IL

Illinois

usRAP
UNITED STATES ROAD ASSESSMENT PROGRAM
A program of the AAA Foundation for Traffic Safety

- *Over 138,000 miles of public road*
- *16,000 miles of state maintained highway*

Illinois usRAP Overview	
Partners	Illinois DOT, AAAFTS
usRAP network	Interstate, US, and State routes
usRAP road sections	3,760 sections (latest data period 2002-2006
Length of usRAP network	11,000 road miles

Facts and Figures

Statewide totals for rural state highways

- 22 billion annual veh-mi of travel (VMT)
- 8,637 fatal and serious injury crashes

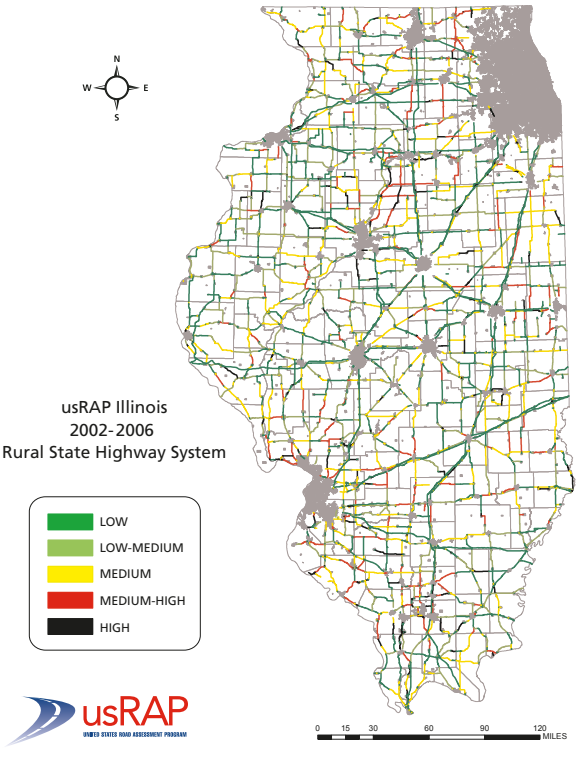
Statewide averages for analysis sections on rural state highways

- Average length = 2.9 mi
- AADT = 5,300 veh/day
- Fatal and serious injury crashes = 0.46 crashes/section/year
- Fatal and serious injury crash density = 0.16 crashes/mi/year
- Average crash rate = 8.05/100MVMT

Risk Mapping

State highways in rural areas were included in the pilot study scope for Illinois. usRAP Map 2 (shown in the example at right) is based on the crash rate for fatal and serious injury crashes per 100 million vehicle-miles traveled. This map represents the risk that an individual motorist will be involved in a serious crash. Other standard usRAP risk maps were also developed in the usRAP Illinois pilot study.

MAP 2. Crash Rate (Fatal and Major Injury Crashes per 100M VMT)

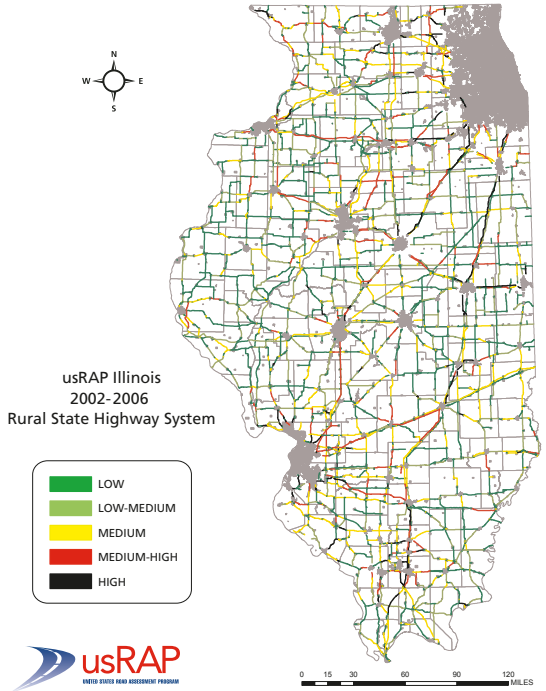


Summary Risk Mapping Data

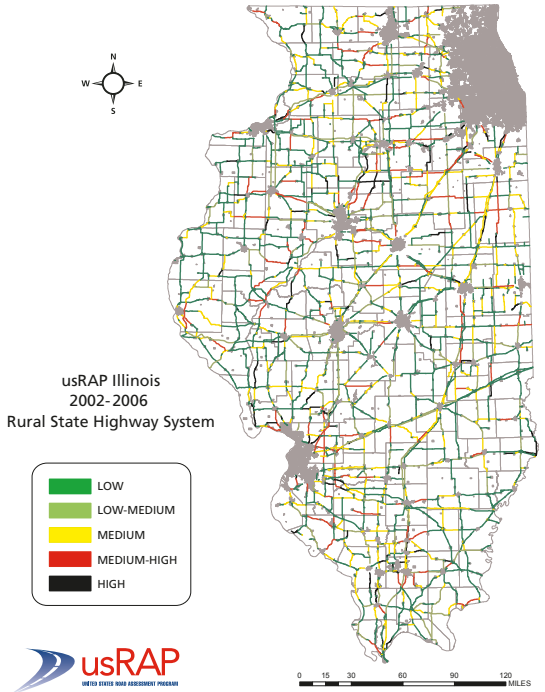
ILLINOIS RURAL STATE HIGHWAY SYSTEM ROADS 2002-2006									
Road Type	Sections	Road Miles	Average Length (mi)	Average AADT (veh/day)	Annual VMT (Billion)	Fatal & Serious Injury Crashes			
						Total Frequency	Annual Frequency	Annual Density	Annual Rate (HMVM)
Interstate/Freeway	252	1,555	6.2	18,487	10.5	1,718	1.36	0.22	3.28
Multilane Divided	430	357	0.8	7,954	1.0	496	0.23	0.28	9.58
Multilane Undivided	92	50	0.5	7,020	0.1	64	0.14	0.26	10.15
Two-lane Undivided	2,988	9,042	3.0	2,969	9.8	6,358	0.43	0.14	12.98
Total	**3,762**	**11,003**	**2.9**	**5,342**	**21.5**	**8,637**	**0.46**	**0.16**	**8.05**

Specific Applications of usRAP in Illinois

MAP 1. Crash Density (Fatal & Serious Injury Crashes per Mile) **Roadway Departure Crashes**



MAP 3. Crash Rate Ratio (Compared to Average for Similar Road Types) **Alcohol or Drug Involved Crashes**



Two sets of supplementary usRAP risk maps were developed for Illinois, based on alcohol- or-drug-involved crashes and roadway-departure crashes. All four standard usRAP risk map types were developed for each crash type—two examples are shown above. The map on the left is based on crash densities for roadway-departure crashes. This map may be most helpful for highway agencies in planning roadside design improvements that reduce crash severity for vehicles that run off the road. The map on the right is based on the relative rate of alcohol-or-drug-involved crashes for road segments in comparison to the average rate for similar road segments. Law enforcement agencies may use this type of map to plan enhanced enforcement to reduce alcohol-related crashes.

607 14th Street, NW, Suite 201 | Washington, DC 20005 | www.AAAFoundation.org | 202-638-5944