

# Fire Facts

Fires in Greater London

2018



#### About this publication

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## The London Fire Brigade

The London Fire Brigade is run by the London Commissioner (LFC) who is the fire and rescue authority for London.

For more information about LFB/LFC and the work of the London Fire Brigade visit www.london-fire.gov.uk.

#### Other publications in this series

The London Fire Brigade has other publications in the Fire Facts series:

Fires incident response times - here

Fire deaths in London - here

#### Other data available

The LFB publishes a range of data on the London Datastore. Much of these data are updated on a monthly basis. Go to the LFB page on the datastore to see what is available – https://data.london.gov.uk/publisher/lfb

We publish information about the incidents we attend and the attendance times for the first and second fire engines to arrive via our online mapping tool. This tool displays information at borough and ward level and is updated monthly. To use this tool visit <a href="https://lfbincidentmapping.london-fire.gov.uk/">https://lfbincidentmapping.london-fire.gov.uk/</a>

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## Introduction

This *Fire Facts* report sets out the key information on the fires we attend. We have a continuous record of the number of all fires since 1966 after the creation of the Greater London area. More detailed records on the numbers and types of fire start in 2000 when electronic recording systems were introduced by LFB.

## A brief history of the London Fire Brigade

The roots of a single fire service responsible for London start in 1833 when, under the leadership of James Braidwood, the LONDON FIRE ENGINE ESTABLISHMENT was formed. The London Fire Engine Establishment was a private enterprise, funded by the insurance companies and as such was responsible mainly for saving material goods from fire.

In June 1861, a huge conflagration at Cotton's Wharf, a riverside warehouse in Tooley Street, Southwark, claimed the life of James Braidwood, and resulted in insurance claims for more than £2 million (£1.6bn at today's value). The subsequent increase in insurance premiums caused many of the merchants of the City to protest to the Lord Mayor. A Select Committee of the House of Commons was appointed 'to enquire into the existing state of legislation and of any existing arrangements for the protection of life and property against fire in the Metropolis'.

In 1865, the Metropolitan Fire Brigade Act was passed, placing responsibility for the fire service in the metropolis upon the Board of Works. The London Fire Establishment continued to function until 1 January 1866, on which date the new METROPOLITAN FIRE BRIGADE formally came into existence. Captain Sir Eyre Massey Shaw, who had been appointed as the Superintendent of the London Fire Establishment after Braidwood's death, remained in charge of the newly formed brigade.

On 21 March 1889, by virtue of the Local Government Act 1888, the Metropolis, including the City, was converted into the Administrative County of London; the Metropolitan Board of Works went out of existence and its functions taken over by the London

County Council (LCC). In 1904, the London County Council changed the name of the service from the Metropolitan Fire Brigade to the LONDON FIRE BRIGADE.

In March 1938, ahead of the start of the Second World War, recruitment started in London for an Auxiliary Fire Service. Heavy air raids during the Blitz (1940/1941) had shown that regional firefighting resources were insufficient and the Government decided to unify the services. On 18 August 1941 the NATIONAL FIRE SERVICE (NFS) came into being.

The NFS continued to provide a service in peacetime after the war until 1 April 1948 when the Fire Service Act 1947 placed responsibility for fire brigades on county and 'county borough' councils. At this time the London Fire Brigade was once more under of the London County Council.

The local government of London changed again in 1965 when the Greater London area was formally defined and created by the London Government Act 1963, which came into force on 1 April 1965. This new area replaced the former administrative counties of Middlesex and London (the LCC), adding the City of London and absorbing parts of Kent, Surrey, Essex, a small part of Hertfordshire and the county boroughs of Croydon, East Ham and West Ham. This new area was governed by the newly formed GREATER LONDON COUNCIL (GLC). The GLC took over running the London Fire Brigade in 1965 which was expanded with the fire stations, fire appliances and fire staff from the areas absorbed into Greater London from surrounding counties, including most of the former county of Middlesex, and parts of Essex, Kent, Surrey, and a small part of Hertfordshire.

In 1986 the Greater London Council was abolished and the Local Government Act 1985 transferred the functions of fire service and civil defence to a newly formed LONDON FIRE AND CIVIL DEFENCE AUTHORITY (LFCDA) which took over on the 1 April 1986.

On 7 May 1998 Londoners voted in a referendum asking whether there was support for Greater London Authority, made up of an elected mayor and a separately elected assembly. Londoners voted 72 per cent in favour and the new governance structure was set out in the Greater London Authority Act 1999. On the 3 July 2000 the LFCDA was reconstituted as the LONDON FIRE AND EMERGENCY PLANNING AUTHORITY.

From 1 April 2018 under the Policy and Crime Act 2017 LFEPA was abolished and the LONDON FIRE COMMISSIONER (LFC) was established as a corporation sole, reporting to the Mayor of London, as the fire and rescue authority for London. The London Fire Brigade (LFB) is the fire and rescue service for the Greater London area and is run by the LFC.

The Mayor has appointed a Deputy Mayor for fire and resilience. The London Assembly provides scrutiny of the new arrangements via a Fire, Resilience and Emergency Planning Committee.

The Brigade sets out how its prevention, protection and response activities will best be used to mitigate the impact of risk on communities in its Integrated Risk Management Plan (IRMP). The Brigade's IRMP is known as the London Safety Plan; the most recent of which was the London Safety Plan 2017 agreed in March 2017. LSP2017 runs for four years from April 2017 to March 2021.

#### Scope of this document

In this report we focus on those incidents that happen within the boundaries of Greater London.

## Recording fire incidents

In 1966, fires were recorded using Fire Report forms K433 and K433H. Fire Report form K433 was introduced by the Home Office and Scottish Home Department in 1953 for recording every fire with the exception of chimney fires confined to (did not spread beyond) chimneys.

To simplify the information recording of smaller, less serious fires, a second form K433H was introduced in 1960 which captured a reduced set of information for fires that were confined to grassland, heathland, or

railway embankments. In 1970, K433H was revised and its use extended to cover a larger group of minor fires.

January 1978 saw the introduction of a new recording method; the Fire Damage Report – FDR1. FDR1 was revised in 1994.

Fire recording changed again in 2008 when the government introduced a national Incident Recording System (IRS) which was the first fully electronic fire recording system (prior to which records were submitted to government on paper and the national statistics from these based on sampling).

#### LFB electronic data collection

LFB started collecting incident data electronically in April 1999 via its Incident Recording Information System (IRIS). This included fire incidents although not FDR1 data. FDR1 data was captured electronically from 1 January 2005. LFB began supplying data to the new national IRS on 3 November 2008 via its Incident Management System (IMS), which replaced the IRIS.

## Categories of fires

A reportable fire is 'an event of uncontrolled burning involving flames, heat or smoke which was attended by a fire and rescue authority, or which was a late fire call'.

The categories for fire have remained unchanged since the introduction of the FDR1. Fires are categorised as either Primary, Secondary, Chimney or Late Call.

**Primary fires** are more serious fires that harm people or cause damage to property. More information is collected about primary fires than other types of fire. In the changes to the FDR1 in 1994 the definition for primary fires was broadened to include a small number of fires where there was no fire damage but there was damage from heat and smoke.

Primary fires have one or more of the following characteristics:

(a) all fires in buildings and vehicles that are not derelict or in outdoor structures.

- (b) any fires involving casualties or rescues,
- (c) any fire attended by five or more appliances.

A **late call** is when a fire and rescue authority is called to a fire when it is known, prior to the call, that the fire has already been extinguished. In this report, Late calls are included in the totals for primary fires. There are typically less than 20 late calls per year.

**Secondary fires** are less serious fires and less information is recorded about these fires. Secondary fires are the majority of outdoor fires including grassland and rubbish fires; unless they involve casualties or rescues, property loss or unless five or more appliances attend. Fires in derelict buildings are recorded as secondary fires.

Chimney fires are any fires in buildings where the flame was contained within the chimney structure and did not involve casualties, rescues or attendance by five or more pumping appliances.

Where fire crews record the motive for a fire they are categorised as follows:

- (a) Accidental fires, including those where the cause was not known or unspecified.
- (b) Deliberate fires, include those where deliberate ignition is merely suspected.

## Symbols and conventions used

#### Inner and outer London

Where we have made reference to inner and outer London we are using the classification used by the Office of National Statistics (ONS).

Based on the classification used by ONS, there are 14 inner London Boroughs and 19 outer London boroughs, as follows:

Inner London boroughs: Camden, City of London, Hackney, Hammersmith and Fulham, Haringey, Islington, Kensington and Chelsea, Lambeth, Lewisham, Newham, Southwark, Tower Hamlets, Wandsworth and Westminster.

Outer London boroughs: Barking and Dagenham, Barnet, Bexley, Brent, Bromley, Croydon, Ealing, Enfield, Greenwich, Harrow, Havering, Hillingdon, Hounslow, Kingston upon Thames, Merton, Redbridge, Richmond upon Thames. Sutton and Waltham Forest.

## **Symbols**

The following symbols have been used throughout:

- .. = not available or not applicable.
- = nil.

#### Data tables

Some tables in this publication have been truncated in the number of years presented so that the tables remain readable. The full tables with all years data is available to download from the London Datastore at data.london.gov.uk.

## Chapter 1 | Long term trends

This chapter looks at the long term time-series data for fires attended by the London Fire Brigade in Greater London since 1966. The only year since 1966 when data for 'all fires' isn't available is 1977 when, due to the fire service national strike that year, data was only available up until October.

#### Fires in Greater London

(Table 1.1)

In 1966 the total number of fires was 30,436. The number of fires each year remained above 30,000 until 2008 when, for the first time, the number of fires fell below 1966 levels to 29,653.

For most of the 36 years between 1969 and 2005, the total number of fires has fluctuated between 40,000 and 50,000 fires a year. Those years where the number of fires were at their highest coincide with the years with notably hot summers with continuous dry periods which cause many more grass fires. Eight of the UK's 10 warmest years on record have happened since 2002.

Chart 1: Total number of fires in Greater London, since 1966

The years with the highest numbers of fires have been:

- 1976 63,524 fires
- 2003 58,233 fires
- 1989 56,893 fires
- 1995 55,962 fires
- 2001 55,063 fires

The longest period showing a continuing trend is the years from 2003 – over which time the number of fires each year have consistently fallen. In recent years, the LFB have attended approximately 20,000 fires a year.

The reduction in fires since 2001 is linked to the introduction of the first Community Safety Strategy which the LFEPA approved in September 2000<sup>1</sup>. This strategy changed the focus of the London Fire Brigade from being a mainly reactive emergency response service to a proactive service with fire prevention at the core of its activities.

<sup>70 000</sup> 60 000 40 000 30 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000 10 000

<sup>&</sup>lt;sup>1</sup> Community Fire Safety Strategy; LFEPA report FEP9, 14 September 2000

## **Primary fires**

Between 1979 and 2003 the number of primary fires fluctuated between 20,000 and 22,000 fires per year. The most primary fires happened in 2001 (22,655). However, on average, primary fires since then have reduced, by around 850 fires per year up until 2014. In recent years the number has remained at just over 10,000 a year – half the number that happened during the 1980s and 1990s. [Chart 2]

Chart 2: Number of primary fires, since 1979

## Secondary fires

Periods of high numbers of secondary fires coincide with dry and hot summers. This is due to an increase in grass fires that happen more frequently in dry and hot periods. The high number of secondary fires in 1995 and 2003 also coincide with heat waves in those years. Secondary fires now are significantly lower than they were a decade before. See chapter 2 for further information on secondary fires. [Chart 3]

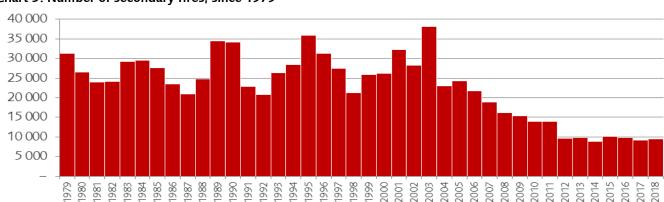
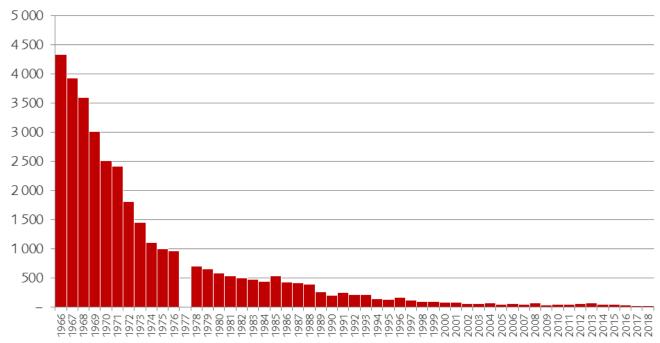


Chart 3: Number of secondary fires, since 1979

## **Chimney fires**

In the 1950s and 1960s, open fires were a common means of household heating. However, the air pollution from coal and wood fuels caused smog – most notably the 'Great London Smog' in December 1952. The government introduced its first Clean Air Act in 1956 to control domestic smoke pollution by introducing smokeless zones, where smokeless fuels had to be burnt. This also encouraged many households to change to gas or electric heating systems, which resulted in a dramatic decrease in chimney fires.

Chart 4: Number of chimney fires, since 1966



#### Fire related deaths

#### (Table 1.2)

Fire fatalities include any fatal casualty which is the direct or indirect result of injuries caused by a fire incident. Even if the fatal casualty dies subsequently, any fatality whose cause is attributed to a fire is included in the Brigade's and government published statistics. There are also occasional cases where a Coroner may rule that the fire was not the cause of death. As a Coroner's inquest will not have been held for all fire fatalities in the latest year reported here, the number of fatalities is subject to revision.

The number of fire deaths in London have been falling steadily since the late 1980s. Numbers increased in 2017 because of the multiple deaths from the Grenfell Tower fire.

Chart 5: Fire related fatalities per million resident population, since 1966



The factors that influence the chances of a person being involved in a fire becoming a fire fatality are complex. The main contributors include:

- how early the fire is discovered
- how quickly the brigade are called
- the materials (and/or their volume) involved in the fire
- the size and construction of the room/building
- the proximity of the victim to the fire
- the alertness and mobility of the victim and whether the person is alone
- the arrival time and response of the brigade

As well as work on fire prevention and an increase in smoke alarm ownership, legislative change has also contributed to the reduction in fire deaths. Most notably the Furniture and Furnishings (Fire Safety) Regulations 1988 which improved the fire retardants of home furniture and reduced the amount of fatally toxic smoke when ignited.

LFB publish a separate Fire Facts document *Fatal fires in London* which can be found on the London Datastore here.

## Fire related injuries

Between 1985 and 1999 the rate of fire injury per million resident population remained above 200 a year (with one exception in 1995). Since 2000 the rate of fire injury has been falling. Numbers of non-fatal casualties increased in 2017 partly because of those injured at the Grenfell Tower fire.

Chart 6: Fire related injuries per million resident population, since 1966

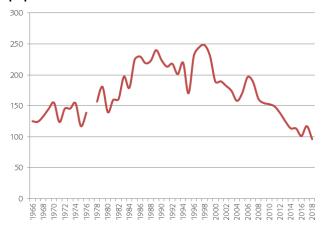


Table 1.1 Time series; total number of fires in Greater London, since 1966

		Primary fires	Secondary fires	Chimney fires	Not categorised (a)	Total
1966		14 825	11 268	4 3 4 3		30 436
1967		15 059	13 961	3 936		32 956
1968		13 550	15 770	3 602		32 922
1969		14 076	25 536	3 013	1 108	43 733
1970		15 306	33 505	2 521	503	51 835
1971		14 975	24 3 5 6	2 417	845	42 593
1972		15 963	30 364	1 813	19	48 159
1973		16 132	30 282	1 451	1 277	49 142
1974		15 397	28 800	1 108	742	46 047
1975		11 679	19 961	1 008	18 891	51 539
1976		14 387	32 261	964	15 912	63 524
1977	(b)					
1978	(c)			703	43 433	44 136
1979		20 370	31 306	655		52 331
1980		19 571	26 493	581		46 645
1981		19 790	24 003	538		44 331
1982		20 551	24 162	502		45 215
1983		20 869	29 196	484		50 549
1984		21 133	29 504	439		51 076
1985		22 202	27 580	544		50 326
1986		22 119	23 521	430		46 070
1987		21 963	20 886	419		43 268
1988		22 550	24 789	394		47 733
1989		22 199	34 433	261		56 893
1990		21 635	34 155	204		55 994
1991		21 050	22 877	257		44 184
1992		20 684	20 732	222		41 638
1993		20 025	26 303	215		46 543
1994		19 080	28 463	150		47 693
1995		19 892	35 932	138		55 962
1996		20 414	31 380	165		51 959
1997		20 148	27 406	124		47 678
1998		19 677	21 295	99		41 071
1999		20 411	25 947	97		46 455

<sup>(</sup>a) During industrial disputes over many periods between 1969 and 1976 no details were recorded of the circumstances in which fire started

<sup>(</sup>b) Data is only available until 31 October 1977 (36, 151 fires and 700 chimney fires) due to a fire service national strike

<sup>(</sup>c) There is no data available on the split between primary and secondary fires for 1978

Table 1.1 Time series; total number of fires in Greater London, since 1966 (continued)

	Primary fires	Secondary fires	Chimney fires	Not categorised (a)	Total
2000	22 334	26 135	85		48 554
2001	22 655	32322	86		55 063
2002	20 271	28 213	60		48 544
2003	20 081	38 084	68		58 233
2004	17 788	23 023	72		40 883
2005	16 167	24 218	56		40 441
2006	15 373	21 674	66		37 113
2007	14 115	18 920	49		33 084
2008	13 372	16 211	70		29 653
2009	14 178	15 379	34		29 591
2010	13 522	13 895	50		27 467
2011	12 911	13 880	56		26 847
2012	11 678	9 697	68		21 443
2013	11 289	9 791	78		21 158
2014	10 676	8 8 9 8	48		19 622
2015	10 820	10 054	49		20 923
2016	10 588	9 766	37		20 391
2017	10 756	9 082	25		19 863
2018	10 214	9 433	28		19 675

<sup>(</sup>a) During industrial disputes over many periods between 1969 and 1976 no details were recorded of the circumstances in which fire started

<sup>(</sup>b) Data is only available until 31 October 1977 (36, 151 fires and 700 chimney fires) due to a fire service national strike

<sup>(</sup>c) There is no data available on the split between primary and secondary fires for 1978

Table 1.2 Time series; fire related fatalities and injuries, since 1966

	rate	number			number	
Injury rate per million pop	Fatality rate per million pop	Population estimates	Injuries	Fatalities		
125.2	21.0	7 810 000	978	164	1966	
124.5	16.4	7 761 000	966	127	1967	
133.4	20.0	7 693 000	1 026	154	1968	
145.2	21.9	7 619 000	1 106	167	1969	
155.1	18.9	7 530 000	1 168	142	1970	
123.9	19.9	7 529 400	933	150	1971	
145.5	18.5	7 442 800	1 083	138	1972	
145.6	18.9	7 362 400	1 072	139	1973	
154.3	24.6	7 263 600	1 121	179	1974	
117.3	24.7	7 179 000	842	177	1975	
139.1	19.0	7 089 100	986	135	1976	
		7 012 000			1977	
157.1	18.6	6 946 800	1 091	129	1978	
180.9	21.9	6 887 600	1 246	151	1979	
139.8	28.6	6 850 600	958	196	1980	
159.7	27.2	6 805 600	1 087	185	1981	
161.0	24.7	6 765 100	1 089	167	1982	
197.4	24.3	6 753 000	1 333	164	1983	
179.1	18.5	6 754 700	1 210	125	1984	
224.8	22.8	6 767 000	1 521	154	1985	
229.8	18.3	6 774 200	1 557	124	1986	
219.0	28.5	6 765 600	1 482	193	1987	
223.1	21.7	6 729 300	1 501	146	1988	
240.1	19.7	6 751 600	1 621	133	1989	
223.7	17.8	6 798 800	1 521	121	1990	
213.3	15.2	6 829 300	1 457	104	1991	
218.0	17.6	6 829 400	1 489	120	1992	
201.3	12.0	6 844 500	1 378	82	1993	
219.8	12.5	6 873 500	1 511	86	1994	
170.3	12.0	6 913 100	1 177	83	1995	
231.0	11.3	6 974 400	1 611	79	1996	
244.9	13.7	7 014 800	1 718	96	1997	
248.1	11.3	7 065 500	1 753	80	1998	
230.8	10.9	7 153 900	1 651	78	1999	

Source: Population figures ONS mid-year estimates

Table 1.2 Time series; fire related fatalities and injuries, since 1966 (continued)

number			number	rate	
	Fatalities	Injuries	Population estimates	Fatality rate per million pop	Injury rate per million pop
2000	59	1 369	7 236 700	8.2	189.2
2001	81	1 392	7 336 909	11.0	189.7
2002	78	1 346	7 381 870	10.6	182.3
2003	86	1 298	7 448 221	11.5	174.3
2004	52	1 193	7 542 613	6.9	158.2
2005	60	1 306	7 642 969	7.9	170.9
2006	56	1 515	7 701 603	7.3	196.7
2007	51	1 469	7 773 547	6.6	189.0
2008	41	1 271	7 869 882	5.2	161.5
2009	55	1 236	7 991 239	6.9	154.7
2010	59	1 239	8 107 073	7.3	152.8
2011	55	1 227	8 217 475	6.7	149.3
2012	42	1 153	8 308 369	5.1	138.8
2013	49	1 054	8 416 535	5.8	125.2
2014	29	972	8 539 400	3.4	113.8
2015	33	984	8666900	3.8	113.5
2016	46	889	8769700	5.2	101.4
2017	102	1 036	8825000	11.6	117.4
2018	45	858	8908100	5.1	96.3
2018	45	858	8908100	5.1	

Source: Population figures ONS mid-year estimates

## Chapter 2 | Where fires happen

This chapter looks at the property types where fires occur, the reason for fire and the number of fires in each London borough. This chapter looks at the data since 2000 where more detailed electronic records are available.

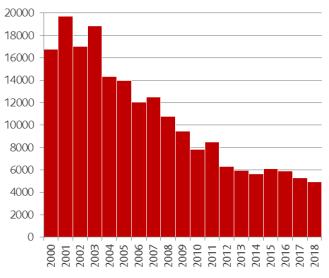
## **Property types**

#### (Table 2.1)

For many years, fires involving rubbish and waste were the largest group of fires. In 2001, the highest year for rubbish fires in recent decades, the number was 19,741 (36 per cent). In comparison, fires in dwellings in 2001 accounted for 16 per cent of fires and fires involving transport and derelict vehicles accounted for 25 per cent of fires.

Rubbish fires, and those involving transport and derelict vehicles, have seen a dramatic decline over the last 15 years. [Chart 7]

Chart 7: Fires involving rubbish, since 2000

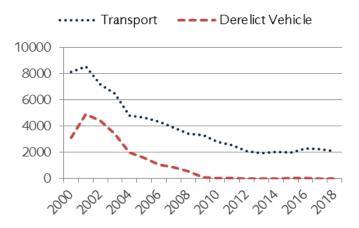


We attribute the reduction in rubbish fires to our work on arson prevention, work by local authorities to remove rubbish and to stop fly tipping and an increase in social responsibility towards recycling and waste disposal.

Fires in transport and derelict vehicles have also reduced over the last 15 years. [Chart 8] The number

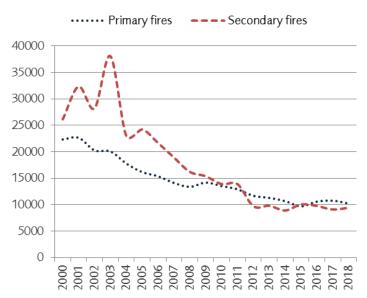
of fires in derelict vehicles has been linked to the prices for scrap metal; when scrap metal prices are very low and old cars have little or no residual value, derelict car fires are higher.

Chart 8: Total number of fires involving transport and derelict vehicles, since 2000



The reductions in rubbish and vehicle fires has led to a change in the distribution between primary and secondary fires. In most years the number of secondary fires is higher than the number of primary fires (by as much as 53 per cent). In 2012, this trend reversed with the number of primary fires exceeding the number of secondary fires. This reversal has only happened once before, in 1987. [Chart 9]

Chart 9: Number of primary and secondary fires, since 2000



### Fires in buildings

Primary fires in buildings are categorised as either dwellings, other residential or non-residential:

- Dwellings include all types of private residences and homes. It covers houses, flats, houses in multiple occupation (HMOs) and self-contained sheltered housing.
- Other residential covers places of communal living and where people receive care, like residential care homes. It also includes short term accommodation residential accommodation like student halls, hostels and hotels.
- Non-residential includes all types of commercial building as well as private outdoor structures and outhouses.

Where a building has one or more uses, we record the property type for the area where the fire started; for example where a fire occurs in a shop with a flat above, we would record a fire in a shop.

Fires in buildings have reduced over the last 15 years. [Chart 10]

Chart 10: Primary fires in buildings, since 2000



Primary fires in non-residential buildings have seen the largest decrease, with a reduction of 48 per cent since 2000. Fires in dwellings have reduced by 40 per cent. The number of fires in other residential buildings has changed less significantly over the last 18 years (down seven per cent).

#### Fire motive

(Table 2.2)

Firefighters record the suspected reason (motive) for the start of a fire. Fires are categorised as: accidental, deliberate or unknown, according to the probable cause, as observed at the scene.

Deliberate fires are those where a fire is suspected to have been started deliberately (but not always with a malicious intent), for example some fires are started by children.

The motive reflects the nature of the 'uncontrolled burning'. For example, whilst a bonfire will be started deliberately, if it gets out of control and sets light to a nearby shed, the motive will be recorded as accidental; the uncontrolled shed fire was an accidental consequence of the bonfire.

The fall in deliberate fires since 2003 reflects the reduction seen in rubbish and derelict vehicle fires (where the motives for these are often deliberate). [Chart 11]

Chart 11: Fires by motive, since 2000



The perceived increase in accidental fires around 2009 is linked to a policy change around the recording of fires of 'unknown' motive. If a fire crew are not sure about the suspected cause of the fire, they will now consult with a fire investigation officer so that a motive can be determined, rather than record the incident as not known. In national fire statistics, the 'not known' motive is grouped with accidental as this is the most likely motive when the cause is unclear (as deliberately started fires are usually more discernible).

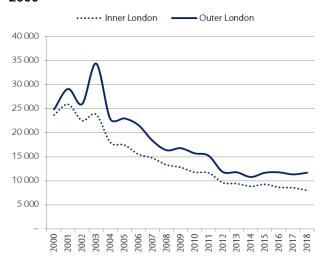
## Fires in the London boroughs

#### All fires

## (Table 2.3)

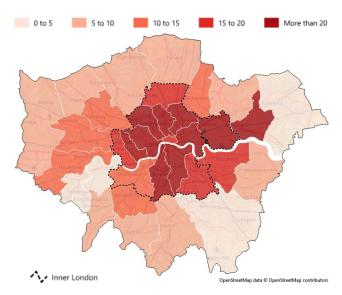
The number of all fires have been reducing at a similar rate when comparing inner and outer London. [Chart 12]

Chart 12: All fires, inner and outer London, since 2000

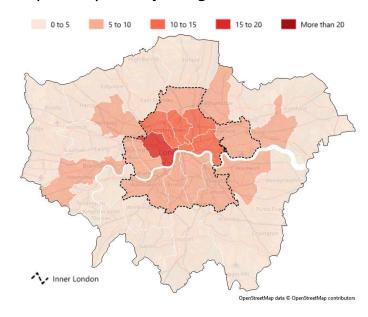


Map 1 shows how many fires there were per km² in each borough in 2000, ten boroughs had over 20 fires per km², nine of which were within inner London. The second map shows that in 2018 only five of the 19 boroughs in outer London had more than five fires per km². Westminster was the only borough in 2018 that had up to 15 to 20 fires per km², the rest had less than 15.

Map 1: Fires per km² by borough, in 2000



Map 2: Fires per km2 by borough, in 2018



The reduction rates within the boroughs have been different. The boroughs with the greatest numbers of fires – when comparing 2000 with 2018 – are shown in the table below.

Extract from table 2.3: Number of fires for the top five inner and outer London Boroughs, 2000 and 2018

#### Inner London boroughs with highest number of fires

	2000	2018
Tower Hamlets	3211 Westminster	986
Newham	3011 Newham	783
Southwark	2662 Tower Hamlets	755
Hackney	2276 Southwark	698
Lambeth	2178 Lambeth	665

#### Outer London boroughs with highest number of fires

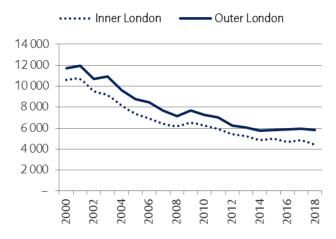
	2000	2018
Greenwich	2341 Hillingdon	853
Barking and Dagenham	1936 Waltham Forest	791
Bromley	1747 Greenwich	790
Hillingdon	1632 Croydon	769
Croydon	1623 Enfield	738

## **Primary fires**

(Table 2.5)

The change in the number of primary fires in inner and outer London follows a similar pattern to all fires, with similar reductions in both areas and with there being more primary fires in outer London compared to inner London.

Chart 13: Primary fires, inner and outer London, since 2000



The boroughs with the greatest numbers of primary fires – when comparing 2000 with 2018 – are shown in the table below.

Extract from table 2.5: Number of primary fires for the top five inner and outer London Boroughs, 2000 and 2018.

Inner London boroughs with highest number of primary fires

	2000		2018
Newham	1 257	Newham	417
Southwark	987	Westminster	414
Tower Hamlets	966	Southwark	384
Lambeth	938	Hackney	379
Westminster	934	Tower Hamlets	379

## Outer London boroughs with highest number of primary fires

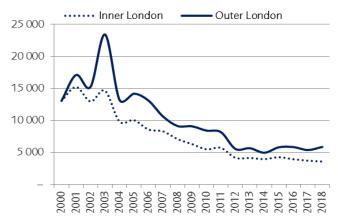
	2000		2018
Greenwich	893	Croydon	442
Croydon	843	Barnet	414
Ealing	817	Greenwich	409
Hillingdon	817	Hillingdon	409
Brent	795	Enfield	387

## Secondary fires

(Table 2.6)

The change in the number of secondary fires in inner and outer London follows a similar pattern to all fires, with similar reductions in both areas. Outer London makes up around 80 percent of London's area, but has a lower proportion of secondary fires (59 percent for the five years to 2018). [Chart 14]

Chart 14: Secondary fires, inner and outer London, five years to 2018



The boroughs with the greatest numbers of secondary fires – when comparing 2000 with 2018 – are set out in the table below.

Extract from table 2.6: Number of secondary fires for the top 5 inner and outer London Boroughs; 2000 and 2018.

Inner London boroughs with highest number of secondary fires

	2000		2018
Tower Hamlets	2 242	Westminster	571
Newham	1 753	Tower Hamlets	376
Southwark	1 672	Newham	366
Hackney	1 366	Southwark	314
Lambeth	1 237	Haringey	301

## Outer London boroughs with highest number of secondary fires

	2000		2018
Greenwich	1 447	Waltham Forest	494
Barking and Dagenham	1 219	Hillingdon	443
Bromley	1 000	Hounslow	409
Hounslow	869	Bromley	406
Bexley	847	Greenwich	381

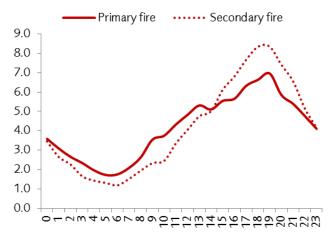
## When fires happen

## Hour of the day

(Table 2.9)

Primary and secondary fires follow a similar daily profile. The lowest period is at 6am and the highest period is at 7pm. [Chart 15]

Chart 15: Proportion of fires (%) by hour of the day, five years to 2018



## Month of the year

(Table 2.10)

Primary fires vary little throughout the year, with slightly more in the spring and summer months compared to autumn and winter.

Contrastingly, there is significant seasonality with secondary fires, mostly due to the increase in outdoor fires (grass and rubbish) in periods of hot and dry weather. [Chart 16]

Chart 16: Proportion of fires (%) by month of the year, five years to 2018

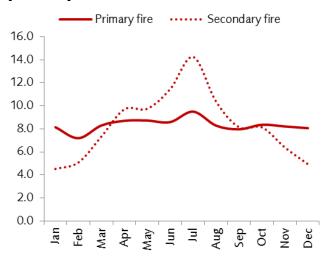


Table 2.1 Fires, by fire and property type categories, since 2000

	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total fires	48554	40441	27467	26 847	21 443	21 158	19 622	20 923	20 391	19 863	19 675
Chimney fires	85	56	50	56	68	78	48	49	37	25	28
Dwelling	77	51	47	52	62	68	44	41	33	20	26
Other Residential	-	-	1	1	-	_	-	1	1	1	-
Non Residential	8	5	2	3	6	10	4	7	3	4	2
Primary fires	22334	16167	13522	12 911	11 678	11 289	10 676	10 820	10 588	10 756	10 214
Dwelling	9178	7311	6821	6 650	6 471	6 197	5 893	5 840	5 558	5 625	5 461
Other Residential	351	491	591	446	472	480	386	377	286	328	326
Non Residential	3524	2936	2566	2 5 6 5	2 180	2 213	1 924	2 1 2 6	1 975	2 083	1818
Transport	8171	4679	2816	2 5 7 5	2 094	1 942	2 039	2 001	2 3 1 6	2 232	2 081
Outdoor	1110	750	728	675	461	457	434	476	453	488	528
Secondary fires	26135	24218	13895	13 880	9 697	9 791	8 898	10 054	9 766	9 082	9 433
Rubbish	16784	13993	7860	8 507	6 292	5 945	5 649	6 092	5920	5315	4943
Open Land	4056	6988	5598	4737	2 957	3 361	2 782	3 473	3381	3297	4014
Other Outdoor Structure	1144	1155	308	518	389	439	433	455	420	451	460
Derelict Building	1006	488	66	76	46	35	24	18	29	12	11
Derelict Vehicle	3145	1594	63	42	13	11	10	16	16	7	5

Table 2.2 Fires, by property type category and motive, since 2000

number											
	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018
All fires	48 554	40 441	27 467	26 847	21 443	21 158	19 622	20 923	20 391	19 863	19 675
Accidental	17 675	15 373	18 237	19 131	16 411	16 614	15 135	16 110	15 315	15 108	15 055
Deliberate	26 614	19 653	6 721	6 9 5 0	4719	4166	4 086	4 223	4 220	3 835	3 271
Not known	4 265	5 415	2 5 0 9	766	313	378	401	590	856	920	1 349
Chimney Fire Total	85	56	50	56	68	78	48	49	37	25	28
Accidental	79	53	50	56	68	76	48	48	37	25	28
Deliberate	4	-	_	_	_	2	_	_	_	_	_
Not known	2	3	-	-	-	-	-	1	-	-	-
Primary Fire Total	22 334	16 167	13 522	12 911	11 678	11 289	10 676	10 820	10 588	10 756	10 214
Accidental	11 730	9 710	10 012	9 673	9 443	9 381	8 754	8 760	8 3 2 4	8 571	8 251
Deliberate	9 305	5 946	3 048	3 078	2 163	1 783	1 786	1 878	2 0 2 2	1 901	1 5 7 8
Not known	1 299	511	462	160	72	125	136	182	242	284	385
Secondary Fire Total	26 135	24 218	13 895	13 880	9 697	9 791	8 898	10 054	9 766	9 082	9 433
Accidental	5 866	5 610	8 175	9 402	6 900	7 157	6 3 3 3	7 302	6 9 5 4	6 5 1 2	6 776
Deliberate	17 305	13 707	3 673	3 872	2556	2 381	2 300	2 3 4 5	2 198	1 934	1 693
Not known	2 964	4 901	2 047	606	241	253	265	407	614	636	964

Table 2.3 All fires, by London borough, since 2000

number	-										
	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018
London total	48 554	40 441	27467	26847	21443	21158	19622	20923	20391	19863	19675
Inner London	23 695	17 449	11 748	11 636	9 609	9 398	8 841	9 257	8 636	8 541	7 996
Camden	1 3 2 9	1 070	799	743	610	731	631	639	592	588	574
City of London	149	92	101	107	89	104	97	101	89	79	93
Hackney	2 276	1 508	783	854	748	686	696	668	605	646	636
Hammersmith and Fulham	800	628	509	532	409	408	360	393	385	344	330
Haringey	1 360	1 149	836	804	595	544	560	650	643	639	627
Islington	1 706	1 183	675	750	554	537	563	568	465	534	496
Kensington and Chelsea	650	531	399	359	339	320	315	325	286	318	264
Lambeth	2 178	1 299	922	937	834	792	787	751	762	675	665
Lewisham	1 592	1 358	946	855	661	717	631	712	610	633	574
Newham	3 011	1 809	1364	1 215	901	929	822	803	876	806	783
Southwark	2 662	1 822	1 197	1 250	929	943	901	920	784	782	698
Tower Hamlets	3 211	2 810	1 438	1 464	1 173	1 029	977	1 171	1 043	878	755
Wandsworth	1 186	959	773	735	686	668	576	649	566	631	515
Westminster	1 585	1 231	1 006	1 031	1 081	990	925	907	930	988	986
Outer London	24 847	22 992	15 719	15 211	11 834	11 760	10 781	11 666	11 751	11 319	11 67
Barking and Dagenham	1 936	1 770	1 072	961	651	715	603	675	673	610	510
Barnet	1 295	1 242	869	918	719	710	609	721	632	682	721
Bexley	1 327	1 467	945	701	550	501	542	664	580	591	613
Brent	1 301	1 069	710	795	644	687	585	664	665	677	657
Bromley	1 747	1 787	1 031	1131	803	715	750	902	950	744	731
Croydon	1 623	1 410	1 101	1176	952	905	839	820	871	812	769
Ealing	1 463	1 350	873	872	756	752	654	694	744	745	709
Enfield	1 450	1 470	963	942	825	817	724	734	753	732	738
Greenwich	2 3 4 1	2 078	1 256	1 191	796	786	679	719	692	727	790
Harrow	681	567	433	457	371	372	332	339	342	403	391
Havering	1 372	1 542	901	826	532	568	621	662	706	598	626
Hillingdon	1 632	1 252	955	1019	869	829	746	812	877	818	853
Hounslow	1 562	1 269	946	764	670	674	566	680	656	644	726
Kingston upon Thames	551	477	421	352	299	301	299	257	291	286	341
Merton	986	765	561	490	399	432	381	400	413	368	383
Redbridge	1 057	1 112	883	795	574	587	561	577	587	565	655
Richmond upon Thames	535	447	391	393	322	296	299	296	294	293	288
Sutton	828	755	568	541	435	473	406	381	356	354	381
		- 1									

Table 2.4 Chimney fires, by London borough, since 2000

	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018
	2000	2005	2010	2011	2012	2015	2014	2015	2010	2017	2010
London total	85	56	50	56	68	78	48	49	37	25	28
Inner London	34	17	14	13	16	25	12	21	8	7	1
Camden	5	2	2	0	3	3	-	2	1	-	•
City of London	-	-	-	-	_	_	_	-	-	-	-
Hackney	3	2	-	2	1	0	3	3	1	_	•
Hammersmith and Fulham	1	-	-	0	2	1	_	_	1	_	•
Haringey	2	2	3	1	1	2	2	3	1	1	4
Islington	4	1	-	1	1	3	1	1	_	_	-
Kensington and Chelsea	3	-	2	-	1	2	-	3	-	-	-
Lambeth	3	-	1	2	2	2	2	2	-	1	
Lewisham	2	2	_	0	3	3	1	2	2	1	-
Newham	1	3	1	_	_	1	1	_	_	-	-
Southwark	3	-	1	2	0	3	1	_	_	1	-
Tower Hamlets	3	1	_	_	0	_	_	1	_	1	-
Wandsworth	1	4	3	4	2	3	1	2	_	_	2
Westminster	3	-	1	1	0	2	-	2	2	2	
Outer London	51	39	36	43	52	53	36	28	29	18	17
Barking and Dagenham	-	-	1	1	-	1	1	-	2	-	
Barnet	2	1	2	3	4	4	1	3	2	-	-
Bexley	3	4	-	2	1	1	1	4	2	-	-
Brent	2	-	-	2	1	2	1	_	2	_	-
Bromley	4	7	6	5	8	8	3	3	_	1	2
Croydon	7	2	2	3	7	7	1	2	1	1	
Ealing	-	3	1	2	1	1	_	_	_	_	
Enfield	3	5	1	4	2	2	4	2	2	1	2
Greenwich	1	3	1	2	6	-	1	1	1	2	-
Harrow	1	-	1	1	2	_	2	1	1	1	-
Havering	6	4	1	1	2	2	4	2	2	2	
Hillingdon	3	-	5	4	1	4	3	1	1	-	
Hounslow	5	2	_	3	3	1	2	1	_	_	
Kingston upon Thames	4	1	2	2	1	3	1	_	2	1	
Merton	1	2	2	0	2	3	3	1	2	1	-
Redbridge	1	2	1	1	1	3	1	1	2	_	-
Richmond upon Thames	2	2	2	1	2	8	3	2	4	4	3
Sutton	5	-	5	3	5	1	1	2	3	3	2
Waltham Forest	1	1	3	3	3	2	3	2	_	1	

Table 2.5 Primary fires, by London borough, since 2000

number											
	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018
London total	22 334	16 167	13 522	12 911	11 678	11 289	10 675	10 820	10588	10756	10214
Inner London	10 603	7 389	6 246	5 912	5 439	5 237	4 883	4 983	4 701	4 826	4 413
Camden	708	563	473	407	390	422	358	367	321	361	335
City of London	115	57	68	83	73	78	67	75	61	62	57
Hackney	907	635	431	484	415	413	412	388	352	369	379
Hammersmith and Fulham	499	384	315	326	260	265	228	245	261	233	212
Haringey	705	547	427	396	321	308	310	355	336	310	322
Islington	766	501	384	410	329	300	320	331	275	302	297
Kensington and Chelsea	416	293	261	245	246	217	232	221	213	237	198
Lambeth	938	716	536	566	567	484	455	431	424	382	371
Lewisham	776	546	512	437	414	405	365	410	362	370	343
Newham	1 257	671	532	491	427	478	408	388	439	456	417
Southwark	987	613	628	561	512	478	467	481	444	460	384
Tower Hamlets	966	688	596	538	493	452	402	435	419	436	379
Wandsworth	629	461	438	435	417	420	369	411	350	391	305
Westminster	934	714	645	533	575	517	490	445	444	457	414
Outer London	11 724	8 778	7 276	6 999	6 239	6 052	5 791	5 837	5 885	5927	5799
Barking and Dagenham	717	546	346	338	301	293	260	305	327	297	270
Barnet	682	582	470	449	424	415	353	398	364	402	414
Bexley	477	389	365	311	304	247	267	298	271	294	275
Brent	795	576	428	413	407	402	374	421	370	387	382
Bromley	743	570	437	446	378	351	329	312	394	375	323
Croydon	843	632	611	633	509	471	471	442	489	486	442
Ealing	817	612	501	475	408	414	397	369	389	395	356
Enfield	703	586	470	455	419	432	392	384	397	393	387
Greenwich	893	595	487	474	396	377	386	376	372	391	409
Harrow	389	276	242	243	211	226	210	185	182	223	196
Havering	577	410	327	320	240	253	260	269	296	252	287
Hillingdon	817	543	486	513	446	429	420	424	489	472	409
Hounslow	688	530	395	356	342	335	308	337	311	336	316
Kingston upon Thames	312	251	226	167	163	168	168	153	176	139	174
Merton	457	297	261	237	218	211	199	218	199	170	197
Redbridge	539	442	402	335	296	278	298	285	264	306	324
Richmond upon Thames	280	204	193	193	178	172	175	175	163	163	146
Sutton	386	275	269	265	249	256	222	179	184	174	196
Waltham Forest	609	462	360	376	350	322	302	307	248	272	296

Table 2.6 Secondary fires, by London borough, since 2000

number											
	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018
London total	26 135	24 218	13 895	13 880	9 697	9 791	8 898	10 051	9 766	9 082	9 433
Inner London	13 058	10 043	5 488	5 711	4 154	4 136	3 946	4 253	3 927	3 708	3 572
Camden	616	505	324	336	217	306	272	270	270	227	238
City of London	34	35	33	24	16	26	30	26	28	17	36
Hackney	1 366	871	352	368	332	273	281	277	252	277	256
Hammersmith and Fulham	300	244	194	206	147	142	132	148	123	111	117
Haringey	653	600	406	407	273	234	248	292	306	328	301
Islington	936	681	291	339	224	234	242	236	190	232	199
Kensington and Chelsea	231	238	136	114	92	101	83	101	73	81	66
Lambeth	1 237	583	385	369	265	306	330	318	338	292	293
Lewisham	814	810	434	418	244	309	265	300	246	262	231
Newham	1 753	1 135	831	724	474	450	413	415	437	350	366
Southwark	1 672	1 209	568	687	417	462	433	439	340	321	314
Tower Hamlets	2 242	2 121	842	926	680	577	575	735	624	441	376
Wandsworth	556	494	332	296	267	245	206	236	216	240	208
Westminster	648	517	360	497	506	471	436	460	484	529	571
Outer London	13 072	14 175	8 407	8 169	5 543	5 655	4 952	5 798	5 837	5 374	5 857
Barking and Dagenham	1 219	1 224	725	622	350	421	342	370	344	313	239
Barnet	611	659	397	466	291	291	255	320	266	280	307
Bexley	847	1 074	580	388	245	253	274	361	307	297	338
Brent	504	493	282	380	236	283	211	243	293	290	275
Bromley	1 000	1 210	588	680	417	356	418	587	556	368	406
Croydon	773	776	488	540	436	427	367	376	381	325	326
Ealing	646	735	371	395	347	337	257	325	355	350	352
Enfield	744	879	492	483	404	383	328	348	354	338	349
Greenwich	1 447	1 480	768	715	394	409	292	342	319	334	381
Harrow	291	291	190	213	158	146	119	153	159	179	195
Havering	789	1 128	573	505	290	313	356	390	408	344	338
Hillingdon	812	709	464	502	422	396	323	387	387	346	443
Hounslow	869	737	551	405	325	338	256	342	345	308	409
Kingston upon Thames	235	225	193	183	135	130	130	104	113	146	166
Merton	528	466	298	253	179	218	179	181	212	197	186
Redbridge	517	668	480	459	277	306	261	291	321	259	331
Richmond upon Thames	253	241	196	199	142	116	121	119	127	126	139
Sutton	437	480	294	273	181	216	183	199	169	177	183
Waltham Forest	550	700	477	508	314	316	280	360	421	397	494

Table 2.7 Fire related fatalities, by London borough, since 2000

	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017	201
London total	59	60	59	55	42	49	29	32	46	102	4
Inner London	23	27	26	20	19	26	10	16	23	86	1
Camden	3	2	4	_	2	2	_	1	2	3	
City of London	-	-	_	_	_	1	_	_	-	-	
Hackney	5	4	2	1	2	1	2	1	1	1	
Hammersmith and Fulham	1	1	2	2	2	4	-	2	1	-	
Haringey	-	2	2	2	_	2	1	1	3	3	
Islington	1	3	3	-	2	1	_		3	-	
Kensington and Chelsea	3	-	_	1	1	_	_		2	72	
Lambeth	1	5	1	1	4	2	_	2	1	3	
Lewisham	-	3	3	2	1	1	4	_	2	-	
Newham	3	1	2	2	-	4	1	4	1	1	
Southwark	1	1	3	5	2	2	_	2	3	-	
Tower Hamlets	3	-	1	2	1	1	1	1	-	1	
Wandsworth	2	3	2	1	_	3	_	2	3	1	
Westminster	-	2	1	1	2	2	1	-	1	1	
Outer London	36	33	33	35	23	23	19	16	23	16	
Barking and Dagenham	-	1	1	2	1	-	1	-	1	2	
Barnet	3	1	3	2	1	1	1	-	-	1	
Bexley	3	-	1	1	-	-	-	1	-	-	
Brent	-	1	2	8	3	2	-	1	3	-	
Bromley	5	-	4	2	3	-	1	1	2	1	
Croydon	1	2	3	2	2	1	3	2	1	-	
Ealing	2	2	5	2	2	1	2	4	3	1	
Enfield	2	2	1	-	2	4	1	-	1	2	
Greenwich	2	-	3	3	1	2	2	1	3	1	
Harrow	6	1	2	_	_	_	2	_	_	_	
Havering	-	-	-	1	2	1	-	-	1	4	
Hillingdon	-	10	-	1	1	4	-	-	-	1	
Hounslow	-	2	1	2	2	3	1	3	1	-	
Kingston upon Thames	2	1	-	2	-	_	1	1	1	1	
Merton	1	-	1	_	_	1	_	_	1	_	
Redbridge	3	1	2	2	-	_	1	1	1	_	
Richmond upon Thames	1	2	_	_	2	_	_	_	1	_	
Sutton	2	2	2	_	_	2	_	1	1	1	
Waltham Forest	3	5	2	5	1	1	3	_	2	1	

Table 2.8 Fire related injuries, by London borough, since 2000

	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018
London total	1 306	1 239	1 227	1 153	1 054	972	984	889	1036	858
Inner London	599	632	555	537	500	491	455	390	533	366
Camden	35	29	40	33	42	34	24	18	17	14
City of London	3	1	-	3	-	7	1	4	1	
Hackney	52	58	43	56	28	30	37	31	30	38
Hammersmith and Fulham	38	26	17	31	18	32	14	27	50	14
Haringey	49	52	55	50	29	47	42	14	41	32
Islington	37	44	34	20	22	26	23	31	30	5
Kensington and Chelsea	29	43	28	31	11	11	45	26	106	18
Lambeth	51	41	48	55	57	53	46	36	29	27
Lewisham	66	83	47	64	72	36	41	39	40	39
Newham	65	62	60	34	38	40	23	38	47	36
Southwark	29	42	62	34	60	44	51	45	31	29
Tower Hamlets	54	54	25	53	43	29	39	16	31	17
Wandsworth	37	53	50	35	40	51	42	40	43	27
Westminster	54	44	46	38	40	51	27	25	37	23
Outer London	707	607	672	616	554	481	529	499	503	492
Barking and Dagenham	43	38	25	45	32	24	22	28	28	36
Barnet	48	38	37	34	32	21	32	28	48	30
Bexley	32	21	33	19	18	11	19	28	25	24
Brent	51	48	53	37	40	43	51	38	30	34
Bromley	26	22	39	37	23	20	24	20	19	30
Croydon	53	54	59	72	60	52	48	34	45	33
Ealing	72	35	45	37	44	54	35	41	37	39
Enfield	43	37	40	40	48	37	51	45	59	27
Greenwich	41	29	38	43	43	22	39	22	27	29
Harrow	34	43	28	14	18	10	8	21	14	19
Havering	17	24	19	30	19	30	26	20	26	32
Hillingdon	40	25	42	32	25	25	28	40	26	22
Hounslow	42	44	44	40	37	24	34	36	31	24
Kingston upon Thames	15	20	13	14	17	8	11	10	6	13
Merton	15	21	21	10	10	13	27	18	15	11
Redbridge	33	51	56	39	28	26	29	28	15	31
Richmond upon Thames	25	13	14	24	7	8	13	7	11	11
Sutton	25	18	29	28	15	19	12	11	18	24
Waltham Forest	52	26	37	21	38	34	20	24	23	23

Table 2.9 Fires by hour of the day, since 2000

	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018	Averag distribution
	2000	2005	2010	2011	2012	2013	2014	2015	2010	2017	2018	distribution
Primary fire	22 334	16 167	13 522	12 911	11 678	11 289	10 675	10 820	10 588	10 756	10 214	_
0	1 087	745	536	509	431	385	370	387	359	394	396	3.
1	946	690	501	466	400	355	343	321	333	355	289	3.
2	857	632	413	425	326	297	271	264	295	291	293	2.
3	662	483	372	333	286	254	253	263	255	241	233	2
4	499	396	311	318	269	203	206	194	221	204	221	2.
5	377	329	234	228	204	210	187	168	185	185	192	1.
6	360	258	249	216	208	217	165	198	196	191	182	1.
7	349	322	289	259	260	230	216	238	230	202	225	2.
8	533	411	382	353	336	352	258	305	267	295	273	2.
9	565	466	430	398	371	390	391	399	383	368	342	3
10	682	503	475	437	459	413	425	395	402	393	377	3.8
11	791	588	556	502	525	474	437	475	449	479	459	4.3
12	870	693	606	613	575	539	503	517	509	526	508	4.8
13	924	692	695	648	627	562	564	579	563	577	534	5.3
14	988	769	641	652	619	635	542	528	539	546	553	5.
15	1 038	758	698	696	605	609	576	605	585	578	598	5
16	1 119	810	728	676	689	623	621	648	584	579	570	5.3
17	1 526	921	893	786	703	728	718	682	634	677	644	6.3
18	1 436	932	795	791	727	719	732	727	729	698	633	6.
19	1 425	1 035	816	853	776	777	747	747	750	764	683	7.0
20	1 431	991	786	789	652	647	617	675	651	620	541	5.9
21	1 457	1 003	746	709	620	641	581	580	569	576	555	5.4
22	1 273	878	694	666	555	556	525	492	490	543	477	4.8
23	1 139	862	676	588	455	473	427	433	410	474	436	4.
Secondary fire	26 135	24 218	13 895	13 880	9 697	9 791	8 898	10 055	9 766	9 082	9 433	
0	1 057	943	563	590	371	364	333	347	332	292	329	3.5
1	724	703	401	445	288	282	292	282	239	223	217	2.3
2	593	534	327	359	235	203	270	237	205	186	175	2.3
3	486	457	258	258	193	176	175	168	156	137	149	1.3
4	333	333	193	223	135	136	155	140	152	101	132	1.4
5	253	261	135	183	126	114	145	114	116	102	146	1.3
6	218	225	127	138	97	99	89	108	125	106	135	1.3
7	241	244	174	170	101	101	109	131	146	146	189	1
8	311	320	225	227	147	177	134	166	199	203	220	2.0
9	281	293	255	267	170	211	193	218	211	222	260	2.
10	384	392	271	289	218	216	175	232	241	245	266	2
11	555	590	341	331	283	302	275	339	320	316	336	3.4
12	765	692	483	466	352	396	366	376	393	396	385	4.
13	1 070	983	565	563	433	462	406	521	457	404	457	4.8
14	1 200	1 125	659	642	461	548	410	488	472	510	489	5.
15	1 555	1 454	839	788	572	621	526	597	593	557	620	6.
16	1 871	1 609	983	948	694	706	562	681	719	614	639	6.8
17	2 278	2 167	1 191	1 057	684	759	614	767	773	701	768	7.3
18	2 337	2 188	1 180	1122	866	770	775	837	807	777	740	8.3
19	2 425	2 268	1 167	1 230	861	830	793	827	807	767	746	8.3
	2 414	2 071	1 139	1 103	781	711	718	788	726	653	612	7.
20		I										
20 21	2 082	1 858	1 007	982	695	633	582	692	660	546	616	6.
20 21 22	2 082 1 488	1 858 1 459	1 007 790	982 835	695 489	633 529	582 412	692 573	660 533	546 494	616 422	6.0 5.2

Note: Average distribution is for the five years to 2018  $\,$ 

Table 2.10 Fires by month of the year, since 2000

number												percentage
<u> </u>	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018	Average distribution
Primary fire	22 334	16 167	13 522	12 911	11 678	11 289	10 675	10 820	10 588	10 756	10 214	
Jan	1 791	1 352	1 161	1 040	999	951	841	930	834	890	825	8.1
Feb	1 722	1 267	972	939	984	933	740	802	771	745	756	7.2
Mar	1 917	1 435	1 165	1129	1 009	917	936	925	868	872	800	8.3
Apr	1 809	1 361	1 161	1 263	887	965	924	977	860	1 047	806	8.7
May	1 889	1 521	1 200	1 207	1 056	959	892	956	955	918	906	8.7
Jun	1 928	1 400	1 215	1 022	905	930	930	955	820	949	902	8.6
Jul	1 942	1 271	1 347	1 085	934	1 108	967	976	991	965	1 139	9.5
Aug	1 889	1 225	1 082	1 197	944	968	856	873	982	864	818	8.3
Sep	1 746	1 269	1 019	974	998	847	899	832	862	812	820	8.0
Oct	1 933	1 389	1 098	1 086	949	885	884	868	913	905	864	8.4
Nov	1 918	1 328	1 026	936	999	945	880	884	859	877	854	8.2
Dec	1 850	1 349	1 076	1 033	1 014	881	926	842	873	912	724	8.1
Secondary fire	26 135	24 218	13 895	13 880	9 697	9 791	8 898	10 055	9 766	9 082	9 433	
Jan	1 543	1 409	532	596	665	438	353	474	454	410	443	4.5
Feb	1 574	1 315	490	624	653	522	467	452	606	411	462	5.1
Mar	2 388	1 740	928	1 004	1 190	625	857	747	654	744	458	7.3
Apr	1 820	1 816	1334	1 649	877	835	872	1 099	747	1 272	589	9.7
May	1 940	2 317	1 343	2 0 6 4	876	976	833	987	1 005	945	833	9.7
Jun	2 895	2 990	1 741	1116	774	1 003	1118	1 394	604	1 076	1 217	11.5
Jul	2 9 1 4	3 599	2 931	1 401	841	1 765	1 055	1 491	1 107	1 000	2 077	14.2
Aug	3 305	2 491	1 428	1 437	1 002	1 125	904	948	1 440	683	919	10.4
Sep	2 036	1 787	982	1 000	1 176	781	836	661	949	614	786	8.1
Oct	2 002	1 679	851	1 419	569	623	656	726	935	804	719	8.1
Nov	2 256	1 768	874	912	669	631	469	575	733	687	548	6.4
Dec	1 462	1 307	461	658	405	467	478	501	532	436	382	4.9

Note: Average distribution is for the five years to 2018

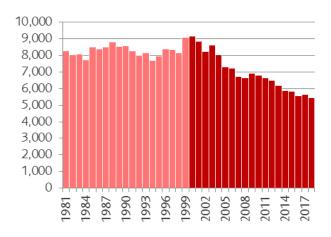
## Chapter 3 | Fires in the home

This chapter looks at fires in dwellings – people's homes. In 2018, fires in dwellings accounted for around just over half (53 per cent) of primary fires attended.

## Trend in dwelling fires

Using official estimates for the number of fires in dwellings between 1981 and 1999<sup>2</sup>, we can see that the number of fires in dwellings in London were consistently around the average over this period of 8,200. Over this period there was very little change in the population of London, rising by just 350,000 people. [Chart 17]

Chart 17: Fires in dwellings, 1981 to 2018



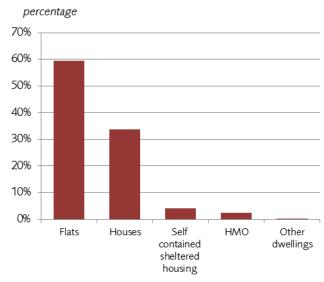
Since 2000, the population of London has been increasing, yet the number of dwelling fires has reduced. This reduction is attributed to the success of community safety initiatives and an increase in smoke alarm ownership.

## Where fires in the home happen

(Table 3.1 and 3.2)

The 2011 Census recorded that half of the population of London lived in flats. Dwelling fires by property type show that a slightly larger proportion of dwelling fires start in flats compared to the proportion of the population living in flats. [Chart 18]

Chart 18: Fires by dwelling type, 2018



Between 2014 and 2018, most of the fires in homes have been accidental (92 percent), with only a small proportion recorded as having a deliberate motive (seven percent) in recent years.

## Room where the fires started

(Table 3.3)

Looking at the room where fires start, within the last five years, most fires took place in the kitchen (52 percent). However, only 12 percent of fires that have resulted in a fatality started in the kitchen. Most fatal dwelling fires occur in the bedroom (36 percent), followed by the living room (30 percent). However, in many of those incidents, the living room was also being used as a bedroom.

Around half of fires that result in injury start in the kitchen (43 percent); 21 percent start in the bedroom and 12 percent in the living room. [Chart 19]

<sup>&</sup>lt;sup>2</sup> Official estimates based on Home Office Fire Statistics, reconciled to Brigade totals 1981-1999.

Chart 19: Where fires in the home start, showing proportion of incidents, injuries and fatalities, five years to 2018



#### How fires in the home start

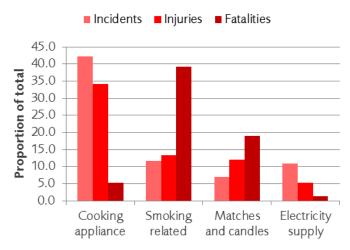
#### (Table 3.4)

Given that over half of fires start in the kitchen, it is not surprising that a large proportion of fires in the kitchen are caused by cooking (42 percent). Cooking appliances, however, are the cause of only a small proportion of dwelling fire fatalities (at five percent).

Despite smoking materials causing just 12 percent of dwelling fires, they caused over 39 percent of dwelling fire fatalities.

Fires started by matches and candles are also disproportionally fatal; a relatively small proportion of fires start in this way (at seven percent), yet, on average, they cause more fatal dwelling fires (19 percent). This is often because candles are left alight when people fall asleep. [Chart 20]

Chart 20: How fires in the home start, showing proportion of incidents, injuries and fatalities, five years to 2018



Another common cause of fires in the home are those caused by electrical supplies and wiring (11 percent). However, in recent years only a very small proportion of fires where there was a fatality have been caused by fires starting this way (1percent).

## Firefighting actions

(Table 3.5)

Fires in the home are not inevitably serious and may not even involve the fire and rescue service. Of those to which the Brigade were called over the last five years, on about a third of occasions the Brigade did not need to undertake any firefighting when it arrived, and on a further third of occasions, the Brigade undertook minimal firefighting; for example, taking actions such as taking items away from the heat source or stamping the fire out.

This means that the fire-engine's hose reels or main jets are used at only a third of fires in the home.

Where there are fatalities in dwelling fires, we use fire engine hose reels or main jets most of the time. We know from an analysis of our attendance times in our document Fire Facts, Incident Response Times<sup>3</sup>, that there is often a delay in calling the fire brigade. On over a third of occasions the delay between the ignition of the fire and calling 999 is more than 10 minutes.

## Working smoke alarms

The English Housing Survey – fire and fire safety 2016/17<sup>4</sup> reported that in England 90 per cent of households had at least one working smoke alarm in their home. This is an increase of six percentage points from 2008/09 (84 per cent).

In London, however, over the last five years to 2018, when there has been a fire in a home in London, a smoke alarm was working and active in less than half of fires, with the alarm operating in a similar proportion of cases.

	Fires in dwelli	ngs
Year	No alarm or not working	Alarm Operated
2014	3,162	2,731
2015	3,024	2,816
2016	2,840	2,718
2017	2,737	2,888
2018	2,656	2,805
	14,419	13,958
·	51%	49%

<sup>&</sup>lt;sup>3</sup> LFB Fire Facts – Incident response times

<sup>&</sup>lt;sup>4</sup> Published by the Ministry for Housing, Communities and Local Government (MHCLG) https://www.gov.uk/government/statistics/english-housing-survey-2016-to-2017-fire-and-fire-safety

Table 3.1 Dwelling fires, by property category and type, since 2010

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Fires in dwellings	6 821	6 650	6 479	6 197	5 893	5 840	5 558	5 625	5 461
Flats	3 957	3 837	3 826	3 597	3 361	3 362	3 275	3 382	3 240
Purpose Built Flats/Maisonettes - Up to 3 storeys	1 407	1 404	1 492	1 236	1 181	1126	1 178	1 159	1 092
Purpose Built Flats/Maisonettes - 4 to 9 storeys	1 280	1 230	1167	1 183	1132	1143	1124	1 176	1 069
Converted Flat/Maisonette - Up to 2 storeys	450	435	434	469	395	418	370	370	377
Converted Flat/Maisonettes - 3 or more storeys	374	363	396	420	384	415	369	410	389
Purpose Built Flats/Maisonettes - 10 or more storeys	446	405	337	289	269	260	234	267	313
Houses	2 341	2 283	2 120	2 099	1 975	1 977	1 911	1 840	1 843
House - single occupancy	2 286	2 235	2 082	2 0 6 1	1 938	1926	1 866	1 809	1 805
Bungalow - single occupancy	55	48	38	38	37	51	45	31	38
Self contained Sheltered Housing	275	287	335	324	369	293	213	233	221
House in multiple occupation (HMO)	235	225	164	146	162	177	134	149	138
House in Multiple Occupation - Up to 2 storeys (not known if licensed)	49	41	36	29	37	35	28	24	22
Unlicensed House in Multiple Occupation - Up to 2 storeys	56	47	23	27	33	36	26	31	19
Licensed House in Multiple Occupation - Up to 2 storeys	30	34	25	14	30	30	23	32	33
House in Multiple Occupation - 3 or more storeys (not known if licensed)	33	33	32	21	27	24	19	17	20
Licensed House in Multiple Occupation - 3 or more storeys	44	46	21	33	25	33	24	31	33
Unlicensed House in Multiple Occupation - 3 or more storeys	23	24	27	22	10	19	14	14	11
Other dwellings	13	18	34	31	26	31	25	21	19
Other Dwelling	4	11	23	22	18	20	20	15	14
Caravan/Mobile home (permanent dwelling)	9	5	6	7	5	6	3	5	5
Houseboat (permanent dwelling)	_	2	5	2	3	5	2	1	_

Note: 2011 census, London; 50.3% live in flats

Table 3.2 Dwelling fires, by motive, since 2000

	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018
Fires in dwellings	9 178	7 311	6 821	6 650	6 479	6 197	5 893	5 840	5 558	5 625	5 461
Accidental	7 037	5 973	5 978	5 864	5 898	5 691	5 429	5 360	5108	5147	4972
Deliberate	1 651	1163	712	730	553	460	429	429	390	404	391
Not Known	490	175	131	56	28	46	35	51	60	74	98

Table 3.3 Dwelling fires and casualties, by location of fire start, since 2010

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Fires in dwellings	6 816	6 655	6 478	6 197	5 893	5 840	5 558	5 625	5 461
Kitchen	3 566	3 537	3 645	3 425	3 409	3 234	3 034	3 072	2 849
Bedroom	690	663	648	579	549	549	545	544	569
Living room	467	413	406	400	367	355	347	339	346
Corridor/Hall	319	332	307	267	247	251	246	243	236
Other	234	335	268	288	199	219	221	247	221
Bathroom/Toilet	187	154	178	170	138	155	144	150	149
Under stairs (enclosed, storage area)	167	155	140	145	135	128	105	106	120
Refuse store/Bin room	208	229	159	158	135	122	125	99	116
External structures	228	206	145	135	93	108	88	104	119
Utility room	83	71	87	85	84	76	104	93	106
Roof	81	71	73	70	77	68	68	58	65
Stairs	87	54	50	55	62	51	46	61	31
Airing/Drying cupboard	76	65	80	56	62	70	59	59	47
External fittings	77	72	69	71	52	53	40	52	65
Roof space	75	46	56	80	47	59	51	53	55
Bedsitting room	65	71	38	48	38	57	45	33	38
Private balcony	_	-	-	-	35	95	92	118	126
Garage	48	37	21	33	33	27	33	36	27
Conservatory	17	18	19	14	25	18	21	16	14
Open plan area	24	25	22	20	24	24	27	25	31
Dining room	36	38	30	39	21	35	24	27	33
Lift/Lift shaft/Motor room	21	27	18	19	16	18	20	22	26
Not known	32	23	6	22	14	11	4	7	15
Communal balcony/Elevated walkway	_	_	_	_	14	42	37	35	35
Chimney	25	12	9	16	10	9	28	18	13
Green or living roof	_	_	_	_	6	4	3	6	3
Sauna	2	1	4	1	1	2	1	1	3
Indoor swimming pool	1	-	-	1	-	-	-	1	3
No. of fire fatalities	50	46	38	39	26	23	38	100	38
Living room	16	14	15	15	7	8	13	9	10
Bedroom	14	8	12	14	11	5	13	12	14
Kitchen	6	2	4	3	3	1	6	74	6
Bedsitting room	8	2	_	1	1	3	1	_	1
Other	_	5	3	2	2	_	1	1	_
Corridor/Hall	2	7	_	2	_	1	2	_	3
Bathroom/Toilet	3	1	2	_	_	4	_	_	_
Not known	1	4	_	_	_	1	1	1	3
Under stairs (enclosed, storage area)	_	2	1	1	1	_	_	1	-
Garage	_	1	1	_	_	_	_	_	-
Roof space	_	_	_	1	_	_	_	_	-
Conservatory	_	-		-	1		1	1	_
Airing/Drying cupboard	_	-	_	-	_	-	-	1	_
Stairs									1

Table 3.3 (continued) Dwelling fires and casualties, by location of fire start, since 2010

	2010	2011	2012	2013	2014	2015	2016	2017	2018
No. of fire injuries	1 078	1 050	961	864	800	827	731	807	720
Kitchen	458	426	450	375	352	360	332	356	286
Bedroom	211	247	211	201	162	165	141	197	167
Living room	104	103	100	81	117	82	85	89	82
Corridor/Hall	78	90	41	31	47	57	43	29	25
Other	24	49	39	36	23	35	32	40	27
Bathroom/Toilet	23	13	16	22	12	23	16	14	13
Bedsitting room	19	21	12	33	13	33	10	12	15
Under stairs (enclosed, storage area)	26	4	30	20	16	3	1	7	11
Other locations (less than 2.0%)	135	97	62	65	58	69	71	63	94

Table 3.4 Primary dwelling fires and casualties, by source of ignition, since 2010

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Fires in dwellings	6 816	6 655	6 479	6 197	5 893	5 840	5 558	5 625	5 461
Cooking appliance	2 809	2851	2946	2 807	2836	2 688	2 453	2516	2 303
Electricity supply	721	686	706	771	647	636	625	621	599
Smoking related	644	682	620	609	522	632	589	610	641
Other domestic style appliance	514	516	539	494	478	474	468	488	490
Matches and candles	486	443	471	400	413	406	397	389	379
Unknown	405	354	298	314	297	317	345	352	377
Naked flame	601	593	347	275	258	252	235	207	192
Heating equipment	292	242	265	215	197	179	193	206	219
Electric lighting	193	167	172	185	158	174	155	149	166
Fuel/Chemical	99	85	77	70	51	44	58	50	43
Industrial equipment	44	25	33	41	28	31	31	30	42
Office equipment	4	6	1	9	7	5	5	5	6
Vehicles only	2	2	1	2	1	_	1	1	3
Bombs and explosives	2	3	3	5	-	2	3	1	1
No. of fire fatalities	50	45	38	39	26	23	38	100	38
Smoking related	17	7	14	20	9	11	19	12	9
Unknown	7	8	6	7	4	2	3	5	5
Matches and candles	9	6	5	5	5	6	6	3	9
Naked flame	4	9	2	3	2	2	4	2	6
Heating equipment	5	3	4	2	1	1	1	3	3
Cooking appliance	4	2	3	1	2	_	3	1	2
Other domestic style appliance	2	9	_	1	1	_	1	74	1
Electricity supply	1	_	2	_	2	_	_	_	_
Electric lighting	_	1	2	_	_	1	1	_	3
Fuel/Chemical	1	-	-	-	-	-	-	-	-
No. of fire injuries	1078	1050	961	864	800	827	731	807	720
Cooking appliance	351	346	356	309	288	306	249	241	239
Smoking related	145	123	129	104	98	87	98	107	129
Matches and candles	125	128	106	106	99	98	81	107	80
Naked flame	144	166	91	89	61	74	67	56	42
Other domestic style appliance	108	86	92	65	84	65	60	133	63
Electricity supply	56	60	43	61	68	42	43	15	37
Unknown	38	62	66	39	52	71	70	71	55
Heating equipment	64	52	36	44	33	45	39	56	32
		19	34	34	11	13	15	14	21
Electric lighting	27								
Electric lighting Fuel/Chemical	22 11		7	9	3	20	9	4	4
Fuel/Chemical	11	4	7 1	9	3 3	20 4	9	4	4 16
			7 1 –		3 3 -	20 4 2		4 2 -	4 16 1

Table 3.5 Dwelling fires, by firefighting actions, since 2010

nunber									
	2010	2011	2012	2013	2014	2015	2016	2017	2018
Flore to Accelling	C 91C		C 470	6 107	E 803	E 840	F FF0	E 62E	5 4C
Fires in dwellings	6 816	6 655	6 479	6 197	5 893	5 840	5 558	5 625	5 46
None	1 844	1 858	1 996	1 907	1 897	1 805	1746	1 812	1 791
Small means	2 121	2 161	2 255	2 0 5 5	2 006	1 977	1 787	1 890	1 668
Portable extinguishers	399	339	196	260	270	222	236	217	212
Non-portable / fixed sources	7	5	3	6	4	4	3	6	•
Main jets or hose reel	2 3 7 6	2 250	1 974	1 9 1 5	1 679	1 790	1 736	1 668	1 747
Other means	69	42	55	54	37	42	50	32	42
No. of fire fatalities	50	46	38	39	26	23	38	100	38
None	6	2	3	2	5	_	6	3	6
Small means	3	_	1	_	_	_	_	1	
Portable extinguishers	_	1	1	_	_	_	_	_	
Non-portable / fixed sources	_	_	_	_	_	_	_	_	-
Main jets or hose reel	41	43	33	37	21	23	32	96	32
Other means	-	-	-	-	-	-	-	-	-
No. of fire injuries	1 078	1 050	961	864	800	827	731	807	720
None	185	208	233	187	204	215	183	176	160
Small means	179	133	152	126	97	109	84	100	83
Portable extinguishers	38	39	25	21	39	23	16	15	22
Non-portable / fixed sources	_	1	1	1	1	_	_	_	
Main jets or hose reel	674	667	543	527	457	479	448	515	453
Other means	2	2	7	2	2	1	-	1	122

Table 3.6 Dwelling fires, by London borough, since 2000

	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018
Dwelling fires	9 178	7 311	6 821	6 650	6 471	6 197	5 890	5 840	5 558	5 625	5 461
Inner London	4 844	3 759	3 449	3 281	3 199	3 025	2 865	2 828	2 657	2 705	2 570
Camden	364	251	232	203	216	197	193	202	187	194	192
City of London	11	4	10	3	6	7	10	10	3	5	3
Hackney	458	376	282	301	282	275	280	259	239	224	250
Hammersmith and Fulham	260	217	185	206	157	170	136	136	157	132	144
Haringey	334	291	242	219	196	192	193	212	216	176	199
Islington	350	249	209	241	198	183	166	173	158	200	183
Kensington and Chelsea	231	190	159	153	159	135	156	126	124	151	135
Lambeth	531	404	345	333	365	310	303	281	261	245	231
Lewisham	344	294	304	230	262	264	227	259	236	230	193
Newham	431	293	262	269	248	249	225	201	198	234	20
Southwark	476	344	356	313	340	306	306	286	263	289	24
Tower Hamlets	354	298	347	300	259	248	228	236	204	220	22
Wandsworth	304	253	248	261	252	251	230	238	212	214	183
Westminster	396	295	268	249	259	238	212	209	199	191	185
Outer London	4 332	3 552	3 372	3 369	3 272	3 172	3 025	3 012	2 901	2 920	2 89°
Barking and Dagenham	209	212	162	157	146	157	135	139	160	130	13.
Barnet	291	251	263	227	243	238	211	230	210	234	23
Bexley	153	131	129	143	144	118	122	131	118	116	11
Brent	394	284	243	240	245	234	220	238	222	237	21
Bromley	200	165	178	167	160	155	136	143	176	156	13
Croydon	354	259	266	301	290	251	259	264	267	268	25
Ealing	340	282	250	239	205	225	224	202	196	221	173
Enfield	240	231	214	238	231	234	219	193	181	200	187
Greenwich	349	249	248	222	206	210	194	187	185	199	21
Harrow	172	159	124	141	126	144	130	113	102	128	10
Havering	145	106	108	109	111	108	109	118	122	94	11
Hillingdon	191	153	145	176	179	161	144	151	161	151	15
Hounslow	217	200	156	168	166	165	152	168	138	168	14
Kingston upon Thames	123	92	106	96	94	98	83	80	96	62	9:
Merton	185	122	147	134	113	106	109	126	111	91	11
Redbridge	192	174	197	169	169	153	171	154	132	151	15
Richmond upon Thames	135	106	98	92	100	99	113	100	97	87	7.
Sutton	168	145	154	137	145	141	134	106	102	85	10

Table 3.7 Dwelling fire related fatalities, by London borough, since 2000

	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017	201
Owelling fire fatalities	51	53	50	46	37	39	26	23	38	100	3
nner London	21	23	22	18	17	24	10	12	20	85	1
Camden	2	2	2	-	2	2	-	1	2	3	
City of London	-	-	_	-	_	1	_	_	_	_	
Hackney	5	4	2	1	2	1	2	1	1	1	
Hammersmith and Fulham	1	-	2	2	2	4	_	2	1	-	
Haringey	-	2	2	2	_	2	1	_	2	2	
Islington	1	2	3	-	2	1	-		3	-	
Kensington and Chelsea	2	-	-	-	1	-	-	-	1	72	
Lambeth	1	4	1	1	2	1	-	2	1	3	
Lewisham	-	3	3	2	1	1	4	_	1	_	
Newham	3	1	1	2	_	3	1	3	1	1	
Southwark	1	1	2	4	2	2	_	1	3	_	
Tower Hamlets	3	-	1	2	1	1	1	1	_	1	
Wandsworth	2	2	2	1	_	3	_	1	3	1	
Westminster	-	2	1	1	2	2	1	-	1	1	
Outer London	30	30	28	28	20	15	16	11	18	15	
Barking and Dagenham	-	1	1	-	1	-	1		1	2	
Barnet	2	1	2	1	1	-	-	-	-	1	
Bexley	3	-	1	-	_	-	-	1	-	-	
Brent	-	1	1	8	3	1	-	1	1	-	
Bromley	5	-	4	2	3	-	1	-	2	1	
Croydon	1	2	3	1	2	_	3	2	1	-	
Ealing	1	2	4	2	2	_	1	3	2	1	
Enfield	2	1	1	-	1	3	1	_	1	2	
Greenwich	2	-	2	2	_	2	2	_	2	1	
Harrow	3	1	2	_	_	_	2	_	_	-	
Havering	-	-	_	1	2	1	_	_	1	4	
Hillingdon	-	10	_	1	1	2	_	_	_	1	
Hounslow	-	2	1	1	1	3	1	2	1	-	
Kingston upon Thames	2	1	-	2	_	-	1		1	-	
Merton	-	-	1	_	_	-	-		1	-	
Redbridge	3	-	2	2	_	_	1	1	1	_	
Richmond upon Thames	1	1	_	_	2	_	-	_	1	_	
Sutton	2	2	1	_	_	2	_	1	1	1	
Waltham Forest	3	5	2	5	1	1	2	_	1	1	

Table 3.8 Dwelling fire injuries, by London borough, since 2005

	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018
Dwelling fire injuries	1 120	1 081	1 048	959	865	800	827	731	807	720
Inner London	516	557	473	442	400	411	382	323	417	310
Camden	26	26	38	26	37	21	20	15	16	10
City of London	1	1	-	1	-	3	1	-	-	-
Hackney	50	54	40	50	23	25	30	29	26	33
Hammersmith and Fulham	36	24	11	21	17	24	12	22	17	11
Haringey	44	40	54	45	22	46	33	13	34	30
Islington	27	35	29	12	21	22	14	24	22	46
Kensington and Chelsea	28	38	14	28	8	11	41	23	104	15
Lambeth	46	39	42	46	42	43	39	34	25	23
Lewisham	58	72	38	58	62	34	35	35	31	35
Newham	60	57	50	32	29	34	22	36	43	25
Southwark	25	38	55	32	49	40	47	40	28	26
Tower Hamlets	51	49	17	39	34	28	32	13	24	15
Wandsworth	25	48	44	30	31	45	36	27	27	23
Westminster	39	36	41	22	25	35	20	12	20	18
Outer London	604	524	575	517	465	391	445	408	390	410
Barking and Dagenham	35	35	21	36	30	22	18	26	24	34
Barnet	33	32	35	26	30	18	27	26	28	24
Bexley	25	19	27	18	9	8	18	23	20	21
Brent	43	44	47	34	33	39	48	33	25	30
Bromley	25	19	33	26	19	15	19	16	15	27
Croydon	49	48	54	67	47	46	46	28	31	30
Ealing	67	31	34	31	32	43	30	32	25	32
Enfield	41	34	38	32	40	36	46	39	47	21
Greenwich	27	26	34	40	38	16	29	19	25	20
Harrow	32	37	28	13	18	7	7	20	13	13
Havering	13	16	14	23	15	23	15	13	21	27
Hillingdon	32	19	34	27	18	18	22	33	18	21
Hounslow	31	37	38	33	31	16	28	15	24	12
Kingston upon Thames	15	12	12	13	16	8	9	8	4	11
Merton	14	20	17	7	10	9	22	18	13	11
Redbridge	30	47	42	30	25	21	23	26	12	24
Richmond upon Thames	23	11	11	20	7	8	10	5	9	11
Sutton	23	17	24	24	14	18	10	10	15	21
Waltham Forest	46	20	32	17	33	20	18	18	21	20

# Chapter 4 | Fires in other buildings

This chapter looks at fires in other buildings – buildings which are not dwellings and which are either:

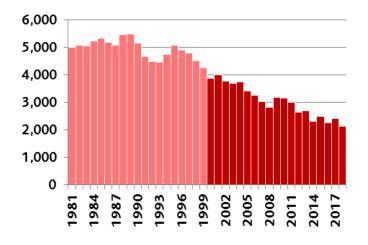
- 'other residential' places such as care homes and student halls; or
- 'non-residential' primarily commercial and public buildings, but also includes private outbuildings (like sheds).

In recent years, primary fires in other buildings have accounted for 10 percent of all the fires, and 18 percent of all primary fires.

## Trend in other building fires

Based on official estimates<sup>5</sup>, the number of fires in other buildings were at their highest in 1989 when there were 5,495 fires that year. When compared to recent years, fires in other buildings have reduced by over a third (35 percent) since 2000. [Chart 21]

Chart 21: Fires in other buildings, 1981 to 2018



## Other residential building fires

(Table 4.1)

Nearly half of the fires in other residential buildings occurred in accommodation providing care for elderly people. There are very few fire deaths in other residential buildings, averaging at one each year.

Additionally, roughly half of all injuries (in other residential buildings) took place in properties that were used to provide care for the elderly. These facts are of serious concern to the Brigade and we adopted a specific strategy as part of our Fifth London Safety Plan, 2013-2017, which continues in our London Safety Plan 2017-2021, to try and make a change to this situation.

#### (Table 4.3)

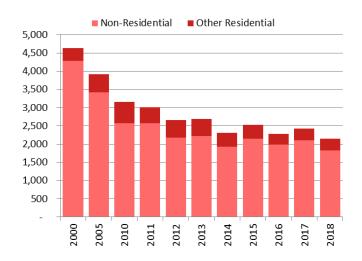
Just under half of the fires in other residential buildings were caused by cooking; smaller proportions were started by smoking (16 percent), and by electrical supplies and wiring (nine percent).

## Non-residential building fires

A very high proportion of the primary fires in other buildings in recent years occurred in non-residential buildings. On average, there have been 1,757 more fires in non-residential properties than in other residential buildings. [Chart 22]

<sup>&</sup>lt;sup>5</sup> Official estimates based on Home Office fire statistics, reconciled to Brigade totals 1981-1999.

Chart 22: Fires in other buildings, proportion of residential and non-residential buildings, since 2010



## (Table 4.2)

About a fifth of non-residential property fires in recent years started in out-buildings, such as private garages and sheds.

Around one fifth of the fires happen in commercial retail buildings and places providing food or drink. However, over a third of the fire injuries happened in places providing food or drink, with retail buildings and private sheds/garages accounting for above 15 per cent each.

Table 4.1 Fires in other residential buildings, since 2010

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Fires in other residential buildings	591	446	472	480	386	378	287	329	327
Retirement/Old Persons Home	96	79	120	145	111	88	84	82	90
Hostel (e.g. for homeless people)	96	68	64	68	66	69	41	54	59
Nursing/Care Home/Hospice	99	80	85	80	58	67	39	60	45
Hotel/motel	79	58	60	65	54	56	53	53	53
Student Hall of Residence	85	75	46	60	50	39	32	31	49
Other Residential Home	31	13	18	15	9	23	14	19	8
Nurses'/Doctors' accommodation	19	7	8	12	9	15	5	2	3
Boarding House/B&B for homeless/asylum seekers	9	11	11	8	9	8	9	7	12
Sheltered Housing : not self contained	50	40	38	12	6	_	_	_	_
Youth hostel	9	6	10	6	4	6	3	6	3
Military/barracks	1	3	_	1	3	_	_	3	1
Boarding House/B&B other	4	2	2	1	3	1	3	1	3
Boarding School accommodation	_	_	_	1	2	1	1	_	_
Towing caravan/Camper van on site	3	_	1	3	1	_	1	5	1
Children's Home	9	4	8	2	1	4	2	6	_
Other holiday residence (cottage, flat, chalet)	-	_	_	1	_	1	_	_	_
Monastery/convent	1	-	1	-	-	-	-	-	-
No. of fire related fatalities	3	1	1	1		2	1	_	2
Nursing/Care Home/Hospice	3	1	_	_	_	1	1	_	_
Retirement/Old Persons Home	_	_	1	_	_	_	_	_	_
Hotel/motel	_	_	_	1	_	1	_	_	1
Other Residential Home	-	_	_	_	-	-	-	-	1
No. of fire injuries	34	48	34	35	20	30	25	31	24
Retirement/Old Persons Home	6	8	11	14	8	9	12	10	6
Nursing/Care Home/Hospice	8	7	6	5	3	4	1	11	3
Hostel (e.g. for homeless people)	6	13	1	6	_	7	1	6	3
Hotel/motel	3	3	8	7	3	1	7	2	4
Sheltered Housing : not self contained	3	8	3	1	_	_	_	_	_
Student Hall of Residence	3	3	2	_	3	_	3	1	3
Other Residential Home	2	4	2	1	1	5	_	_	_
Boarding House/B&B for homeless/asylum seekers	3	2	1	_	_	2	_	_	1
Nurses'/Doctors'accommodation	_	_	_	1	1	1	_	_	_
Youth hostel	_	_	_	_	1	_	_	_	_
Other	_	_				1	1	1	4

Table 4.2 Fires in non-residential buildings, since 2010

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Fires in non-residential buildings	2 566	2 565	2 180	2 213	1 925	2 144	1 993	2 096	1 827
Non Residential	544	575	444	455	387	468	427	438	422
Retail	485	490	455	430	333	375	343	401	341
Food and Drink	376	354	328	336	322	357	346	372	321
Offices and call centres	212	259	208	221	172	173	172	176	158
Hospitals and medical care	192	157	139	152	129	123	109	96	97
Public admin, security and safety	109	102	86	98	116	134	127	109	68
Education	146	145	122	140	110	113	92	123	103
Industrial Manufacturing	53	69	52	56	67	53	52	48	45
Transport buildings	82	73	74	52	51	63	81	102	49
Entertainment and culture	107	97	74	55	49	69	73	62	57
Warehouses and bulk storage	63	66	46	47	41	51	35	28	39
Sporting venues	49	43	33	37	40	42	47	38	31
Industrial Processing	30	34	26	38	34	38	25	28	34
Public Utilities	48	42	35	36	26	27	25	37	20
Religious	30	28	34	30	22	29	13	20	26
Car Parks	28	18	13	23	20	22	22	14	15
Permanent Agricultural	9	6	8	5	4	4	2	1	1
Animal boarding/breeding/kennels (not farm)	3	7	3	2	2	3	2	3	-
No. of fire related fatalities	5	_	_	5	1	2	4	-	2
Private garage	4	_	_	_	_	_	2	_	_
Private Garden Shed	_	_	_	2	_	1	_	_	_
Sports pavilion/shower block/changing facility	_	_	_	_	1	_	_	_	_
Community centre/Hall	_	_	_	1	_	_	_	_	_
TV/film/music/art studio	1	_	_	_	_	_	_	_	_
Other private non-residential building	-	_	_	1	_	_	_	_	_
Vehicle Repair Workshop	_	_	_	1	_	_	_	_	_
Local Government Office	_	_	_	_	_	_	_	_	1
Other building/use not known	_	_	_	_	_	_	1	_	_
Mosque	_	_	_	_	_	1	_	_	_
Club/night club	-	-	-	_	_	-	1	_	_
No. of fire injuries	86	79	103	114	116	81	94	111	73
Food and Drink	22	16	28	30	42	23	31	38	24
Non Residential (including Private garages/ sheds)	15	20	18	20	14	2 <i>3</i> 7	13	36 17	15
Retail	14	14	21	21	12	9	11	25	13
Public admin, security and safety	13	5	12	9	11	14	12	10	8
Hospitals and medical care	3	5	2	11	9	6	13	4	6
Offices and call centres	6	1	3	8	9	8	8	5	1
	1	6	<i>-</i>	2	6	3	2	2	2
Industrial Manufacturing Industrial Processing	ı	3	2	5	3	<i>3</i>	1	5	
	-				)			ر	1
Entertainment and culture	3	-	6	3	_	1	_	-	1
Sporting venues	2	2	5 2	- 1	-	2 1	-	1	1
Education Warehouses and hulls storage		2			2		2	2	1
Warehouses and bulk storage	3	-	1	2	2	5	-	1	1
Religious	_	-	3	2	2	1	1	1	-
Transport buildings	1	1	_	_	3	_	_	_	-
Public Utilities	1	2	_	_	_	_	_	_	-
Car Parks	_	1	_	_	1	_	_	_	-
Permanent Agricultural	_	1	-	-	-	-	-	-	-

Table 4.3 Fires in other buildings, by source of ignition, since 2010

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Fires in other buildings	3 157	3 011	2 652	2 693	2 311	2 522	2 280	2 425	2 154
Fires in other residential buildings	591	446	472	480	386	378	287	329	327
Cooking appliance	300	224	248	263	204	186	149	142	151
Smoking related	72	65	61	66	46	61	43	42	51
Electricity supply	40	30	30	32	31	31	25	36	30
Other domestic style appliance	31	23	23	18	23	9	14	23	23
Electric lighting	19	16	20	23	18	15	6	11	8
Matches and candles	22	21	15	21	18	27	15	28	12
Other sources	27	12	18	10	16	14	14	16	18
Naked flame	41	32	28	21	12	17	11	16	15
Heating equipment	20	10	11	13	10	8	7	8	12
Industrial equipment	11	12	12	9	6	4	3	4	6
Fuel/Chemical	7	1	5	4	1	5	-	2	-
Office equipment	_	-	1	_	1	1	-	1	1
Vehicles only	1	-	-				-	-	-
Fires in non-residential buildings	2 566	2 565	2 180	2 213	1 925	2 144	1 993	2 096	1 827
Electricity supply	514	472	443	485	392	404	428	424	350
Smoking related	305	341	292	284	276	373	302	345	276
Other sources	293	296	253	255	266	295	262	303	329
Cooking appliance	296	280	282	285	245	243	247	269	229
Naked flame	350	386	240	191	143	177	171	145	110
Electric lighting	191	175	184	172	138	161	126	136	123
Industrial equipment	146	144	120	154	130	119	113	120	119
Matches and candles	158	166	129	123	125	152	139	113	95
Other domestic style appliance	99	109	97	85	77	85	76	87	77
Heating equipment	99	92	77	116	69	65	70	99	74
Fuel/Chemical	83	72	35	43	36	45	41	36	27
Office equipment	18	16	17	15	25	17	10	9	11
Vehicles only	12	10	10	5	2	7	7	8	6
Bombs and explosives	2	6	1		1	1	1	2	1

Table 4.4 Fires in other residential buildings, by borough, since 2005

	2005	2010	2011	2012	2013	2014	2015	2016	2017	201
Fires in other residential buildings	491	591	446	472	480	386	378	287	329	32
Inner London	305	328	250	258	274	220	196	148	177	18
Camden	66	41	29	27	56	32	32	15	17	2
City of London		2	1	4	1	-	6	2	3	
Hackney	14	11	16	14	11	13	15	6	16	1
Hammersmith and Fulham	16	21	9	7	7	7	7	9	10	
Haringey	5	19	9	12	13	8	5	2	4	
Islington	24	27	20	13	14	17	13	7	10	1
Kensington and Chelsea	11	17	15	20	17	15	13	8	11	
Lambeth	33	24	33	38	24	25	25	16	15	1
Lewisham	11	16	22	18	12	20	11	11	14	1
Newham	11	17	12	8	17	8	6	7	9	1
Southwark	15	41	29	22	29	15	22	18	20	,
Tower Hamlets	25	19	10	18	15	12	6	11	15	
Wandsworth	9	16	17	16	21	15	12	10	8	
Westminster	65	57	28	41	37	33	23	26	25	2
Outer London	186	263	196	214	206	166	182	139	152	13
Barking and Dagenham	6	4	6	3	3	1	4	1	3	
Barnet	23	18	9	19	14	9	11	6	7	
Bexley	7	9	6	3	4	4	6	5	5	
Brent	13	12	21	15	22	17	13	12	13	
Bromley	8	15	7	20	15	12	9	5	6	
Croydon	20	27	20	20	23	17	23	16	13	
Ealing	16	23	16	12	13	13	16	14	14	
Enfield	6	20	8	13	11	9	11	8	7	
Greenwich	8	15	12	17	18	16	14	7	7	
Harrow	8	10	8	9	8	8	2	6	6	
Havering	6	12	11	8	7	7	7	5	8	
Hillingdon	17	15	10	11	13	14	11	18	15	
Hounslow	6	18	12	10	7	8	8	8	19	
Kingston upon Thames	16	17	12	11	8	6	9	7	4	
Merton	7	7	2	7	6	2	2	2	1	
Redbridge	4	6	13	8	4	4	15	8	8	
Richmond upon Thames	5	17	7	7	8	9	7	4	5	
Sutton	2	14	5	8	9	2	5	4	6	
Waltham Forest										

Table 4.5 Fires in non-residential buildings, by borough, since 2005

	2005	2010	2011	2012	2013	2014	2015	2016	2017	201
Fires in non-residential buildings	2 936	2 566	2 565	2 180	2 213	1 925	2 144	1 993	2 096	1 82
Inner London	1 482	1 260	1 217	1 092	1 104	936	961	1013	850	80
Camden	143	132	110	102	121	82	75	103	82	8
City of London	47	46	71	49	57	46	45	44	44	4
Hackney	86	68	81	60	76	52	62	62	51	3
Hammersmith and Fulham	78	62	63	60	48	52	71	59	45	5
Haringey	86	69	69	48	46	45	43	44	47	5
Islington	100	66	79	72	57	71	60	57	61	4
Kensington and Chelsea	56	56	46	45	45	31	52	46	35	3
Lambeth	118	88	86	79	81	66	67	54	54	4
Lewisham	70	68	72	51	52	48	41	37	49	3
Newham	111	81	72	69	83	58	63	79	68	$\epsilon$
Southwark	107	96	100	75	66	67	66	64	58	4
Tower Hamlets	123	92	85	83	87	64	73	72	53	5
Wandsworth	97	90	81	80	86	70	74	107	51	6
Westminster	260	246	202	219	199	184	169	185	152	13
Outer London	1 454	1 306	1 348	1 088	1 109	989	1 032	1 083	977	92
Barking and Dagenham	104	55	68	54	42	41	43	47	47	3
Barnet	71	61	82	70	50	51	58	68	65	9
Bexley	60	64	74	42	47	47	43	60	50	4
Brent	85	66	75	69	73	66	56	67	73	6
Bromley	79	67	77	64	65	46	66	43	47	5
Croydon	104	109	113	60	80	75	67	65	63	6
Ealing	111	107	102	81	93	63	66	72	68	6
Enfield	83	84	89	71	83	71	73	81	58	4
Greenwich	96	60	83	77	61	68	63	64	57	9
Harrow	38	50	47	38	40	35	29	36	37	3
Havering	69	70	72	37	47	44	60	46	52	3
Hillingdon	119	110	118	112	91	91	130	124	77	8
Hounslow	108	106	75	74	78	66	68	62	58	8
Kingston upon Thames	57	48	23	29	34	40	35	40	30	3
Merton	42	47	37	47	50	36	35	35	33	3
Redbridge	69	81	51	42	43	43	39	61	54	4
Richmond upon Thames	34	33	50	29	43	22	29	31	31	3
Sutton	49	37	58	44	51	34	28	40	33	:
Waltham Forest	76	51	54	48	38	50	44	41	44	

