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REPORT ON YEAR-OVER-YEAR POPULATION CHANGE AND PRIME FACTORIZATION OF FINAL YEAR POPULATION

Introduction:

This report provides an analysis of year-over-year population changes for various states in the United States, based on data from 2013 to 2022. The analysis includes the raw population change values and their percentages. Additionally, the prime factorization of the final year's population (2022) for each state is included.

Data Overview:

The data set includes the following columns:

- State Name
- Population for each year from 2013 to 2022
- Population change for each year as a raw value and percentage
- Prime factorization of the 2022 population

REPORT ON YEAR-OVER-YEAR POPULATION CHANGE AND PRIME FACTORIZATION OF FINAL YEAR POPULATION

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State Name	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Final Year Factors
Alabama	4799277	4817678 (0.38%)	4830620 (0.27%)	4841164 (0.22%)	4850771 (0.20%)	4864680 (0.29%)	4876250 (0.24%)	4893186 (0.35%)	4997675 (2.14%)	5028092 (0.61%)	2;97;12959
Alaska	720316	728300 (1.11%)	733375 (0.70%)	736855 (0.47%)	738565 (0.23%)	738516 (-0.01%)	737068 (-0.20%)	736990 (-0.01%)	735951 (-0.14%)	734821 (-0.15%)	389;1889
Arizona	6479703	6561516 (1.26%)	6641928 (1.23%)	6728577 (1.30%)	6809946 (1.21%)	6946685 (2.01%)	7050299 (1.49%)	7174064 (1.76%)	7079203 (-1.32%)	7172282 (1.31%)	2;13;311;887
Arkansas	2933369	2947036 (0.47%)	2958208 (0.38%)	2968472 (0.35%)	2977944 (0.32%)	2990671 (0.43%)	2999370 (0.29%)	3011873 (0.42%)	3006309 (-0.18%)	3018669 (0.41%)	3;47;79;271
California	37659181	38066920 (1.08%)	38421464 (0.93%)	38654206 (0.61%)	38982847 (0.85%)	39148760 (0.43%)	39283497 (0.34%)	39346023 (0.16%)	39455353 (0.28%)	39356104 (-0.25%)	2;53;92821
Colorado	5119329	5197580 (1.53%)	5278906 (1.56%)	5359295 (1.52%)	5436519 (1.44%)	5531141 (1.74%)	5610349 (1.43%)	5684926 (1.33%)	5723176 (0.67%)	5770790 (0.83%)	2;5;59;9781
Connecticut	3583561	3592053 (0.24%)	3593222 (0.03%)	3588570 (-0.13%)	3594478 (0.16%)	3581504 (-0.36%)	3575074 (-0.18%)	3570549 (-0.13%)	3605330 (0.97%)	3611317 (0.17%)	3611317
Delaware	908446	917060 (0.95%)	926454 (1.02%)	934695 (0.89%)	943732 (0.97%)	949495 (0.61%)	957248 (0.82%)	967679 (1.09%)	981892 (1.47%)	993635 (1.20%)	5;37;41;131
District of Columbia	619371	633736 (2.32%)	647484 (2.17%)	659009 (1.78%)	672391 (2.03%)	684498 (1.80%)	692683 (1.20%)	701974 (1.34%)	683154 (-2.68%)	670587 (-1.84%)	3;223529
Florida	19091156	19361792 (1.42%)	19645772 (1.47%)	19934451 (1.47%)	20278447 (1.73%)	20598139 (1.58%)	20901636 (1.47%)	21216924 (1.51%)	21339762 (0.58%)	21634529 (1.38%)	7;37;11933
Georgia	9810417	9907756 (0.99%)	10006693 (1.00%)	10099320 (0.93%)	10201635 (1.01%)	10297484 (0.94%)	10403847 (1.03%)	10516579 (1.08%)	10625615 (1.04%)	10722325 (0.91%)	5;17;25229
Hawaii	1376298	1392704 (1.19%)	1406299 (0.98%)	1413673 (0.52%)	1421658 (0.56%)	1422029 (0.03%)	1422094 (0.00%)	1420074 (-0.14%)	1453498 (2.35%)	1450589 (-0.20%)	7;207227
Idaho	1583364	1599464 (1.02%)	1616547 (1.07%)	1635483 (1.17%)	1657375 (1.34%)	1687809 (1.84%)	1717750 (1.77%)	1754367 (2.13%)	1811617 (3.26%)	1854109 (2.35%)	1854109
Illinois	12848554	12868747 (0.16%)	12873761 (0.04%)	12851684 (-0.17%)	12854526 (0.02%)	12821497 (-0.26%)	12770631 (-0.40%)	12716164 (-0.43%)	12821813 (0.83%)	12757634 (-0.50%)	2;97;65761
Indiana	6514861	6542411 (0.42%)	6568645 (0.40%)	6589578 (0.32%)	6614418 (0.38%)	6637426 (0.35%)	6665703 (0.43%)	6696893 (0.47%)	6751340 (0.81%)	6784403 (0.49%)	47;144349
Iowa	3062553	3078116 (0.51%)	3093526 (0.50%)	3106589 (0.42%)	3118102 (0.37%)	3132499 (0.46%)	3139508 (0.22%)	3150011 (0.33%)	3179090 (0.92%)	3188836 (0.31%)	2;7;61;1867
Kansas	2868107	2882946 (0.52%)	2892987 (0.35%)	2898292 (0.18%)	2903820 (0.19%)	2908776 (0.17%)	2910652 (0.06%)	2912619 (0.07%)	2932099 (0.67%)	2935922 (0.13%)	2;11;133451
Kentucky	4361333	4383272 (0.50%)	4397353 (0.32%)	4411989 (0.33%)	4424376 (0.28%)	4440204 (0.36%)	4449052 (0.20%)	4461952 (0.29%)	4494141 (0.72%)	4502935 (0.20%)	5;900587
Louisiana	4567968	4601049 (0.72%)	4625253 (0.53%)	4645670 (0.44%)	4663461 (0.38%)	4663616 (0.00%)	4664362 (0.02%)	4664616 (0.01%)	4657305 (-0.16%)	4640546 (-0.36%)	2;101;22973
Maine	1328320	1328535 (0.02%)	1329100 (0.04%)	1329923 (0.06%)	1330158 (0.02%)	1332813 (0.20%)	1335492 (0.20%)	1340825 (0.40%)	1357046 (1.21%)	1366949 (0.73%)	61;22409
Maryland	5834299	5887776 (0.92%)	5930538 (0.73%)	5959902 (0.50%)	5996079 (0.61%)	6003435 (0.12%)	6018848 (0.26%)	6037624 (0.31%)	6148545 (1.84%)	6161707 (0.21%)	101;61007
Massachusetts	6605058	6657291 (0.79%)	6705586 (0.73%)	6742143 (0.55%)	6789319 (0.70%)	6830193 (0.60%)	6850553 (0.30%)	6873003 (0.33%)	6991852 (1.73%)	6984205 (-0.11%)	5;1396841
Michigan	9886095	9889024 (0.03%)	9900571 (0.12%)	9909600 (0.09%)	9925568 (0.16%)	9957488 (0.32%)	9965265 (0.08%)	9973907 (0.09%)	10062512 (0.89%)	10057921 (-0.05%)	10057921
Minnesota	5347740	5383661 (0.67%)	5419171 (0.66%)	5450868 (0.58%)	5490726 (0.73%)	5527358 (0.67%)	5563378 (0.65%)	5600166 (0.66%)	5670472 (1.26%)	5695292 (0.44%)	2;599;2377

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Selected States:

We have randomly selected five states for analyzing the report:

- New Mexico
- Arizona
- Tennessee
- New York
- New Jersey

Analysis:

The following sections highlight key aspects of the population changes and the prime factorization for the final year population.

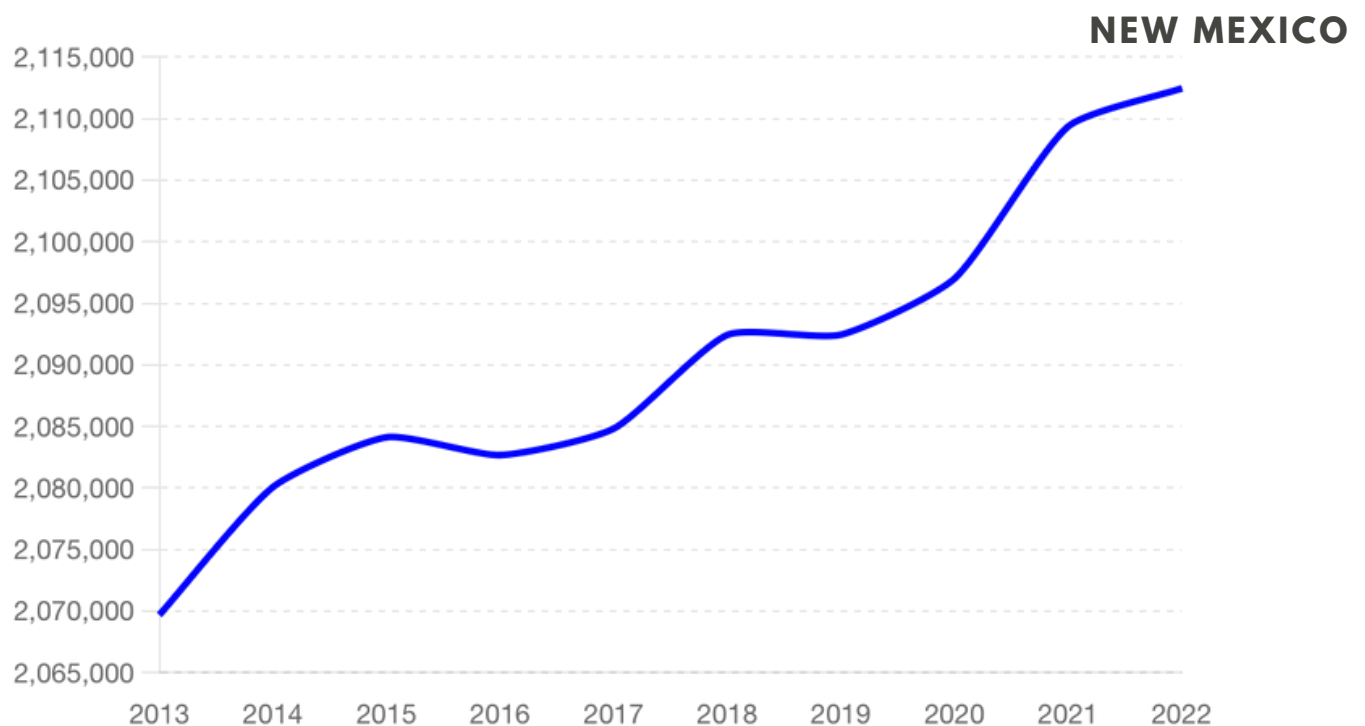
Year-Over-Year Population Changes

1. New Mexico: The population of New Mexico saw minor changes year over year, with the highest growth percentage observed in 2014 (0.50%). In 2022, the population increased by 0.15%.
2. Arizona: Arizona showed consistent growth, with significant increases in 2018 (2.01%) and 2020 (1.76%). However, 2021 saw a decline of -1.32%.
3. Tennessee: Tennessee experienced steady growth, with noticeable increases in 2021 (1.29%) and 2022 (0.94%).
4. New York: New York's population fluctuated, with the largest increase in 2021 (3.07%) and a decline in 2022 (-0.60%).
5. New Jersey: New Jersey showed gradual growth with a significant increase in 2021 (3.92%).

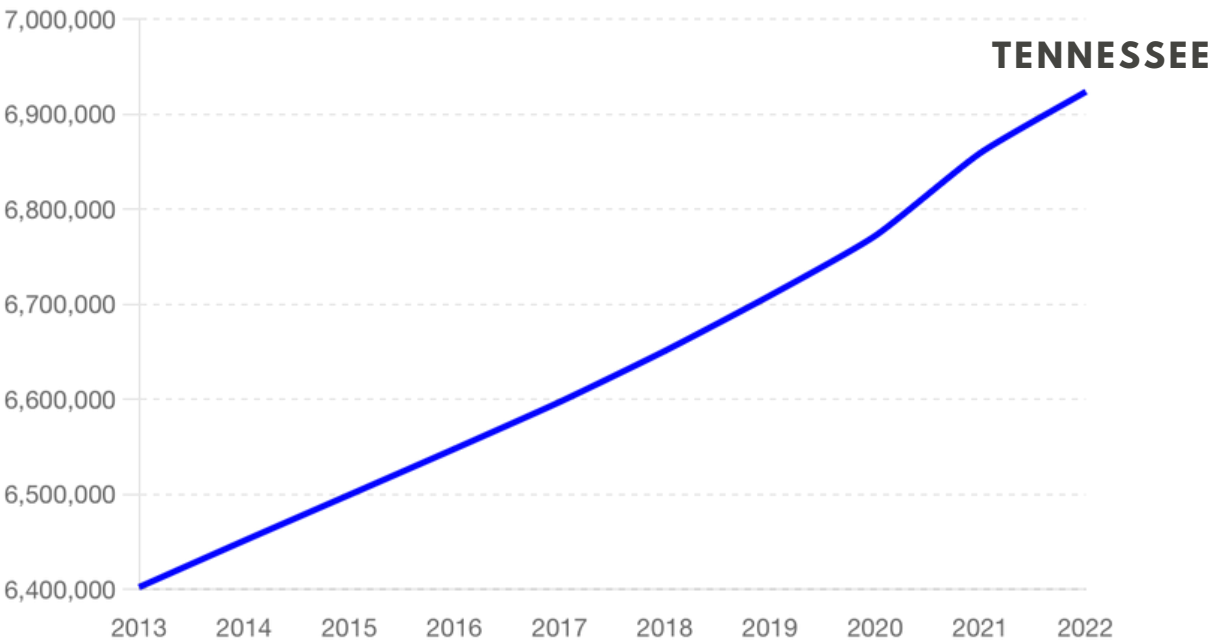
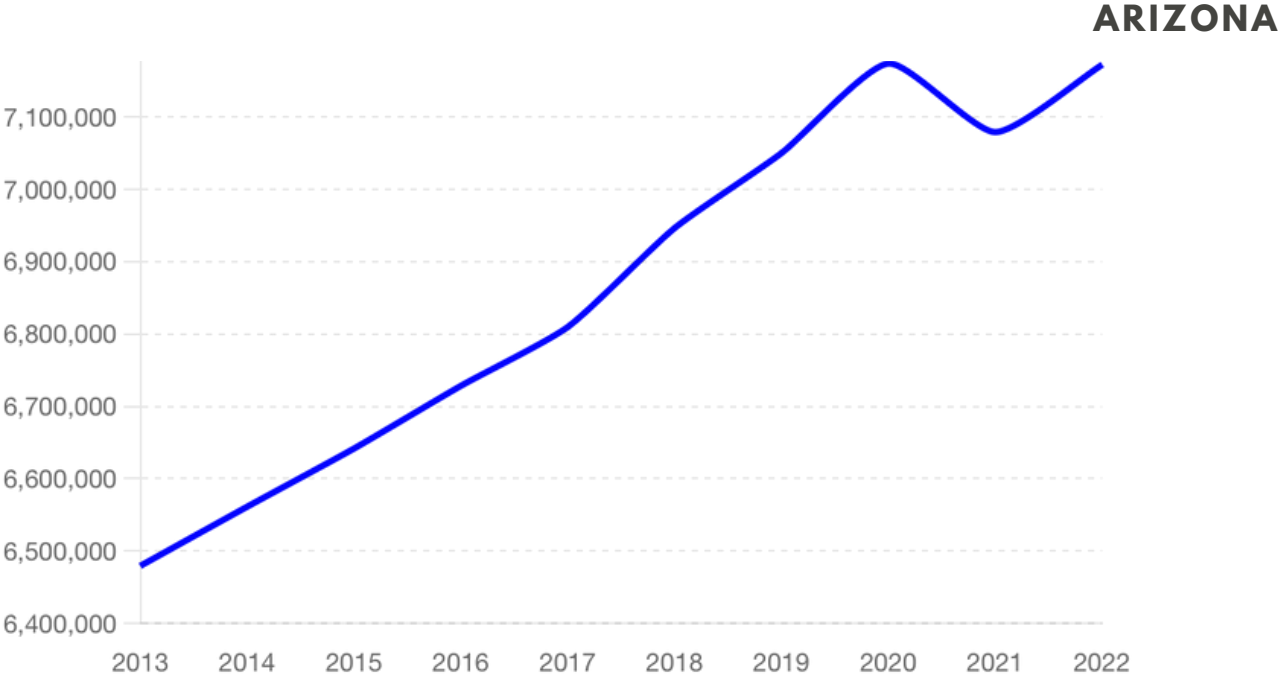
REPORT ON YEAR-OVER-YEAR POPULATION CHANGE AND PRIME FACTORIZATION OF FINAL YEAR POPULATION

Key Observations:

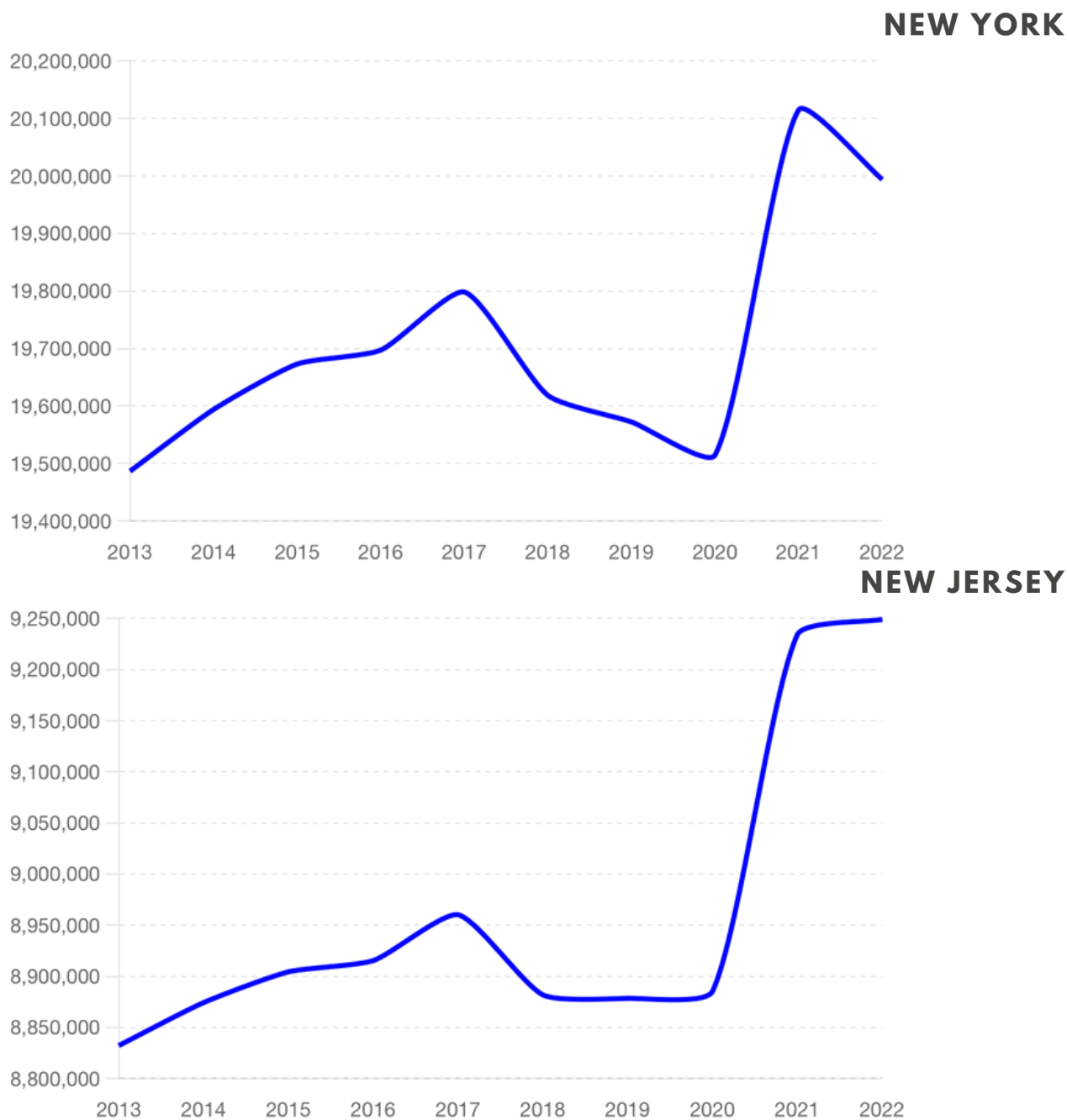
- New Mexico: The population changes are minimal, indicating a stable growth pattern.
- Arizona: Arizona's population growth was generally strong, with a noticeable dip in 2021.
- Tennessee: Tennessee experienced steady growth with no significant declines.
- New York: New York saw significant population changes, including both increases and decreases over the years.
- New Jersey: New Jersey had a consistent growth pattern with a major increase in 2021.



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Conclusion:

The data illustrates the population dynamics of various states over a decade. Most states show a trend of gradual population increase, although fluctuations are observed in some states like New Mexico and New York. The prime factorization provides an interesting mathematical insight into the population numbers.

This report provides a comprehensive overview of population changes and prime factors for the final year, demonstrating the varying growth patterns across different states.