

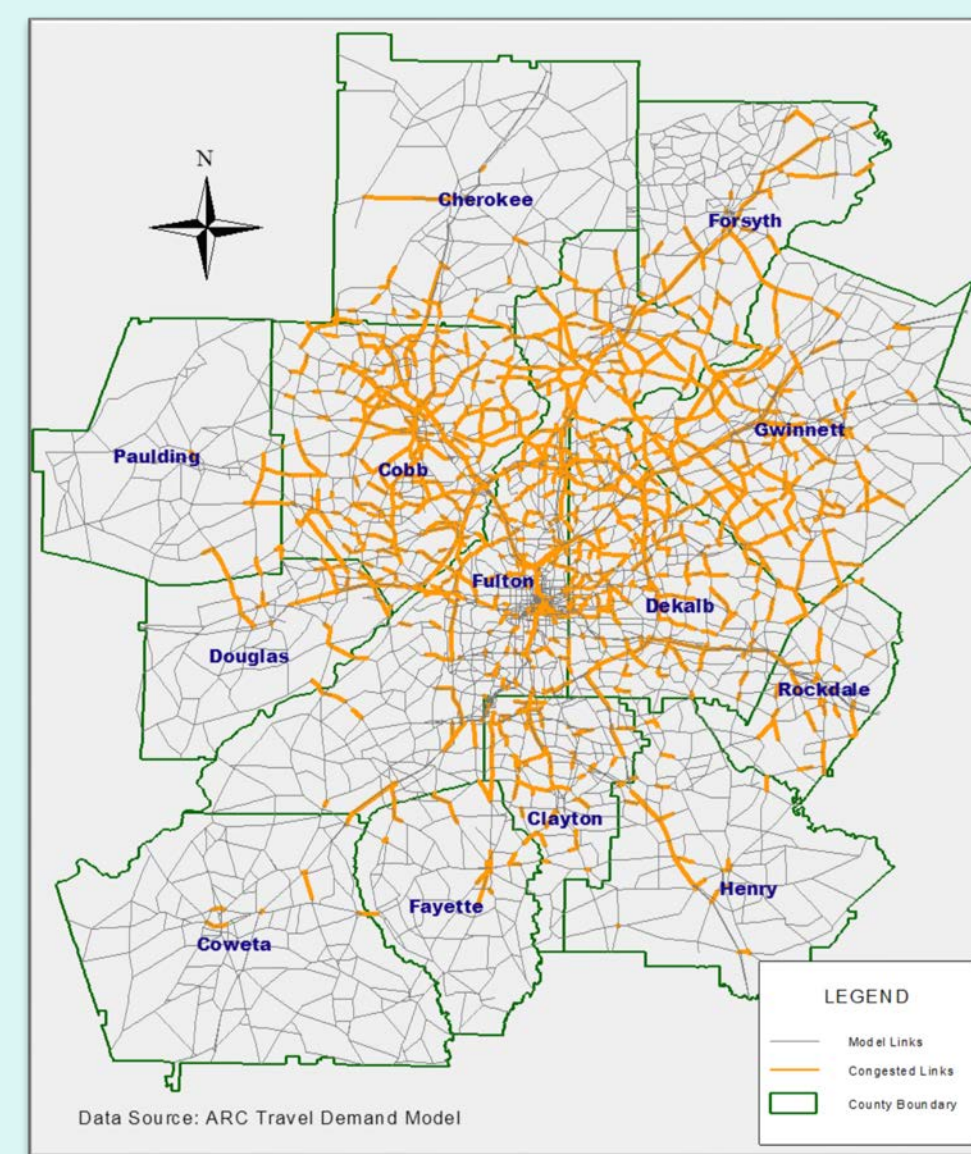
Using New Performance Metrics to Improve Decision Making

Data can only be compelling if it is easy to understand where it came from, what it means, and how it affects its audience. The data we use to inform the public and decision makers have changed significantly over the past several years and have given us more opportunities to improve the way we communicate to stakeholders.

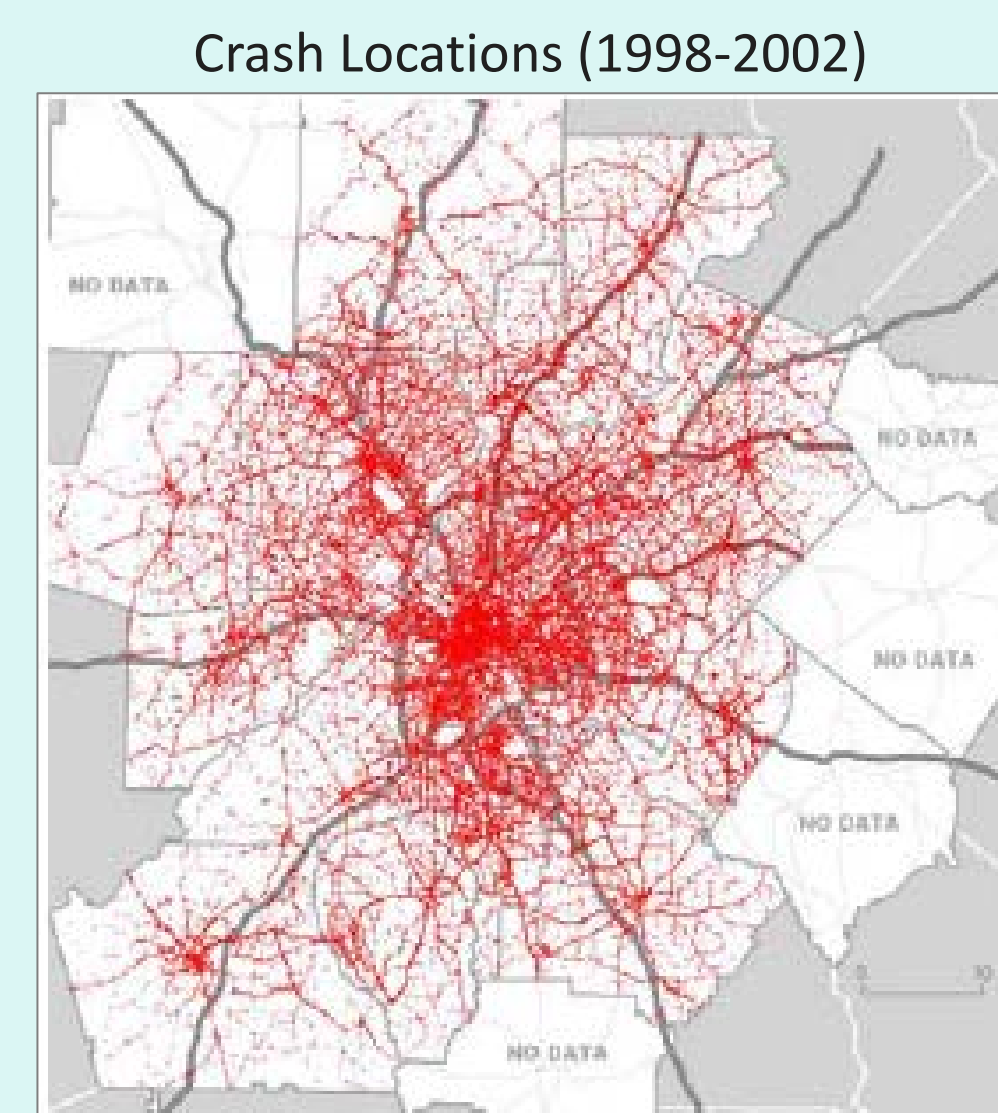
Data Types and Analyses Previously Used

In previous years the only data available for analysis in urban planning was either from model output or public surveys such as the census. While this information is still depended on today for many of our analyses, we also have a plethora of other options with different costs and benefits.

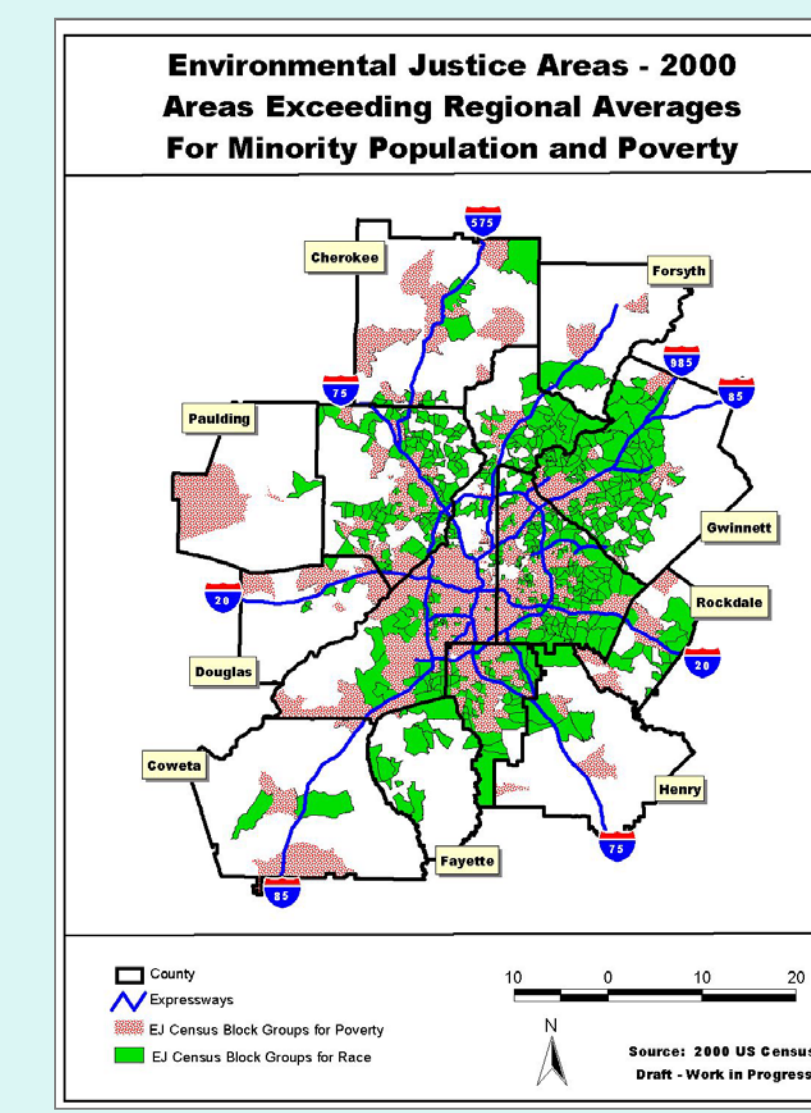
Congestion



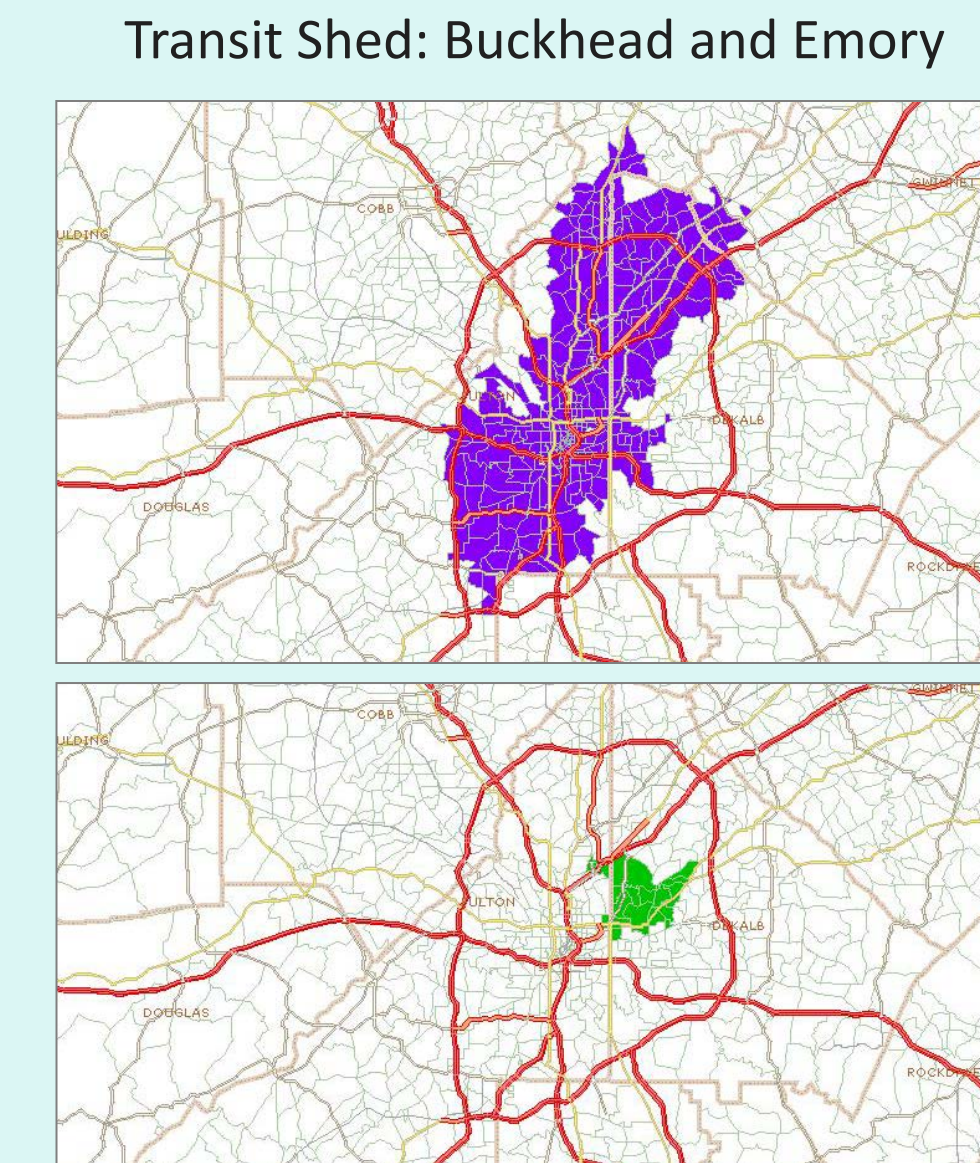
Safety



Environmental Justice



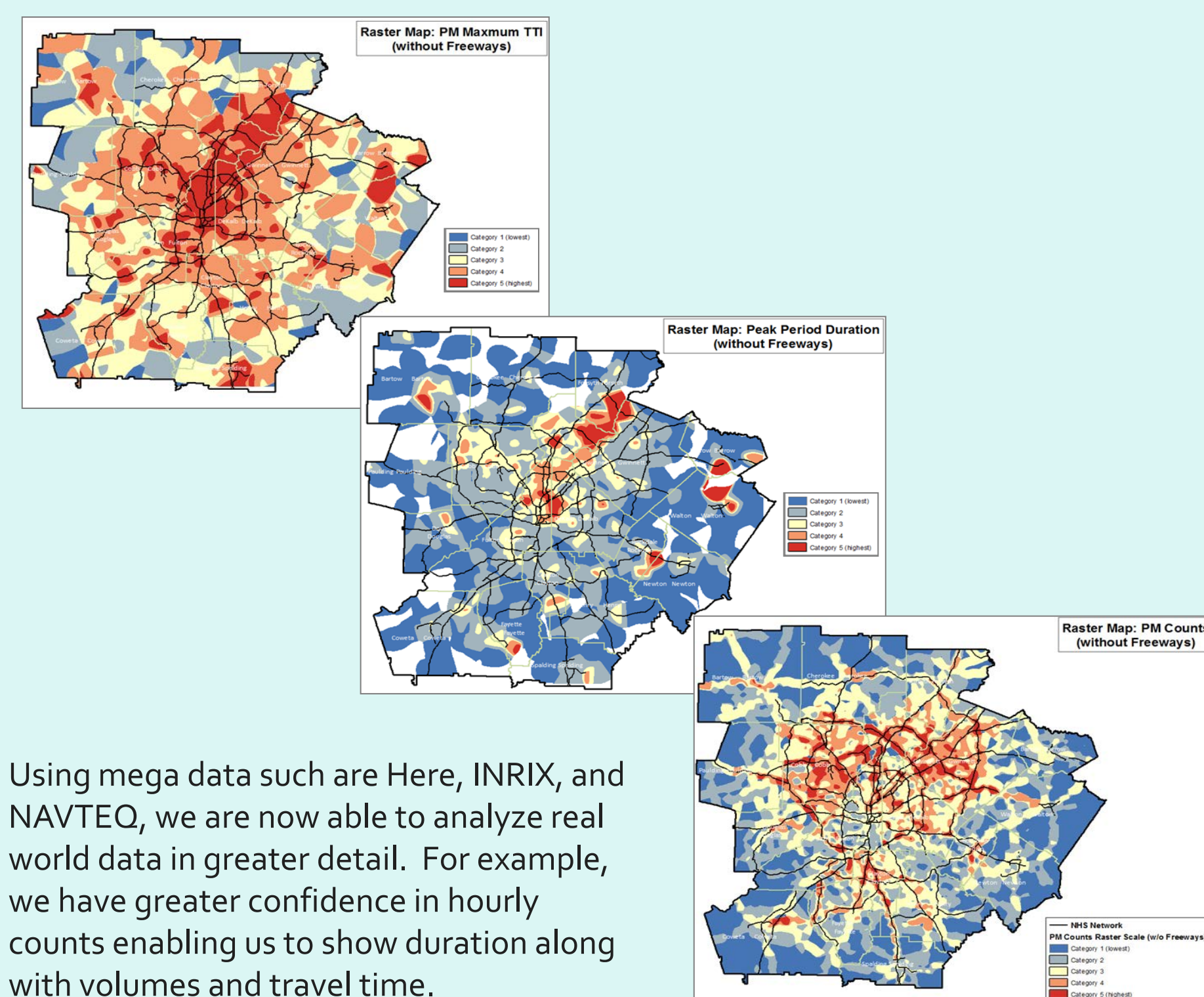
Transit Travel Sheds



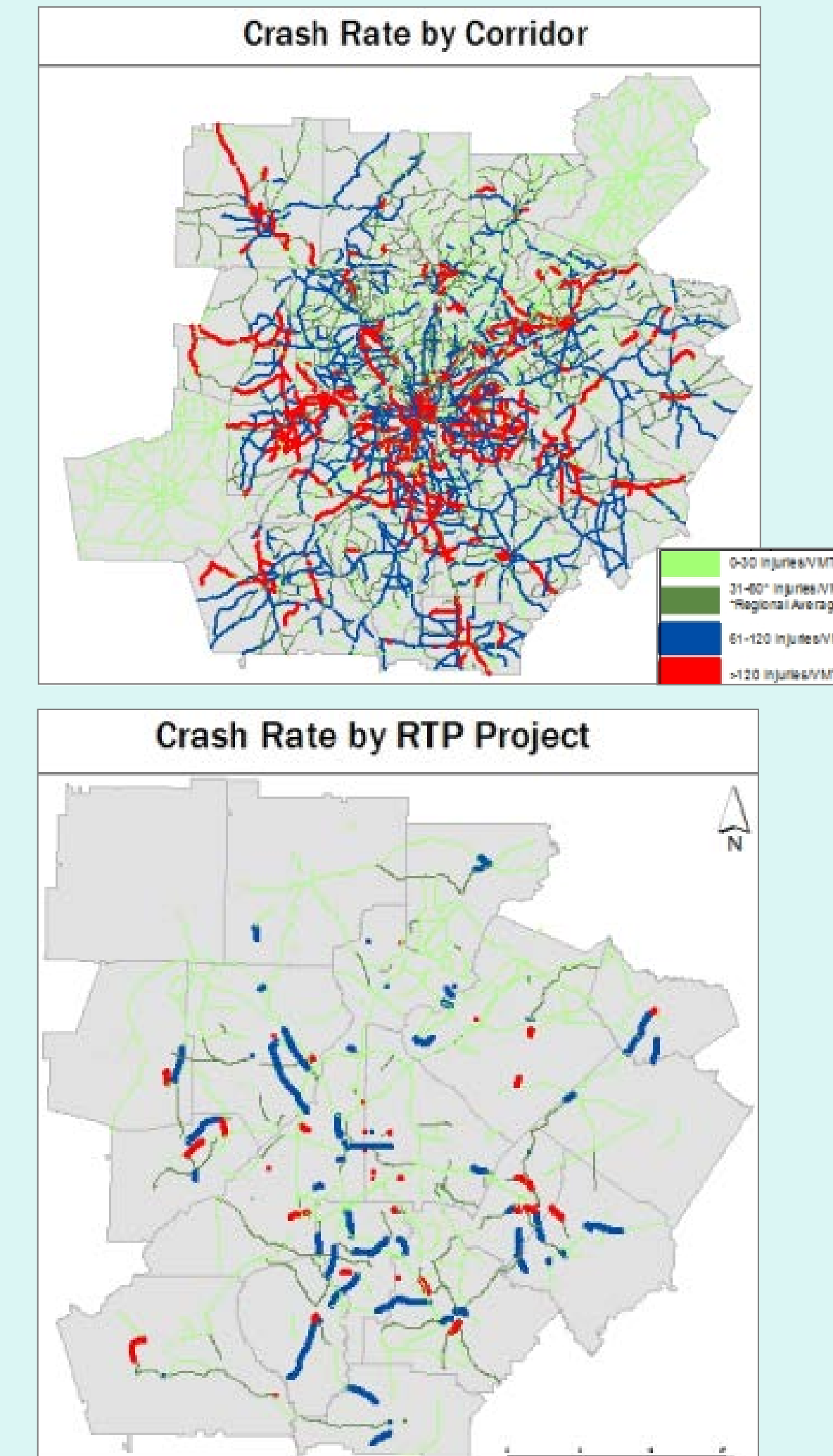
Data Types and Analyses Currently Available

New technologies have opened the door to many new data types. NAVTEQ and INRIX are examples of network data with link level precision. Open Trip Planner Analyst is an example of transit shed data with shed increments as small as one minute.

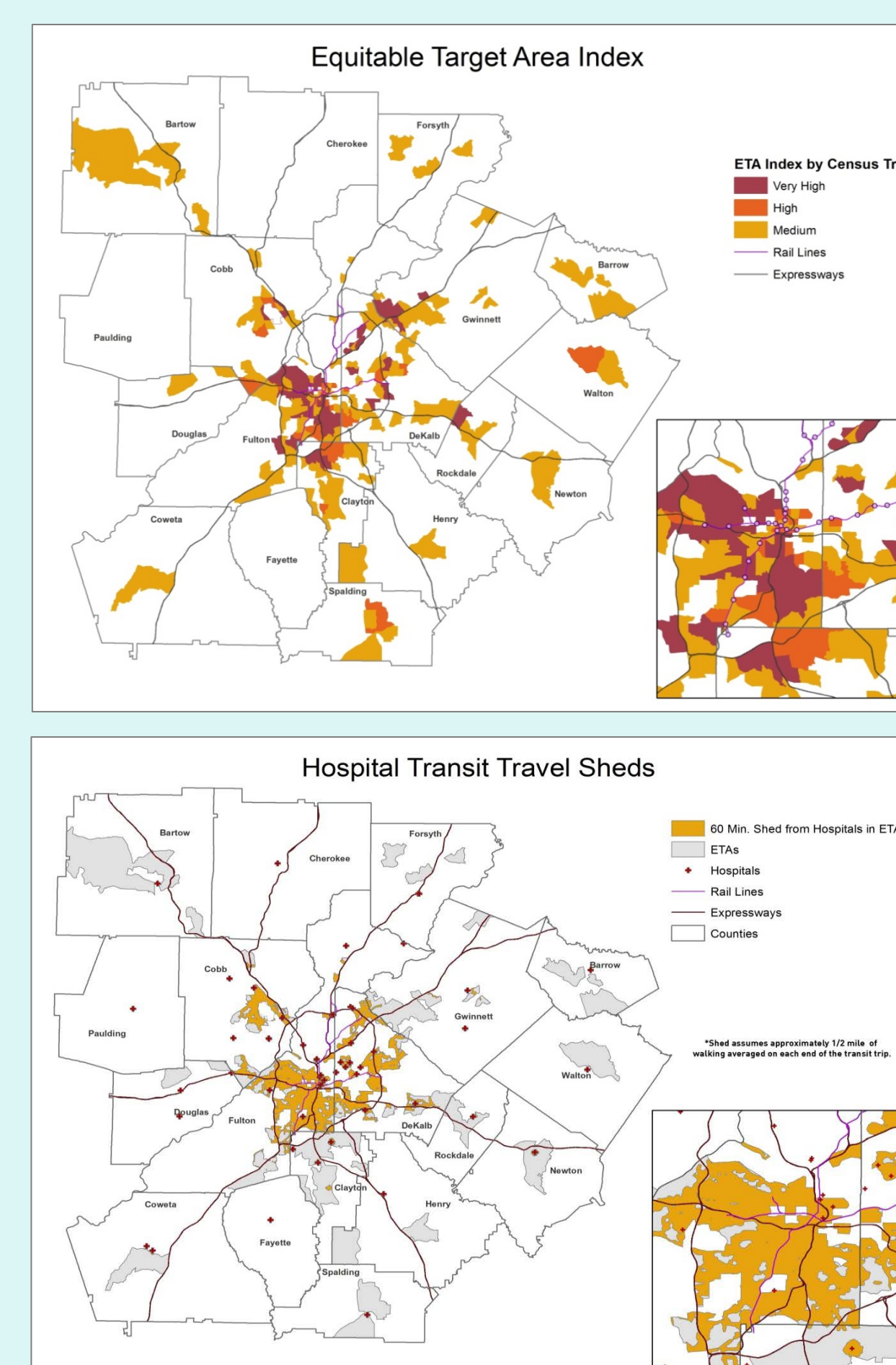
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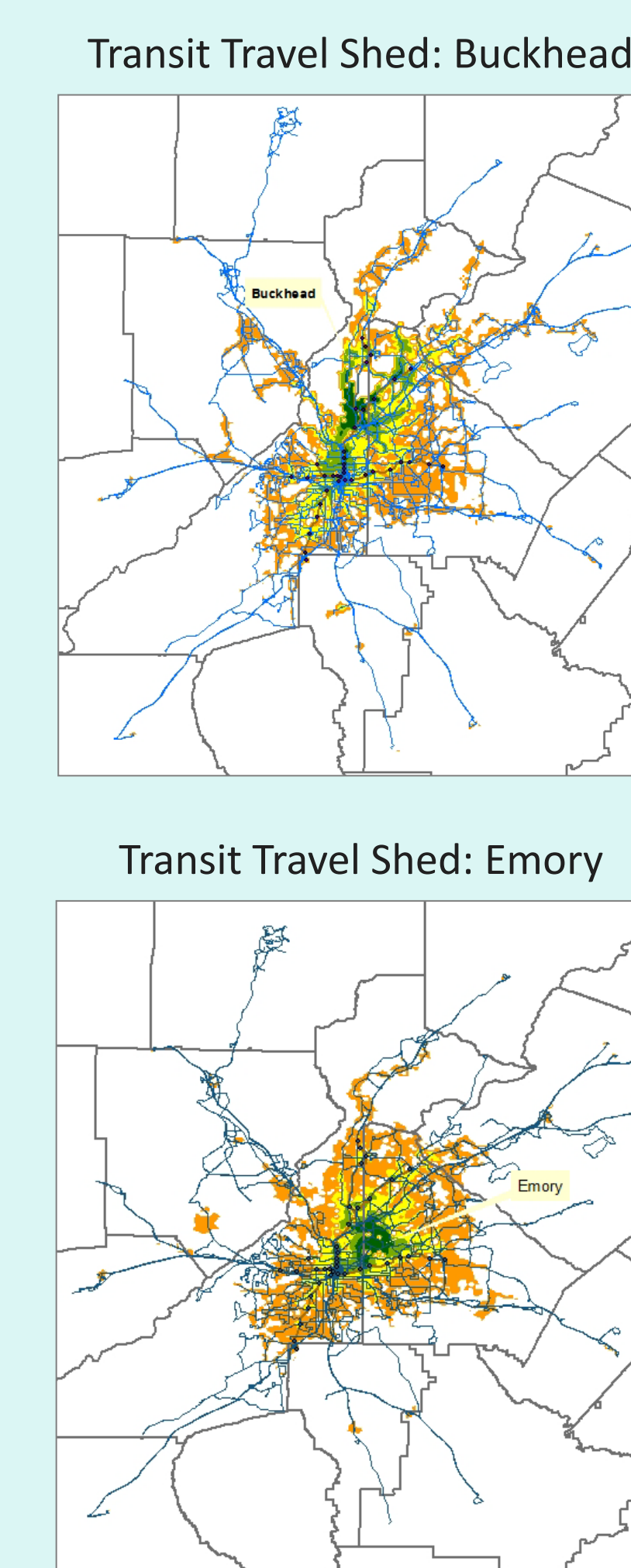
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Transit Travel Sheds



Using mega data such as Here, INRIX, and NAVTEQ, we are now able to analyze real world data in greater detail. For example, we have greater confidence in hourly counts enabling us to show duration along with volumes and travel time.

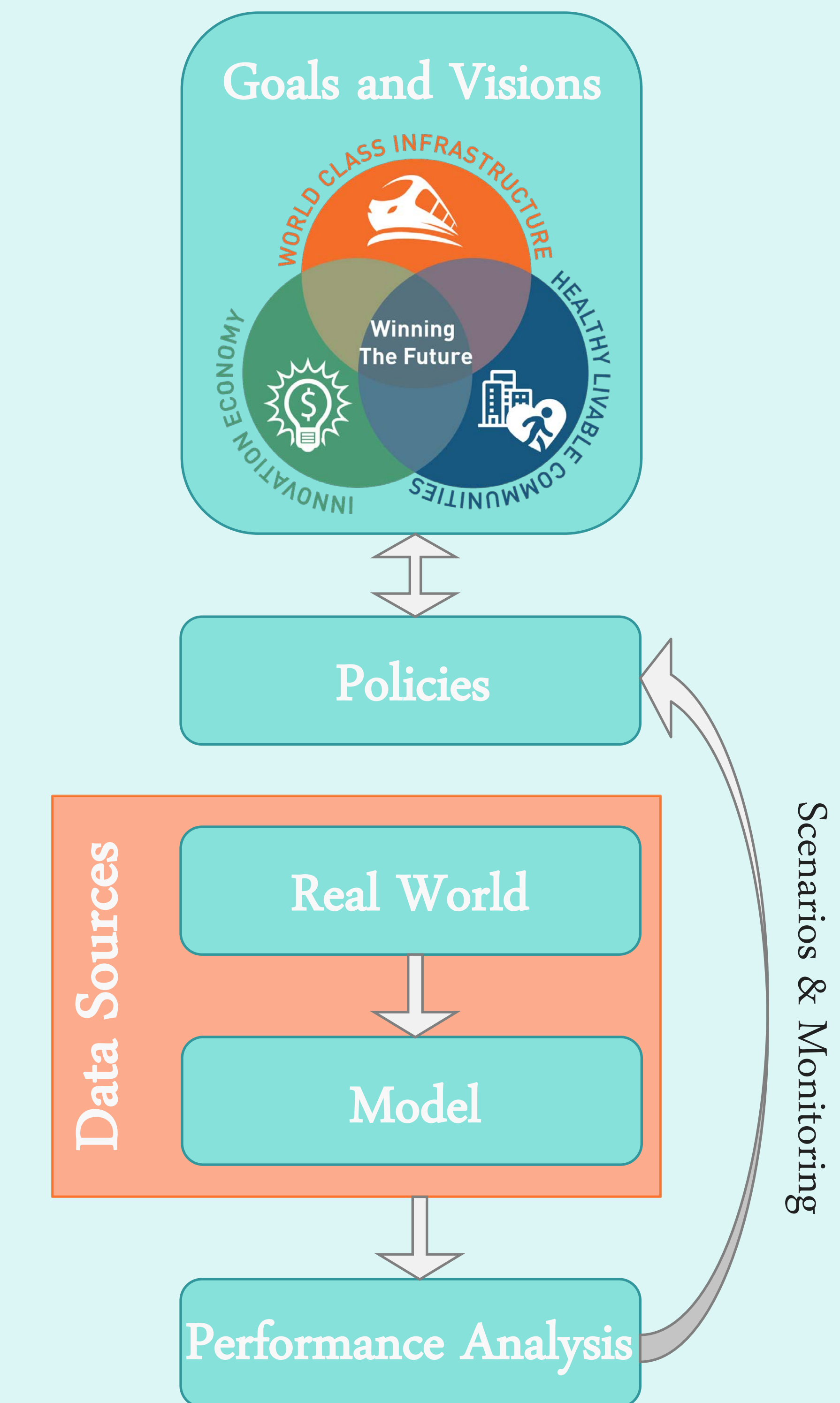
Better data sources has also enabled us to create a curvilinear network as opposed to a modeled stick network. Joining crash locations to this network opens up a wide variety of safety analyses.

Previous data types are equally as important as the new, such as census data. However, we can now make more meaningful stories with our findings. For example, the Equitable Target Areas are based on census data, but combining it with Open Trip Planner shows where ETAs have poor access to hospitals.

Using modeled data for current transit travel sheds leads to inaccurate sheds without much detail. The Open Trip Planner Analyst tool, however, uses real world schedules and 15 minute sheds out to 90 minutes. Future year analyses, however still require models for prediction.

What This Means

With all of these new data sources come new obstacles. Choosing the right scale to show detailed data in a way that most effectively tells a story is becoming more of an issue. However, the advantages of having the ability to show detailed corridor information are overwhelming.



These new data sources are enabling us to inform policy much more effectively through monitoring. It is also enabling us to more accurately calibrate future models to the current year.