

ILLINOIS STATEWIDE CONGESTION ANALYSIS STUDY - INTERSTATE 80 SAFETY ASSESSMENT



CLIENT:
Illinois Department of Transportation

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CONTRACT:
PTB 168, Item 29 - \$1.49 million

PROJECT PURPOSE:

- Develop Recovery Time Estimates From IDOT Crash Data
- Evaluate Strategies to Mitigate Congestion Due to Crashes
- Assess Costs and Benefits of Potential Strategies

DAMA Consultants, Inc., conducted a study of the impacts of roadway crashes on Interstate segment travel times along I-80 near Chicago. The study team identified the time and dates for three years of incidents (2011-2014) recorded by the IDOT District Offices and the corresponding roadway segments and travel time measurements recorded by the FHWA National Performance Management Research Data Set (NPMRDS).

The study team used crash details captured by the IDOT District Offices to distinguish crashes by reported severity on the National Safety Council KABCO severity index, weather and daylight conditions, vehicle types involved, and other factors. Travel time provided by the NPMRDS allowed the study team to measure the incident recovery times or the amount of time that passed between the incident and a return to normal speeds and traffic throughput. DAMA used these sources to identify how roadway conditions affected safety and incident recovery along this corridor.

DAMA used this data to develop a program of recommended Intelligent Transportation System (ITS) improvements to reduce the impact of crashes and reduce recovery times along I-80.

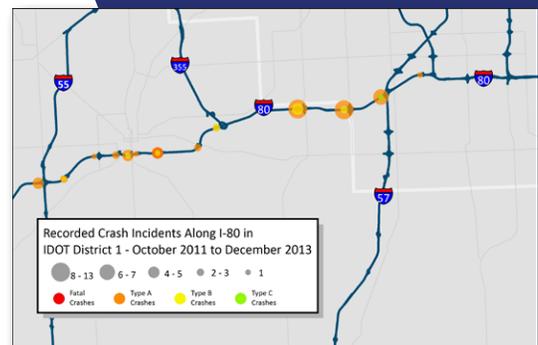


Table 13-13: Average Incident Duration by Truck Involvement, Oct 2011-Dec 2013

		Average Incident Duration by Truck Involvement (Incident Frequency)				Average and Total
		Heavy Trucks	Light Trucks	Passenger Cars	Unknown	
Chicago	Total (I-80)	141.88 (24)	92.50 (6)	103.39 (28)	30.00 (1)	116.69 (59)
	A	126.25 (20)	92.50 (6)	104.81 (26)	30.00 (1)	110.09 (53)
	F	220.00 (4)		85.00 (2)		175 (6)
Rockford	Total (I-39)	89.17 (6)		79.29 (14)		82.25 (20)
	A	45.00 (1)		80.00 (2)		68.33 (3)
	B	128.33 (3)		60.71 (7)		81 (10)
	C	52.50 (2)		73.75 (4)		66.62 (6)
East St. Louis	F			230.00 (1)		230 (1)
	Total (I-55/I-70)				70.00 (22)	70 (22)
	A				50.00 (2)	50 (2)
	B				70.56 (18)	70.56 (18)
	C				85.00 (2)	85 (2)
Average and Total		131.33 (30)	92.50 (6)	95.36 (42)	68.26 (23)	99.7 (101)

