

Version 9.0.0 - Calibration/Validation

WFRC / MAG

Mode Choice

The validation results for the Mode Choice portion of the model are shown in this section. The observed data comes from the Utah Transit Authority 2019 On-Board Survey as well as the 2012 Household Travel Survey.

Mode Choice Constants

The mode choice constants within the model used to estimate mode shares are shown below:

Table 1: Mode Choice Constants

<IPython.core.display.HTML object>

```
// label: fig-mc-consts
// fig-cap: Mode Choice Constants
// echo: false
Inputs.table(transpose(constants))
```

<IPython.core.display.HTML object>

Mode Share

The following figure provides an interactive view to understand the mode share by different modes, periods, and purposes between modeled and observed data.

Figure 1: Mode share between model and observed by mode, period, and purpose.

```
viewof plotSelect = Inputs.select(new Map(['Mode', 'Mode'], ['Motorized / Non-Motorized',
viewof periodSelect = Inputs.select(new Map(['Peak', 'PK'], ['Off-Peak', 'OK'], ['Daily'
```

```

viewof purposeSelect = Inputs.select(new Map(['Home-based Work', 'HBW'], ['Home-based Co

dataLT = transpose(dataLong)
filtered_data = dataLT.filter(function(dataL) {
  return plotSelect == dataL.Title &&
    periodSelect == dataL.Period &&
    purposeSelect == dataL.TripPurpose;
})

import {GroupedBarChart} from "@d3/grouped-bar-chart"
import {Legend, Swatches} from "@d3/color-legend"
import {howto, altplot} from "@d3/example-components"

```

Plot

```

chart = GroupedBarChart(filtered_data, {
  x: d => d.Mode,
  y: d => d.Percent,
  z: d => d.DataSource,
  yDomain: [0,1],
  zDomain: ['Model','Observed'],
  width,
  height: 500,
  colors: ["#376092", "#77933c"]
})
key = Legend(chart.scales.color, {title: "Data Source"})

```

Table

```

//| echo: false
Inputs.table(filtered_data)

```

Boardings