Kentucky

Over 78,000 miles of public road
27,500 miles of state maintained highway

Kentucky Transportation Cabinet (KTC), AAAFTS

Interstate, US, Parkways, State primary, and State secondary routes

3,110 sections (latest data period 2002-2006)

10,780 road miles

Statewide totals for rural state primary and secondary highways
- 22 billion annual veh-mi of travel (VMT)
- 10,264 fatal and serious injury crashes

Statewide averages for analysis sections on rural state highways
- Average length = 3.5 mi
- AADT = 5,500 veh/day
- Fatal and serious injury crashes = 0.66 crashes/section/year
- Fatal and serious injury crash density = 0.19 crashes/mi/year
- Average crash rate = 9.44/100MVMT

Risk Mapping

In Kentucky, state primary and secondary highways in rural areas were included in the study scope. The map at right (usRAP Map 3) is based on the relative fatal and serious injury crash rate per 100 million vehicle-miles traveled for road segments in comparison to the average crash rate for similar road segments. Maps of this type may be used to identify road segments that may not be performing as well as other, similar roadways.

Using the usRAP data, Kentucky internally produced detailed risk maps for each KTC district to communicate specific road risk to district personnel.
Specific Applications of usRAP in Kentucky

Supplementary usRAP risk maps were developed for various crash types of special concern to Kentucky’s transportation safety community, including alcohol-or-drug-involved crashes, lane-departure crashes, and aggressive-driving crashes. Examples of two of these maps are shown to the right. usRAP risk maps like the crash density map for alcohol-or-drug-related crashes (top) can be used to identify high-risk corridors as well as to help police target enforcement strategies and geographic regions for education campaigns. usRAP risk maps based on crash rate for aggressive-driving crashes (lower right) can be used in planning public education campaigns to encourage defensive driving.

### Summary Risk Mapping Data

**Kentucky State Primary and Secondary Highway System Roads 2002-2006**

<table>
<thead>
<tr>
<th>Road Type</th>
<th>Sections</th>
<th>Road Miles</th>
<th>Average Length (mi)</th>
<th>Average AADT (veh/day)</th>
<th>Annual VMT (Billion)</th>
<th>Fatal &amp; Serious Injury Crashes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Total Frequency</td>
</tr>
<tr>
<td>Interstate/Freeway</td>
<td>129</td>
<td>1,082</td>
<td>8.4</td>
<td>22,065</td>
<td>8.7</td>
<td>1,332</td>
</tr>
<tr>
<td>Multilane Divided</td>
<td>255</td>
<td>592</td>
<td>2.3</td>
<td>11,480</td>
<td>2.5</td>
<td>911</td>
</tr>
<tr>
<td>Multilane Undivided</td>
<td>92</td>
<td>45</td>
<td>0.5</td>
<td>13,842</td>
<td>0.2</td>
<td>126</td>
</tr>
<tr>
<td>Two-lane Undivided</td>
<td>2,635</td>
<td>9,066</td>
<td>3.4</td>
<td>3,120</td>
<td>10.3</td>
<td>7,895</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,111</strong></td>
<td><strong>10,784</strong></td>
<td><strong>3.5</strong></td>
<td><strong>5,524</strong></td>
<td><strong>21.7</strong></td>
<td><strong>10,264</strong></td>
</tr>
</tbody>
</table>

### Specific Applications of usRAP in Kentucky

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