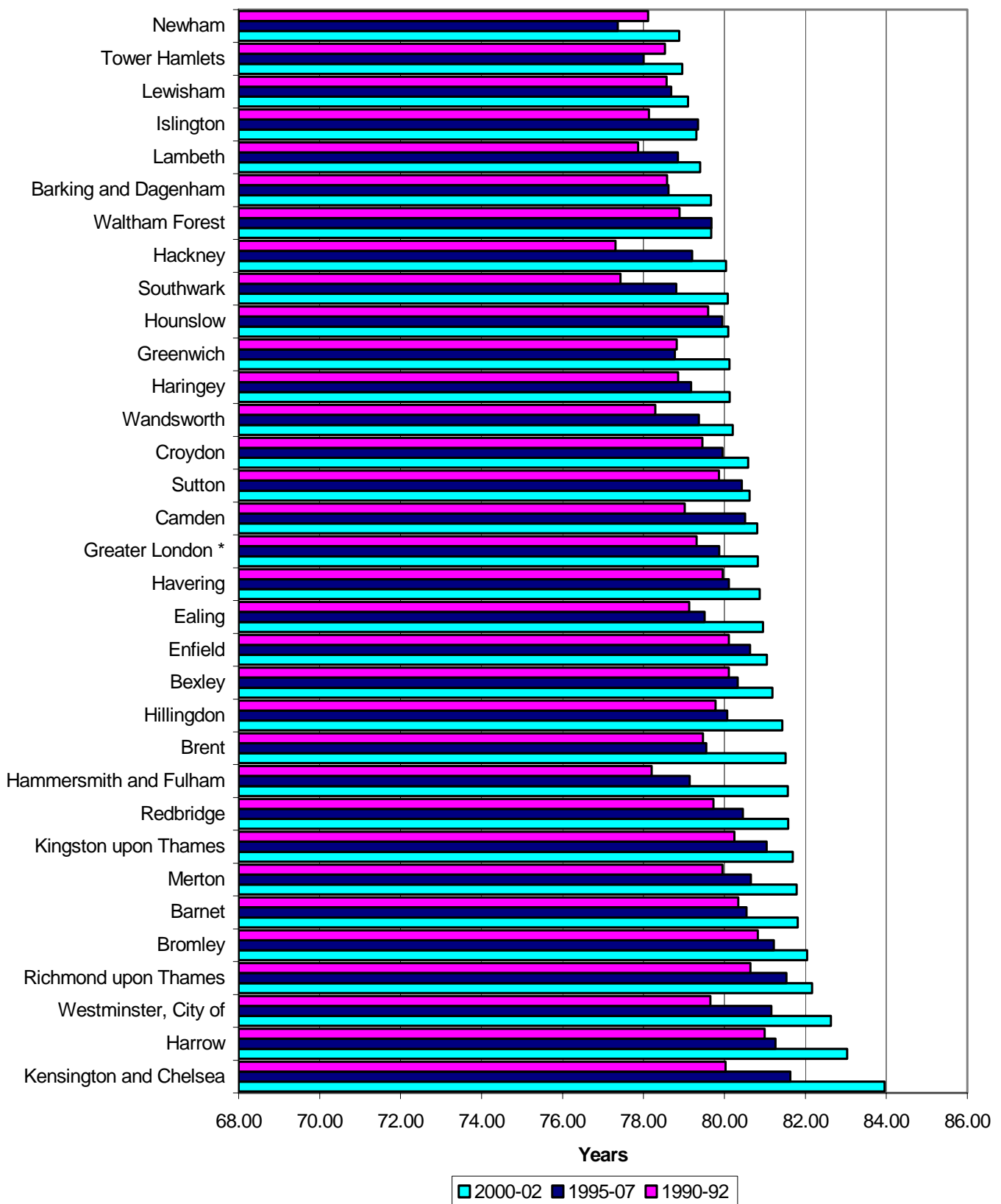
Since 1990-92, the gender gap has narrowed most in Hammersmith & Fulham, reducing by 2.19 years. However, Hammersmith & Fulham remains among the boroughs with the highest gender differences. The gap has narrowed least in Waltham Forest, by only 0.39 years. Chart 8 shows the changes in the gender gap since 1990-92.

Chart 6: Change in expectation of life at birth, males, 1990-92 to 2000-02



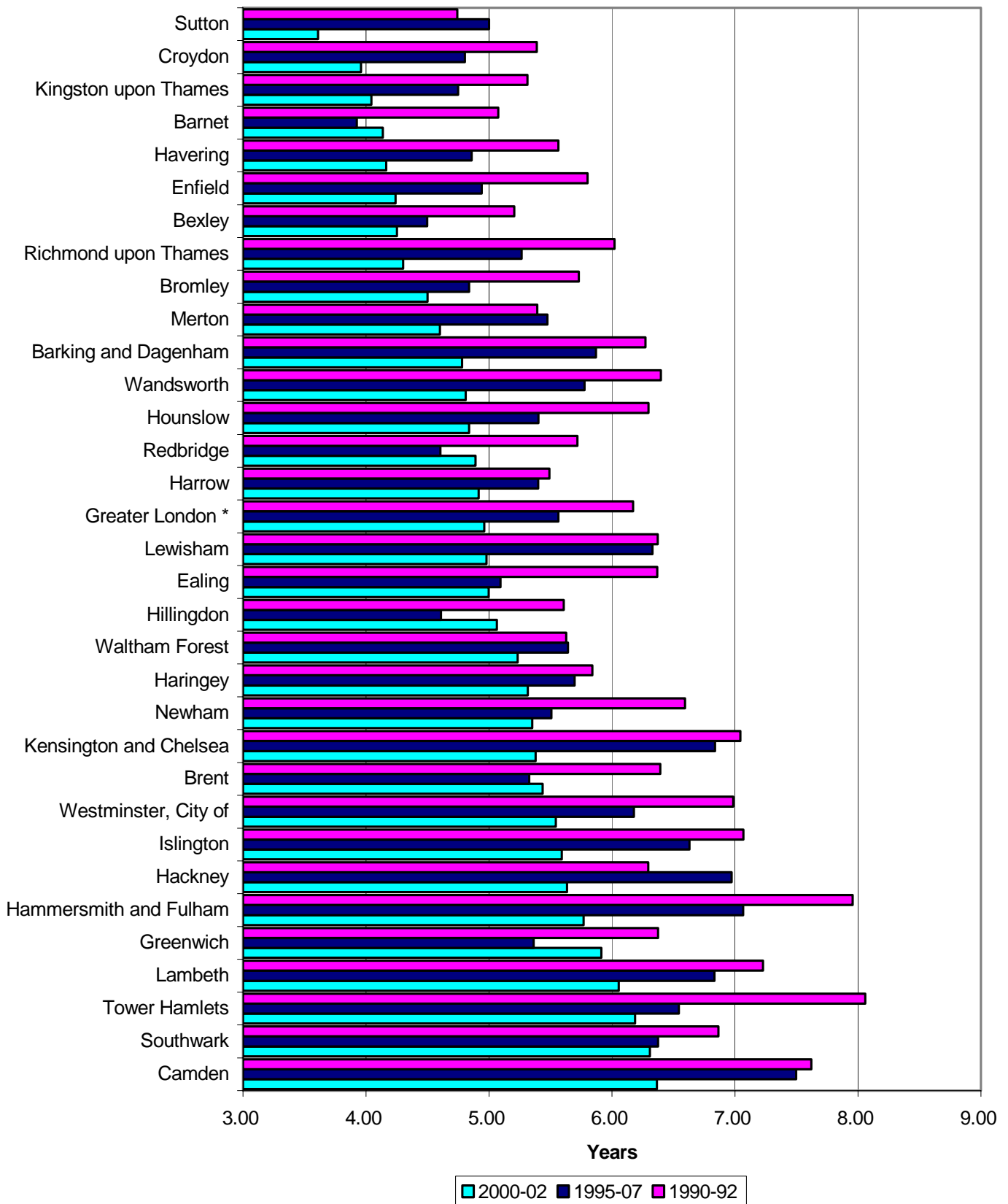
* includes data for the City of London, which has too small a population to provide a statistically significant Life Table

Chart 7: Change in expectation of life at birth, females, 1990-92 to 2000-02



* includes data for the City of London, which has too small a population to provide a statistically significant Life Table

Chart 8: Change in gender difference in expectation of life at birth, 1990-92 to 2000-02



* includes data for the City of London, which has too small a population to provide a statistically significant Life Table

Comparisons with Office for National Statistics Life Tables

The Office for National Statistics (ONS) has published life expectancy data, but not full life tables, for all local authorities in England & Wales relating to deaths in 2000-02. An important consideration in comparisons for some boroughs will be that the GLA calculations use the most recent (October 2004) revisions to the population estimates for 2000 to 2002, while the ONS calculations were carried out on population data for mid-2001 available at September 2003. However, it is valuable to be able to compare London boroughs with all other parts of England & Wales.

The GLA figures are published with a greater degree of accuracy than the ONS figures (to 2 decimal points compared with 1 decimal point), therefore for this comparison, the GLA figures have been rounded to the nearest 0.1 of a year.

The ONS and GLA results for 2000-02 are, as one expects, very similar. For males, the GLA produced life expectancy at birth is 0.1 year greater, while for females there is no difference. In most boroughs, the ONS life expectancies are slightly lower than, or the same as, the figures from the GLA. However, there are a few boroughs where the ONS expectation of life is greater than the GLA. The majority of the differences are less than 0.2 years either way, however three boroughs have greater differences; for the males, life expectancy in Kensington & Chelsea is 0.4 years greater by the ONS calculations, while for females, Kingston upon Thames and Camden have higher GLA life expectancies of 0.4 years and 0.3 years respectively.

Table 3: Difference in years between GLA and ONS life expectancy of at birth, 2000-02 (GLA minus ONS)

	Males	Females
Barking and Dagenham	0.2	0.0
Barnet	0.1	0.0
Bexley	-0.1	0.0
Brent	0.2	-0.1
Bromley	0.0	-0.1
Camden	0.1	0.3
Croydon	-0.1	0.1
Ealing	0.1	0.0
Enfield	-0.1	0.1
Greenwich	0.0	0.0
Hackney	0.2	-0.2
Hammersmith and Fulham	0.2	0.0
Haringey	0.1	0.1
Harrow	-0.1	-0.1
Havering	0.2	0.1
Hillingdon	0.2	-0.1
Hounslow	0.2	0.1
Islington	0.2	0.2
Kensington and Chelsea	-0.4	-0.1
Kingston upon Thames	0.0	0.4
Lambeth	0.2	0.0
Lewisham	0.0	0.0
Merton	-0.1	-0.1
Newham	0.2	-0.1
Redbridge	0.0	0.1
Richmond upon Thames	0.1	0.0
Southwark	0.1	0.2
Sutton	0.1	0.1
Tower Hamlets	0.1	0.1
Waltham Forest	0.1	0.2
Wandsworth	0.0	0.0
Westminster	0.0	-0.1
Greater London *	0.1	0.0

* Includes data for the City of London, which has too small a population to provide a statistically significant Life Table

Life expectancy tends to be higher in the southern and eastern regions of England & Wales and lower in the midlands and north, although there is much variation within regions. Expectation of life at birth for males is highest in the South East at 77.2, compared with 75.8 years in London. The lowest male life expectancy is 74.5 years in the North East. The highest female life expectancy is 81.7 years in the South West, whilst the lowest is 79.3 years, again in the North East. London has higher expectations of life at birth than the North East, North West, Yorkshire and the Humber, East Midlands (females only), West Midlands and Wales. London is 0.1 years below the national average for males but is 0.2 years above the national average for females.

Table 4: Expectation of life at birth, Office for National Statistics, 2000-02

	Males	Females
North East	74.5	79.3
North West	74.6	79.4
Yorkshire and The Humber	75.4	80.2
East Midlands	76.1	80.5
West Midlands	75.4	80.3
East of England	77.0	81.4
London	75.8	80.8
South East	77.2	81.5
South West	77.1	81.7
Wales	75.3	79.8
England	76.0	80.7
England & Wales	75.9	80.6

Source: © Crown Copyright, Office for National Statistics

At local authority district level, Rutland, East Dorset and Hart (Hampshire) have the highest male life expectancy at 79.5 years, while Manchester has the lowest at 71.4 years. For females, Kensington & Chelsea has the highest life expectancy (84.1 years) while Manchester has the lowest (77.5 years). As Manchester's mid-2001 population received the largest boost following the ONS 2004 LA Studies into deficiencies in the 2001 Census, it is very likely that its low expectations of life should be boosted. This would leave Blackpool (males) and Liverpool (females) with the lowest values.

For males, the only London borough in the top ten districts is Kensington & Chelsea in a list dominated by the South East and East regions. Lambeth and Tower Hamlets are the only boroughs in the bottom ten in a list dominated by Lancashire authorities. For females, apart from Kensington & Chelsea in top position, Harrow as also in the top ten districts. No boroughs appear in the bottom ten.

Availability of Life Table Data

All of the life table rates and measures discussed in this *Briefing* will be available on the GLA Demography Extranet or on application to Georgia.Hay@london.gov.uk. Confidentiality agreements with ONS mean that the actual numbers of deaths for 2002 may not be passed on by the GLA.

Table 5: Expectation of life at birth by local authority, Office for National Statistics, 2000-02

Rank	Males		Females	
	Local Authority	Expectation of life at birth	Local Authority	Expectation of life at birth
1	Rutland	79.5	Kensington and Chelsea	84.1
2	East Dorset	79.5	Guildford	83.9
3	Hart	79.5	Epsom and Ewell	83.7
4	Purbeck	79.2	Christchurch	83.6
5	North Dorset	79.1	Harrow	83.1
6	New Forest	79.1	North Dorset	83.1
7	South Norfolk	79.1	Wealden	83.1
8	Kensington and Chelsea	79.0	South Cambridgeshire	83.0
9	South Cambridgeshire	79.0	Hart	83.0
10	Christchurch	79.0	New Forest	83.0
:	:	:	:	:
:	:	:	:	:
:	:	:	:	:
365	Blaenau Gwent	73.3	Blackpool	78.4
366	Salford	73.2	Knowsley	78.2
367	Lambeth	73.1	Middlesbrough	78.2
368	Hartlepool	73.1	Salford	78.1
369	Blackburn with Darwen	73.0	Merthyr Tydfil	78.1
370	Knowsley	72.9	Halton	78.0
371	Tower Hamlets	72.7	Blackburn with Darwen	78.0
372	Liverpool	72.6	Wansbeck	77.9
373	Blackpool	71.7	Liverpool	77.6
374	Manchester	71.4	Manchester	77.5

Appendix A

Appendix Table 1: Male Life Table: 2000-02: London

Age _(x)	q _x	p _x	d _x	l _x	L _x	T _x	e _x
0	0.00651	0.99349	651	100000	99442	7586273	75.86
1	0.00035	0.99965	35	99349	99332	7486831	75.36
2	0.00026	0.99974	26	99314	99301	7387499	74.39
3	0.00019	0.99981	19	99288	99279	7288198	73.40
4	0.00019	0.99981	19	99269	99260	7188919	72.42
5	0.00013	0.99987	13	99251	99244	7089659	71.43
6	0.00018	0.99982	18	99237	99228	6990415	70.44
7	0.00012	0.99988	12	99220	99213	6891187	69.45
8	0.00012	0.99988	12	99207	99201	6791974	68.46
9	0.00009	0.99991	9	99195	99190	6692772	67.47
10	0.00010	0.99990	10	99186	99181	6593582	66.48
11	0.00015	0.99985	15	99176	99168	6494401	65.48
12	0.00017	0.99983	17	99161	99152	6395233	64.49
13	0.00014	0.99986	14	99144	99137	6296081	63.50
14	0.00024	0.99976	24	99130	99118	6196944	62.51
15	0.00028	0.99972	28	99106	99092	6097826	61.53
16	0.00033	0.99967	33	99078	99062	5998734	60.55
17	0.00051	0.99949	51	99046	99020	5899673	59.57
18	0.00060	0.99940	60	98995	98965	5800652	58.60
19	0.00072	0.99928	71	98935	98900	5701687	57.63
20	0.00064	0.99936	63	98864	98833	5602788	56.67
21	0.00075	0.99925	74	98801	98764	5503955	55.71
22	0.00058	0.99942	58	98727	98698	5405191	54.75
23	0.00053	0.99947	53	98669	98643	5306493	53.78
24	0.00050	0.99950	50	98617	98592	5207850	52.81
25	0.00055	0.99945	54	98567	98540	5109258	51.84
26	0.00047	0.99953	46	98513	98490	5010718	50.86
27	0.00054	0.99946	53	98467	98440	4912229	49.89
28	0.00062	0.99938	61	98413	98383	4813789	48.91
29	0.00072	0.99928	71	98352	98317	4715406	47.94
30	0.00075	0.99925	73	98281	98245	4617089	46.98
31	0.00086	0.99914	84	98208	98166	4518844	46.01
32	0.00104	0.99896	102	98124	98073	4420679	45.05
33	0.00086	0.99914	85	98022	97979	4322606	44.10
34	0.00102	0.99898	99	97937	97887	4224626	43.14
35	0.00111	0.99889	108	97838	97783	4126739	42.18
36	0.00112	0.99888	110	97729	97674	4028956	41.23
37	0.00144	0.99856	141	97620	97549	3931281	40.27
38	0.00133	0.99867	129	97479	97414	3833732	39.33
39	0.00152	0.99848	148	97350	97276	3736318	38.38
40	0.00182	0.99818	176	97201	97113	3639042	37.44
41	0.00170	0.99830	165	97025	96942	3541929	36.51
42	0.00206	0.99794	200	96860	96760	3444987	35.57
43	0.00215	0.99785	208	96660	96556	3348227	34.64
44	0.00256	0.99744	247	96452	96328	3251671	33.71
45	0.00293	0.99707	282	96205	96064	3155343	32.80
46	0.00300	0.99700	287	95923	95779	3059280	31.89
47	0.00328	0.99672	314	95635	95478	2963501	30.99
48	0.00390	0.99610	372	95322	95136	2868022	30.09
49	0.00407	0.99593	387	94950	94757	2772887	29.20

Appendix Table 1: Male Life Table: 2000-02: London - continued

Age _(x)	q _x	p _x	d _x	l _x	L _x	T _x	e _x
50	0.00452	0.99548	428	94563	94350	2678130	28.32
51	0.00474	0.99526	446	94136	93913	2583780	27.45
52	0.00534	0.99466	500	93690	93440	2489867	26.58
53	0.00546	0.99454	509	93190	92936	2396428	25.72
54	0.00578	0.99422	536	92681	92413	2303492	24.85
55	0.00714	0.99286	658	92146	91817	2211079	24.00
56	0.00747	0.99253	684	91488	91146	2119262	23.16
57	0.00834	0.99166	758	90804	90425	2028116	22.34
58	0.00944	0.99056	850	90046	89621	1937691	21.52
59	0.01045	0.98955	932	89196	88730	1848070	20.72
60	0.01187	0.98813	1048	88264	87740	1759339	19.93
61	0.01314	0.98686	1146	87216	86644	1671599	19.17
62	0.01362	0.98638	1172	86071	85485	1584955	18.41
63	0.01466	0.98534	1244	84898	84276	1499471	17.66
64	0.01565	0.98435	1309	83654	82999	1415195	16.92
65	0.01721	0.98279	1417	82345	81636	1332195	16.18
66	0.02070	0.97930	1675	80928	80090	1250559	15.45
67	0.02162	0.97838	1713	79253	78396	1170469	14.77
68	0.02407	0.97593	1867	77539	76606	1092073	14.08
69	0.02768	0.97232	2095	75673	74626	1015467	13.42
70	0.02977	0.97023	2191	73578	72483	940841	12.79
71	0.03268	0.96732	2333	71388	70221	868358	12.16
72	0.03591	0.96409	2480	69055	67815	798137	11.56
73	0.03930	0.96070	2616	66575	65267	730322	10.97
74	0.04438	0.95562	2838	63959	62539	665056	10.40
75	0.05076	0.94924	3103	61120	59569	602516	9.86
76	0.05408	0.94592	3137	58018	56449	542947	9.36
77	0.05830	0.94170	3200	54880	53280	486498	8.86
78	0.06464	0.93536	3341	51681	50010	433218	8.38
79	0.07251	0.92749	3505	48340	46587	383208	7.93
80	0.07579	0.92421	3398	44835	43136	336620	7.51
81	0.08009	0.91991	3319	41437	39778	293484	7.08
82	0.09053	0.90947	3451	38118	36393	253707	6.66
83	0.10008	0.89992	3470	34667	32933	217314	6.27
84	0.11103	0.88897	3464	31198	29466	184381	5.91
85	0.12333	0.87667	3420	27734	26024	154916	5.59
86	0.13668	0.86332	3323	24314	22652	128892	5.30
87	0.14490	0.85510	3041	20990	19470	106240	5.06
88	0.15858	0.84142	2846	17949	16526	86770	4.83
89	0.16527	0.83473	2496	15103	13855	70245	4.65
90+	1.00000	0.00000	12607	12607	56390	56390	4.47

Appendix Table 2: Female Life Table: 2000-02: London

Age_(x)	q_x	p_x	d_x	l_x	L_x	T_x	e_x
0	0.00472	0.99528	472	100000	99599	8082406	80.82
1	0.00034	0.99966	34	99528	99511	7982807	80.21
2	0.00019	0.99981	19	99494	99485	7883296	79.23
3	0.00014	0.99986	14	99475	99468	7783811	78.25
4	0.00019	0.99981	19	99461	99452	7684342	77.26
5	0.00012	0.99988	12	99442	99437	7584891	76.27
6	0.00009	0.99991	9	99431	99426	7485454	75.28
7	0.00009	0.99991	9	99422	99417	7386028	74.29
8	0.00009	0.99991	9	99413	99408	7286611	73.30
9	0.00009	0.99991	9	99404	99399	7187203	72.30
10	0.00011	0.99989	11	99395	99389	7087804	71.31
11	0.00018	0.99982	18	99383	99375	6988415	70.32
12	0.00016	0.99984	16	99366	99358	6889040	69.33
13	0.00013	0.99987	13	99350	99344	6789682	68.34
14	0.00011	0.99989	11	99338	99332	6690338	67.35
15	0.00011	0.99989	11	99326	99321	6591006	66.36
16	0.00020	0.99980	20	99315	99305	6491685	65.36
17	0.00023	0.99977	23	99295	99284	6392380	64.38
18	0.00031	0.99969	31	99272	99257	6293097	63.39
19	0.00038	0.99962	38	99241	99222	6193840	62.41
20	0.00033	0.99967	33	99203	99187	6094618	61.44
21	0.00027	0.99973	27	99170	99157	5995432	60.46
22	0.00023	0.99977	23	99144	99132	5896275	59.47
23	0.00024	0.99976	24	99121	99109	5797142	58.49
24	0.00016	0.99984	16	99097	99089	5698033	57.50
25	0.00026	0.99974	26	99081	99068	5598944	56.51
26	0.00023	0.99977	23	99055	99044	5499876	55.52
27	0.00025	0.99975	25	99032	99019	5400833	54.54
28	0.00029	0.99971	28	99007	98993	5301813	53.55
29	0.00029	0.99971	29	98979	98964	5202821	52.57
30	0.00038	0.99962	38	98950	98931	5103856	51.58
31	0.00046	0.99954	45	98912	98890	5004925	50.60
32	0.00048	0.99952	47	98867	98843	4906035	49.62
33	0.00051	0.99949	51	98820	98794	4807192	48.65
34	0.00062	0.99938	61	98769	98738	4708398	47.67
35	0.00071	0.99929	70	98708	98673	4609659	46.70
36	0.00077	0.99923	76	98638	98600	4510986	45.73
37	0.00079	0.99921	78	98562	98523	4412386	44.77
38	0.00083	0.99917	82	98484	98443	4313863	43.80
39	0.00088	0.99912	87	98402	98358	4215420	42.84
40	0.00105	0.99895	103	98315	98264	4117062	41.88
41	0.00116	0.99884	114	98212	98155	4018798	40.92
42	0.00130	0.99870	127	98098	98035	3920643	39.97
43	0.00135	0.99865	132	97971	97905	3822608	39.02
44	0.00156	0.99844	152	97839	97763	3724703	38.07
45	0.00160	0.99840	157	97687	97608	3626941	37.13
46	0.00167	0.99833	163	97530	97449	3529333	36.19
47	0.00184	0.99816	179	97367	97278	3431884	35.25
48	0.00189	0.99811	183	97188	97096	3334606	34.31
49	0.00245	0.99755	238	97005	96886	3237510	33.37

Appendix Table 2: Female Life Table: 2000-02: London - continued

Age_(x)	q_x	p_x	d_x	l_x	L_x	T_x	e_x
50	0.00244	0.99756	236	96767	96648	3140624	32.46
51	0.00277	0.99723	267	96530	96397	3043976	31.53
52	0.00309	0.99691	297	96263	96115	2947579	30.62
53	0.00339	0.99661	326	95966	95803	2851464	29.71
54	0.00381	0.99619	364	95640	95458	2755661	28.81
55	0.00418	0.99582	398	95276	95077	2660203	27.92
56	0.00455	0.99545	432	94878	94662	2565126	27.04
57	0.00521	0.99479	492	94446	94200	2470464	26.16
58	0.00539	0.99461	507	93954	93700	2376265	25.29
59	0.00592	0.99408	553	93447	93170	2282564	24.43
60	0.00667	0.99333	620	92894	92584	2189394	23.57
61	0.00740	0.99260	683	92274	91933	2096810	22.72
62	0.00796	0.99204	729	91591	91227	2004877	21.89
63	0.00886	0.99114	805	90862	90460	1913651	21.06
64	0.00978	0.99022	880	90057	89617	1823191	20.24
65	0.01063	0.98937	948	89177	88703	1733574	19.44
66	0.01172	0.98828	1034	88229	87712	1644871	18.64
67	0.01297	0.98703	1131	87195	86629	1557159	17.86
68	0.01462	0.98538	1258	86063	85434	1470530	17.09
69	0.01622	0.98378	1375	84805	84117	1385096	16.33
70	0.01698	0.98302	1417	83430	82721	1300978	15.59
71	0.01951	0.98049	1600	82013	81213	1218257	14.85
72	0.02096	0.97904	1686	80413	79570	1137044	14.14
73	0.02398	0.97602	1888	78727	77783	1057474	13.43
74	0.02680	0.97320	2059	76839	75810	979691	12.75
75	0.02985	0.97015	2232	74780	73664	903881	12.09
76	0.03286	0.96714	2384	72548	71356	830217	11.44
77	0.03756	0.96244	2635	70164	68847	758861	10.82
78	0.03905	0.96095	2637	67529	66211	690014	10.22
79	0.04545	0.95455	2950	64892	63418	623804	9.61
80	0.05114	0.94886	3168	61943	60359	560386	9.05
81	0.05559	0.94441	3267	58775	57141	500027	8.51
82	0.06154	0.93846	3416	55508	53800	442886	7.98
83	0.06959	0.93041	3625	52092	50279	389087	7.47
84	0.08226	0.91774	3987	48466	46473	338807	6.99
85	0.09020	0.90980	4012	44480	42474	292334	6.57
86	0.09918	0.90082	4014	40468	38461	249861	6.17
87	0.10653	0.89347	3883	36454	34512	211400	5.80
88	0.11898	0.88102	3875	32571	30633	176888	5.43
89	0.12921	0.87079	3708	28695	26842	146255	5.10
90+	1.00000	0.00000	24988	24988	119413	119413	4.78

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Please use the above descriptions in deciding whom to contact to assist you with your information needs.