

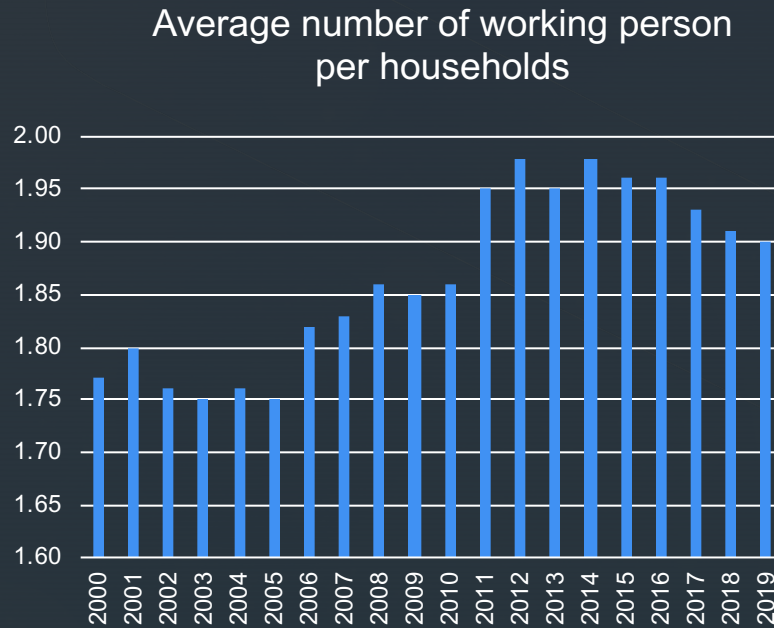
Finding best location to live in for working parents
with young children



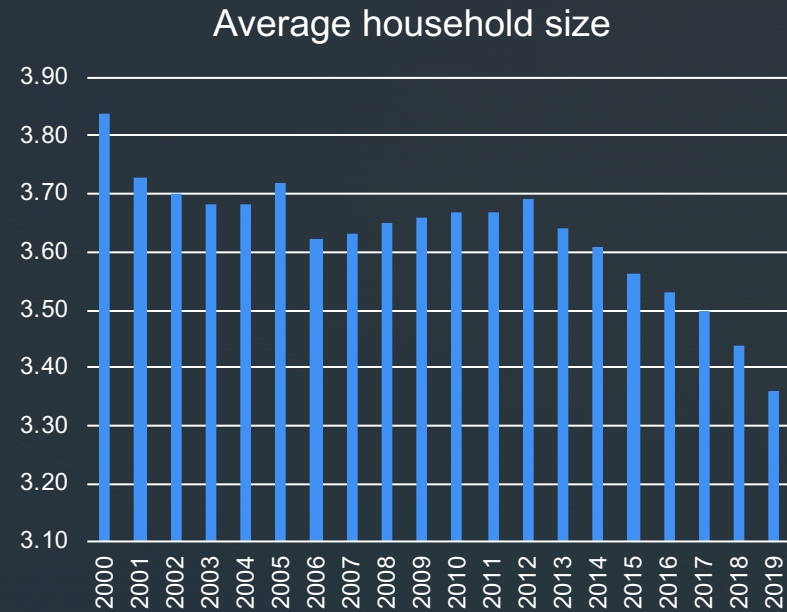
Singapore Neighborhoods

Singapore Household Characteristics

Majority of Singapore households have > 1 person working

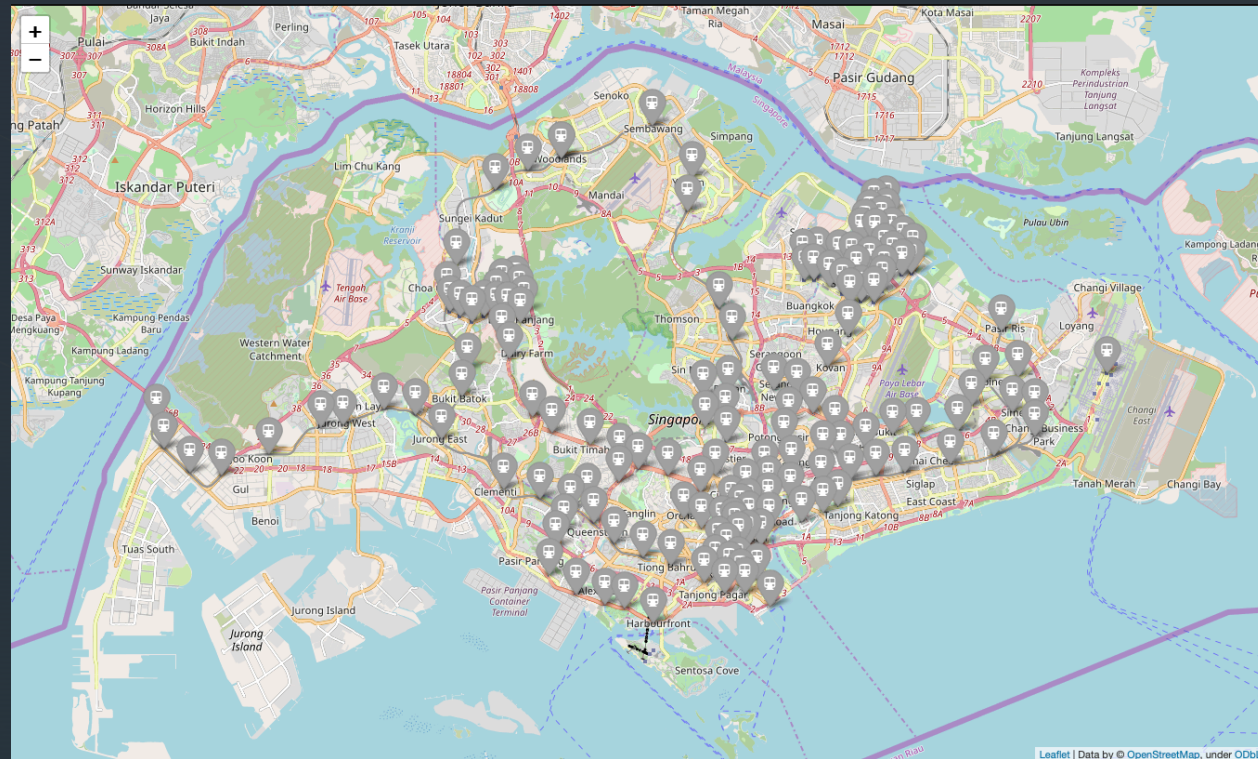


While majority of households have 1 or more children, inferring from the average household size



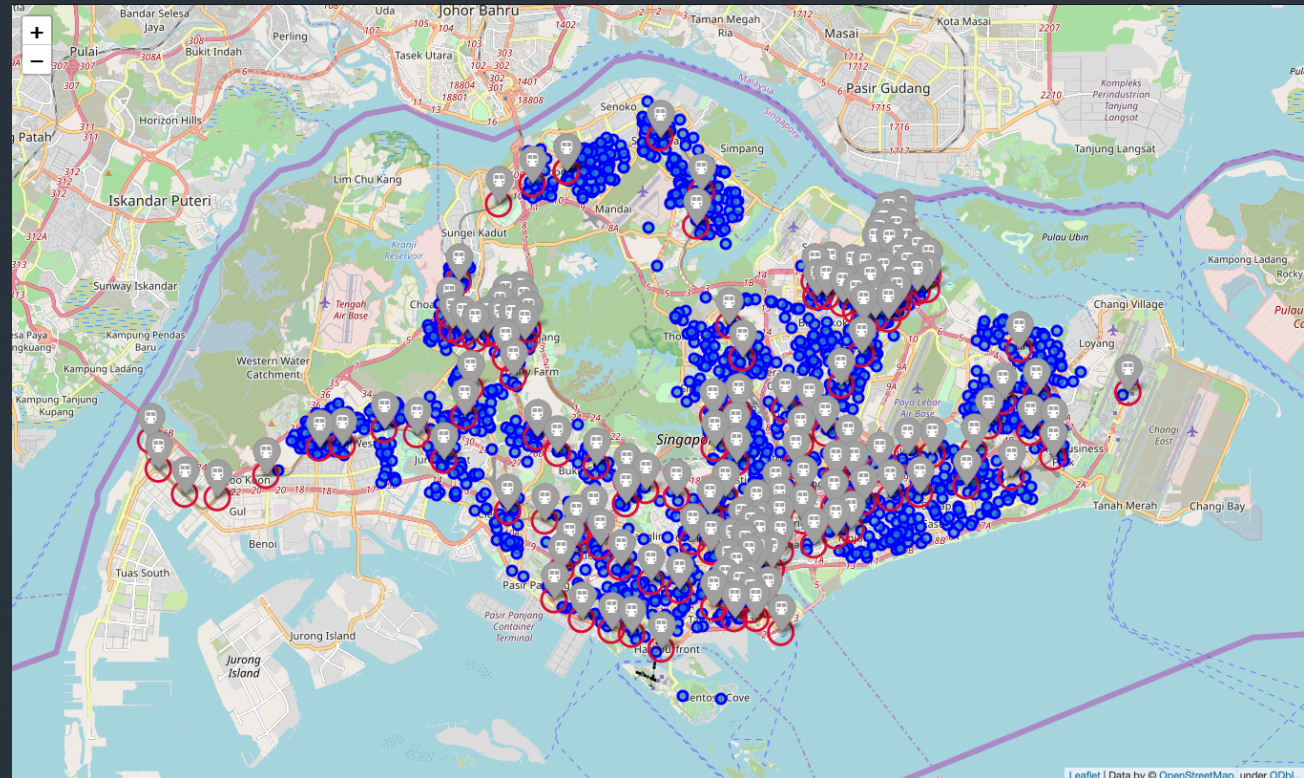
MRT Stations Serves As A Hub For Neighborhoods

- Singapore have very efficient public transports
- But car prices are extremely high, as much as 6-7x higher compared to the USA
- Majority of population rely on MRT and Busses for daily commute
- Living nearby MRT stations is the most convenient option
- First let's plot all MRT stations to see all our option



Where Are The Childcare Services?

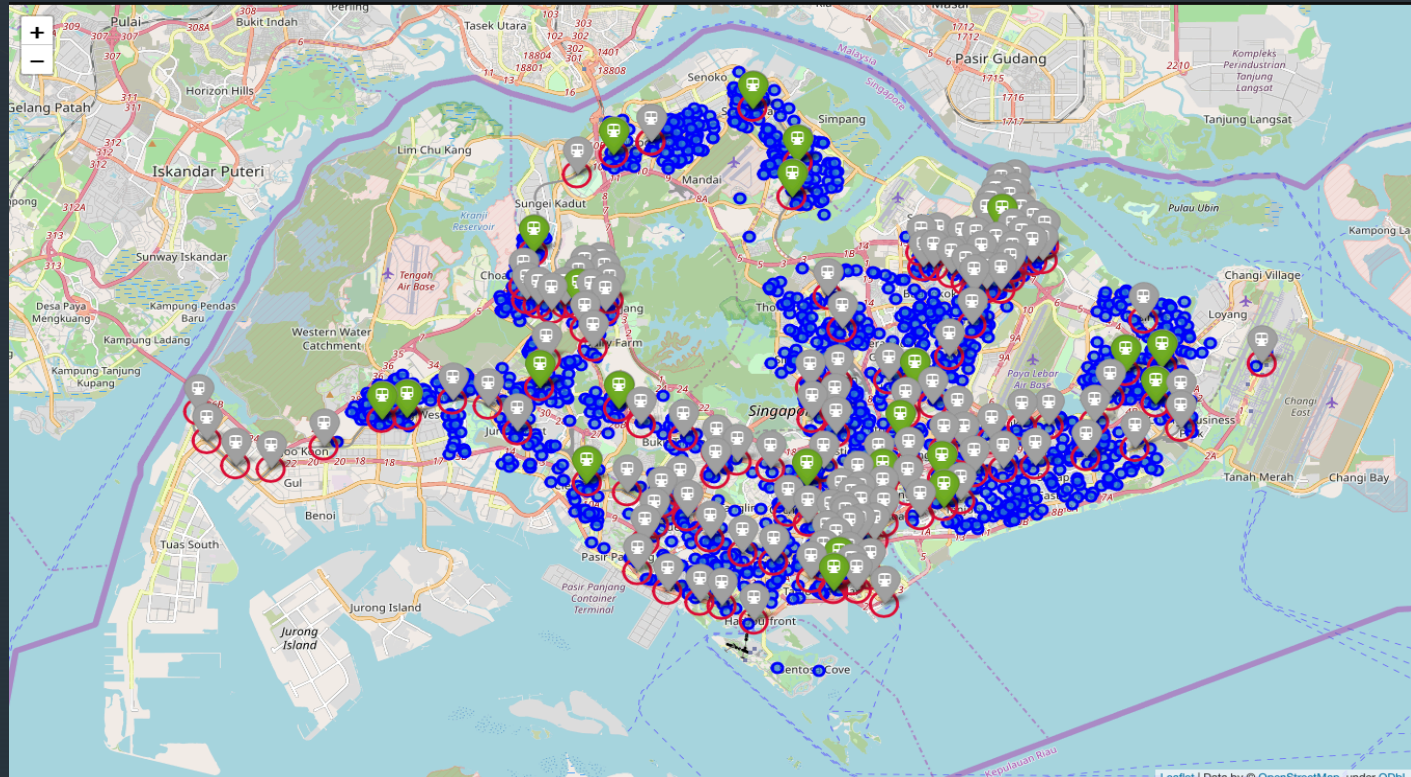
- Working parents with young children often rely on childcare services on weekdays
- But finding information of nearby centers is not easy
- Let's plot all available centers next to see its location.
- Let's also plot radius circle to see which one are convenient located near MRT stations



Which MRT Have The Most Number Of Centers Nearby

The MRT stations in green have > 9 stations within 500m radius

- I calculate the distance between all MRT stations to all childcare centers
- On average there are 6 centers within 500m radius from an MRT station
- Because slots are often hard to get, we filter for MRT stations with at least 9 childcare centers nearby (top quartile) to maximize our chance



Filtering For The Best Location

- We are still left with 23 locations to choose from after filtering for childcare centers
- To narrow our option further I filter for locations with available important amenities nearby using Foursquare Explorer
- Then I cluster the neighborhoods using Kmeans clustering to find out neighborhoods with similar characteristics

	MRT	Cluster Labels	Grocery / Market	Gym / Fitness Center	Park / Outdoor Activities	Restaurant	Childcare
0	Aljunied	0	1	2	0	33	9
1	Beauty World	0	2	0	0	40	10
2	Bendemeer	1	1	0	0	11	9
3	Boon Lay	0	1	1	4	36	9
4	Bukit Batok	1	1	0	3	6	11
5	Bukit Panjang	0	1	2	0	26	10
6	Clementi	0	3	2	0	29	9
7	Khatib	1	4	0	1	5	9
8	Marsiling	1	2	0	1	6	9
9	Mountbatten	0	2	6	1	31	12
10	Newton	1	1	2	0	18	11
11	Pioneer	1	1	1	4	1	14
12	Potong Pasir	1	1	0	1	11	9
13	Punggol	0	2	1	2	20	10
14	Sembawang	1	1	0	0	6	11
15	Serangoon	1	1	0	2	16	10
16	Simei	1	0	1	0	11	9
17	Tampines	0	2	5	5	37	14
18	Tampines East	1	0	0	0	2	9
19	Tanjong Pagar	2	0	4	2	48	10
20	Telok Ayer	2	0	7	2	44	12
21	Yew Tee	1	0	0	1	4	11
22	Yishun	0	3	0	1	24	9

Our Final Set Of Neighborhood

- We have arrived at our final set of neighborhoods that meet most of our criteria (marked in red)
- Further analysis shows that there are 4 MRT stations that meet all our criteria.
- Hopefully this makes our decision making easier!

