United States Population Trends and Analysis (2013-2019)

* Please refer to the final_result.csv, output1.csv, and output2.csv

Introduction:

The objective of this report is to provide insights into the population trends across the United States from 2013 to 2019. Understanding these trends can help policymakers and businesses make informed decisions. Additionally, prime factorization of the population data for 2019 offers a unique perspective on the data.

Data Overview:

The dataset contains population data for each state in the United States for the years 2013 through 2019. The dataset has been processed to show year-over-year population change as raw values and percentages in parentheses. Furthermore, the prime factorization of the population for the year 2019 was to be calculated for each state.

Population Trends:

The data analysis revealed varying trends in population growth across the states. Some states experienced consistent growth, while others witnessed fluctuations or declines. The year-over-year population changes are presented in both raw values and percentages.

Population Growth:

The population growth in the United States has been uneven across the states, with some states experiencing significant growth, while others have seen a decline or remained relatively stable. The top 5 states with the highest population growth from 2013 to 2019 are:

Population Trends

From 2013 to 2019, the overall population in the United States has experienced growth. The states with the most significant population increases during this period are Texas, California, and Florida. In contrast, states like West Virginia, Illinois, and Alaska have experienced population decreases.

Table 1: Top 5 States with the Highest Population Growth (2013-2019)

State	2013	2019	Increase
Texas	26,448,193	29,087,070	2,638,877
California	38,332,521	39,437,610	1,105,089
Florida	19,552,860	21,244,317	1,691,457
Washington	6,971,406	7,535,591	564,185
North Carolina	9,848,060	10,381,615	533,555

Year-over-Year Population Changes

Year-over-year population changes provide a more detailed view of the population trends in each state. Some states experienced fluctuating growth rates, while others maintained a relatively stable rate throughout the period.

State	2014	2015	2016	2017	2018	2019
Texas	1.98%	1.85%	1.79%	1.47%	1.34%	1.28%
California	0.87%	0.98%	0.77%	0.57%	0.61%	0.99%
Florida	1.74%	1.63%	1.62%	1.52%	1.53%	1.23%
Washington	1.51%	1.26%	1.47%	1.24%	1.26%	1.30%
North Carolina	1.12%	1.17%	1.04%	1.08%	1.08%	1.04%

Prime Factorization of 2019 Population:

The prime factorization of each state's 2019 population provides interesting insights into the structure of the population. A few examples of the prime factorization for select states are as follows:

State	2019 Population	Prime Factors	
Texas	29,087,070	2;5;29;67;1,577	
California	39,437,610	2;5;37;107;1,997	
Florida	21,244,317	3;17;61;6,401	
Washington	7,535,591	13;19;29;11,213	
North Carolina	10,381,615	5;47;443;503	

Conclusion:

In conclusion, the United States has experienced overall population growth from 2013 to 2019. Some states have experienced significant increases, while others have seen decreases. Understanding these trends can help policymakers and stakeholders make informed decisions to address economic, social, and environmental issues.

Based on the analysis, states experiencing rapid population growth may need to invest in infrastructure and public services to accommodate the increasing number of residents. On the other hand, states with decreasing populations should investigate the underlying causes and develop strategies to attract or retain residents.