

# The Civic Platform Transportation API

<https://github.com/hackoregon/transportation-systems-docs>

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## Dataset Overview

## passenger-census

- ▶ Ridership data
- ▶ Covers March 2001 through February 2018
- ▶ Lists totals of ons and offs for each stop by service key
  - ▶ Totals over six months
  - ▶ W = weekday
  - ▶ S = Saturday
  - ▶ U = Sunday

## trimet-stop-events

- ▶ Raw data - samples of all vehicle data every five seconds!
- ▶ Large - about 10 gigabytes per month!
- ▶ TriMet gave us five months of data:
  - ▶ September 2017
  - ▶ October 2017
  - ▶ November 2017
  - ▶ April 2018
  - ▶ May 2018
- ▶ Only a subset hosted in the API

## origin-destination

- ▶ Census Bureau data on commuting
- ▶ Covers 2002 through 2015
- ▶ Covers entire Portland - Vancouver metro area
- ▶ Very detailed - only a subset is hosted in the API

## Other datasets in the Transportation Systems API

- ▶ PUDL: locations of traffic sensors for the Portland Urban Data Lake (PUDL)
- ▶ biketown: public data dump from Biketown
- ▶ multnomah-county-permits: permit data from Multnomah county outside city limits
- ▶ odot-crash-data: crashes in Portland from 2004 - 2014
- ▶ safety-hotline: calls / texts / emails to the safety hotline

## Browsing the API

## “Swagger UI”

- ▶ Browse to <http://service.civicpdx.org/transportation-systems/>
- ▶ Scroll down



# Swagger UI home page

<b>PUDL</b>	> 
<b>biketown</b>	>
<b>multnomah-county-permits</b>	>
<b>odot-crash-data</b>	>
<b>origin-destination</b>	>
<b>passenger-census</b>	>
<b>safety-hotline</b>	>
<b>sandbox</b>	>
<b>trimet-stop-events</b>	>

# Click on passenger-census to expand

## passenger-census



GET

/transportation-systems/passenger-census/ This viewset will provide a list of individual Passenger Census counts by TRIMET.

GET

/transportation-systems/passenger-census/census-block/change/ This viewset will provide a list of individual Passenger Census counts by TRIMET.

GET

/transportation-systems/passenger-census/census-block/oregon/polygons/ This viewset will return Geojson for Census Blocks in Portland Metro Area within Oregon

GET

/transportation-systems/passenger-census/census-block/oregon/polygons/{census\_block}/ This viewset will return Geojson for Census Blocks in Portland Metro Area within Oregon

GET

/transportation-systems/passenger-census/census-block/totals/ This viewset will provide a list of individual Passenger Census counts by TRIMET.

GET

/transportation-systems/passenger-census/census-block/washington/polygons/ This viewset will return Geojson for Census Blocks in Portland Metro Area within Washington

GET

/transportation-systems/passenger-census/census-block/washington/polygons/{census\_block}/ This viewset will return Geojson for Census Blocks in Portland Metro Area within Washington

GET

/transportation-systems/passenger-census/census/info/ This viewset will provide a info about the Passenger Census by TRIMET.

GET

/transportation-systems/passenger-census/national/ridership/ This viewset will provide a list of annual national transportation ridership counts based on

Transit Report's report: <http://tram.mcgill.ca/Research/Publications>

# Click on the first GET to expand

### passenger-census



GET

/transportation-systems/passenger-census/ This viewset will provide a list of individual Passenger Census counts by TRIMET.

This viewset will provide a list of individual Passenger Census counts by TRIMET.

#### Parameters

Try it out

Name

Description

limit

integer

(query)

Number of results to return per page.

offset

integer

(query)

The initial index from which to return the results.

#### Responses

Response content type

application/json



Code

Description

Click on Try it out and enter 1 for limit

### passenger-census



**GET** `/transportation-systems/passenger-census/` This viewset will provide a list of individual Passenger Census counts by TRIMET.

This viewset will provide a list of individual Passenger Census counts by TRIMET.

**Parameters** Cancel

Name	Description
limit integer (query)	Number of results to return per page. <input type="text" value="10"/>
offset integer (query)	The initial index from which to return the results. <input type="text" value="offset - The initial index from which to r"/>

Execute

**Responses** Response content type application/json

Click on Execute and scroll down to response body

```
{
  "count": 781116,
  "next": "http://service.civictpx.org/transportation-systems/passenger-census/?limit=10&offset=10",
  "previous": null,
  "results": {
    "type": "FeatureCollection",
    "features": [
      {
        "id": 499600,
        "type": "Feature",
        "geometry": {
          "type": "Point",
          "coordinates": [
            -122.53780401445013,
            45.509916142766684
          ]
        },
        "properties": {
          "summary_begin_date": "2002-03-03",
          "route_number": 71,
          "direction": 1,
          "service_key": "U",
          "stop_seq": 6675,
          "location_id": 9496,
          "location_name": "U.S. Bank Tower"
        }
      }
    ]
  }
}
```

Download

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Click on Download and save as response.txt

## Passenger Census Data

## GIS

```
{  
  "id": 499600,  
  "type": "Feature",  
  "geometry": {  
    "type": "Point",  
    "coordinates": [  
      -122.53780401445013,  
      45.509916142766684  
    ]  
  },  
}
```



## Properties

```
"properties": {  
  "summary_begin_date": "2002-03-03",  
  "route_number": 71,  
  "direction": 1,  
  "service_key": "U",  
  "stop_seq": 6675,  
  "location_id": 9496,  
  "public_location_description": "SE 122nd & Mill",  
  "ons": 2,  
  "offs": 4,  
  "x_coord": 7679750.6398098,  
  "y_coord": 678590.38676998,  
  "census_block": "410510082023001"  
}
```

## TriMet Stop Events Data

TBD

## Origin-Destination Data

## Source

- ▶ Census Bureau Longitudinal Employer-Household Dynamics (LEHD)
  - ▶ <https://lehd.ces.census.gov>
- ▶ LEHD Origin-Destination Employment Statistics (LODES)
  - ▶ <https://lehd.ces.census.gov/data/#lodes>
- ▶ LODES 7.3 Technical Documentation
  - ▶ <https://lehd.ces.census.gov/data/lodes/LODES7/LODESTechDoc7.3.pdf>

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More TBD