

A2  
Performance Planning/Scenario Planning

INNOVATIONS IN ALTERNATIVE FUTURE SCENARIOS – A STATE'S PERSPECTIVE

Jessie Jones  
Arkansas State Highway and Transportation Department  
P.O. Box 2261, Little Rock, AR 72203-2261  
501-569-2201  
[Jessie.Jones@ahtd.ar.gov](mailto:Jessie.Jones@ahtd.ar.gov)

Performance management is becoming increasingly applied in the transportation industry. While the concepts of performance management and performance measures are generally understood, deciding how to best allocate limited resources across various types of investments to provide acceptable transportation system performance continues to pose a persistent and difficult challenge. While agencies often use management systems to understand the impacts of short-term investments on transportation system performance, a longer-term approach to performance-based resource allocation is often not considered even though it is required under MAP-21.

During the development of the Arkansas Long Range Intermodal Transportation Plan (LRITP), Arkansas State Highway and Transportation Department (AHTD) developed the following four alternative future scenarios:

1. **Keep it Smooth – Preserve the Investment.** This scenario would maintain and preserve the existing highway and bridge system in a State-of-Good-Repair.
2. **Think Locally – Trade Globally.** This scenario would enhance infrastructure investments that support industry retention and attraction.
3. **Connecting Communities – Forging Opportunities.** This scenario would complete Arkansas' Four-lane Grid System for a better connected economy.
4. **Bigger Cities – More Mobility.** This scenario would alleviate urban congestion by focusing on congested corridors (TDM improvements), increasing transit operations, preserving the existing urban system, and addressing gaps in the bicycle and pedestrian network.

Planning tools were utilized to link quantitative and qualitative performance impacts to investment levels in each of the following six program investment areas safety, pavement, bridge, capacity, maintenance and non-highway (urban and rural public transportation, and bicycle and pedestrian). A cross-asset decision support solution was developed to test and evaluate the results of allocating resources to each of the scenarios across the six investment programs and an on-line engagement tool was used to solicit feedback and input on each scenario.

The alternative future scenarios and associated performance dashboard provide AHTD transparency and accountability and a step-by-step process to implement performance management concepts at the programmatic level. The scenario process and performance levels inform AHTD decision-makers and assist in allocating limited resources across various types of investments to provide acceptable transportation system performance.