

The background of the slide is a large grid of small squares. Most squares are light gray. Some squares are colored in blue, orange, purple, green, and black, arranged in a pattern that suggests data points or a calendar layout. The text is centered over this grid.

APPLYING THE Crash Calendar Calendar Data Viz PROJECT

TRANSPORTATION RESEARCH BOARD 2013



BACKGROUND

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Wisconsin's multi-disciplinary Traffic Safety Commissions

(1)(a) For each county, the county highway commissioner or a designated representative, the chief county traffic law enforcement officer or a designated representative, the county highway safety coordinator, and a representative designated by the county board from each of the disciplines of education, medicine and law and 3 representatives involved in law enforcement, highways and highway safety designated by the secretary of transportation shall comprise a traffic safety commission that shall meet at least quarterly to review traffic accident data from the county and other traffic safety related matters.

The county board chairperson, or the county executive or county administrator in a county having such offices, may appoint additional persons to serve as a member of the county traffic safety commission.

The commissions shall designate a person to prepare and maintain a spot map showing the locations of traffic accidents on county and town roads and on city and village streets if the population of the city or village is less than 5,000 and to maintain traffic accident data received from cities, villages and towns with a population of 5,000 or more under **S. 66.0485**.

Upon each review, the commission shall make written recommendations for any corrective actions it deems appropriate to the department, the county board, the county highway committee or any other appropriate branch of local government.

(1)(b) Counties may combine for the purposes of par. (a), if desired.

(1)(c) The commissions shall file a report on each meeting with the department.

(2) The department shall furnish each commission with traffic accident data and uniform traffic citation data for the rural, federal, state, and county highways in the jurisdictions represented in each commission, which shall identify the accident rates and arrest rates on their highways, and shall also furnish a suitable map for use in spotting accidents.



Wisconsin Bureau of Transportation Safety

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“too many
numbers!”

“too much
statistics!”

“hard to look at
all the data,”

“I like the
**number format
vs. graphs and
Charts,**”

“want to know where and
when crashes happen,”

“**WHERE, WHEN,
and HOW,**”

“**location,
reason, and
season,**”

“breakdown of causes of
crashes would be **helpful to
identify areas of extra
Patrol,**”

“the **easier** it is to read ... the
more likely it will become
actionable.”

“time of day,
day of week, **weather
conditions,**”

A car is driving away on a snowy road, leaving tracks in the snow. The scene is captured from a rear perspective, showing the car's taillights and the snowy landscape.

what if?

“It's a weekday and we know there's a storm coming. It's going to hit late-afternoon when a lot of people will be trying to get home from work. Where did we have the most crashes when we've had comparable storm events? If we could use our data to get at that kind of information quickly, we would be better able to deploy officers appropriately...”

– Commander Knudson

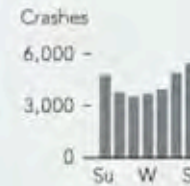
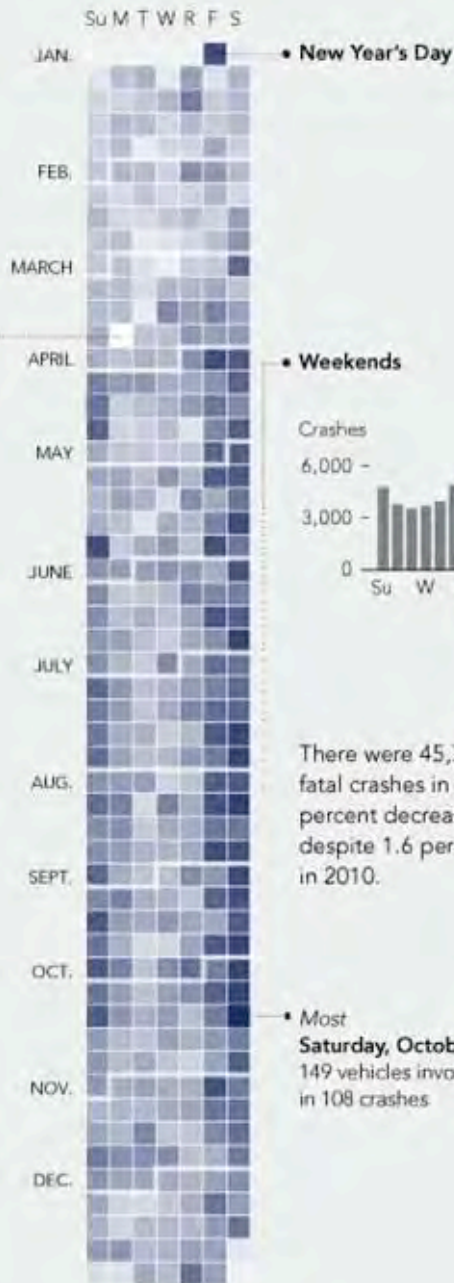
Vehicles Involved in Fatal Crashes 2010

Fewest
Monday, March 22
62 vehicles involved
in 41 crashes

Vehicles involved
in fatal crashes



Winter Months
Fewer miles are
traveled during
this time.



There were 45,777 vehicles involved in fatal crashes in 2010. This was a 1.6 percent decrease from that of 2009, despite 1.6 percent more miles traveled in 2010.



DEVELOPMENT

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**DESIGNING IS THE PRACTICE
OF COMBINING STUFF.
SO, THE MORE STUFF YOU KNOW,
THE GREATER THE CHANCE
YOU'LL FIND AN ORIGINAL COMBINATION.**

Mr CUP | ecire@fabienbarral.com



“Best use of Excel I’ve seen in a LONG time. I’m impressed that this was even possible using that tool.”

Robert A. Scopatz, DATA-NEXUS



VARIATIONS

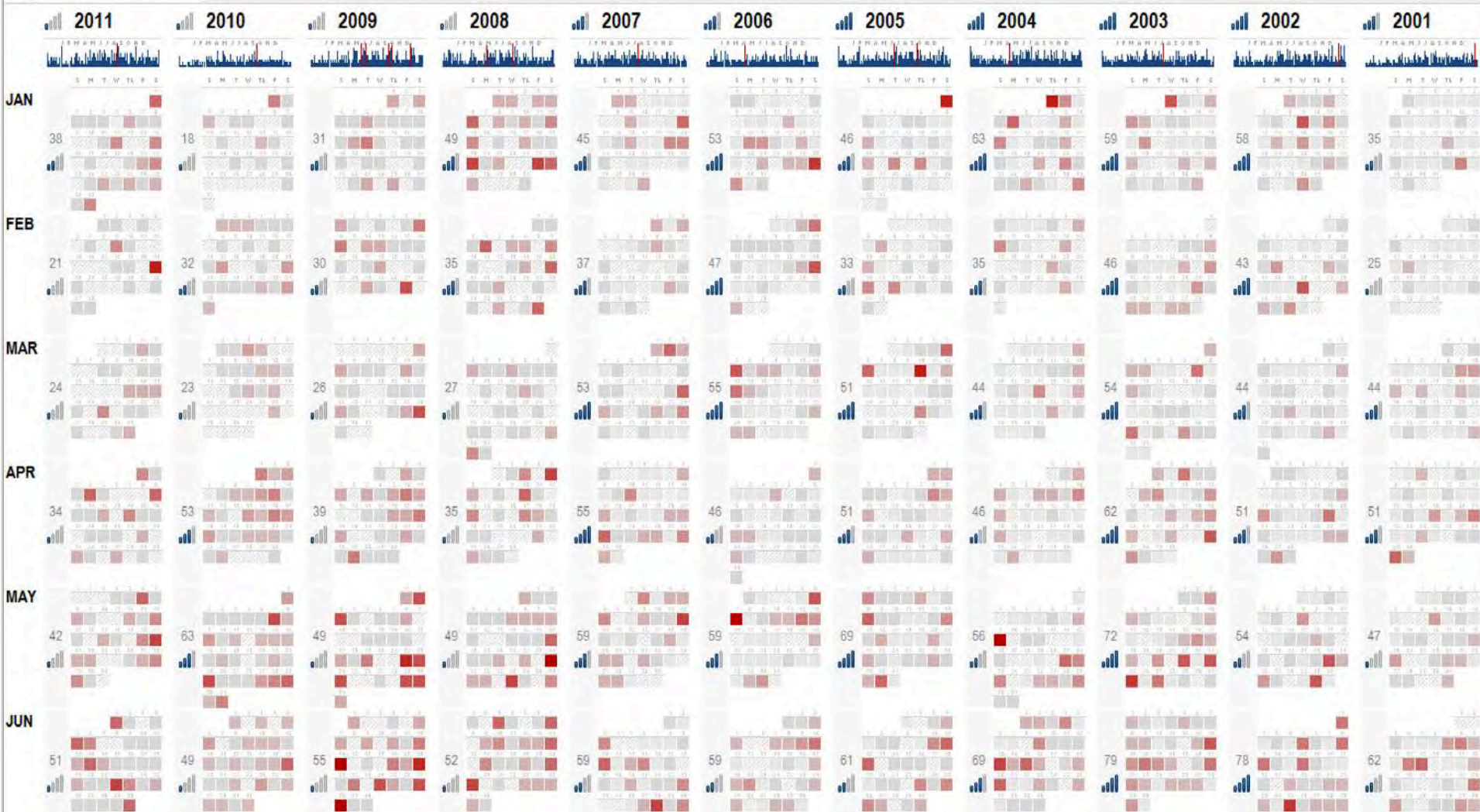
TRANSPORTATION RESEARCH BOARD 2013

interactive web-demo (summer 2012)



Calendar Data Vis – Wisconsin Fatal Motor Vehicle Crashes

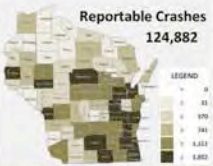
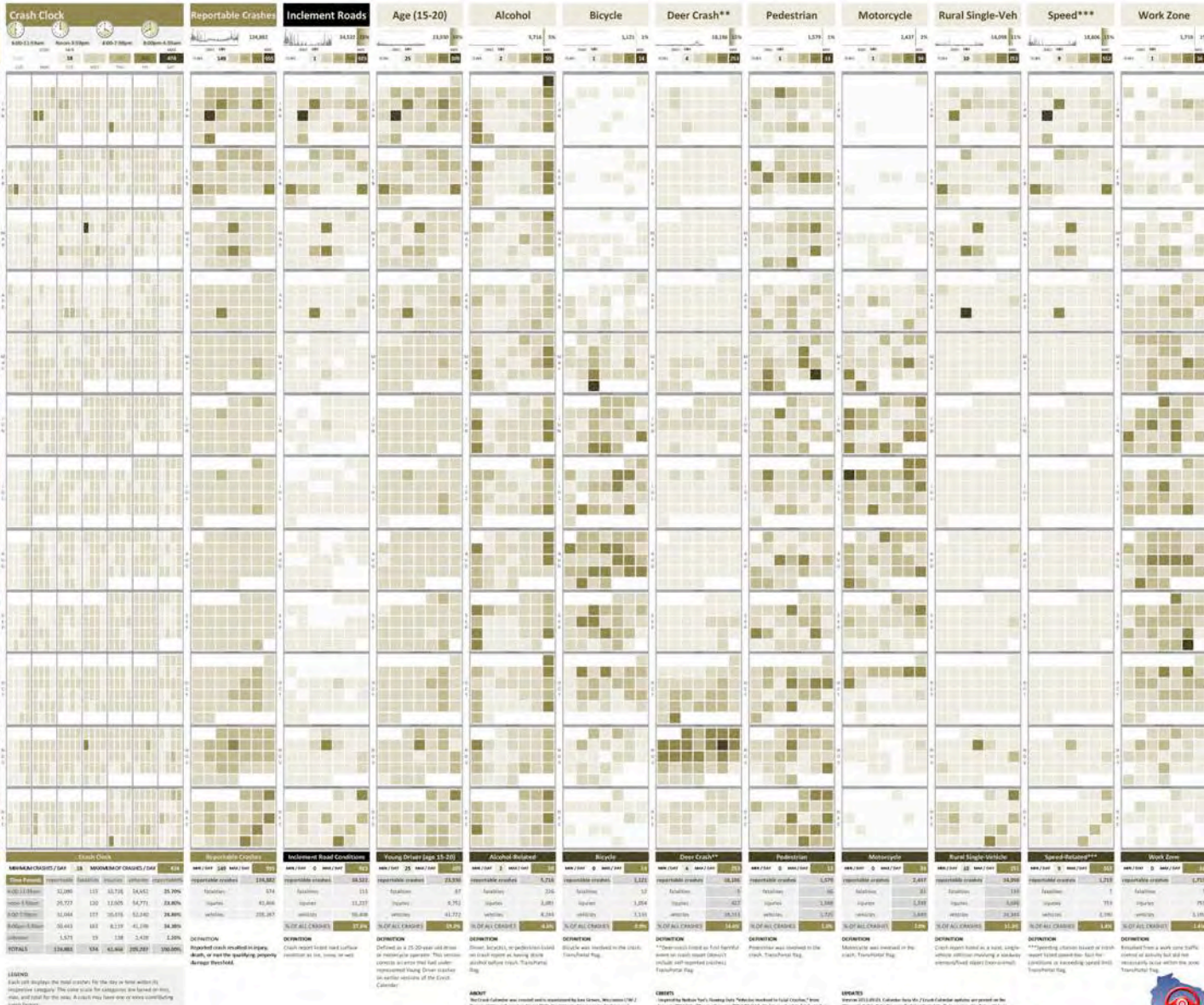
... see end-of-column(s) for annual total(s)



WI Fataals (2001–11)



2011 WISCONSIN CRASH CALENDAR



COUNTY	124,882	COUNTY %
Adams	1	0.00%
Ashland	308	0.25%
Barron	1	0.00%
Bayfield	137	0.11%
Brown	6,762	5.35%
Buffalo	254	0.20%
Burnett	245	0.20%
Calumet	294	0.24%
Chippewa	1,117	0.90%
Clark	631	0.51%
Columbia	1,599	1.27%
Crawford	334	0.27%
Dane	16,729	13.46%
Dodge	1,440	1.15%
Dor	1,244	1.00%
Douglas	1,044	0.84%
Dunn	1,044	0.84%
East Central	2,542	2.04%
Flambeau	127	0.10%
Fond Du Lac	2,431	1.94%
Forest	229	0.18%
Grant	1,117	0.90%
Green	1,044	0.84%
Green Lake	111	0.09%
Iowa	111	0.09%
Iron	88	0.07%
Jackson	111	0.09%
Jefferson	1,044	0.84%
Kenosha	1,044	0.84%
Kewaunee	281	0.23%
La Crosse	1,044	0.84%
Lafayette	111	0.09%
Lansing	111	0.09%
Lincoln	111	0.09%
Manitowish	1,044	0.84%
Marathon	1,440	1.15%
Marquette	1,044	0.84%
Marquette	1,044	0.84%
Menominee	111	0.09%
Milwaukee	11,111	8.91%
Monroe	1,111	0.89%
Oconto	111	0.09%
Oneida	111	0.09%
Outagamie	1,111	0.89%
Ozaukee	1,440	1.15%
Pepin	127	0.10%
Pierce	111	0.09%
Polk	111	0.09%
Portage	1,044	0.84%
Priest	111	0.09%
Racine	1,111	0.89%
Richland	111	0.09%
Rock	1,111	0.89%
Rock	233	0.19%
Sauk	1,111	0.89%
Sawyer	111	0.09%
Shawano	1,044	0.84%
St. Croix	2,222	1.78%
St. Croix	2,222	1.78%
Taylor	111	0.09%
Transylvania	111	0.09%
Vernon	111	0.09%
Vilas	111	0.09%
Walworth	1,111	0.89%
Washington	1,111	0.89%
Winchester	1,111	0.89%
Winnebago	1,111	0.89%
Wood	1,111	0.89%



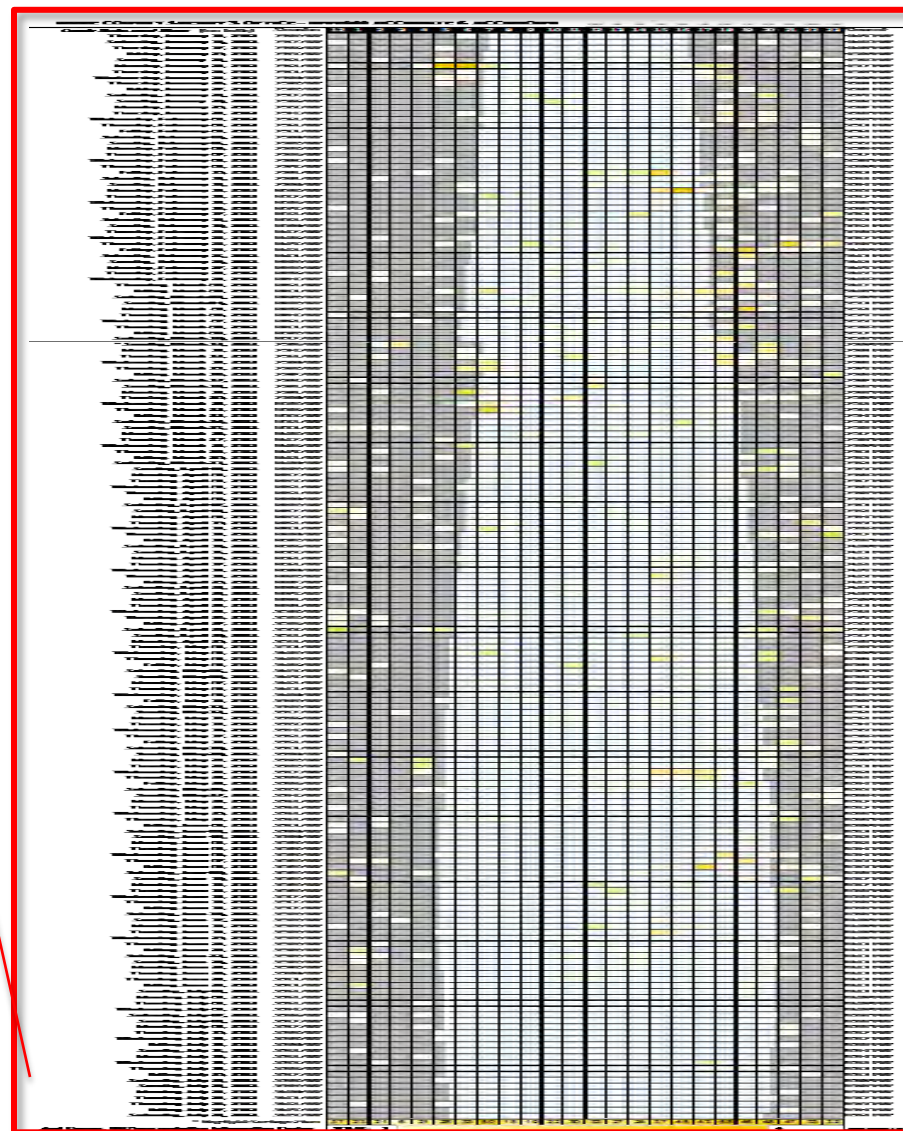
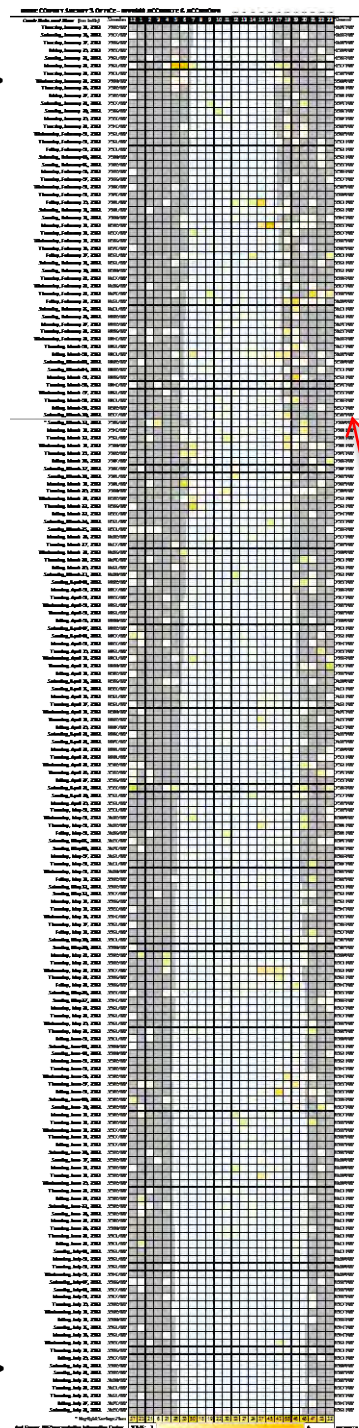
2011 WI reportable crashes





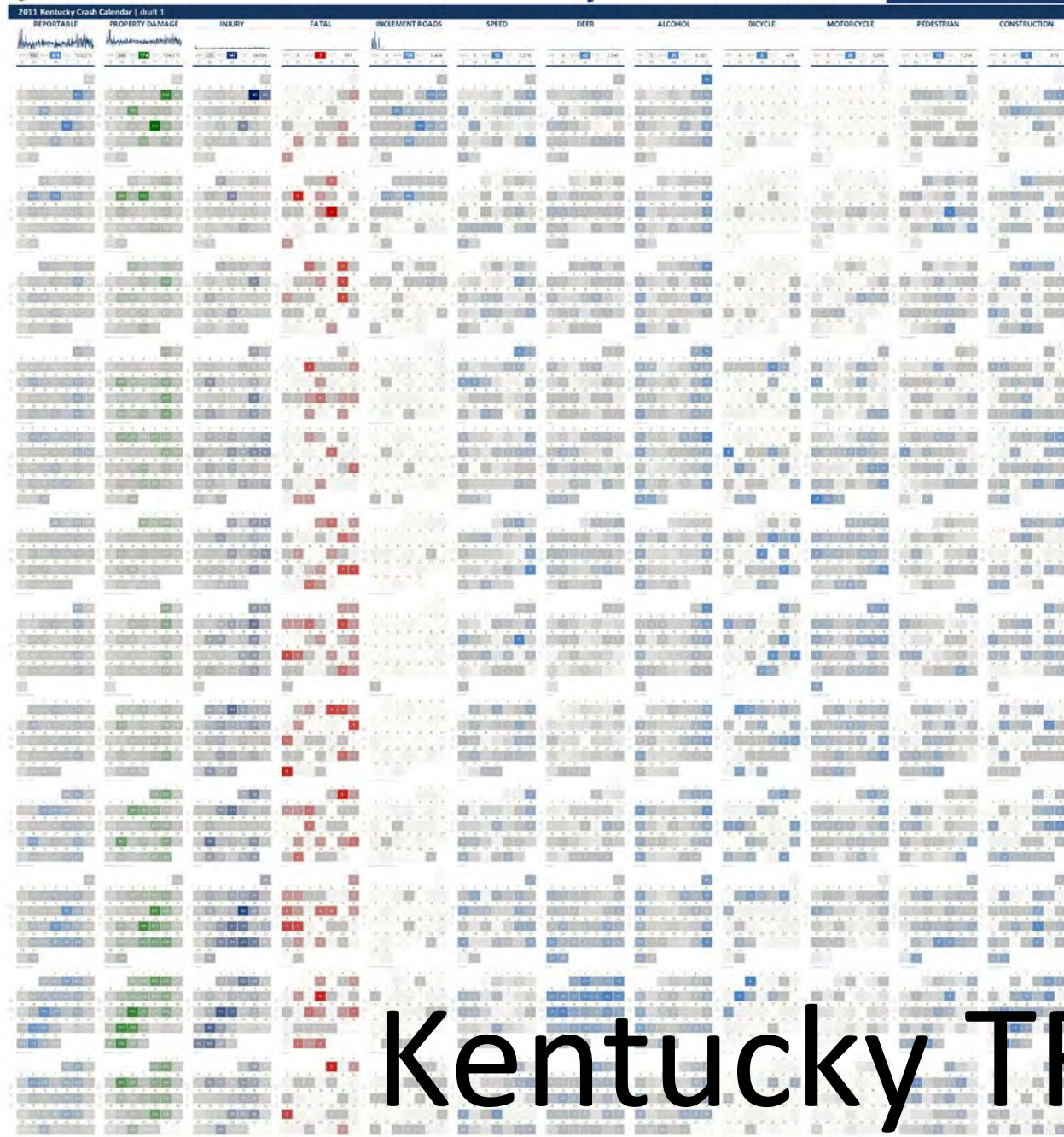
2012 preliminary data (August 2012)

January 2012 >>>



“Crash Clock” prototype

July 2012 >>>



Kentucky TRCC



2012 INDIANA CRASH CALENDAR | draft 3



Indiana LTAP





DDACTS



NFIRS incident type
definition
property type
definition (severity)

the 12 months (2010) calendar data
for the 12 months (2010) calendar data
for the 12 months (2010) calendar data
for the 12 months (2010) calendar data

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

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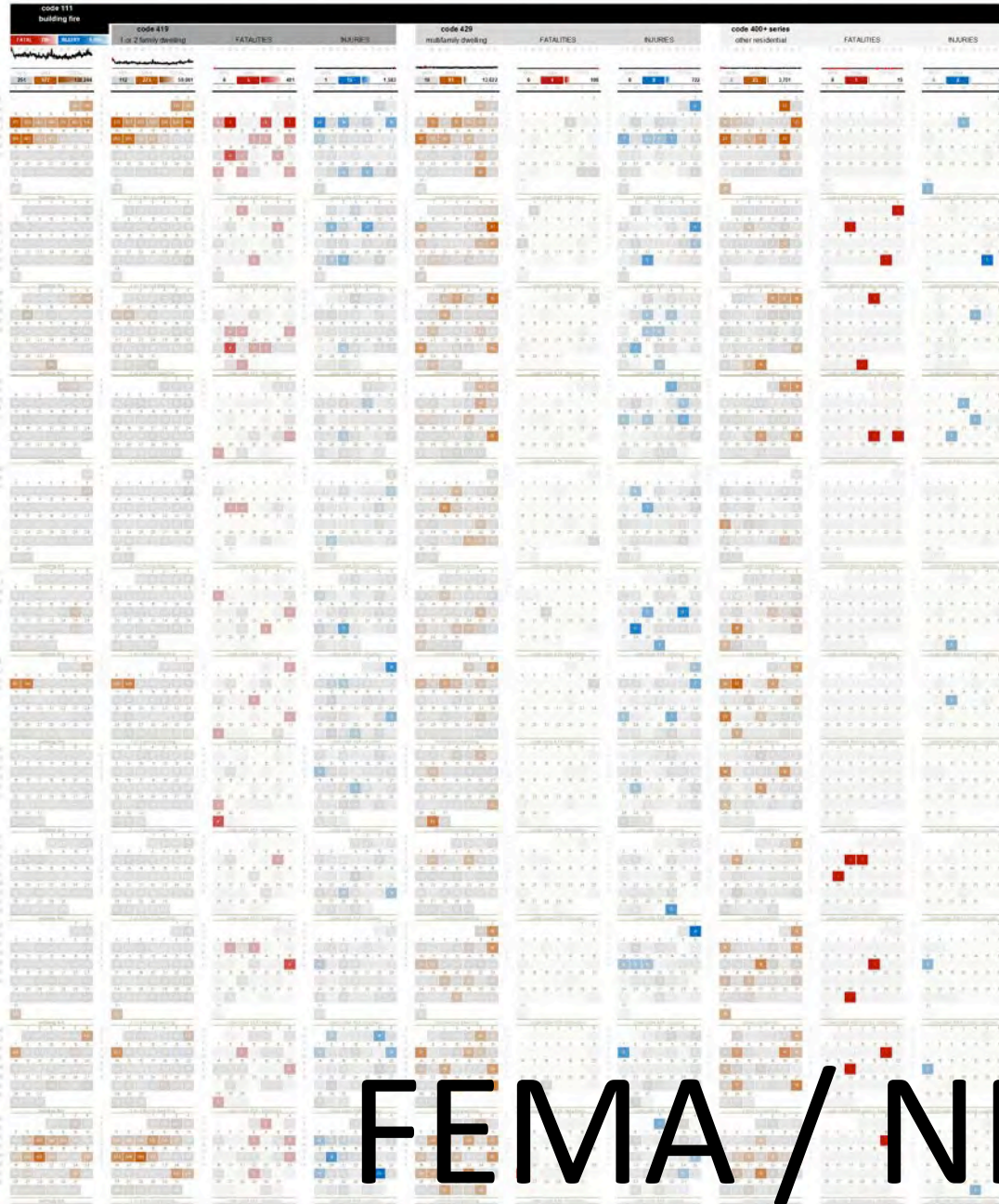
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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

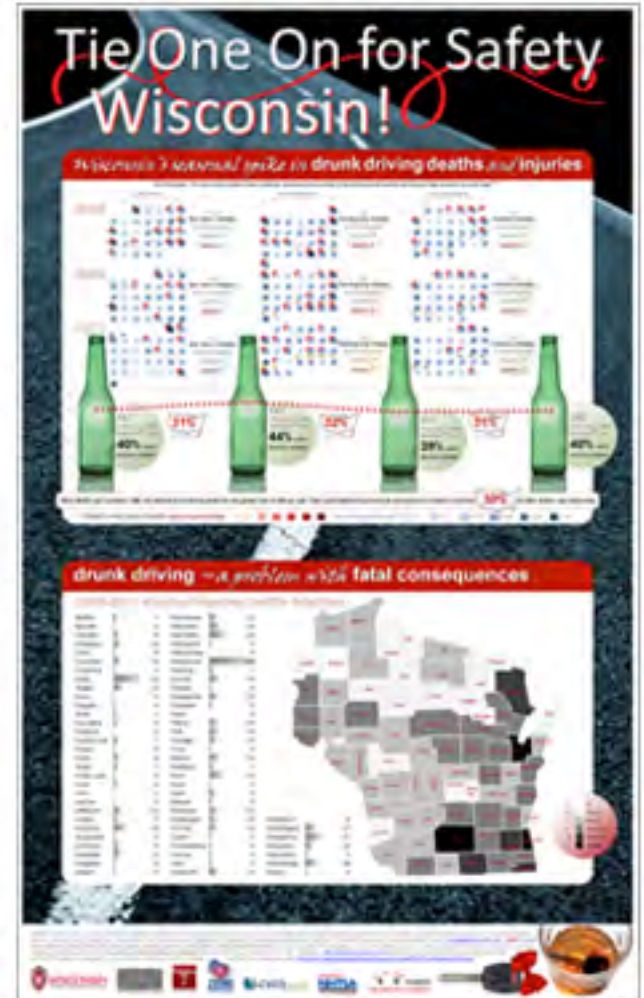
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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31



FEMA / NFIRS





MADD



WI LARGE TRUCK DATA

TRANSPORTATION RESEARCH BOARD 2013



WISCONSIN LARGE TRUCK SAFETY AND ENFORCEMENT STUDY

Project 04-24
July 2011

National Center for Freight & Infrastructure Research & Education
College of Engineering
Department of Civil and Environmental Engineering
University of Wisconsin, Madison



Authors: Andrea Bill, Francisco Serrano, and David Noyce
University of Wisconsin, Madison

Principal Investigator: David Noyce
Associate Professor, Department of Civil and Environmental Engineering, UW-Madison



WISCONSIN LARGE TRUCK CRASHES



WISCONSIN LARGE TRUCK POLL



WISCONSIN LARGE TRUCK CRASH

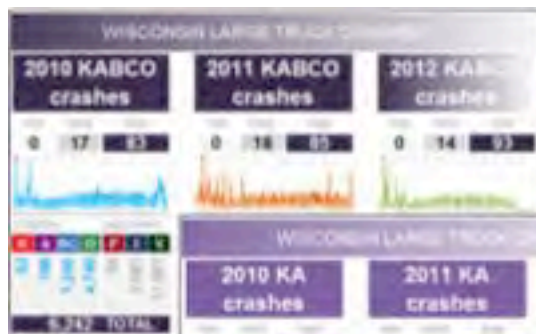


WISCONSIN LARGE TRUCK GRASS

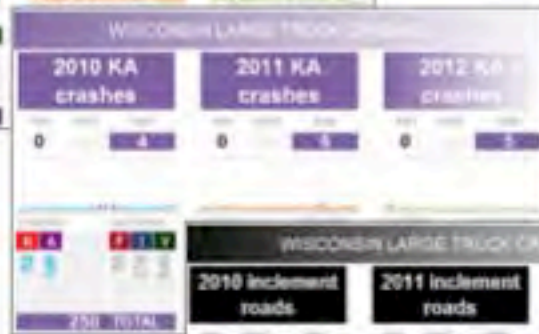


WISCONSIN LARGE TREE MAP





KABCO crashes



KA crashes



inclement roads



rural roads

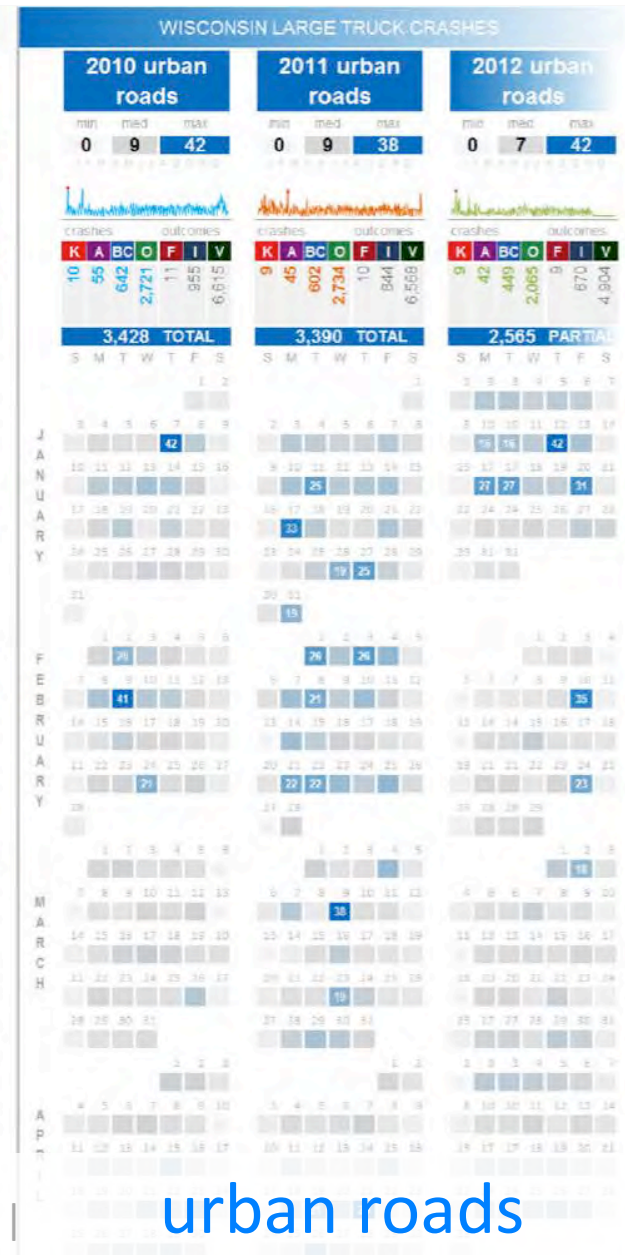
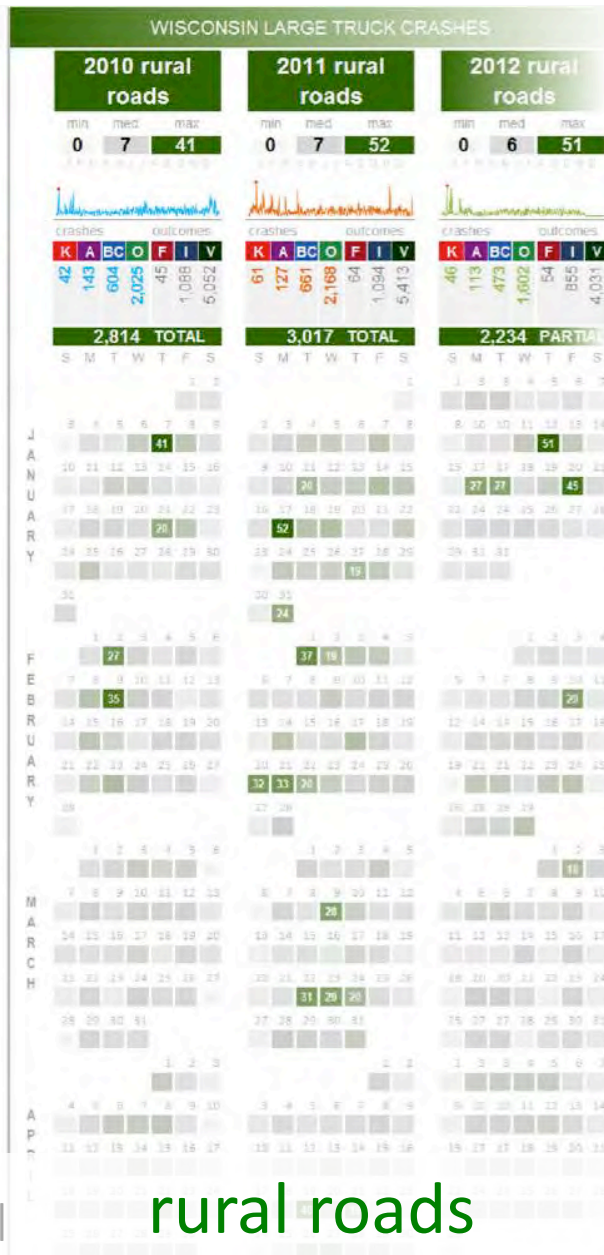
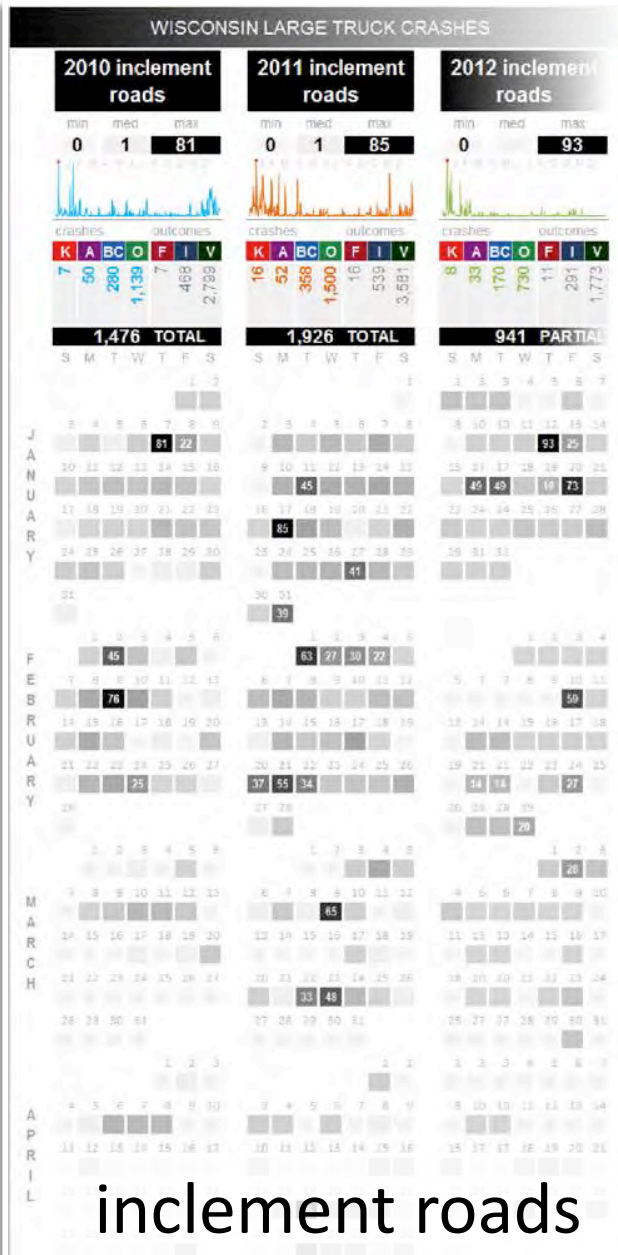


urban roads



single-vehicle

Wisconsin large truck crashes (2010–12 DMV data)



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<http://wisconsinsafetydataportal.org>

