MAP-21 FACT SHEET

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SUBJECT: MAP-21, Performance Measurement

PROBLEM STATEMENT:

MAP-21 identifies Traffic Congestion as a National Performance Measure Area. MAP-21 has greatly increased the National Highway System (NHS). The newly added NHS segments are primarily urban arterials that are not part of the State Highway System (SHS) and thus data collection for these additional segments will be conducted by personnel from cities, counties and regional planning agencies and not DOTs alone. A wide variety of abilities exist with respect to data collection and analysis. There also exists commensurate variability in the performance measures selected by each agency to determine the performance of their respective systems. Standardizing goals, performance measures, data collection and analysis methods used by each agency will be extremely challenging.

Many state DOTs have no control over local arterials. Cooperation between state DOTs and regional agencies will be necessary if performance for the entire NHS is required. Although this may not be an unreasonable expectation, in many states this is not currently part of normal business operations and thus could take quite a bit of time to coordinate and implement.

RECOMMENDATIONS:

Whoever is responsible for identifying the performance measures used, it is imperative that the measures focus on what each agency has control over and be able to indicate the impact of each agency's actions. If an outside entity is allowed to determine the exact performance measures each DOT will use, then there is the potential for states to be unable to comply because of lack of data or lack of technology or a whole host of other reasons. Less than full compliance will negatively impact the national program.

The interpretation of each selected performance measure is very important. Although in most instances traffic congestion is something that it is best to reduce, the reason for the congestion is not always an unwanted or non-beneficial event; such as an improving economy. The reverse is also true. If an economy declines and congestion declines, that is not an indication of an action taken by a transportation department.

If each state is allowed to select its own congestion measures and set its own goals and report on its progress towards meeting those goals, with FHWA participation, the likelihood for success for the entire program would increase.

Establishing separate targets and/or measurements for urban and rural roads is preferable. The ways in which delay is measured is vastly different in urban and rural areas and is primarily a result of access limitations and signalization. In California, urban area congestion is primarily measured using data provided by an extensive system of automated detection, while congestion in rural areas is primarily calculated based on sampling. The same is true when considering congestion measurement on conventional highways and freeways.

SUBJECT: Performance Measurement

BACKGROUND:

Currently, Caltrans has a highly sophisticated means of data gathering to measure congestion on urban freeways using automated detectors. Volume data are collected for the remainder of the SHS using less intensive techniques involving a large amount of estimation which yields less detailed data. Data for local entities range from the spot collection of traffic data to automated data collection on urban routes. The collection of data is driven by the underlying traffic management goals of the various agencies and the availability of funding. Similarly, these concerns can be applied to any set of performance measures where there are policy and data collection differences between the state and local agencies.

ALTERNATIVES:

Alternative 1: The state, regional agencies and local agencies continue to collect data that adhere to their individually adopted policy goals and financial constraints and work, with FHWA participation, towards the coordination of consistent data gathering, analysis and results interpretation that indicate their efforts at meeting FHWA's goal of congestion reduction.

Alternative 2: Strict and uniform NHS performance goals and reporting standards can be developed and applied throughout the nation. This would necessitate the development of strict data standards and of data reporting processes. This would also necessitate a substantial investment by FHWA to facilitate data collection.

The advantage of alternative one is that it is largely in place and can be implemented without major disruptions or changes to existing procedures. It also provides for more sophisticated analysis which leads to a greater understanding of system performance.

The disadvantage to alternative one is that it will require a substantial coordination effort.

The advantage of alternative 2 is that the performance measurement would be consistent across the entire NHS.

The disadvantages of alternative 2 are that such a process would potentially not reflect individual agency goals and thus not lead to effective policies and that it is potentially very expensive.

PROPOSED IMPLEMENTATION SCHEDULE:

Alternative one can be implemented within 18 months.

Attachment

23 US Code Section 150
23 USC 119, National Highway Performance Program
23 USC 133, Surface Transportation Program
23 USC 148, Highway Safety Improvement Program
23 USC 149, Congestion Mitigation and Air Quality Improvement Program
23 USC 150 (c), National Goals and Performance Management Measures, Establishment of Performance Measures
MAP-21, Section 1203