**FHWA Bicycle and Pedestrian Transportation University Course**

**Module: 11 – Safety Analysis**

**Assignment: Network Screening Exercise**

**PROMPT**

The purpose of this exercise is to introduce students to different measures of network screening. Students will use data from a large city in the United States to conduct network screening and report on the results and conclusions.

The enclosed excel sheet has two worksheets: 1) Data and 2) Definitions. The *Data* worksheet includes the data for each midblock segment, and includes information on the number of pedestrian crashes, exposure, characteristics of the midblock segment, and measures that can be used for network screening. The *Definitions* worksheet includes the definitions of the variables in the excel file. The following variables are included:

* Segment identification number
* Annual average daily pedestrian volume
* Number of midblock crosswalks
* Annual average daily traffic
* Number of right turn lanes at adjacent crosswalks
* Number of striped parking lanes
* Number of through lanes
* Presence/absence of two-way left-turn lane
* Number of pedestrian crashes in the last 8 years
* Predicted number of pedestrian crashes based on an SPF
* Expected number of pedestrian crashes in the segment based on the EB method
* Expected excess number of pedestrian crashes based on the EB method; it is the difference between the EB expected number of crashes and the predicted crashes from an SPF

The last four variables can be used to conduct network screening.

The first step in the exercise is to sort the data with each of the four measures and determine the top 100 segments. After doing that, the students are asked to answer the following questions:

* Question – Do all the measures give the same set of top 100 segments?
* Question - Do certain segments consistently rank in the top 100 regardless of the measure?
* What are the characteristics of top ranked segments?