



MEMORANDUM

To: Regional Transportation Operations Coalition

From: Todd Schmidt

Date: Wednesday, July 19, 2012

Re: Recommended Operations Performance Measures

The Regional Transportation Operations Coalition (RTOC) identified system modernization, corridors, special projects, and operations strategies as four areas to focus RTOC activities. These four areas should continue to guide the group's work and inform its CMAQ project recommendations. To support the project focus categories, CMAP staff recommends tracking a limited number of performance measures.

Performance measures can be used in two important ways. First, the data can be mapped or otherwise analyzed to identify areas for improvement. Second, the data can be tracked over time to measure the overall effectiveness of system investments.

The data to track these performance measures should be readily available and be easy to understand. The staff-recommended performance measures for RTOC activities include:

Category	Measures	Data Sources
Congestion	Travel time index & speed	on-board & on-road sensors
Reliability	Planning time index	on-board & on-road sensors
Safety	Crash rate	IDOT crash reports
System modernization	System modernization	To Be Determined

Congestion will be measured by travel time index and speed. The travel time index can be used to track whether transportation network conditions are getting better or worse and to identify locations for improvement. Travel time reliability is consistently used by the FHWA and can be used for comparison purposes. Travel speed is a desirable measure because it is easily understood; however, it is only appropriate at the corridor level.

Reliability will be measured by the planning time index. Like travel time index, this measure is consistently used by the FHWA and the data is readily available for many areas in the region.

Safety of the transportation system will be measured by crash rates. Reducing the crash rate will reduce casualties, decrease congestion, and make travel times more reliable. The data to track this performance measure is readily available and collected by IDOT.

Modernization will measure the region's investment in technologies and strategies which have been shown to improve congestion, reliability, and safety. A modern transportation system should include appropriate multi-modal accommodations, signal systems, communications, ITS technologies and improved intersection design. Possible data sources to track this measure include the traffic signal inventory, ITS architecture, TIP database and field observations.

CMAP staff currently tracks a number of indicators as part of the congestion management process (see the draft congestion management system documentation). The intent of the measures above is to identify measures to focus on, and upon which to identify potential locations for improvements.