

- **Measuring the Contribution of Bike Infrastructure to Accessibility** (*Vig Krishnamurthy – Sam Schwartz Engineering*)

While there is a growing recognition of the need to focus on accessibility rather than mobility to make progress on the problems of auto-dominated planning, bicycle planning goals are often still articulated in terms of mobility measurements—for example, Mayor Emanuel’s target to build 100 miles of protected bikeways in Chicago. However, from the perspective of the user a bike lane is a means to an end of achieving access; and, from the perspective of the network not all bike lane segments contribute the same to enhancing access.

The results of a “before and after” GIS analysis of how bike lane expansion in the Chicago region has influenced accessibility will be presented. This analysis shows how the benefits to accessibility can vary based on the location of investments in proximity to the other facilities in the bike network. The spatial analysis is also used to generate a “catchment area” of accessibility enhancement, which can be in turn used to evaluate the demographic characteristics of communities benefiting from the investments. Basic concepts in the graph theory measurements of networks will also be presented as a complimentary approach to identifying bike infrastructure investments with a potential high-impact on improving accessibility.