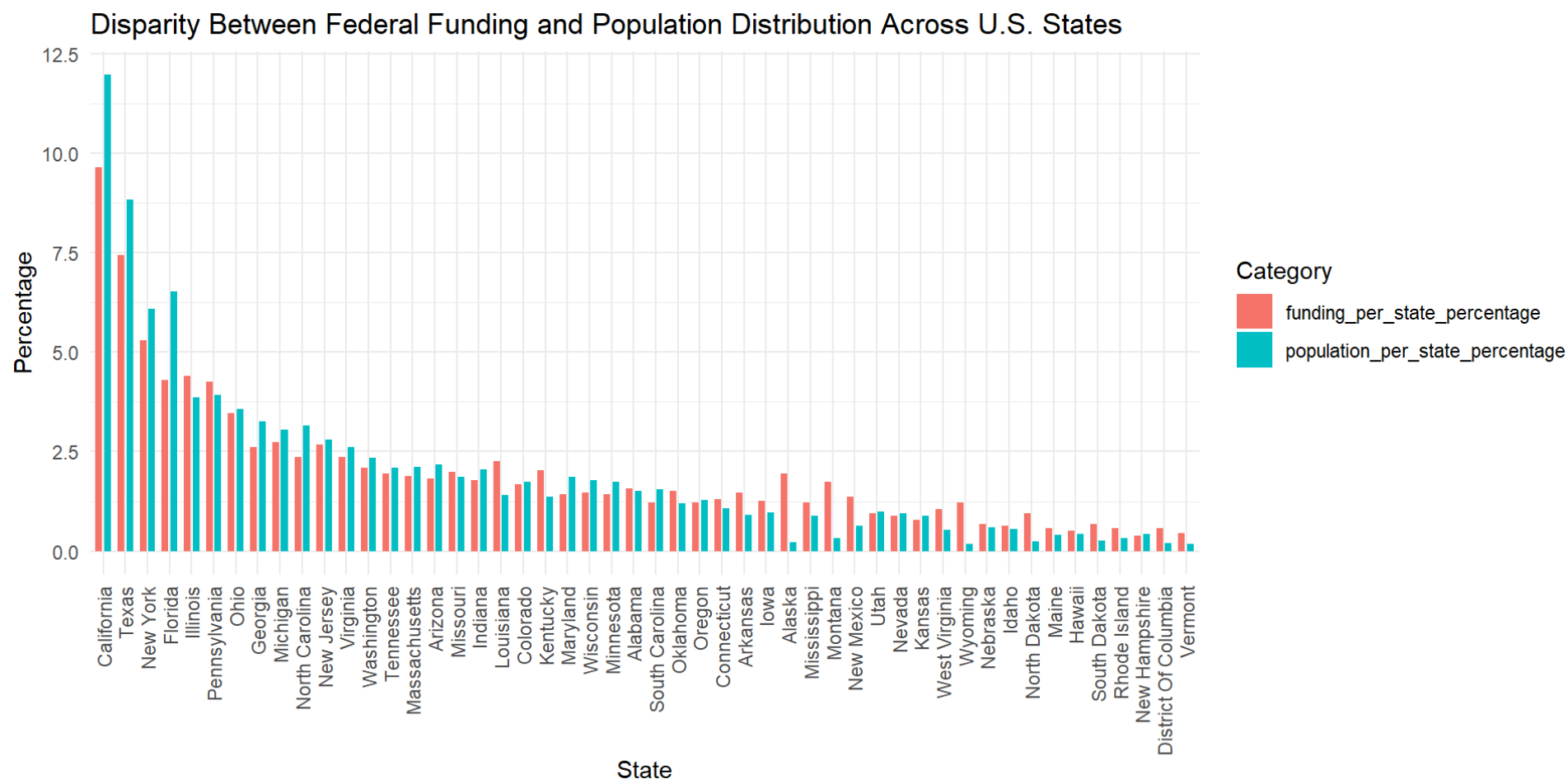


Story1_Data608

Mubashira Qari

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Story - 1 : Infrastructure Investment and Jobs Act Funding Allocation



Analysis:

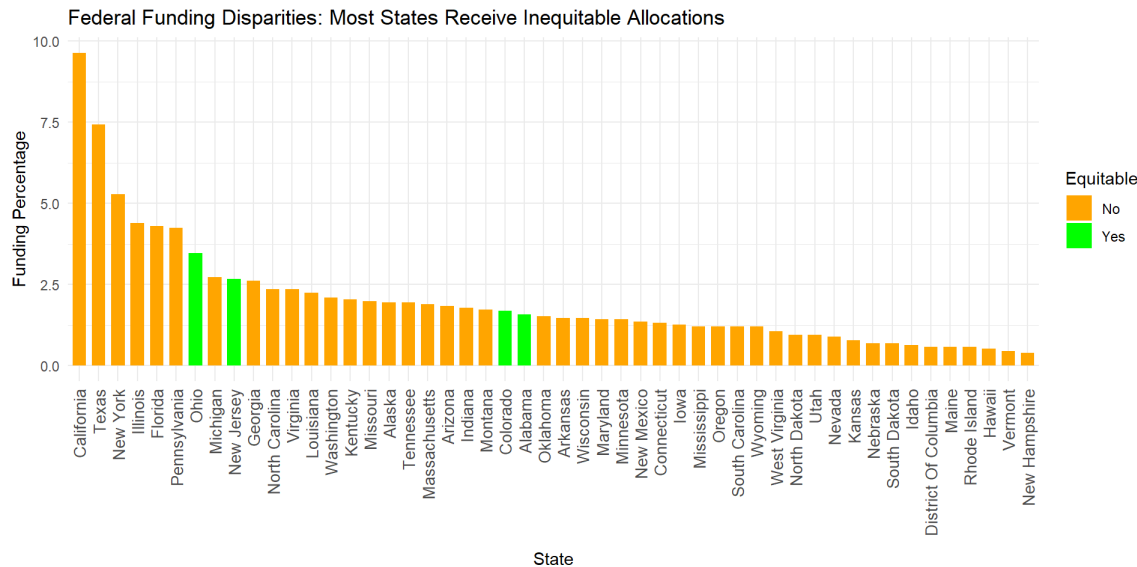
- California has ~12% of the U.S. population but receives less than 12% of total federal funding
- Alaska, West Virginia, and D.C. – These areas receive far more funding than their population percentage would suggest.
- Smaller, Less Populated States – Some states with lower populations (e.g., North Dakota, Montana, and Wyoming) appear to receive more funding relative to their population size. This could be due to federal subsidies, rural development programs, or military installations.
- Conversely, states with large, self-sustaining economies may receive less funding relative to their population because:
 - They generate high tax revenue and have more state-funded programs.
 - They may not qualify for as many federal aid programs.
 - They have a high cost of living, making federal funding less impactful on a per capita basis.

Is the allocation equitable based on the population of each of the States and Territories, or is bias apparent?

- According to the chart below, about 80% of the states have inequitable allocation based on the population of each of the States and Territories and is not bias
- No, it doesn't serve the political interests of the Biden administration

Feature Engineering Criteria for Equitable:

- If funding is within $\pm 5\%$ of the population share, it is considered fair (equitable).
- If funding falls outside this range, the state may be over funded or under funded.
- Green bars (“Yes”) → means States where funding % falls within $\pm 5\%$ of the population share %.
- Orange bars (“No”) → means States over-funded or under-funded, indicating inequity.



Interpretation:

- This chart visualizes federal funding disparities across U.S. states, highlighting the inequity in allocations.
- California receives the highest percentage of federal funding, followed by Texas, New York, and Florida.
- The states on the right, such as New Hampshire, Vermont, and Rhode Island, receive the least federal funding.
- Orange (No): These states do not receive equitable funding, meaning the amount they receive is not proportionate or fair based on some criteria (such as population, need, or economic output).
- Green (Yes): These states receive equitable funding, indicating that their allocations align fairly with the expected distribution.

Key Observations:

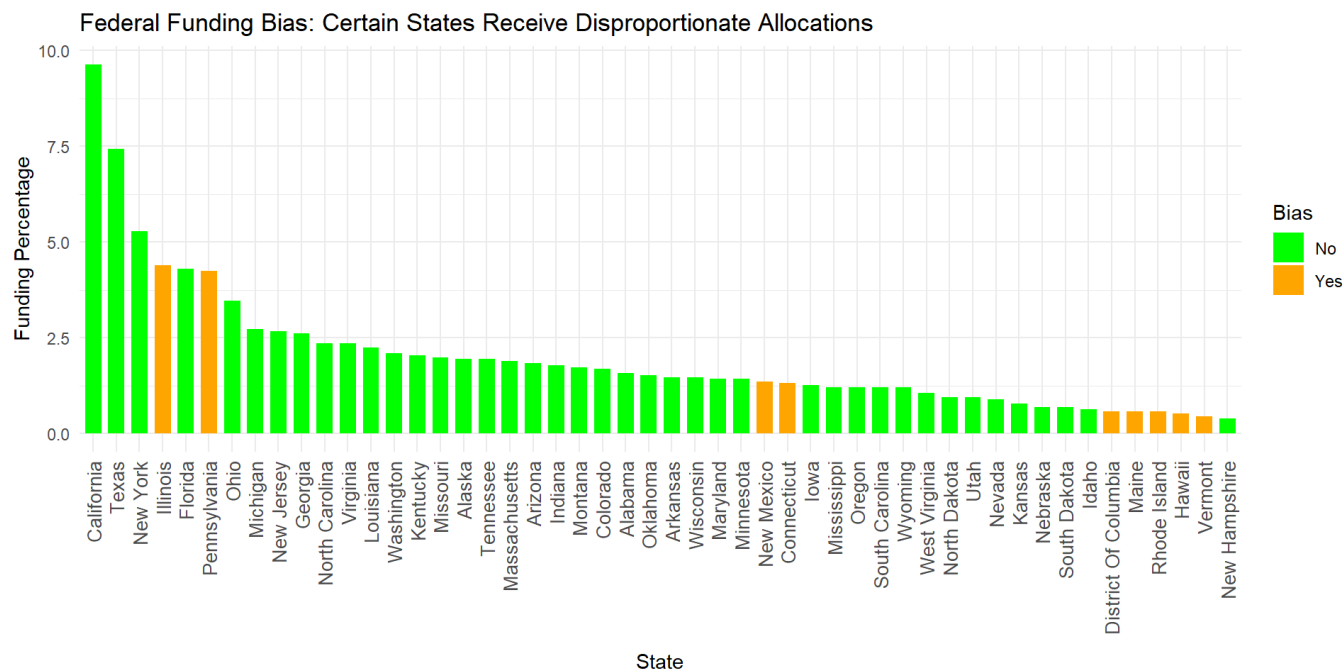
- Most states are marked in orange, indicating widespread inequitable funding.
- Only a few states (in green) receive equitable funding, showing that a minority of states benefit from a fair allocation.
- Larger states (e.g., California, Texas, New York, and Florida) receive the highest funding but are still marked as inequitable, suggesting potential over- or under-funding issues.
- The disparities decrease as you move to the right, with smaller states receiving smaller portions of funding.
- The chart visually communicates that federal funding is not evenly or fairly distributed across states.
- Only a few states receive equitable funding, while the majority experience disparities, either receiving too much or too little compared to what is considered fair.

Does the allocation favor the political interests of the Biden administration?

- Purpose: The field 'bias' identifies political bias in funding allocation, specifically if Democratic (Biden-won) states received more than the fair share in funding.

Feature Engineering Criteria for Bias:

- The state voted for Biden (biden_win == 1) and the state received funding more than equitable range
- Otherwise, the state is labeled as “No” (No bias detected).
- This helps detect whether Democratic states were treated more favorably compared to Republican states.



Interpretation:

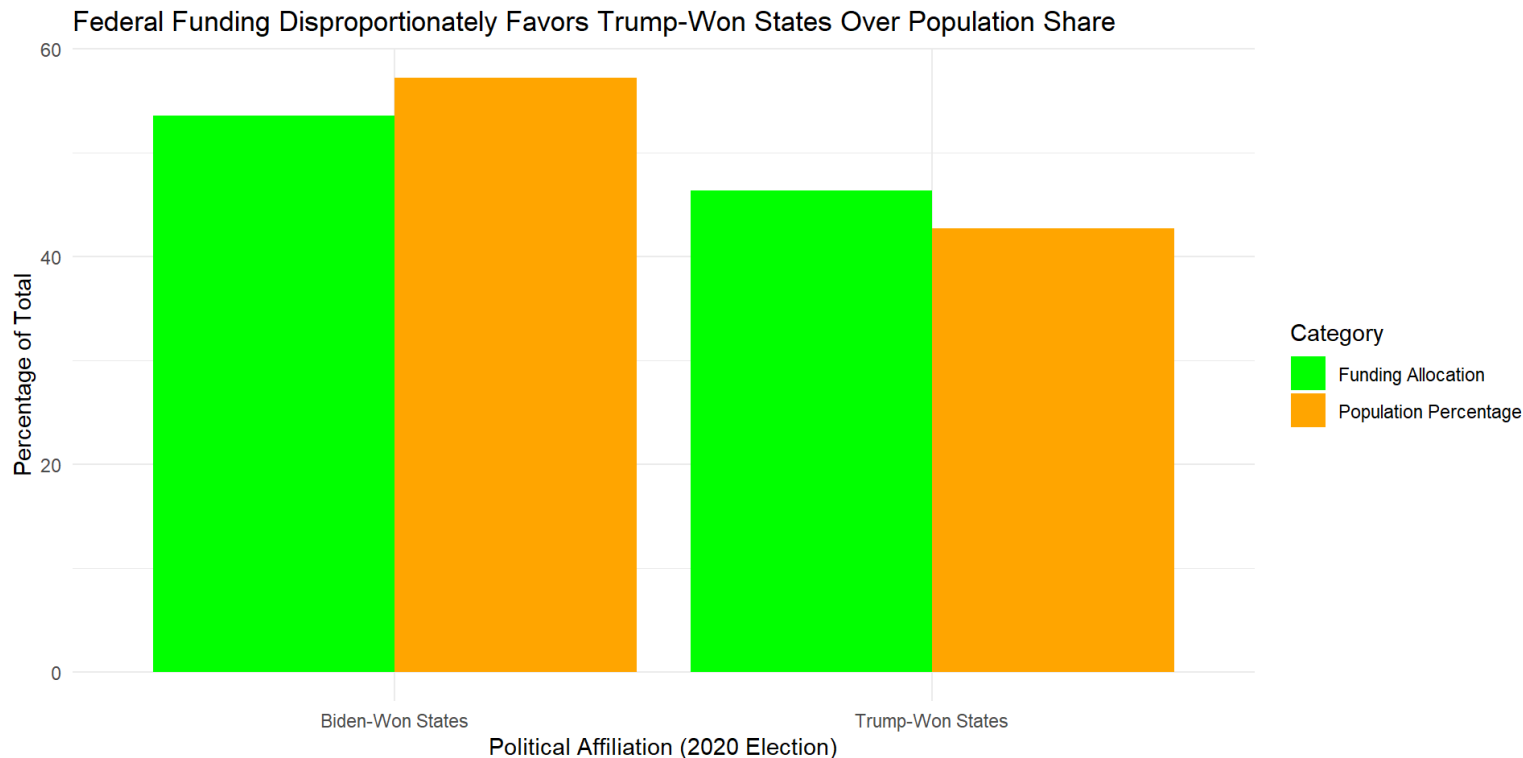
- The chart examines federal funding bias across U.S. states, highlighting whether certain states receive disproportionate allocations. The color coding represents bias:
- While high-funding states (like California, Texas, and New York) receive large allocations, they are marked in green, indicating no bias. However, some middle-ranked states are marked in orange, meaning they receive disproportionate funding.
- The lowest-funded states generally do not show bias, meaning their smaller funding levels remain proportionate.
- Green (“No”) – These states do not receive biased funding, meaning their allocations are fair or proportionate.
- Orange (“Yes”) – These states receive biased funding, suggesting they are either overfunded or underfunded relative to expected criteria (such as population, economic contribution, or need).

Key Observations:

- Most high-funding states (California, Texas, New York, Florida) receive large allocations but without bias (green), indicating a fair distribution.
- Some middle-ranked states are marked as biased (orange), meaning they receive either excessive or insufficient funding compared to expectations.
- The lowest-funded states (far right) generally do not show bias, suggesting that their allocations, while small, are proportionate.
- Bias in funding is not necessarily tied to the total amount received but rather to whether the allocation is fair relative to a certain standard.

Do federal funding biases favor Biden-won states?

- Proportionally more funding goes to Trump states



Funding allocation closely matches population share, then the distribution is likely fair

- We can interpret from the bar chart that the Biden states receive significantly less funding than their population share, and it does not suggest possible bias in allocation.
- Whereas the Trump states receive more funding despite a smaller population share, this indicates overfunding relative to need.

The Big Question: Is funding purely based on need, or does political influence play a role?

- The data suggests federal funding is not entirely equitable, and political alignment might be a factor.

Storyboard

- Federal funding is meant to be fairly distributed, but is it?
- Chart 1 (Disparities): Most states receive inequitable funding—few states get exactly what they should.
- Chart 2 (Bias): Large states get what they deserve, but some middle-ranked states receive disproportionate funding.
- Chart 3 (Politics): Trump-won states receive more federal funding relative to their population, while Biden-won states receive slightly less than their share.
- Federal funding should be allocated fairly based on population size and need, but does that actually happen?
- The first chart shows most states receive inequitable funding, meaning some get more or less than they should.
- The second chart digs deeper, revealing bias in funding is concentrated in mid-level states, while large states receive appropriate funding.
- But the final chart introduces another twist—Trump-won states receive more funding relative to their population, while Biden-won states receive slightly less than their share.
- So, is the system fair? Not entirely. While population plays a role, it is not the sole factor in determining funding distribution.

Big Idea Summary

- Federal funding is not equitably distributed—population size is a factor, but political affiliation also appears to influence allocation.