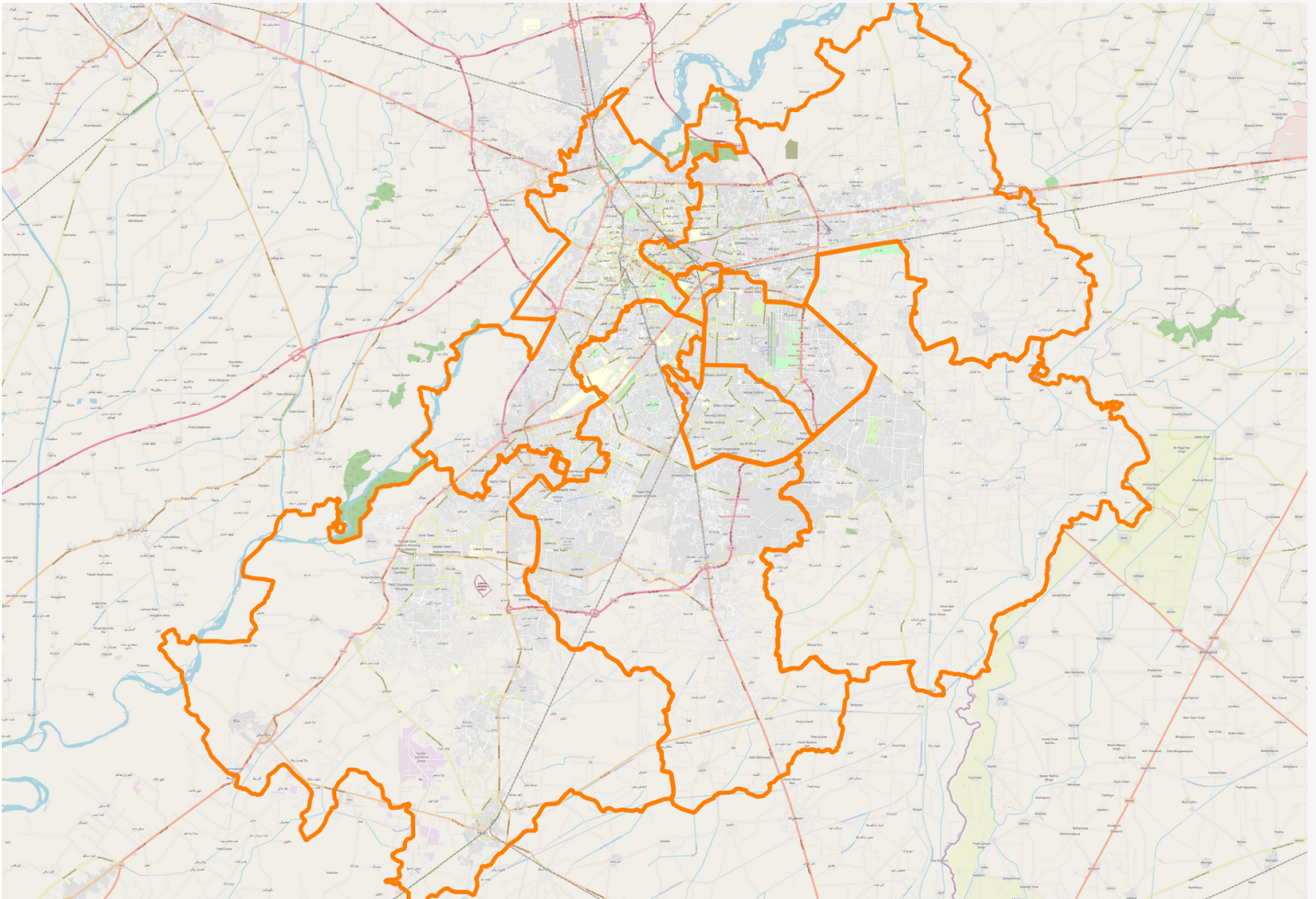# DEMOGRAPHICS OF LAHORE

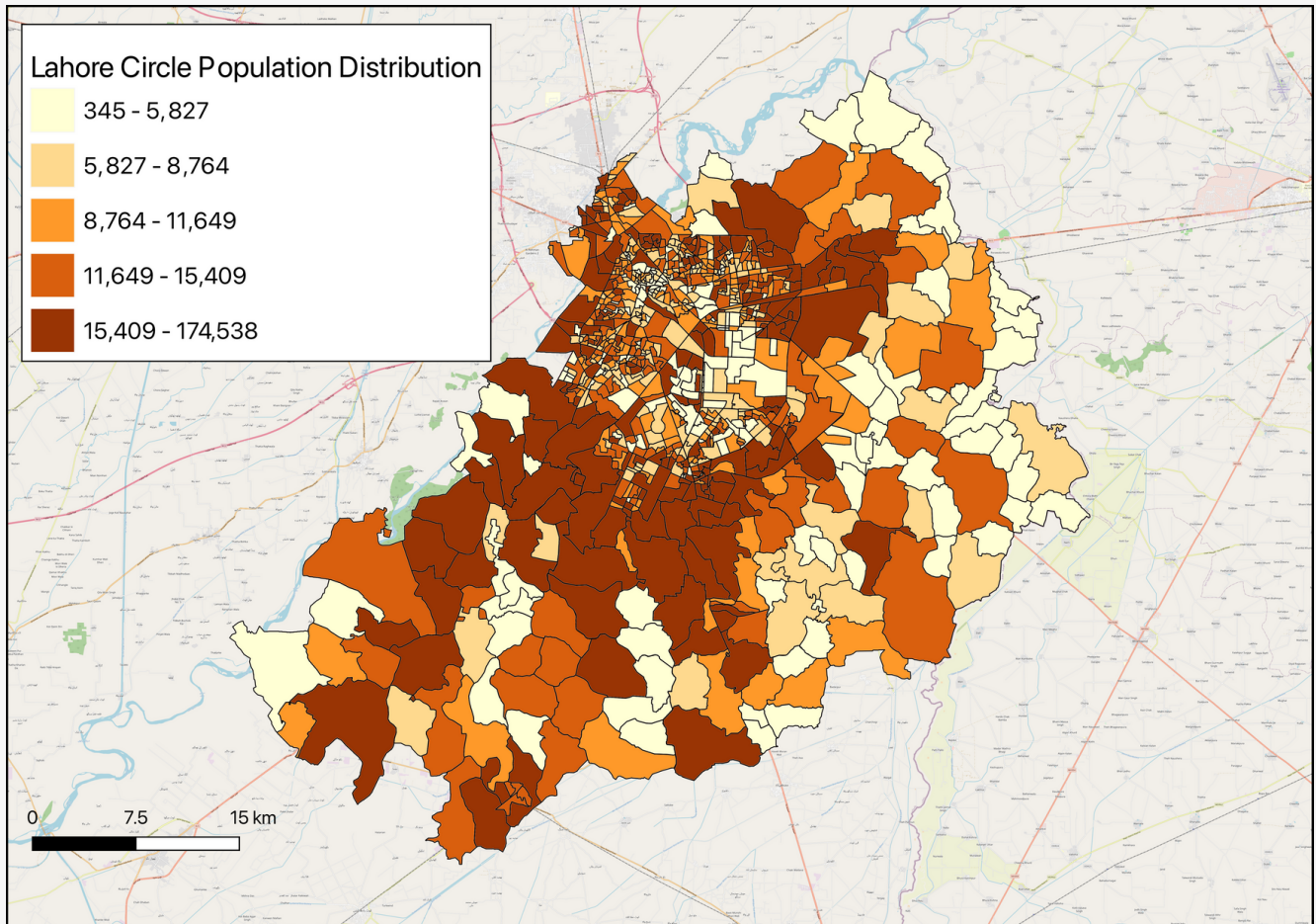Team UrbanTech

EXECUTIVE SUMMARY

Demographics of Lahore is a data visualization exercise in which we explore the spatial distribution of various household and population characteristics in the city. It is based on the 2017 census and 2018 general election datasets available on the Pakistan Bureau of Statistics (PBS) and Election Commission of Pakistan (ECP) websites. These have been manually amalgamated into GIS vector files for spatial analysis which can be found at the GitHub link below.

GitHub Link:

github.com/Team-UrbanTech/population-dataset-lahore-2017-census

LAHORE AT A GLANCE

Lahore Circle Population Distribution

- 345 - 5,827
- 5,827 - 8,764
- 8,764 - 11,649
- 11,649 - 15,409
- 15,409 - 174,538

0   7.5   15 km

5,245,659 VOTERS   11,119,985 INDIVIDUALS   1,744,755 HOUSEHOLDS

Lahore consists of 7 Tehsils divided into 184 charges sub-divided into 867 circles. Our vector files consist of population and household characteristics ranging from literacy rate, working individuals, average household size, and others spatially mapped up-to-circle level. More details on data types can be found in the appendix.

TEHSILS OF LAHORE

A : LAHORE CANTT BOARD
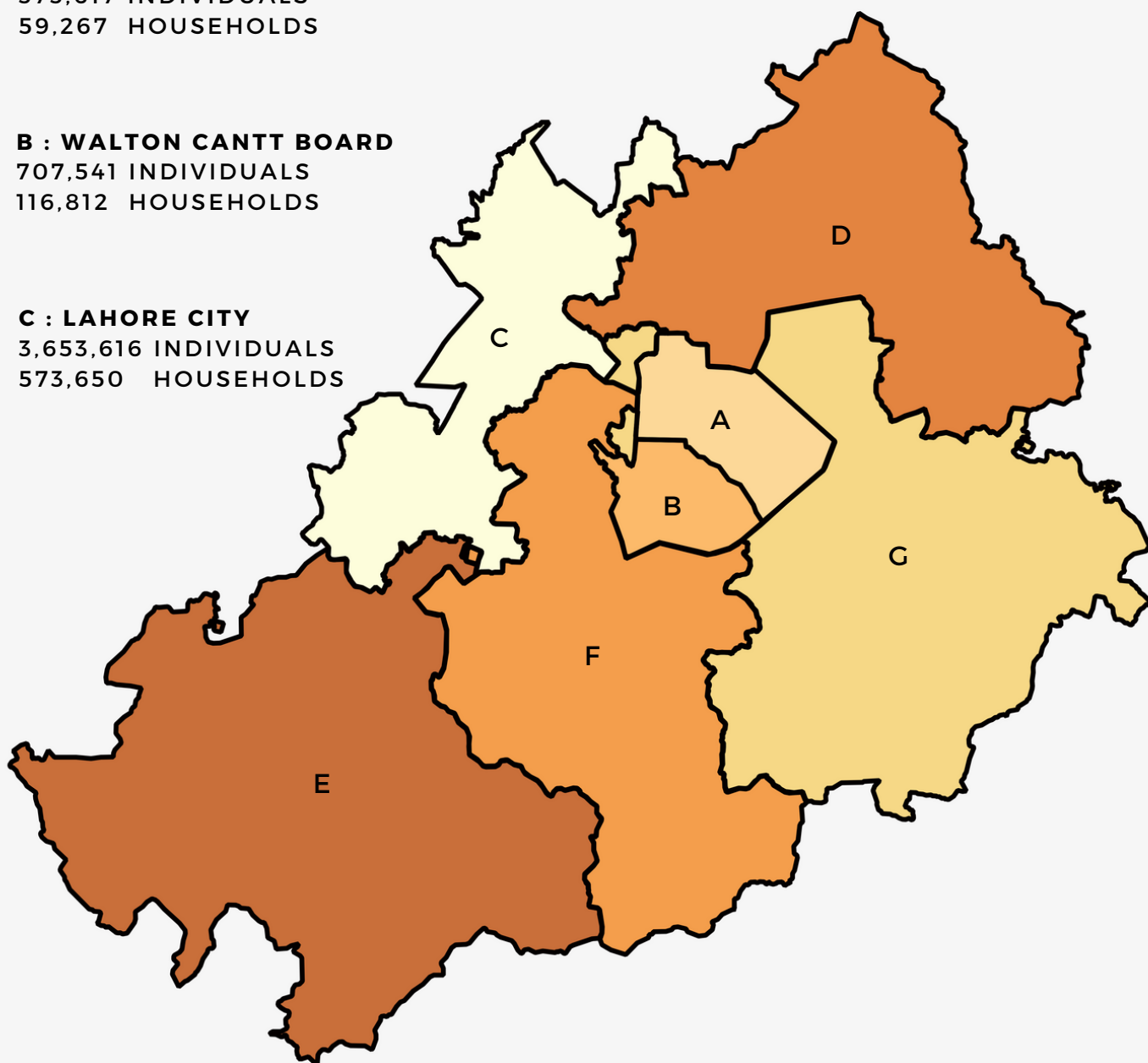373,617 INDIVIDUALS
59,267 HOUSEHOLDS

B : WALTON CANTT BOARD
707,541 INDIVIDUALS
116,812 HOUSEHOLDS

C : LAHORE CITY
3,653,616 INDIVIDUALS
573,650   HOUSEHOLDS

D : SHALIMAR
2,281,557 INDIVIDUALS
354,717   HOUSEHOLDS

E : RAIWIND
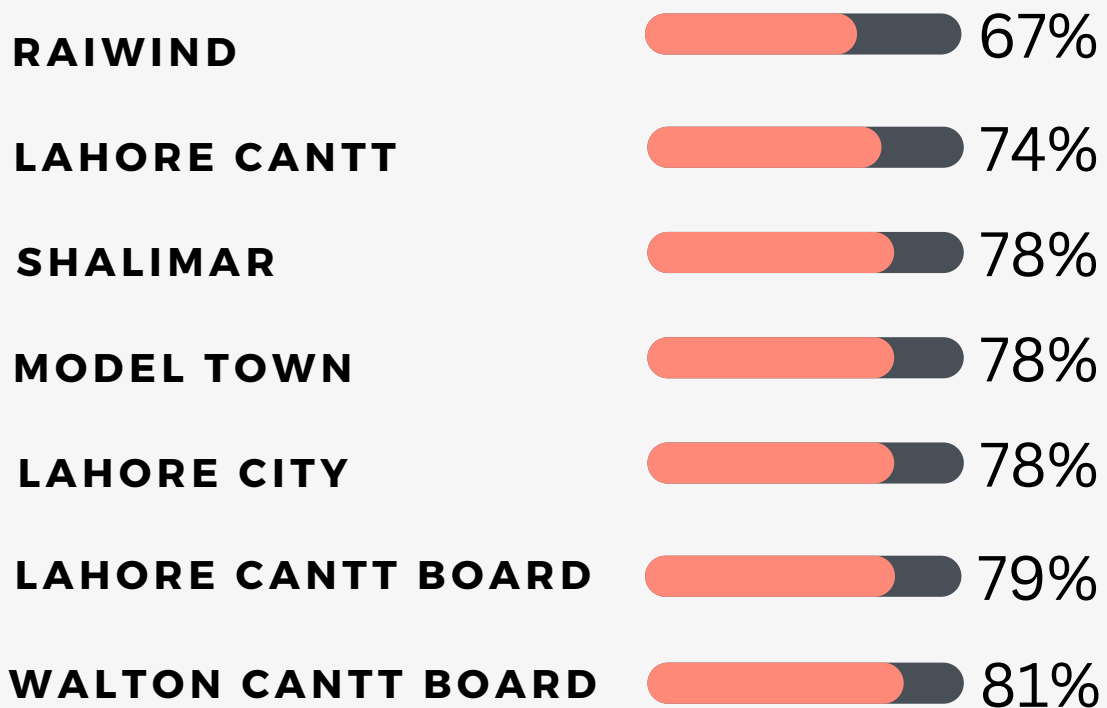848,541 INDIVIDUALS
130,446 HOUSEHOLDS

F : MODEL TOWN
2,703,569 INDIVIDUALS
427,790   HOUSEHOLDS

G : LAHORE CANTT
551,544 INDIVIDUALS
82,073   HOUSEHOLDS

LITARACY RATE

|		
RAIWIND		67%
LAHORE CANTT		74%
SHALIMAR		78%
MODEL TOWN		78%
LAHORE CITY		78%
LAHORE CANTT BOARD		79%
WALTON CANTT BOARD		81%

Literacy Rate is defined as the percentage of people above 10 years who can read and write. **Shalimar** being among the top few shows how circles further from the city centre which have a higher rural populace tend to have lower rates of literacy.

Shalimar Literacy Rate
36 - 48
48 - 60
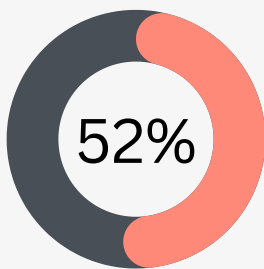60 - 71
71 - 83
83 - 95

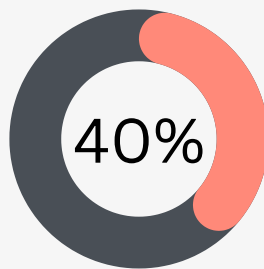0   2.5   5 km
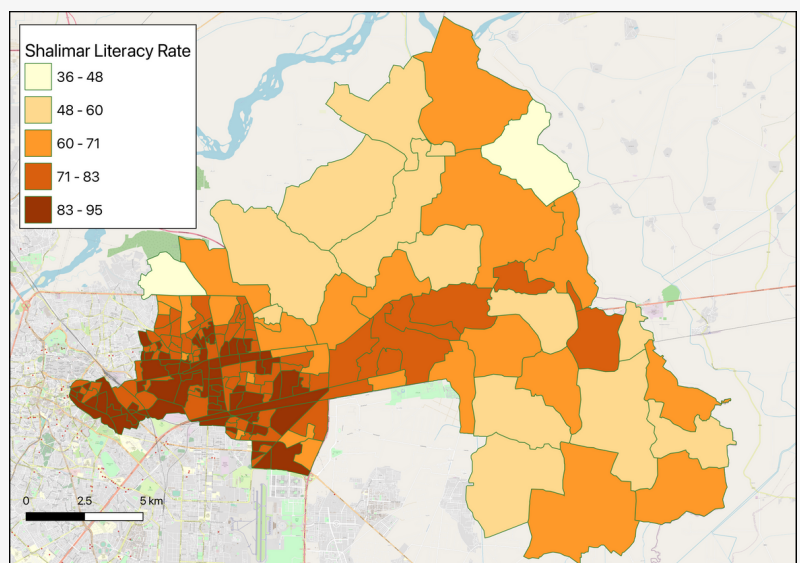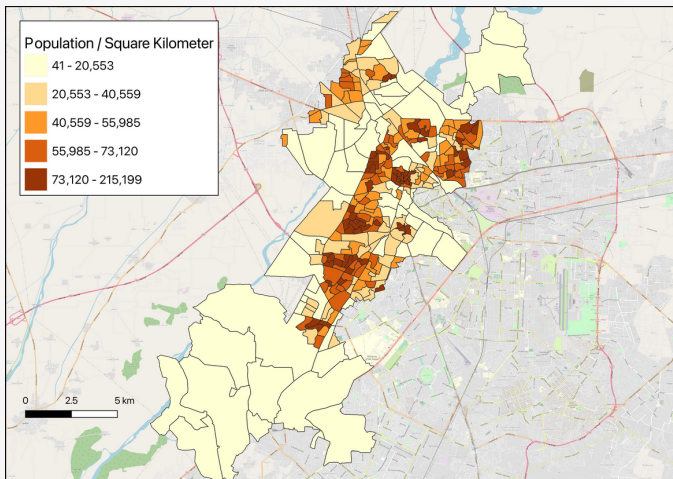
LAHORE CITY TEHSIL

Lahore City has a population of 3,653,616 making it most populated tehsil. **Population per square kilometer** is higher towards centre as can be seen in the figure. The tehsil has 287 circles and 70 charges which includes areas like Old Lahore among others.

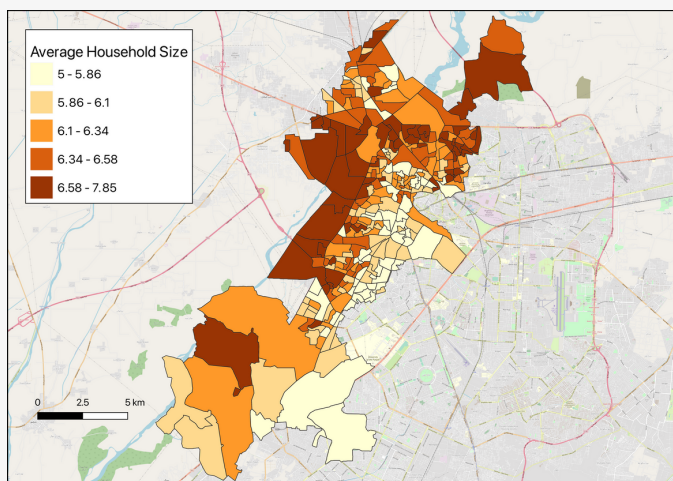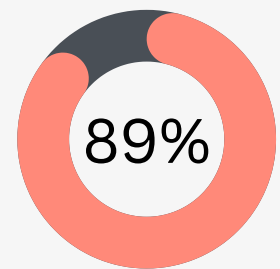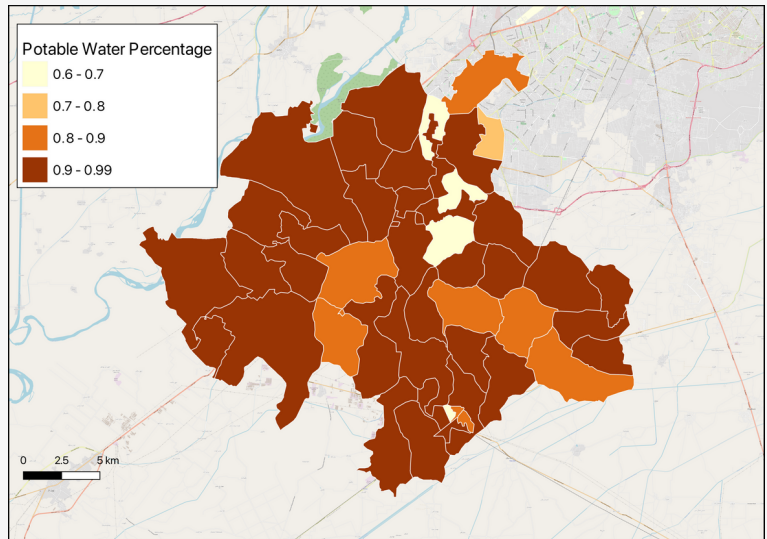| MALE	UNDER 18	ELECTRICITY	GAS
52%	40%	98%	89%
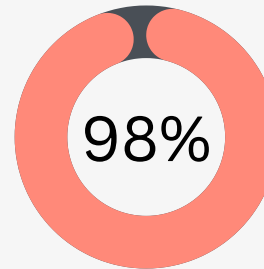
The **average household size**, which represents number of people living in a household, is greater towards the outskirts where mostly rural population resides implying that although more people live per unit area in the centre, family size is lower and houses are less crowded.

RAIWIND TEHSIL

Raiwind tehsil is made up of 6 charges and 47 circles making it one of the least populated areas of Lahore. Regions such as Bahria Town and Manga Mandi are covered by it.

The map shown depicts **percentage of houses with access to safe drinking water**. For most circles, it is at least 90. Some areas of concern do exist, particularly towards the north. These have percentages in range of 60 to 70. Clean water being so crucial in our every day lives, such numbers are worrisome and require the attention of relevant authorities.

Potable Water Percentage
0.6 - 0.7
0.7 - 0.8
0.8 - 0.9
0.9 - 0.99

KACCHA
3,633

SEMI PACCA
15,320

TYPE OF HOUSEHOLD

PACCA
111,493
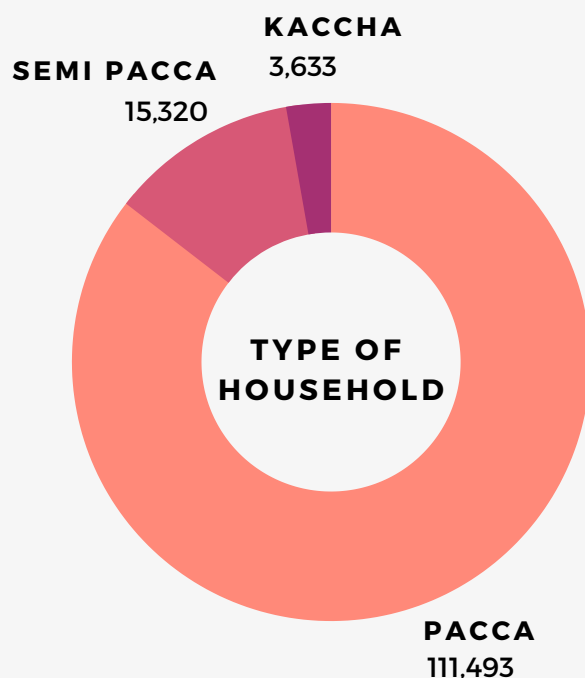
KITCHEN
93,778

MUSLIMS
795,897

NON MUSLIMS
52,644

60 AND ABOVE
44,088

THE BIGGER PICTURE

We plan to use this data, remote sensing techniques, and deep learning models to project the population on to a 10-meter by 10-meter resolution grid.

All the data, including vector and CSV files, can be found at the GitHub link below. By making our resources public, we hope it would inspire the research community and other stakeholders to build sustainable urban policy solutions in Pakistan.

GitHub Link:
github.com/Team-UrbanTech/population-dataset-lahore-2017-census

APPENDIX

Column Name	Description
Population-All Sexes	Count of total population
Population-Male	Count of all males
Population-Female	Count of all females
Population-Trans	Count of all transgender people
10 Years and Above	Count of individuals 10 years and above
18 Years and Above	Count of individuals 18 years and above
60 Years and Above	Count of individuals 60 years and above
Holding CNIC 18 Years and Above	Count of individuals 18 years and above with CNIC
Worked 10 Years and Above	Count of individuals 10 years and above who have work experience
Literacy % 10+ Years-All	Percentage of individuals 10 years and above who can read and write

APPENDIX

Literacy % 10+ Years-Male	Percentage of males 10 years and above who can read and write
Literacy % 10+ Years-Female	Percentage of females 10 years and above who can read and write
Literacy % 10+ Years-Trans	Percentage of transgender people 10 years and above who can read and write
Primary But Below Matric-Male	Count of males with primary education but below matric
Primary But Below Matric-Female	Count of females with primary education but below matric
Primary But Below Matric-Trans	Count of transgender people with primary education but below matric
Matric But Below Degree and Others-Male	Count of males with matric education but below university degree and others
Matric But Below Degree and Others-Trans	Count of females with matric education but below university degree and others
Matric But Below Degree and Others-Trans	Count of transgender people with matric education but below university degree and others
Degree and Above-Male	Count of males with university degree or above

APPENDIX

Degree and Above-Female	Count of females with university degree or above
Degree and Above-Trans	Count of transgender people with university degree or above
Religion Muslim	Count of Muslims
Religion Non-Muslim	Count of Non-Muslims
Male Voters	Count of male voters
Female Voters	Count of female voters
Total HH	Count of households
Semi Pacca	Count of semi pacca households
Pacca	Count of pacca households
Kaccha	Count of kaccha households
Potable Water	Count of households with drinkable water
Bathroom	Count of households with bathroom

APPENDIX

Gas	Count of households with gas connection
Kitchen	Count of households with kitchen
Latrine	Count of households with latrine
Average Household Size	Average number of individuals in a household
Circle Code	Circle code of specified area
Charge Code	Charge code of specified area
Tehsil Code	Tehsil code of specified area
Longitude	Longitude of a point in specified area
Latitude	Latitude of a point in specified area

Team UrbanTech