STATEMENT OF NEED:
Prior to 2001 the Ohio Department of Transportation (ODOT) tracked many performance measures for the state highway system such as traffic volumes, pavement conditions, accident rates and bridge conditions, but did not have a uniform composite measure to compare the overall change in these conditions over time. ODOT 2001 Strategic Initiative number three sponsored the development of a sufficiency rating system to measure roadway condition adequacy and trends in Ohio. A sufficiency index was developed to assist ODOT with assessing transportation needs and asset management. This index utilizes 12 transportation parameters that have been weighted due to their apparent importance. However, these parameters have not been systematically validated.

STUDY OBJECTIVES:
The primary objective of the Validation of ODOT Sufficiency Rating System study was to validate the sufficiency rating system by analyzing the index parameters and relating the sufficiency results to the desired conditions for improved safety.

RESEARCH TASKS:
1. Obtain necessary information, through a survey of all state departments of transportation and a literature search, and compare the ODOT sufficiency rating system to those being used in other states;
2. Perform a sensitivity analysis of the system parameters and their weighting. Validate and where appropriate, make improvements or adjustments to the system parameters and weightings currently used by ODOT;
3. Examine the applicability of the sufficiency index to highway safety;
4. Examine the applicability of the sufficiency rating system to need analysis and asset management;
5. Critically examine and suggest any data collection needs for further improvements of the sufficiency rating system; and
6. Develop appropriate guidelines to assist ODOT in the best use of the sufficiency rating system to improve the efficiency of decision making, facilitate the coordination of activities within ODOT, and ensure the consistency of decisions made at different management levels within ODOT.

PROJECT DELIVERABLES:
1. A synopsis of best practices related to the sufficiency index concept.
2. Identification of data collection and analysis improvement opportunities prioritized by their estimated benefit cost ratio.
3. Validation of the sufficiency index and identification of any bias due to sensitivity of the parameters or their weighting.
4. Evaluation of the index results for their application to highway safety and asset management.
5. Recommendations for the application and presentation of the ODOT sufficiency index.
6. A final report documenting all findings.