Model In/Output Analyzer

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Author: Kyeongsu Kim, Director

May 10, 2023

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Model In/Output Analyzer

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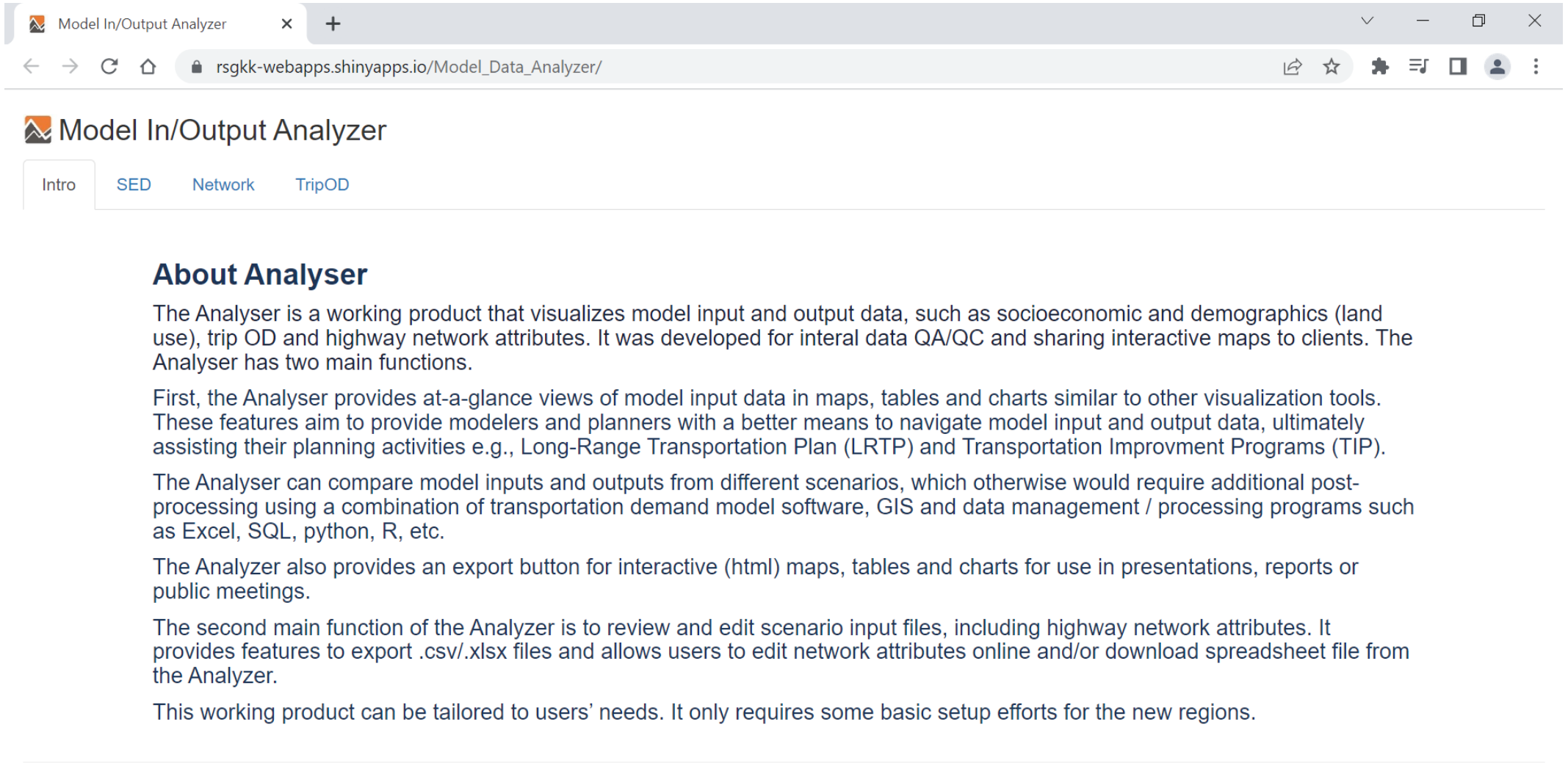
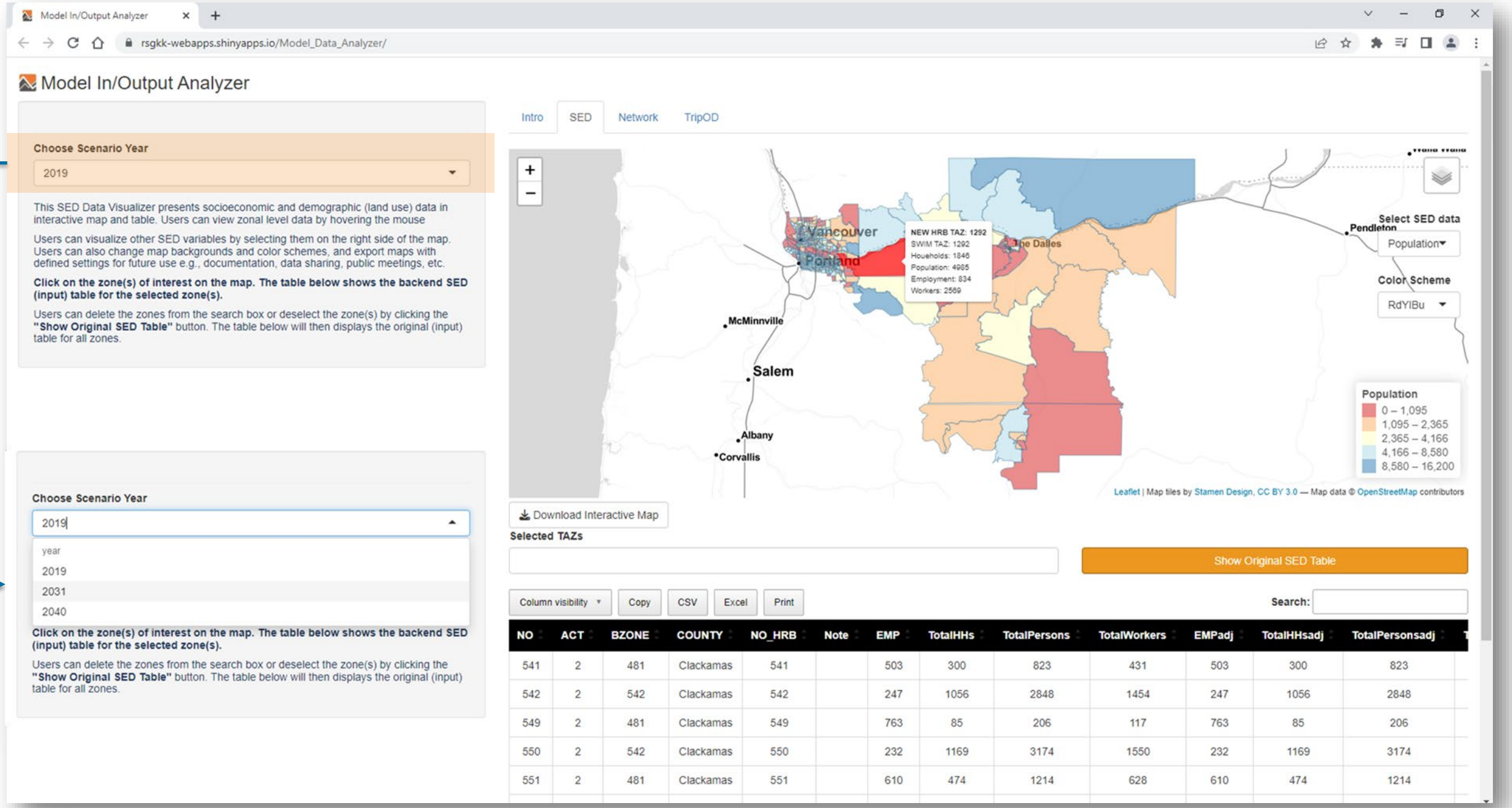
RSG

About Analyzer



Zonal level data presentation

SED Data


Model In/Output Analyzer
rsgkk-webapps.shinyapps.io/Model_Data_Analyzer/
Model In/Output Analyzer
Choose Scenario Year
2019
This SED Data Visualizer presents socioeconomic and demographic (land use) data in interactive map and table. Users can view zonal level data by hovering the mouse
Users can visualize other SED variables by selecting them on the right side of the map. Users can also change map backgrounds and color schemes, and export maps with defined settings for future use e.g., documentation, data sharing, public meetings, etc.
Click on the zone(s) of interest on the map. The table below shows the backend SED (input) table for the selected zone(s).
Users can delete the zones from the search box or deselect the zone(s) by clicking the "Show Original SED Table" button. The table below will then displays the original (input) table for all zones.
Choose Scenario Year
2019
year
2019
2031
2040
Click on the zone(s) of interest on the map. The table below shows the backend SED (input) table for the selected zone(s).
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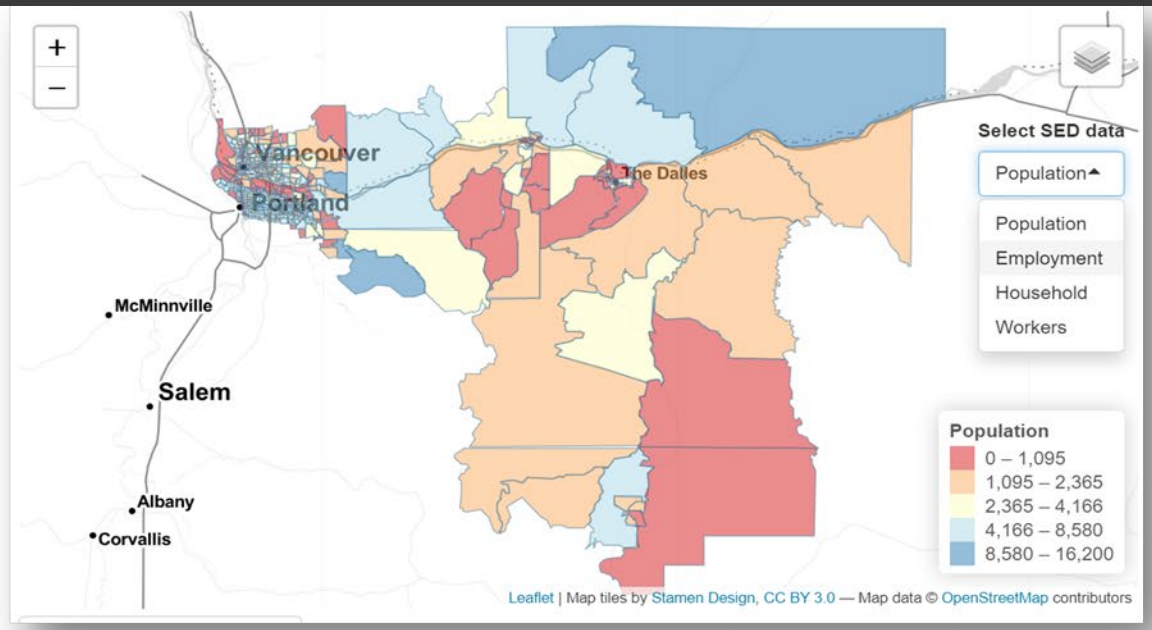
Intro
SED
Network
TripOD
Vancouver
Portland
The Dalles
Pendleton
McMinnville
Salem
Albany
Corvallis
NEW HRB TAZ: 1292
SWIM TAZ: 1292
Households: 1846
Population: 4965
Employment: 834
Workers: 2569
Select SED data
Population
Color Scheme
RdYlBu
Population
0 – 1,095
1,095 – 2,365
2,365 – 4,166
4,166 – 8,580
8,580 – 16,200
Leaflet | Map tiles by Stamen Design, CC BY 3.0 — Map data © OpenStreetMap contributors
Download Interactive Map
Selected TAZs
Show Original SED Table
Column visibility
Copy
CSV
Excel
Print
Search:
NO ACT BZONE COUNTY NO_HRB Note EMP TotalHHs TotalPersons TotalWorkers EMPadj TotalHHsadj TotalPersonsadj
541 2 481 Clackamas 541 503 300 823 431 503 300 823
542 2 542 Clackamas 542 247 1056 2848 1454 247 1056 2848
549 2 481 Clackamas 549 763 85 206 117 763 85 206
550 2 542 Clackamas 550 232 1169 3174 1550 232 1169 3174
551 2 481 Clackamas 551 610 474 1214 628 610 474 1214

Map Options


Vancouver
Portland
The Dalles
McMinnville
Salem
Albany
Corvallis
Select SED data
Population
Population
Employment
Household
Workers
Population
0 – 1,095
1,095 – 2,365
2,365 – 4,166
4,166 – 8,580
8,580 – 16,200
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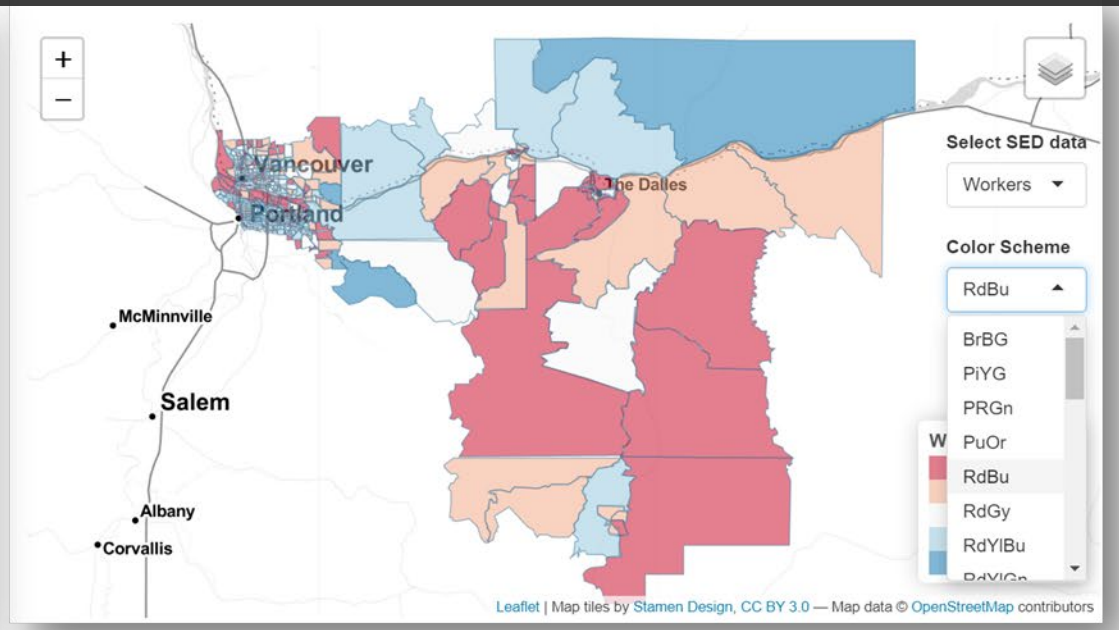
Vancouver
Portland
The Dalles
McMinnville
Salem
Albany
Corvallis
Select SED data
Workers
Color Scheme
RdBu
BrBG
PiYG
PRGn
PuOr
RdBu
RdGy
RdYlBu
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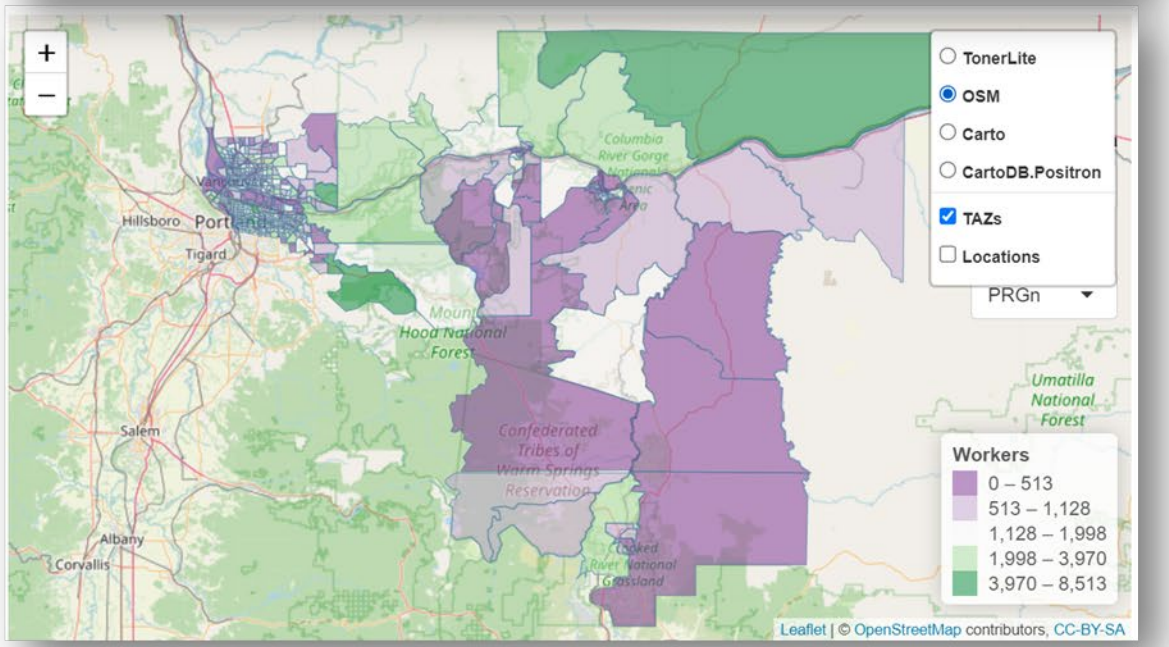
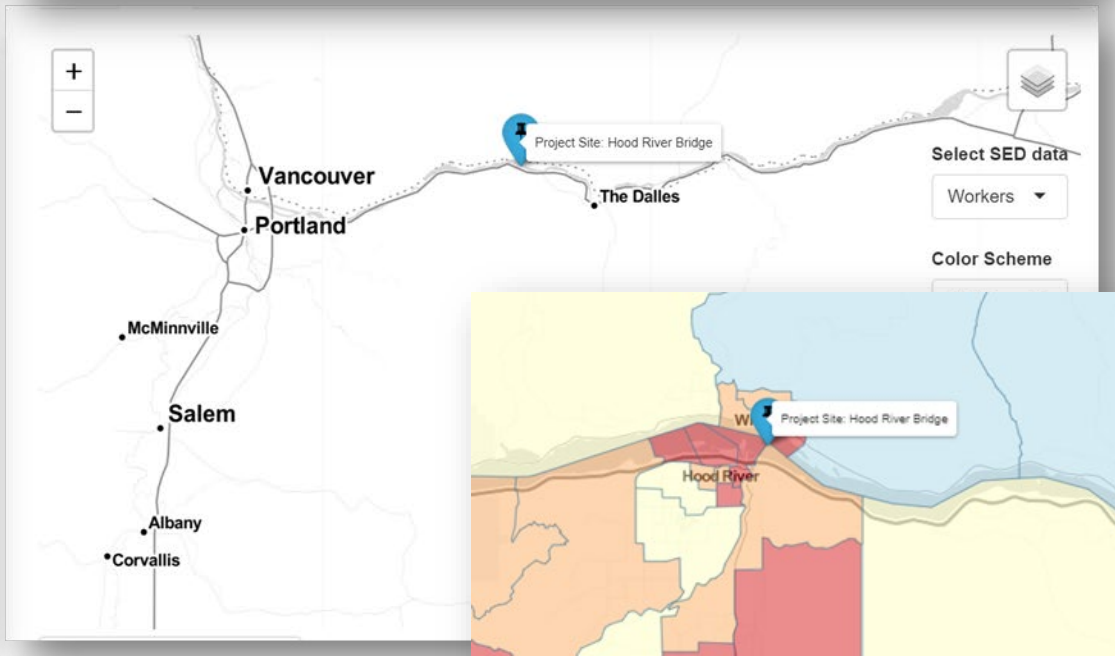

TonerLite
OSM
Carto
CartoDB.Positron
TAZs
Locations
PRGn
Hillsboro
Portland
Tigard
Salem
Albany
Corvallis
Columbia River Gorge National Scenic Area
Mount Hood National Forest
Umatilla National Forest
Confederated Tribes of Warm Springs Reservation
Ochoco National Grassland
Workers
0 – 513
513 – 1,128
1,128 – 1,998
1,998 – 3,970
3,970 – 8,513
Leaflet | © OpenStreetMap contributors, CC-BY-SA


Project Site: Hood River Bridge
Vancouver
Portland
The Dalles
McMinnville
Salem
Albany
Corvallis
Select SED data
Workers
Color Scheme
Project Site: Hood River Bridge
Hood River

Download Interactive HTML file

Model In/Output Analyzer | leaflet

rsgkk-webapps.shinyapps.io/Model_Data_Analyzer/

Intro | SED | Network | TripOD

Choose Scenario Year

2019

This SED Data Visualizer presents socioeconomic and demographic (land use) data in interactive map and table. Users can view zonal level data by hovering the mouse

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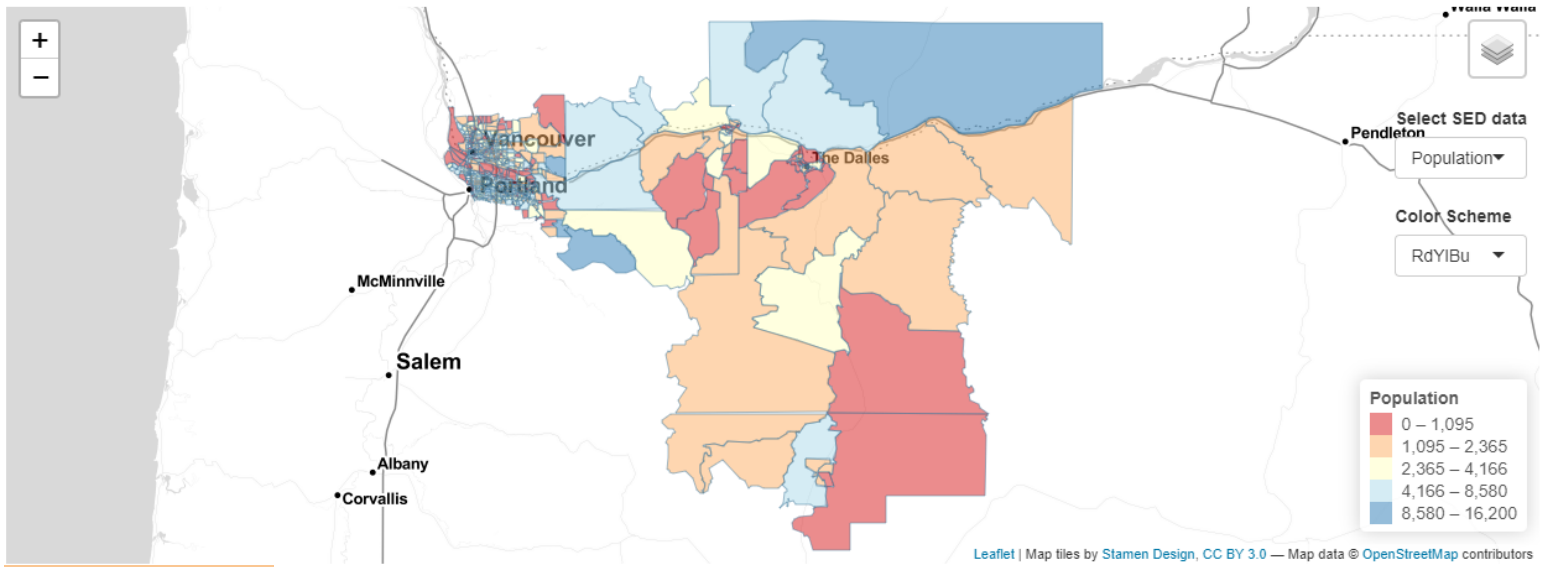
Click on the zone(s) of interest on the map. The table below shows the backend SED (input) table for the selected zone(s).

Users can delete the zones from the search box or deselect the zone(s) by clicking the **"Show Original SED Table"** button. The table below will then displays the original (input) table for all zones.



Click on the 'Download Interactive Map' button ➡ check a downloaded html file (below)

Download Interactive Map

Selected TAZs

Show Original SED Table

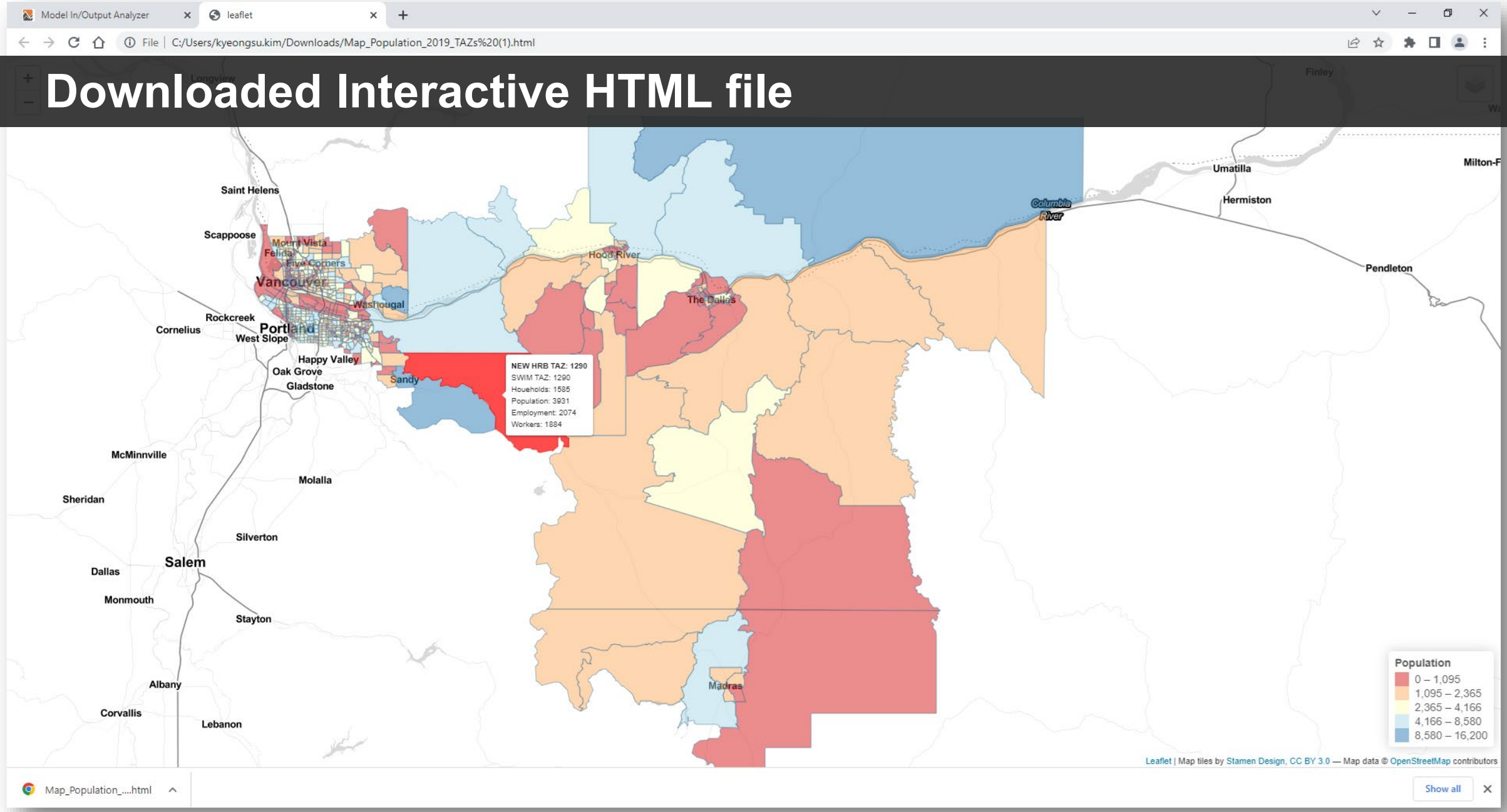
Column visibility | Copy | CSV | Excel | Print | Search:

NO	ACT	BZONE	COUNTY	NO_HRB	Note	EMP	TotalHHs	TotalPersons	TotalWorkers	EMPadj	TotalHHsadj	TotalPersonsadj
541	2	481	Clackamas	541		503	300	823	431	503	300	823
542	2	542	Clackamas	542		247	1056	2848	1454	247	1056	2848
549	2	481	Clackamas	549		763	85	206	117	763	85	206
550	2	542	Clackamas	550		232	1169	3174	1550	232	1169	3174

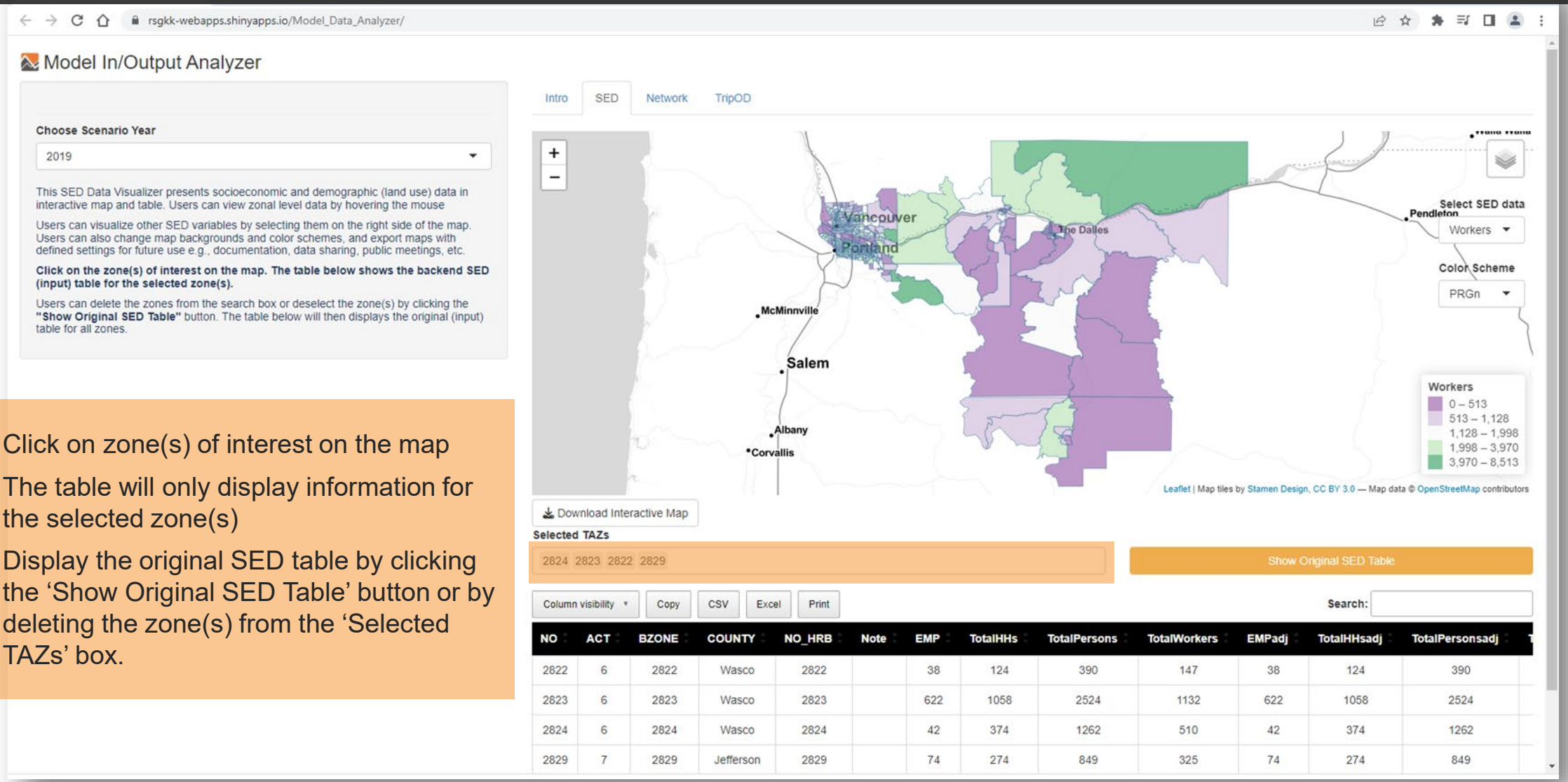
Map_Population_....html

Show all

Downloaded Interactive HTML file



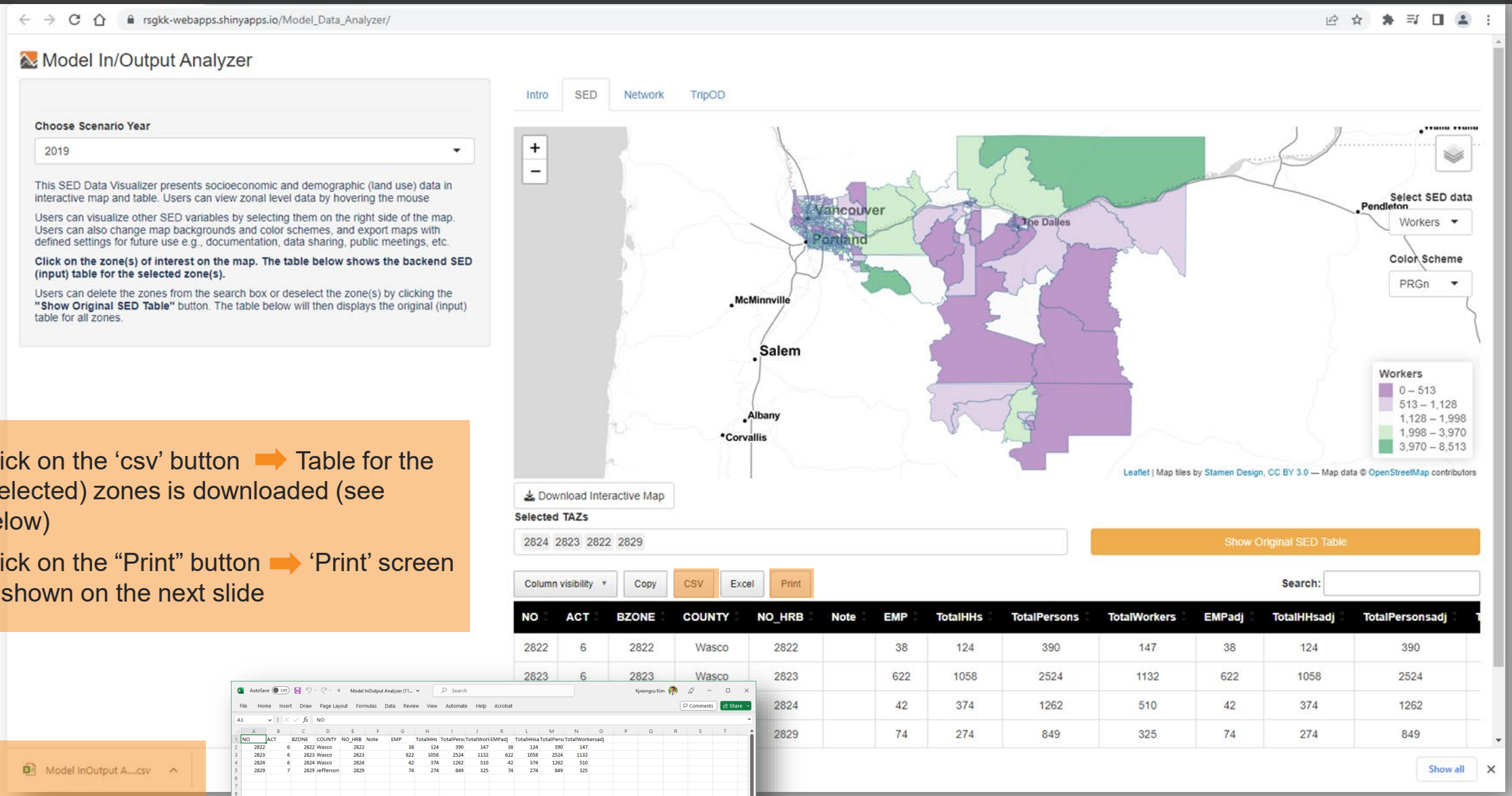
Select zone(s) of interest only



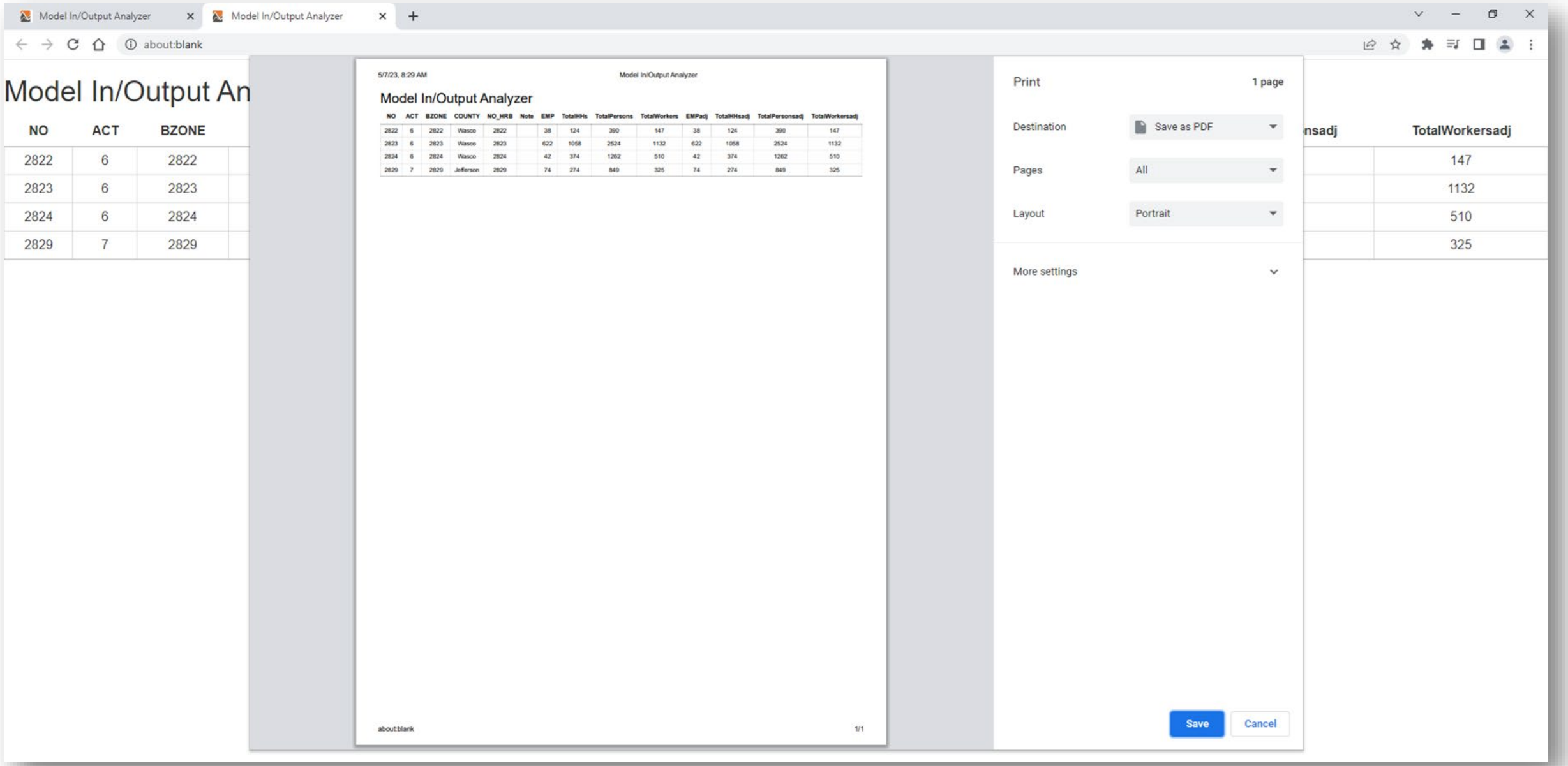
- Click on zone(s) of interest on the map
- The table will only display information for the selected zone(s)
- Display the original SED table by clicking the ‘Show Original SED Table’ button or by deleting the zone(s) from the ‘Selected TAZs’ box.

Download / Print SED table

- Click on the ‘csv’ button ➡ Table for the (selected) zones is downloaded (see below)
- Click on the “Print” button ➡ ‘Print’ screen is shown on the next slide



Printable SED table



Link level data presentation

Highway Network Data

Model In/Output Analyzer

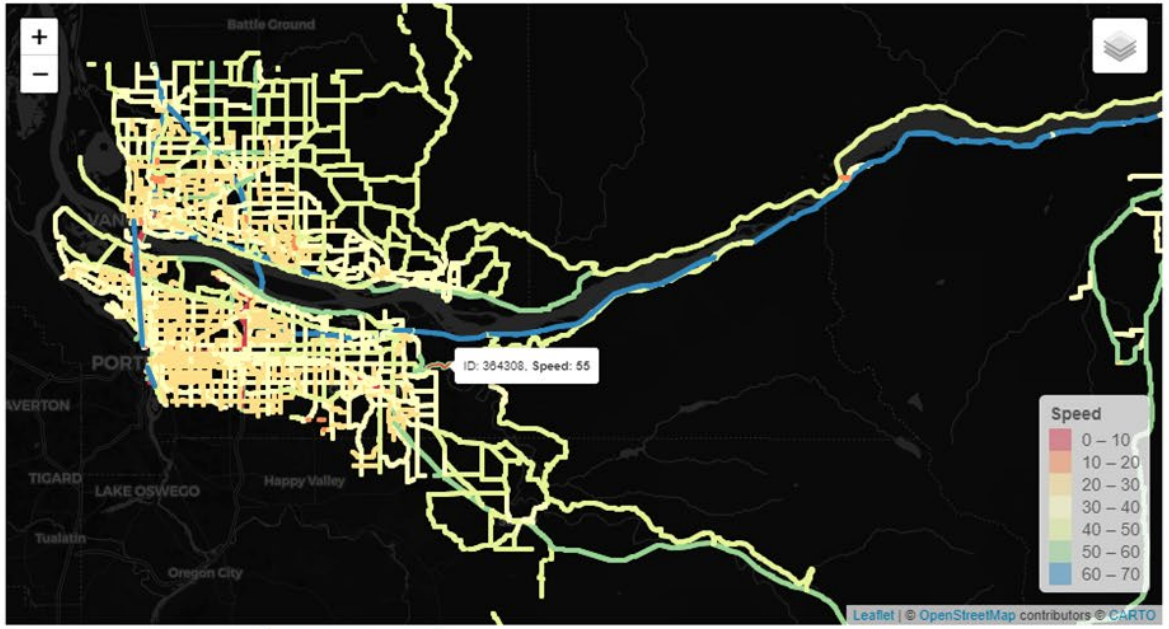
rsgkk-webapps.shinyapps.io/Model_Data_Analyzer/

Model In/Output Analyzer

Intro | SED | Network | TripOD

Select Highway Network Attribute

Speed



Show 10 entries Search:

NO	FROMNODENO	TONODENO	LENGTH	NUMLANES	CAPPRT	V0PRT	AZONE
167	29295	30152	10.945	1	1400	55	2824
167	30152	29295	10.945	1	1400	55	2824
250	33285	33286	65.907	2	4800	45	3012
250	33286	33285	65.907	2	4800	45	3012
464	28638	28639	1.741	1	2400	55	1290
464	28639	28638	1.741	1	2400	55	1290
466	28637	28643	0.273	1	2400	55	1290
466	28643	28637	0.273	1	2400	55	1290
467	28641	28644	0.087	1	2400	55	1290
467	28644	28641	0.087	1	2400	55	1290

Showing 1 to 10 of 13,067 entries Previous 1 2 3 4 5 … 1,307 Next

Download Interactive Map | Download Table

Selected LINKs

Show Original Link Table

Under investigation to reduce line file loading time

Model In/Output Analyzer | Model In/Output Analyzer

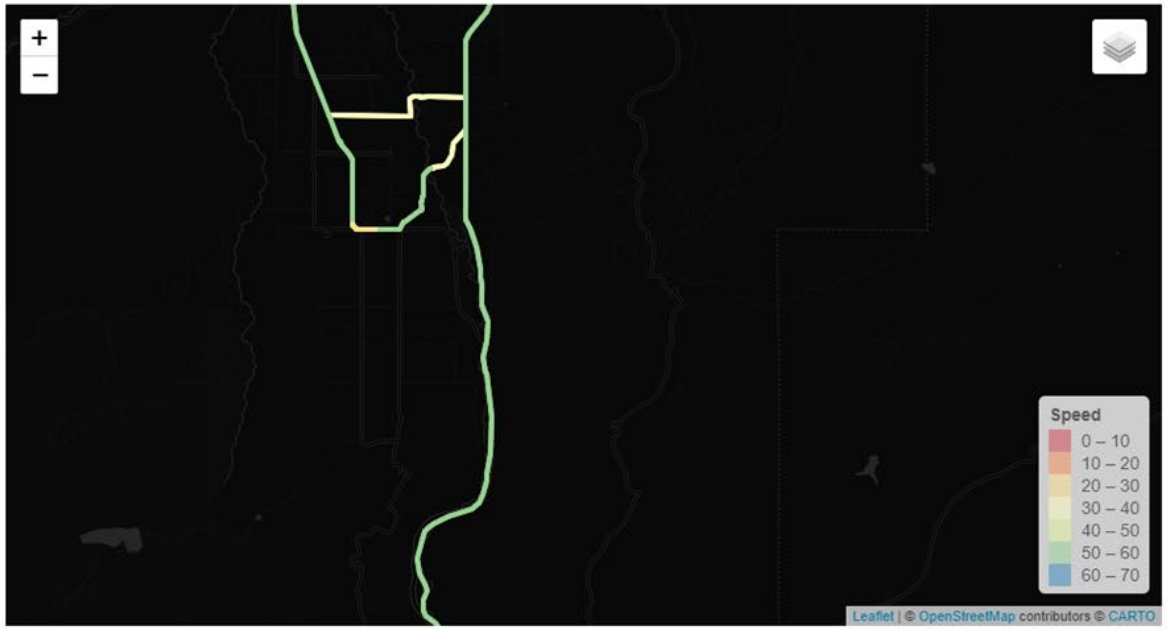
rsgkk-webapps.shinyapps.io/Model_Data_Analyzer/

Model In/Output Analyzer

Intro | SED | Network | TripOD

Select Highway Network Attribute

Speed



Download Interactive Map | Download Table

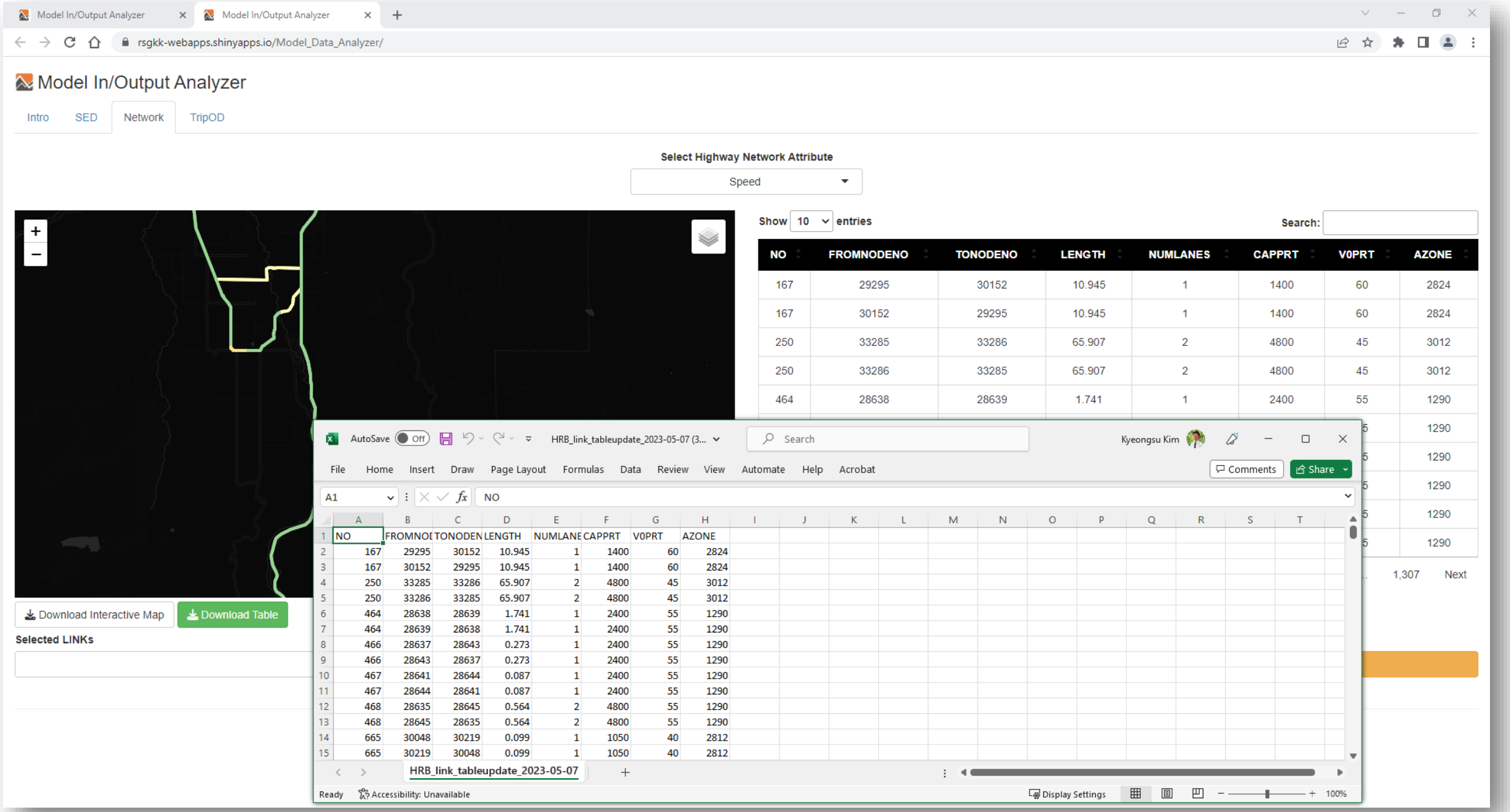
Selected LINKs

Show 10 entries | Search:

NO	FROMNODENO	TONODENO	LENGTH	NUMLANES	CAPPRT	V0PRT	AZONE
167	29295	30152	10.945	1	1400	55	2824
167	30152	29295	10.945	1	1400	55	2824
250	33285	33286	65.907	2	4800	45	3012
250	33286	33285	65.907	2	4800	45	3012
464	28638	28639	1.741	1	2400	55	1290
464	28639	28638	1.741	1	2400	55	1290
466	28637	28643	0.273	1	2400	55	1290
466	28643	28637	0.273	1	2400	55	1290
467	28641	28644	0.087	1	2400	55	1290
467	28644	28641	0.087	1	2400	55	1290

Showing 1 to 10 of 13,067 entries | Previous 1 2 3 4 5 … 1,307 Next

Show Original Link Table


Model In/Output Analyzer
Model In/Output Analyzer
rsgkk-webapps.shinyapps.io/Model_Data_Analyzer/
Model In/Output Analyzer
Intro
SED
Network
TripOD
Select Highway Network Attribute
Speed
Show 10 entries
Search:
NO FROMNODENO TONODENO LENGTH NUMLANES CAPPRT V0PRT AZONE
167 29295 30152 10.945 1 1400 60 2824
167 30152 29295 10.945 1 1400 60 2824
250 33285 33286 65.907 2 4800 45 3012
250 33286 33285 65.907 2 4800 45 3012
464 28638 28639 1.741 1 2400 55 1290
1,307
Next
Download Interactive Map
Download Table
Selected LINKs
AutoSave
HRB_link_tableupdate_2023-05-07 (3...
Search
Kyeongsu Kim
File
Home
Insert
Draw
Page Layout
Formulas
Data
Review
View
Automate
Help
Acrobat
Comments
Share
A1
NO
NO FROMNOI TONODEN LENGTH NUMLANE CAPPRT V0PRT AZONE
167 29295 30152 10.945 1 1400 60 2824
167 30152 29295 10.945 1 1400 60 2824
250 33285 33286 65.907 2 4800 45 3012
250 33286 33285 65.907 2 4800 45 3012
464 28638 28639 1.741 1 2400 55 1290
464 28639 28638 1.741 1 2400 55 1290
466 28637 28643 0.273 1 2400 55 1290
466 28643 28637 0.273 1 2400 55 1290
467 28641 28644 0.087 1 2400 55 1290
467 28644 28641 0.087 1 2400 55 1290
468 28635 28645 0.564 2 4800 55 1290
468 28645 28635 0.564 2 4800 55 1290
665 30048 30219 0.099 1 1050 40 2812
665 30219 30048 0.099 1 1050 40 2812
HRB_link_tableupdate_2023-05-07
Ready
Accessibility: Unavailable
Display Settings
100%

Trip level data presentation

Trip OD Data

Model In/Output Analyzer | Model In/Output Analyzer

rsgkk-webapps.shinyapps.io/Model_Data_Analyzer/

Model In/Output Analyzer

Intro | SED | Network | TripOD

Choose Scenario Year

2019

Click on the zone of interest on the map.
An interactive table showing trips from the selected zone to the **Destination** zones will appear next to the map.

The map is also responsive to display zones by color showing different trip sizes to the Destination

Origin to Destination Zones

Click on the zone of interest on the map.
An interactive table showing trips to the selected zone from the **Origin** zones will appear next to the map.

The map is also responsive to display zones by color showing different trip sizes from the Origin

Destination to Origin Zones

https://rsgkk-webapps.shinyapps.io/Model_Data_Analyzer/_w_943be88f/#tab-4700-4

Model In/Output Analyzer

rsgkk-webapps.shinyapps.io/Model_Data_Analyzer/

Model In/Output Analyzer

Intro | SED | Network | TripOD

Choose Scenario Year

2019

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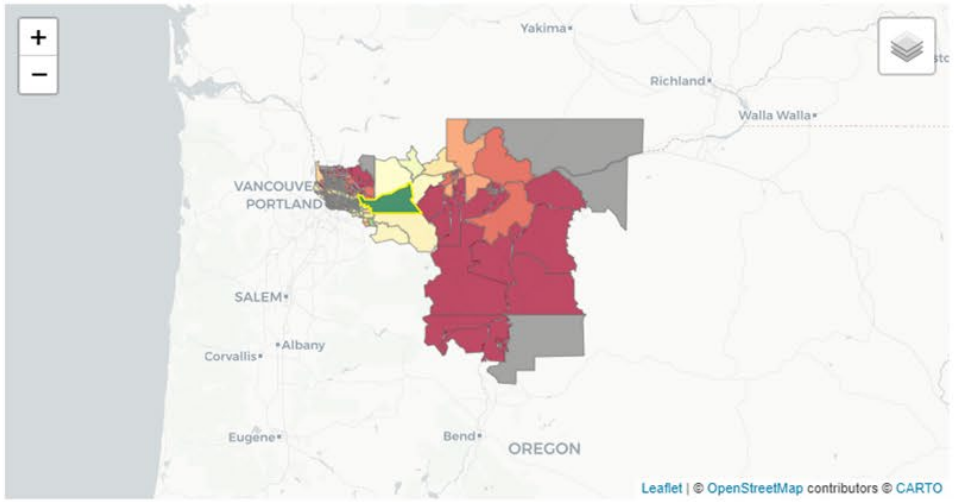
Origin to Destination Zones



Destination Zone	Trips
1292	339
157020	194.5
634	178
160599	167.8
694	161
625	129
154392	118.8
679	113
553	86
684	85

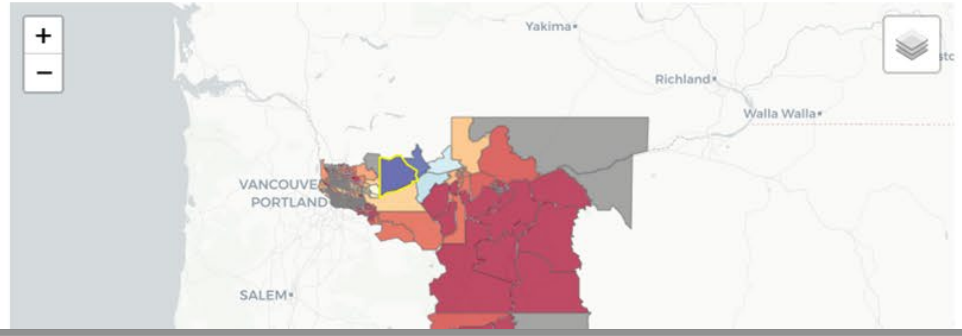
1–10 of 747 rows

Previous 1 2 3 4 5 ... 75 Next

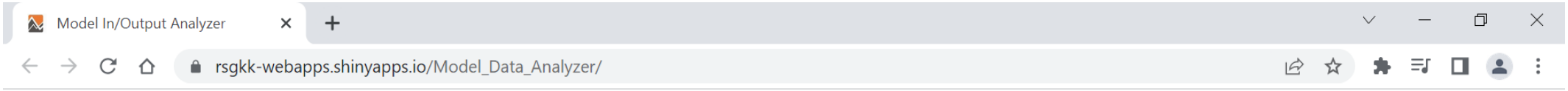
Click on the zone of interest on the map. An interactive table showing trips to the selected zone from the **Origin** zones will appear next to the map.

The map is also responsive to display zones by color showing different trip sizes from the Origin

Destination to Origin Zones



Origin Zone	Trips
4044	4306
4045	3398
2782	322
4030	223
1192	86
154308	76.2
1186	66
157355	52.8



Model In/Output Analyzer

Intro | SED | Network | TripOD

Click the screen to open the Analyzer

About Analyser

The Analyser is a working product that visualizes model input and output data, such as socioeconomic and demographics (land use), trip OD and highway network attributes. It was developed for interal data QA/QC and sharing interactive maps to clients. The Analyser has two main functions.

First, the Analyser provides at-a-glance views of model input data in maps, tables and charts similar to other visualization tools. These features aim to provide modelers and planners with a better means to navigate model input and output data, ultimately assisting their planning activities e.g., Long-Range Transportation Plan (LRTP) and Transportation Improvment Programs (TIP).

The Analyser can compare model inputs and outputs from different scenarios, which otherwise would require additional post-processing using a combination of transportation demand model software, GIS and data management / processing programs such as Excel, SQL, python, R, etc.

The Analyzer also provides an export button for interactive (html) maps, tables and charts for use in presentations, reports or public meetings.

The second main function of the Analyzer is to review and edit scenario input files, including highway network attributes. It provides features to export .csv/.xlsx files and allows users to edit network attributes online and/or download spreadsheet file from the Analyzer.

This working product can be tailored to users' needs. It only requires some basic setup efforts for the new regions.

Thank you

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