BMC InSITE Dashboard

USER GUIDE

Contents

1. Overview

This document contains documentation and reference materials supporting the BMC InSITE Model dashboard development. The purpose of this dashboard is two-fold: (1) to allow users to explore in detail model output for a specific year and (2) to compare model output across multiple model run years.

2. User Guide

The dashboard is structured around two tabs, **Trip Flows** and **Yearly Trend Analysis**. Each tab displays the same underlying data, with the **Trip Flows** tab displaying one discrete year of model output at a time and the **Yearly Trend Analysis** tab displaying multiple years.

2.1 Trip Flows

The **Trip Flows** tab allows for the user to explore the model results of one specific year of model output, selected in parameter (1). Users can segment the data by trip attribute or sociodemographic attributes of the person or household making the trip using the filters pane on the left hand side of the dashboard (2). High-level scalar summaries of the model output such as Total Daily Trips and Daily Vehicle Miles Traveled can be found in the top right hand side of the dashboard (3). Trip origin and destination flows are summarized in both the origin and destination maps (4) as well as the O-D Pairs bar chart below the map (5). The data is further summarized as distributions across user-chosen distribution and segmentation attributes in bar charts on the right hand side (6).
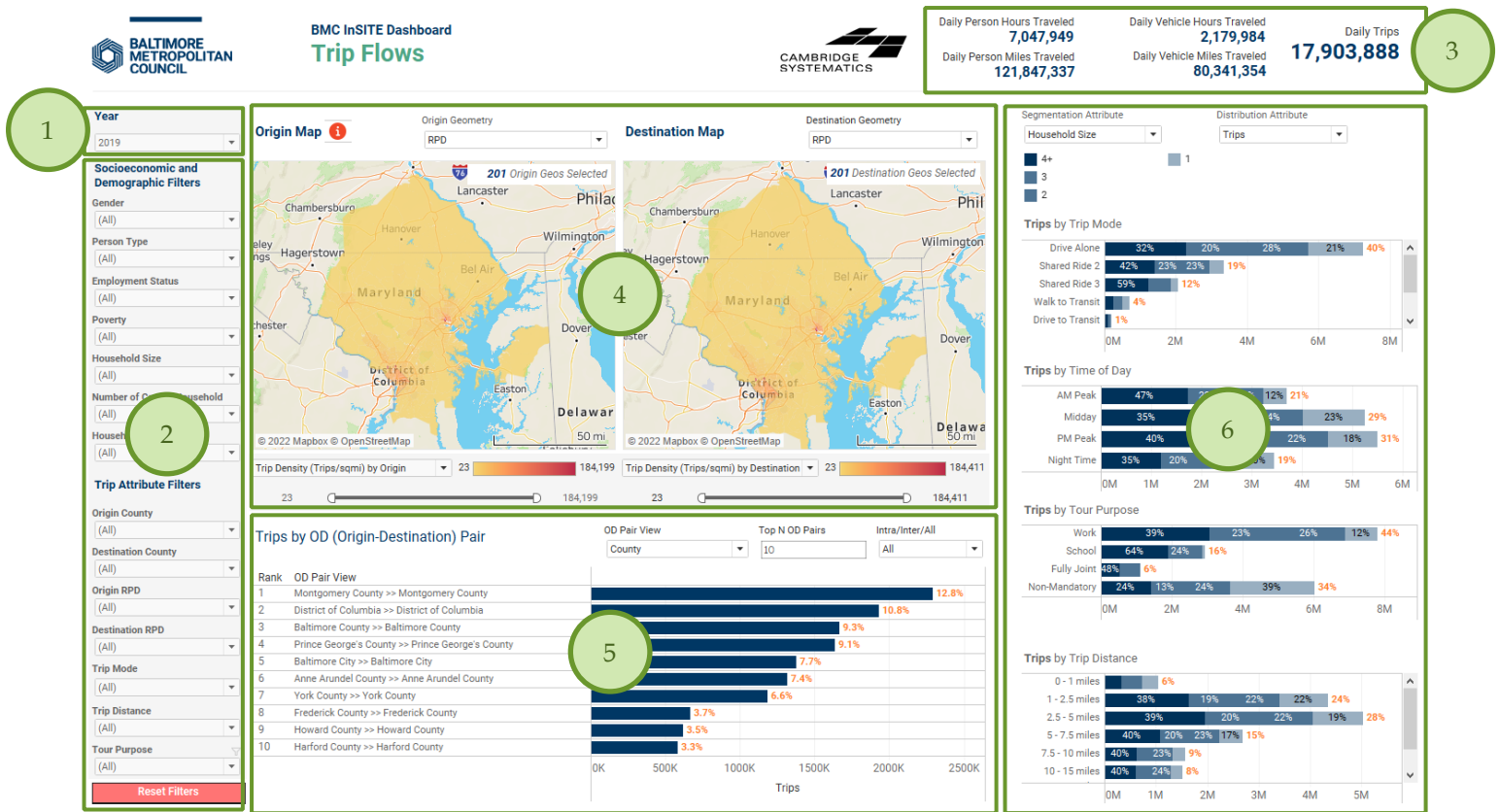

Figure 1 BMC InSITE Dashboard Trip Flows Tab

Trip Flows Main Components
1 - Model Year Selector
2 - Travel Segment Filters
3 - Regionwide Summaries
4 - Trip Origin & Destination Maps
5 - Origin-Destination Flow Table
6 - Trip Segments Charts

2.2 Yearly Trend Analysis

The **Yearly Trend Analysis** tab allows for users to compare the model results across model run years. The general organization of the dashboard is similar to that of the **Trip Flows** tab. Users can segment the data by trip attribute or sociodemographic attributes of the person or household making the trip using the filters pane on the left hand side of the dashboard (1). Yearly total distributions, segmented by variable demographic & distribution attributes are available at the top of the dashboard (2). The data is further summarized as yearly distributions across a variety of distribution and segmentation attributes in bar charts on the right hand side (6).
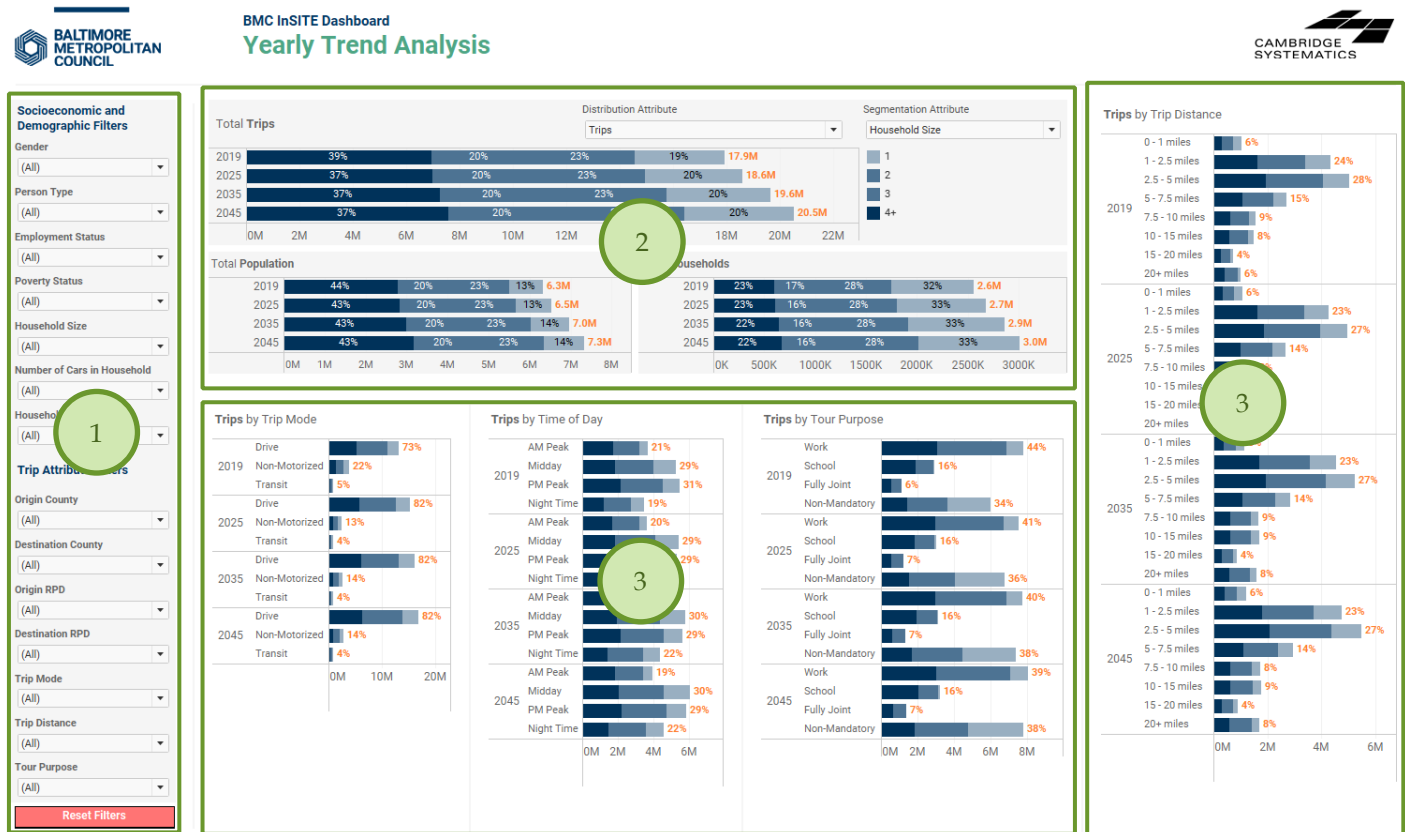

Figure 2 BMC InSITE Dashboard Yearly Trends Tab

Yearly Trend Analysis Main Components
1 - Travel Segment Filters
2 - Yearly Total Charts
3 - Yearly Trip Segments Charts

2.3 Dashboard Sections

2.3.1 Travel Segment Filters

In both dashboard tabs, data filters that allow users to zoom into the markets of greatest interest are located on the left hand panel as shown in *Figure 1* and *Figure 2*. Users can select one or more filters at any instance to create a subset of the trips to be included in the display.

Users can select the desired options from a dropdown menu that appears after clicking the downward arrow on the right of each filter box. The filters are arranged into two groups: **Socioeconomic and Demographic Filters** and **Trip Attribute Filters**. The figures on the right show the filters in each filter group.

2.3.2 Trip Segments Charts

In both dashboard tabs, trips are broken down by **Segmentation Attribute** and **Distribution Attribute**. In the **Yearly Trend Analysis** tab, these distributions are further broken down by model Year.

Users can select their desired Segmentation and Distribution Attributes via the drop down parameters, located in *Figure 1* in *Component 6* and in **Figure 2** in *Component 2*.
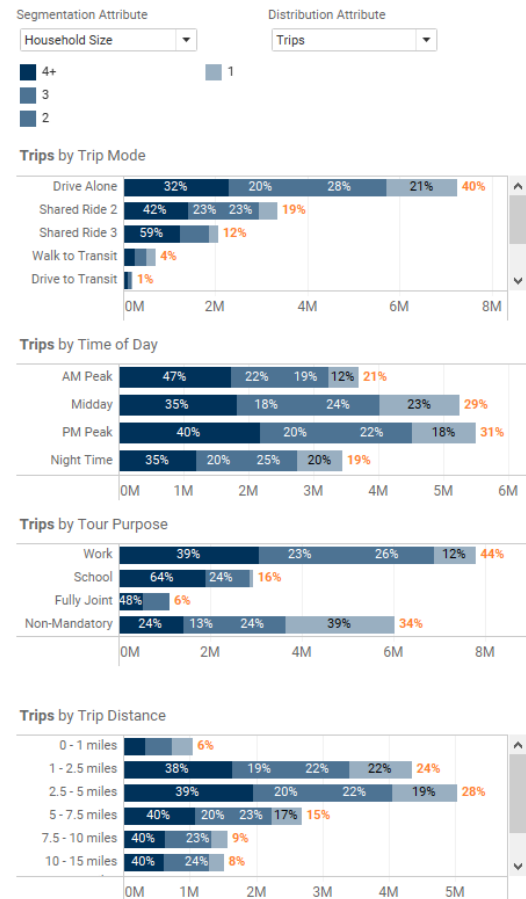
2.3.4 Regionwide Summaries

The top-right banner of the **Trip Flows** tab shows regionwide summary statistics based on the selected travel scenario by users.

Daily Person Hours Traveled	Daily Vehicle Hours Traveled	
7,047,949	**2,179,984**	Daily Trips
Daily Person Miles Traveled	Daily Vehicle Miles Traveled	**17,903,888**
121,847,337	**80,341,354**	

2.3.5 Origin & Destination Maps

The **Trip Flows** tab includes two maps: Trip Origin (pictured right) and Trip Destination maps.

Users can choose the Geometry that is displayed in the map in (1): either Regional Planning District (RPD), Transportation Analysis Zone (TAZ), or County. The number of geometries selected (2) is also provided in order to provide the user reference. The user can choose the method in which the geometries are colored in (3): Trip Density or Total Trips. The user can filter the geometries *displayed on the map* using the sliding filter (4). Note that this filter only applies to the map – it will not affect other charts in the dashboard.
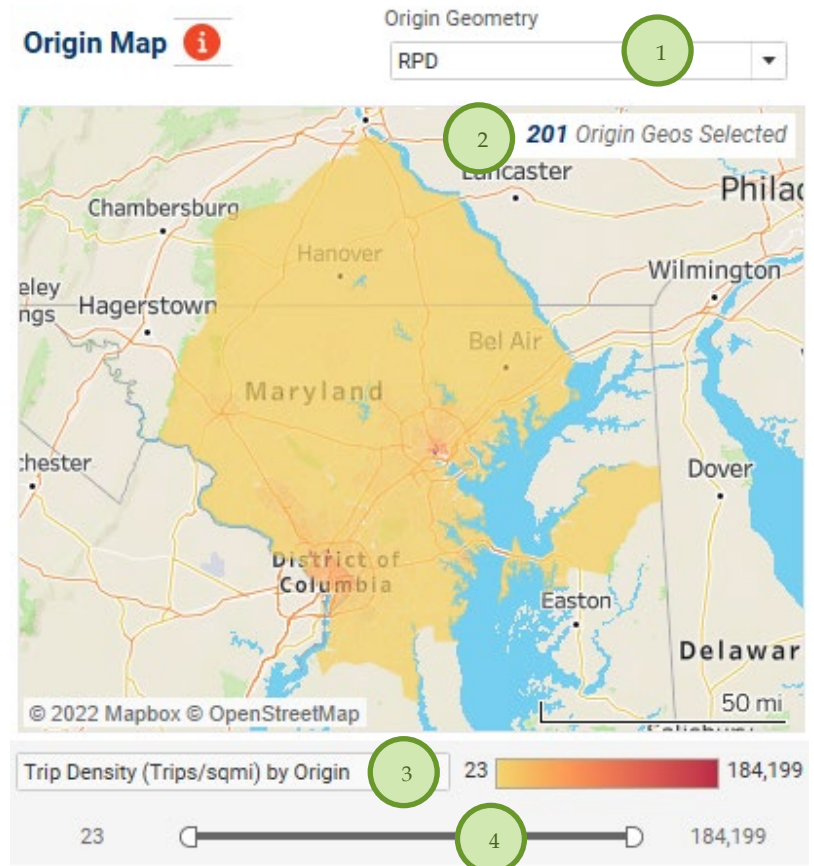

2.4 Dashboard Features

Each dashboard is equipped with auxiliary features that help enhance the user experience and provide a rich set of "details on demand," or further details that are hidden in a visualization's default state but are available upon user need via user interaction (e.g., tooltips).

2.4.1 Quick Tips

- **Info Bubbles**   Users can hover over the red (i) bubble placed near a filter or component to enable a tooltip that shows additional information about that filter or component.
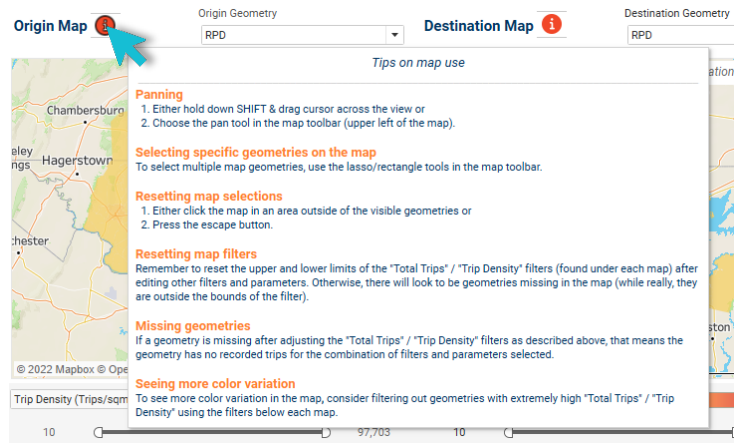

- **Reset Individual Filters**   Users can reset a specific filter to its default selection (in most cases ALL) by clicking the *Clear Filter* button that shows up when hovering over the downward arrow in the filter box.
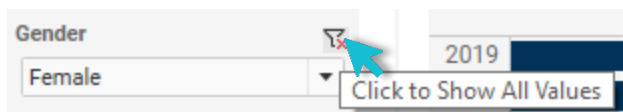
- **Reset All Filters**   Users can reset all filters simultaneously by pressing the Reset Filters button. Note that pressing this button will reset filters on *both* tabs.
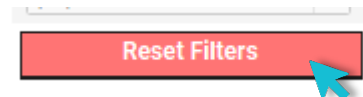
- **Tooltips**   Users can hover over chart components to obtain further details via tooltips.
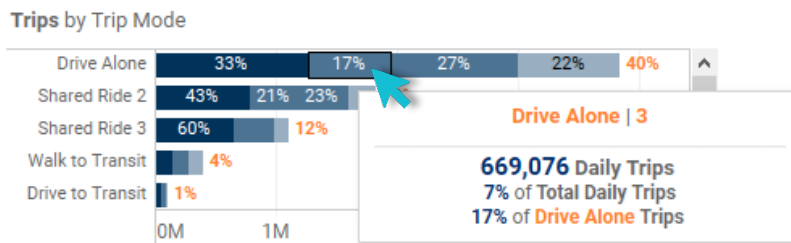
2.5 Saving Data and Images

Users can save data, tables, charts, and map images from the dashboard corresponding to the filter selections that are made. Users can also save the whole dashboard as an image or save any specific table, map, or chart as an image or data file. The procedures for saving are described in the subsequent sections.

2.5.1 Saving as Images

Through Tableau Online, to save the dashboard as an image, users can navigate to ***Choose a format to download > Image*** on the main menu bar of Tableau Online.

Through Tableau Reader, to save the dashboard as an image, users should exit the full-screen view and navigate to ***Dashboard > Export Image*** on the main menu bar of Tableau Reader. Users will be asked to provide a file name and folder location to save the dashboard as an image.

2.5.2 Exporting as PowerPoint

Through Tableau Online, to save the dashboard as a PowerPoint, users can navigate to ***Choose a format to download > PowerPoint*** on the main menu bar of Tableau Online as shown in Figure 4.1.

Through Tableau Reader, to save the dashboard and/or the elements of the dashboard as a PowerPoint, users may navigate to ***File > Export as PowerPoint*** on the main menu bar. Users will be asked to select the content to include in the PowerPoint slide from the following three options:

- ***This View*** – Tableau generates a PowerPoint slide with the current view.

- ***Specific sheets from this dashboard*** – Users can select and generate PowerPoint slides for each element selected (i.e., the selected charts, maps, summaries generated in separate sheets).

- ***Specific Sheets from this workbook*** – Users can select and get PowerPoint slides on each element selected (i.e., the selected charts, maps, summaries generated in separate sheets). In this case, users will find the elements/sheets in the Tableau file. Please note that, the last two options will provide the same outcome for the LOCUS dashboard in question.

Finally, users will be asked to provide file name and folder location to save the dashboard as a PowerPoint file.

2.5.3 Exporting as PDF

Similar to exporting as PowerPoint, users can also export the dashboard and its element to a PDF file. To do so, users may navigate to ***File > Print to PDF*** on the main menu bar in Tableau Reader or select **PDF** as download option in Tableau Online. Likewise, in PowerPoint export, users will have options to export only the dashboard using ***Active sheet*** option. Users can export all the different sheets with different elements of the dashboards (i.e., the entire workbook) in a single PDF file by selecting ***Entire workbook***. Finally, users will be asked to provide a file name and folder location to save the dashboard as a PDF file.

2.5.4 Saving a Chart or Table

To save a specific table or data for any chart shown on the dashboard, Tableau Reader users must select the specific table or chart first. Then, users may navigate to ***Menu > Worksheet > Export > Image***.

Cross-tabulation can also be generated by selecting ***Crosstab to Excel*** option. This procedure will generate the crosstab in an Excel sheet, but the file is ***NOT*** automatically saved. Users must save the file in Excel software to store the data on their local system.

Tableau Reader users can copy and paste a chart or underlying data to a presentation slide or document using the quick export feature of the dashboard. Users need to right-click on a chart and navigate to ***Copy*** option to copy the chart as an image, data table, or cross-tabulation and paste it in a document.