

TS2.1 HELP

Let's walk through a few examples:

1. Open the TS2.1 file by clicking first on [2019 Time-Series](#)
2. On this page there is a link, Time-Series, click that.
3. It will show a zip file at the base of your monitor screen, click that.
4. It will display a Time-Series folder, open that.
5. Next there is a list of files, for now click "TS2.1 Service Data and Operating Expenses Time Series by Mode.xlsx."
6. You should now be looking at the file.

Click "Enable editing."

Next, turn to the bottom line of the spreadsheet and check the Data Dictionary to check the meanings of all the acronyms on the line, for example UPT means boardings, or in FTA jargon, Unlinked Passenger Trips.

Read Me - Data Dictionary	OpExp Total	OpExp VO	OpExp VM	OpExp NVM	OpExp GA	FARES	DRM	VRM	VRH	PMT	UPT	VOMS
---	-------------	----------	----------	-----------	----------	-------	-----	-----	-----	-----	-----	------

The following are the columns A through S of the spreadsheet. To the right of this is all the rest of the years reported starting 1991-2019, or later, for most categories, but 2002 for FARES.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	Last Report Year	NTD ID	Legacv NTD	Agency Name	Agency Statu	Reporter Typ	Reporting Module	City	Sta	Census Year	UZA Name	U:	UZA Area SQ Mil	UZA Population	2019 Statu	Mode	Servi ce	Mode Statu	1991
447	2019	10003	1003	Massachusetts Bay Transportation Aut	Active	Full Reporter	Urban	Boston	MA	2010	Boston, MA-NH-RI	10	1,873	4,181,019	Existing 2019	HR	DO	Operating	22,621,500
755	2019	20008	2008	MTA New York City Transit (NYCT)	Active	Full Reporter	Urban	New York	NY	2010	New York-Newark, NY-NJ-	1	3,450	18,351,295	Existing 2019	HR	DO	Operating	294,032,000
779	2019	20075	2075	Port Authority Transit Corporation (PAT	Active	Full Reporter	Urban	Lindenwold	NJ	2010	Philadelphia, PA-NJ-DE-MI-	5	1,981	5,441,567	Existing 2019	HR	DO	Operating	4,206,580
814	2019	20098	2098	Port Authority Trans-Hudson Corporatic	Active	Full Reporter	Urban	Jersey City	NJ	2010	New York-Newark, NY-NJ-	1	3,450	18,351,295	Existing 2019	HR	DO	Operating	12,797,500
816	2019	20099	2099	Staten Island Rapid Transit Operating	Active	Full Reporter	Urban	Staten Island	NY	2010	New York-Newark, NY-NJ-	1	3,450	18,351,295	Existing 2019	HR	DO	Operating	
1128	2019	30019	3019	Southeastern Pennsylvania Transporta	Active	Full Reporter	Urban	Philadelphia	PA	2010	Philadelphia, PA-NJ-DE-MI	5	1,981	5,441,567	Existing 2019	HR	DO	Operating	15,296,000
1164	2019	30030	3030	Washington Metropolitan Area Transi	Active	Full Reporter	Urban	Washington	DC	2010	Washington, DC-VA-MD	8	1,322	4,586,770	Existing 2019	HR	DO	Operating	36,035,600
1176	2019	30034	3034	Maryland Transit Administration (MTA)	Active	Full Reporter	Urban	Baltimore	MD	2010	Baltimore, MD	19	717	2,203,663	Existing 2019	HR	DO	Operating	3,376,600
1526	2019	40022	4022	Metropolitan Atlanta Rapid Transit Auth	Active	Full Reporter	Urban	Atlanta	GA	2010	Atlanta, GA	9	2,645	4,515,419	Existing 2019	HR	DO	Operating	15,633,400
1582	2019	40034	4034	County of Miami-Dade (MDT)	Active	Full Reporter	Urban	Miami	FL	2010	Miami, FL	4	1,239	5,502,379	Existing 2019	HR	DO	Operating	5,452,230
1741	2019	40094	4094	Alternativa de Transporte Integrado -AT	Active	Full Reporter	Urban	San Juan	PR	2010	San Juan, PR	21	867	2,148,346	Existing 2019	HR	PT	Operating	
2518	2019	50015	5015	The Greater Cleveland Regional Transi	Active	Full Reporter	Urban	Cleveland	OH	2010	Cleveland, OH	25	772	1,780,673	Existing 2019	HR	DO	Operating	2,009,990
2672	2019	50066	5066	Chicago Transit Authority (CTA)	Active	Full Reporter	Urban	Chicago	IL	2010	Chicago, IL-IN	3	2,443	8,608,208	Existing 2019	HR	DO	Operating	57,598,100
4712	2019	90003	9003	San Francisco Bay Area Rapid Transit	Active	Full Reporter	Urban	Oakland	CA	2010	San Francisco-Oakland, C	13	524	3,281,212	Existing 2019	HR	DO	Operating	39,193,000
4995	2019	90154	9154	Los Angeles County Metropolitan Trans	Active	Full Reporter	Urban	Los Angeles	CA	2010	Los Angeles-Long Beach-	2	1,736	12,150,996	Existing 2019	HR	DO	Operating	
5994																			508,252,500

Let's start with an easy one and check the total 1991 boardings of all Heavy Rail systems that are currently in operation. First in the Mode column, click the filter, deselect "Select all" and select HR for Heavy Rail. Then in the "Mode Status" column, deselect "Select all" and select "Operating." That leaves us with 15 heavy rail lines as shown above even though 3 of them had no ridership as of 1991. Note the filter icons for Mode and Mode Status now have a funnel icon in place of the down arrow.

To count the total boardings on these heavy rail lines for 1991 note the spreadsheet row numbers of the first line (447) and the last line of those selected, (4995) . Then in a cell that is in the row below the last line of data (5994) and in the column for 1991, which is column S, select

the cell (S5994) and enter, =SUBTOTAL(9,S447:S4995) This will give you the total of the data you selected. Now you can copy the formula in S5994 across the subsequent years to 2019, or column AU. The can provide an excellent chart to see what happened to riders over the years.

SUBTOTAL in these types of excel files skips counting the hidden rows. Substitute 1 for the 9 in the formula and it returns the average of the selection. Substitute 2 and it will count the number of rows selected.

Useful formulas:

Vehicle Revenue Miles (VRM) divided by Vehicle Revenue Hours (VRH) = Average Miles per hour (MPH).

Total operating expenses (OpExp Total) divided by boardings, or Unlinked Passenger Trips (UPT) = Operating cost per boarding.

Total operating expenses (OpExp Total) divided by Passenger Miles Traveled (PMT) = Operating cost per mile.

Total operating expenses (OpExp Total) divided by Vehicle Revenue Hours (VRH) = cost per vehicle revenue hour.

Total operating expenses (OpExp Total) divided by Vehicle Revenue Miles (VRM) = cost per vehicle mile.

And so on. That should get you started.