TRACING THE GROWTH OF THE GLOBAL COMMUNITY:

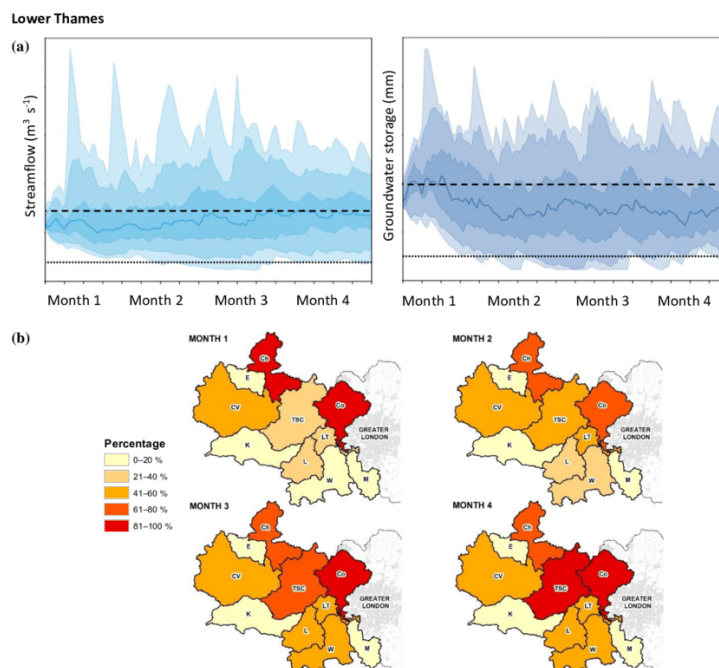# A POPULATION FORECASTING ANALYSIS

INTRODUCTION:-

OVERVIEW:

Population forecasting is a method to predict/forecast the future population of an area. Usually, the population at the design period of water supply systems is predicted to find the water demand at that time, as the systems are required to fulfill their purposes till the end of the design period
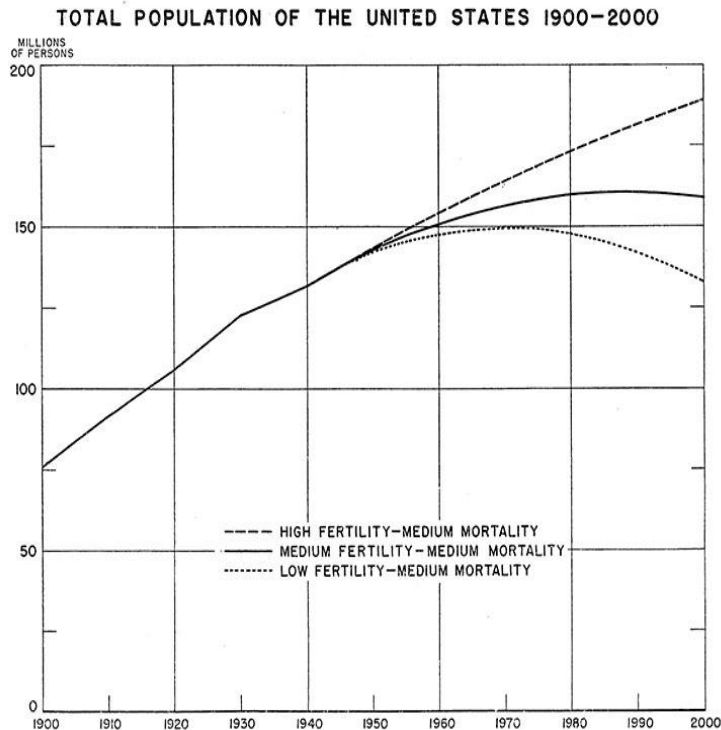
PURPOSE :

This method involves discovery of the factors that influence present and past population increase and decrease. On the basis of assumptions concerning the future of these factors, and of other factors that are just emerging in the community, projections of fertility, mortality and migration trends are made.
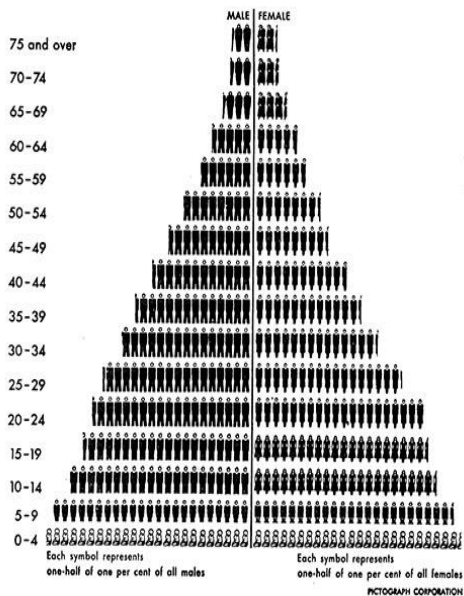
PROBLEM DEFINITION & DESIGN THINKING:-
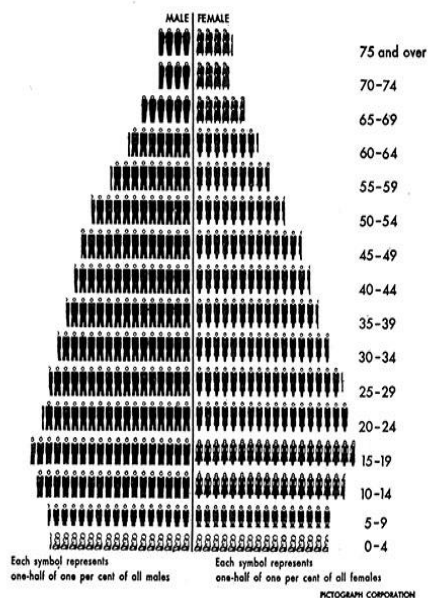
EMPATHY MAP

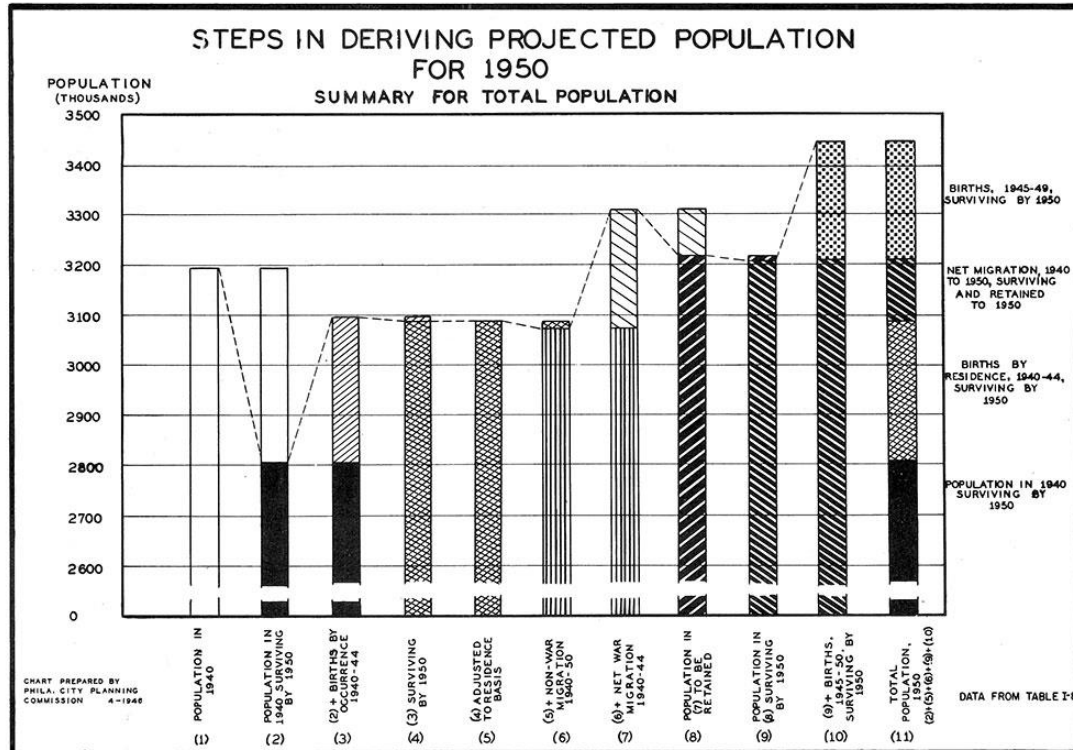## TOTAL POPULATION OF THE UNITED STATES 1900–2000

Left: National population trends using three fertility-mortality assumptions. Taken from Thompson and Whelpton Estimates of Future Population of the United States. (See Appendix B.)

Below: Age-sex pyramids. Note the aging of the population in 1940. Taken from Syllabus Notebook, American Society of Planning Officials, Chicago, 1943.

AGE DISTRIBUTION, 1900

Each symbol represents one-half of one per cent of all males
Each symbol represents one-half of one per cent of all females

PICTOGRAPH CORPORATION

AGE DISTRIBUTION, 1940

Each symbol represents one-half of one per cent of all males
Each symbol represents one-half of one per cent of all females

PICTOGRAPH CORPORATION

Result:-

STEPS IN DERIVING PROJECTED POPULATION FOR 1950
SUMMARY FOR TOTAL POPULATION

Population projections, like master plans must be revised quite frequently . it has been suggested in this report thus several alternative projections the made on the basis of different set of assumption it has been also recognized that in the last analysis, the planner must uses as a working guide that population projection be considered most feasible

ADVANTAGES OF POPULATION FORECOSTING:-

1. Forecasting gets you into the habit of looking at past and real time data to predict future demand and in doing so you will be able to anticipate demand fluctuation more effectively.

2. You do not start from scratch after each forecast. even if your prediction was nowhere close to what ended upcoming to pass , it gives you a starting point.

3. When done right , anticipating demand help you tweak your processes to increase efficiency all along the supply chain.

DISADVANTAGES OF POPULATION FORECASTING:-

1. Forecasts are never 100% and it is almost impossible to predict the future with certainty. Even if you have a great process in place and forecasting experts on your payroll, your forecasts will never be spot on.

2. Population forecasts try to estimate the rate of population growth. However, unpredictable factors can change fertility rates, mortality rates, or migration rates, which can cause difficulty in forecasting.

3. High upfront costs: Initial costs of leveraging technology are high, so cash-deficit companies often refrain from doing a regular forecast.

APPLICATIONS:-

1. Population forecasting is very important to know the growth rate and to estimate future population of particular area.

2. Basically, there are three techniques for population projection: Mathematical Method, Economic Method and Cohort Component Method. Mathematical method is frequently used for the estimation of population.

3. Population projections can be used as a tool to provide information on possible scenarios of future population and, namely, to support decision-making processes in diverse socio-economic areas, such as, higher education institutional network planning, both in public and private sectors.

CONCLUSION:-

It cannot be over-emphasized that there are many varied factors influencing birth rates, migrations, and to a lesser degree, death rates. Unfortunately, much of the research necessary to isolate these various factors and to appraise their effects remains to be done. The planner in forecasting future population for his area may seek the aid of a demographer especially trained in the technical study of population.

FUTURE SCOPE:-

1. Integration of artificial intelligence and machine learning : one potential future direction for population forecasting is the integration of artificial intelligence machine learning. These technologies have the potential to greatly enhance accuracy and precision of population forecasting.

2. Incorporation of social and environmental factors : another potential future direction for population forecasting is the incorporation of social and environment factors. these factors like climate change ,urbanization, and migration factor.
3. Improve data collection and analysis: as more data becomes available ,population forecasting models are likely to become more sophisticated and accurate.
4.   Integration of global population trends : with the increasing interconnectedness of the world, global population trends are likely to become increasingly important for population forecasting.

APPENDIX:-

A Cultural Interpretation, Paul H. Landis. American Book Company, New York; 1943, 500 pp. tables,   charts.

As the title implies, this volume emphasizes the sociological and cultural aspects of population problems. Parts 1 to 3 deal with the causes and factors relative to present population distribution and growth.