

# Geographic Presentation of Safety Data

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Transportation Safety Subcommittee

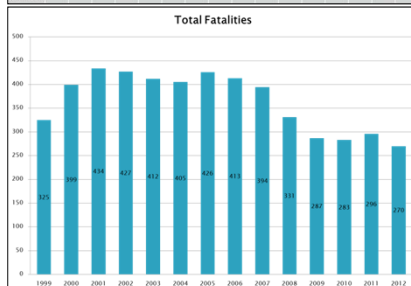
## Overview

- 2012 Regional Safety Picture
- Kansas City Example
- Data Needs
  - Maps
  - Crash Locations
  - Regional Safety Database
- Topical Illustrations
- Next Steps

## 2012 Regional Safety Picture

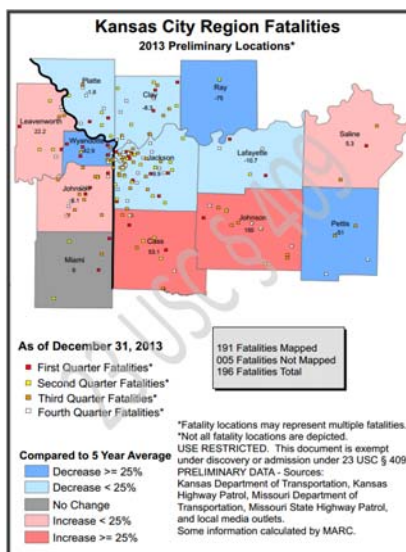
- Presented at the December meeting
- Data in tables and bar charts presents incidents at the county level and tracks trends for the region.
- Members requested geographic visualization of data.

Jurisdiction	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total	Average
District of Columbia	41	52	71	50	68	45	49	41	54	39	33	25	32	19	619	44
Cherokee County	26	30	21	27	20	16	40	30	23	14	15	18	22	15	317	23
Frederick County	32	27	37	18	18	28	33	33	25	21	23	24	15	16	359	25
Montgomery County	49	60	80	67	62	79	44	58	49	52	40	48	40	37	735	53
Prince George's County	79	102	128	141	122	121	134	111	126	129	98	87	105	87	1570	112
St. Charles County	8	14	9	12	9	6	9	3	5	8	5	5	6	4	104	7
Alameda County	4	5	5	4	3	3	2	1	5	3	1	3	3	4	48	3
Fairfax County	49	70	53	64	61	63	61	67	53	29	37	36	44	45	732	52
City of Fairfax	0	0	1	1	3	0	2	3	2	0	2	0	2	5	21	2
City of Falls Church	0	1	1	1	1	0	0	0	0	0	1	2	0	0	7	1
Loudoun County	11	9	15	16	24	22	20	19	21	11	13	12	11	18	222	16
City of Manassas	1	2	2	1	1	0	3	1	3	1	3	0	0	1	18	1
City of Manassas Park	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0
Prince William County	24	27	31	23	30	22	29	48	27	24	16	23	15	19	356	25
<b>Total Washington</b>	<b>325</b>	<b>399</b>	<b>434</b>	<b>427</b>	<b>412</b>	<b>405</b>	<b>428</b>	<b>413</b>	<b>394</b>	<b>331</b>	<b>283</b>	<b>296</b>	<b>270</b>	<b>5162</b>	<b>425</b>	



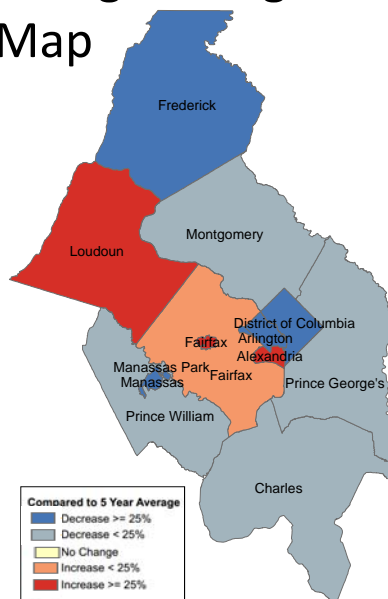
## Mid-America Regional Council

- Kansas City MPO located in Missouri and Kansas
- Highlighted as being an MPO that crosses state lines and presents geospatial visualizations of crash data
- Quarterly reports include map of crash locations and display county-by-county trends



## Fatalities in the Washington Region Trend Map

- No data needs beyond what is already collected
- Developed in ArcMap by COG/TPB staff
- Issues
  - With low number of fatalities, smaller jurisdictions are vulnerable to wild fluctuations from 5-year average. Should more context be provided?
  - Should different criteria apply (i.e. label “no change” if increase within a certain threshold)?
  - Should the map show current figures instead of trends?

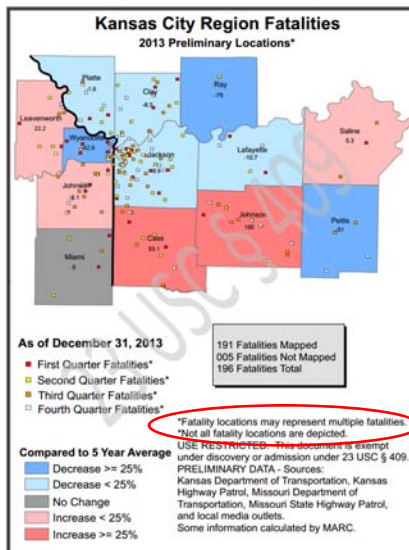


## Performance Measures

- Subcommittee should decide what measures to illustrate on the maps.
  - Trends vs. most recent figures
  - Conformity with regional goals as required by MAP-21
    - Fatalities
    - Fatalities per VMT
    - Serious Injuries
    - Serious Injuries per VMT
  - County-by-county vs. statewide analysis

## Crash Locations

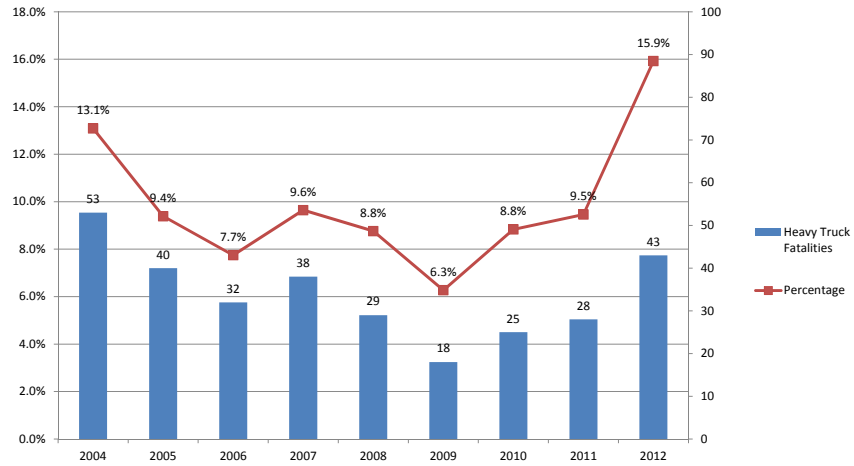
- Crash location data required from all jurisdictions. Are there any technical or legal issues preventing members from sharing this data?
- Map could include major roadways and transit centers; highlight clusters or hot spots in high incidence areas. How should the data be displayed?
- Questions regarding accuracy and exclusions. What level of accuracy is needed for a regional visualization?
- What information should be displayed?
  - Crashes
  - Fatalities
  - Serious Injuries
  - Emphasis area classification



## Regional Database

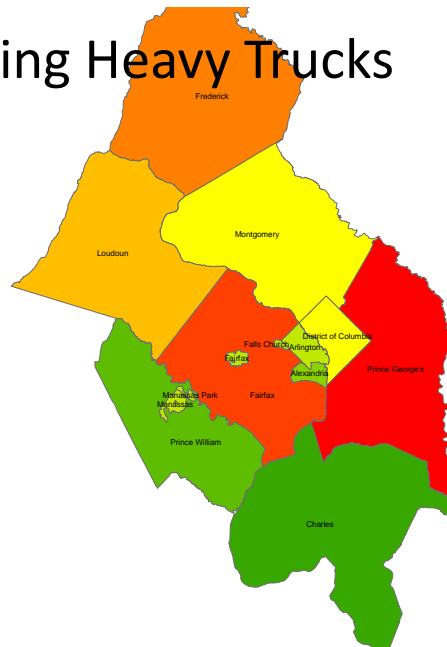
- Subcommittee previously explored the development of a regional safety database
- Product would be more interactive than illustrative
- Scope from UMD CATT Lab estimated a cost of \$195,000, including \$25,000 for hardware and 52.5% overhead for UMD
- Prefer to receive location data as coordinates directly from implementing agencies to avoid translation errors
- Agencies need to commit to continuous data sharing and updating

## Fatalities Involving Heavy Trucks



## Fatalities Involving Heavy Trucks

	2011	2012
DC	0	1
Charles County	5	0
Frederick County	1	6
Montgomery County	5	6
Prince George's County	8	15
Alexandria	1	0
Arlington County	0	0
City of Fairfax	0	0
Fairfax County	5	11
Falls Church	0	0
Loudoun County	0	3
Manassas	0	0
Manassas Park	0	0
Prince William County	3	1
<b>TOTAL</b>	<b>28</b>	<b>43</b>



## Next Steps

- Development of Visualizations with Existing Data
- Data Compilation for Crash Location Mapping
- Exploration of Regional Database
- Suggestions for further analysis