

# **Traffic Safety on Two Continents**

Lisbon, 22-24 September 1997

VTI, TRB, LNEC, FERSI

## **ROAD ACCIDENT DATA BASES WITH DISAGGREGATE DATA IN THE TWO CONTINENTS**

*Dr. George Yannis, Dr. John Golias, Dr. George Kanellaidis*

National Technical University of Athens  
Department of Transportation Planning & Engineering

# **OBJECTIVE**

Comparative analysis of the current and future potential of FARS and CARE systems allowing for the extraction of useful information on their utility and their further development.

# **METHODOLOGY**

- research on the potential of various international data files
- extensive bibliography research
- questionnaire for the collection of information
- interviews with system managers
- comparative analysis (uniformity, comparison Tables)

# CARE

## Community database with Accidents on the Roads in Europe

- 15 national files in their original form
- production of multi-dimension aggregate reports
- an important effort to face data incomparabilities
- powerful data base
- fruitful pilot operation
- limited access under the reciprocity principle
- great and unique potential  
(international comparisons, exchange of experience, cooperation platform)

# FARS

## Fatal Accident Reporting System

- data on all fatal road accidents within the US
- an agency in each state providing information
- thorough data quality control
- high degree of data homogeneity
- links with other data (production of indicators)
- complete set of output services  
(paper, electronic, internet)
- user oriented information dissemination policy
- a powerful policy support tool

# GENERAL CHARACTERISTICS

	<b>European Union</b>	<b>United States</b>
federal integration	under process	established decades ago
central budget	limited	considerable
negotiation power	limited	strong
state participation in decision making	direct	indirect
transportation policy	multiplicity of approaches	homogeneity
road safety policy	very “young”	many and important initiatives

# BASIC FIGURES

	<b>CARE</b>	<b>FARS</b>
Operation	pilot since 1995	since 1975
Data availability	since 1991	since 1975
Budget	~2m\$	~19m\$
Staff	less than 10	360
States	15	52
Variables used	~30	~100
Values used	~600	~3.200
File size per year	> 1Gb	~30 Mb

# DATA COLLECTION AND PROCESSING

	<b>CARE</b>	<b>FARS</b>
data collection	state responsibility	state responsibility
road accident data	fatal and injury	fatal only
confidentiality principle	yes	yes
further processing of the state data	at central level	at state level (by special agencies)
data comparability	limited	high
computer	main frame	PC
system architecture	centralised (1 copy)	decentralised (2 copies)
links with other data	priority for implementation	possible for some data sets

# OUTPUT REPORTS AND EXPLOITATION POLICY

	<b>CARE</b>	<b>FARS</b>
output services	basic	complete set
on-line access	effective	internet
demand for statistics	limited and unpredictable	important and predictable
users policy	under development	advanced
access policy	national administrations on a reciprocity basis	everybody
access to original data	no	limited



# CONCLUSIONS

- Strengths and limitations of the two systems reflect (and are explained by) equivalent strengths and limitations of the road safety policy in the two continents.
- Maturity of a powerful tool for federal-level road accident analysis versus pilot operation of a system with limited data homogeneity and a great potential.
- Interrelation between central power and states defines the negotiation power for the operation of a uniform central system.

# FUTURE PERSPECTIVE

- CARE can benefit a lot from the experience gained during the FARS 25 years experience.
- Future convergence of the two systems could open new horizons and perspectives in international road accident data analysis.
- Common EU/USA research on establishing common variables and values of road accident data is a difficult task which can produce very useful results.

# **Traffic Safety on Two Continents**

Lisbon, 22-24 September 1997

VTI, TRB, LNEC, FERSI

## **ROAD ACCIDENT DATA BASES WITH DISAGGREGATE DATA IN THE TWO CONTINENTS**

*Dr. George Yannis, Dr. John Golias, Dr. George Kanellaidis*

National Technical University of Athens  
Department of Transportation Planning & Engineering