The high-value research projects highlighted in this brochure exemplify the results of the applied research conducted by the Kentucky Transportation Center (KTC). These completed projects provide real and measurable benefits to the people of Kentucky and the nation. Previous KTC high-value research projects have received national recognition. Further high-value research information may be found at www.ktc.uky.edu/high-value-research/.
In late 2010, Kentucky implemented a PRISM-based automated ramp screening system (PARSS) at the Boone County I-71 inspection facility to screen commercial vehicles as they travel along the ramp. This system utilizes a license plate reader, a United States Department of Transportation (USDOT) number reader, and scene camera technology to collect and process identifying information from the vehicle. A thorough evaluation was conducted to assess the performance of the system. In addition, the evaluation also included a side-by-side comparison of the two Automatic License Plate Recognition systems. One of the key elements of the evaluation was the assessment of the optical character recognition of the license plate and USDOT number. Evaluators calculated an accuracy rate for each piece of equipment and adjusted accuracy rates were calculated for various weather and lighting conditions. Post evaluation, vendors were given the opportunity to make improvements to their system.

Benefits:
• Commercial Vehicle Safety has improved and collection of revenue has increased
• Ease of identifying vehicles most likely to have safety and/or compliance problems