

SPS-13: Analysis Methods

State

1-15 points

Goal: Agencies adopt and incentivize best practices in land use, socioeconomic and transportation systems analysis methods.

Sustainability Linkage

The use of analysis methods can help an agency measure progress toward meeting its sustainability goals by providing the means to estimate, evaluate, and communicate the expected social, environmental, and economic outcomes of changes in transportation policies, services, and the built environment.



Background and Scoring Requirements

Background

Transportation planning includes numerous tools and practices within the profession to inform decisions regarding transportation infrastructure, policy, plans, management of the systems, or project implementation. The analytical framework for transportation planning and policy along with the relationship to comprehensive planning drives the development of the analytical tools and practices. Understanding the interplay between land use, socioeconomic systems, transport systems, and the environment is central to developing more sustainable transportation systems and communities. To assist in accomplishing this, tools and practices need to reflect these dynamics at the appropriate scale (national, state, local, etc.) and provide relevant performance measures as part of the decision-making process.

For the purposes of this criterion, the key terms are defined as follows:

- **“Analysis Methods”** include forecasting process tools such as land use and travel demand models, and the data associated with the development and implementation of those tools and methods.

Scoring Requirements

Requirement SPS-13.1

1 or 3 points. Quality of Data

The transportation data resources used as the basis for the analysis and the development of tools such as travel demand models are of a sufficient quality and coverage to support the conclusions. Scoring for this requirement is based on the following, cumulative requirements. The first requirement must be accomplished to earn the second.

- **Requirement SPS-13.1a**

1 point. Demonstrate Analysis Based on Suitable Data

The agency demonstrates that the analysis has a strong foundation in observed data suitable for developing tools which model the land use, socioeconomic, transport, and environmental systems.

- **Requirement SPS-13.1b**

2 additional points. Demonstrate Data Used is Evaluated and Updated Regularly

The agency demonstrates that the data used in planning analysis are evaluated and updated on an established evaluation and update cycle.

Requirement SPS-13.2

1-4 points. Program Framework and Funding

The agency has a strategic plan, analysis program, or equivalent that includes the areas listed in SPS-13.2a through SPS-13.2d. Scoring is based on the following, cumulative requirements:

- **Requirement SPS-13.2a**

1 point. Multi-year Development Program

Program includes a specific multi-year development program for maintaining transportation data resources and improving analysis methods.

- **Requirement SPS-13.2b**

1 point. Specifications that Address Sustainability Principles

Program includes specifications for the data resources and methods that explicitly address sustainability principles.

- **Requirement SPS-13.2c**

1 point. Adequate Funding to Implement Identified Work

Program includes identification of an adequate level of funding required to implement the data collection and modeling tasks, which is also reflected in the appropriate work plan.

- **Requirement SPS-13.2d**

1 point. Technical Resources

Program identifies and includes resources which include support for experienced technical management and a mix of technical staff and/or contract staff.

Requirement SPS-13.3

2-8 points. External Review

Scoring is based on the following, cumulative requirements:

- **Requirement SPS-13.3a**

2 points. Technical Committee

The agency's organizational structure includes a technical committee to ensure the technical review of data collection/quality, planning assumptions, and forecasting methods. This committee may be comprised of state and local transportation planning professionals, private consultants, academia, and/or other individuals having interest and expertise in the forecasting process. The technical committee's role is to provide review and feedback on the analytical methods and tools utilized by the agency.

- **Requirement SPS-13.3b**

3 points. Peer Review of Analysis Method, Tools and Practices

The agency has convened a peer review of its analysis methods (e.g., the peer review program offered by FHWA's [Travel Model Improvement Program \(TMIP\) Website](#)¹.) The review included an assessment of the primary data used to develop the analytical tools and an assessment of the calibration and validation results of the tools, methods, and practices. In addition, the review has demonstrated that the methods are sensitive to the actions being tested, such as the expected and desired changes in transportation policies, supply, services, and the built environment.

- **Requirement SPS-13.3c**

3 points. Peer Review of Travel Models

The agency has convened a peer review of its travel model (e.g., the peer review program offered by FHWA's [Travel Model Improvement Program \(TMIP\) Website](#)¹.) Results of the peer review are used as inputs to the plan and describe improvements to the actual analytical methods used.

Resources

The following resources are referenced in this criterion and consolidated here:

1. FHWA's Travel Model Improvement Program (TMIP) Website, http://www.fhwa.dot.gov/planning/tmip/resources/peer_review_program/

Scoring Sources

The program is considered to have met this criterion if the requirements above can be reasonably substantiated through the existence of one or more of the following transportation documentation sources (or equal where not available):

1. Forecasting tools and methods documentation, including calibration, validation, and sensitivity results.
2. A technical committee charter, meeting schedules, and/or proceedings.
3. A forecasting methods or analysis tools strategic plan, program or equivalent which provides reference to the level of funding for analysis methods and data.
4. Documentation of the most recent peer review, including the stated purpose, a list of participants, recommendations arising from the review, and the agency's plan and/or schedule to address the peer review recommendations.