Leveraging Big Data to Advance Traffic Incident Management in a Rural State

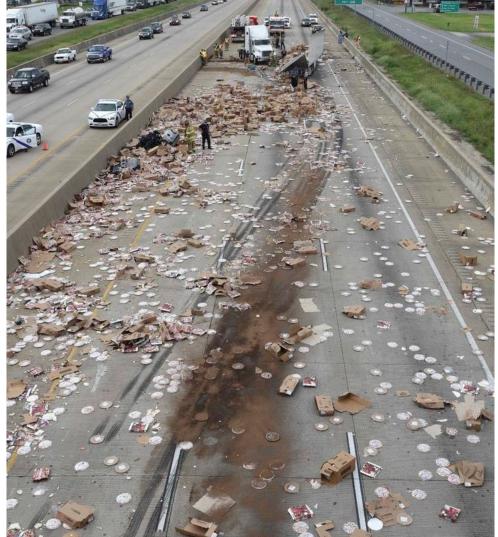
Andrew Brewer, PE Arkansas Department of Transportation

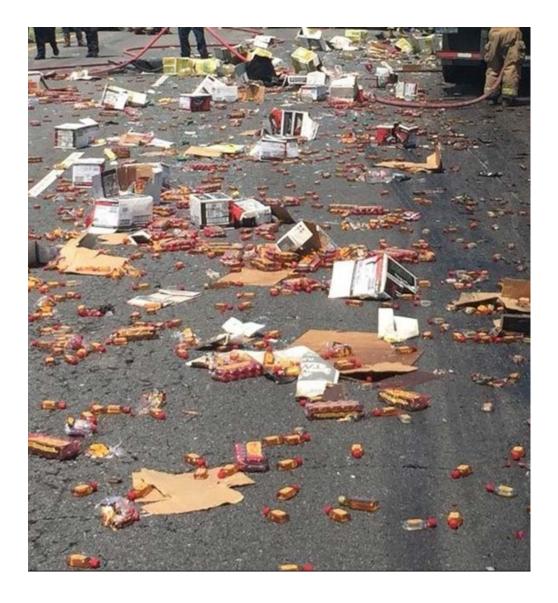
















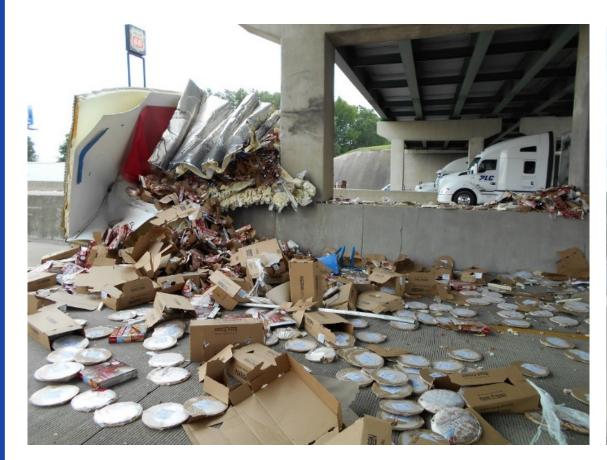














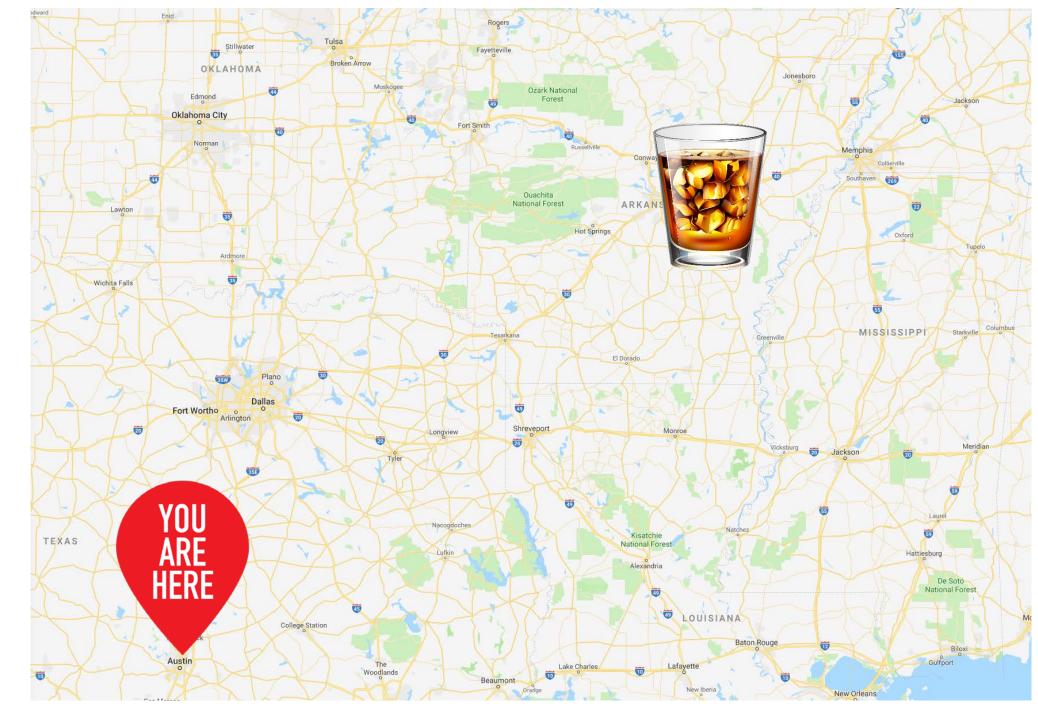


	WESTBOUND (from West to East)											EASTBOUND (from East to West)						
	113N04365	113-04365	113N04366	113-04366	113N04367	113-04367	113N04368	113-04368	113N04369	113-04369	113+04366	113P04365	113+04365	113P04364	113P04363	113+04363		
12:00:00	63.61	63.99	64.31	65.00	64.99	63.99	64.99	66.66	66.33	65.00	64.65	64.96	65.31	62.86	62.33	64.33		
12:15:00	65.33	64.29	66.32	66.33	66.00	64.99	66.00	65.99	65.99	64.00	65.33	65.66	62.99	62.99	64.64	65.32		
12:30:00	63.31	64.32	66.33	65.66	66.31	65.33	64.99	65.00	66.33	63.32	64.31	63.29	61.49	64.29	63.33	62.62		
12:45:00	63.99	57.36	63.96	64.28	60.92	63.52	63.96	64.99	65.00	63.66	65.99	32.32	56.61	63.61	62.97	60.28		
13:00:00	0.00	11.50	37.38	49.59	58.92	60.60	63.33	63.99	63.66	64.33	34.38	6.30	10.54	28.39	60.31	66.29		
13:15:00	0.00	6.15	7.13	18.72	38.24	56.59	62.62	61.97	61.60	61.60	41.98	6.00	5.89	7.94	38.34	56.90		
13:30:00	0.00	5.35	3.00	6.30	11.65	35.41	54.98	61.17	62.64	62.99	36.71	7.00	7.37	9.05	10.49	30.74		
13:45:00	9.00	3.83	0.00	7.47	6.92	8.82	34.93	58.26	62.27	64.33	43.37	9.60	6.17	6.77	7.92	10.31		
14:00:00	0.00	4.50	3.00	7.50	4.50	5.29	9.07	34.09	55.21	60.92	49.79	8.08	4.67	6.55	10.24	17.66		
14:15:00	0.00	7.27	0.00	12.00	7.87	6.18	9.18	30.37	50.11	59.62	21.72	14.00	13.00	5.81	5.68	10.24		
14:30:00	15.91	7.70	0.00	11.68	8.44	4.13	6.18	10.81	29.22	59.99	30.80	9.58	8.33	7.12	6.77	7.20		
14:45:00	11.03	5.14	4.44	11.35	9.00	5.25	3.60	4.86	16.58	57.96	35.22	9.64	10.65	14.96	34.31	22.22		
15:00:00	15.75	4.00	3.27	5.35	4.86	6.61	5.81	10.44	7.45	25.51	37.94	12.71	15.51	18.84	49.38	63.64		
15:15:00	14.82	4.62	3.60	3.43	4.00	4.86	5.29	5.60	7.41	18.52	57.55	50.38	59.78	62.64	63.99	65.64		
15:30:00	13.03	4.00	4.29	5.06	4.00	4.62	4.62	6.63	6.61	13.22	64.99	63.99	63.29	64.97	64.29	65.66		
15:45:00	17.60	4.29	3.60	3.27	3.60	5.00	5.29	6.30	6.28	10.19	63.99	63.64	64.64	64.33	63.31	66.31		
16:00:00	14.11	4.86	3.43	14.00	6.22	3.75	5.00	6.90	10.31	12.21	63.65	64.96	65.31	63.99	63.31	64.66		
16:15:00	15.23	5.00	4.00	4.00	4.29	5.45	6.28	8.14	5.45	8.46	63.65	62.28	63.32	64.33	64.31	64.99		
16:30:00	20.01	5.00	3.83	5.05	4.62	4.62	5.62	5.53	5.08	7.21	63.99	64.00	64.66	65.64	65.32	65.33		
16:45:00	27.61	5.00	4.29	4.00	4.62	5.89	5.14	5.71	7.92	8.99	61.86	64.64	63.31	63.64	62.24	65.64		
17:00:00	26.56	5.00	4.00	4.00	4.00	4.86	4.86	5.89	7.33	11.59	62.60	62.33	61.99	61.99	60.60	62.99		
17:15:00	35.54	10.96	4.50	4.00	4.00	4.86	5.00	6.30	7.13	9.94	65.99	65.99	65.66	65.97	65.31	65.66		
17:30:00	45.48	45.92	31.31	23.20	16.83	9.28	5.62	6.18	5.14	9.50	64.99	64.32	63.64	63.56	62.93	64.62		
17:45:00	17.85	29.22	48.08	51.65	50.33	47.18	39.40	30.86	24.64	12.00	65.66	66.32	64.56	65.66	64.29	65.00		
18:00:00	15.62	20.95	47.23	56.42	60.15	62.57	62.96	63.58	62.58	59.86	65.32	64.60	65.91	65.93	63.52	64.64		
18:15:00	33.07	52.87	65.31	64.31	65.33	65.66	64.66	64.97	65.33	65.33	66.33	66.99	67.00	66.66	66.32	65.99		
18:30:00	64.32	66.33	66.31	66.64	66.64	66.33	65.66	64.61	66.00	64.32	66.31	65.66	66.33	65.32	64.97	65.33		
18:45:00	65.66	64.33	66.32	65.97	65.93	65.18	63.48	65.96	65.99	63.93	64.56	65.99	62.16	64.99	66.27	62.17		
19:00:00	62.77	64.65	66.28	65.28	64.96	64.97	64.66	64.33	65.33	64.65	66.99	65.60	65.29	65.28	64.96	66.64		















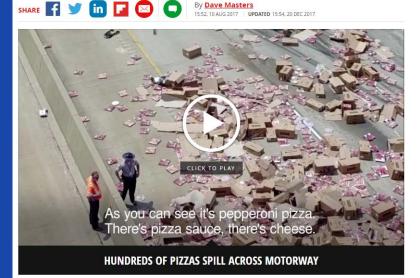
			/ESTBOUND					EASTBOUND (from East to West)					
							113+04501				3N04417		
10:15:00	61.16	65.65	65.49	66.29	63.86	65.97	66.99	61.69	66.99	64.66	66.6		
.0:30:00	8.84	16.08	66.62	65.54	64.27	68	67.33	20.24	60	63.99	68.64		
0:45:00	0	4.8	16.19	66.61	63.99	66.99	67.33	12.95	30.47	58.22	66.0		
1:00:00	0	7	10.14	19.44	62.86	67.66	66.66	13.1	8.89	38.03	59.5		
1:15:00	0	5.45	4.29	4	28.64	66.32	66.66	14.65	12.67	47.38	64.99		
1:30:00	0	4	9.91	9.43	18.6	66.99	66.64	13.26	11.06	46.9	64.9		
1:45:00	0	0	4	5.36	18.96	63.06	66.64	11.94	8.36	30.63	65.33		
2:00:00	0	О	4	3.43	14.32	66.99	67.33	12.95	7.97	28.89	61.97		
2:15:00	0	4	3.27	4	11.31	64.64	66	11.65	7.66	47.07	67.62		
2:30:00	0	3	3.6	3.43	7.92	57.24	65.66	14.56	7.49	20.38	60.22		
2:45:00	0	0	3.6	4.29	9.17	30.53	65.66	12.79	11.97	25.74	62.5		
3:00:00	0	0	3.6	4.25	7.3	43.39	65.31	14.82	8.97	29.97	62.9		
									_				
3:15:00	11.25	0	4.5	3	6.3	28.37	62.61	14.23	12.65	51.95	62.55		
3:30:00	13.56	6.15	4.5	4	7.13	44.49	60.85	14.23	10.94	43.17	63.64		
3:45:00	10	7.13	5.79	8.48	6.3	15.19	61.92	16.96	20.42	49.08	64.9		
4:00:00	9.23	4.29	7.33	11.28	9.55	8.58	47.27	15.27	24	59.34	56.42		
4:15:00	13.22	4.29	5.89	5.45	12.32	12.96	34.28	14.56	29.59	52.28	65.6		
4:30:00	9	4	5.71	6.32	10	28.81	34.93	14.96	28.18	57.9	66.6		
4:45:00	9	4	5	6.39	9.31	47.19	58.99	17.28	23.3	57.65	64.64		
5:00:00	8.31	4.29	5	5.89	9.23	55.91	66.33	17.96	34.92	57.27	63.99		
5:15:00	8.8	3.6	6.76	8.36	8.57	11.72	56.58	18.65	52.48	63.23	65.99		
5:30:00	11.44	0	6.61	10.13	9.39	43.02	59.92	22.32	57.22	61.52	64.99		
5:45:00	10.65	5.36	4	4.86	9	17.2	62.99	20.59	46.51	59.58	65.9		
6:00:00	8.64	4.62	6.3	5.83	7.3	57.66	66.99	18.58	18.24	38.29	63.2		
5:15:00	9.31	3.27	5.14	7.2	7.3	61.57	67.32	18.62	19.59	40.37	61.92		
5:30:00	10.19	5.35	4.29	6.08	8.57	58.07	68.33	19.87	24.92	55.91	65.32		
6:45:00	8.93	3.83	7.2	7.83	8.57	59.47	66.66	20.62	25.63	52.35	64.99		
7:00:00	9	4.29	5.06	5.6	11.78	64.18	66.33	23.29	52.45	61.6	63.87		
7:15:00	9	4	3.27	3.83	10.42	67.96	67.33	23	41.22	60.62	67.96		
7:30:00	9.31	4.29	5.81	5.06	9	66.17	65.99	25.93	18.01	57.66	66.31		
7:45:00	9.73	4.5	6.61	7	14.05	65.6	67.64	39.34	11.44	36.16	61.4		
8:00:00	11.25	4.29	5.29	5.14	13.55	65.66	68.99	46.41	60.72	61.97	68.97		
8:15:00	13.96	4.67	4.29	4.13	13.26	65.96	67.32	65.65	64.64	63.31	67.91		
8:30:00	10.65	6.63	4.62	4	10.65	65.96	65.99	64.99	65.33	62.97	65.33		
8:45:00	60	0	4.09	4.67	10.31	69.96	65.49	62.65	65.99	64.49	21.88		
9:00:00	19.02	4.8	5.29	4.86	18.96	65.57	66.64	64.99	65.64	63.29	64.58		
9:15:00	16.28	6.92	6.1	6.46	18.68	65.99	67	66.66	66.29	65.33	65.87		
9:30:00	14.86	6.35	7.76	5.83	19.41	66.99	67.33	66.62	66.27	63.31	64.5		
9:45:00	16.64	5.33	8.85	17.79	17.18	66.21	67.65	65.99	60.57	62.99	64.3		
0:00:00	16.24	7.53	4.8	7.13	35.91	66.96	68	65.99	66.32	60.49	67.3		
0:15:00	15	4.62	7.13	22.88	47.81	67.31	66.99	67	66.62	65.31	60		
0:30:00	21.02	5.81	12.36	47.25	64.65	67.31	66.66	65.64	64.64	63.31	60.7		
0:45:00	17.32	7.45	16.33	56.47	63.93	63.35	67.66	66.65	64.93	63.64	60.28		
1:00:00	12.86	4.29	9.15	47.73	63.65	65.18	64.97	67.33	66.33	62.99	64.72		
1:15:00	18.65	6.92	17.1	59.82	62.97	63.2	64.93	66.64	66.33	64.33	62.6		
1:30:00	16.15	6.41	25.32	57.22	65.31	67.31	67	66.64	67.64	65.33	65.3		
1:45:00	12.83	5.22	29.15	61.2	64.96	62.58	66.33	66.66	65.99	65.66	65.9		
2:00:00	15.73	6.41	19.96	64.17	66.31	65.62	65.66	67	66.64	64.65	67.2		
2:15:00	13.22	5.29	39.72	64.99	66.97	68.27	66.64	67.32	65.87	64.66	63.9		
2:30:00	18.5	6.43	50.95	63.09	66.29	68.59	66.31	67.97	66.32	64.99	65.2		
2:45:00	27.34	25.82	60.04	66.64	65.24	66.31	67.31	66.6	67.66	64.97	66.9		
3:00:00	36.66	53.59	65.97	67.91	63.91	64.28	64.99	67.32	66.99	65.32	60.44		
3:15:00	51.27	60.23	63.31	64.56	66.33	66.29	66.33	66.64	65.97	64.66	69.17		
3:30:00	49.73	51.27	65.31	64.65	66.33	67.33	66.99	66.33	65.66	63.99	64.27		
3:45:00	57.54	62.55	67.33	66.66	67.33	66.33	66.66	66.99	65.31	60.23	65.07		





Thousand pepperoni pizzas close motorway after delivery lorry sliced open in bridge crash

The clean-up operation took four hours



A major motorway was brought to a four-hour standstill after a lorry crashed into a bridge - sending 1000 pepperoni pizzas flying across the road.

The 18-wheel truck was delivering a mix of pizzas from the Nestlé-owned DiGiorno and Tombstone brands when it crashed on the road linking Dallas and Memphis in the US.

The prang blocked the entire westbound carriageway and left huge smears of tomato sauce across the tarmack.

Recovery vehicles were drafted in to scoop up the mess on the busy interstate road near Little Rock,

Local news reporter Emma Pettit tweeted the below video showing the clean-up in operation.







Many social media posts on the spill included digs about the catchprase from the DiGiorno's pizza TV ads, which claims: "It's not delivery, it's DiGiourno!"



The state's Department of Transportation office spokesperson Danny Straessle said the bridge had remained intact following the impact, suffering only "cosmetic damage".

ADVERTISEMENT FEATURE

Pepperoni pizzas might be in short supply in Arkansas in the coming days but thankfully that won't be the case down at your local Asda.









Take your pick of the pepperoni (Image: Asda)

They stock a mouth-watering range including the <u>Pepperoni Feast Stonebaked 10"</u> (£2.60), <u>Free From Pepperoni 10"</u> (£3.50) and the <u>Pepperoni Feast Stonebaked 10" Flatbread</u> (£2), all seen above.

You can also create your own fresh pizza on their <u>pizza counter</u>, with prices starting at £2.60 for a 10", or two for £4.50.



Create your own at your local store

Pick your favourite base from deep, thin & crispy, stonebaked, stuffed crust or flatbread, then add up to six tasty toppings.

These are all subject to availability and certain stores have different products.

Click here to find your nearest Asda.



News & Presentations

Permits

Programs

Publications

Employment

Travelers

Divisions

Home > Traffic Incident Management (TIM)

Why TIM?

• Save Lives
Traffic incidents
are the leading
cause of death for
law enforcement
and EMS
responders in the
US, and results in
multiple fatalities
due to secondary
crashes every year
in Arkansas.

- Save Time
 Every minute a
 freeway lane is
 blocked can result
 in 4 minutes of
 delay.
- Save Money
 Less time spent in
 backups, fewer
 secondary crashes,
 fewer responder
 injuries, and fewer
 insurance claims all
 result in lowering
 costs for responder
 agencies,
 businesses, and the
 motoring public.

The Traffic Incident Management (TIM) program removes incidents from Arkansas' highways and restores normal travel operations as safely and quickly as possible. ARDOT partners with multiple agencies to:

- Enhance responder safety
- · Enhance the safe and quick clearance of traffic incidents
- · Reduce the risk of secondary crashes
- · Support the economic vitality of Arkansas by minimizing delay



- Reports -

2019 Q1

2018 Q4

2018 Q3

2018 Q2

2018 Q1

Resources

Move Over Law Flier

Move It Law Flier

FHWA - Traffic Incident Management

> The TIM Network

costs for responder National TIM Responder Training

TIM Contact Andy Brewer Asst. Division Engineer

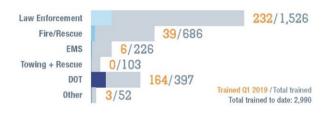


July 21-24



2019 Q1 Statistics

Responders Trained in TIM¹







www.ardot.gov/tim.aspx

Secondary Crashes³









The Arkansas Department of Transportation, in collaboration with traffic incident management (TIM) stakeholders within our state, is proud to bring you the TIM quarterly report. This document will provide a snapshot of Arkansas' efforts to improve safety and mobility on our State Highway System through TIM.

- 1 Reported through National TIM Responder Training Program, 1/14/19 to 4/8/19
- 2 Accidents resulting in highway lane closures reported through ACTIS; note that other agencies such as Arkansas
- State Police are now reporting incidents directly to ACTIS
- 3 2019 preliminary data reported through eCrash



QUARTERLY REPORT

Find more information at www.ardot.gov/tim.aspx



QUARTERLY REPORT

Find more information at www.ardot.gov/tim.aspx

2019 Q1 Statistics

444 Responders

Trained in TIM1



2018 Q2 Statistics

406
Responders
Trained in TIM¹

 EMS
 49/193

 Towing + Rescue
 22/95

 DOT
 1/233

 Other
 3/47

 Total trained to date: 2,057



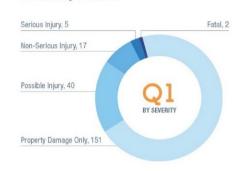




382
Crashes Managed on Highways²



Secondary Crashes³













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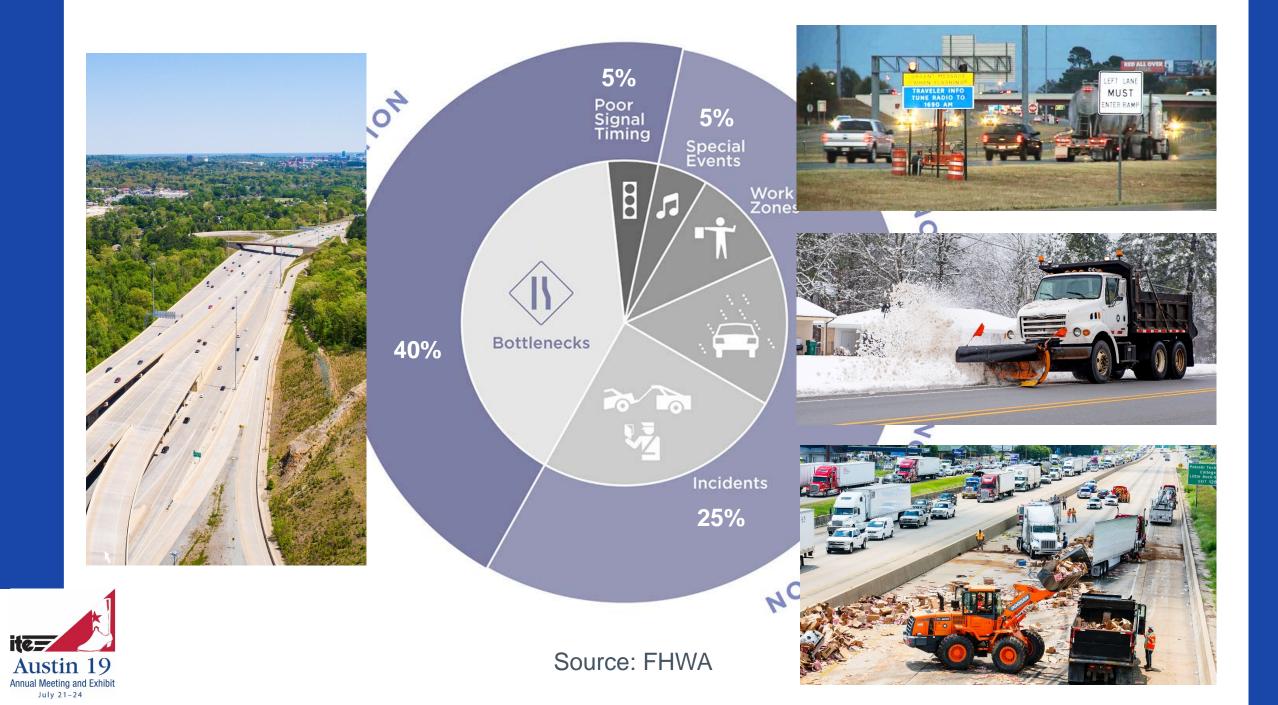
- Reported through National TIM Responder Training Program, 1/14/19 to 4/8/19
- 2 Accidents resulting in highway lane closures reported through ACTIS; note that other agencies such as Arkansas
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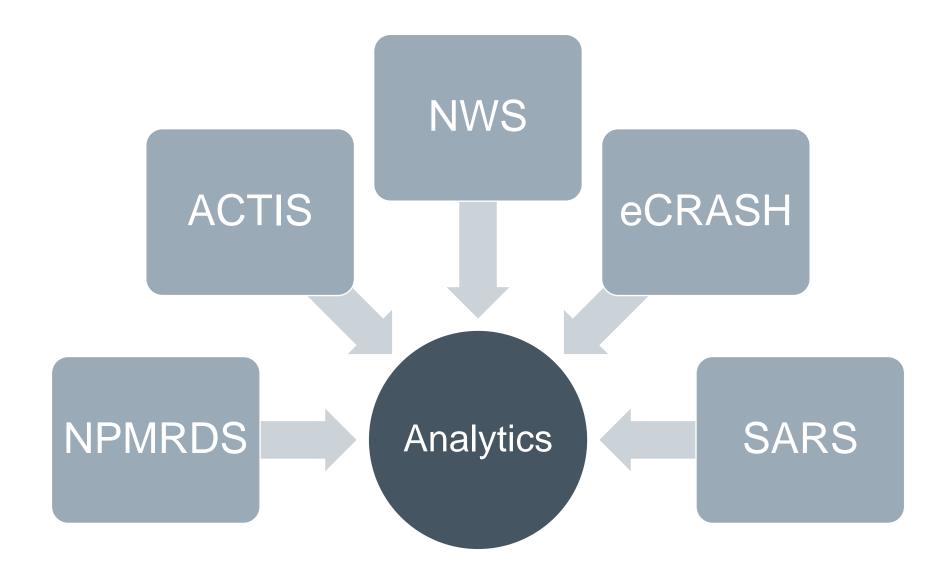
- 1 Reported through National TIM Responder Training Program, 4/3/18 to 7/9/18
- 2 Reported through ACTIS
- 3 2018 preliminary data reported through eCrash



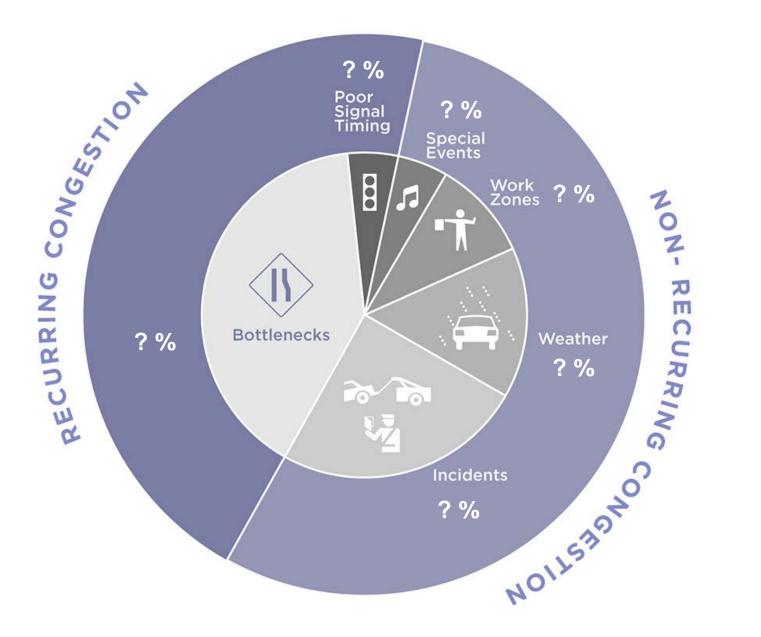


	EASTBOUND (from East to West)																			
	117 4488	113N04489	113-04489	113N04490	113-04490	113N04491 11	.3-044	113-04497	113N04498	113-04498	113N04499	113-04499	113N04500	113-04500	113N04501	113-04501	113N04502	113-04502	113N04415	113-04415
3:00 PM	66.41	66.53	65.16	63.15	65.48	67.23	66.7	67.41	67.21	66.3	67.4	66.83	66.57	66.49	66.66	65.83	66.47	66.48	66.81	66.16
4:00 PN	66.47	67.14	64.89	63.79	65.73	66.96	66.41	66.9	66.4	66.48	67.14	66.82	65.94	66.49	65.64	65.9	66.65	66.48	66.9	66.73
5:00 P	63.93	65.14	63.65	60.93	62.82	64.98	64.51	65.88	66.65	65.05	65.81	65.95	66.38	65.82	66.42	62.91	66.52	66.35	67.38	65.18
6:00 P	64.55	65.04	63.49		63.56	66.3	65.41	66.91	67.4	66.66	67.22		66.73	66.57	66.98	66.99		67.21	67.12	66.8
7:00 P	64.08				63.32	64.76	64.29	67.15	67.56	66.64	66.74		66.8					66.46		64.84
8:00 P	62 15					64.0	64.41	66.22	64.00	64.07			6/1 67							6F 96
9:00 P	58.55				54.93	56.6	58.9	63.73	62.67	59.56	61.16									
10:00 P	52.18					51.15	51.48	52.57	48.8	44.77	48.29									48.15
11:00 P	51.02				47.55	48.18	48.45	45.02	46.75	41.87	43.63									50.14
12:00 A	47.87				47.69	47.59	48.83	42.62	41.72	38.91	44.96									49.62
1:00 A 2:00 A	52.85 44.59				49.24	39.08	46.54 42.4	42.69	44.63	41.22	46.15									48.3 46.87
3:00 A	44.59		39.41 36.04	38.95 33.89	41.65 39.19	41.21 40.88	39.51	38.74 35.28	38.96 36.95	38.06 36.69	40.53 36.36			42.14	40.52	37	40.32	40.07	44.16	46.87
4:00 A	49.61		43.78		46.34	44.04	44.67	41.53	41.24	39.94	41.1			33.96	34.78	34.07	35.14	31.42	30.48	31.08
5:00 A	51.47				47.66	47.59	44.07	38.99	37.88	37.74	33.86								30.46	25.12
6:00 A	51.7					45.61	46.15	40.66	18.87	28.48						15.50	17			11.18
7:00 A	30.24						32.00	40.4	33.4	43.33		40.33				25.42	44	30.05	20	
8:00 A	58.37				57.33	58.08	57.63	43.65	44.13	45.47	40.67		4 36					33.74		19.29
9:00 A	61.1	60.2	57.43		59.57	62.46	61.27	55,1					5 96				26.89	35.83		7.27
10:00 A	63.3	63.38	59.52	60.02	60.76	60.76	63.62	55 [4	48.67	47.73	36.13	55.04	5 45	50.12	42.53	47.45	47.34	46.69	46.5	29.74
11:00 A	64.47	64.11	61.14	59.81	62.93	65.3	63.99	57 <mark>-</mark> 54	18.08	23.83	18.48	27.8	59.5.							
12:00 P	63.98	63.06	50.7	60.48	63.31	64.39	63.89	€ <mark>.</mark> 8	14.11	6.88	36.7	57.99	64.29	64.65	64.36	64.81	64.87	64.88	64.02	61.44
1:00 P	64.73	65.19	63.48	62.04	63.21	64.78	64.07	62 <mark>-</mark> 55	28.82	10.22	60.33	65.73	66.73	66.33	65.73	66.16	66.23	65.72	65.72	64.95
2:00 P	64.98		63.32		63.49	65.73	65.24	65 4	51.35	57.89	59.61	65.82	65.13					65.9		64.28
3:00 P	65.07				64.15	64.87	65.31	66.15	o5.50	05.05										65.39
4:00 P	65.15				64.22	65.38	64.96	66.07	65.55	65.08	65.03									65.74
5:00 P	64.23				63.71	64.94	65.06	66.57	65.8	64.13	66.82			65.56						63.69
6:00 P	65.41				64.12	65.98	65.49	65.4	63.5	63.64	64.61									
7:00 P	64.89				63.59	65.71	65.48	66.4	64.54	65.06	66.11									64.02
8:00 PN	65.47		63.73		64.23	66.14	65.82	65.91	65.2	64.63	65.9							65.7	66.26	64.28
9:00 PM	65.31				64.11	65.39	65.23	66.32	65.96	64.72	65.86		64.77						66.28	64.97
10:00 PM	65.3				63.7 61.8	65.48	65 J	66.08	65.49	64.79	65.26		65.8							64.37
11:00 PM	110	64.79	62.8	61.1	61.8	64.85	رح.65	65.49	65	64.54	65.67	65.56	65.51	64.9	64.96	64.03	61.48	64.97	63.29	63.8











QUESTIONS?

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