

ROAD ACCIDENTS WITH CASUALTIES

GENERAL SUMMARIES - 2003

Jerusalem, June 2004

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Contents

[Preface](#)

[Main Findings](#)

[Definitions and explanations](#)

[Diagrams](#)

[Tables](#)

[Assisted in the preparation of the publication](#)

PREFACE

This publication presents data on road accidents with casualties which occurred in 2003. The data are intended to complement and expand on the monthly summaries of road accidents with casualties published regularly in the "Monthly Bulletin of Statistics" and in the "Transport Statistics Quarterly", published by the Central Bureau of Statistics. The data in this publication are annual, countrywide data presented in various cross-sections of road accidents with casualties, vehicles and the casualties and drivers involved in those accidents.

The publication includes an appendix, which presents data on road accidents with casualties, which occurred in 2003 in Judea and Samaria (till 1994, this appendix was published annually in the "Transport Statistics Quarterly". **The appendix is also presented in English** beginning with this publication.

This publication is one of two on road accidents with casualties for 2003. In the second publication, No. 1205, data are presented on accidents on non-urban roads, including the number of road accidents, the volume of traffic and the probability of an accident for each kilometer and each intersection on selected non-urban roads.

The data are based on processing which has been conducted by the Central Bureau of Statistics, using Israel Police Force files on road accidents with casualties. We wish to thank the Israel Police for making the files available to us.

Processing of the data was commissioned and financed by the National Road Safety Authority and the P.W.D. (Public Works Department), Ministry of Transport. Concentration of the data and its preparation for publishing were done by the Transportation and Communication Sector of the Central Bureau of Statistics.

Ms. Zipi Muvdali who worked in the sector of road accidents statistics, has retired after more than 30 years at the Central Bureau of Statistics. We would like to thank her for her great contribution throughout the long career, which she will continue by coaching the new employees voluntarily.

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Jerusalem, 2004

A. Main Findings

In 2003 the Israel Police Force opened approximately 109,000 road accident files. Since 1996, in which the latest changes in criteria for opening road accident files were implemented, there has been a rise of approximately 10% in the number of files opened. During each of these years, 'R.A.' (road accident with casualties) files and 'General with Casualties' files (the two files that include casualties) constitute about 80% of all files. However, the continuous downward trend in the proportion of 'R.A' files out of all files with casualties stopped only in 2003 (Until 2003 the proportion of 'R.A' files dropped from one-third to one-fifth), while the proportion of 'General with Casualties' files rose consistently.

Files opened by the Police, by type and year:

Type of File	1996	1997	1998	1999	2000	2001	2002	2003
Grand total (thousands)	99	104	108	107	106	108	112	109
	Percent							
R.A. – road accidents with casualties	26	24	24	21	19	17	16	16
G.W.A. - general with casualties	53	56	56	58	61	63	64	64
D.O. - damage only	9	7	4	3	2	2	1	1
G.D.O. - general damage only	12	13	16	18	18	18	19	19

The findings are based only on R.A. files, and do not include approximately 70,000 road accidents with slight casualties, which were classified as G.W.A. files in 2003.

Road Accidents with Casualties

Severity of Injury	R.A.	Percentage of Change Compared with 2002
All accidents	17,745	-4
Fatal	418	-8
Serious	1,946	-1
Slight	15,381	-4

In the year 2003 there were 17,745 road accidents with casualties listed in Israel (not including Judea and Samaria). Except for 2002, the number of road accidents has continued to drop (a reduction of approximately 30% over the last six years). The number of serious road accidents has continued dropping (a decline of approximately 39% over the last eight years).

Of the total number of accidents, approximately 74% occurred on urban roads. Approximately 51% of the accidents on urban roads occurred at intersections, compared with only 43% on non-urban roads.

The severity of accidents was greater on non-urban roads than on urban roads. On urban roads approximately 1.4% of the accidents were fatal and another 9.6% were serious, whereas on non-urban roads they were approximately 4.9% and 14.8%, respectively.

Approximately 63% of the accidents occurred during daytime and approximately 37% occurred at night.

Approximately 73% of the total number of accidents were collisions of vehicles with vehicles, approximately 15% were hitting a pedestrian, and the rest were single-vehicle accidents.

Casualties in Road Accidents

Severity of Injury	Casualties	Percentage of Change Compared with 2002
Total injured	37,080	-3
Killed	451	-14
Seriously injured	2,410	0
Slightly injured	34,219	-3

37,080 people were injured in the 17,745 road accidents mentioned above. In 2003, the number of people killed was the lowest in the last 12 years. The number of seriously injured continues to drop, a reduction of approximately 39% during the last eight years. The number of people killed per 100,000 inhabitants dropped from 8.0 in 2002 to 6.9 in 2003, and the number of casualties per accident remained unchanged, 2.1.

The share of Arabs among the casualties is higher than their relative share of the general population: 19% of the general population in Israel, compared with 23% of all road accident casualties (26% of all persons killed). 26 Arab children (up to the age of 14) were killed in 2003, (54% of all children killed, and double the share of Arab children in the general population of children).

Approximately 36% of the casualties were injured in accidents on non-urban roads, which constitute approximately 26% of all accidents. Approximately 58% of the total number killed and approximately 42% of all seriously injured, were injured on non-urban roads.

Approximately 8% of all casualties (killed and injured), and approximately 36% of all those killed in accidents, were pedestrians. Elderly persons (aged 65+), constitute approximately 22% of all pedestrians who were injured, 2.2 times greater than their share of the general population.

Crosswalks do not ensure safe crossings. Of all pedestrians who were injured while crossing the street, about 57% were injured in crosswalks.

Of the children (aged 0-14) who were injured while crossing the street, approximately 45% were injured in crosswalks, and of elderly persons – approximately 60% were injured in crosswalks.

Vehicles Involved in Accidents with Casualties

33,772 vehicles were involved in road accidents with casualties, a decrease of approximately 5% compared with 2002.

In 2003, the number of vehicles involved in accidents with casualties was the lowest in the last 12 years.

Type of Vehicle	Percentage of Total Number of Motor Vehicles	Percentage of Annual Kilometers Travelled	Percentage Involve in Road Accidents	Percentage Involve in Fatal Road Accidents
Total	100.0	100.0	100.0	100.0
Thereof:				
Private cars	76.7	63.5	65.6	45.8
Truck – up to 4 tons (gross weight)	14.7	21.0	14.5	17.8
Truck – 16.0+ tons (gross weight)	0.9	3.0	1.5	6.1
Motorcycles	3.9	1.7	7.3	6.5

The share of small trucks (up to 4 tons) and large trucks (16 tons and more) involved in road accidents is significantly less than the share of the kilometers they travel yearly, whereas their involvement in fatal accidents is relatively high.

The share of motorcycles involved in road accidents is 4.3 times greater than the share of kilometers they travel yearly.

Drivers Involved in Accidents with Casualties

There were 33,772 drivers involved in accidents with casualties, a decline of approximately 5% compared with 2002.

In 2003, the number of drivers involved in accidents with casualties was the lowest in the last 12 years.

Approximately 78% of the drivers involved in road accidents were men and approximately 22% were women. The percentage of women out of all licensed drivers is approximately 40%. Of the total number of drivers involved in fatal accidents, approximately 10% were women.

Approximately 48% of all drivers involved in road accidents did not commit any driving offence at the time of the accident. Approximately 50% of the Jewish drivers and 42% of the Arab drivers involved in road accidents did not commit any driving offence at the time of the accident.

In 2003, 17,560 drivers committed a driving offence at the time of the accident, according to the following breakdown:

Offence	Drivers who Committed Driving Offences During a Road Accident			
	Grand Total (1)	Percentage of Grand Total (1)	Percentage of Total Jews	Percentage of Total Arabs
Grand Total	17,560	100	100	100
Failure to obey a traffic light	2,319	13	14	11
Failure to give 'right-of-way' to a vehicle	2,075	12	11	14
Deviation from lane	1,792	10	11	8
Failure to maintain distance	1,681	10	9	11
Failure to obey a 'right-of-way' sign	1,562	9	10	6
Failure to obey a 'stop' sign	1,489	8	9	5
Speeding	1,130	6	5	13
Wrong turn	942	5	5	7
Failure to give 'right-of-way' to pedestrians	894	5	6	2
Other offenses	3,676	22	20	23

(1) Incl. Also: non-Arab Christians, not classified by religion and foreigners.

The two most common driving offences were: failure to obey a traffic light and failure to give another vehicle the 'right-of-way'.

The most common driving offence among Jewish drivers is failing to obey a traffic light; whereas, among Arab drivers, the most common ones are failure to give another vehicle the 'right-of-way' and speeding.

The proportion of young drivers up to age 24 out of all drivers involved in accidents, was approximately 40% greater than their relative share of all licensed drivers. In comparison, the proportion of elderly drivers (aged 65+) involved in accidents was about 30% lower than their relative share of all licensed drivers.

Driving Offence	Drivers who Committed a Driving Offence During a Road Accident	Thereof:	
		Up to Age 18	Ages 55 – 64
Percentage			
Total	100.0	100.0	100.0
Speeding	6.4	16.3	2.0
Failure to maintain a distance	9.6	11.3	7.6
Failure to give a vehicle the 'right-of-way'	11.8	9.8	16.7
Failure to obey a traffic light	13.2	7.9	15.4

The breakdown of driving offences committed in accidents is not uniform among all age groups. Among young drivers up to age 18, there is a greater frequency of speeding and failure to maintain distance, but relatively less failure to give other vehicles the 'right-of-way' and failure to obey traffic lights. The opposite frequency was found among older drivers (55–64).

In addition to the road accidents mentioned above, (including the persons and vehicles involved) in 2003 the Israel Police Force registered 543 more road accidents that occurred in **Judea and Samaria**. Detailed data are presented in a special Appendix that at the end of this publication.

Judea and Samaria.

Since May 1994, the data do not include accidents, that occurred in areas of the Palestinian Authority; those areas have increased gradually, therefore a comparison of data from different years, which were recorded in Judea and Samaria, should be made cautiously.

Definitions and Explanations – see Introduction in this publication.

Source of data – see Introduction in this publication.

The data are based only on R.A. files, and do not include approximately 1,000 road accidents with slight casualties, which were classified as G.W.A. files in 2003

Accidents

In 2003, 543 road accidents with casualties were recorded in Judea and Samaria.

The number of fatal road accidents in that year was 27 (compared with 20 fatal road accidents in 2002).

Approximately 11% of the accidents were of the 'Hitting a Pedestrian' type (12% in 2002).

Casualties

In the road accidents mentioned above, there were 1,333 casualties. Of those, 35 people were killed (23 in 2002), and 146 were seriously injured (157 in 2002); 183 of the casualties were children (aged up to 14), and 29 were elderly persons (age 65+).

Vehicles Involved in Accidents

In 2003, 913 vehicles were involved in road accidents with casualties. Of those, approximately 52% were private cars, approximately 33% were trucks and approximately 6% were public vehicles.

Approximately 4% of the vehicles involved in road accidents with casualties were registered in Judea, Samaria and the Gaza areas.

B. Definitions and Explanations¹

Road accident: an accident which occurred as a result of the vehicle being in a state of motion on the road and causing injury to a person².

The data include accidents with casualties, investigated and listed by the Israel Police Force in road accident files ('R.A.' files), in which at least one civilian vehicle (including police cars), a civilian pedestrian, or a passenger was involved. The Israel Police Force does not list accidents in which only army vehicles were involved. As mentioned, the data do not include road accidents with only slight injuries, which are listed in 'General With Casualties' files.

The tables in this publication (excluding the Appendix) do not include data on accidents that occurred in Judea and Samaria and the Gaza area, except for a few accidents that took place in the Jewish settlements in the Gaza area. The data on accidents that occurred in Judea and Samaria (excluding the Palestinian Authority areas), and were dealt with by the Israel Police Force, presented in a special Appendix at the end of this publication.

Road includes all paths, ways, alleys, squares, passages, bridges, or any open place in which the public has rights of passage.

Urban road: Any road which is within the area of a local authority, whose entrance is marked by an inhabited area sign (↑) and whose exit is marked by an exit sign (Ø).

Fatal accident: An accident in which, or as a result of, at least one person was killed.

Killed: A person who died as a result of an accident, or died of his injuries within 30 days of the accident.

¹ These definitions are based on Standing Regulation 13.03.05 of the Israel Police Force.

² As of 1.8.1961, when it was no longer mandatory to report accidents in which there was only damage, there are no data at the Central Bureau of Statistics on road accidents without casualties.

An accident with serious casualties: An accident in which at least one person was seriously injured.

Serious casualty: A person who was hospitalized as a result of an accident for a period of 24 hours or more, not for observation only. The qualification “not for observation only” was added to the definition by the Israel Police Force in December 1995, in order to obtain a clear and uniform definition, since the previous definition was not applied uniformly in the field. The previous change in the definition of “seriously injured” was made in the second half of 1970. Until then, only those hospitalized for at least six days were included. One should therefore pay attention to the difference in definitions when comparing data of different years.

Accident with slight casualties: An accident in which at least one person was injured, which is not a fatal accident or an accident with serious casualties.

Slight casualty: A person who was injured as a result of an accident and was not hospitalized, or was hospitalized for a short period of time (less than 24 hours) or for observation only.

Type of accident - is determined by the initial condition of the accident, unless the accident was specifically listed as a “final condition”. Thus, for example, an accident that began as a skid and ended by overturning would be classified as skidding; an accident that began as a collision and ended by hitting a pedestrian would be classified as a collision.

Intersection: The area at which several roads meet. Accidents have been listed as ‘accidents at intersection’ even when they occurred on one of the roads of the intersection, but as a result of proximity to the intersection

Vehicle: Any motorized or non-motorized vehicle, including wagons, bicycles etc. For definitions and explanations of motorized vehicles, see: Central Bureau of Statistics, Special Publication 1206, *Motor Vehicles – 31.12. 2002*.

Types of vehicles: Beginning with the publication of the 1991 data, the list of vehicle types involved in road accidents was revised and adjusted to the changes introduced by the Ministry of Transport. An Additional revisions were made in 1994.

The main changes were listed for the following types of vehicles:

1. **Motorcycles** - as of 1991, motorcycles are defined according to engine capacity in cc (up to 50; 51 - 250; 251+).

The previous classification of scooter, motor scooter and motorcycle has been canceled.

2. **Trucks** - as of 1991, the classification is based on the gross weight of the truck and a distinction is made between trucks exceeding 4 tons and trucks weighing up to 4 tons.

As of 1994, minibuses are not included (see explanation below).

3. **Minibuses** - a new type of vehicle. Until 1993, the classification of trucks (up to 4 tons) also included vehicles with a special permit to carry passengers. During 1993, these vehicles were classified separately and as of 1994, they are presented as minibuses.

As a result of these changes, one should be cautious when comparing data, especially those regarding motorcycles and trucks, with data from the years preceding the changes.

A driver's offence is listed when, in the opinion of the accident examiner, the driver's offence contributed to the accident. It is not required that the driver involved be convicted of this offence, or be prosecuted for it.

Driver: Any person driving a motorized or non-motorized vehicle.

Passenger: Any person (excluding the driver) traveling in the vehicle, or at the stage of entering or leaving it; including an additional passenger on a bicycle, motorcycle, etc.

Pedestrian: Any person (including children in baby carriages or strollers, and disabled people in non-motorized wheelchairs), walking or standing in the road, at the side of the road, or on the pavement.

Accidents per 1,000 licensed vehicles and per 100,000 inhabitants: the data are annual averages, unless otherwise noted in the table.

Day and night: determined according to sunrise and sunset each day of the year.

Population group:

- **Jews** - incl. Jews.
- **Arabs** – incl. Moslems, Arab Christians and Druze.
- **Grand total** – incl. also: non-Arab Christians, not classified by religion and foreigners.

In the year 2003, the classification was changed. The category “Jews” is presented separately and does not include “non-Arab Christians” or “not classified by religion” (“Others”). Furthermore, an improved classification method was adopted for classifying the population group of casualties and drivers. Following this change, and for the sake of comparison with the 2002 data, the table below presents the 2002 data according to both methods:

Population Group	Casualties		Drivers	
	New Method	Old Method	New Method	Old Method
Grand total	38,204	38,204	35,445	35,445
Jews	28,168	} 29,700	28,402	} 29,516
Others	1,132		872	
Arabs	8,708	8,308	6,035	5,793
Foreigners	196	196	136	136

Source of Data - Explanations and Changes

The source of data is the file of road accidents (R.A. files) received from the Israel Police Force.

In the course of dealing with road accidents, the Police open four types of files:

1. **R.A.** - road accident – a road accident with at least one casualty.
2. **D.O.** - damage only – a road accident without casualties, with damage only.
3. **G.W.C.** - general with casualties – a road accident with one or more person slightly injured, which has not been classified as a R.A.
4. **G.D.O.** - general damage only – a road accident without casualties, and with damage only, which has not been classified as D.O.

As noted, **this publication is based only on R.A. files.**

Additional explanations on the types of files are presented in the section below: “Changes in the criteria for opening a road accident file”.

Changes in the criteria for opening a road accident file (R.A. file): In the 1990’s, the Israel Police Force made significant changes in the criteria for opening various types of files for road accidents. These changes affected the number of R.A. files on which – and only on which – the data presented in this publication are based. This should be kept in mind, when making comparisons with the data before 1996. The changes were introduced in two stages:

- a. During 1993 (applied gradually between May and December).
- b. In December 1995 (actually as of 29.11.1995).

A short description of the changes is presented below:

The first change – was intended primarily to shorten the “reporting gap” (the number of days that pass between the date of the accident and the date a report is filled with the Police). In other words, shortening the period of time which determines if a road accident with slight casualties is classified as a R.A. file, or as a G.W.C. file, from a period of eight days (until the change in 1993) to a period of three days only between the occurrence of a slight accident and its report.

According to an estimate for the year 1994 conducted by the Central Bureau of Statistics, the change led to a reduction of more than 9% in the number of road accidents with slight casualties for which R.A. files were opened. The 9% were listed as G.W.C. files, and therefore were not included in the 1994 publication.

A detailed explanation of this change and its consequences appears in two previous publications of the Central Bureau of Statistics: Special Publication 1011, *Road Accidents with Casualties, 1994 - Part I: General Summaries* and in Special Publication 1041, *Road Accidents with Casualties, 1995 - Part I: General Summaries*.

The second change was intended to standardize the factors that affect the type of file opened. Within this framework, the “reporting gap” relating to road accidents with slight

casualties in the case of a severe driving offence was increased from 3 to 30 days, while restrictive conditions were added for a slight driving offence.

Some of these changes reduce the number of R.A. files and others increase it. Therefore, we have no reliable data on the overall influence of those changes.

Within the framework of the changes made in 1995, the definition “seriously injured” was redefined as: “a person who was hospitalized as a result of a road accident for a period of 24 hours or more, not for observation only”. Were the phrase “not for observation only” was added

This change affects both the number of accidents with slight casualties as well as the number of accidents with serious casualties. It is impossible to evaluate the change and its impact, since the lack of uniformity in implementing the definition before the change may cause fluctuations in either direction.

A detailed explanation of the change made in 1995 and its impact is presented in previous publications of the Central Bureau of Statistics: *Road Accidents with Casualties – Part I: General Summaries*, for the years 1996, 1997 and 1998 (Special Publications 1071, 1088, and 1113 respectively).

The changes carried out during 1993 and in December 1995, caused an irregularity in the data series and make it difficult to compare data before and after the changes.

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