

Form Follows Function for Mid-Ohio Metropolitan Transportation Plan

Goals, Objectives...and Measures

Every four years, Metropolitan Planning Organizations (MPOs) develop goals and objectives for their Federally required Metropolitan Transportation Plans (MTPs). Perfect alignment of goals and objectives in the MTP process is always a challenge since goals are typically overarching, long-term outcomes that are difficult to quantify, and objectives are more discrete actions associated with measurable, short-term endeavors.

For the 2012-2035 MTP, the Columbus-area Mid-Ohio Regional Planning Commission (MORPC) managed the association between goals and objectives by adopting a performance-based approach. For example, while most MPOs are familiar with economic goals and their corresponding objectives, MORPC went further by connecting their economic objectives to performance measures and transportation targets.

The MORPC MTP links the objectives of attracting and retaining businesses and skilled workers to measures of traffic congestion and transportation options. The two targets associated with these measures specify that 1) traffic congestion throughout the 20-year plan horizon will not be allowed to degrade beyond existing conditions, and 2) an average of 10 miles of bikeways will be added to the transportation network each year. Managing traffic congestion will help the Mid-Ohio region retain the logistical efficiency that businesses

KEY ACCOMPLISHMENTS

- **MTP performance metrics and consistency with MAP-21 target areas**
- **Visualization of performance metrics for comparison to MTP goals**
- **Streamlined project evaluation through development of an evaluation database**

require, and expanding bicycle infrastructure will diversify transportation options by facilitating bicycle travel and reducing auto dependence.

Targets and MAP-21 Congruency

MORPC's method for communicating targets in the MTP is simple and effective. The [target table](#) clearly states goals and performance metrics, followed by the progression from existing conditions to short- and long-range targets. One of the defining features of the Moving Ahead for Progress in the 21st Century Act (MAP-21) is that MPOs develop a spending program based on project performance and outcomes that advance national goals. MORPC designed its target areas to overlap with several performance measure areas in MAP-21, including congestion, air quality, bridge condition, pavement condition, and safety. MORPC's proactive congruency with MAP-21 strengthens their connection to Federal goals and objectives.

Report Cards and Visualizations

Target assessment in the MTP is an on-going process, with planning staff tracking each indicator and making updates as new data become available. To communicate progress on targets, MORPC uses an online report card. Status updates are graphically represented with three levels of bull's-eye icons.





Figure 1 MORPC Scorecard Targets (Source: MORPC)

MORPC staff sought visuals that would be comprehensible to professionals as well as the general public. They wanted graphics that did not rely on a number score, since not all targets have the same numerical scales. They also wanted to minimize confusion that might result from too many score levels, and of course, the icons themselves had to be unambiguous. These considerations led to the bull’s-eye iconography, which conveys the necessary information in a clear and concise fashion.

Along with the report cards, MORPC uses visualizations that present the progression of data-driven indicators over time. Among these indicators are mode share, miles of bikeways, number and location of schools participating in safe routes to school programs, crashes per million VMT, traffic congestion, and number and location of alternative fuel stations.

Project Evaluation Database System

To process hundreds of candidate projects, MORPC developed the Project Evaluation Database System. The Microsoft Access-based system considers data from the MORPC travel demand model, spatial data, and qualitative criteria.

For the 2035 MTP, MORPC used the database to review 769 candidate projects. Each received a score on a 20-point scale based on regional goal criteria in the MTP. For quantitative data, the database compared histograms of similar project types. For qualitative data, the database considered whether the data improved an objective measure.

Results

MORPC’s 2035 MTP differed from previous editions in its use of a performance-based approach that paired goals and objectives with measures and targets. MORPC deliberately made its MTP target areas congruent with MAP-21 target areas, and each year they update their progress toward targets with an online report card and related visualizations. The database system that was initially used to screen projects can now be used to prioritize projects that have been selected. Overall, MORPC’s multifaceted approach to the MTP process has been highly effective in tracking progress and improving project selection.



Figure 2 MTP Report Card (Source: MORPC)

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