State and local transportation agencies continue to aggressively adopt performance measurements as a core business practice to: (1) demonstrate the benefits of transportation investments, (2) better identify areas where improvements need to be made, (3) be able to report on current conditions and trends, and (4) be able to demonstrate to the public that the agency fully understands and is responding to congestion and other transportation issues. The introduction of new, higher quality, wide-area, 3rd party probe-based data into the market provides great potential for supporting enhanced performance measurement activities including the automation of many performance monitoring tasks that previously required significant time, money and effort. However, understanding how to interpret these “Big Data” sets, archive it, process it, and create meaningful reports can be a challenge. This session will showcase real-world operations and planning questions that are being asked, and then provide real-world examples of how these questions are being answered by new web-based visualization and analysis tools. This session will be applicable to planners, researchers, and operations professionals alike, and hopefully demonstrate how this influx of data can be effectively leveraged.