





The discussions garnered the attention of agency leadership who initiated efforts to correct the reporting issues and modify internal reporting practices. In both instances, the HPMS Pavement Performance Report Card served as the basis for uncovering data quality issues that had gone undiscovered for years.

Through these experiences, the Ohio Division Office recognized the benefits to having a tool that improves the effectiveness of the annual reviews conducted on HPMS data submittals. In the past, Division Office reviews had consisted primarily of checks to ensure that submittals were made on time and that each data set was essentially complete. Now, with the availability of the Report Card, Division Offices have the ability to also verify the quality of the pavement data by looking at the reasonableness of trends in the data. For instance, a Division Office can use the Report Card to determine if changes in pavement performance are occurring at reasonable rates. Additionally, the Division Offices can use the Report Card results to check whether average pavement performance values jibe with the Division Office's perception of highway conditions in the state. For example, if a state accidentally duplicated its rut data in the fields reserved for faulting data, the mistake may not have been caught in the past and HPMS reports would show significant faulting. Today, the error can be uncovered quickly using the Report Card. As a result of the availability of this tool, Division Offices can become more actively involved in improving the reliability of the data used by FHWA to support its Transportation Performance Management obligations.

### **Benefits**

- Simplified approach to review multiple HPMS data sets.
- Improved process for identifying HPMS data gaps or inconsistencies.
- Stronger collaboration between state DOTs and Division Offices to improve HPMS data quality.
- More consistent and reliable HPMS data.
- Greater confidence in the quality of the data used to support TPM efforts.

### **Lessons Learned**

Since state HPMS submittals are typically comprised of multiple data files, it has historically been difficult for states and Division offices to check much more than the completeness of the HPMS data sets. As a result, errors or inconsistencies in the data files, or problems that occur when loading the data files, were carried over into HPMS and reported that way. In the past, this led to inconsistencies in the data being reported by the states and by FHWA, and led to mistrust among the states in FHWA's handling of the HPMS data.

The HPMS Pavement Performance Report Card has allowed FHWA to significantly reduce these issues because the Report Card combines relevant data sets and presents the information in the same format that's used for HPMS. As a result, states are now able to view the intersected data files so they, too, can see how the information is being reported to FHWA for use in its performance management reporting obligations. The availability of this tool should help to improve the quality of HPMS data among those states that are conscientious about verifying the quality of their HPMS submittals.

However, the availability of the Report Card also provides an opportunity for FHWA Division Offices to expand their reviews of HPMS submittals to include much more than verification of the submittal timing and completeness of the data sets. As demonstrated by the Ohio Division Office, the Report Card results provide an effective method of checking the reasonableness of distress propagation, evaluating changes in pavement condition with time, or verifying that the reported data fits with perceptions of highway conditions. These reasonableness checks, which are not expected to take more than a few hours to complete, show promise for improving the quality of state HPMS submittals, but also provide a means of initiating discussions with states about improving the effectiveness of their performance management practices.

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