

BeautifySJ Requests Demographic Descriptors Analysis

Michael Spencer, Barbara Cardona, Guillermo Camarillo, Jorge Nam Song

2/26/2020

Summary Tables & Charts

A tibble: 3 x 3

##	incident_source	n	percent_of_total
##	<chr>	<int>	<dbl>
## 1	Mobile	69529	0.520
## 2	Web	50098	0.375
## 3	Agent desktop	14056	0.105

A tibble: 6 x 3

##	service_requested	n	percent_of_total
##	<chr>	<int>	<dbl>
## 1	Abandoned Vehicle	70781	0.530
## 2	Illegal Dumping	20216	0.151
## 3	General Request	18162	0.136
## 4	Graffiti	12334	0.0923
## 5	Streetlight Outage	8585	0.0642
## 6	Pothole	3605	0.027

A tibble: 18 x 5

##	incident_source	service_request~	n	percent_of_sour~	percent_of_total
##	<chr>	<chr>	<int>	<dbl>	<dbl>
## 1	Agent desktop	General Request	6756	0.481	0.0505
## 2	Agent desktop	Abandoned Vehic~	5548	0.395	0.0415
## 3	Agent desktop	Illegal Dumping	1246	0.0886	0.00930
## 4	Agent desktop	Streetlight Out~	379	0.027	0.0028
## 5	Agent desktop	Pothole	76	0.0054	0.000600
## 6	Agent desktop	Graffiti	51	0.0036	0.0004
## 7	Mobile	Abandoned Vehic~	29661	0.427	0.222
## 8	Mobile	Illegal Dumping	16062	0.231	0.120
## 9	Mobile	Graffiti	11253	0.162	0.0842
## 10	Mobile	General Request	7505	0.108	0.0561
## 11	Mobile	Streetlight Out~	3131	0.045	0.0234
## 12	Mobile	Pothole	1917	0.0276	0.0143
## 13	Web	Abandoned Vehic~	35572	0.71	0.266
## 14	Web	Streetlight Out~	5075	0.101	0.038
## 15	Web	General Request	3901	0.0779	0.0292
## 16	Web	Illegal Dumping	2908	0.058	0.0218
## 17	Web	Pothole	1612	0.0322	0.0121
## 18	Web	Graffiti	1030	0.0206	0.0077

A tibble: 7 x 3

##	request_creation_weekday	n	percent_of_total
##	<ord>	<int>	<dbl>
## 1	Mon	23756	0.178
## 2	Tue	22344	0.167

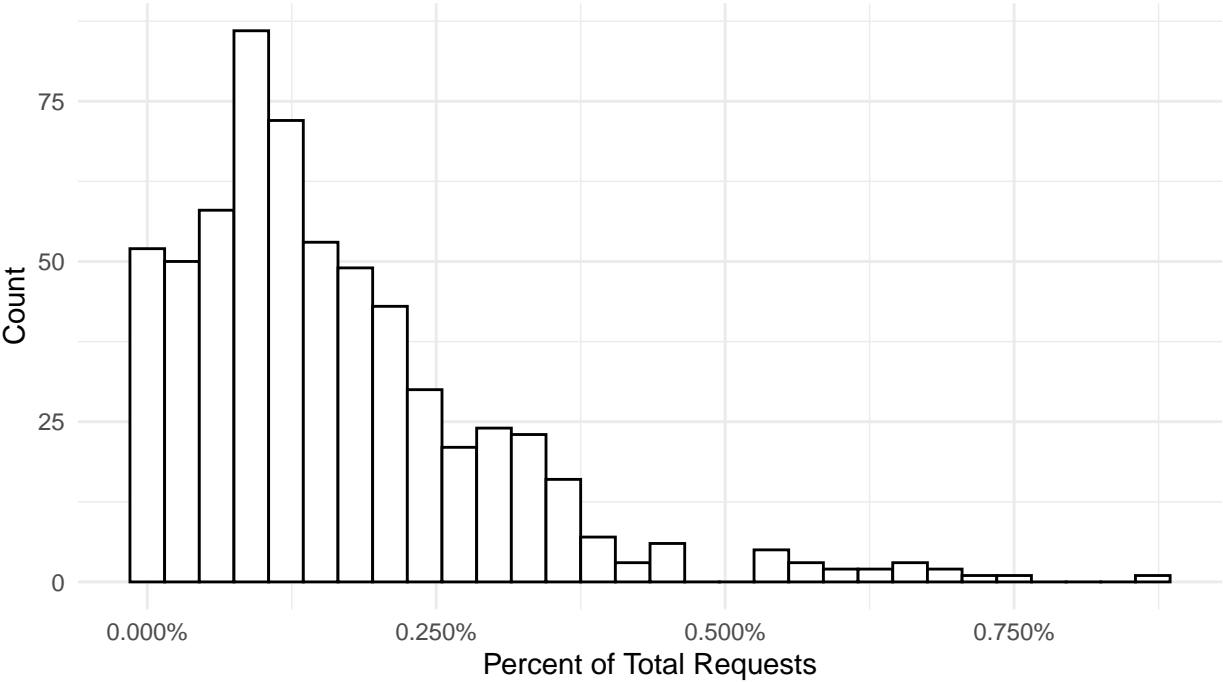
## 3	Wed	22159	0.166
## 4	Thu	21436	0.160
## 5	Fri	19199	0.144
## 6	Sun	12804	0.0958
## 7	Sat	11985	0.0897

```
## # A tibble: 10 x 3
##   san_jose_council_district    n percent_of_total
##   <chr>                <int>         <dbl>
## 1 3                    24718         0.185
## 2 7                    17931         0.134
## 3 6                    14245         0.107
## 4 5                    13797         0.103
## 5 8                    12822         0.0959
## 6 2                    12592         0.0942
## 7 4                    10842         0.0811
## 8 1                     9920         0.0742
## 9 10                    8927         0.0668
## 10 9                    7889         0.059
```

```
## # A tibble: 10 x 3
##   census_block_id    n percent_of_total
##   <chr>          <int>         <dbl>
## 1 060855031151    1165         0.0087
## 2 060855003001    1015         0.0076
## 3 060855031051     971         0.0073
## 4 060855022011     917         0.0069
## 5 060855014021     909         0.0068
## 6 060855031221     891         0.0067
## 7 060855050062     873         0.0065
## 8 060855031121     871         0.0065
## 9 060855043181     845         0.0063
## 10 060855031211    823         0.0062
```

Distribution of Requests Across Census Block Groups

The distribution is right skewed, indicating that a handful of block groups recieve a larger amount of requests than most others.



Source: City of San Jose

Demographic Descriptors By Channel and Request Type

All Requests

All MySanJose Platforms

var	20%-40%	40%-60%	60%-80%	80%-100%
total_census_blocks	1.0000	9.0000	53.000	497.0000
linguistic_isolation_(percent_households)	0.0528	0.0344	0.096	0.0852
cellular_data_subscription_(percent_of_pop)	0.5331	0.7052	0.580	0.5849
broadband_subscription_(percent_of_pop)	0.9085	0.9526	0.925	0.8832
bg_pop_percent_white	0.4808	0.2064	0.114	0.2642
bg_pop_percent_hispanic	0.1165	0.1178	0.190	0.2702
bg_pop_percent_asian	0.3511	0.6152	0.554	0.2428
bg_percent_prop_households_renter_occ	0.0063	0.1525	0.229	0.3473
bg_percent_prop_households_owner_occ	0.9937	0.8475	0.771	0.6527
bg_med_income	128667.0000	155982.0000	117625.000	104028.0000
bg_med_age	53.0000	38.9000	39.300	37.4000
bg_ed_percent_college_educated	0.7080	0.6472	0.549	0.5055

MySanJose Mobile App

var	0%-20%	20%-40%	40%-60%	60%-80%	80%-100%
total_census_blocks	6.0000	121.000	237.000	130.000	12.000
linguistic_isolation_(percent_households)	0.0428	0.068	0.102	0.159	0.128
cellular_data_subscription_(percent_of_pop)	0.6320	0.603	0.580	0.554	0.585
broadband_subscription_(percent_of_pop)	0.9597	0.922	0.888	0.849	0.815
bg_pop_percent_white	0.3210	0.338	0.224	0.139	0.296
bg_pop_percent_hispanic	0.1573	0.175	0.275	0.463	0.380
bg_pop_percent_asian	0.4991	0.311	0.249	0.238	0.269
bg_percent_prop_households_renter_occ	0.2208	0.222	0.328	0.530	0.811
bg_percent_prop_households_owner_occ	0.7792	0.778	0.672	0.470	0.189
bg_med_income	176526.0000	125625.000	103365.000	78791.500	56017.500
bg_med_age	42.9500	40.100	37.300	35.150	31.300
bg_ed_percent_college_educated	0.6904	0.560	0.501	0.343	0.398

MySanJose Web Platform

var	0%-20%	20%-40%	40%-60%	60%-80%	80%-100%
total_census_blocks	35.0000	225.000	213.0000	47.0000	3.000
linguistic_isolation_(percent_households)	0.2155	0.120	0.0667	0.0471	0.106
cellular_data_subscription_(percent_of_pop)	0.5345	0.575	0.5978	0.6215	0.574
broadband_subscription_(percent_of_pop)	0.8116	0.876	0.9154	0.9278	0.921
bg_pop_percent_white	0.0955	0.178	0.3687	0.3346	0.131
bg_pop_percent_hispanic	0.5770	0.322	0.2132	0.1283	0.167
bg_pop_percent_asian	0.2062	0.277	0.2640	0.2401	0.688
bg_percent_prop_households_renter_occ	0.7035	0.353	0.2615	0.2699	0.271
bg_percent_prop_households_owner_occ	0.2965	0.647	0.7385	0.7301	0.729
bg_med_income	58409.0000	97841.000	117206.0000	126786.0000	115250.000
bg_med_age	31.5000	36.900	39.1000	41.5000	36.100
bg_ed_percent_college_educated	0.3010	0.452	0.5433	0.6517	0.452

Abandoned Vehicle

All MySanJose Platforms

var	60%-80%	80%-100%
total_census_blocks	16.000	490.0000
linguistic_isolation_(percent_households)	0.107	0.0952
cellular_data_subscription_(percent_of_pop)	0.603	0.5795
broadband_subscription_(percent_of_pop)	0.910	0.8832
bg_pop_percent_white	0.203	0.2174
bg_pop_percent_hispanic	0.171	0.2744
bg_pop_percent_asian	0.390	0.2591
bg_percent_prop_households_renter_occ	0.285	0.3406
bg_percent_prop_households_owner_occ	0.715	0.6594
bg_med_income	122427.500	103999.5000
bg_med_age	39.850	37.4000
bg_ed_percent_college_educated	0.622	0.4933

MySanJose Mobile App

var	0%-20%	20%-40%	40%-60%	60%-80%	80%-100%
total_census_blocks	12.0000	158.0000	150.000	52.000	4.0000
linguistic_isolation_(percent_households)	0.0794	0.0933	0.140	0.159	0.2666
cellular_data_subscription_(percent_of_pop)	0.6130	0.5795	0.580	0.554	0.5166
broadband_subscription_(percent_of_pop)	0.9251	0.8951	0.874	0.848	0.8003
bg_pop_percent_white	0.1896	0.1897	0.153	0.113	0.0565
bg_pop_percent_hispanic	0.1968	0.2804	0.362	0.479	0.6162
bg_pop_percent_asian	0.3646	0.2803	0.241	0.240	0.2961
bg_percent_prop_households_renter_occ	0.4308	0.3191	0.374	0.518	0.6966
bg_percent_prop_households_owner_occ	0.5692	0.6809	0.626	0.482	0.3034
bg_med_income	126976.5000	106175.5000	89819.000	77943.500	59600.5000
bg_med_age	39.6500	36.4500	36.350	34.800	35.9500
bg_ed_percent_college_educated	0.5403	0.4865	0.406	0.320	0.2325

MySanJose Web Platform

var	0%-20%	20%-40%	40%-60%	60%-80%	80%-100%
total_census_blocks	2.0000	80.0000	230.0000	110.0000	19.0000
linguistic_isolation_(percent_households)	0.2666	0.2080	0.0973	0.0604	0.0489
cellular_data_subscription_(percent_of_pop)	0.5166	0.5529	0.5828	0.5959	0.5968
broadband_subscription_(percent_of_pop)	0.8003	0.8506	0.8873	0.9154	0.9194
bg_pop_percent_white	0.0436	0.0999	0.2067	0.3335	0.2656
bg_pop_percent_hispanic	0.6771	0.4483	0.2851	0.1963	0.1658
bg_pop_percent_asian	0.2143	0.2682	0.2586	0.2629	0.4231
bg_percent_prop_households_renter_occ	0.6966	0.4141	0.3330	0.3220	0.2708
bg_percent_prop_households_owner_occ	0.3034	0.5859	0.6670	0.6780	0.7292
bg_med_income	59600.5000	84583.5000	105183.0000	110682.5000	132417.0000
bg_med_age	31.7000	35.8500	37.2500	38.6500	41.6000
bg_ed_percent_college_educated	0.2154	0.3206	0.4872	0.5352	0.5930

Illegal Dumping

All MySanJose Platforms

var	60%-80%	80%-100%
total_census_blocks	4.0000	271.000
linguistic_isolation_(percent_households)	0.1911	0.146
cellular_data_subscription_(percent_of_pop)	0.5686	0.562
broadband_subscription_(percent_of_pop)	0.8872	0.865
bg_pop_percent_white	0.0702	0.139
bg_pop_percent_hispanic	0.4805	0.371
bg_pop_percent_asian	0.3477	0.294
bg_percent_prop_households_renter_occ	0.4004	0.442
bg_percent_prop_households_owner_occ	0.5996	0.558
bg_med_income	84081.5000	87589.000
bg_med_age	36.6500	35.750
bg_ed_percent_college_educated	0.2679	0.393

MySanJose Mobile App

var	20%-40%	40%-60%	60%-80%	80%-100%
total_census_blocks	2.0000	6.000	78.000	151.000
linguistic_isolation_(percent_households)	0.2024	0.135	0.151	0.150
cellular_data_subscription_(percent_of_pop)	0.6112	0.542	0.563	0.556
broadband_subscription_(percent_of_pop)	0.8690	0.911	0.875	0.848
bg_pop_percent_white	0.0617	0.139	0.119	0.140
bg_pop_percent_hispanic	0.4737	0.380	0.306	0.428
bg_pop_percent_asian	0.4154	0.447	0.341	0.266
bg_percent_prop_households_renter_occ	0.4014	0.220	0.371	0.516
bg_percent_prop_households_owner_occ	0.5986	0.780	0.629	0.484
bg_med_income	68665.0000	104522.000	92927.500	80729.000
bg_med_age	38.6500	38.300	36.200	35.200
bg_ed_percent_college_educated	0.3102	0.412	0.407	0.366

MySanJose Web Platform

var	0%-20%	20%-40%	40%-60%	60%-80%
total_census_blocks	5.000	9.000	3.000	2.0000
linguistic_isolation_(percent_households)	0.220	0.084	0.165	0.2721
cellular_data_subscription_(percent_of_pop)	0.563	0.642	0.645	0.5588
broadband_subscription_(percent_of_pop)	0.933	0.894	0.948	0.8489
bg_pop_percent_white	0.102	0.193	0.168	0.0368
bg_pop_percent_hispanic	0.226	0.396	0.328	0.4847
bg_pop_percent_asian	0.609	0.353	0.522	0.4474
bg_percent_prop_households_renter_occ	0.401	0.376	0.266	0.4799
bg_percent_prop_households_owner_occ	0.599	0.624	0.734	0.5201
bg_med_income	99091.000	93611.000	86406.000	66712.0000
bg_med_age	39.300	33.900	41.100	36.9000
bg_ed_percent_college_educated	0.396	0.371	0.379	0.3148

General Requests

All MySanJose Platforms

var	0%-20%	20%-40%	40%-60%	60%-80%	80%-100%
total_census_blocks	2.0000	17.0000	8.000	57.000	104.000
linguistic_isolation_(percent_households)	0.0221	0.1029	0.132	0.140	0.140
cellular_data_subscription_(percent_of_pop)	0.7466	0.5321	0.598	0.563	0.596
broadband_subscription_(percent_of_pop)	0.9510	0.9150	0.900	0.865	0.861
bg_pop_percent_white	0.1879	0.0585	0.130	0.210	0.214
bg_pop_percent_hispanic	0.0762	0.2581	0.230	0.385	0.361
bg_pop_percent_asian	0.6431	0.6204	0.503	0.227	0.247
bg_percent_prop_households_renter_occ	0.0774	0.2700	0.335	0.369	0.544
bg_percent_prop_households_owner_occ	0.9226	0.7300	0.665	0.631	0.456
bg_med_income	199562.5000	105053.0000	115267.000	93438.000	85662.000
bg_med_age	38.8000	38.5000	35.450	36.000	35.850
bg_ed_percent_college_educated	0.7387	0.4023	0.523	0.393	0.424

MySanJose Mobile App

var	0%-20%	20%-40%	40%-60%	60%-80%	80%-100%
total_census_blocks	4.0000	5.000	38.000	46.000	7.000
linguistic_isolation_(percent_households)	0.1570	0.209	0.197	0.140	0.106
cellular_data_subscription_(percent_of_pop)	0.5413	0.493	0.577	0.584	0.627
broadband_subscription_(percent_of_pop)	0.9216	0.867	0.871	0.847	0.871
bg_pop_percent_white	0.0578	0.064	0.118	0.248	0.117
bg_pop_percent_hispanic	0.4067	0.251	0.481	0.326	0.466
bg_pop_percent_asian	0.4871	0.452	0.238	0.250	0.270
bg_percent_prop_households_renter_occ	0.2574	0.328	0.372	0.596	0.760
bg_percent_prop_households_owner_occ	0.7426	0.672	0.628	0.404	0.240
bg_med_income	103631.0000	102308.000	85564.000	89432.000	58409.000
bg_med_age	36.4000	34.900	37.150	35.800	31.300
bg_ed_percent_college_educated	0.3882	0.426	0.355	0.482	0.365

MySanJose Web Platform

var	0%-20%	20%-40%	40%-60%	60%-80%	80%-100%
total_census_blocks	5.0000	11.0000	4.0000	5.000	2.000
linguistic_isolation_(percent_households)	0.2006	0.0952	0.0507	0.209	0.226
cellular_data_subscription_(percent_of_pop)	0.5797	0.6320	0.6841	0.642	0.603
broadband_subscription_(percent_of_pop)	0.8938	0.8786	0.8973	0.869	0.752
bg_pop_percent_white	0.0574	0.2923	0.2290	0.064	0.180
bg_pop_percent_hispanic	0.3978	0.2377	0.3582	0.411	0.382
bg_pop_percent_asian	0.5072	0.3530	0.1647	0.429	0.356
bg_percent_prop_households_renter_occ	0.2700	0.5877	0.4059	0.623	0.567
bg_percent_prop_households_owner_occ	0.7300	0.4123	0.5941	0.377	0.433
bg_med_income	102308.0000	104824.0000	76927.0000	78594.000	53941.000
bg_med_age	36.9000	36.7000	41.0000	33.500	31.450
bg_ed_percent_college_educated	0.4023	0.5473	0.2809	0.211	0.279

Graffiti

All MySanJose Platforms

var	80%-100%
total_census_blocks	176.000
linguistic_isolation_(percent_households)	0.143
cellular_data_subscription_(percent_of_pop)	0.575
broadband_subscription_(percent_of_pop)	0.861
bg_pop_percent_white	0.179
bg_pop_percent_hispanic	0.372
bg_pop_percent_asian	0.261
bg_percent_prop_households_renter_occ	0.478
bg_percent_prop_households_owner_occ	0.522
bg_med_income	83396.000
bg_med_age	35.800
bg_ed_percent_college_educated	0.394

MySanJose Mobile App

var	40%-60%	60%-80%	80%-100%
total_census_blocks	1.0000	7.000	150.000
linguistic_isolation_(percent_households)	0.2398	0.208	0.140
cellular_data_subscription_(percent_of_pop)	0.5520	0.511	0.575
broadband_subscription_(percent_of_pop)	0.7895	0.872	0.862
bg_pop_percent_white	0.0505	0.145	0.196
bg_pop_percent_hispanic	0.6191	0.316	0.349
bg_pop_percent_asian	0.3085	0.311	0.247
bg_percent_prop_households_renter_occ	0.5838	0.469	0.486
bg_percent_prop_households_owner_occ	0.4162	0.531	0.514
bg_med_income	50924.0000	80679.000	86190.500
bg_med_age	36.2000	36.000	35.800
bg_ed_percent_college_educated	0.2859	0.352	0.414

MySanJose Web Platform

var	0%-20%	40%-60%	60%-80%
total_census_blocks	3.0000	1.0000	2.0000
linguistic_isolation_(percent_households)	0.0645	0.2398	0.2797
cellular_data_subscription_(percent_of_pop)	0.7154	0.5520	0.6937
broadband_subscription_(percent_of_pop)	0.8786	0.7895	0.8531
bg_pop_percent_white	0.4589	0.0505	0.0499
bg_pop_percent_hispanic	0.1629	0.6191	0.5636
bg_pop_percent_asian	0.2807	0.3085	0.3230
bg_percent_prop_households_renter_occ	0.7033	0.5838	0.6477
bg_percent_prop_households_owner_occ	0.2967	0.4162	0.3523
bg_med_income	122986.0000	50924.0000	51897.0000
bg_med_age	35.6000	36.2000	33.6500
bg_ed_percent_college_educated	0.7667	0.2859	0.2910

Streetlight Outage

All MySanJose Platforms

var	80%-100%
total_census_blocks	154.0000
linguistic_isolation_(percent_households)	0.0522
cellular_data_subscription_(percent_of_pop)	0.6209
broadband_subscription_(percent_of_pop)	0.9233
bg_pop_percent_white	0.3880
bg_pop_percent_hispanic	0.1416
bg_pop_percent_asian	0.3111
bg_percent_prop_households_renter_occ	0.2321
bg_percent_prop_households_owner_occ	0.7679
bg_med_income	131695.0000
bg_med_age	40.1000
bg_ed_percent_college_educated	0.6516

MySanJose Mobile App

var	20%-40%	40%-60%	60%-80%	80%-100%
total_census_blocks	2.0000	9.0000	6.000	2.000
linguistic_isolation_(percent_households)	0.0633	0.0471	0.118	0.156
cellular_data_subscription_(percent_of_pop)	0.6681	0.6359	0.619	0.598
broadband_subscription_(percent_of_pop)	0.9621	0.9222	0.883	0.893
bg_pop_percent_white	0.2365	0.2488	0.376	0.314
bg_pop_percent_hispanic	0.1081	0.0799	0.207	0.121
bg_pop_percent_asian	0.6048	0.5143	0.260	0.497
bg_percent_prop_households_renter_occ	0.1356	0.1819	0.645	0.476
bg_percent_prop_households_owner_occ	0.8644	0.8181	0.355	0.524
bg_med_income	158851.5000	147824.0000	115545.000	82403.500
bg_med_age	39.8000	40.9000	34.650	38.800
bg_ed_percent_college_educated	0.6469	0.7722	0.563	0.583

MySanJose Web Platform

var	40%-60%	60%-80%	80%-100%
total_census_blocks	12.0000	46.000	16.0000
linguistic_isolation_(percent_households)	0.0420	0.049	0.0503
cellular_data_subscription_(percent_of_pop)	0.6358	0.612	0.6339
broadband_subscription_(percent_of_pop)	0.9395	0.938	0.9390
bg_pop_percent_white	0.3238	0.396	0.2588
bg_pop_percent_hispanic	0.0982	0.119	0.1058
bg_pop_percent_asian	0.4686	0.329	0.5487
bg_percent_prop_households_renter_occ	0.1663	0.165	0.1797
bg_percent_prop_households_owner_occ	0.8337	0.835	0.8203
bg_med_income	158875.0000	147111.500	138954.0000
bg_med_age	40.2000	41.750	41.0000
bg_ed_percent_college_educated	0.7627	0.664	0.7513

Pothole

All MySanJose Platforms

var	80%-100%
total_census_blocks	17.0000
linguistic_isolation_(percent_households)	0.0949
cellular_data_subscription_(percent_of_pop)	0.5766
broadband_subscription_(percent_of_pop)	0.8941
bg_pop_percent_white	0.1477
bg_pop_percent_hispanic	0.2510
bg_pop_percent_asian	0.4256
bg_percent_prop_households_renter_occ	0.4242
bg_percent_prop_households_owner_occ	0.5758
bg_med_income	106226.0000
bg_med_age	37.3000
bg_ed_percent_college_educated	0.4554

MySanJose Mobile App

var	40%-60%	60%-80%
total_census_blocks	2.000	3.0000
linguistic_isolation_(percent_households)	0.156	0.0276
cellular_data_subscription_(percent_of_pop)	0.686	0.5988
broadband_subscription_(percent_of_pop)	0.936	0.8786
bg_pop_percent_white	0.177	0.1128
bg_pop_percent_hispanic	0.220	0.4940
bg_pop_percent_asian	0.573	0.0717
bg_percent_prop_households_renter_occ	0.497	0.3409
bg_percent_prop_households_owner_occ	0.503	0.6591
bg_med_income	136959.500	79756.0000
bg_med_age	34.250	36.2000
bg_ed_percent_college_educated	0.658	0.2799

MySanJose Web Platform

var	40%-60%	60%-80%	80%-100%
total_census_blocks	3.000	1.00000	1.0000
linguistic_isolation_(percent_households)	0.259	0.19010	0.0949
cellular_data_subscription_(percent_of_pop)	0.543	0.45930	0.4854
broadband_subscription_(percent_of_pop)	0.894	0.78110	0.7280
bg_pop_percent_white	0.105	0.00911	0.3597
bg_pop_percent_hispanic	0.396	0.82298	0.4774
bg_pop_percent_asian	0.474	0.14292	0.1549
bg_percent_prop_households_renter_occ	0.699	0.45570	0.3128
bg_percent_prop_households_owner_occ	0.301	0.54430	0.6872
bg_med_income	104919.000	82451.00000	99167.0000
bg_med_age	33.500	31.50000	44.9000
bg_ed_percent_college_educated	0.371	0.14184	0.3420