

## OLA - (Objective data, List of solutions, Addressed action plans)

*"A systematic collaboration for safer road traffic"*



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## In-depth studies of fatal accident – Why?

Every fatal accident is a catastrophe  
In-depth studies is practice since 1997

### **Aims:**

- Objective analyse of injuries and cause of death
- To increase awareness and commitment
- To improve safety standards
- To prevent similar accidents to happening again
- Not to blame the victim



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## In-depth studies of fatal accident – results!

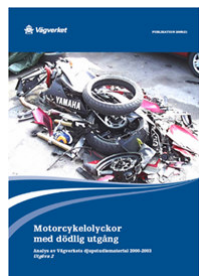
### A written file including:

- SRA's investigators report (vehicles and accident sites)
- Police report (technical report and interview protocol)
- Information from registers (driving licence, vehicles)
- Autopsy/coroners report (injuries)
- Rescue operation



## In-depth studies of fatal accident – results!

- Correction in road environment
- Presentation to the management level in the SRA
- Available files for further analysis (OLA)
- Summery reports:





**Before**

**After**



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## **OLA** - Objective data, List of solutions, Addressed action plans

**A systematic collaboration for safer road traffic**

### **Why?**

- Improve traffic safety to prevent future serious crashes
- Collaborate with relevant system designers
- Develop solutions and addressed action plans

### **Aim**

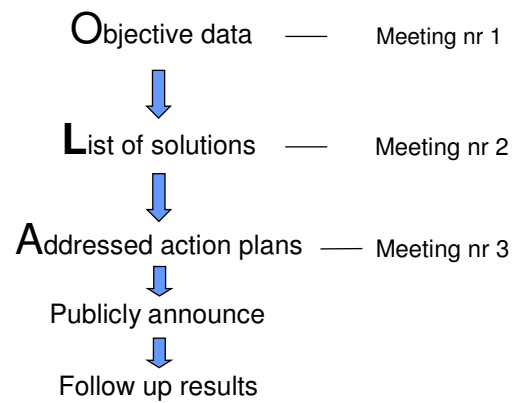
- All participants contribute with specified action-plans which leads to increased traffic safety

National and regional OLA-projects are performed



# OLA

## How?



# OLA

## **O - Objective data**

- Analysis of in-depth studies
- Literature reviews
- Official statistics
- Other data

## OLA

### ***L - List of solutions***

Identify effective solutions (short and long term)

1. What can my organisation do?
2. What is needed from other organisations?
3. Is co-operation between organisations needed?

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## OLA

### ***A - Addressed action plans***

The stakeholders addressed action plans should be:

- Relevant
- Clear enough (who? what? when? how much?)
  
- ***Publicly announce***
- ***Reported to the Road Traffic Inspectorate***
- ***Follow up results***

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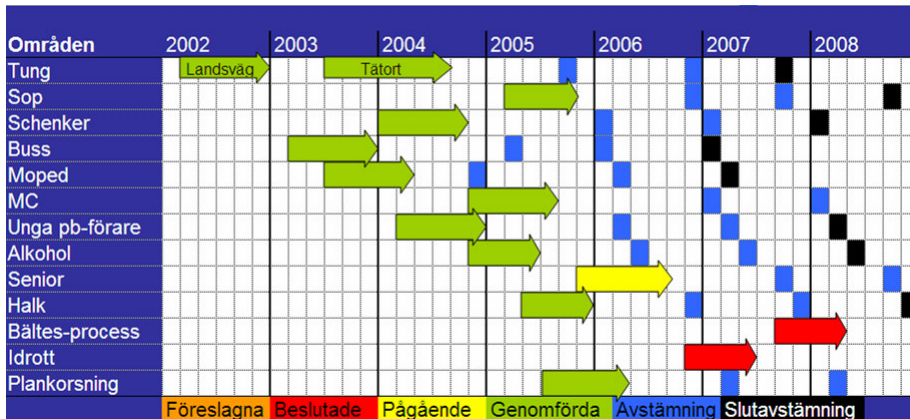
## Performed national OLAs 2002-2006

(121 action plans from 73 different organisations)



**On-going:** Senior-OLA  
**Planned:** Sports-OLA

## National OLA - time plan



# MC-OLA

- For safer motorcycle traffic -
















## OLA

- Objective data
- List of solutions/actions
- Addressed action plans

*"A systematic working approach involving collaboration between players and targeted action for safer road traffic."*



## Participants

- |   |                                       |   |   |
|---|---------------------------------------|---|---|
|  | National Police Board                 |  | Sporthoj.com (motorcycle website)                   |
|  | Swedish Road Administration           |  | McRF (national society for the motorcycle industry) |
|  | National Society for Road Safety      |  | Jofama (protective clothing manufacturer)           |
|  | The Swedish Insurance Federation      |  | Honda   |
|  | Swedish Vehicle Inspection Company    |  | Harley Davidson Club Sweden (insurance federation)  |
|  | The Swedish Motorcyclists Association |  | SMR (motorcycle dealers)                            |
|  | Allt om Mc (motorcycle magazine)      |  | STR, TR (driving schools)                           |
|   |                                       |  |   |

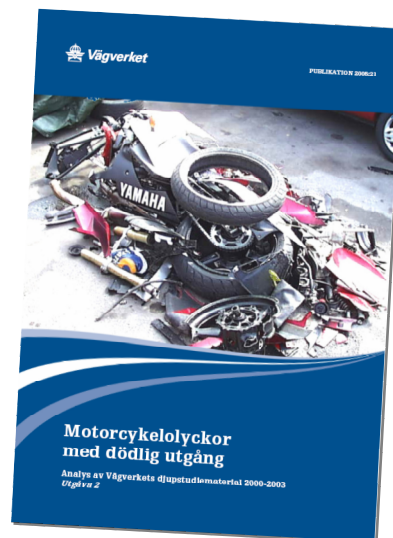
## Objective data

- Fatal motorcycle accidents (SRA, 2005)
- Motorcycle safety – A study of the literature (TØI, 2003)
- In-depth investigation of motorcycle accidents (Maids, 2004)
- Report – Serious accidents involving MCs and mopeds (Swedish Road Traffic Inspectorate, 2005)
- Injury statistics (Swedish Insurance Federation, 2005)
- The accident risk of motorcyclists (TRL, 2004)



## Fatal motorcycle accidents

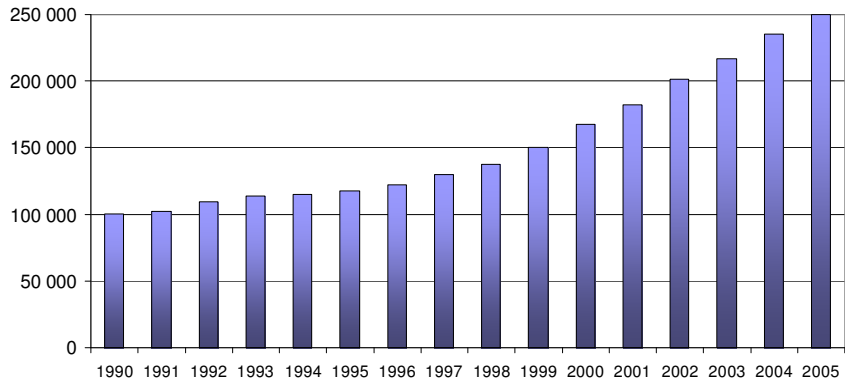
Analysis of the SRA's in-depth study report, 2000-2003, 160 motorcycle accidents resulting in the death of 168 people.



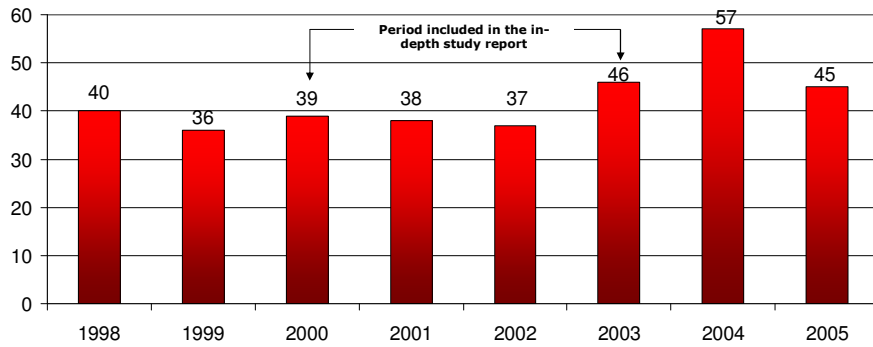




### Motorcycles in traffic, July 1st 1990-2005



### Motorcycle fatalities 1998 - 2005



## 168 people were killed in 160 MC accidents

2000-2003

Hit by an MC and killed, 10  
MC passengers killed, 11



Hit and killed	
Pedestrians	5
Car drivers	3
Cyclists	2
<b>Total</b>	<b>10</b>

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## MODEL AND CLASS



Standard		No.	Custom		No.	Off-road		No.	Touring		No.
Aprilia	AF1 125	1	HD	XLH	1	BMW	F 650	1	Honda	ST 1300	1
Ducati	monster 600	1	HD	FXSTB	2	Honda	SLR 650	1	Honda	GL 1500 SE	2
Honda	CB 400	2	HD	FLST	1	Honda	XL 1000	1			
Honda	CB 550	1	HD	XL/2	1	Husaberg	FE 350	1			
Honda	CB 650	1	Moto Guzzi	california V7	1	Husaberg	FS 650	1			
Kawazaki	Z 1300	1	Suzuki	VL 1500	1	Kawazaki	KL 650	1			
Suzuki	GSX 400	2	Suzuki	VS 800	1	KTM	125 SX	1			
Suzuki	GSX 600	1	Yamaha	XVS 650	1	KTM	EXC 250	1			
Suzuki	GSX 1100	1	Yamaha	XVS 1100	2	KTM	660 SMC	1			
Suzuki	VX 800	1				Suzuki	RM 125	1			
Yamaha	XJ 600	1				Yamaha	DT 125	1			
Yamaha	XJ 900	1				Yamaha	YZ 250	1			
Yamaha	FJ 1100	1				Yamaha	XT 600	1			
Yamaha	TZR 125	2									
Yamaha	FZ 750	1									
Yamaha	VMX 1200	1									
Yamaha	XS 1100	1									

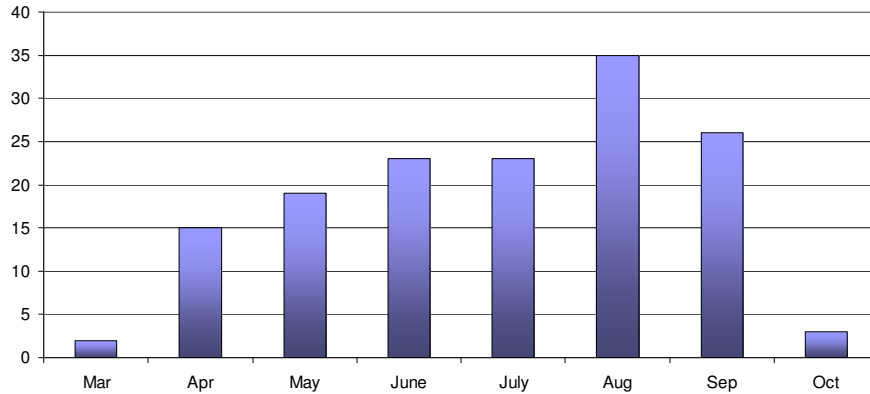
Three MC classes are missing in the list

20



### TIME PERIOD - MONTH

Number of fatalities, 146 MC riders

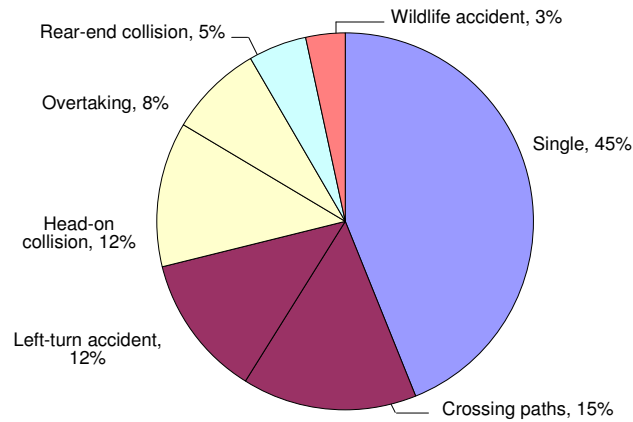


**There are more motorcycle fatalities in the period Aug-Sept than April-May**

23

### TYPE OF ACCIDENT

Percentage of fatalities, 146 MC riders



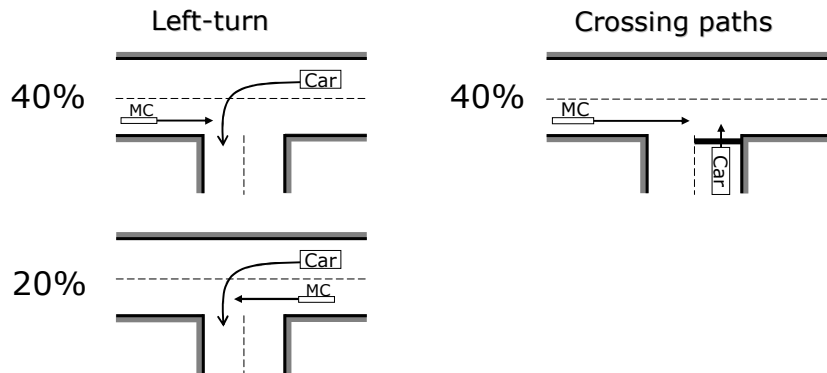
Number killed	
Single	64
Intersection	40
Head-on	18
Overtaking	12
Rear-end	7
Wildlife	5
<b>Total</b>	<b>146</b>

**Almost half of all MC drivers were killed in single accidents**

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### Intersection accidents

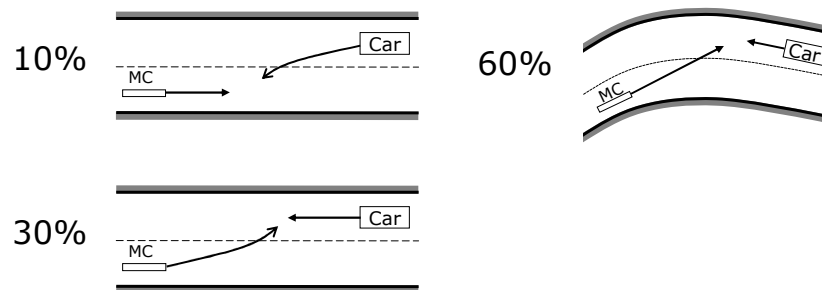
40 MC accidents



In 6 of 10 intersection accidents, the motorcyclist was driving more than 30 km/h above the posted speed limit

### Head-on collisions

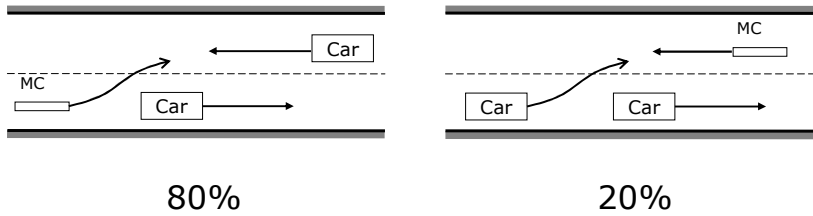
18 MC accidents



In 9 of 10 head-on collisions, the MC had driven over onto the opposite traffic lane

## Overtaking accidents

12 MC accidents



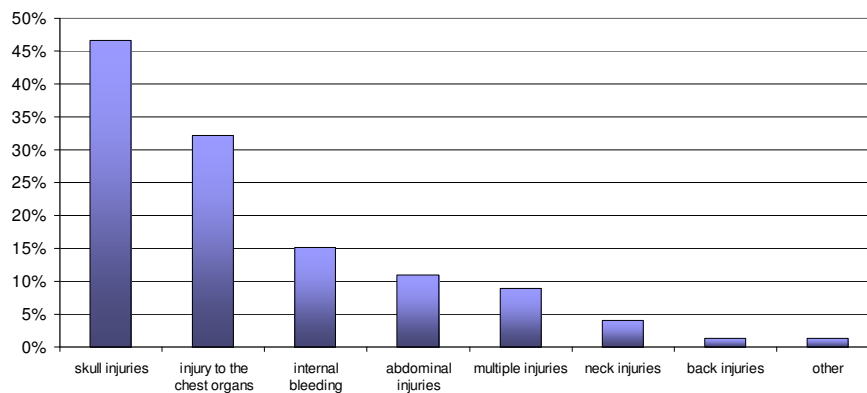
In 8 of 10 overtaking accidents, the MC was the overtaking vehicle

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## CAUSE OF DEATH

Percentage of fatal injuries

157 motorcyclists suffered 176 fatal injuries

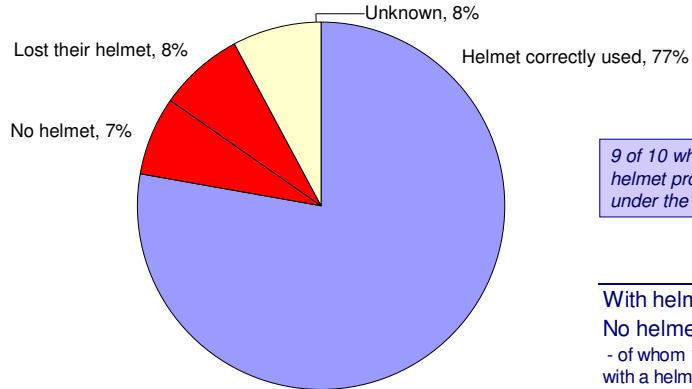


Almost half of all fatal injuries were skull injuries

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## HELMET USE

Percentage of fatalities, 157 MC riders



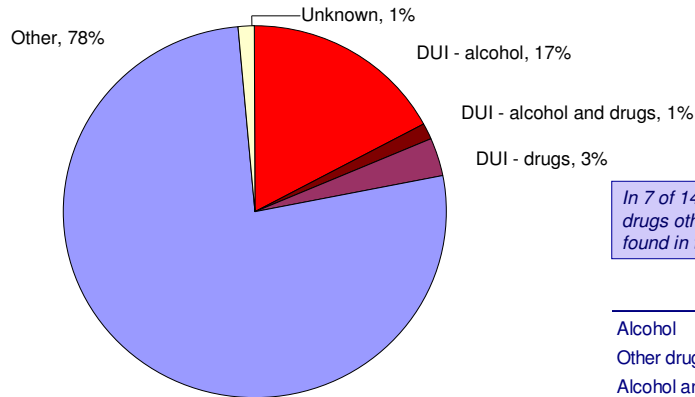
*9 of 10 who were not using a helmet properly were driving under the influence of alcohol.*

**Almost every fifth motorcyclist killed had either lost his/her helmet or was not wearing one**

With helmet	122
No helmet	11
- of whom 1 would have survived with a helmet	
Lost their helmet	12
Use uncertain	12
<b>Total</b>	<b>157</b>

## ALCOHOL and DRUGS

Percentage of fatalities, 146 MC drivers



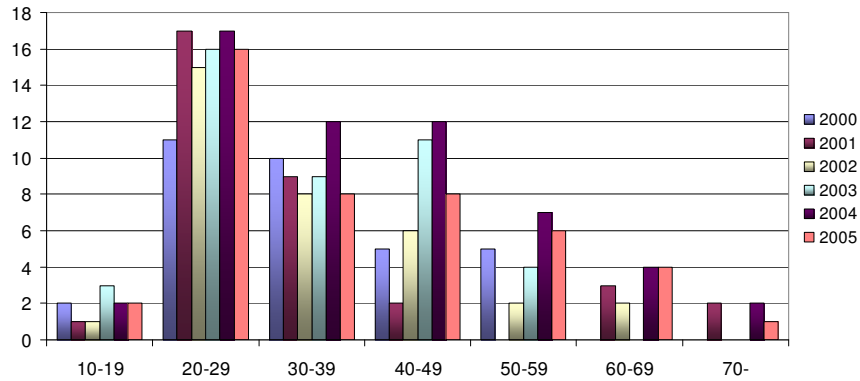
*In 7 of 146 cases, traces of drugs other than alcohol were found in the MC driver*

**Every fifth motorcyclist killed had been driving under the influence of alcohol or other drugs**

	<b>Number killed</b>
Alcohol	25
Other drugs	5
Alcohol and other drugs	2
Neither alcohol or drugs	112
Unknown	2
<b>Total</b>	<b>146</b>

## AGE trends

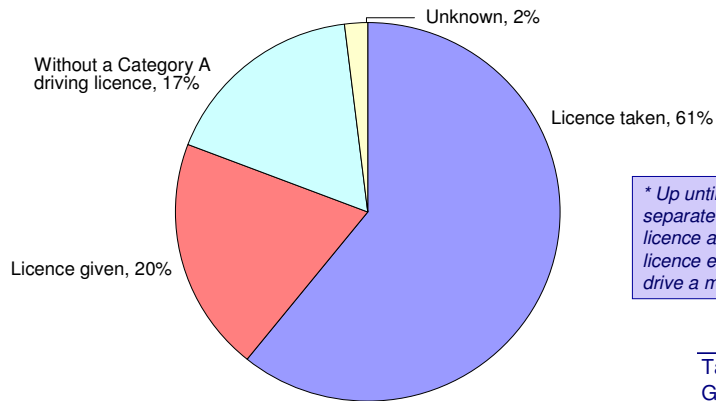
2000-2005, 245 MC drivers



The 20-29 age category accounts for most of the fatalities

## DRIVING LICENCE ACQUISITION

Percentage of fatalities, 146 MC drivers



\* Up until 1975 there was no separate test for a Category A licence as a Category B driving licence entitled the holder to drive a motorcycle

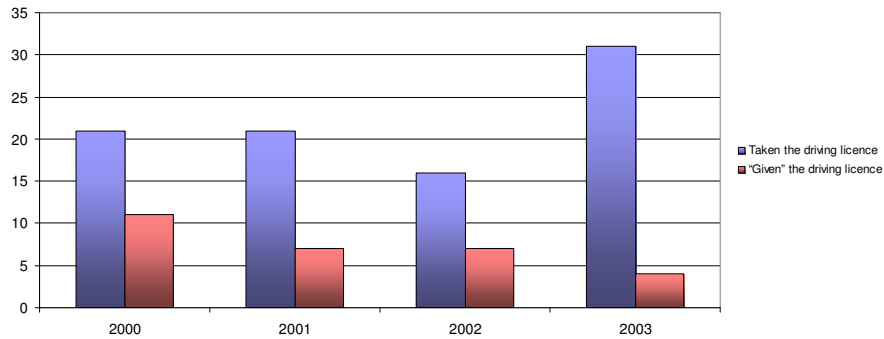
Every fifth fatality was someone who had been "given" \* a Category A driving licence

Number killed	
Taken	89
Given	29
No "A" licence	25
Unknown	3
<b>Total</b>	<b>146</b>



## DRIVING LICENCE ACQUISITION

Development 2000-2003, 118 MC driver fatalities

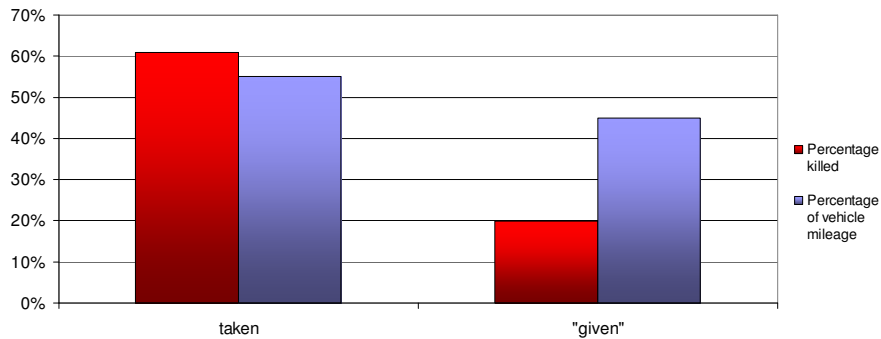


Amongst the fatalities, the number "given" a Category A licence decreased during the period, while the number of those who took it increased

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## DRIVING LICENCE ACQUISITION versus VEHICLE MILEAGE

Percentage of fatalities, 118 MC drivers

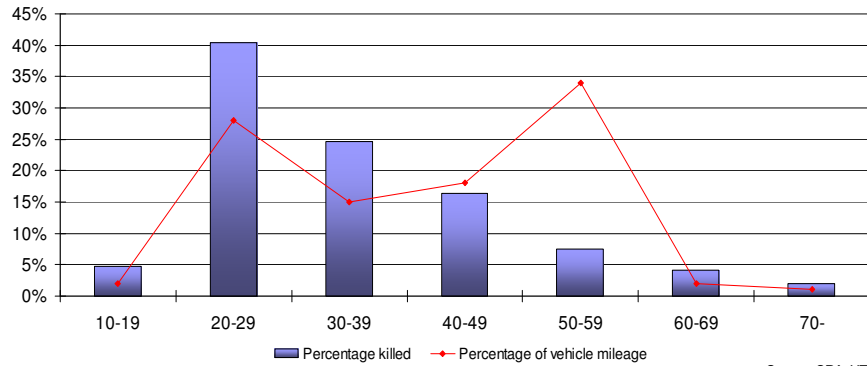


The percentage of those who were "given" a Category A driving licence are clearly underrepresented in the accident statistics

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## AGE versus VEHICLE MILEAGE

Percentage of fatalities, 146 MC drivers



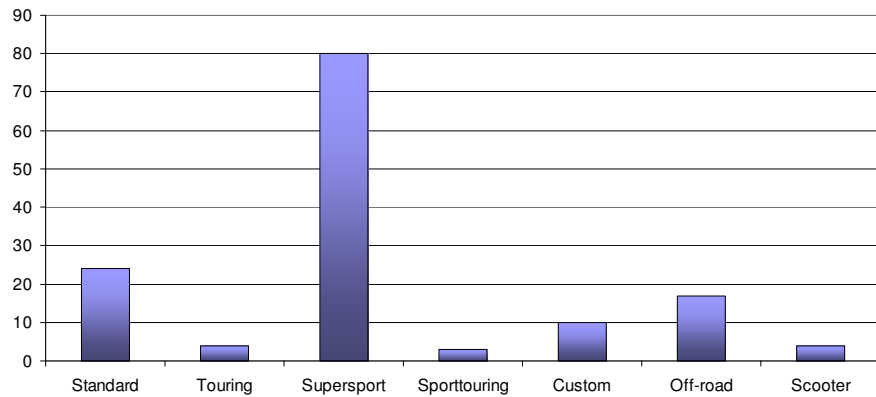
Source: SRA, VTI, 2004

The accident statistics show a clear underrepresentation in the 50-59 age category

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## MC CLASS

Percentage of fatalities, 146 MC drivers



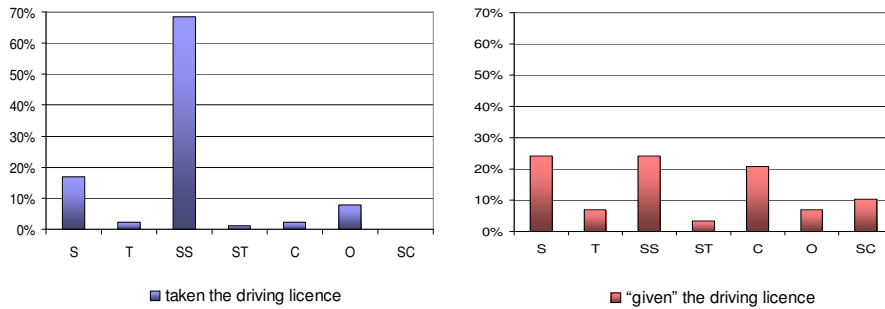
Source: SRA and SMC, 2004

More than half of those killed were driving a Supersport

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## MC CLASS and DRIVING LICENCE ACQUISITION

Percentage of fatalities, 118 MC drivers

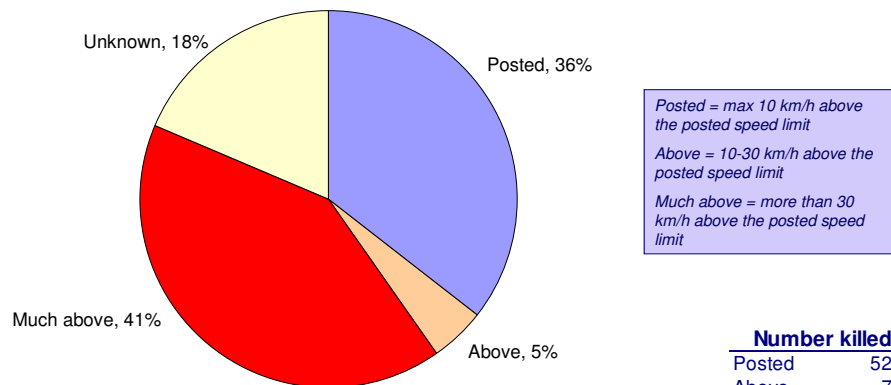


7 of 10 of those who had taken their licence were driving a Supersport

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## ESTIMATED SPEED

Percentage of fatalities, 146 MC drivers



Posted = max 10 km/h above the posted speed limit  
 Above = 10-30 km/h above the posted speed limit  
 Much above = more than 30 km/h above the posted speed limit

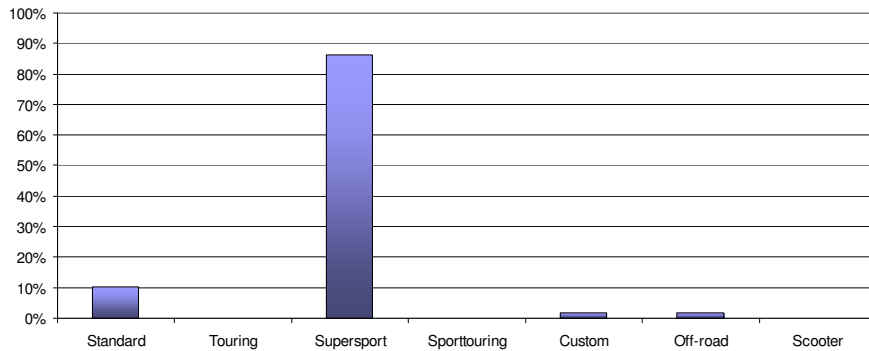
Number killed	
Posted	52
Above	7
Much above	60
Unknown	27
<b>Total</b>	<b>146</b>

4 of 10 were considered to have been driving much above the posted speed limit

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## SPEED LIMIT VIOLATION by MC CLASS

60 accidents *much above* the posted speed limit

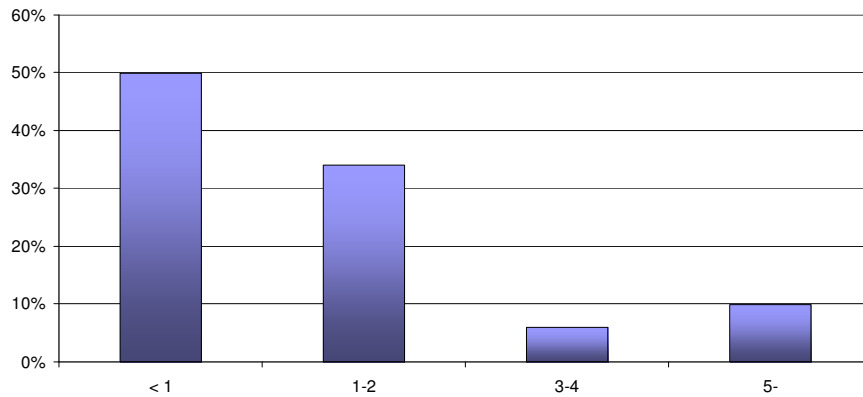


Almost 9 of 10 who drove much above the posted speed limit were driving a Supersport

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## LENGTH OF OWNERSHIP of the MC involved

50 MC driver fatalities who owned their MC, 2002-2003

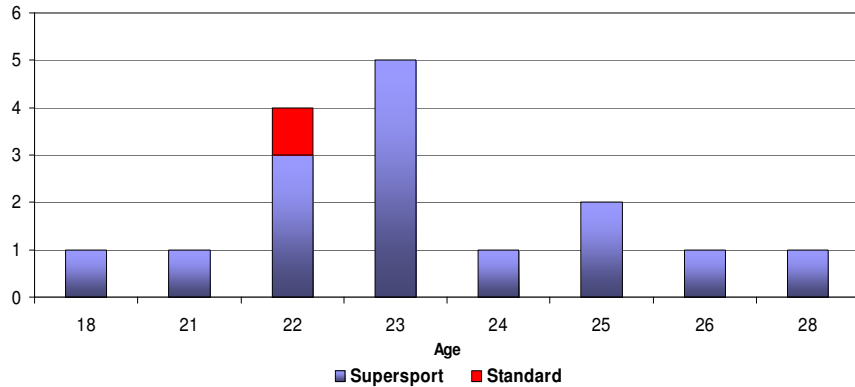


Half of those who owned the MC involved had done so for less than a year at the time of the accident

40

### Length of driving licence ownership by age

16 MC drivers with a licence less than a year old

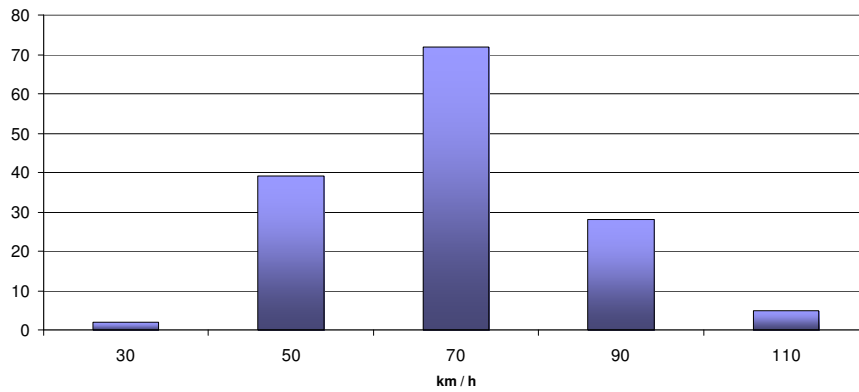


All those who were killed during their first year of possession of a Category A licence were under the age of 29, and 15 of 16 were driving a Supersport

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### POSTED SPEED LIMIT

Number of fatalities, 146 MC drivers



Half of the fatalities were on roads with a speed limit of 70 km/h

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## ROAD DEFICIENCIES

146 MC driver fatalities

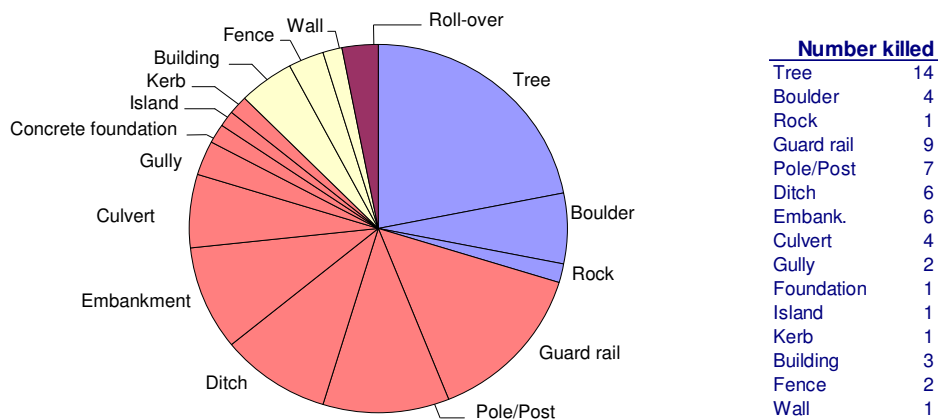
	Number	Per cent
<b>No deficiencies</b>	136	93.0%
<b>Ruts</b>	5	3.4%
<b>Pothole</b>	2	1.4%
<b>Rounded gravel</b>	1	0.7%
<b>Other</b>	1	0.7%
<b>Unknown</b>	1	0.7%
<b>Total</b>	<b>146</b>	<b>100%</b>

In 7% of the fatal accidents, the roadway itself had deficiencies that were considered to be a crucial factor

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## CRASHED OBJECT

Percentage of fatalities, 64 single accidents

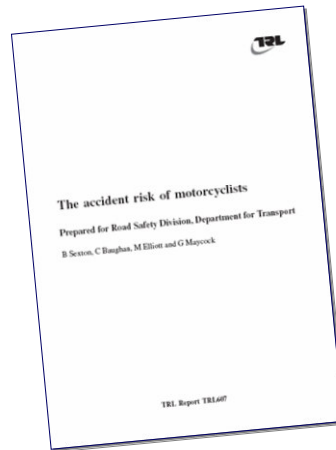


During the period, no one was killed through crashing into a median barrier

44

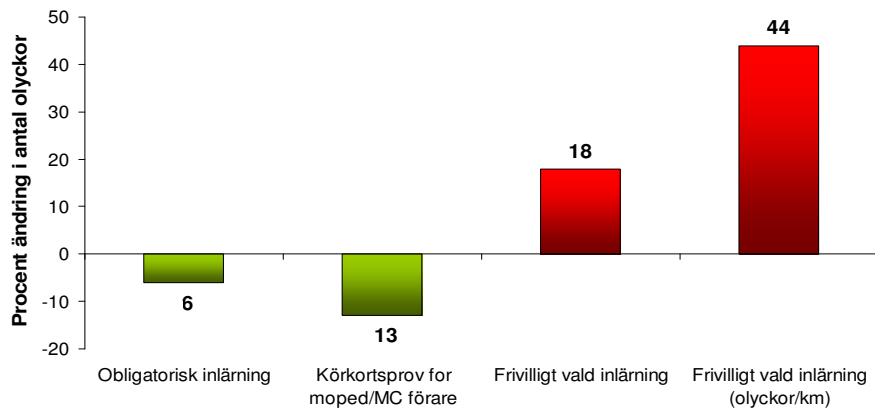
## The accident risk of motorcyclists (TRL, 2004)

- **Young drivers has a higher accident risk** than older drivers with the same driving experience
- **Novice drivers has a higher accident risk** than more experienced drivers in the same age.
- **Motorcycle training should not focus on skills alone**, but needs to improve insight into risk and selflimitations.



## Motorcykelsäkerhet – litteraturstudie & metaanalys (TÖI, 2003)

### Utbildning – effekt på olyckor



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[Startsida](#) | [A-O](#) | [Kontakt](#) | [Översikt](#)

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**Projekt**

- » Alkohol-OLA
- » Buss-OLA
- » Halk-OLA
- » MC-OLA
- » Moped-OLA
- » Planerings-OLA
- » Schenker-OLA
- » Senior-OLA
- » Tung-OLA
- » Ung-OLA

**Direktkontakt med Vägverket**

Ställ frågor och lämna synpunkter till oss!



» Startsida = Trafiksäkerhet = OLA - ett systemiskt... = Projekt = MC-OLA

**MC-OLA - för säkrare motorcykeltrafik**

Arbetet avslutades med att de tecknade avsiktsförklaringarna offentliggjordes vid Työlösandseminariet i augusti 2005.

Att åka motorcykel har de senaste åren ökat i popularitet och i dag finns cirka 250 000 motorcyklar i trafik. Tyvärr visar det sig också i olycksstatistiken. År 2004 omkom 57 motorcyklister, och under perioden januari - juli 2005 omkom 26 motorcyklister. Under motsvarande period 2004 omkom 38 motorcyklister. För att åstadkomma en förändring av den negativa utvecklingen inledde flera aktörer ett samarbete i början av 2005.

**Fakta**

- = Om-presentation MC-OLA i Työlösand 2005-08-18 (Powerpoint), 7,3 MB
- = 0. Börje här - Sammanställning av underlag används i MC-OLA 2005 (Wordfil), 28,5 kB
- = 1.1 Djupestudierapport (upgåva 2, Vägverket 2005) (PDF-fil), 4,2 MB
- = 1.1.1 In-depth study report. Analysis of SRA's in-depth study of motorcycle accidents (PDF-fil), 1,57 MB
- = 1.2 Om-bilder djupestudierapport (Vägverket 2005, rev. 050809) (Powerpointfil), 3,8 MB
- = 2. Motorcykelsäkerhet - en litteraturstudie och metaanalys (TÖI 2003) (PDF-fil), 1,2 MB
- = 3. In-depth investigations of accidents involving powered two wheelers (MAISG 2004) (PDF-fil), 1,5 MB
- = 4. Ett program för de europeiska motorcyklisternas trafiksäkerhet (FEMA 2004) (PDF-fil), 1,1 MB
- = 5. RM - påfalla olyckor med moped och mc (VI 2005) (PDF-fil), 240 kB
- = 6. The accident risk of motorcyclists (TRL 2004) (PDF-fil), 8,4 MB
- = 7. Personkaderstatistik rapporterad till försäkringsbolag (Förs.förb. 2005) (Powerpoint-fil), 816 kB

**Aktörernas avsiktsförklaringar**

- = Allt om mc (PDF-fil), 214 kB
- = Bilprovningen (PDF-fil), 598 kB
- = Försäkringsförbundet (PDF-fil), 942 kB
- = Harley-Davidson Club Sweden (PDF-fil), 716 kB
- = Honda MC svenska AB (PDF-fil), 873 kB
- = Jafama AB (PDF-fil), 774 kB
- = Moped- och motorcykelbranschens riksförbund (MöRF) (PDF-fil), 1,25 MB
- = NTF (PDF-fil), 25 kB
- = Rikspolisstyrelsen (PDF-fil), 145 kB
- = Sveriges motorcyklisters centralförbund (SMC) (PDF-fil), 58 kB
- = SportHoj.com (PDF-fil), 917 kB
- = Sveriges trafikskolors riksförbund (STR) (PDF-fil), 160 kB
- = Trafikskolans riksförbund (TR) (PDF-fil), 191 kB
- = Vägverket (PDF-fil), 577 kB

**Kontaktpersoner**

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 Tel: 031-24 46 33  
 E-post: [johan.strandroth@vv.se](mailto:johan.strandroth@vv.se)

» Kontaktlista och porträttgalleri (PDF-fil), 172 kB

Uppdaterad 2006-04-26



**Beställ Cd-skiva**



Beställ Cd-skivan "MC-OLA". Skivan innehåller Om-presentationer, avsiktsförklaringar med mera från de olika aktörerna som deltar i OLA-projektet. Cd-skivan är gratis.

Djupestudierapporten kan beställas mot avgiftsnadspriset. Färdtryck ca 150 kr eller svarttryck ca 20 kr.

= Vägverkets butik

**Intern länk**

= Pressmeddelande 2005-08-18

**Länktips**

- = Allt om Mc
- = Bilprovningen
- = Försäkringsförbundet
- = Harley-Davidson Club Sweden
- = Honda MC Svenska AB
- = Jafama AB
- = Moped och motorcykelbranschens riksförbund, MöRF
- = NTF
- = Rikspolisstyrelsen
- = Sveriges Motorcyklisters Centralförbund, SMC
- = Sveriges Motorcykelhandlarnas Riksförbund, SMR
- = SportHoj.com
- = Sveriges Trafikskolors Riksförbund, STR
- = Trafikskolans Riksförbund, TR

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