

Home Health Care Providers of America

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NSS Data Analytics Cohort 1

Goals

- Determine the top 5 and bottom 5 states when it comes to patient reviews and surveys
- Display how every state compares to the rest
- Show the locations of every provider to determine if there is any meaning between provider location and scores
- Extract the top 25 Providers in the country and the bottom 25 Providers in the country based on score
- Explore the relationship between total score and median household income data

Provider Review Score

- Provider review scores were created for each provider and state. Each quality metric was scaled as a percentage. Positive metrics were added to the running score, and negative metrics were subtracted from it until all the metrics were calculated, resulting in the final score.
 - Percent of patients who reported that their home health team discussed medicines, pain, and home safety with them = Positive
 - How often patients developed new or worsened pressure ulcers = Negative

Positive Categories

- How often the home health team began their patients' care in a timely manner
- How often the home health team taught patients (or their family caregivers) about their drugs
- How often the home health team checked patients' risk of falling
- How often the home health team checked patients for depression
- How often the home health team determined whether patients received a flu shot for the current flu season
- How often the home health team made sure that their patients have received a pneumococcal vaccine (pneumonia shot)
- With diabetes, how often the home health team got doctor's orders, gave foot care, and taught patients about foot care

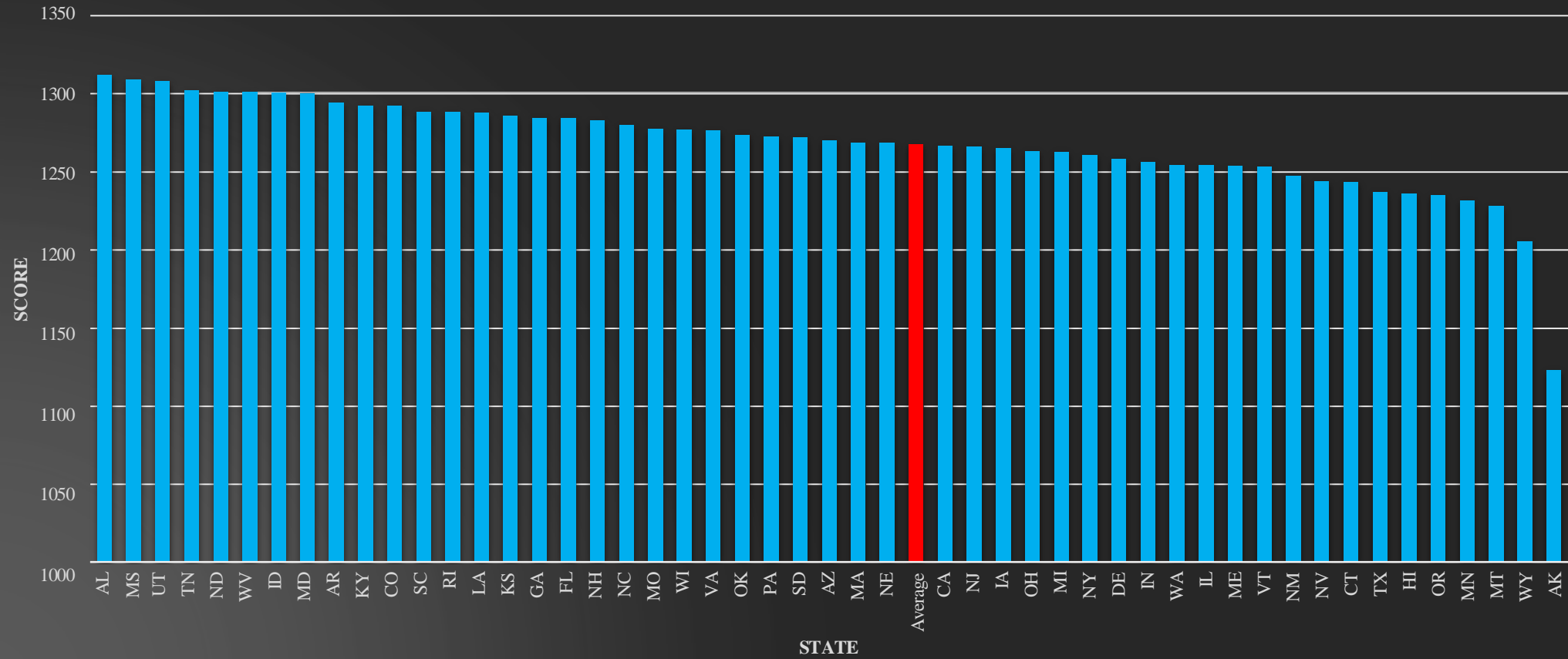
Positive Categories (cont.)

- How often patients got better at walking or moving around
- How often patients got better at getting in and out of bed
- How often patients got better at bathing
- How often patients had less pain when moving around
- How often patients' breathing improved
- How often patients' wounds improved or healed after an operation
- How often patients got better at taking their drugs correctly by mouth
- How often physician-recommended actions to address medication issues were completely timely

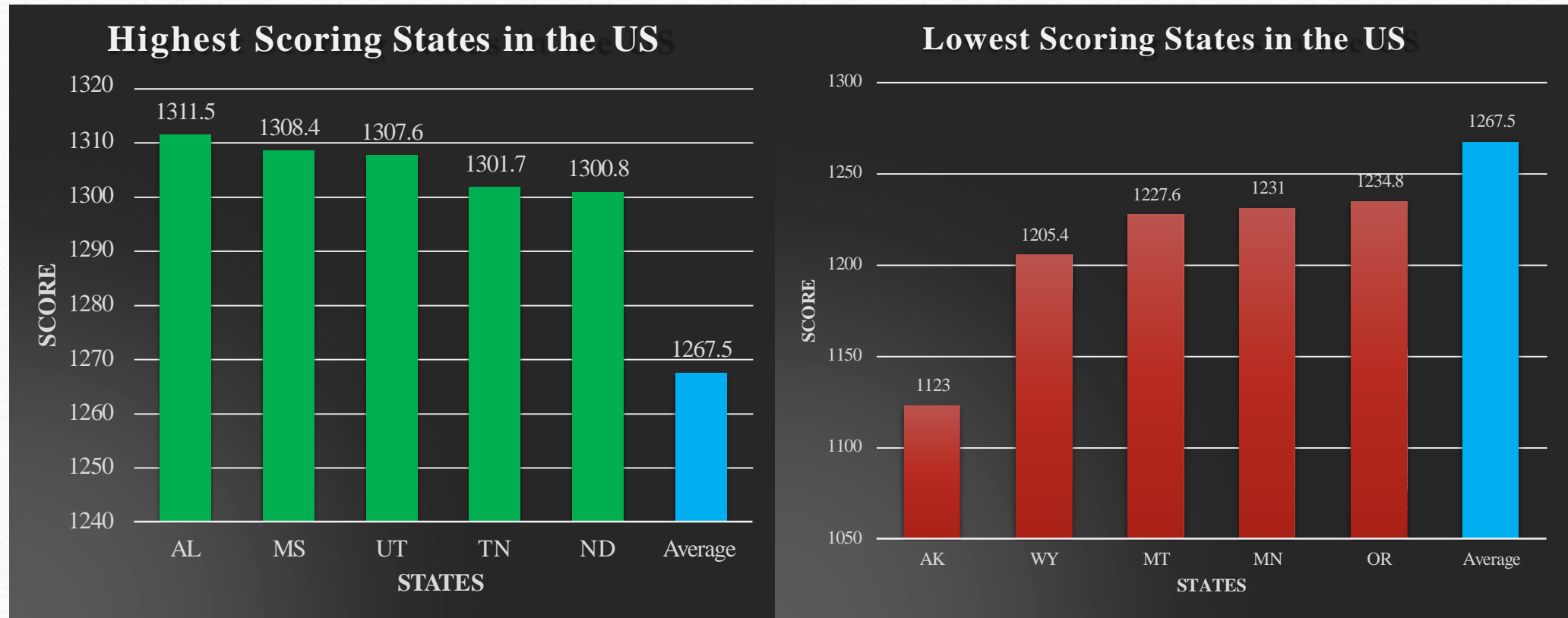
Negative Categories

- How often home health patients had to be admitted to the hospital
- How often patients receiving home health care needed urgent, unplanned care in the ER without being admitted
- How often patients developed new or worsened pressure ulcers

All States and Their Scores



Best and Worst 5 States based on Score



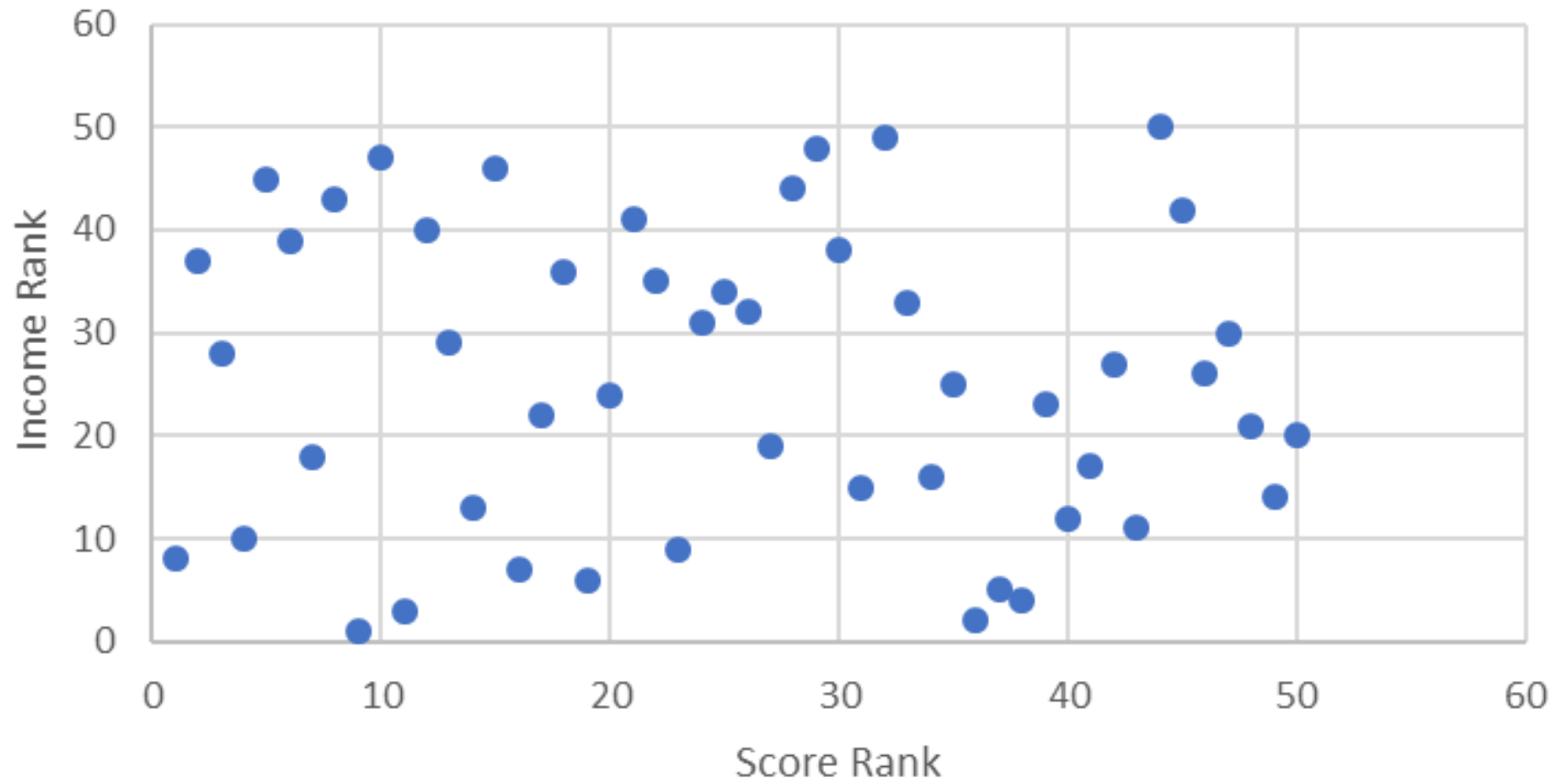
Map of the US Dashboard

https://public.tableau.com/profile/seth.remo#!/vizhome/CapstoneMaps_15767999950410/AverageScorebyState

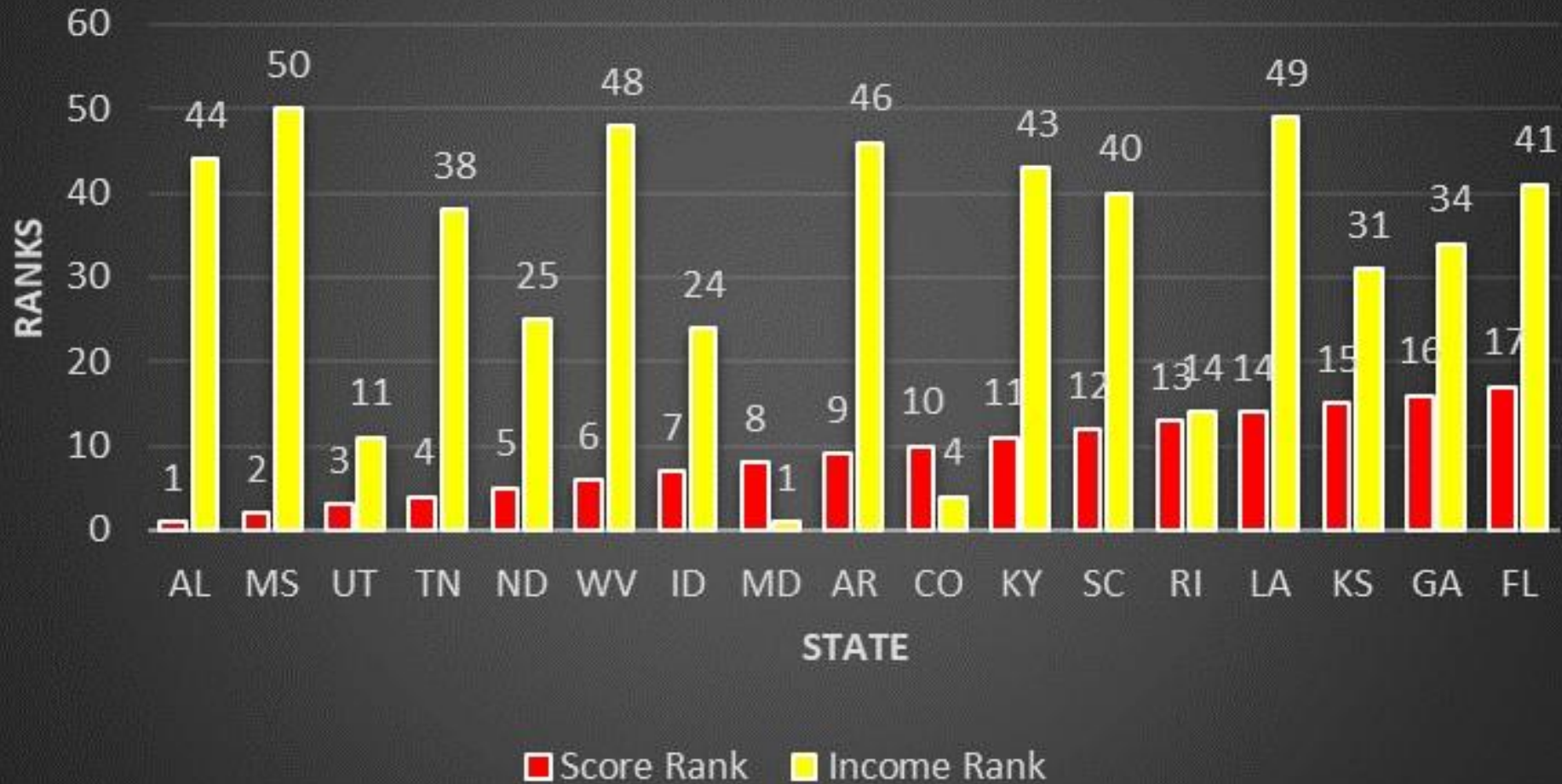
Income Rankings vs Score Rankings

- Income Rank is a ranking based on the median household income data from 2017, where #1 is the state with the highest median income and #50 is the lowest median income.
- Score Rank is a ranking based on the patient review score where #1 has the highest score and #50 has the lowest score.

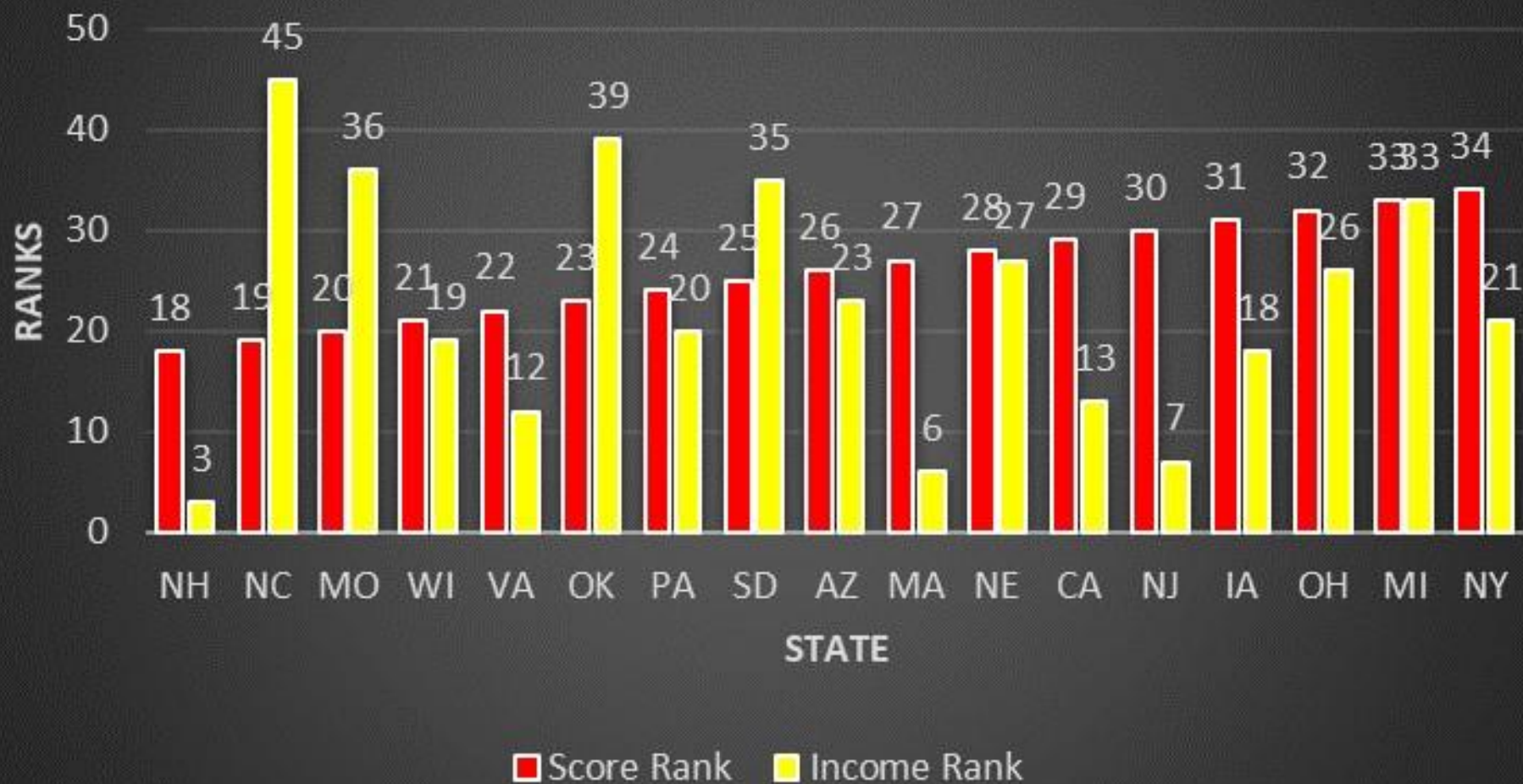
Score Rank vs Income Rank



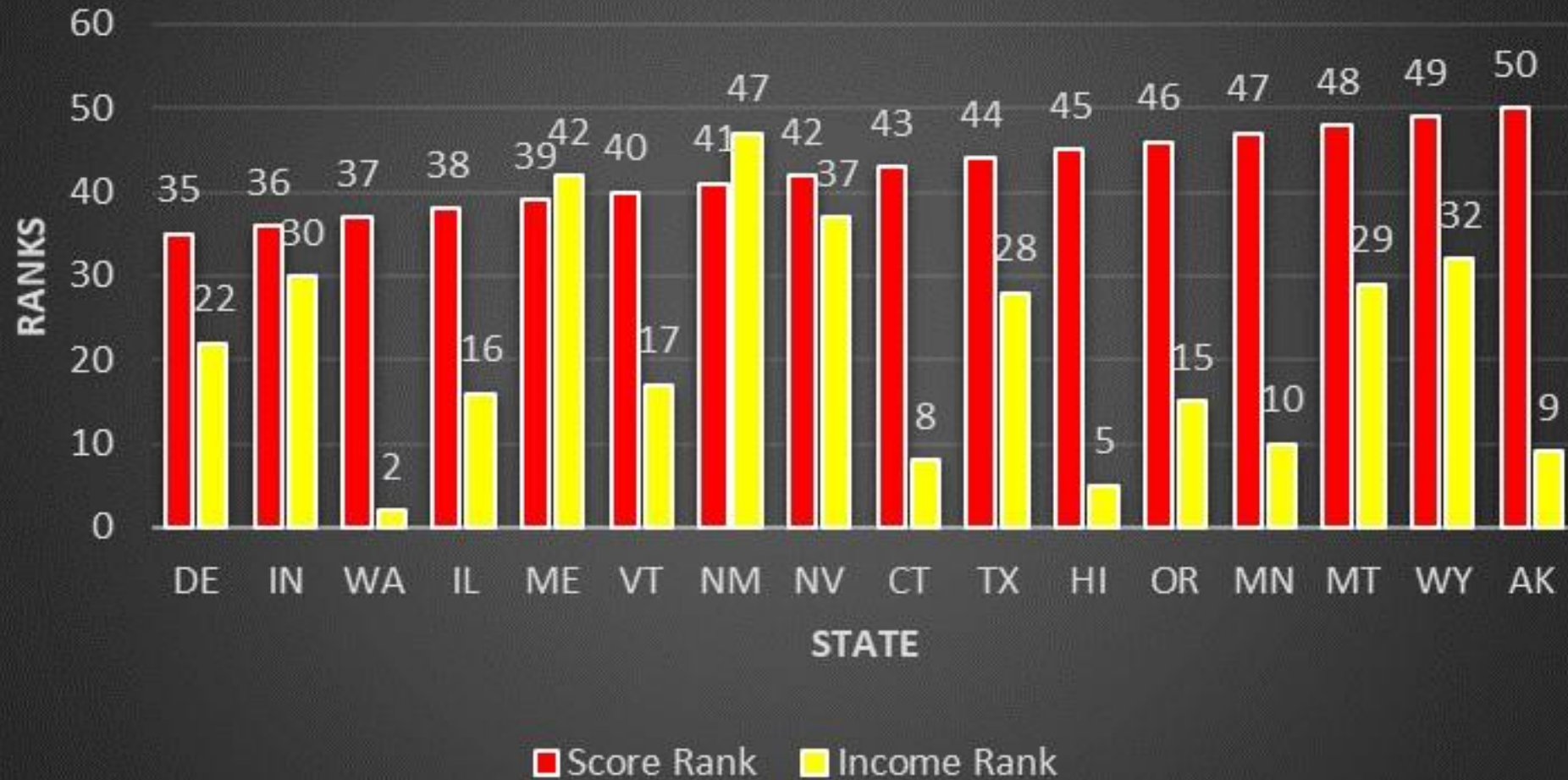
Score Rank vs Income Rank



Score Rank vs Income Rank



Score Rank vs Income Rank



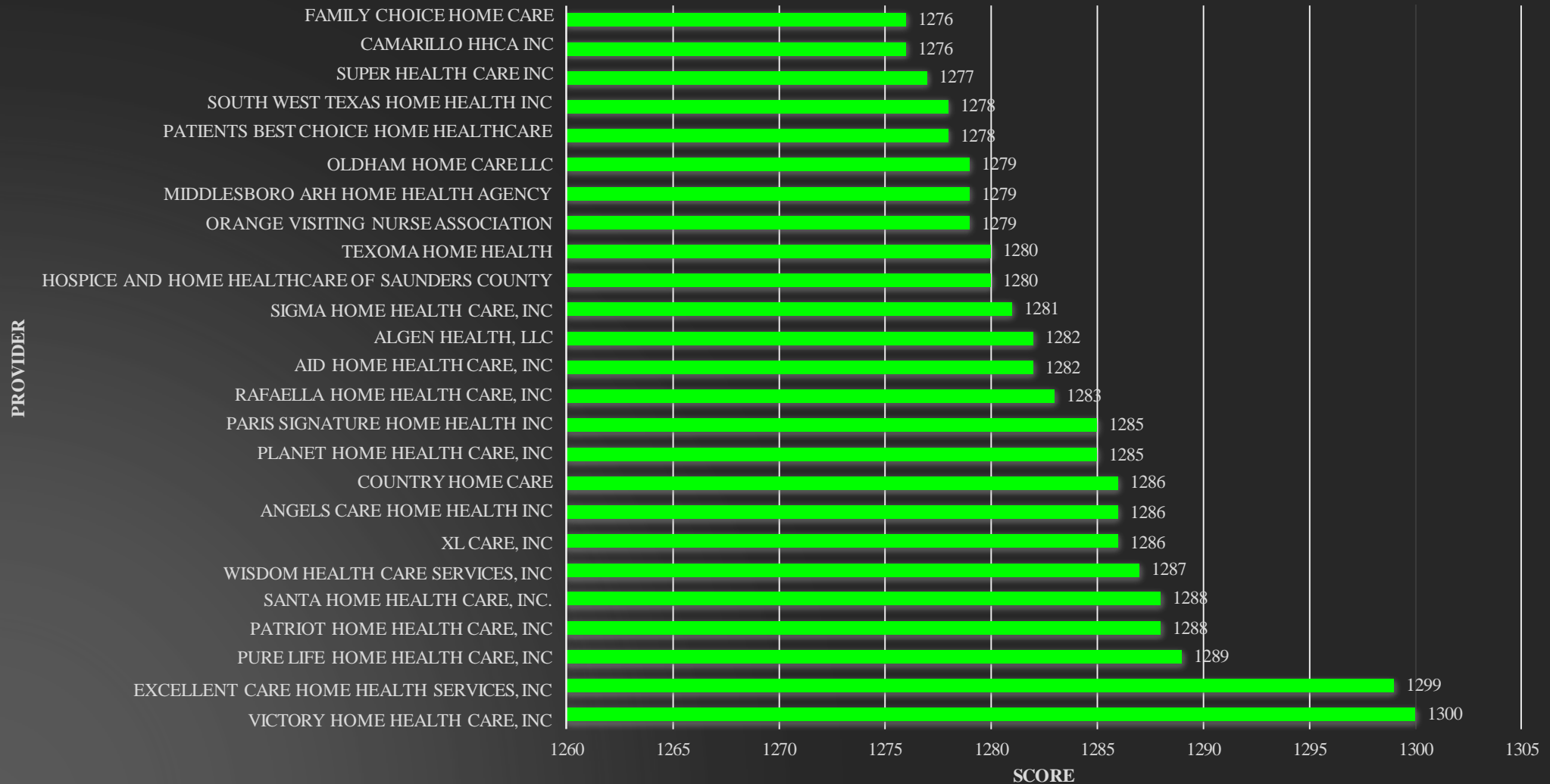
What These Charts Tell Us

- Alabama, Mississippi, and Louisiana have a very low median household income, but still show up with very high scores
- There is no correlation between median household income and patient review score
- Our very own state of Tennessee has a low Income Rank(#38), but still manages a high Score Rank(#4)

Highest Scoring Providers in the Country

- The patient review score was used to determine the 100 highest scoring and the 100 lowest scoring providers in the US
- Then, using provider location, a chart was created finding how many times each state contained a provider that was in that top 100 list or bottom list

Highest Scoring Providers in the Country



Lowest Scoring Providers in the Country

PROVIDER



Provider Dashboard

https://public.tableau.com/profile/seth.remo#!/vizhome/CapstoneMaps_15767999950410/ProviderInformationandLocation

90% Dashboard

https://public.tableau.com/profile/seth.remo#!/vizhome/CapstoneMaps_15767999950410/HowManyProvidersScored90inEveryCategory

References

- <https://data.medicare.gov/data/home-health-compare>
- [Home Health Care - Patient survey \(HHCAHPS\) State Data](#)
- [Home Health Care - State by State Data](#)
- [Home Health Care - Patient survey \(HHCAHPS\)](#)
- [Home Health Care Agencies](#)
- <https://data.world/garyhoov/household-income-by-state>