The Civic Platform Transportation API

M. Edward (Ed) Borasky

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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

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

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 transporation ridership counts based on Transit Report's report: http://tram.mcgill.ca/Research/Publications |

Click on the first GET to expand

Click on Try it out and enter 1 for limit

Click on Execute and scroll down to `response body`

```
{
  "count": 781116,
  "next": "http://service.civicpdx.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,
```

Download

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

More TBD