



Presented by:

WTSC's Research and
Data Division
WSP's Collision
Records Section



Show me the Data!!!

Why am I here again?!



- **Stories from the land of FARS and beyond**
- **You said you were going to show me the data!**
- **The only constants in life are death, taxes – and change**
- **The future is here (or will be soon)**

**'Cause you're not going anywhere,
right?**



Stories from the land of FARS and beyond

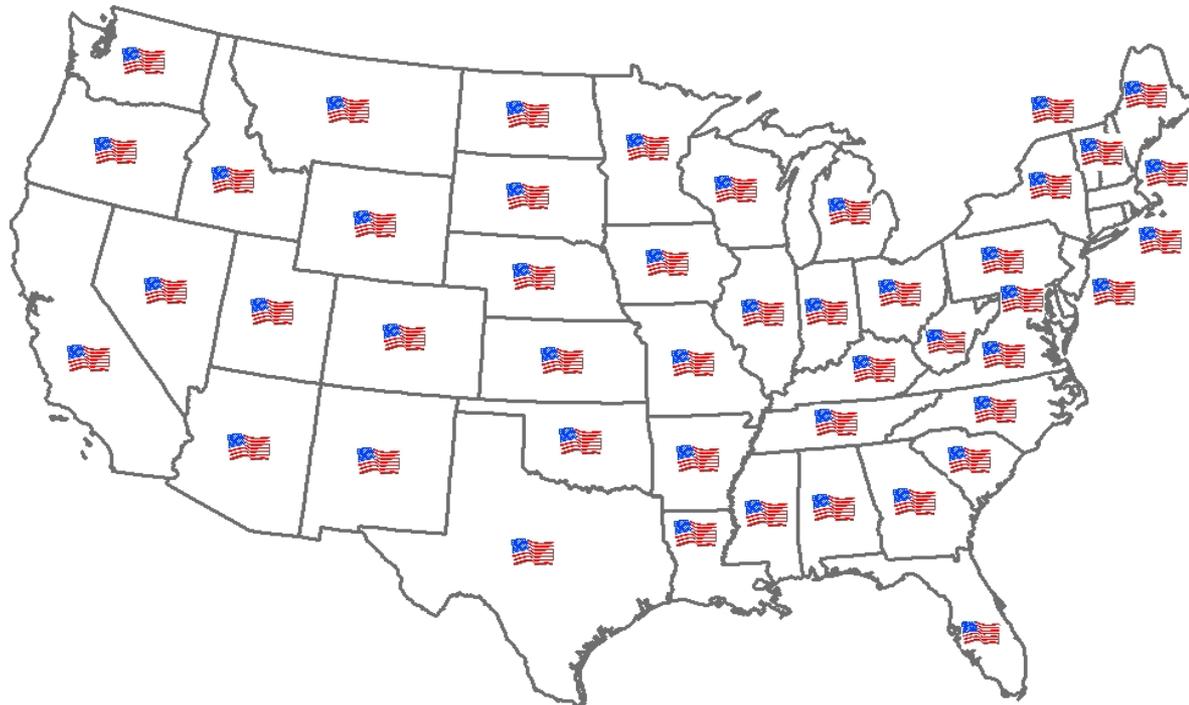


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FARS*world

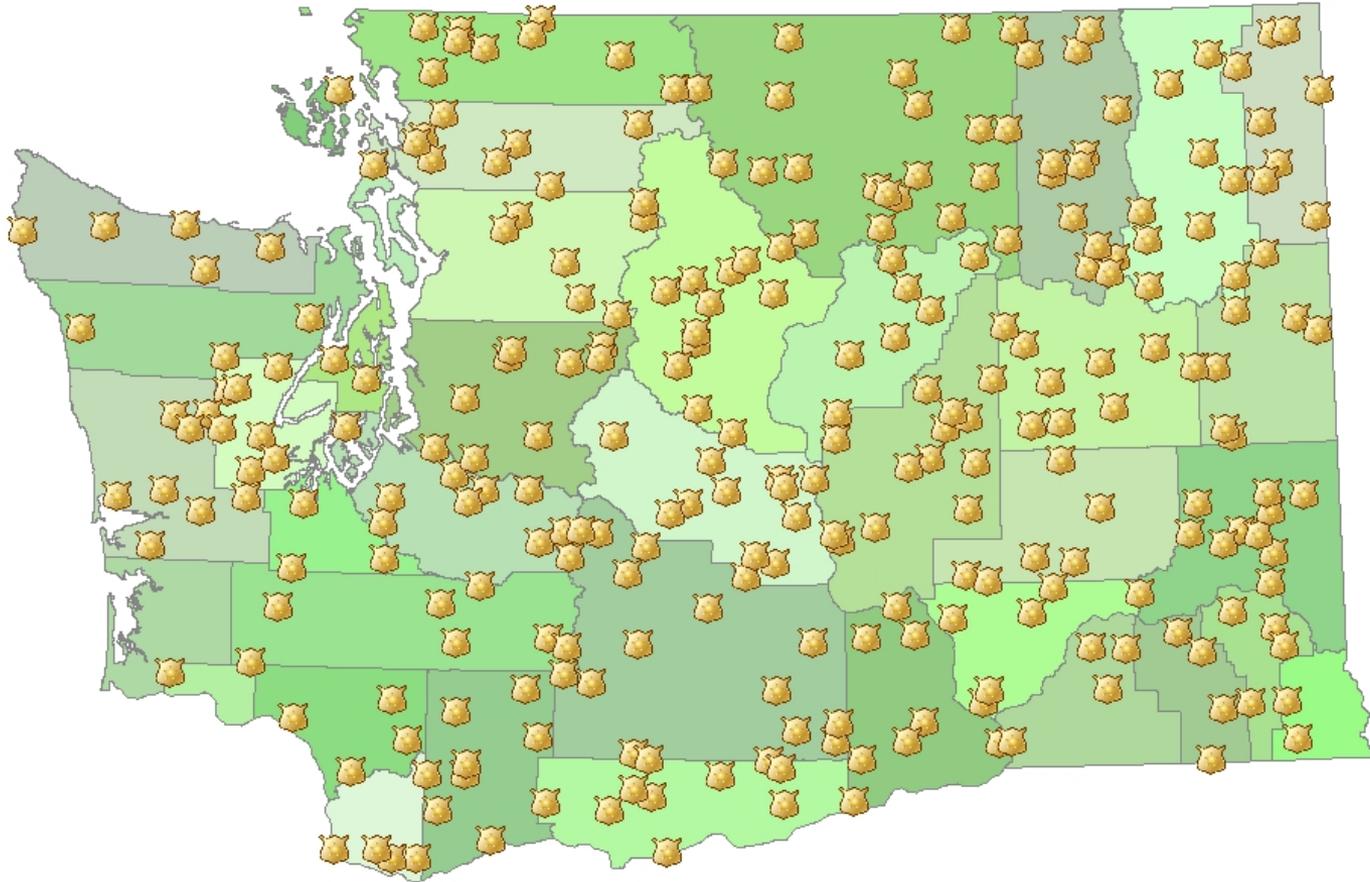
* Fatality Analysis Reporting System

NHTSA, 1975: national census of motor vehicle fatalities



Mission: “to make vehicle crash information accessible and useful so that traffic safety can be improved.”

Washington's Crash Investigation Agencies (250+)



Your reports are the lifeblood of FARS!

Why Use FARS data?



FARS data has been effectively used to facilitate:

- ✓ **National BAC change from .10% to .08%**
- ✓ **Primary seatbelt legislation**
- ✓ **Safety features on state and federal highways**
- ✓ **Vehicle inspection programs**
- ✓ **Enhanced child restraint laws**
- ✓ **Emergency response programs**

Is it a FARS case?

To be included in FARS, a crash

- must involve a motor vehicle
- traveling on a traffic way customarily open to the public and
- must result in the death of at least one person (vehicle occupant or non-motorist)
- within 30 days of the crash





Fatal Crash Reporting



Timeliness: RCW 46.52.030 (4 days)

“ . . . by rule adopted by the chief of the Washington state patrol in accordance with subsection (5) of this section, shall, within four days after such accident, make a written report of such accident to the chief of police of the city or town . . . “

Refers to the **initial** notification of a fatal traffic crash.

FARS Data Needs

All state crash report forms are different, so the information collected varies from state to state.

- PBT results (.000)
- cell phone use
- helmets: USDOT-approved? Yes/No
- contributing factors, e.g. failure to yield, speed, DUI, sleepy/drowsy, inattention/distraction
- GPS coordinates (more on this later)
- violations charged
- DRE presence? Yes/No

IF IT'S NOT ON THE REPORT, WE CAN'T ADD IT TO THE FARS DATA BASE.

Your supplemental reports are *always* welcome! Please **highlight any changes.**

For more info...



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360-725-9891

**when it comes to
traffic safety**



we're big fans

Effects of Delayed or Inaccurate Reports



- **Victims**

- Insurance companies may delay processing claims, leaving victims without a rental car, delayed repairs to their vehicle, unpaid medical bills. It is vital to get reports turned in per RCW 46.52.030 (4 days)

- **Recommendations for change**

- If reports are not all received in a timely matter or have inaccurate information it can effect your results when applying for federal grants for road way improvements and local projects.

- ✦ **Example: SR 97 crosses Eastern WA from Canada to Oregon, data showed there were many collision involving serious injuries and deaths due to crossing over. There was enough data to support putting in 60 miles of centerline rumble strips , which has now dropped the injuries by 40%.**

But you said you were going to
show me the data!

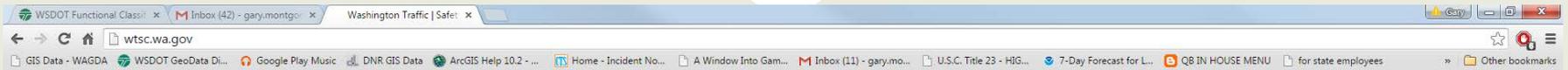


GARY MONTGOMERY, WTSC
DANIEL JACKSON, WSP

WTSC Data Products & Request Process



http://www.wtsc.wa.gov/research-data/



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Research & Data



- About RADD
- Request Fatal Crash Data
- Other Traffic Safety Data
- Quarterly Target Zero Data
- Traffic Safety Reports
- Crash Data Materials
- Traffic Safety Links
- Contact Us

Our Data

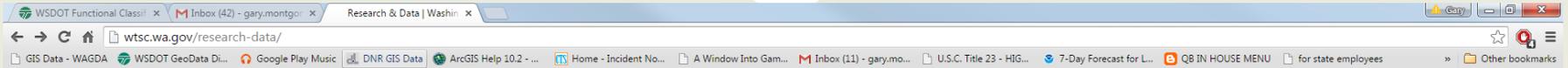
We provide statistics and reports for other state agencies, as well as ...



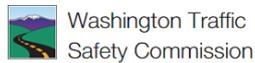
WTSC Highlights



http://www.wtsc.wa.gov/research-data/



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Research & Data

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Our Research and Data Division (RADD) analyzes crash data and conducts traffic safety research. RADD codes the fatal crash data that goes to the national Fatality Analysis Reporting System (FARS). We provide statistics and reports for other state agencies, as well as for the news media, private entities, and the public.

Research and Data

Contact

About RADD

RADD manages Washington's Fatality Analysis Reporting System (FARS), a census of all traffic fatalities occurring on Washington roadways. Find out more about Washington's collision data sources and why there are sometimes differences in the number of deaths we report and the number reported by other agencies.

Request Fatal Crash Data

Visit this page to request fatal crash data from the WTSC.

Other Traffic Safety Data

Traffic safety requires information from many sources of traffic records. If you are looking for traffic safety information other than fatal crashes, this page provides links to our partner agencies

Quarterly Crash Data

See statewide and local crash data by Target Zero priority area. The reports are updated quarterly and include both fatal and serious crash information.

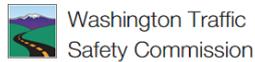


http://www.wtsc.wa.gov/research-data/



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Quarterly Target Zero Data

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Fatal and Serious Injury Data – 2015Q1

Washington relies on data to determine which traffic safety issues are most important, and which strategies are successful for addressing them.

These Excel reports include monthly, quarterly, and annual fatal and serious injury totals. The reports include all the Target Zero priority areas plus additional measures. Please review the DATA NOTES tab in the report and contact us with any questions.

Download your Quarterly Report:

- | | |
|--------------------------------------|------------------------------|
| All Washington State | Klickitat |
| Adams | Lewis |
| Asotin | Lincoln |
| Benton | Mason |
| Chelan | Okanogan |
| Clallam | Pacific |
| Clark | Pend Oreille |
| Columbia | Pierce |
| Cowlitz | San Juan |
| Douglas | Skagit |
| Ferry | Skamania |

http://www.wtsc.wa.gov/research-data/



King2008-2015.xls [Protected View] - Microsoft Excel

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PRELIMINARY

King County 2015		Quarterly Report Data Updated August 2015												Quarterly Report Data Updated August 2015											
PRELIMINARY		Total QUARTER 1				Total QUARTER 2				Total QUARTER 3				Total QUARTER 4				Total Year-To-Date							
		Fatal Crashes	Serious Injury Crashes	Total Fatalities	Total Serious Injuries	Fatal Crashes	Serious Injury Crashes	Total Fatalities	Total Serious Injuries	Fatal Crashes	Serious Injury Crashes	Total Fatalities	Total Serious Injuries	Fatal Crashes	Serious Injury Crashes	Total Fatalities	Total Serious Injuries	Fatal Crashes	Serious Injury Crashes	Total Fatalities	Total Serious Injuries				
TOTAL		14	110	15	119													14	110	15	119				
Priority One																									
Impaired Driver-Involved		5	12	5	14													5	12	5	14				
Drinking Driver-Involved		5	19	6	23													5	19	6	23				
Alcohol Impaired Driver-Involved**		3	**	3	**	**	**	**	**	**	**	**	**	**	**	**	**	3	**	3	**				
Drug Positive Driver-Involved**		4	**	4	**	**	**	**	**	**	**	**	**	**	**	**	**	4	**	4	**				
Marijuana Positive Driver-Involved**		2	**	2	**	**	**	**	**	**	**	**	**	**	**	**	**	2	**	2	**				
Number of Impaired Drivers		5	12	**	**	**	**	**	**	**	**	**	**	**	**	**	**	5	12	**	**				
Run Off the Road†		4	29	4	32													4	29	4	32				
Speeding-Involved		4	20	4	24													4	20	4	24				
Young Driver Age 16-25-Involved		5	27	6	31													5	27	6	31				
Age 16-17		0	4	0	4													0	4	0	4				
Age 18-20		0	8	0	8													0	8	0	8				
Age 21-25		5	16	6	20													5	16	6	20				
Young Driver Fatalities and Injuries Age 16-25		2	12	2	12													2	12	2	12				
Age 16-17		0	2	0	2													0	2	0	2				
Age 18-20		0	3	0	3													0	3	0	3				
Age 21-25		2	7	2	7													2	7	2	7				
Distracted Driver-Involved		7	37	8	39													7	37	8	39				
Intersection Related†		3	47	3	49													3	47	3	49				
Priority Two																									
Unrestrained Passenger Vehicle Occupant		6	6	6	7													6	6	6	7				
Age 0-4		0	0	0	0													0	0	0	0				
Age 5-9		0	0	0	0													0	0	0	0				
Age 10-14		0	0	0	0													0	0	0	0				
Unlicensed Driver-Involved**		2	**	2	**	**	**	**	**	**	**	**	**	**	**	**	**	2	**	2	**				
Opposite Direction Multi-vehicle (Headon)†		4	7	5	10													4	7	5	10				
Motorcyclist		1	9	1	9													1	9	1	9				
Unhelmeted Motorcyclists		0	0	0	0													0	0	0	0				
Unendorsed Motorcyclist**		0	**	1	**	**	**	**	**	**	**	**	**	**	**	**	**	0	**	1	**				
Pedestrian		4	31	4	31													4	31	4	31				
Priority Three																									
Older Driver-Involved (age 75+)		0	6	0	8													0	6	0	8				
Heavy Truck-Involved (GVWR>10,000 lbs)		1	5	1	5													1	5	1	5				
Drowsy Driver-Involved		0	3	0	3													0	3	0	3				
Bicyclist		0	8	0	8													0	8	0	8				
Wildlife		0	0	0	0													0	0	0	0				
Vehicle-Train		0	0	0	0													0	0	0	0				
Work Zone		0	0	0	0													0	0	0	0				
School Bus-Involved		0	0	0	0													0	0	0	0				
Additional Measures																									
URBAN (Federal Functional Class)**		8	**	8	**	**	**	**	**	**	**	**	**	**	**	**	**	8	**	8	**				
RURAL (Federal Functional Class)**		6	**	7	**	**	**	**	**	**	**	**	**	**	**	**	**	6	**	7	**				
State Highway and Interstate		6	32	6	36													6	32	6	36				

Ready | DataNotes-README | Annual Comp | TZ_Priority_Rankings | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 | 2009 | 2008

http://www.wtsc.wa.gov/request-fatal-crash-data/



Request Fatal Crash Data x

wtsc.wa.gov/request-fatal-crash-data/

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 Washington Traffic Safety Commission

Programs & Priorities Research & Data Meetings Grants Traffic Laws Resources

Name *

First

Last

Company/Agency *

Phone *

Email *

When do you need this information?

Fatal Crash Information Requested:

Date Range Start *

Date Range End *

What will this information be used for? *

Details of Request *

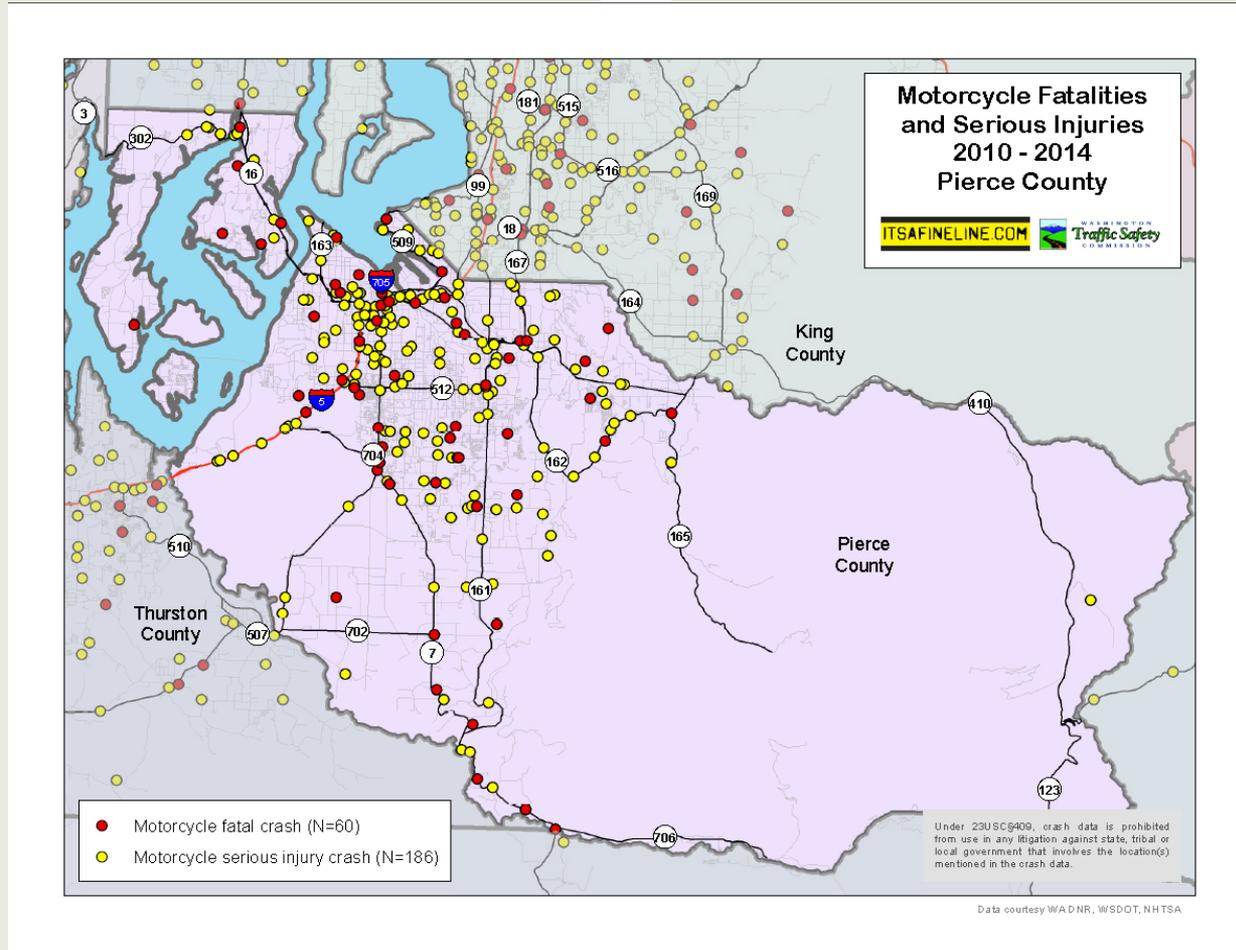
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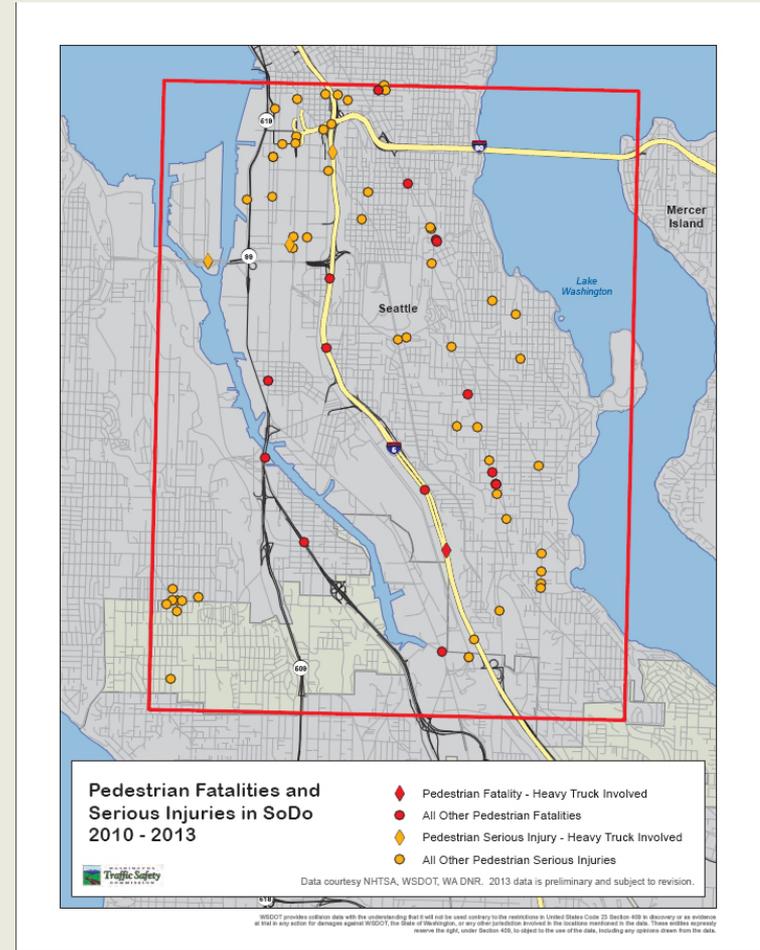
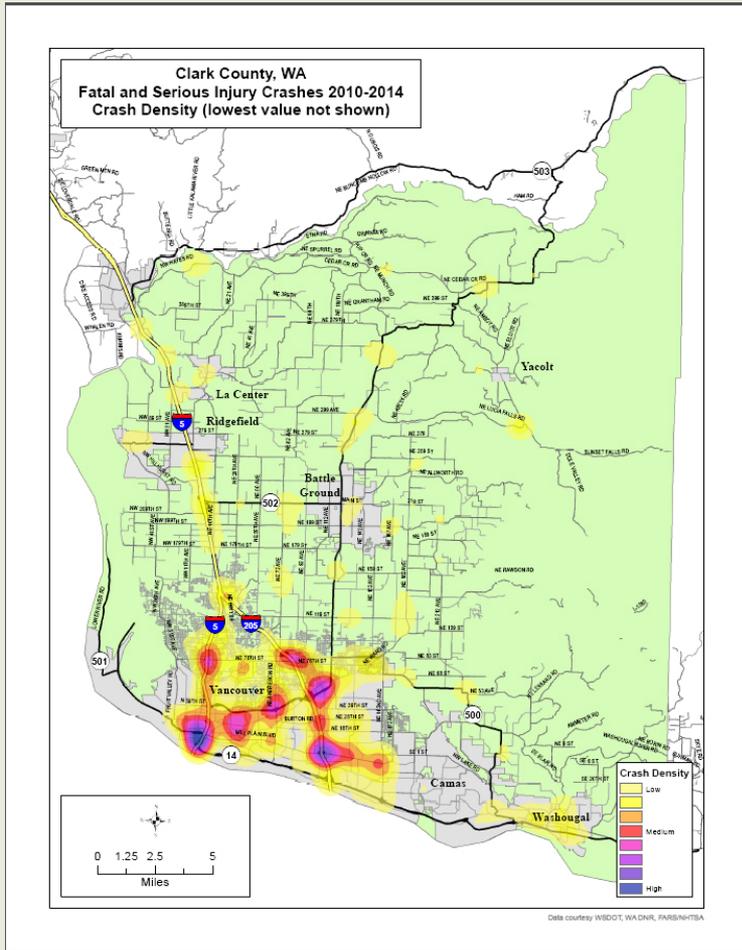
<http://www.wtsc.wa.gov/request-fatal-crash-data/>

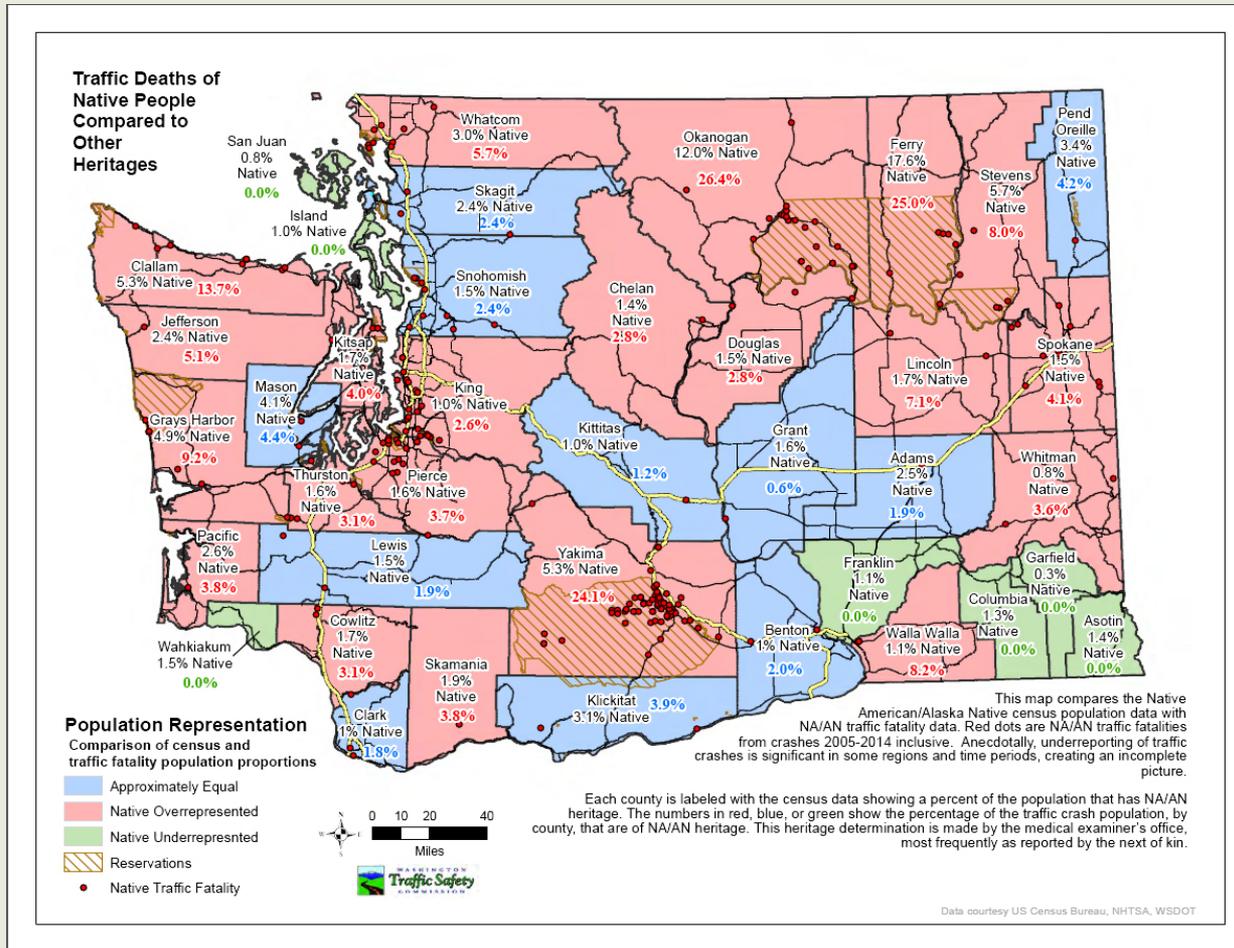


- **You can request custom data products**
- **Data abstracts**
 - Summary files, selected data in area of interest (*id est* peds, bikes, impaired)
- **Charts, graphs**
 - By themselves or in combination with above
- **Maps**
 - *Oh hell yeah maps*

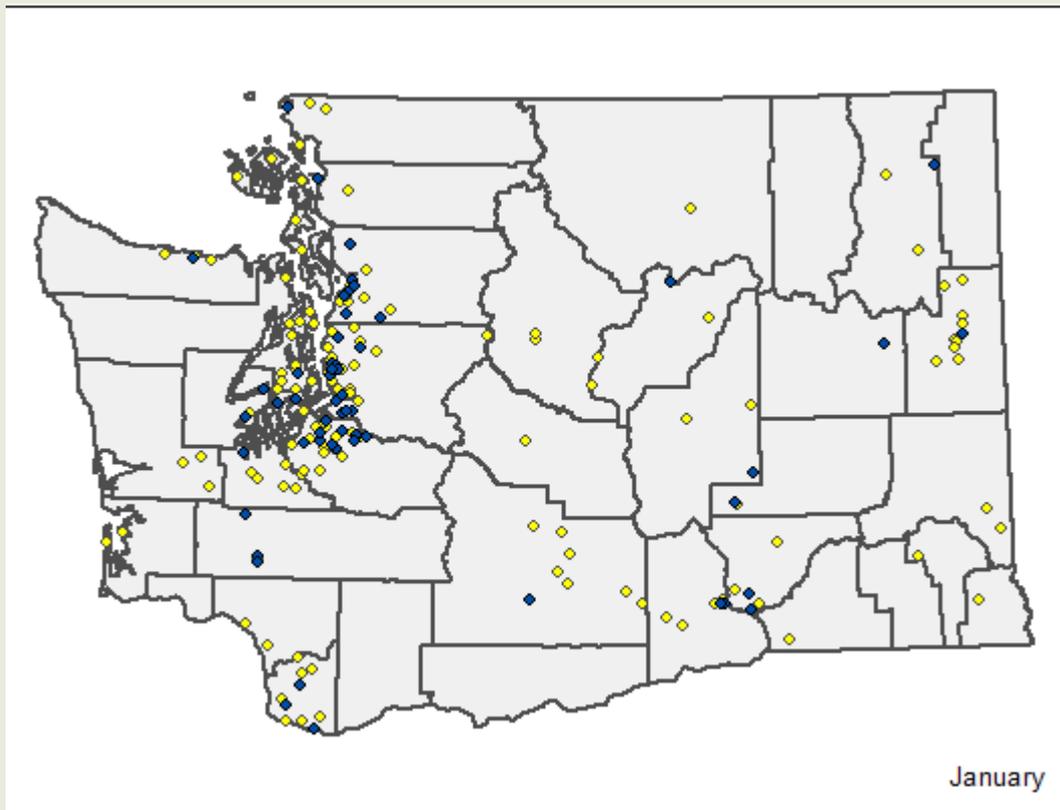
<http://www.wtsc.wa.gov/request-fatal-crash-data/>







<http://www.wtsc.wa.gov/request-fatal-crash-data/>





**I am
interested in
an alternative.**

Current LEA Query Tool



WSP Enforcement Reporting Collision Data Search

* Asterisk denotes a required field

Collision Date Range (Limit of two months)

Start Date* End Date*

Limit to Days of the Week

Monday Tuesday Wednesday Thursday Friday Saturday Sunday

Location Information

Jurisdiction*

Search All Jurisdictions

* A County or a City is required

County

City

Within a School Zone

ON (Primary Trafficway)

OF (Reference or Cross Street) - Intersections Only

Milepost Begin

Milepost End

Collision Factors

Contributing Circumstances *(may select up to three)*

-
-
-

Vehicle Actions

Weather Conditions

Lighting Conditions

Injury Severity

Involved

- Alcohol Involved
- Cannabis Involved
- Drugs Involved
- Commercial Carrier Involved
- Pedestrian Involved
- Pedalcyclist Involved

Execute Search

Export directly to .CSV (Excel) format

Example of Query Results



Query Results - 6 Records Returned

Results for Collision Date Range: 05/22/2015 - 05/25/2015

[Export to Excel \(CSV\)](#)

Collision Report Number	Collision Date	Day of Week	Collision Time	Case Number	Jurisdiction	City	County	Primary Trafficway	MilePost	Block Number	Distance From Primary	Feet/Miles	Compass Direction	Secondary Trafficway
3707230	5/23/2015	Saturday	22:08	2015-170174	City Street	1140	17	RAINIER AVE S						S CHARLES ST
E430811	5/22/2015	Friday	05:28	15-010432	State Road	1140	17	SB I-5	164.00		0.10	M	N	JAMES ST
E427631	5/23/2015	Saturday	04:17	2015-169333	City Street	1140	17	E. MARGINAL WY S		4200	150.00	F	N	S. IDAHO ST
3707049	5/25/2015	Monday	00:29	2015-171368	City Street	1140	17	E MADISON ST						BROADWAY
E427096	5/24/2015	Sunday	02:33	2015-170439	City Street	1140	17	FREMONT AV N		4400	50.00	F	S	N 45 ST
E431420	5/23/2015	Saturday	02:24	15-010534	State Road	1140	17	NB I-5	172.00		1500.00	F	S	NORTHGATE WAY

Query Results - 6 Records Returned

Light Condition	Weather	Alcohol Involved	Cannabis Involved	Drugs Involved	School Zone	Pedestrian Involved	Pedalcyclist Involved	Unit 1 Driver Injury	Unit 2 Driver Injury	Unit 1 Contributing Circumstances	Unit 1 Vehicle Actions
4	1	Yes	No	No	No	No	No	1	1	01 11	1
2	1	Yes	No	No	No	No	No	1	6	01 04	1
4	1	Yes	No	No	No	No	No	6	1	01	1
4	1	Yes	No	No	No	No	No	1	1	01 11	1
4	1	Yes	No	No	No	No	No	6	0	01	1
4	1	Yes	No	No	No	No	No	7	1	01 07	1

Query Results - 6 Records Returned

Unit 2 Contributing Circumstances	Unit 2 Vehicle Actions	Commercial Carrier	Unit 1 Citation	Unit 2 Citation	Unit 1 Pedestrian Actions	Unit 1 Pedalcycle Actions	Unit 2 Pedestrian Actions	Unit 2 Pedalcycle Actions
18	4	No	DUI, RED LIGHT, NVOL, INS					
52	1	No	DUI, SPEED TOO FAST FOR CONDITIONS					
18	7	No						
18	1	No	DUI					
18	14	No	RECKLESS DRIVING, DUI					
18	6	No	DUI					

**don't worry -
we'll wrap this up**



very shortly

The only constants in life are
death, taxes, and change



HEATHER ANDERSON, WSP
GARY MONTGOMERY, WTSC

LEA Enforcement Database Changes



- **A copy of the LEA DB goes to WSP Domain**
 - This allows WSDOT to maintain their federal restrictions reference disclosure of data.
 - It will provide WSP the ability to respond to Public Disclosure Requests from their own database on information specific to the Police Traffic Collision Report (PTCR).
 - WSP hired a business analyst to document current state and future desired state.

LEA Enforcement Database Changes



- Data retention for LEA Query Tool – 10 years
 - ✦ We began collecting data November, 2013
- Working with WSDOT's tool to go back and calculate x/y coordinates in historical reports.

**this is what
happens**



**when you
drive high**



Gathering crash coordinates in SECTOR



- **Who gets affected by it?**
- **What is this even about?**
- **Why is this not going to jack up my workflow?**
- **When does this dreaded event occur?**
- **Where can I go to escape it?**

SECTOR crash coords: the Who



SECTOR crash coords: the Who



SECTOR crash coords: the Who



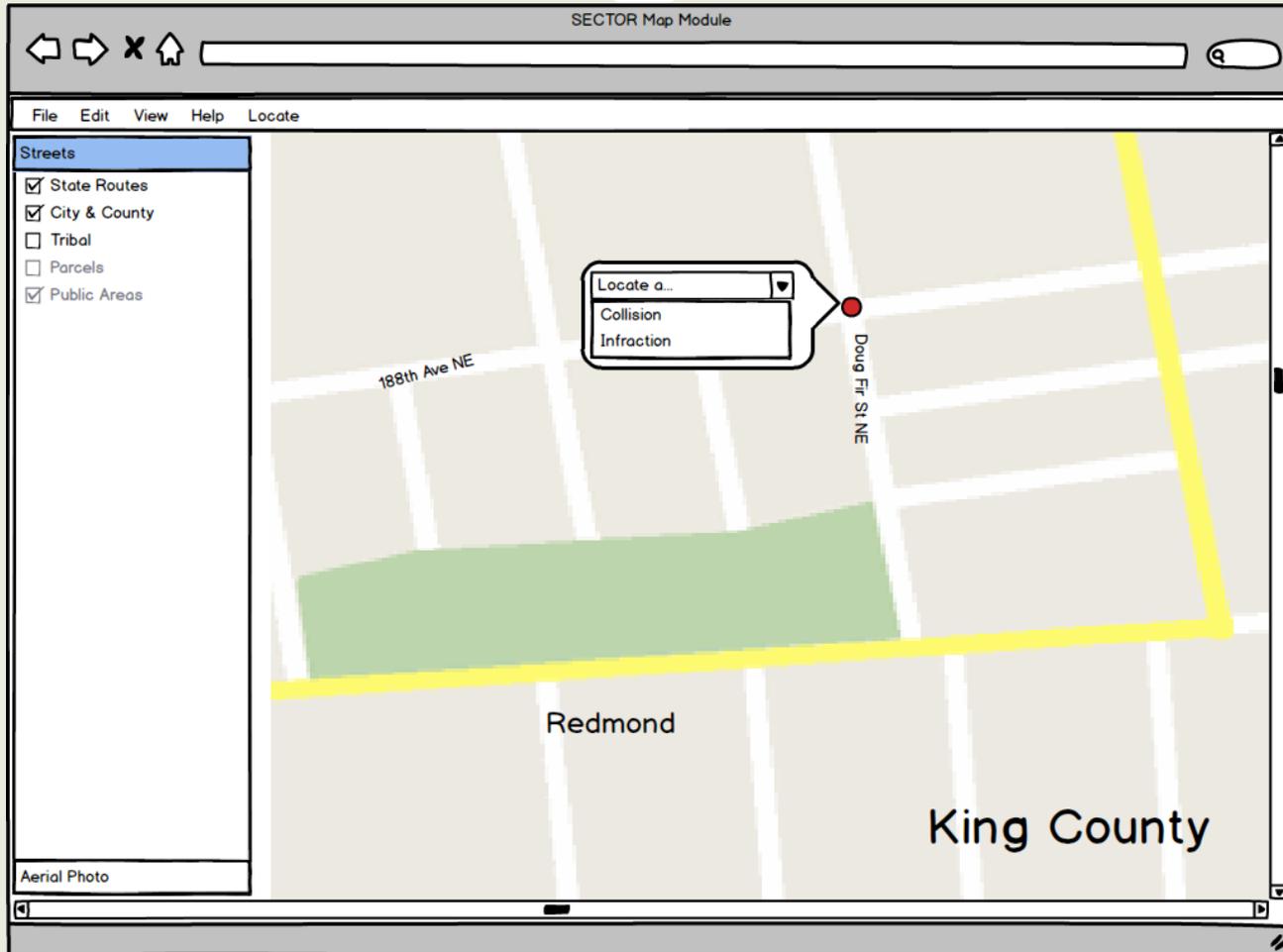
- You, the law enforcement officer
- Me, the data guy map nerd person
- Future people who do things like drive on roads in cars, who might not crash and get hurt or die because we have better data

SECTOR crash coords: the What



- **Map module, kind of like Google or Bing Maps**
- **Part of SECTOR**
- **Locate collisions* with a click**

SECTOR crash coords: the What



SECTOR crash coords: the Why



- **Leverages this thing called “spatial query”**
- **Autofill forms**
 - Ideally most of the first page
 - Ideally anything that has a spatial component
 - ✦ Primary trafficway, city, county, reservation (more)
- **So faster form filling, less error**
 - Which serves TRC goal of improving data quality

SECTOR crash coords: the When



- **Modestly ambitious plan to launch by end of 2016**

SECTOR crash coords: the Where





This is not the cyberpunk future I hoped for.

The future is here! *(or will be soon)*



HEATHER ANDERSON, WSP
GARY MONTGOMERY, WTSC
DEBI BESSER, WTSC

Future LEA Query Tool Enhancements



- **Significant design enhancements for the LEA Query Tool:**
 - X/Y mapping and reporting capabilities
 - More robust report capabilities to include all data from the PTCR for LEAs
 - Larger date ranges available
 - The information will also be available to the public.

Future LEA Query Tool Results



Washington State Patrol
Service With Humility

Home Query Reports Help Contact

E112233

Collision Date/Time: 2/3/2015 11:10 PM County: Thurston City: Olympia
 Pri Trafficway: 10th Avenue SE Sec Trafficway: Cherry Street SE Weather: Raining

Motor Vehicle Unit 1

Year: 1967 Make: Volkswagen Model: Beetle
 Age: 23 Gender: F Restraint Type: Lap Belt Used
 Contrib Circum 1: Under Influence of Alcohol Contrib Circum 2: On Wrong Side of Road Contrib Circum 3: Exceeding Reasonable Safe Speed

Motor Vehicle Unit 2

Year: 1966 Make: Chevrolet Model: Impala
 Age: 60 Gender: M Restraint Type: Lap Belt Used
 Contrib Circum 1: None Contrib Circum 2: None Contrib Circum 3: None



Home Query Reports Help Contact

Query Results - X Records Returned

Collision Date Range: 1/1/2015 - 2/2/2015 [Export to Excel \(CSV\)](#)

Collision Information																							
Collision Report Number	Collision Date/Time	County	City	Jurisdiction	Primary Trafficway	Secondary Trafficway	Milepost/Block No.	Distance From Reference Point	Miles/Fee	Compass Direction	State Plane X Coordinate	State Plane Y Coordinate	Weather Condition	Lighting Condition	Injury Severity								
E123457	1/1/2015 1:23 AM	Thurston	Olympia	City Street	State Street	Pum Avenue	200	120	F	West	123.45	543.12	3	5	7								
Motor Vehicle Unit 1																							
Motor Vehicle Unit 1				Driver				Passenger 1				Passenger 2											
Year	Make	Model	Classification	Vehicle Type	Age	Gender	Contributing Circumstance 1	Contributing Circumstance 2	Contributing Circumstance 3	Restraint Type	Helmet Use	Injury Type	Alcohol	Passgr 1 Age	Passgr 1 Gender	Passgr 1 Restraint Type	Passgr 1 Helmet Use	Passgr 1 Injury Type	Passgr 2 Age	Passgr 2 Gender	Passgr 2 Restraint Type	Passgr 2 Helmet Use	Passgr 2 Injury Type
2008	Honda	Civic	1	2	35	M	1	2	3	5	4	3	9	33	M	1	2	3	22	M	1	2	3
Motor Vehicle Unit 2																							
Motor Vehicle Unit 2				Driver				Passenger 1															
Year	Make	Model	Classification	Vehicle Type	Age	Gender	Contributing Circumstance 1	Contributing Circumstance 2	Contributing Circumstance 3	Restraint Type	Helmet Use	Injury Type	Alcohol	Passgr 1 Age	Passgr 1 Gender	Passgr 1 Restraint Type	Passgr 1 Helmet Use	Passgr 1 Injury Type					
1996	Ford	F-250	3	8	45	M	1	2	3	5	1	3	9	52	M	1	2	3					
Pedestrian																							
Age	Gender	Contributing Circumstance 1	Contributing Circumstance 2	Contributing Circumstance 3	Injury Type	Alcohol																	
24	F	3	5	7	2	1																	
Pedal Cyclist																							
Age	Gender	Contributing Circumstance 1	Contributing Circumstance 2	Contributing Circumstance 3	Helmet Use	Injury Type	Alcohol	Passgr Age	Passgr Gender	Passgr Helmet Use	Passgr Injury Type												
45	M	3	5	7	4	2	1	40	F	4	2												

Collision Information																		
Collision Report Number	Collision Date/Time	County	City	Jurisdiction	Primary Trafficway	Secondary Trafficway	Milepost/Block No.	Distance From Reference Point	Miles/Fee	Compass Direction	State Plane X Coordinate	State Plane Y Coordinate	Weather Condition	Lighting Condition	Injury Severity			
E901654	4/13/2014 2:45 PM	Thurston	Olympia	City Street	Capitol Blvd	9th Avenue	200	120	F	West	123.45	543.12	3	5	7			
Motor Vehicle Unit 1																		
Year	Make	Model	Classification	Vehicle Type	Age	Gender	Contributing Circumstance 1	Contributing Circumstance 2	Contributing Circumstance 3	Restraint Type	Helmet Use	Injury Type	Alcohol					
2015	Acura	MDX	1	2	30	M	1	2	3	5	4	3	9					
Motor Vehicle Unit 2																		
Motor Vehicle Unit 2				Driver				Passenger 1										
Year	Make	Model	Classification	Vehicle Type	Age	Gender	Contributing Circumstance 1	Contributing Circumstance 2	Contributing Circumstance 3	Restraint Type	Helmet Use	Injury Type	Alcohol	Passgr 1 Age	Passgr 1 Gender	Passgr 1 Restraint Type	Passgr 1 Helmet Use	Passgr 1 Injury Type
1988	Chrysler	Chevalla	SS 1	2	45	M	1	2	3	5	4	3	9	44	M	1	2	3

Collision Information															
Collision Report Number	Collision Date/Time	County	City	Jurisdiction	Primary Trafficway	Secondary Trafficway	Milepost/Block No.	Distance From Reference Point	Miles/Fee	Compass Direction	State Plane X Coordinate	State Plane Y Coordinate	Weather Condition	Lighting Condition	Injury Severity
223344	10/11/2013 7:15 PM	Thurston	Olympia	City Street	Cherry Street	5th Avenue	200	120	F	West	123.45	543.12	3	5	7

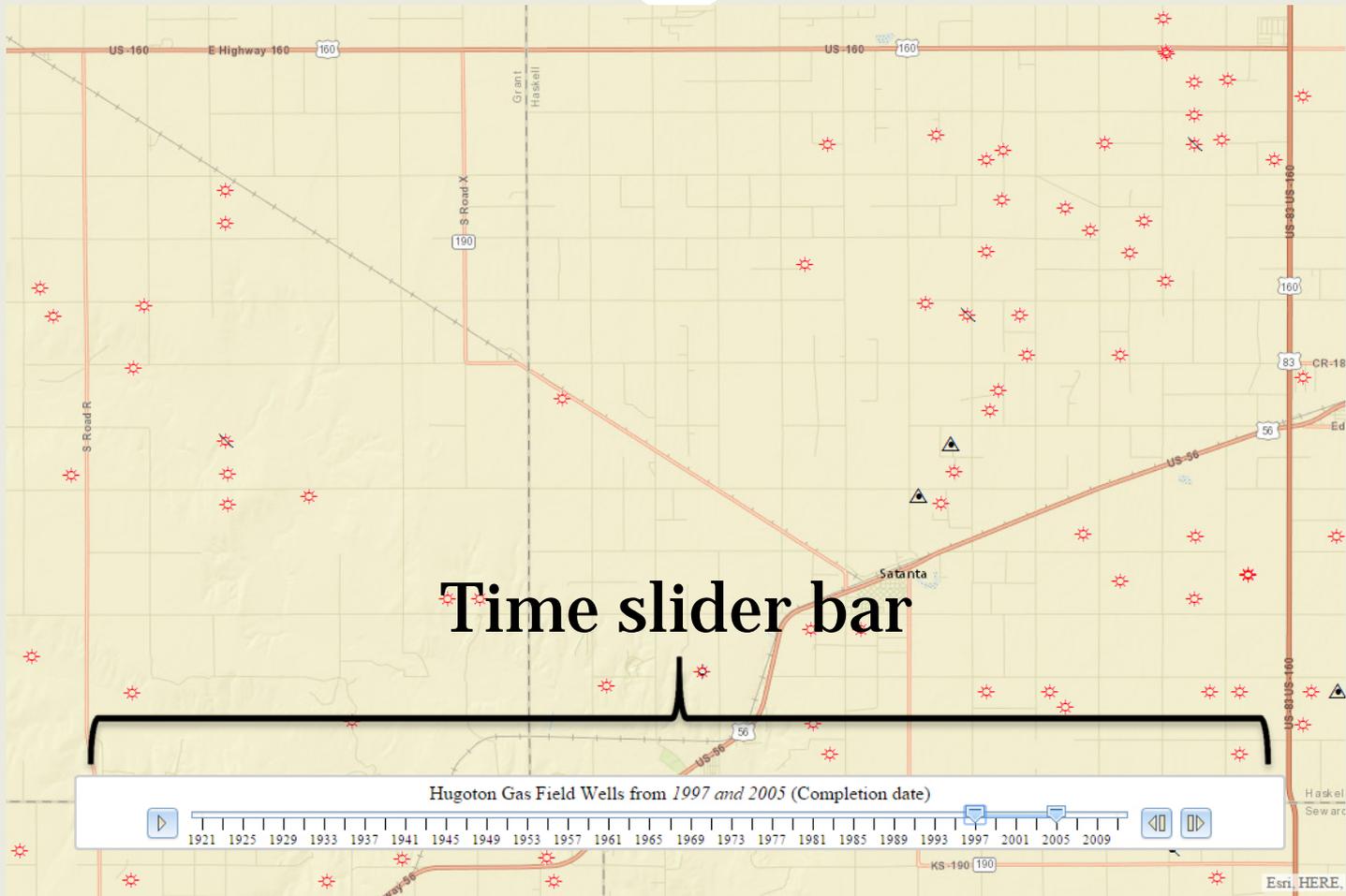


Maps on demand for local law enforcement

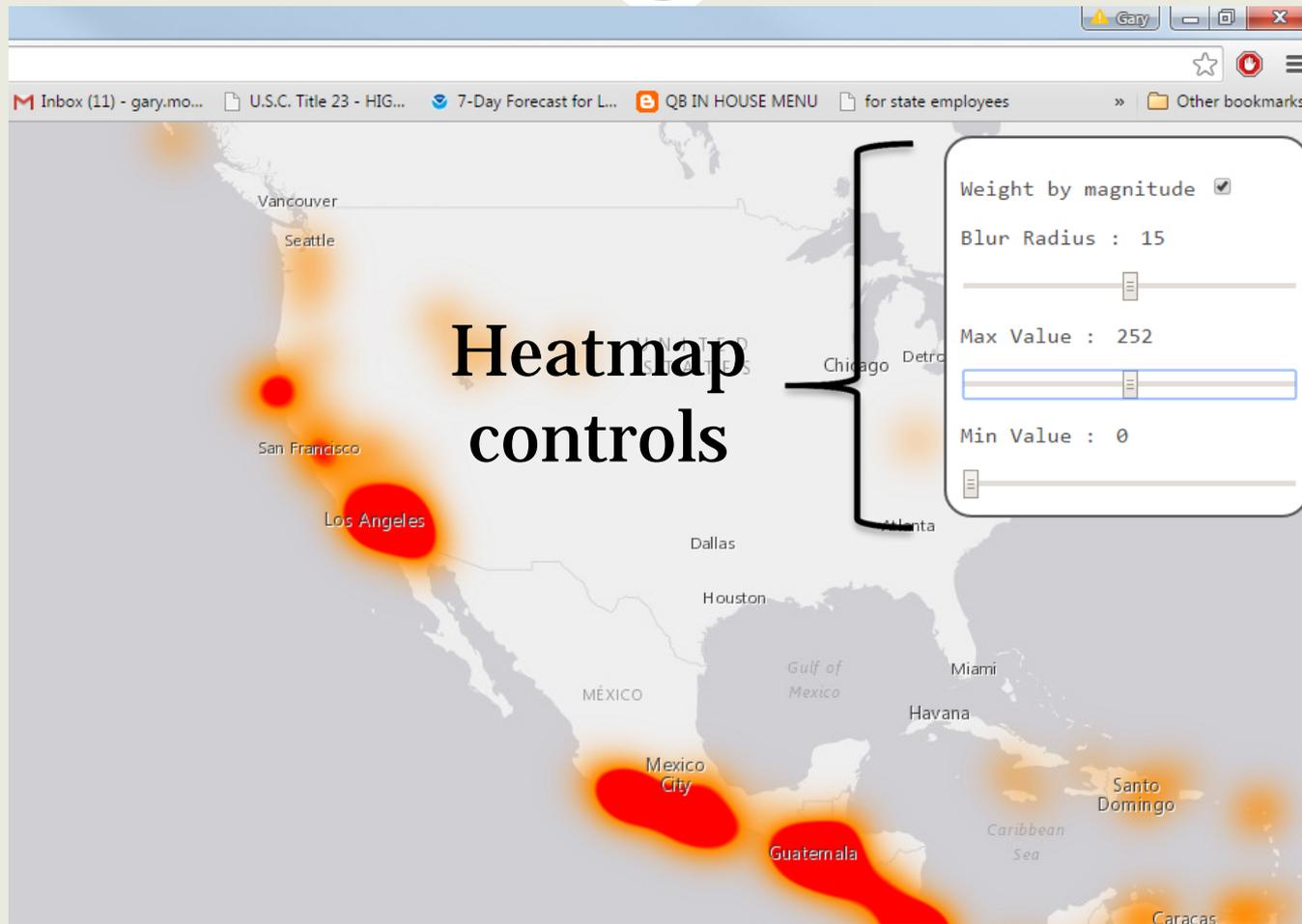


- **Leverages LEA database enhancements**
- **Query interface with simplicity, depth**
- **Near-real-time data**
- **Visualization options**

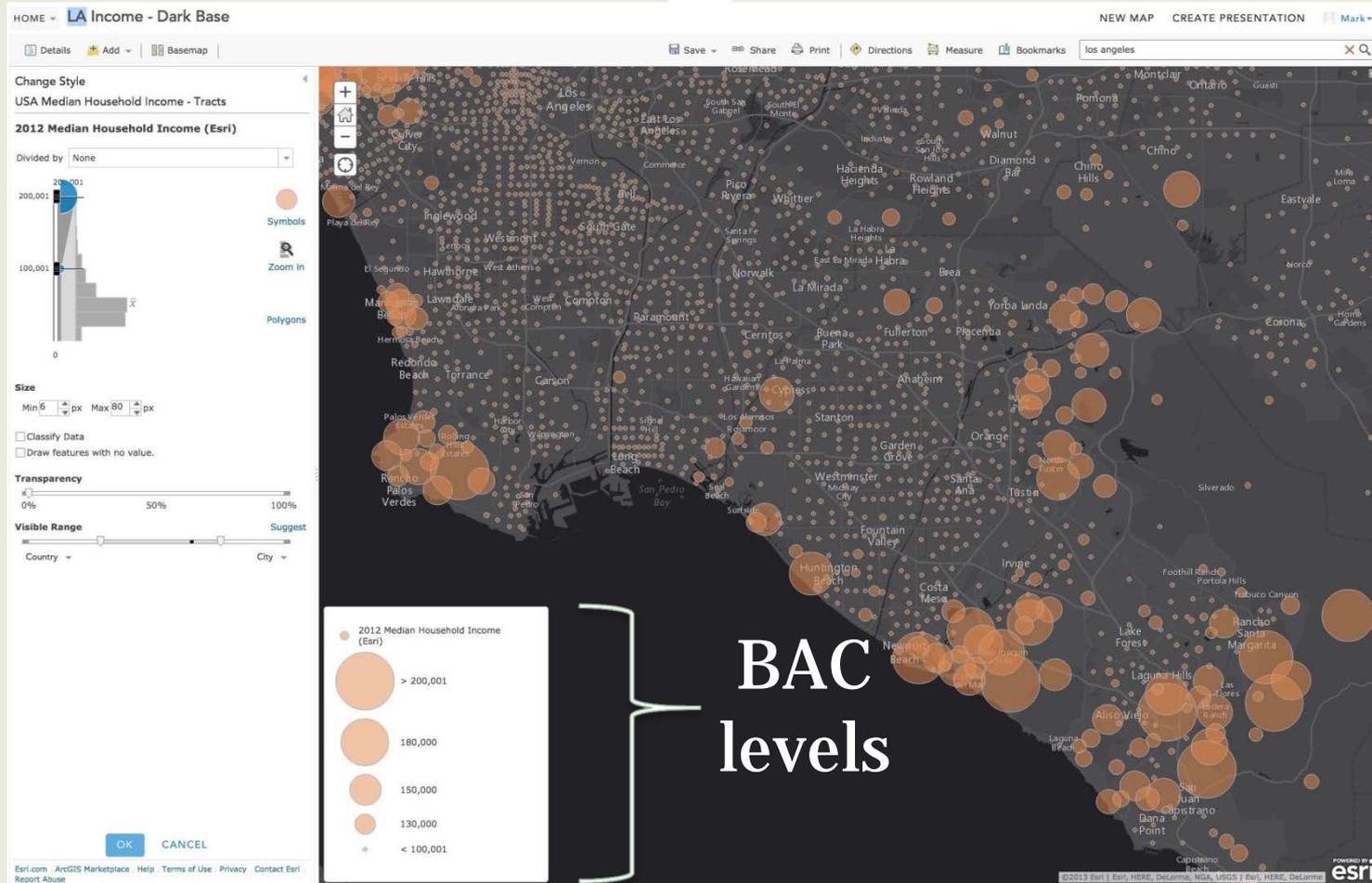
Technology you *can* look forward to



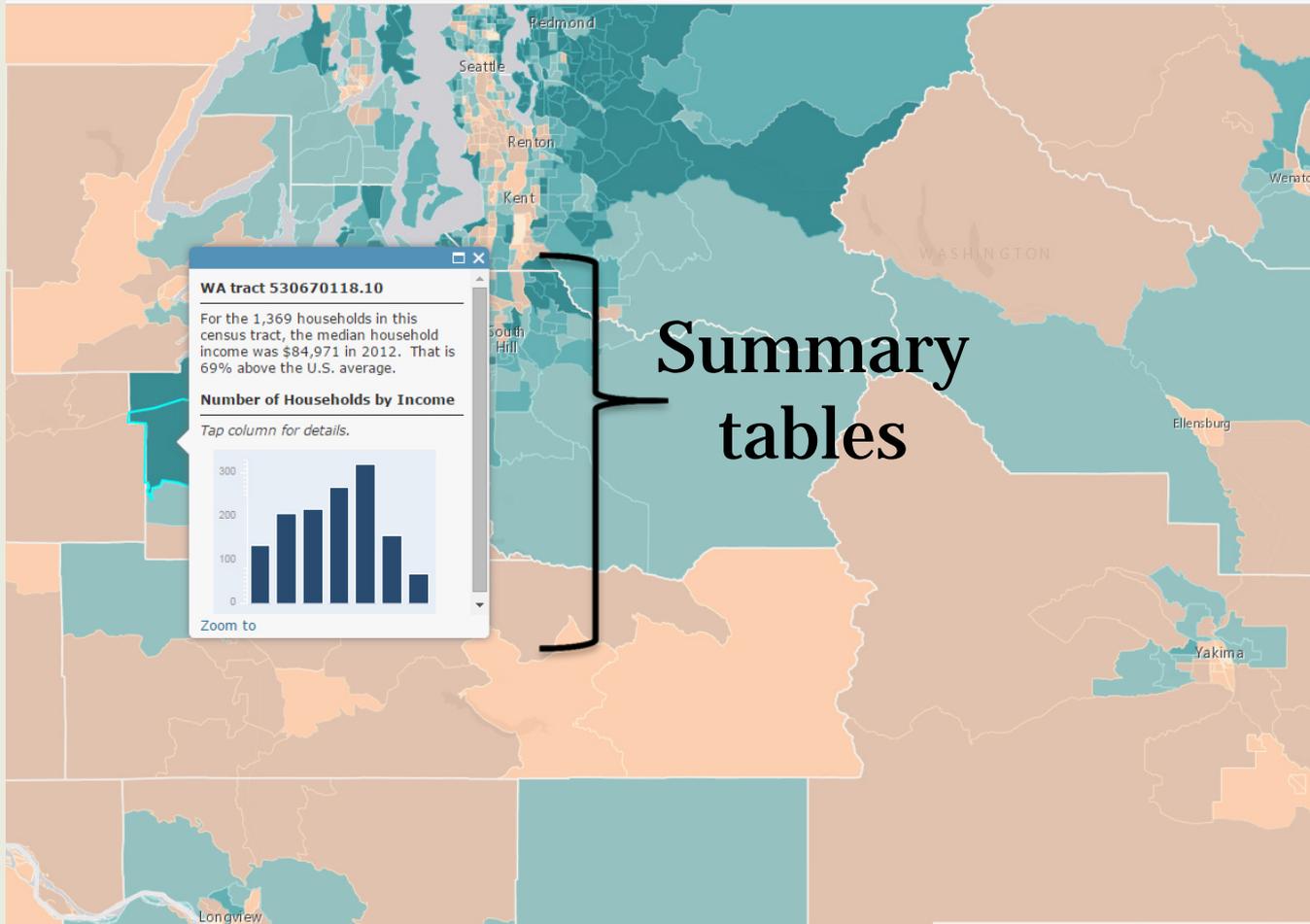
Technology you *can* look forward to



Technology you can look forward to



Technology you *can* look forward to



**And finally,
for those
of you**



still awake

Traffic Records Committee (TRC)



Who???

People focused on improving traffic data

DOT, WSP, LLE, AOC, DOL, DOH, WTSC

Goals:

- Collect information faster and more accurately
- Ability to analyze and link -> useable information
- Accessibility - where and how needed
- Long-term stability



Any questions?