Saving Lives with CARE
CARE9 Training for Alabama

CARE
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Agenda for the day...
8:30-9:00  Background, Web, Downloading
9:00-9:45  Queries: Frequency, Cross-Tab
10:00-11:00  Creating/Combining Filters
11:00-11:45  Information Mining (IMPACT)
11:45-12:45  Lunch
1:00-2:00  Non-mile-posted Locations
2:15-3:00  Mile-posted Locations
3:00-4:00  IM, Before and After Studies

Goals for 8:30 Session
After this session you should know:
- Importance and Capabilities of CARE
- How to Access CARE/WWW
- How to Download CARE Desktop
- Resources Available on Web
Background: Objective of CARE

- Maximum Safety Increases
  - Fatality reduction
  - Injury reduction
  - Crash frequency reduction
  - Severity reduction
- **Within Budget Constraints**

Accomplishing This Objective

- Determine
  - Extent of problem
  - Potential for benefit
- Formulate Countermeasures
  - Target - who, what, where
  - Approach - when, why, how

Reduction Potential Example

**Alabama Example, Circa 1975**

- Countermeasure: Hot Dots – ReflectORIZED “stick-ons” given to young people in rural areas
- Sub-population
  - children, age 5-16...
  - Involved in pedestrian crash...
  - In the target areas (rural)...
  - occurring in darkness.
- Potential: 3 Crashes per year (1.7% of problem)
- How many of these affected by Hot Dots?
- Could money better be spent on general program to help the 181 pedestrians injured age 5-16?
- The answer is obvious given the information.
Advantages of Local Use

- Centralized Capability is Limited
- Locals Can Best Interpret Results
- Countermeasures Developed Must:
  - Meet local needs
  - Fit within local environment
  - Fit available resources
- Local Use Improves Data Quality
- There is Nothing Like Hands-On

CARE Capabilities: General

- Easily define subsets (filters)
- For any subset and all variables:
  - Frequency
  - Cross-Tabulation
  - IMPACT: information mining
- High crash location analyses
  - Collision diagrams – Intersection Magic
  - Hotspot lists and reports

Filters and Subsets

Filter - mechanism for restricting consideration to a particular subset of the crashes.
Subset - records of only those crashes with particular characteristics.
Examples: alcohol, pedestrian, county, quad-cities, youth, trucks, restraints, motorcycle, bicycle...
Frequency and Crosstabs

**Frequency** - one variable summary.
**Cross-Tab** - two variable summary.
**Variable** - any attribute/block on crash form.
**Examples:** day of week, age of driver.
**Summary** - count and percent of number of times specific entry appears in the data.

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How to Access CARE/WWW

- Activate Your Browser
- Enter the URL:
  - [http://caps.ua.edu](http://caps.ua.edu)
Making Basic Web Queries

- Click: Online Analysis
- Follow the steps:
  1. Choose dataset
  2. Create or Select a filter
  3. Choose analysis process

Why Download the Desktop?

- Capabilities not on CARE/WWW:
  - Roadway Locations
  - IM Collisions Diagrams
- Faster and More Flexible
  - Filter Creation/Conversion
  - Occupant, Unit, Pedestrian Info
- Available Any Time

Only Real Concern ... 

Do not install data until after you have installed the executable, usually in the format:

CARE9_#_#_#.exe
Confidentiality Agreement

- Essential for Location Capabilities
- Most Local Agencies Have Signed
- Refer all Questions on this to:
  - Waymon Benifield
  - benifieldw@dot.state.al.us
  - Phone: 334-353-6404
  - Fax: 334-353-6451

How to Obtain Updates

- Get Added to Distribution List
- Email: awatkins@cs.ua.edu
  - Name
  - E-mail address
  - Phone
  - Agency name and address
  - Whether you have signed CA
Goals for 9:00 Session

After this session you should know:
- How to Run a Frequency
- How to Run a Cross-Tab

Main Environment Features

- Shortcuts – Initially Set to Defaults
  - Default Data Source
  - Default Filter
- Buttons
  - File
  - Filter
  - Analysis
  - Locations
  - Search
  - Window
  - Tools
  - Help

CARE Main Environment

Click on arrowheads to right of shortcut to generate drop-down menu.
Main Environment Buttons

- File – Anything to do with Files
  - Defaults for Source Data and Filters
  - Exporting Data
  - Viewing and Exporting Current Codes
- Filter – Anything to do with Filters
  - Select, Create, Combine.
  - Convert - applies filter from one dataset to another
  - Import - recreates filters from past years
  - Auto-generate – all possible filters for a variable
  - Delete - deletes existing filter

Main Environment Buttons- 2

- Analysis
  - Frequency – frequency distributions
  - Crosstab – cross-tabulations
  - IMPACT – information mining by variable
  - Profiling – IMPACT by codes across variables
  - Crash ID Numbers
- Locations
  - Intersection
  - Segment
  - Mile-posted
  - GIS (when available)

Goals for 10:00 Session

After this session you should know:
- How to Combine Filters
- How to Create Filters
- How to Delete Filters
Combining Filters

- To Use Pre-existing Filters
  - Click: Filters/Combine Filters
  - Select the two filters and the "join" (AND/OR) for the filters
  - Verify using frequency immediately

Creating Filters

- Click: Filters/Create/Modify Filter
- Use interface to specify
  - Choose dataset and load filter
  - Select variables and their values
  - Arrange into AND/OR clauses
  - Name filter descriptively
  - Verify using frequency immediately

Deleting Filters

- Click: Filter/Delete
- Select Filter for Deletion
- Keep Things Cleaned Up
- Be Careful
Goals for 10:00 Session

After this session you should know:
- What information mining is
- How to use IMPACT
  - for any subset (filter) combinations
  - for any and all variables
- How to interpret IMPACT outputs

Information Mining (IMPACT)
- Creates Subsets of Database
  - Using standard CARE interface
  - Within a matter of seconds...
- Compares Subsets for all Attributes
  - target: who, what, where
  - approach: when, why, how
- Goal: Improved Countermeasures

Goals for 1:00 PM Session

After this session you should know:
- The CARE Location Functions
  - What they do
  - How to activate them
- How to Get Information for Locations
  - Frequencies, Crosstabs, IMPACT
  - Accident Number
  - Special Reports