

International Association for the Study of Insurance Economics

# **World Fire Statistics**

Information Bulletin of the World Fire Statistics

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#### PROGRESS ON EUROPEAN FIRE STATISTICS

Most of the figures published in this Bulletin have been adjusted to as internationally comparable a basis as possible. The Centre believes that, while they are the best available in their field, they are still far from exact, and is therefore interested in any initiative to improve the availability and comparability of national fire statistics. The World Fire Statistics Centre is directly involved in one such effort, the "Augsburg 2000" project to develop a European database of fire statistics, and is near completion of its first report. Now two other initiatives have appeared. The first is a project by a group of fire safety experts under Swedish leadership and backed by the European Commission, to identify common problems arising throughout Europe in the handling of fire and other incidents, including statistics, on which a first report has already been issued. Now has come an initiative by a working group of heritage experts to develop better and more consistent statistics of fires in historic European buildings. Both these efforts may help to add impetus to the quest for improved European fire statistics generally.

#### **The Geneva Association**

The International Association for the Study of Insurance Economics, or by its short name "The Geneva Association", is a unique world organisation formed by a maximum of 80 chief executive officers from the most important insurance companies in the world (Europe, North and South America, Asia, Africa and Australia). Our main goal is to research the growing importance of worldwide insurance activities in all sectors of the economy. We try to identify fundamental trends and strategic issues where insurance plays a substantial role or which influence the insurance sector. In parallel, we develop and encourage various initiatives concerning the evolution – in economic and cultural terms – of risk management and the notion of uncertainty in the modern economy.

The Geneva Association also acts as a forum for its members, providing a worldwide unique platform for the top insurance CEOs. We organise the framework for our members in order that they may exchange ideas and discuss key strategic issues, especially at the General Assembly where once per year over 50 of the top insurance CEOs gather. The Geneva Association serves as a catalyst for progress in this unprecedented period of fundamental change in the insurance industry and its growing importance for the further development of the modern economy. It is a non-profit organisation.

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#### Aims and Activities of the World Fire Statistics Centre

The Centre's main objective is to persuade governments to adopt strategies aimed at reducing the cost of fire which, although running at around 1% of GDP in most advanced countries, has generally received much less attention than the cost of crime or of road accidents. In pursuit of this objective, the Centre collects from over 20 leading countries statistics on national fire costs (see Contents above).

A further important effort is devoted to persuading the European Union to identify fire safety as a topic for collective action, leading to a European fire strategy.

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See also: www.genevaassociation.org/wfsc.htm

# The Geneva Association Newsletter - "World Fire Statistics", No 20, October 2004 Information Bulletin of the World Fire Statistic Centre

This information bulletin of the World Fire Statistics Centre appears annually. It presents statistics on national fire costs from over 20 leading countries in an effort to persuade governments to adopt strategies aimed at reducing the cost of fire. It has been published since March 1984.

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#### I. EDITORIAL

#### **Progress on European Fire Statistics**

The lack of any standardised fire statistics internationally means that the data on national fire costs collected by the Centre are seldom internationally comparable. However, in an attempt to overcome this difficulty, various adjustments have been agreed to, country by country, in order to try to publish figures on as internationally comparable a basis as possible. This is inevitably a somewhat inexact procedure.

The Centre believes that the published figures are nevertheless likely to provide a better basis for international comparisons than any others available, but it is always interested in any initiatives aimed at improving the availability and comparability of fire statistics internationally.

It is for this reason that the Centre has been actively participating in the "Augsburg 2000" project, jointly sponsored by the Federation of European Union Fire Officers' Associations (FEU), with the aim of developing a European database of fire statistics (see page 9), and on which a first report is now in the closing stages of preparation. If backed by commitments from the countries concerned, this initiative offers the potential for significant improvements in the availability, reliability and comparability of relevant data in the long term. However, although nearly every one concerned is keen to approve the general aims of such a project, experience suggests that reaching agreement on detailed proposals for action is more difficult, and that mobilising the effort and resources needed to change existing practices is liable to be both time-consuming and problematic.

One hopes that similar concerns will not arise in respect of a more recent initiative, this time backed by the European Commission, organised in 2003 by a team from five EU countries under Swedish leadership, and aimed at identifying common problems arising throughout Europe in the handling of fire and other incidents (see page 9). This is to be applauded for its rapid progress so far: its report, *Prevention of fires and other incidents*, was already published in February 2004. Besides a number of recommendations to national governments, the report proposes the establishment with EU support of a voluntary network of European national fire safety authorities to pursue those issues requiring a collective approach and not already handled by other bodies. On the Centre's particular field of interest, the report presents conclusions with which we would heartily agree: "Statistics and facts around all fires are essential for all nations. Fire brigade statistics are only one input besides many other sources such as data from insurance companies, facts on populations and buildings...Statistics need to be of high quality and well defined...There is also a need to better understand the differences when benchmarking is performed within and between countries."

A third European fire safety initiative concerns historic buildings, for which fire data are even sparser among different countries than for fire statistics generally. A recent meeting of experts\* decided:

- that the time may be right to promote an additional requirement for the reporting of fire incident information by fire brigades to get better data on historic buildings, and
- to seek a common format for including historic buildings data in the fire reporting procedure.

They resolved on further work aimed at enabling all European data to be effected on a common basis.

This initiative may give added impetus to the European quest for better and more comparable fire statistics.

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<sup>\*</sup> COST Action C17 Working Group 1.

### 1. United Nations Fire Statistics Study

The Centre presented its annual report to the UN Committee on Human Settlements at the meeting in Geneva in September 2004.

The following eight tables of international fire cost comparisons are based on those which appeared in the report:

#### II. Cost of Direct Fire Losses

Adjusted direct losses (in millions, except for Japan - billions)

Table 1

Country	Currency	1999 Direct Losses	2000 Direct Losses	2001 Direct Losses		Percentage of GDP 1999-2001
Czech Republic	CzKr	2,350	1,600	2,300	0.10	
Japan	Yen	455	480	535	0.10	
Slovenia	SIT	2,250	6,550	4,100	0.10	
Poland	ZI	965	805	535	0.11	
Hungary	Ft				0.12	(1986-88)
Spain	Pta				0.12	(1984)
United Kingdom	£	1,300	1,200	1,500	0.14	
Finland	€	185	185	190	0.15	
Australia	\$A				0.16	(1992-93)
Canada	\$Can	1,700	1,650		0.17	(1998-2000)
Germany	€		3,500	3,350	0.17	(2000-01)
New Zealand	\$NZ				0.17	(1993-94)
France	€	2,550	2,450	2,450	0.18	
Italy	€	.1,750	2,500	1,900	0.18	
Netherlands	f				0.18	(1995-96)
Denmark	DKr	2,250	2,700	2,550	0.20	
Sweden	SKr	4,200	4,200	4,600	0.20	
United States	\$US	10,500	10,500	44,500*	0.22	
Switzerland	SwF				0.23	(1989)
Belgium	€	570	665		0.24	(1998-2000)
Austria	Sch	4,250	5,700		0.26	(1998-2000)
Norway	NKr	3,450	3,700	4,650	0.28	

<sup>\*</sup> Including 9/11 losses estimated at \$33.4 billion.

Note: Fire losses include explosion losses following fires, but exclude explosion losses where no fire occurs, for example, some acts of terrorism

## III. Cost of Indirect Fire Losses

### Average percentage of GDP (1999-2001)

Table 2

Country	%
Norway	0.003
Sweden	0.007
Czech Republic	0.009
Finland	0.009
UK	0.009
Italy	0.014 [1993-94]
Austria	0.016 [1998-2000]
Japan	0.016 [1985-86]
France	0.019 [1998-2000]
Canada	0.022 [1991]
Germany	0.023
Slovenia	0.024
USA	0.024*
Netherlands	0.027 [1995-96]
Denmark	0.029 [1993-95]
Hungary	0.029 [1992-93]
Switzerland	0.095 [1989]

Calculated after allowing for \$8.4 billion losses arising from 9/11 in 2001.

Note: This table must be regarded with serious reservations - the figures are produced on widely varying bases and some of the differences look too large for credibility.

### IV. Fire Deaths

Table 3

Country		Adjusted figures (fire	deaths)
Country	1999	2000	2001
Singapore	0	5	10
Switzerland	40	40	
Australia	140	125	115
Spain	275	260	260
Italy	420	410	345
Germany	630	590	600
Slovenia	15	15	20
France	575	555	
Czech Republic	110	105	105
UK	580	645	635
New Zealand	35	35	
Canada	425	360	
Norway	60	55	65
Poland	560	515	510
Austria	55	225	55
Sweden	115	110	145
Denmark	80	85	75
Greece	120	175	170
Japan	2,150	2,050	2,250
USA	3,900	4,400	6,900*
Finland	105	95	85
Ireland	85	60	70
Hungary	190	200	205

<sup>\*</sup> Calculated after allowing for 2,791 deaths in 2001 arising from 9/11.

## V. Population Comparisons for Fire Deaths (1999-2001)

Table 4

Country	Deaths per 100,000 persons
Singapore	0.12
Switzerland	0.56 (1998-2000)
Australia	0.66
Spain	0.67
Italy	0.68
Netherlands	0.68 (1994-96)
Germany	0.74
Slovenia	0.84
France	0.97 (1998-2000)
Czech Republic	1.04
UK	1.04
New Zealand	1.08 (1998-2000)
Canada	1.26 (1998-2000)
Norway	1.34
Belgium	1.35 (1995-97)
Poland	1.36
Austria	1.38
Sweden	1.39
Denmark	1.50
Greece	1.52
Japan	1.69
USA	1.83*
Finland	1.84
Ireland	1.89
Hungary	2.06

<sup>\*</sup> Calculated after allowing for 2,791 deaths in 2001 arising from 9/11.

<u>Note</u>: Population figures used are derived from the United Nations Demographic Yearbook.

## VI. Cost of Fire Fighting Organisations

#### Average percentage of GDP (1999-2001)

Table 5

Country	%
Slovenia	0.05
Denmark	0.08
Norway	0.09
Austria	0.11 (1994)
New Zealand	0.13 (1996-98)
Belgium	0.14 (1998-2000)
Sweden	0.14
Finland	0.15 (2000-01))
Netherlands	0.15 (1994-96)
Poland	0.19
UK	0.21 (1998-2000)
USA	0.24
Czech Republic	0.32 (2000-01)
Japan	0.33
Canada	0.35 (1991)

Note:

The low Danish cost is largely due to the private company, Falck, which runs many fire brigades, together with ambulance, rescue and motor breakdown services

## VII. Cost of Fire Insurance Administration

#### Average percentage of GDP (1999-2001)

Table 6

Country	%
Hungary	0.01 (1987-88)
Finland	0.03
Italy	0.04
Netherlands	0.04 (1987-88)
Spain	0.05 (1986)
Canada	0.06 (1991)
Germany	0.06 (2000-01)
Slovenia	0.06
USA	0.06
Sweden	0.07
UK	0.07
France	0.08
Norway	0.08
Denmark	0.09
Japan	0.10
Austria	0.14 (1979-80)
New Zealand	0.19 (1993-94)
Belgium	0.23

# VIII. Cost of Fire Protection to Buildings

Table 7

Country	Fire Protection‡	Currency	Cost in millions (except for Japan – billions)		
	(%)		1999	2000	2001
Belgium	2.5	€	700	750	
Canada	3.9	\$C	2,450	2,550	2,800
Czech Republic	3.0	CzKr	3,150	3,350	4,000
Denmark	5.0	DKr	6,050	6,850	7,000
France	2.5	€	1,950	2,200	2,350
Italy	4.0	€	3,500	3,800	4,050
Japan	2.5	Yen	865	865	805
New Zealand	2.5	\$NZ	170		
Norway	3.75	NKr	4,800	4,950	5,350
Singapore	4.0	\$S	525	800	550
Slovenia	2.5	SIT	6,600	7,150	7,500
Sweden	2.5	SKr	2,800	3,200	3,400
UK	2.6	£	1,750	1,850	1,950
USA		\$US	35,000	38,000	37,800

<sup>‡</sup> Estimated cost of building fire protection in relation to total national cost of building and construction.

<u>Note</u>: In the United Kingdom, the estimated fire protection costs varied from 1 per cent for housing to 7 per cent for hospitals and office buildings, in the United States, from 2.5 per cent for housing to 12 per cent for private non-residential structures, and in Canada from 2 percent for single homes to 13.2 per cent for high-rise apartments.

Fire Protection to Buildings - cont.

#### Average percentage of GDP (1999-2001)

Table 8

Country	%
Sweden	0.14
France	0.15
Czech Republic	0.17
Japan	0.17
New Zealand	0.17 (1997-99)
Slovenia	0.17
UK	0.20
Canada	0.25
Belgium	0.29 (1998-2000)
Switzerland	0.29 (1989)
Netherlands	0.30 (1993-95)
Italy	0.32
Norway	0.36
USA	0.39
Hungary	0.42 (1987-88)
Singapore	0.42
Denmark	0.52

#### IX. UN Scheme Endorsed

In its session held in Geneva on September 22, 2004, the United Nations Committee expressed its interest in the Report, thanked Mr. Wilmot, invited him to present a similar report to its next session and encouraged countries which had not yet done so to participate in the study.

## X. European Parliament and Fire Costs

Following a meeting with Sir Christopher Prout MEP and with DG III (Industry), Sir Christopher in 1994 drafted the following Motion for resolution by the European Parliament:

"Whereas fire is currently costing countries of the European Union approximately 1% of GDP,

Whereas in comparison with road safety, crime prevention and industrial safety, little or nothing is being done to monitor progress on safety measures,

Whereas the rewards have been high for Governments, such as the United States of America, which have organised a determined campaign to cut fire costs,

#### **NOW THEREFORE**

- 1. The European Parliament urges the Council of Ministers to make a public announcement stating their concern over the level of fire costs in the EU.
- 2. The European Parliament calls on the European Commission to establish a Working Party of fire experts whose terms of reference would be to recommend ways of tackling the fire problem."

Sir Christopher (now Lord Kingsland) is no longer an MEP, but in 1995 Ms Christine Crawley MEP put down a similar Motion, which went to the Environment Committee in 1996. However, only three of the twenty proposed motions before the Committee were accepted for pursuit and, although the fire resolution was "recognized to be an issue of great importance", it was not accepted. Lord Kingsland in 1997 raised it again with the Chairman of the Environment Committee, who took it up with the Commission, only to receive a stonewalling response.

## XI. European Fire Safety Action Programme – League of Augsburg 2000

In April 1999, an international conference, "Firesafe Europe 99", was organised in Chester, UK on behalf of FEU¹ and CACFOA² with EU financial support. This resulted in a suggested European fire safety action programme, and the Centre helped FEU to carry this forward by jointly organising an FEU/WFSC seminar in Augsburg in June 2000 on "European Fire Strategy – the Part of Statistics".

As a result of the seminar, the "League of Augsburg 2000" was formed to develop proposals for a European fire statistical database which would meet the needs of likely users of the figures. A core group was formed from among the likely users: fire services, fire protection associations, fire equipment suppliers, fire insurers, government, industry and commerce, and academics. A questionnaire was circulated to core group members in 2002 seeking (i) views on additional fire statistics that would be useful, and (ii) information on existing statistics available for publication. The Centre prepared a draft report (based on responses to the questionnaire) on which core group members have responded, and a revised draft report is now being prepared. The European Commission is being kept informed of the progress of the core group, whose role is to suggest the best way of carrying forward the original proposals.

Another European fire initiative, organised in 2003 by the Swedish Fire and Rescue Service (SRSA), under a contract from the European Commission's DG III (Environment), was to study "Fire Prevention and other incidents" at the European level This aimed to find common problems associated with fires and to prepare principles and guidance to handle these problems. A group of five countries worked on the project, which resulted in the publication of a comprehensive report, with recommendations for action, in February 2004.

1 Federation of European Union Fire Officers' Associations.

2 Chief and Assistant Chief Fire Officers' Association (UK); this body has now changed its name to Chief Fire Officers' Association (CFOA).

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October

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#### XII. Conferences organised and /or sponsored by The Geneva Association

# 2004

14-15	New York	2 <sup>nd</sup> Annual Round Table of Chief Risk Officers
15	Rome	Montepaschi Vita Annual Forum 2004, 3rd Edition of the MPV Forum "The Paradigms of Value", in co-operation with Montepaschi Vita
21-22	Trieste	2 <sup>nd</sup> Conference on Health and Ageing, hosted by Generali
25	Hangzhou	Insurance Leaders Panel in China, co-organized with the Asia Insurance Review
28-29	Zurich	2 <sup>nd</sup> Conference on Liabilities and Legal Developments in Insurance, co-organised with Munich Re, RSA, SCOR, Swiss RE and Zurich Financial
November		
4-5	Geneva	20 <sup>th</sup> PROGRES Seminar on Regulation, Supervision and Global Trade Issues
8-9	Bordeaux	19 <sup>th</sup> M.O.R.E. Seminar at AXA University near Bordeaux (Management of Risks in the Economy)
11-12	London	1 <sup>st</sup> Geneva Association Insurance and Finance Conference, hosted by Prudential Corp. Plc
18	Washington	A Progress Reort on International Standards for Financial Stability, in co-operation with IIF and IMF
December		
1	Milan	Insurance and International Financial Reporting Standards, in co-operation with Macros Research
6-7	Zurich	2 <sup>nd</sup> Meeting of the Global Insurance Communications Network, co-organised with Zurich Financial Services
13-14	Paris	3rd Paris International Insurance Conference, co-organized with the FFSA
		2005
January		
11	New York	<b>Joint Industry Forum for P&amp;C Insurance Industry</b> , co-sponsored by The Geneva Association
February		
11	Amsterdam	7 <sup>th</sup> Meeting of the Geneva Association's Amsterdam Circle of Chief Economists (ACCE), hosted by ING
March		
21-25	Taipei, Taiwan	5 <sup>th</sup> CEO Insurance Summit in Asia, co-organized with the Asia Insurance Review
April		
7-8	Geneva	21th PROGRES Seminar, "Developing Financial Services Regulation and Supervision"
May		
tba	Hannover	CRO's Spring Workshop 2005