



# LOCUS

## User Guide for Measure Up! LOCUS 2017 Flows Dashboard

Cambridge Systematics, Inc. (CS) developed the Measure Up! LOCUS 2017 Flows Dashboard from trip tables prepared by employing thoughtful algorithms to transform raw location-based services (LBS) data and transit ridership data (smart farecard and APC) into carefully validated travel patterns for Los Angeles County. This user guide focuses on the description of the dashboard and provides instructions on how to utilize the dashboard. Learn more about LOCUS on [www.camsys.com/locus](http://www.camsys.com/locus)



**Metro®**

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# About the Data

1

The Measure Up! LOCUS 2017 Flows Dashboard leverages two curated datasets that reflect granular travel and activity patterns observed in Los Angeles County (1) LOCUS, which captures overall travel (2) transit ridership data, which captures the multimodal transit travel using a combination of smart farecard transactions and automated passenger counts (APC) datasets. This section is dedicated to describing LOCUS. For more information on processing and validation of the transit ridership dataset, please refer to the linked article [\\*\\*](#).

Location-based services (LBS) data collected passively from mobile devices are becoming an increasingly valuable source of information about travel patterns. LBS data are collected by GPS applications running either in the background or foreground on cellular devices, where the device user has opted to allow access to the app to import the device's geographic location. LBS data are spatially more accurate than other forms of cellular data because they collect geographic locations on a GPS platform.

These data can provide detailed information about how people are moving, where they are going, and when their travel is occurring. Compared to household surveys, LBS data can be collected for longer periods of time, at more regular intervals, and from a larger sample size. As a result, these datasets are massive in size, often containing millions of records collected over a period of months, rather than the typical 1 to 2-day travel diary often collected by travel surveys. Not only does this generate a larger overall sample, but travel patterns of individual devices can be measured over a period, while maintaining sufficient degrees of privacy since the device ID cannot be tied to any demographic or personally identifiable information.

LBS data serve as the primary data source for LOCUS. However, the development of LOCUS is grounded in our deep understanding of travel behavior and econometrics coupled with our strong big data analytics and modeling expertise. In the development of LOCUS, the following key steps have been adhered to:

- LOCUS captures passenger travel across a variety of market segments including travel purposes, time-of-day, and day of the week. Flow patterns are developed at the census block group level, which supports granular evaluation of travel.
- Using the inferred home location of the devices, LOCUS helps identify those devices that live in equity-focused communities (e.g., low income and/or minority population communities).
- Data from Q3 and Q4 of 2017 are included in the development of the dashboard. LOCUS only retains the most reliable raw data using rigorous heuristics and data cleaning techniques to generate O-D patterns.
- Data in the final LOCUS product have been expanded to match Census population and employment estimates and validated against national sources of travel behavior.
- LOCUS data (and Transit Ridership data) are displayed through a well-outlined Tableau dashboard that allows for quick and easy summaries.

This user guide focuses on the description of the Tableau dashboard and provides instructions and definitions on best ways to utilize the dashboard.

**\*\*** Vinayak P., Wafa Z., Cheung C., Tu S., Komanduri A., Overman J., and Goodwin D., 2019, Using Smart Farecard Data to Support Transit Network Restructuring: Findings from Los Angeles, Transportation Research Record (TRR), Volume: 2673. 6, 202-213.

# Accessing the Dashboards

# 2

This LOCUS platform has been developed in a data visualization platform called Tableau. Tableau is a powerful data visualization software that manages large datasets effectively.

Users can access the dashboard in two ways (1) using a free software called **Tableau Reader**, that can be installed locally on a computer/laptop (2) using a web-interface called **Tableau Online**, that hosts the platform on the cloud and requires no installations. Both approaches will allow the users to interact with the data, use pre-defined filters, save images, export dashboard outputs into a PowerPoint and/or Word document; **Tableau Online** offers several additional features such as saving sessions (views) that allows users to bookmark their analysis – more information is provided section 3.2.

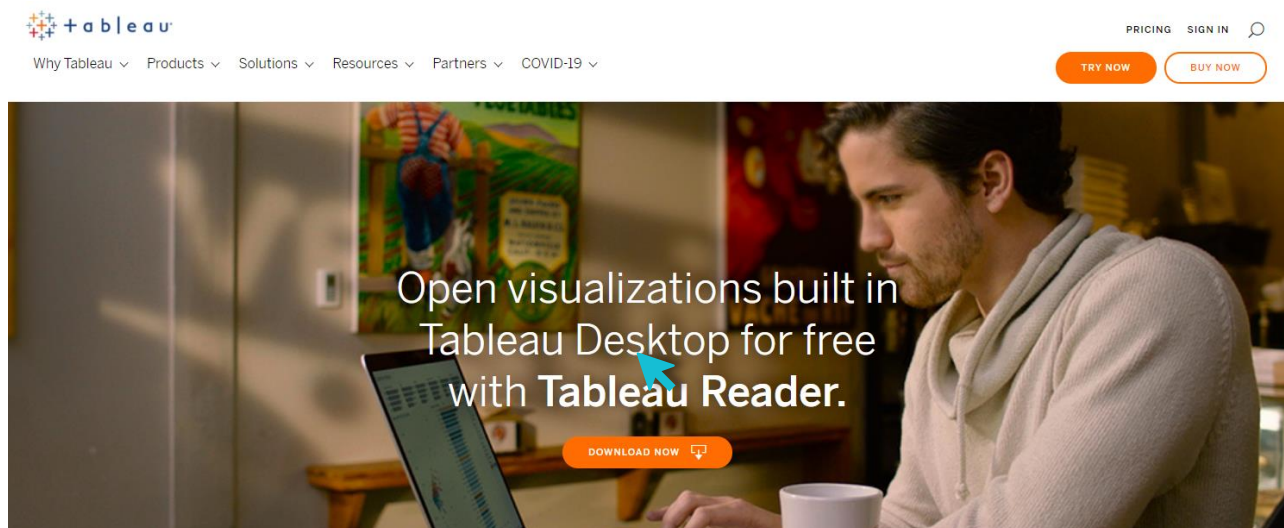
The instructions to download Tableau Reader and accessing the dashboard via Tableau Online are presented below.

## 2.1 Downloading and Installing Tableau Reader

The LOCUS platform has been developed using Tableau version 2020.4. Users will need to download Tableau Reader 2020.4 (or a newer version if available) from the official Tableau website to access LOCUS. Users can visit <https://www.tableau.com/products/reader> and click on **Download Now** button to start downloading the installation file. Direct links to download Tableau Reader for the most popular operating systems are included below:

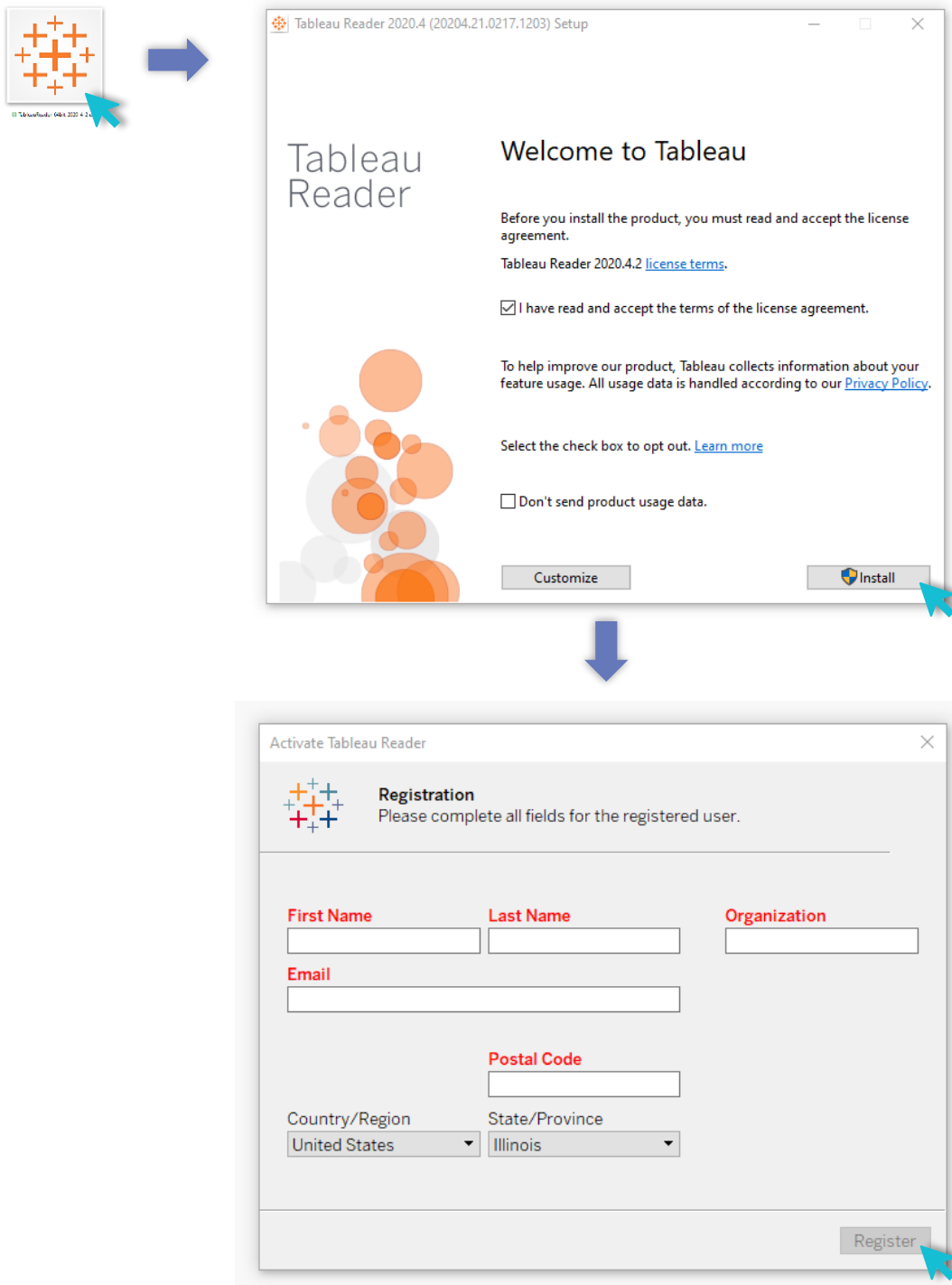
- Windows 64-bit: <https://www.tableau.com/downloads/reader/pc64>
- Windows 32-bit: <https://www.tableau.com/downloads/reader/pc32>
- Mac OS: <https://www.tableau.com/downloads/reader/mac>

Figure 2.1 Downloading Tableau Reader from Tableau Official Website



Users can install Tableau Reader by double-clicking on the downloaded installation file. Users will need to register with Tableau but note that Tableau Reader is free. Your organization's IT rules and firewall settings may impact the installation of Tableau Reader (which appear to impact the dashboard features and functions).

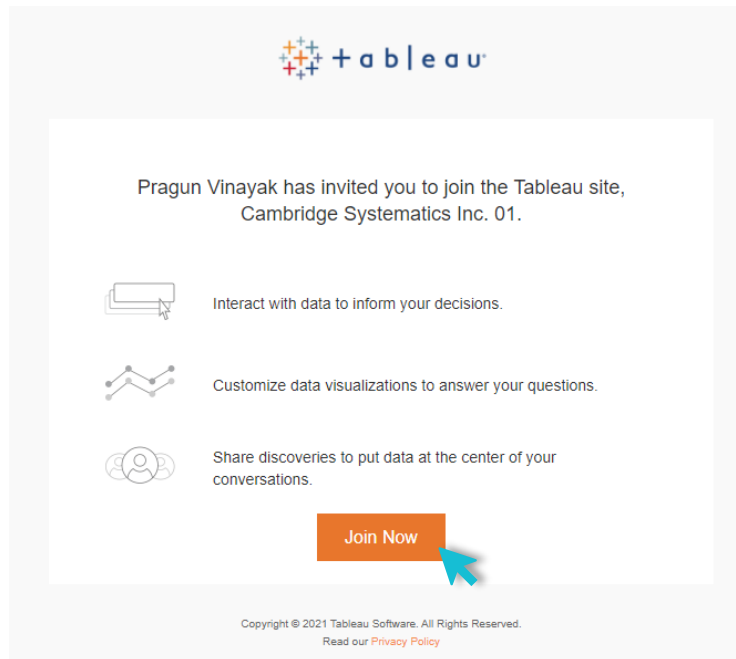
**Figure 2.2 Installing Tableau Reader**



## 2.2 Setting up Tableau Online

Users can access the cloud-hosted version of the dashboard through the Tableau Online website, that requires no installations on the user's end. However, this is a licensed distribution of the tool and requires the user to submit a request to RIITS for activation of the account. Once the request is approved, the users will get an email with an invitation link to sign up and create an account.

**Figure 2.3 Activating Tableau Online Account**



## Create Your Account

Your Email

Enter Your Name

First	Last
<input type="text"/>	<input type="text"/>

Choose a Password

Password

Passwords must be a minimum of 8 characters, have at least one uppercase letter, one lowercase letter, one number, and one special character.

Confirm

[Need Help?](#)

Let's Go

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# Dashboard Features

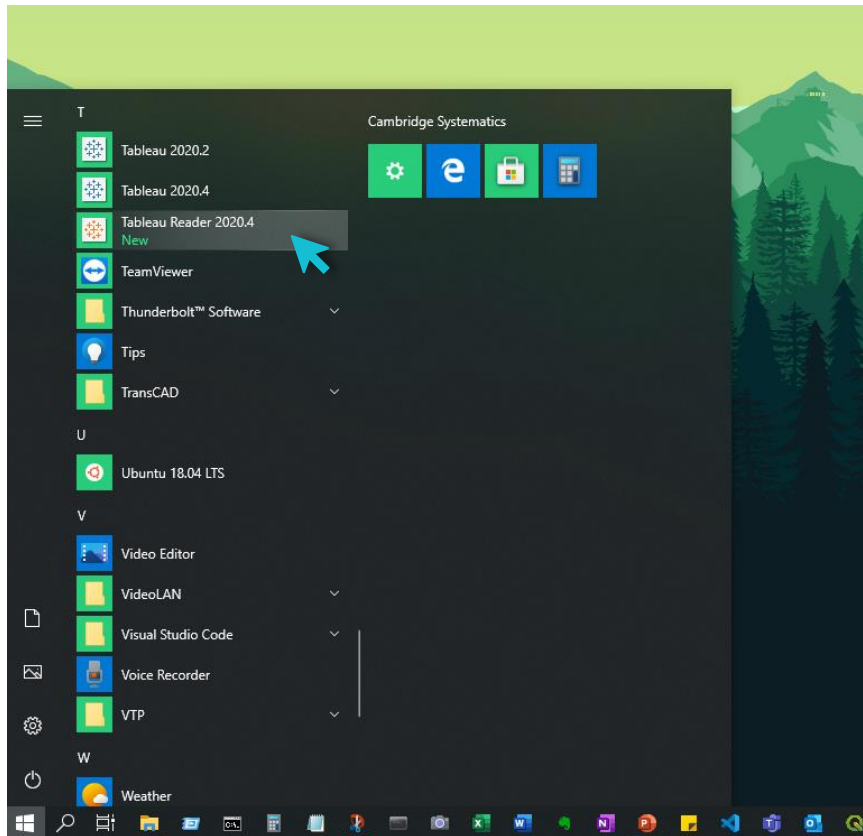
# 3

The Measure Up! LOCUS 2017 Flows Dashboard is an interactive visualization tool for documenting passenger trips data (overall and transit) in origin-destination (O-D) format. Flows are segmented by time of day, trip purpose, trip length, equity group, and day of week. The dashboard displays weighted person trips representing typical weekday and weekend day travel estimates, and transit market shares. This section provides information on how the dashboard can be used to support technical evaluations.

## 3.1 Accessing Dashboard – Tableau Reader

To open the dashboard, users can start the Tableau Reader program from their system start menu. Users may also create a shortcut on the desktop, on the taskbar or on the quick-access toolbar for easy access.

Figure 3.1 Opening Tableau Reader in Windows OS

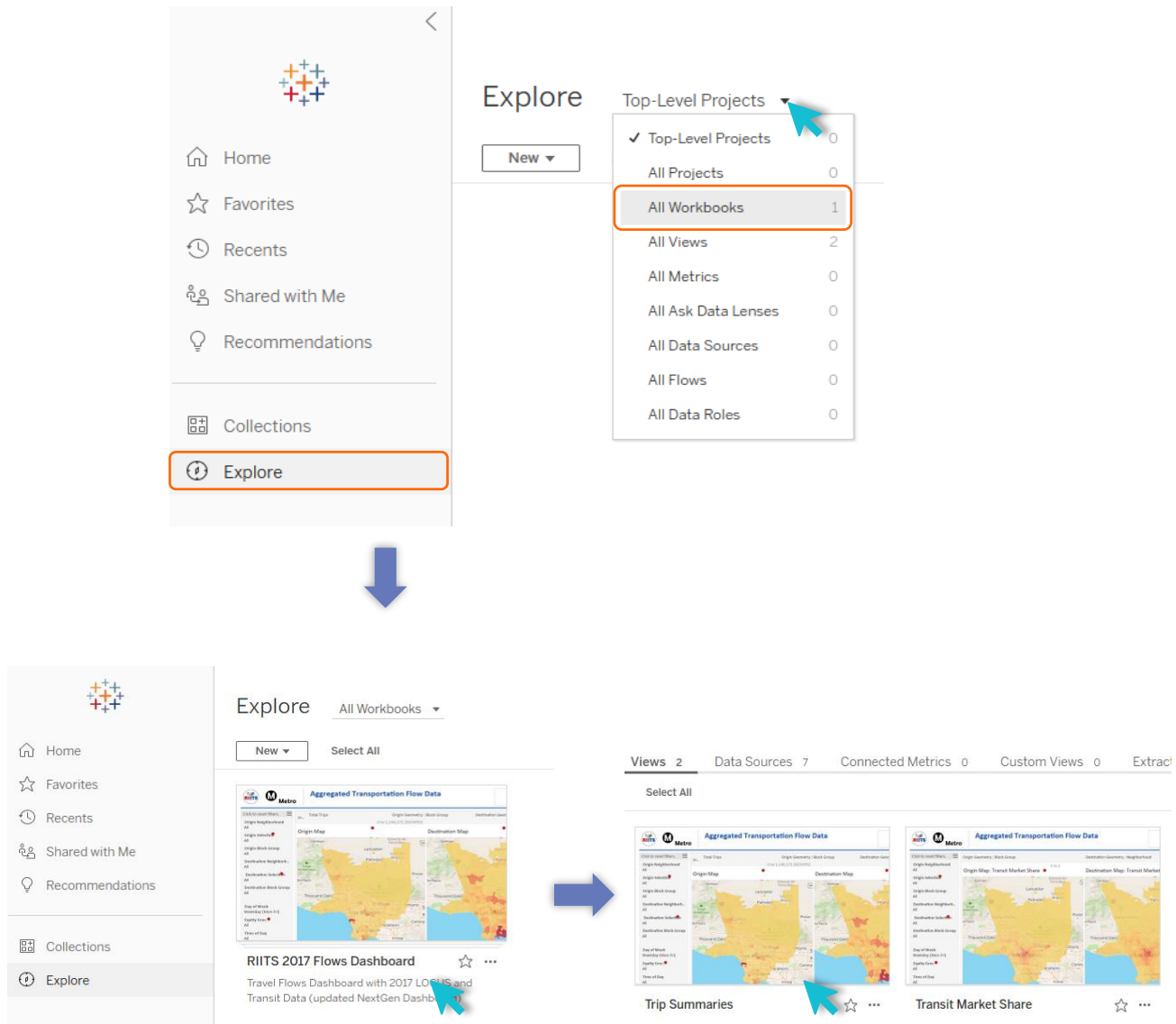


Once Tableau Reader is open, users can open the dashboard by navigating **File > Open > <<LOCUS dashboard directory>> > Open**. Users may choose presentation mode found on the top ribbon (or press F7) for a full-screen view.

### 3.2 Accessing Dashboard – Tableau Online

With the account set up, users can login into <https://online.tableau.com/> through any web-browser (Chrome or Firefox recommended) with their credentials. On the home page, the user can navigate to **Explore > All Workbooks** to access the dashboards. Users can then click on the thumbnail to select the dashboard and reveal the different pages available. Click on any of the pages to open the dashboard viewer (similar to Tableau Reader) – user can navigate between the different tabs using navigation buttons embedded in the dashboard.

Figure 3.2 Opening Dashboard on Tableau Online





### 3.3 Dashboard Panels

The dashboard is structured around two pages, “Trip Summaries” and “Transit Market Share”. The pages represent two ways of looking at the same data and vary only in the unit of analysis – “Trip Summaries” exhibits the total trips and transit trips, while the “Transit Market Share” exhibits the transit trips as a percentage of the total trips (market share). The two pages are internally consistent – with the same filters, components, and travel market segmentation. To navigate between the two pages, click on the navigation button as shown on the bottom-right in **Figure 3.3** and **Figure 3.4**. For illustrative purposes, features and functionalities on the “Trip Summaries” are described in detail in the subsequent sections.

Both dashboard pages have components arranged into 5 panels to provide users with smooth navigation and interactive experience. The panels can be listed in the following order:

1. P1 - Regionwide Summaries
2. P2 - Travel Segment Filters
3. P3 - Maps
4. P4 - Trip Segments Charts
5. P5 - Origin Destination Flow Table

**Figure 3.3 and Figure 3.4** shows the location of these panels on the two dashboard pages.

**Figure 3.3 LOCUS Trips Summaries Page**

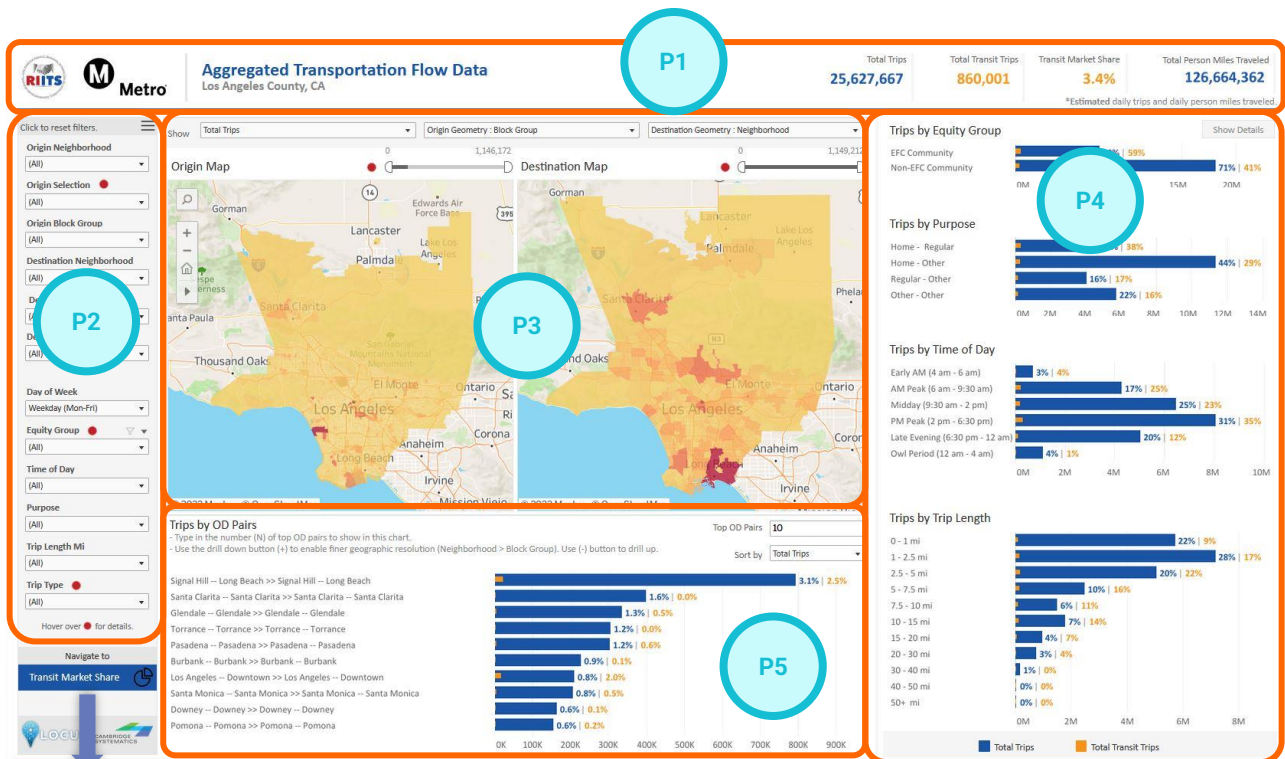
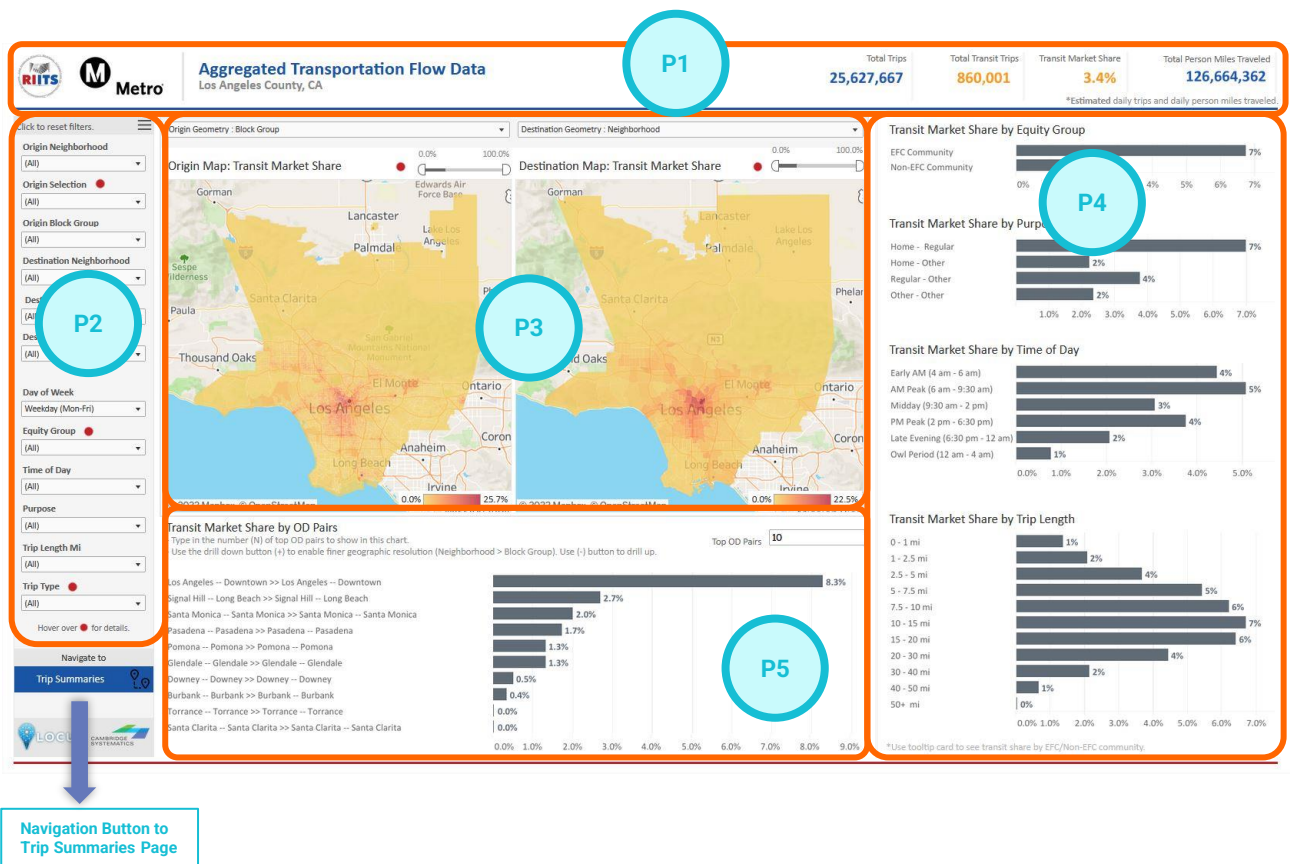


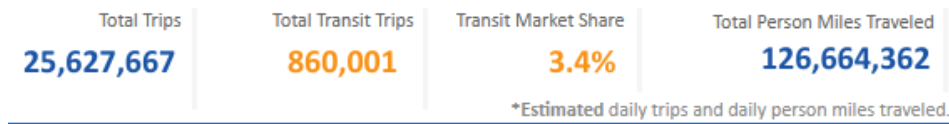
Figure 3.4 LOCUS Transit Market Share Page



### 3.3.1 P1 - Regionwide Summaries

The top-right banner of the dashboard shows regionwide summary statistics based on the select travel scenario by users. This includes the average daily total trips, average daily transit trips, transit market share, and estimated daily total of Person Miles Traveled (PMT). The daily estimated PMT is estimated by summing the individual estimated trip distances for every trip in the selection set.

**Figure 3.5 Regionwide Summary Estimates**



### 3.3.2 P2 - Travel Segment Filters

Data filters that allow users to zoom into the markets of greatest interest are located on the left panel as shown in **Figure 3.3 and Figure 3.4**. Users can select one or more filters at any instance to create a subset of 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 by different groups such as filters for origin selection, filters for destination selection, filters for trip characteristics and filters for home location selection. **Figure 3.6** shows the filter groups available for users to apply in their travel analysis.

The travel segments that users can apply are described in the following subsections.

**Figure 3.6 Travel Segment Filters by Group**

**Origin Neighborhood**

(All) ▼

**Origin Selection** ●

(All) ▼

**Origin Block Group**

(All) ▼

**Destination Neighborhood**

(All) ▼

**Destination Selection** ●

(All) ▼

**Destination Block Group** ▼

(All) ▼

**Day of Week**

Weekday (Mon-Fri) ▼

**Equity Group** ●

(All) ▼

**Time of Day**

(All) ▼

**Purpose**

(All) ▼

**Trip Length Mi**

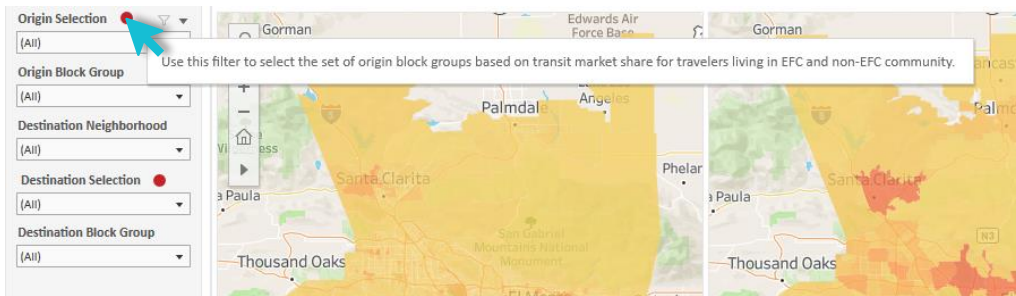
(All) ▼

**Trip Type** ●

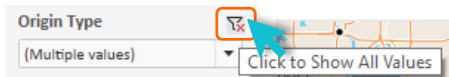
(All) ▼

### Quick Tips

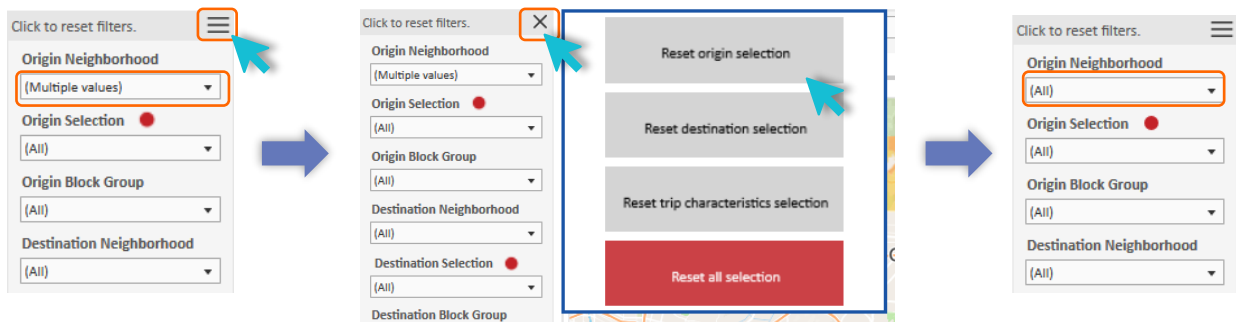
- Users can hover over the crimson bubble (●) placed near a filter or component to enable tooltip that shows additional information about that filter or component.



- 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.



- Users can also reset filters by group or reset ALL by using the **toggle** button on the top-right corner of **Panel 2**. When users click the ☰ button, a pop-up window appears with reset buttons for different filter groups. There is also an option to reset ALL filters in the travel segment filter panel. To close this pop-up window, users should click the ✕ button.



#### 3.3.2.1 Filters for Geographic Selection

Several geographic filters are available in the dashboard. Users can sort data based on the origin location and/or the destination location of the trip. Both origin location and destination location can be filtered based on different geographic filters such as Neighborhoods (270 in LA County), Census Block Groups, and a special selection based on Transit Market Share for Equity-focused Community (EFC) residents vs Non-EFC residents (see definitions in Section 3.2.2.2).

These filters are also organized based on a hierarchical context which means that the filters will show relevant values only based on other geographic selection. For example, if a user makes selections on **Origin Neighborhood** (say *Los Angeles – Downtown*), then **Origin Block Groups** will show only the Block Group geographies that are within the *Los Angeles – Downtown* neighborhood.



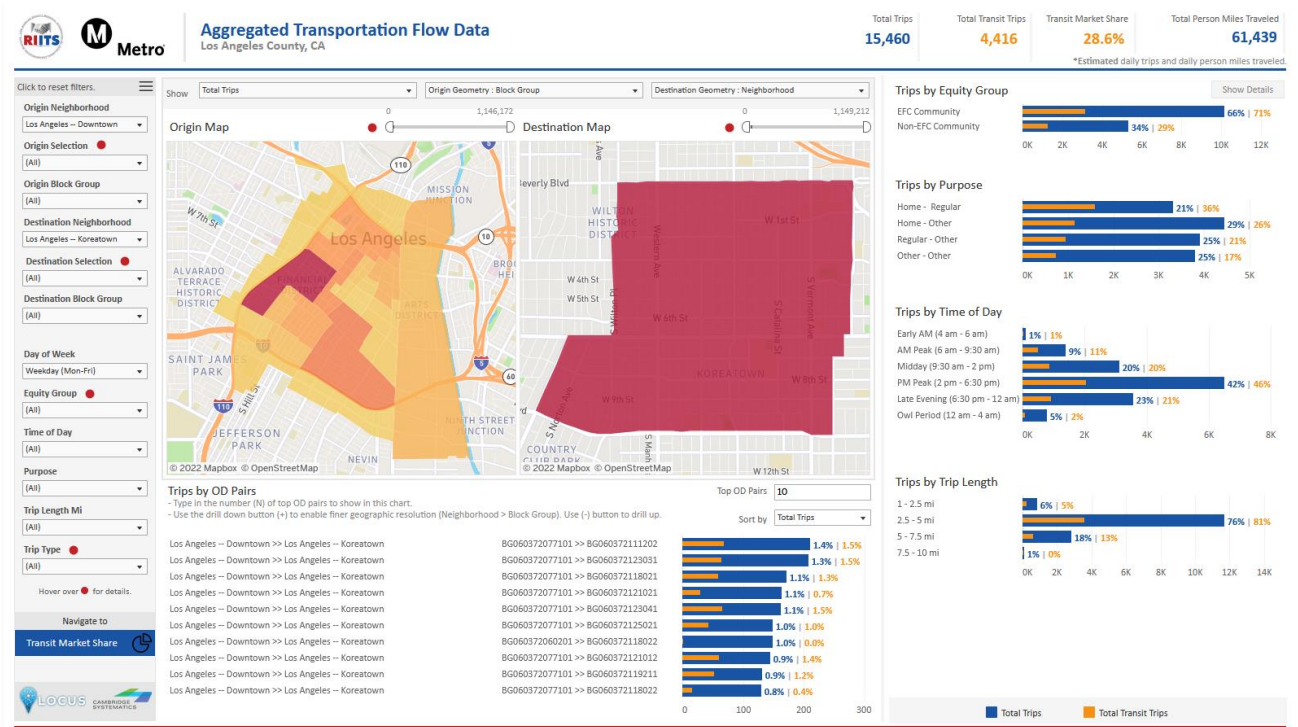
The filters for geography that are placed in the dashboard are illustrated in **Figure 3.7**.

**Figure 3.7 Filters for Geographic Selection**

<b>Origin Neighborhood</b>	<b>Destination Neighborhood</b>
(All)	(All)
<b>Origin Selection</b> ●	<b>Destination Selection</b> ●
(All)	(All)
<b>Origin Block Group</b>	<b>Destination Block Group</b> ▼
(All)	(All)

**Figure 3.8** shows an example where Origin Neighborhood was selected as “Los Angeles – Downtown” and Destination Neighborhood was selected as “Los Angeles – Koreatown”. Based on this origin/destination selection, the dashboard shows information specific to only those on an average weekday.

**Figure 3.8 Use of Geographic Selection Filters**



### 3.2.2.2 Filters for Trip Characteristics

There are several filters under this group that allows users to analyze travel patterns for specific travel segments (see Figure 3.9). Filters under this group are described briefly below:

**Figure 3.9 Filters for Trip Characteristics Selection**

#### Day of Week

LOCUS dashboard usually reports average daily trips by different days of week. Weekdays are treated as a single category (Monday through Friday), while weekend options include individual categories for Saturday and Sunday. Therefore, users can select any of the three available options in their analysis : **Weekday**, **Saturday** and **Sunday**.

#### Equity Group

The **Equity Group** is a LOCUS device or transit farecard user-based filter, where the tags are based on the inferred home location census block groups. Census block groups are tagged with Metro's "Equity Focused Communities" (EFCs) classification. Metro has defined EFCs as those communities most heavily impacted by gaps in inequity throughout the County. These communities represent geographic areas that have the following socio-economic characteristics:

- More than 40% of households are low-income AND
- Either more than 80% of households are non-white OR more than 10% have no access to a vehicle.

Two classifications are possible – **EFC Community** and **Non-EFC Community**. More information is available [here](#).

#### Purpose

The LOCUS dashboard segments trips by four travel purposes:

- **Home–Regular** which includes trips between home and work/school/college (regularly visited mandatory location).
- **Home–Other** which includes trips between home and a non-regular location. This may include trips from home to the grocery store, a place of worship, a friend/relative's home, or to the beach/state park.
- **Regular–Other** which captures trips between the non-home regular location and a non-home location. This captures trips such as going to/from lunch from/to the workplace, stopping on the way back from work to pick up a child from daycare, and/or going to a part-time work location after university classes.
- **Other–Other** which captures travel between non-home and non-regular locations.

## Time of Day

The **Time-of-Day** filter allows users to filter the set of trips across various time periods during the day or at night. LOCUS uses six time periods in this dashboard. The definitions are as follows:

- **Early AM** : 4 AM – 6 AM
- **AM Peak**: 6 AM – 9:30 AM
- **Midday**: 9:30 AM – 2 PM
- **PM Peak**: 2 PM – 6:30 PM
- **Late Evening**: 6:30 PM – 12 AM
- **Owl Period**: 12 AM – 4 AM

## Trip Length Mi

This filter allows users to select trips based on trip length. The following trip length categories are included in the dashboard.

- Under 1 mile;
- 1 to 2.5 miles;
- 2.5 to 5 miles;
- 5 to 7.5 miles;
- 7.5 to 10 miles;
- 10 to 15 miles;
- 15 to 20 miles;
- 20 to 30 miles;
- 30 to 40 miles;
- 40 to 50 miles; and
- Over 50 miles.

By using the appropriate travel filters, users can understand the custom markets for active transportation (e.g., trips under 5 miles) or super-commuters (e.g., home-regular trips that are over 20 miles).

## Trip Type

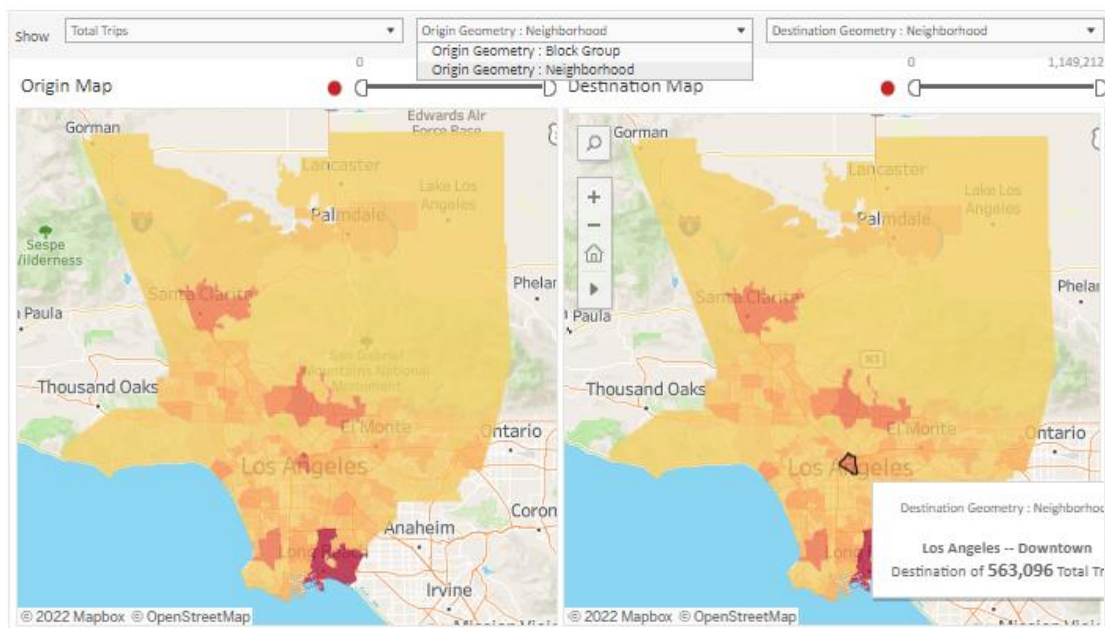
Trips that start and end in the same block group are defined as **Intrazonal Trips**. **Interzonal Trips** are trips that have origin and destination in different block groups. Note that only trips with both ends in LA County are summarized here.

### 3.3.3 P3 - Maps

The middle panel in the LOCUS dashboard is used for mapping purpose. The panel shows two maps – the **Origin Map** shows the trips made from each zone and the **Destination Map** shows the trips made to each zone. The **Show** filter allows users to choose between “Total Trips” and “Transit Trips” for mapping. The color-coding shows the increasing intensity of total or transit trips, with orange shade indicating larger trip totals. Users have an option to view the map at different geographic levels (Neighborhood or Block Groups) using the **Origin Geometry** or **Destination Geometry** filter on the top-right corner of the maps. Users can use the tooltip functionality to see the total or transit trips from/to a geography by hovering over the map. The statistics in the tooltip will be aggregated based on the select level of geometry. There is also a slider to filter geometries based on trip intensity. Please note that this slider does not apply to other analytics in the dashboard. Users must check and adjust the range accordingly after changing the **Origin Geometry** or **Destination Geometry** filter.

**Figure 3.10** shows the basic features of the maps such as changing geometry type, using tooltip for detailed information and sliders for filtering geometries.

**Figure 3.10 Maps in LOCUS Dashboard**



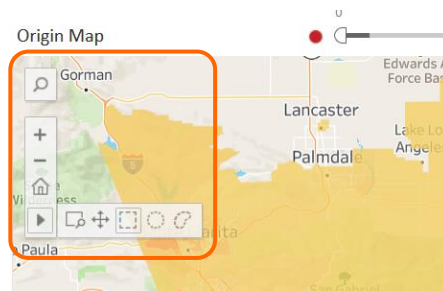
#### 3.3.3.1 Filtering Geography using Maps

In addition to the basic features, the maps in LOCUS dashboard offer a set of advanced interactive features that can be used in combination with the travel segment filters. As mentioned earlier in **Section 3.2.2.1**, users can use the filters on the left panel of the dashboard to select the geography of interest. Alternatively, users have the option to do so using the map toolbar on the dashboard. Users can select geography by clicking or using selection tools available on the map toolbar, as shown in **Figure 3.11**.

The toolbar will only show up when users hover over their mouse pointer on the map. Selection options include selection by a rectangular bounding box, selection by a circular radius, or a lasso selection. When an area is selected on the **Origin Map**, the dashboard will show only those trips originating from the selected geographic areas. Similarly, areas can be selected on the **Destination Map** to filter trips based on the destination area.

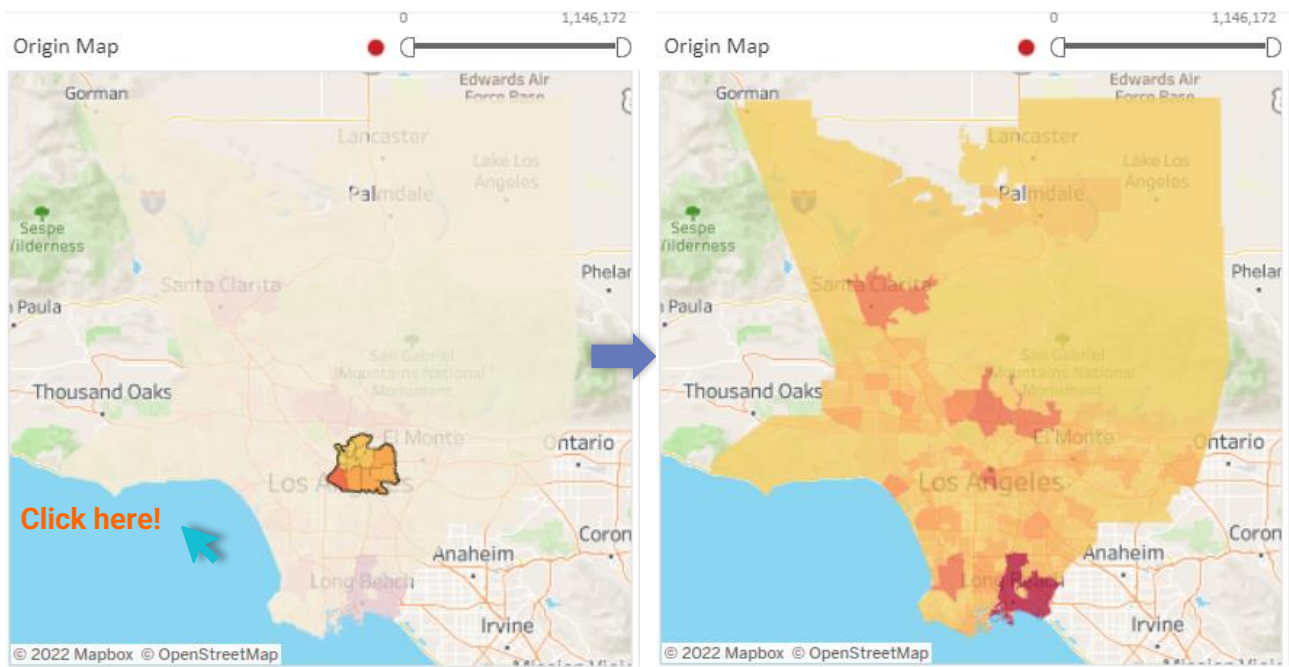


Figure 3.11 Filtering Geography using Map Toolbar



To clear map-based filters, users may click on the blank space of the map as show in **Figure 3.12**. However, any tabular filters chosen by the users will continue to stay active.

Figure 3.12 Clearing Geographic Selection on Maps



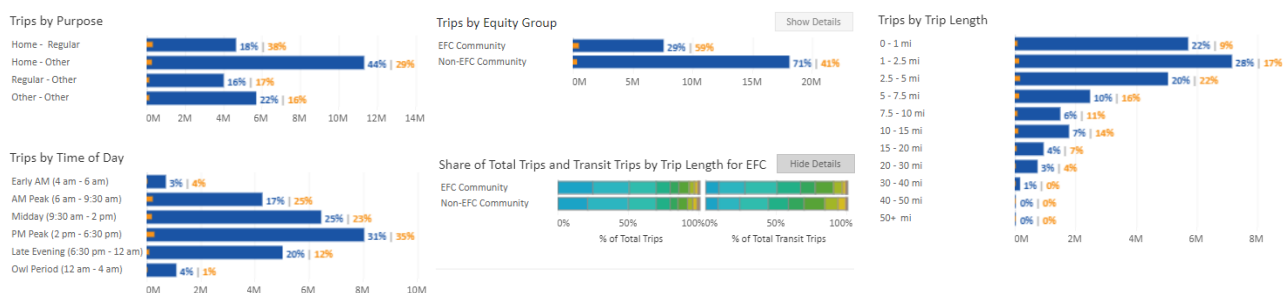
By zooming in and out, users are able to isolate specific areas of interest. To enable the zoom feature, users can use their mouse wheel, or the + and – button on map toolbar as shown in **Figure 3.11**.

### 3.3.4 P4 - Trip Segment Charts

The dashboard includes several charts that summarize key characteristics of the trips in the selection set made by users. As shown in **Figure 3.13**, five charts in this panel show different travel characteristics as listed below:

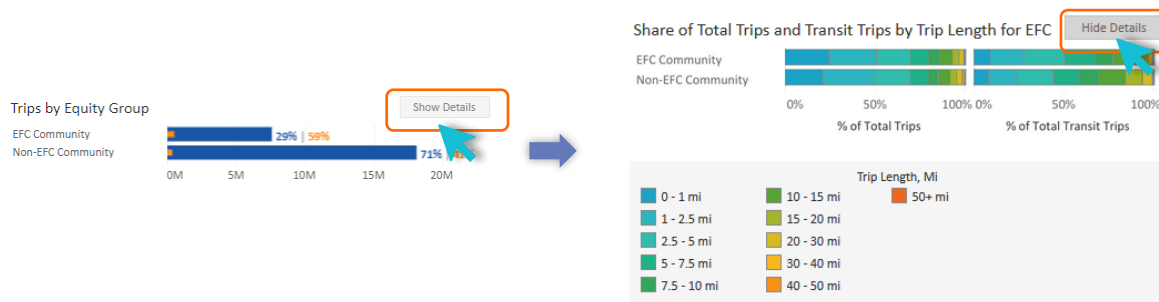
- Trips by Trip Purpose;
- Trips by Time of Day;
- Trips by Equity Group;
- Share of Trips by Trip Length for Equity Group; and
- Trips by Trip Length in Miles

**Figure 3.13 Trips by Various Travel Segments**



By clicking **Show Details** button as shown below in the **Trips by Equity Group** chart in **Figure 3.14**, users can reveal the distribution of equity trips by trip distance (this is a great way to compare distances travelled by equity and non-equity populations in similar travel markets, such as regular/commute travel). To hide or close this chart and bring back the other charts, users should use the **Hide Details** button located in the same place.

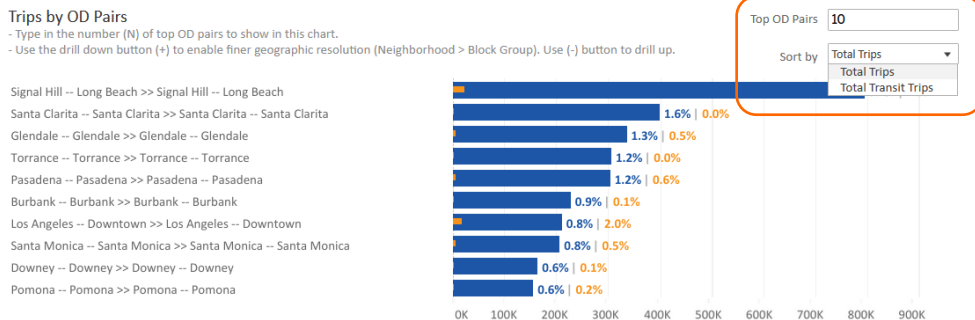
**Figure 3.14 Showing Equity Trips by Trip Length Distribution**



### 3.3.5 P5 - Origin Destination Flow Table

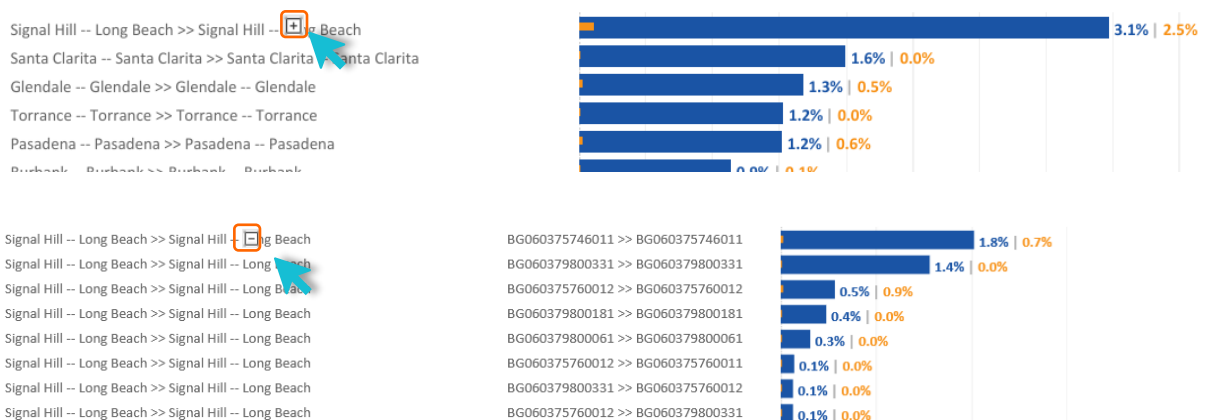
As shown in **Figure 3.15** chart shows the share of trips by top OD (Origin/Destination) pairs, with the ability to sort the records by either **total trips** or **transit trips**. Users also have the option to select the number of OD pairs to show in the chart. They can type in any whole number in the **Top OD Pairs** field and press **Enter** to use this selection. To prevent extended loading time and focus on the top pairs only, this number is intentionally capped at 100.

**Figure 3.15 Select Sorting Variable and Top N Pairs in Trips by OD Pairs Chart**



On the O-D chart, users can change the geographic resolution by clicking the (+) or (-) on the column header of the O-D pairs. The (+) or (-) will show up once users hover over the column headers as shown in **Figure 3.16**. The geographic resolutions that are available are the County – County O-D pairs and Block Group – Block Group O-D pairs.

**Figure 3.16 Changing Geographic Resolution in Trips by OD Pairs Chart**



#### Quick Tips

- When the **Trips by OD Pairs** chart is set to show statistics at the block group level, the dashboard requires additional time for calculation which may result in extended loading or refresh time. Users are recommended to revert the geographic resolution to the neighborhood level to enable faster response.

# Saving Data and Images

# 4

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.

## 4.1 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.

Figure 4.1 Saving Dashboard Images – Tableau Online

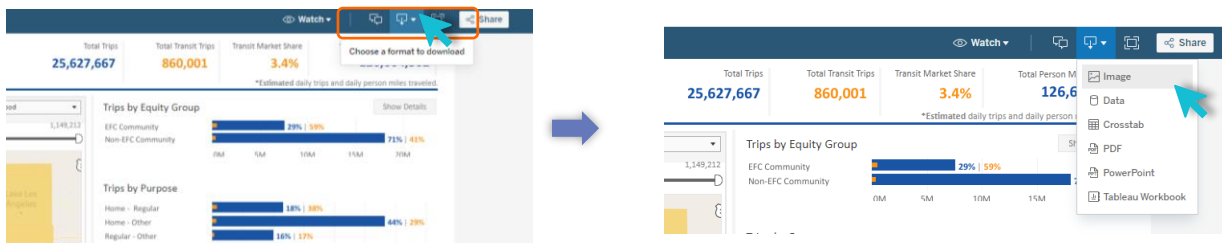
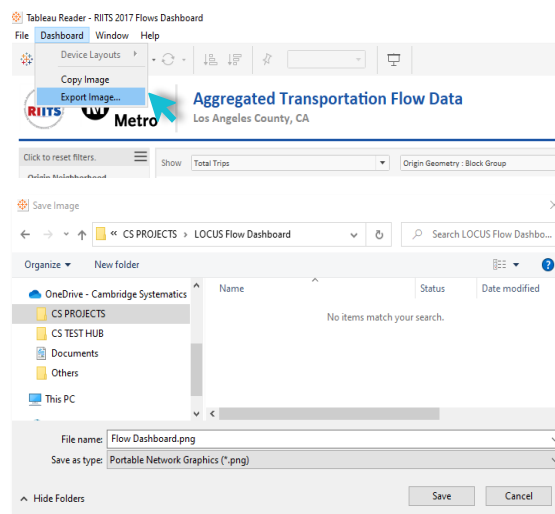


Figure 4.2 Saving Dashboard Images – Tableau Reader





## 4.2 Exporting as PowerPoint

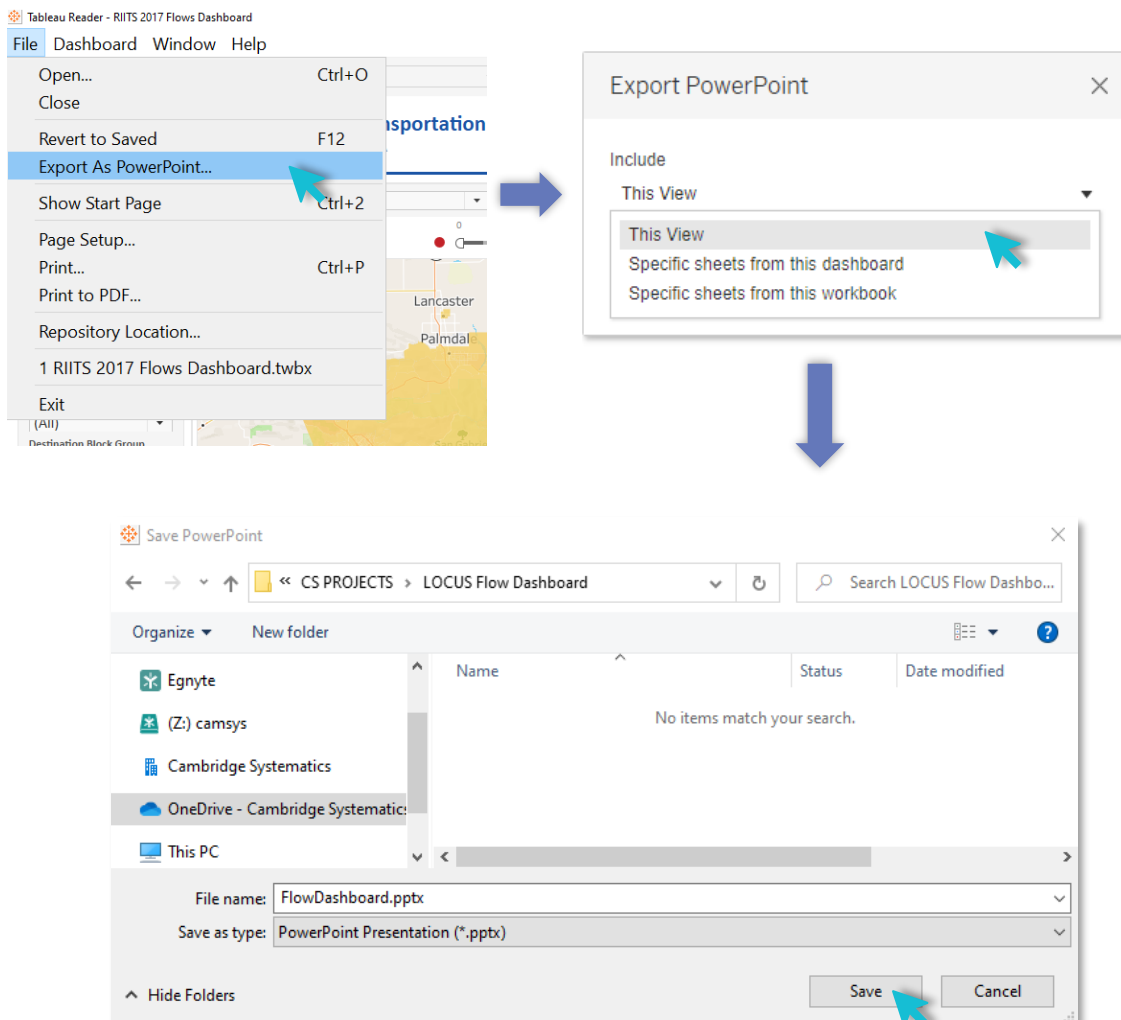
Through Tableau Online, to save the dashboard as a PowerPoint, users can navigate to **Choose a format to download > PowerPoint** on the main menu bar of Tableau Online as shown in Figure 4.1.

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.

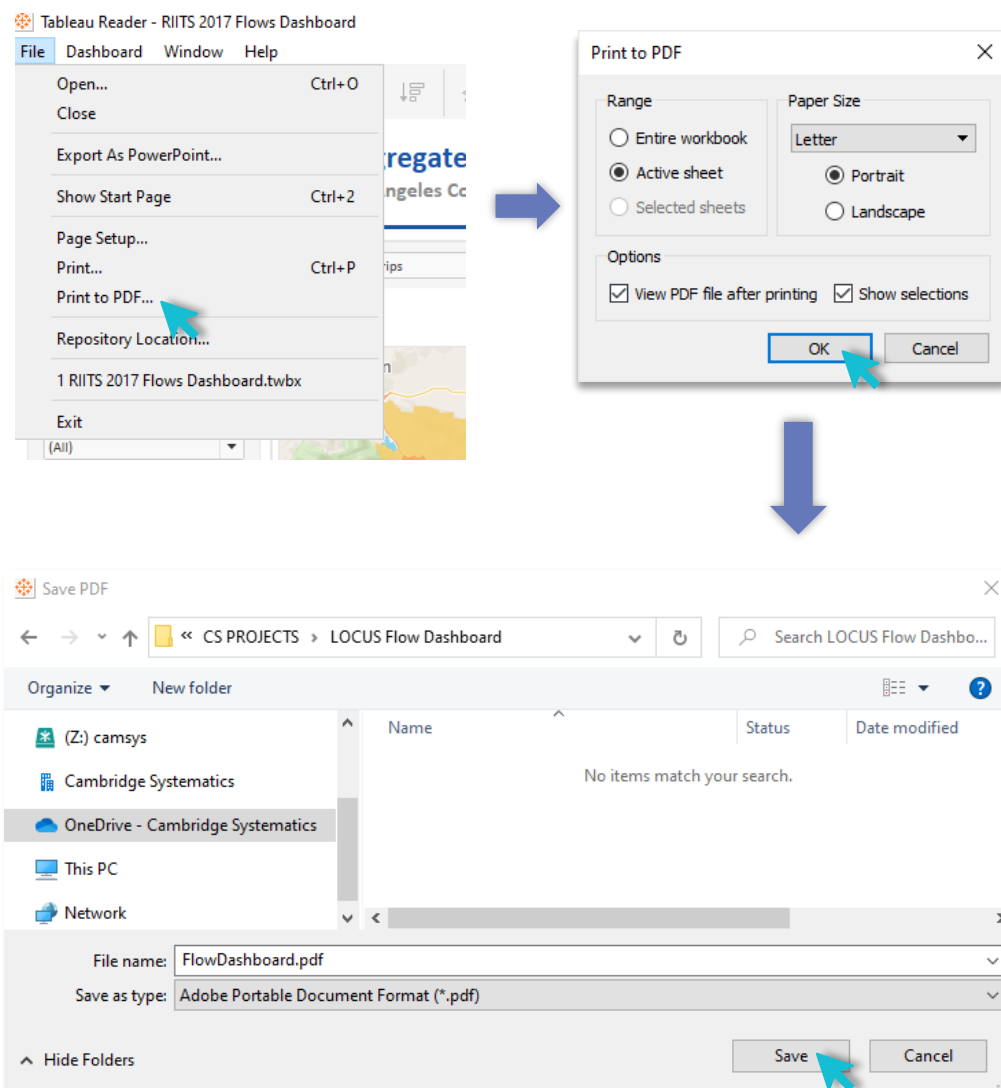
Figure 4.3 Exporting as PowerPoint



### 4.3 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.

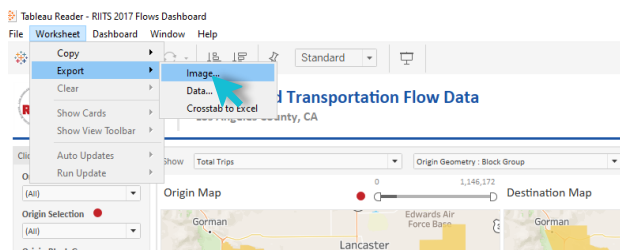
Figure 4.4 Exporting as PDF



## 4.4 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**.

Figure 4.5 Saving Image of a Specific Chart/Table



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. The process is shown in **Figure 4.6** – top image shows the steps for Tableau Reader user and bottom image shows the steps for Tableau Online, select Crosstab from the download options and select the desired sheet in the pop-up window.

Figure 4.6 Saving Cross-tabulations in Excel for Tableau Reader User and Tableau Online User

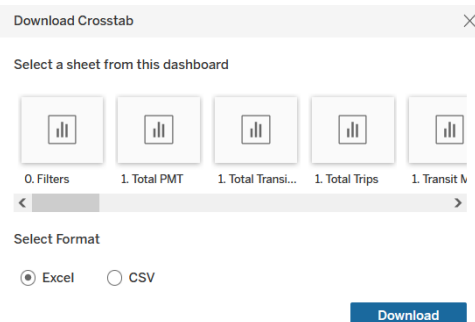
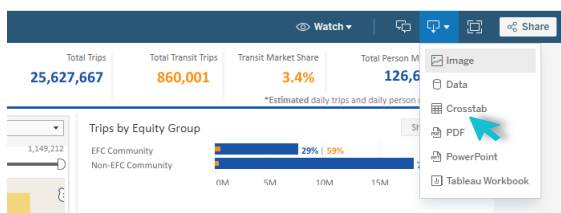
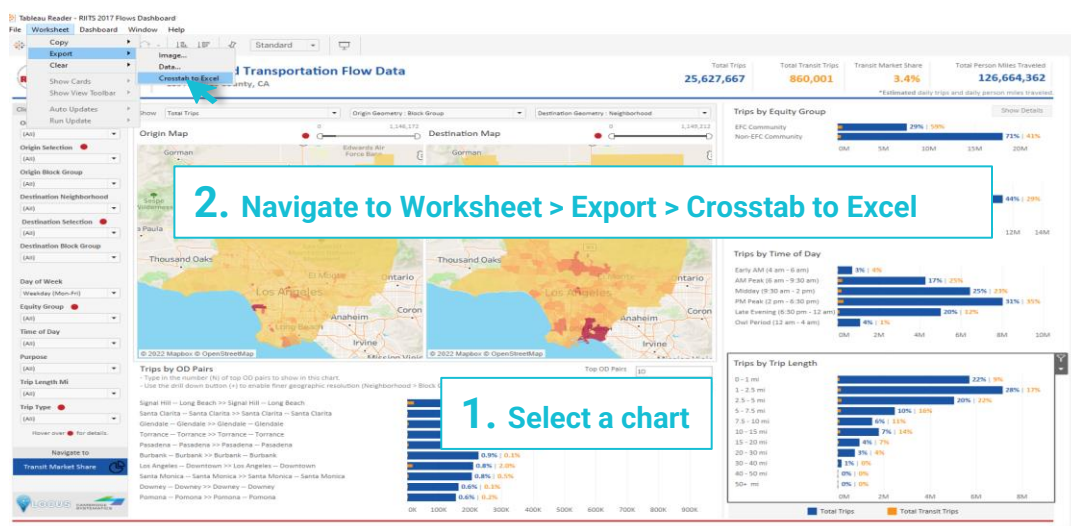
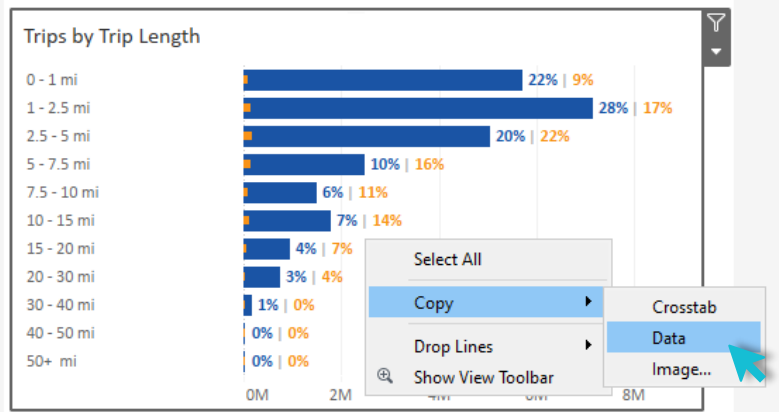


Figure 4.7 Cross-tabulation Exported as Table in Excel

	A	B	C	D	E	F	G
1		% of Total Daily Trips along Time of Day	Daily Trips				
2	AM Peak (6 AM - 10 AM)	21%	4,387,146				
3	Midday (10 AM - 3 PM)	30%	6,325,493				
4	PM Peak (3 PM - 7 PM)	28%	5,916,970				
5	Night (7 PM - 6 AM)	21%	4,355,517				
6							

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.

Figure 4.8 Copying a Chart for Documents





# Additional Features

# 5

This section highlights additional features of the Tableau dashboard that are available at the user's disposal. Note that some of these are available only in the Tableau Online version of the dashboard.

1. Saving Custom Views (Only Tableau Online)
2. Sharing Views with Authorized Users (Only Tableau Online)
3. Reset View (Only Tableau Online)
4. Undo/Redo Button (Both Tableau Reader and Tableau Online)
5. Keep Only/Exclude (Only Tableau Reader)

## 5.1 Saving Custom Views (Only Tableau Online)

This feature is available on the utilities ribbon just above the dashboard canvas (see **Figure 5.1**). It allows users to save and bookmark an ongoing session as a **custom view** that the user can retrieve at any point. One instance where this feature would be helpful is when a user wants to generate summaries for different travel markets and wants to access the results without having to set the filters every time. Users can also toggle between different **custom views** and the **original view** and set a custom view as the **default view** that would open every time a new session of the dashboard is loaded.

Figure 5.1 Saving Custom Views

The screenshot shows the Tableau dashboard interface. At the top, there is a ribbon with various utility buttons. One button, 'View: Original', is highlighted with a red box and a blue arrow pointing to it. Below the ribbon, there are two maps: 'Origin Map: Transit Market Share' and 'Destination Map: Transit Market Share'. To the left of the maps are several filter dropdowns. To the right, there is a sidebar with 'Total Trips' (244,091) and a list of transit lines. Below the maps, there is a 'Custom Views' dialog box. The dialog box has a 'Save Custom View' section with a text input field containing 'Travel Market 1' and a checkbox for 'Make it my default'. A blue arrow points to the 'Save' button. Below the dialog box, there is a 'My Views' section showing 'Travel Market 1' with a checkmark. A blue arrow points to the 'Travel Market 1' view. To the right of the 'My Views' section, there is a text box that says 'Click on the Views Option and see the new view generated. Click on desired view to load that view.' Below the 'My Views' section, there is an 'Other Views' section showing 'Original (default)' as the default view. A blue arrow points to the 'Original (default)' view. At the bottom right, there is a 'Manage Views' button with a right arrow.

View: Original

Save my customizations, or see other custom views

Low Data

Total Trips  
244,091

Click to reset filters.

Origin Neighborhood  
Alhambra - Alhambra

Origin Selection  
(All)

Origin Block Group  
(All)

Destination Neighborhood  
(All)

Origin Geometry: Block Group

Destination Geometry: Neighborhood

Origin Map: Transit Market Share

Destination Map: Transit Market Share

Transit  
EFC Comu  
Non-EFC

Transit  
Home - F  
Home - G  
Regular -

Custom Views

Save Custom View

Name this view  
Travel Market 1

☐ Make it my default

Save

Check this to set as Default View

Nothing saved yet

Other Views

✓ Original (default)

Pragun Vinayak

My Views

✓ Travel Market 1

Other Views

Original (default)

Pragun Vinayak

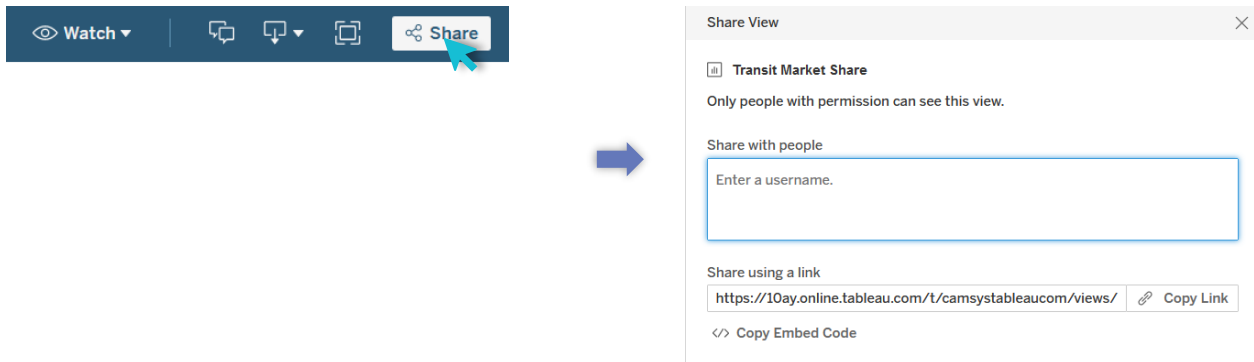
Manage Views →

Click on the Views Option and see the new view generated. Click on desired view to load that view.

## 5.2 Sharing Views with Authorized Users (Only Tableau Online)

This feature allows users to share the active view with other authorized users. Users can find the authorized usernames by typing names or emails into the textbox. **Only authorized users can view the shared links.**

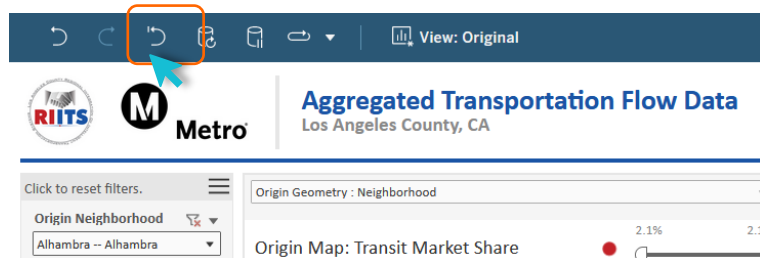
Figure 5.2 Sharing Views with Authorized Users



## 5.3 Reset View (Tableau Online)

This Tableau Online feature allows users to revert all changes made to the dashboard in the current session to the default settings of the active view (can be the original view or custom view selected by the user). To deploy, click on the icon shown on the utilities ribbon as shown below in **Figure 5.3**.

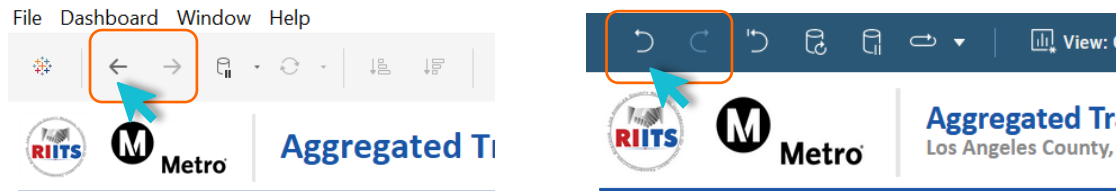
Figure 5.3 Reset View Button



## 5.4 Undo/Redo Button (Both Tableau Reader and Tableau Online)

This feature allows users to undo/redo dashboard actions (filter, map actions, parameter selections, etc). Unlike the Reset View feature in Tableau Online, this option works on one action at a time.

Figure 5.4 Undo/Redo Buttons – Tableau Reader and Tableau Online



## 5.5 Keep Only/Exclude (Only Tableau Reader)

This feature is available on Tableau Reader only and allows the users to make filter selections by clicking on chart and map elements. To activate this feature, right click on any chart element and navigate to the “Keep Only” or “Exclude” option. **Figure 5.5** shows this feature in action. To clear the selections for most of the cases (see exception below), use the reset buttons described in **Section 3.3.2**.

**Note:** Any “Keep Only/Exclude” selections made on the maps are out of scope of the reset filter buttons or the map-based reset by clicking outside the selection area. To clear the selections, use the UNDO button as shown in **Figure 5.4**.

Since this feature can be confusing in scope, **users are recommended to avoid the “Keep Only/Exclude” feature and preferably use the filters panel and/or map selections.**

Figure 5.5 Keep Only Filtering in Tableau Reader

