Guide to 2005 – 2006 Crash Maps

Analysis of 2005 and 2006 Metropolitan Chicago Highway Traffic Crash Data

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CMAP Congestion Management Process

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This document contains a brief description of the layers that are available on the northeastern Illinois 2005-2006 crash maps prepared by the Chicago Metropolitan Agency for Planning (CMAP) using Illinois Department of Transportation data. If more detail on the construction or the limitations of the maps is desired, please see companion document "Northeastern Illinois 2005-2006 Crash Map Viewing Information and Data Description" (in progress).
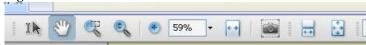
The maps are posted at

The crash maps are in Adobe PDF format and are creates with multiple layers. Not all of the layers are visible when the maps are opened. The Layers tab on the left side of the Acrobat Reader window can be selected to open the table of contents for the various layers.

Figure 1. Table of Contents

In order to navigate around the crash maps, it is suggested that the magnification tools and panning tool are activated in the Adobe Reader software.
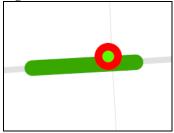
Figure 2. Zoom Control Tools

Labels: Serious Crash Count, Municipalities, Roads: This layer contains labels for the number of fatal or serious injury crashes per road segment; the names of the municipalities; and labels for some of the major roads. (If the county names or "Chicago" are blocking the crash locations then the "Northeastern Illinois Counties" layer should be turned off.)

Crashes: A point location for each crash. This layer is not available on all maps.
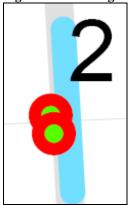
Crashes (Serious Injury or Fatality): A point location for each crash that resulted in a fatality or serious injury. These crashes are often places on top of each other so it is not possible to determine the number of crashes by counting the crash markers. These markers are in the general area of the crash but do not represent the lane or direction of travel. These markers are small and can only be viewed when the area of the crash is zoomed to.

Figure 3. Crash Marker-Fatal or Serious Injury Crash

Road Segment Crashes: The major roads in the region have been segmented into lengths of around 250ft. The number of crashes that resulted in a fatality or serious injury have been totaled for each segment. The values of these totals are color coded on the segments and also numerically printed next to the segment. These markers are small and can only be viewed when the area of the crash is zoomed to.

Figure 4. Road Segment Crash Information

Roads: This layer is based on IDOT's IRIS (Illinois Roadway Information System) data. It includes most major roads. These are the only roads that have crash rates calculated.
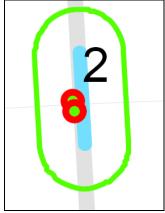
Additional Roads: These are roads that are not in included in the IRIS system and are useful for locating crashes that occur on minor roads or at intersections with minor roads.

Municipality Borders: This layer highlights the borders of the municipalities in the region. Note: if these borders are difficult to see, turn off the "Fatal or Serious Injury Crashes per Square Mile" layer.

Fatal or Serious Injury Crashes per Square Mile: This layer displays the number of relevant crashes that resulted in a fatality or serious injury for each square mile. The values are color coded.
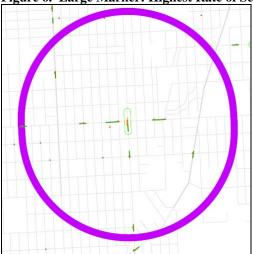
High Numbers of Crashes with Fatalities or Serious Injuries: This layer highlights the road segments in the region with the highest number of crashes that resulted in a fatality or serious injury (of the crash type being examined). This buffer is green in color. These markers are small and can only be viewed when the area of the crash is zoomed to.

Figure 5. Symbol for High Crash Number Area Involving Fatal or Serious Crashes

Large Marker: Highest Number of Serious Crashes: This layer highlights the road segments in the region with the highest totals of crashes that resulted in a fatality or serious injury. There is not a specific numeric value listed for these buffers. These markers are large and using this layer allows the viewer to note the location of high crash areas when the entire region is viewed.

Figure 6. Large Marker: Highest Rate of Serious Crashes

High Number of All Crashes: This layer highlights the road segments in the region with the highest number of crashes (of the crash type being examined). Fatal, injury and property damage crashes are all included. This buffer is blue in color. These markers are small and can only be viewed when the area of the crash is zoomed to.

Figure 7.   Symbol for High Crash Rate Area-All Crashes

Northeastern Illinois Counties: The seven counties that are included in the northeastern Illinois region. This layer also contains the county names (and the "Chicago" label). This layer should be turned off if it obstructing the view of crash locations.