

# DEAL OR NO DEAL? ☰

## A DEEP DIVE INTO NBA SALARIES



ORCHESTRATED BY:

BRYANT BRUZOS

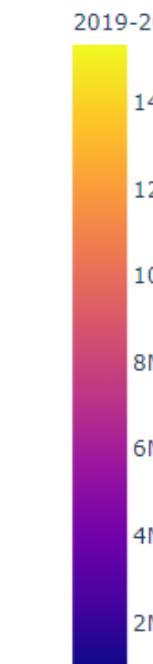
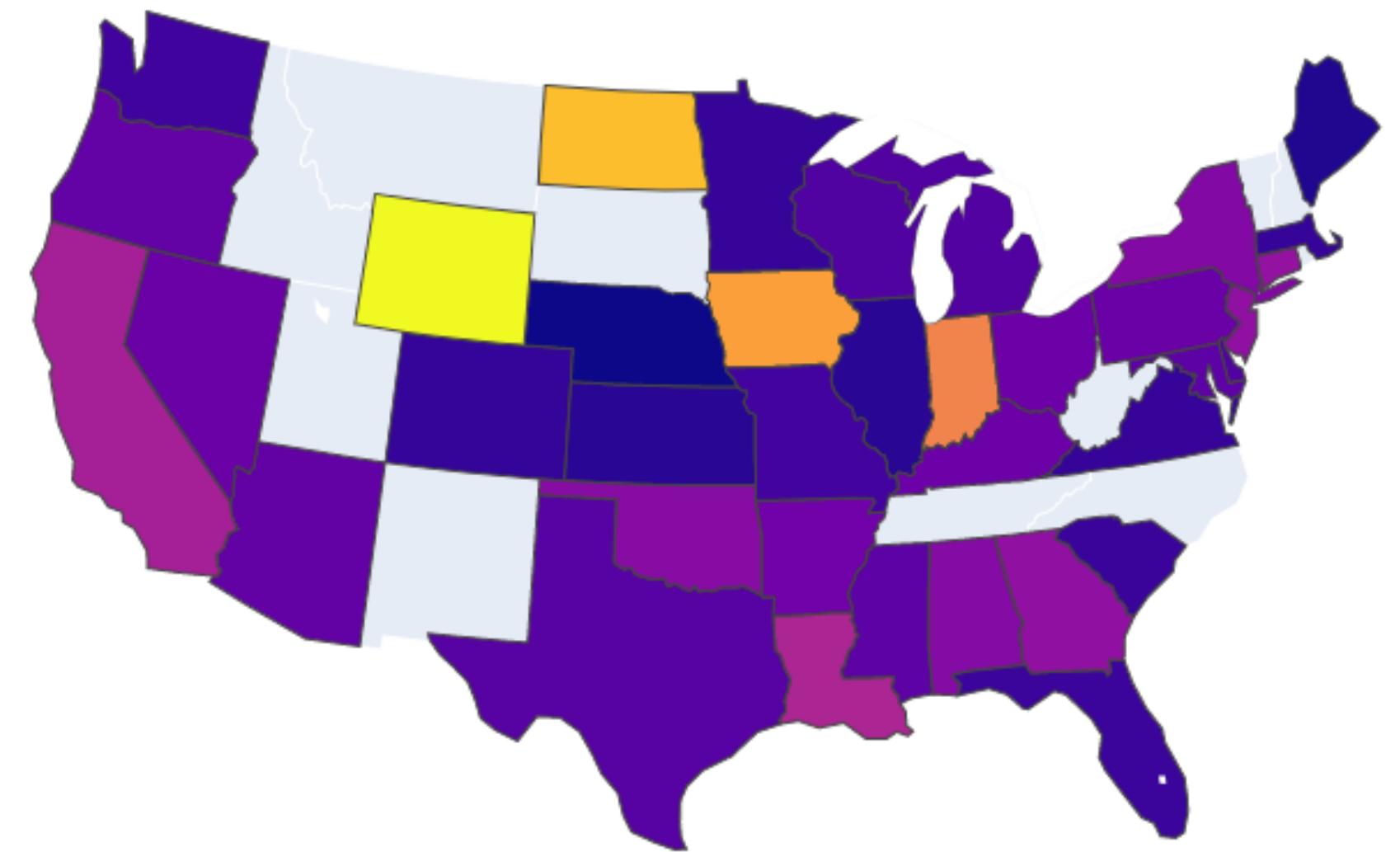
DOMINIQUE DUNNING

BENJAMIN LEWIS

SABURO NAKANO



# 2019-20 MEDIAN NBA SALARY BY BIRTH STATE HEAT MAP



HIGHEST MEDIAN SALARY  
**\$15,349,400**

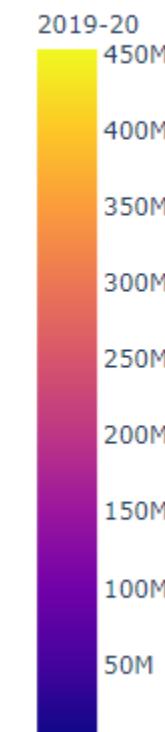
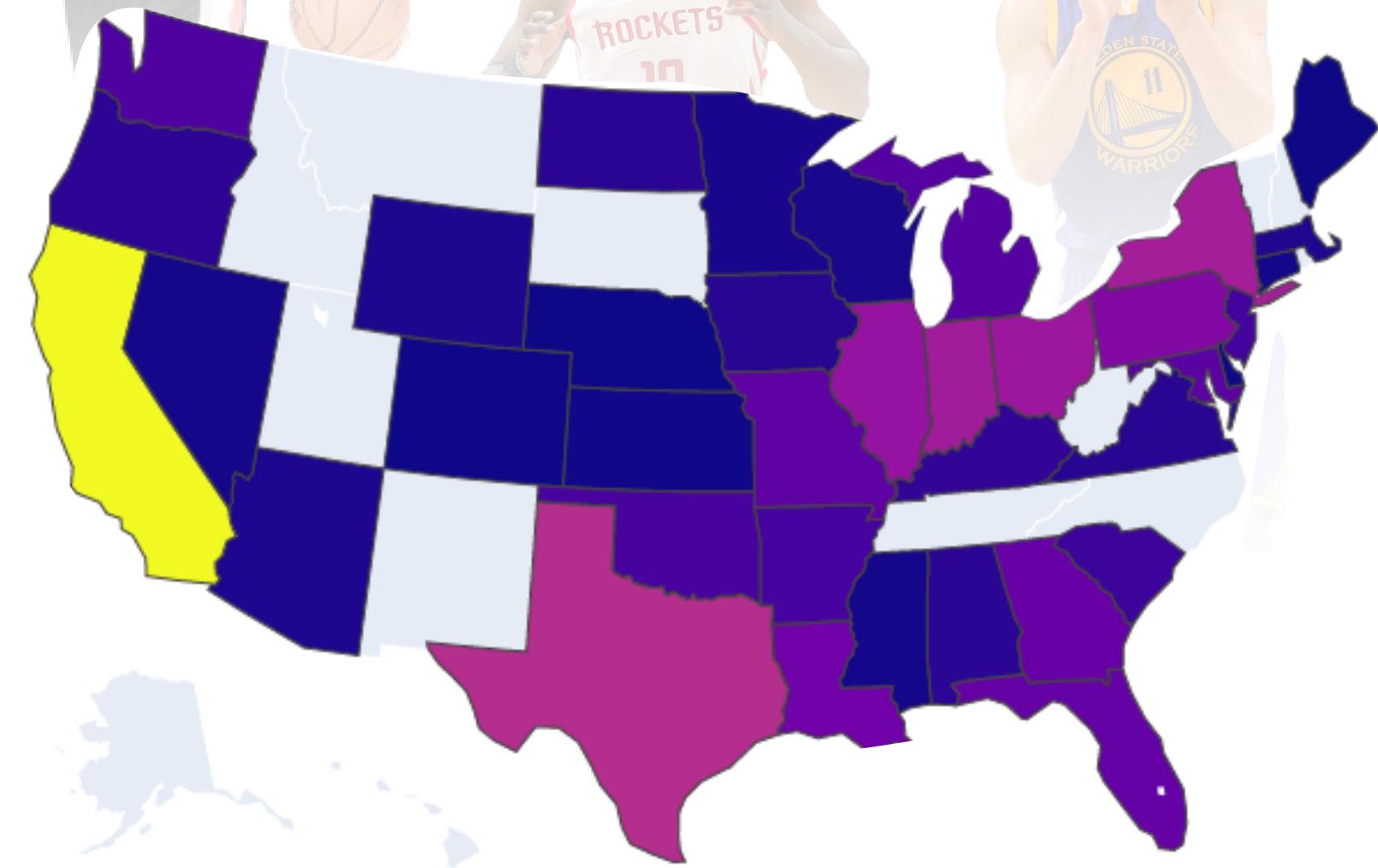
STATE  
**WY**







# 2019-20 TOTAL NBA SALARY BY BIRTH STATE HEAT MAP



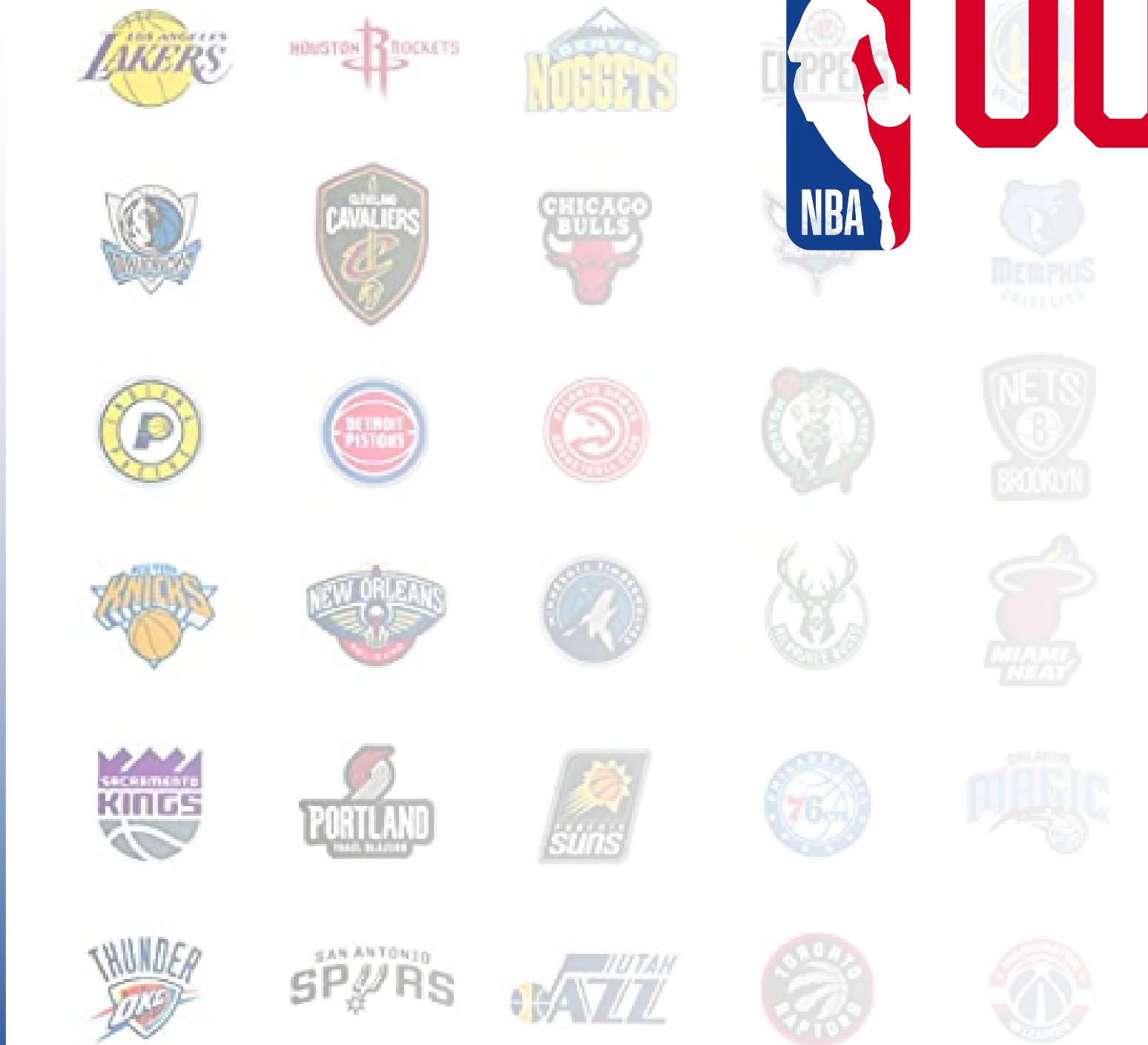
HIGHEST TOTAL SALARY  
**\$453,153,917**

STATE  
**CA**



# OUR MOTIVATION

-NBA INFLUENCE  
-ALL NBA FANS





# QUESTIONS?

- DO PEOPLE BORN IN POOR STATE TEND TO PERFORM BETTER OR HAVE HIGHER SALARY?\*
  - ARE THERE ANY CORRELATION BETWEEN HOUSEHOLD INCOME VS SALARY OR PERFORMANCE?
  - ARE THERE ANY CORRELATION BETWEEN STATE POVERTY RATE AND PLAYER MEDIAN SALARY?
- AT WHAT AGE WILL PLAYER GET THE MOST AMOUNT OF MONEY?
- HOW MANY PLAYERS ARE COMING FROM EACH STATE?
- WHAT IS THE BEST STATISTIC TO USE WHEN COMPARING A PLAYERS SALARY TO THEIR PERFORMANCE?  
AND WHICH STATES PERFORM THE BEST BASED ON THIS STATISTIC?

## HYPOTHESIS:

THERE IS A CORRELATION BETWEEN SOCIOECONOMIC BACKGROUND  
& CURRENT NBA SALARY





# DATA SOURCES

- NBA PLAYER ([BASKETBALL-REFERENCE.COM](https://www.basketball-reference.com))  
STATS: ADVANCED HOMETOWN AND STATE  
SALARY FOR 2019-2020
- DEMOGRAPHIC DATA ([CENSUS DATA.GOV](https://www.census.gov))  
INCOME FOR EACH STATE, COUNTY





# DATA CLEANING & EXPLORATION

## - NBA PLAYERS

ADD THE SUFFIX NAME OF THE NBA PLAYERS (JR, III)

REMOVED DUPLICATE PLAYERS FROM SALARY FILE

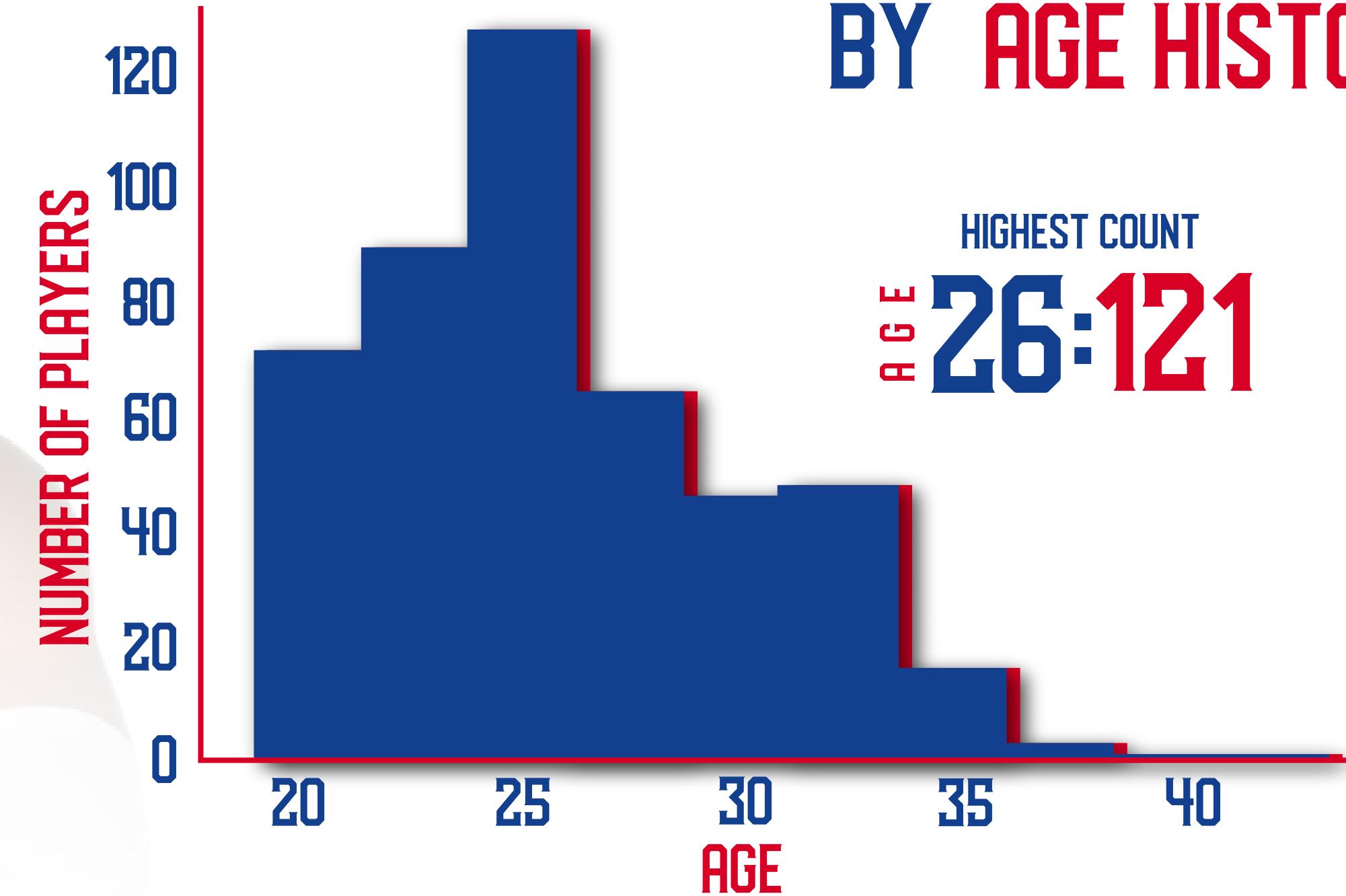
## - CENSUS.GOV (SAIPE DATA 2018)

HOUSEHOLD INCOME STATE



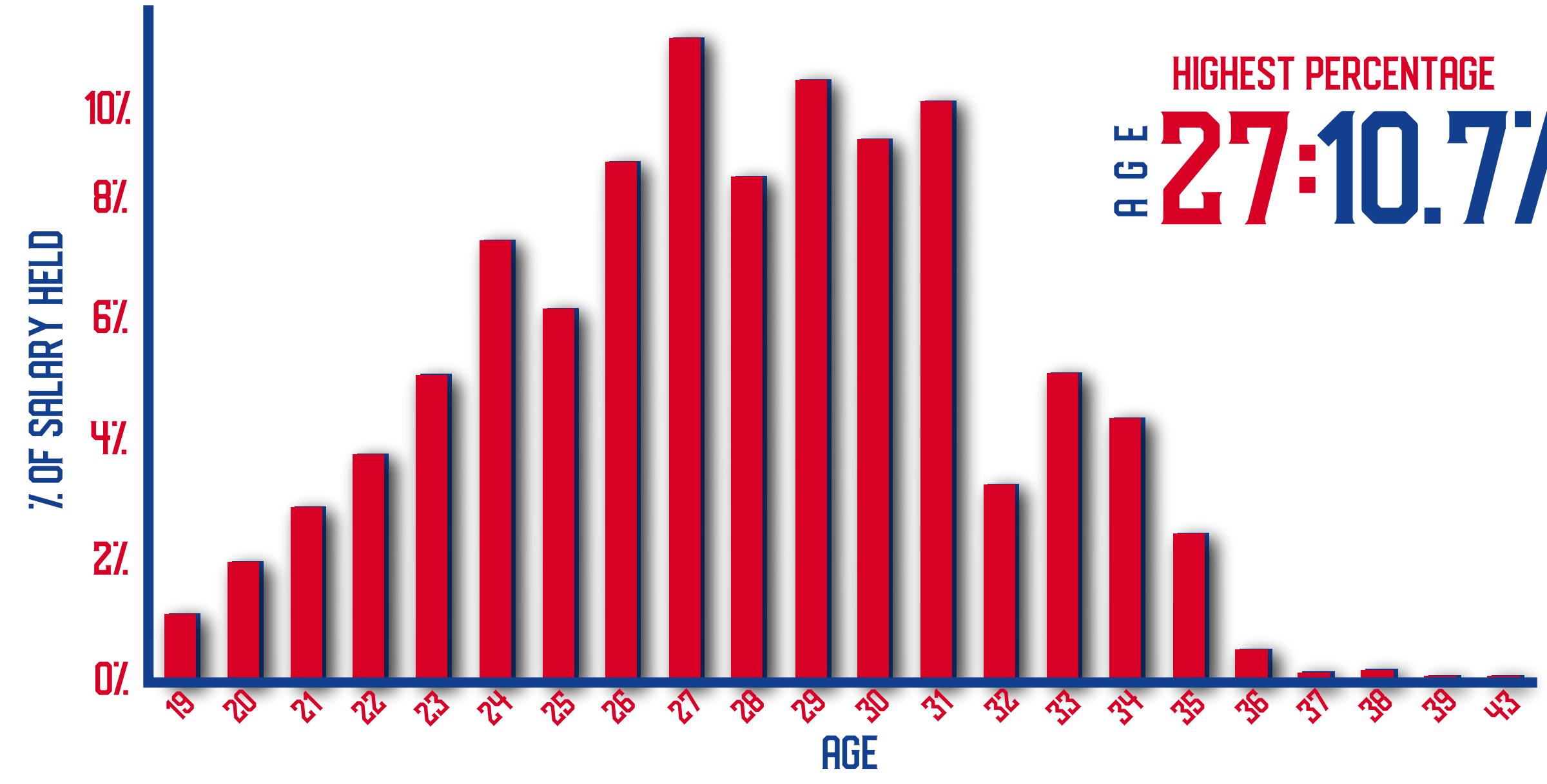


# 2019-20 TOTAL NBA PLAYER COUNT BY AGE HISTOGRAM



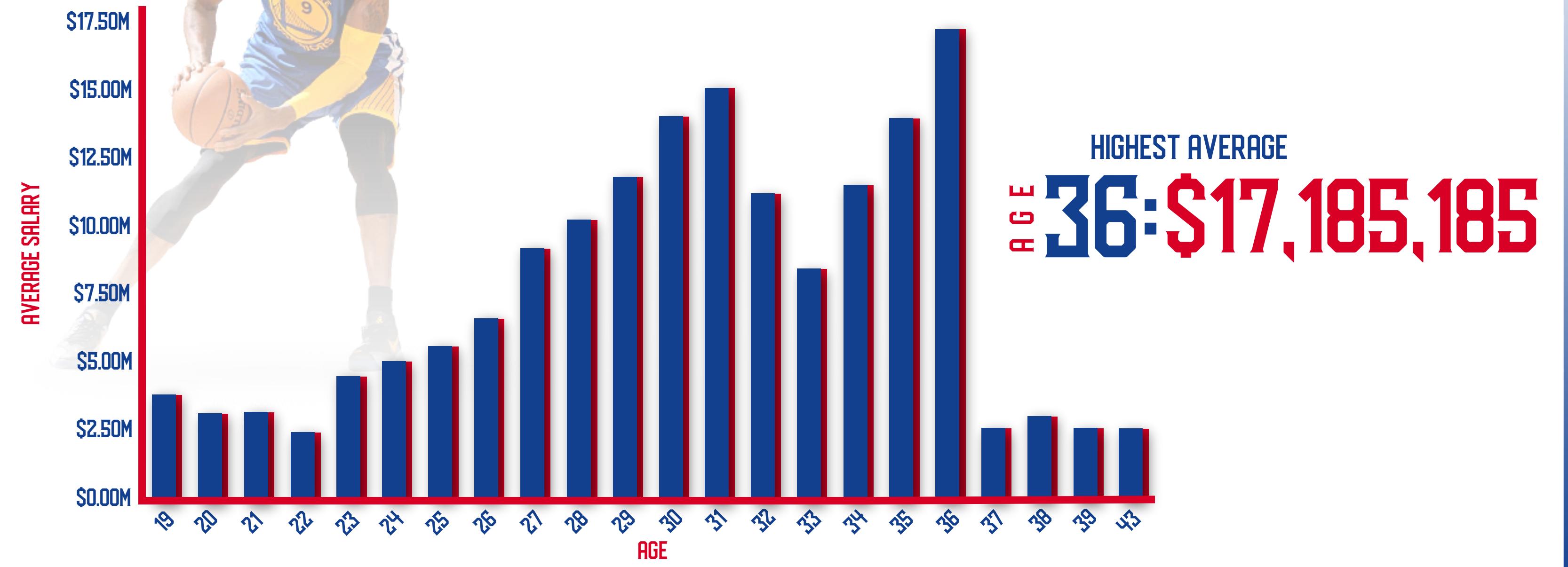


# 2019-20 TOTAL NBA SALARY TOTAL % HELD BY AGE BAR CHART



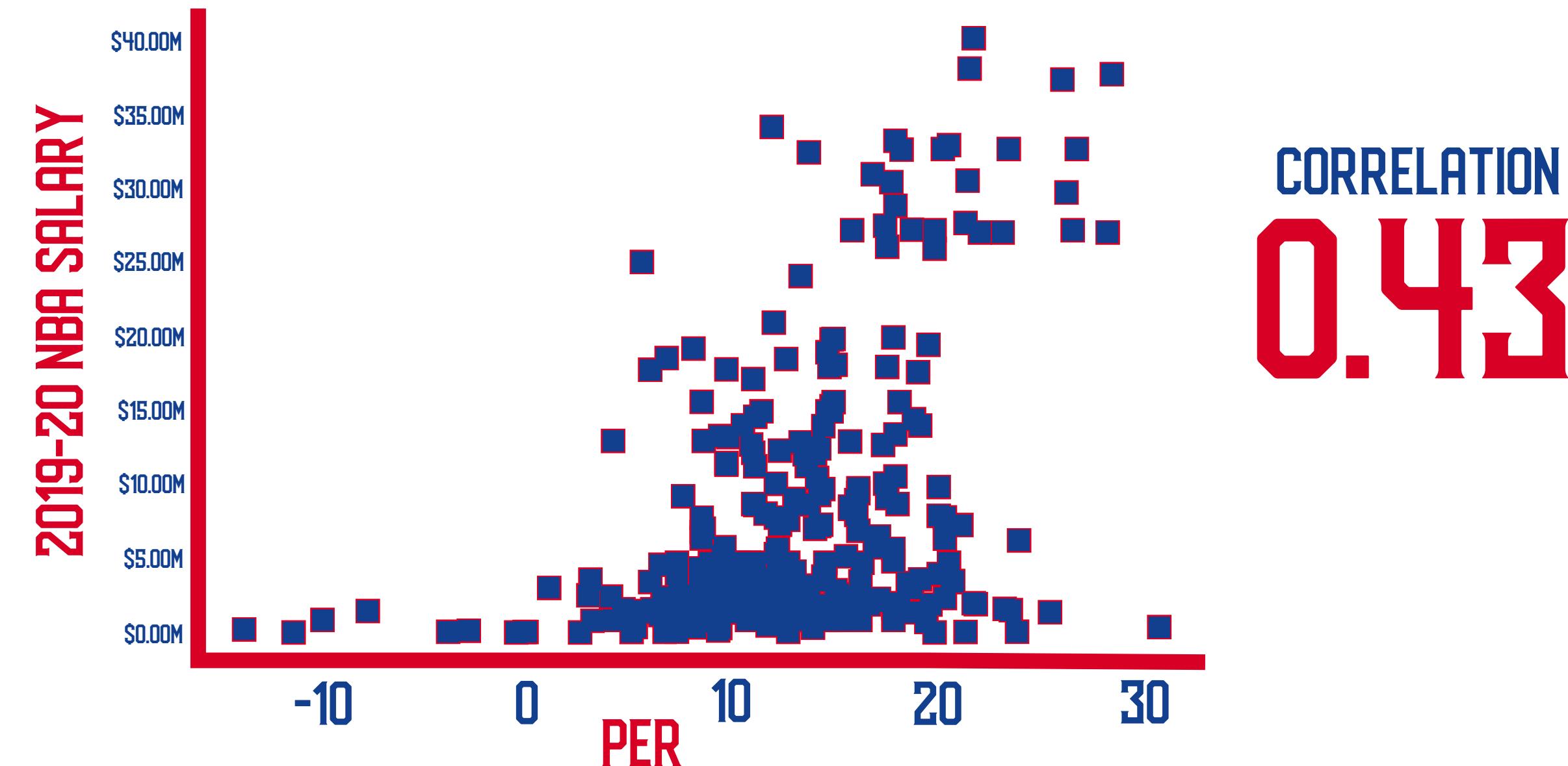


# 2019-20 TOTAL NBA SALARY TOTAL % HELD BY AGE BAR CHART

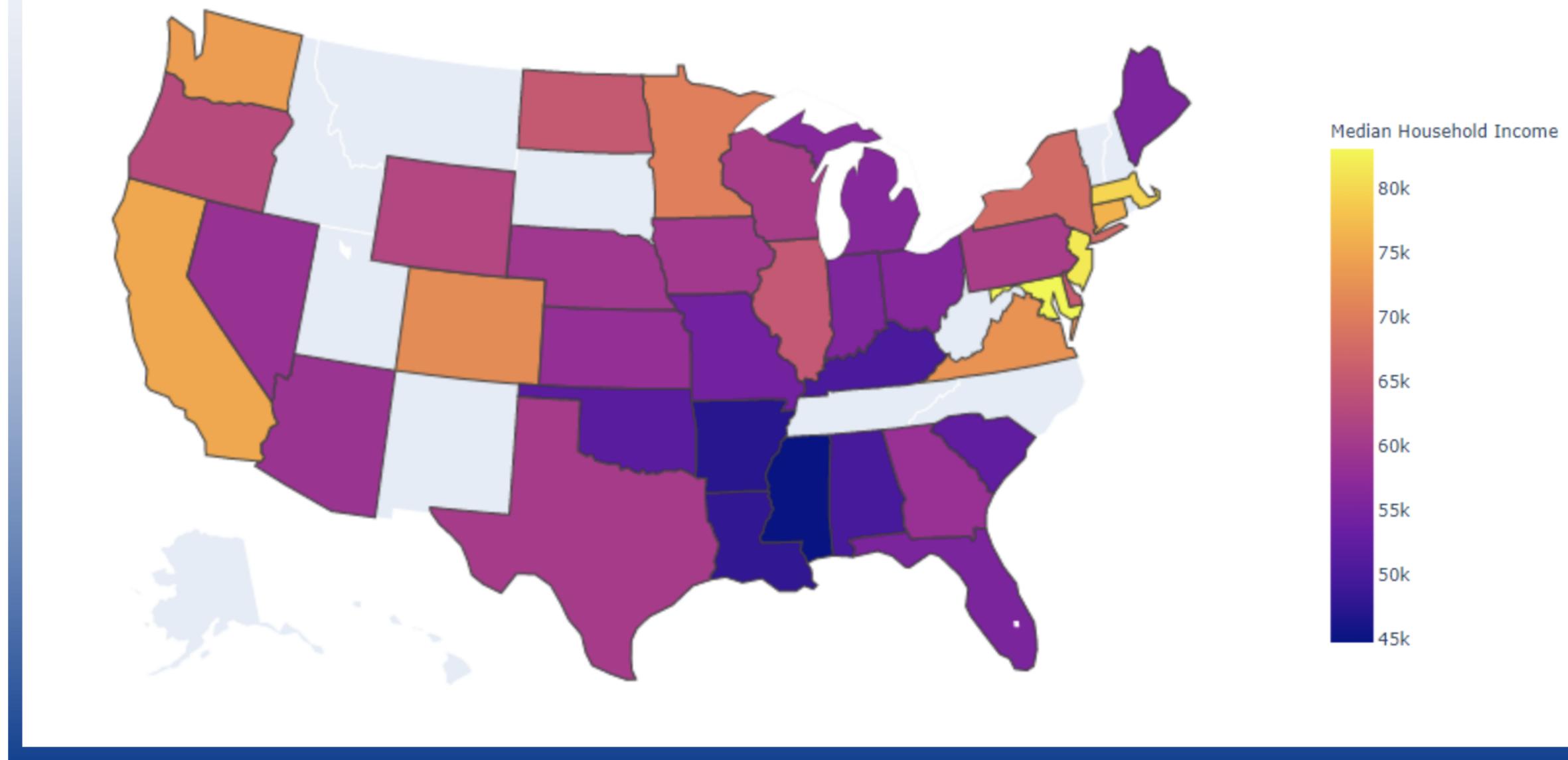




# PER VS 2019-20 NBA SALARY SCATTER PLOT

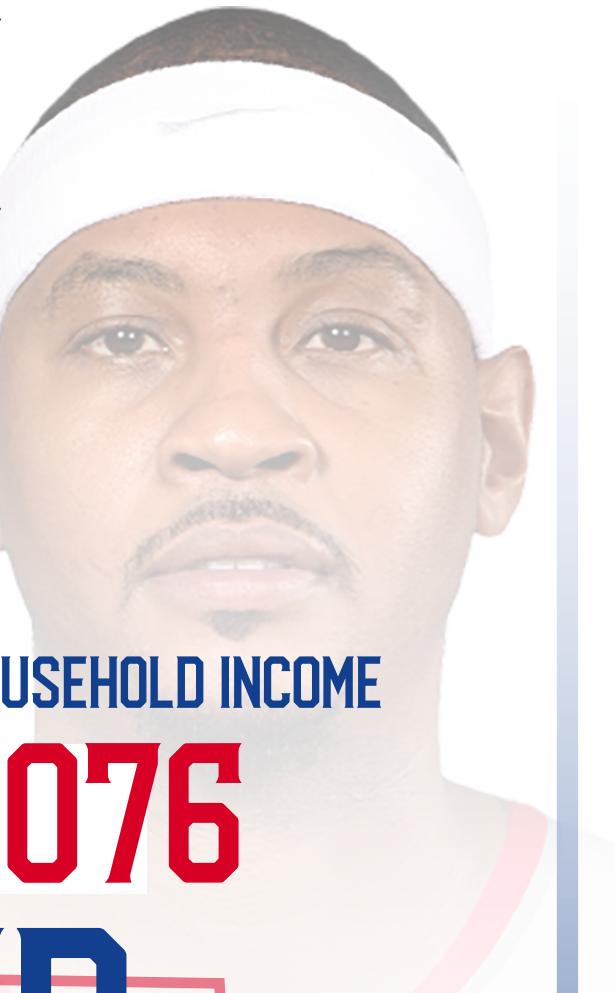


# USA MEDIAN HOUSEHOLD INCOME BY STATE HEAT MAP



GHEST MEDIAN HOUSEHOLD INCOME

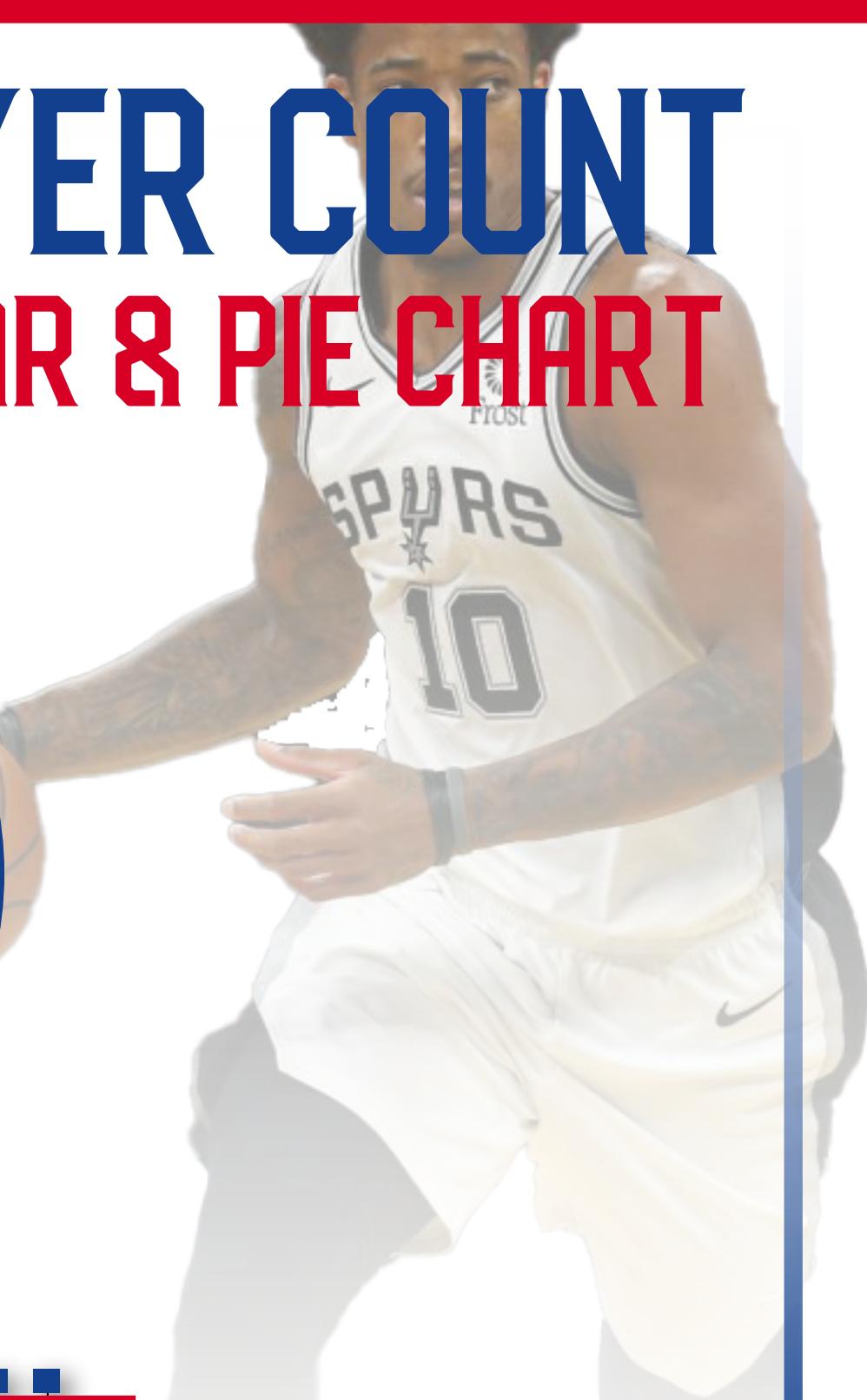
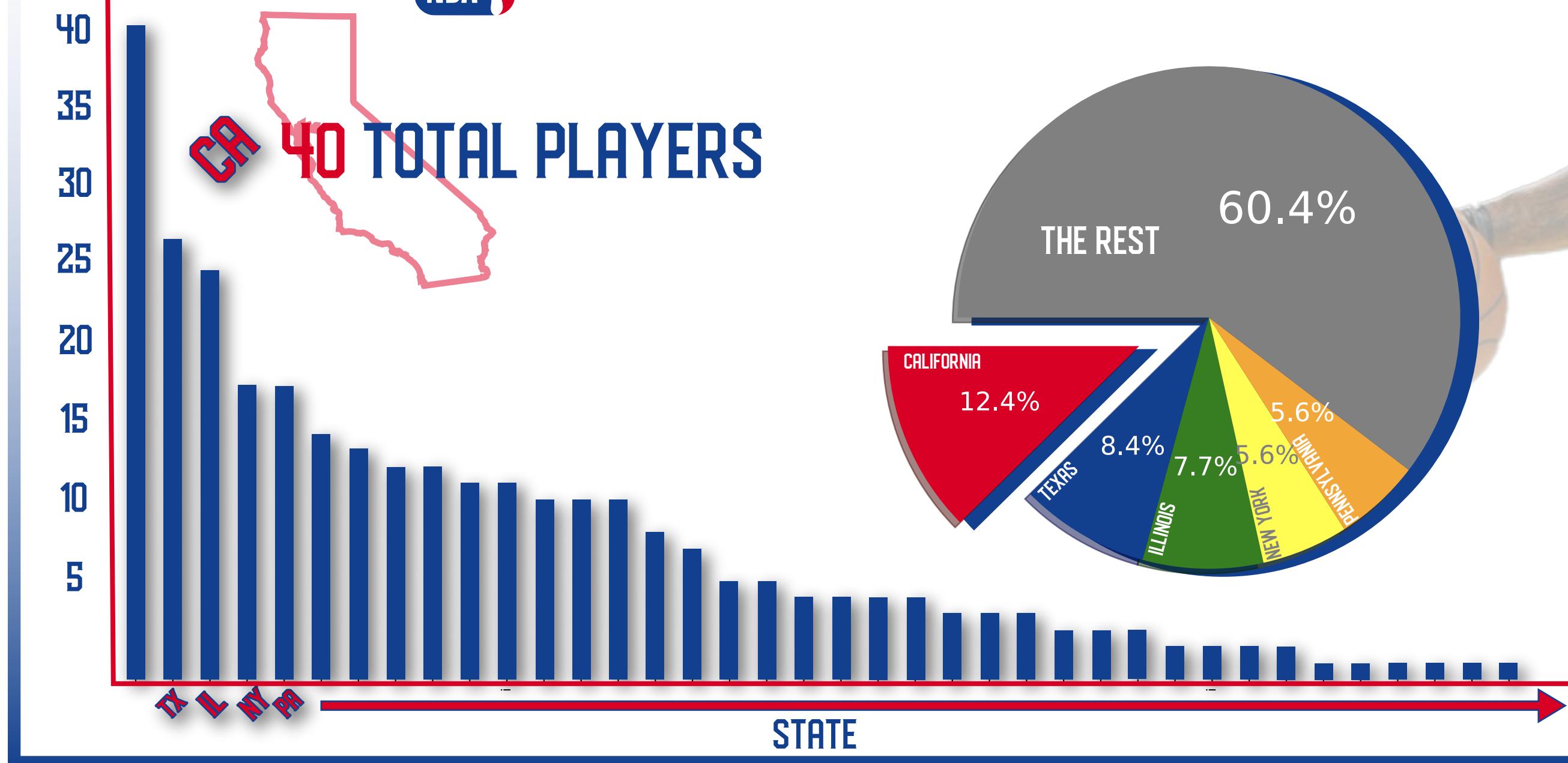
**\$83,076**



BIOFREEZE  
GEL

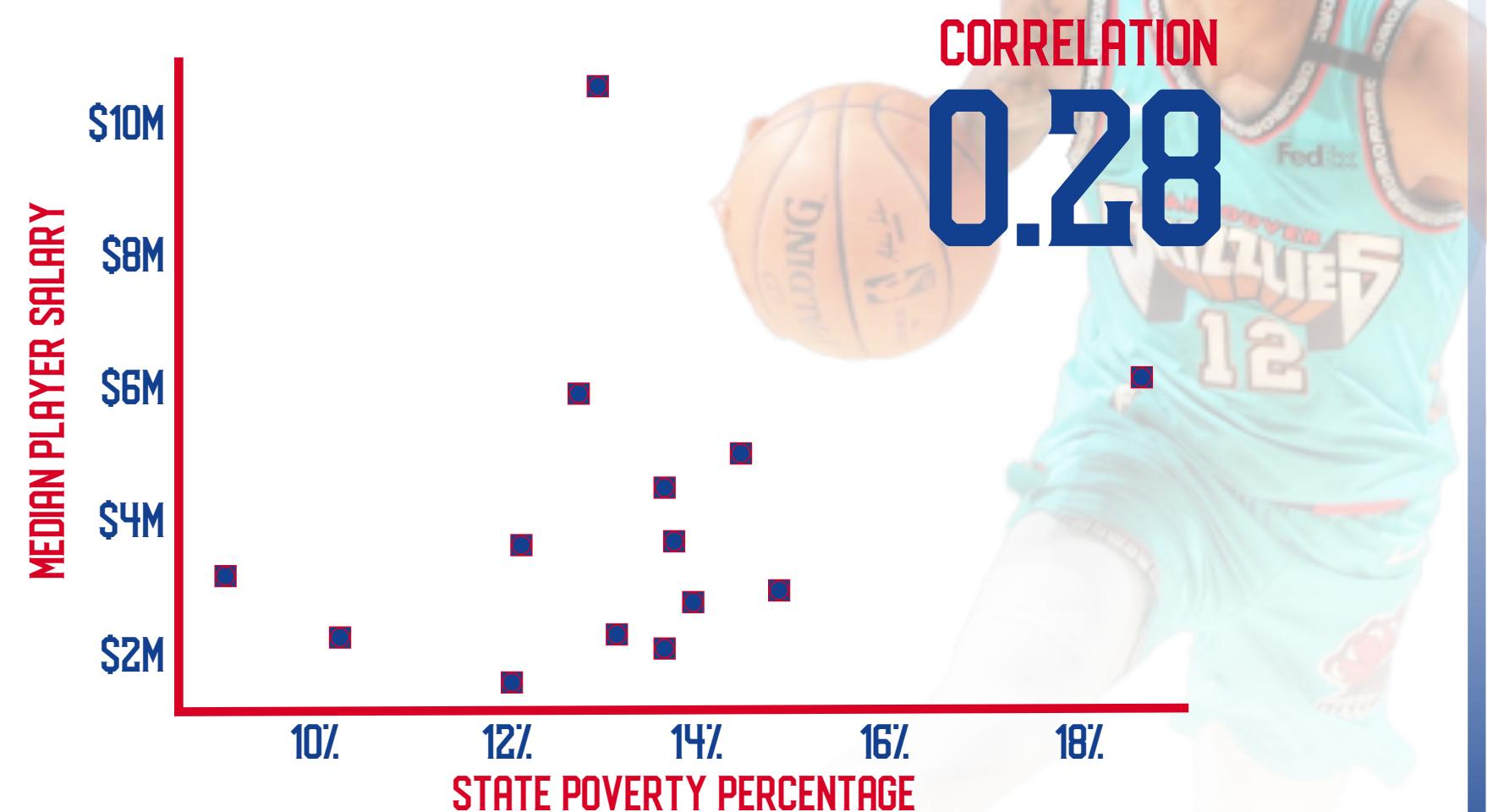
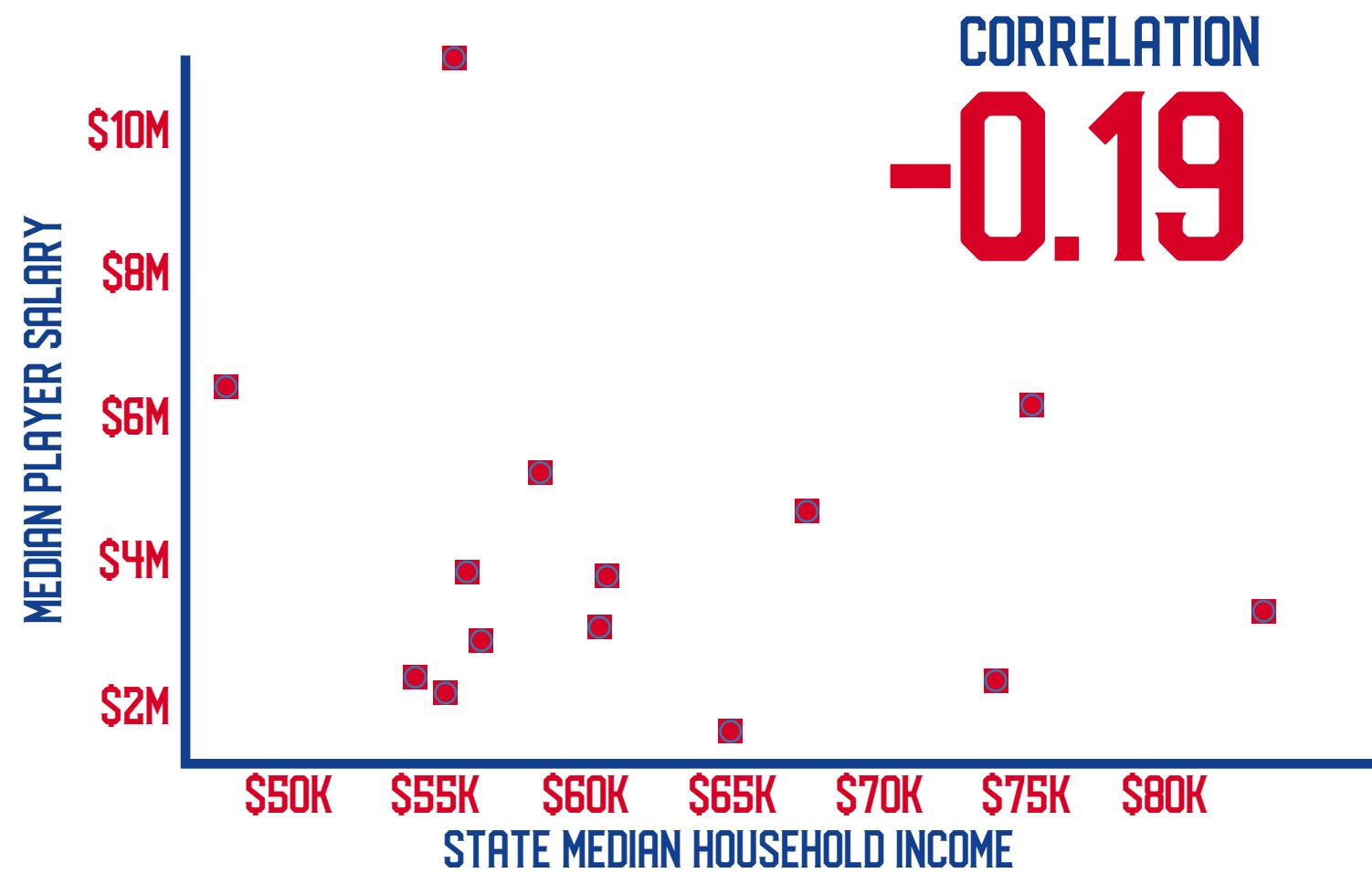


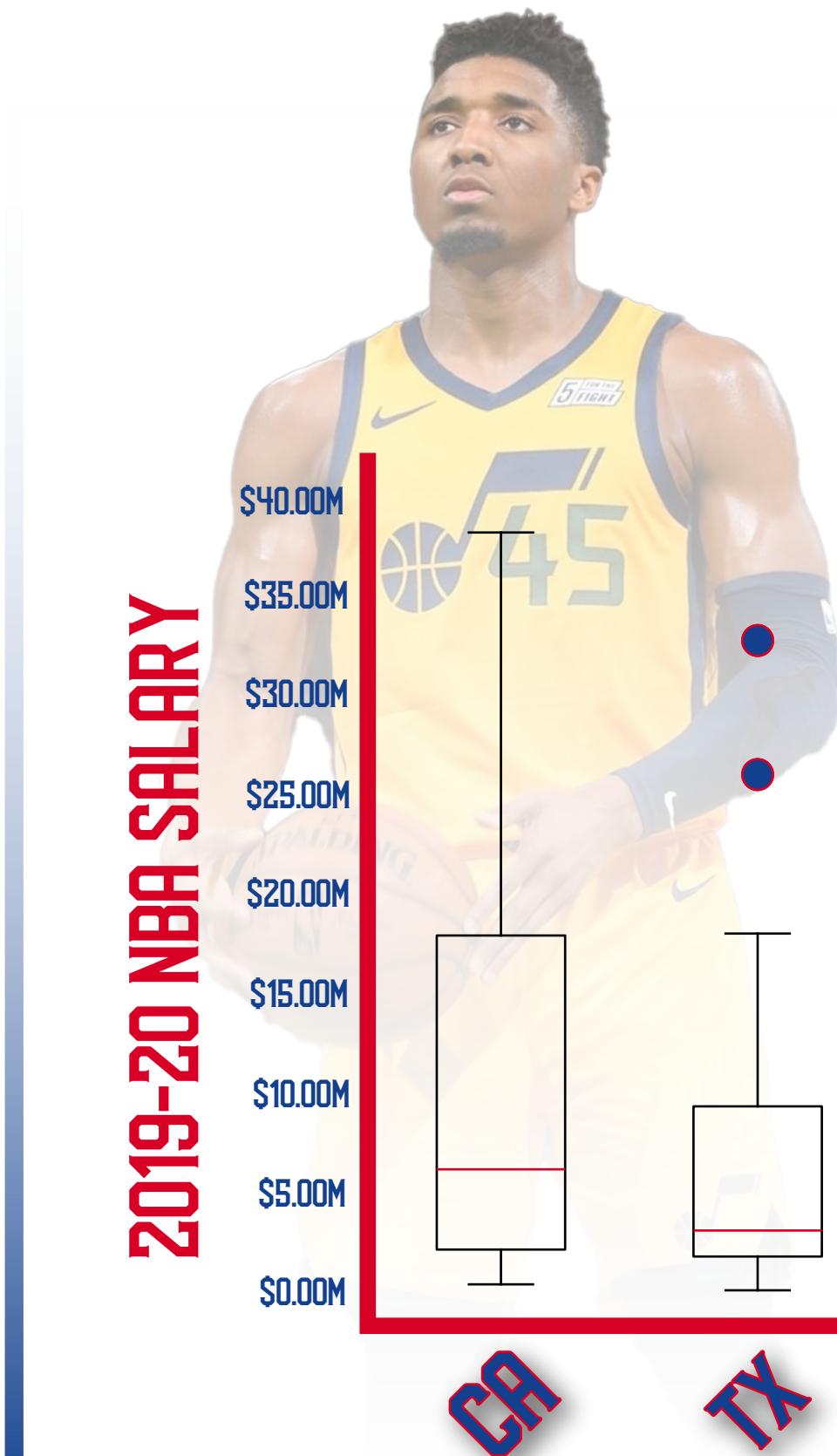
# 2019-20 NBA PLAYER COUNT BY BIRTH STATE BAR & PIE CHART





# MEDIAN HH INCOME VS 2019-20 NBA MEDIAN SALARY SCATTER PLOTS





# 2019-20 TOTAL NBA SALARY BY BIRTH STATE BOX PLOT

**MOST OUTLIERS**



# PER EXPLAINED

THE PLAYER EFFICIENCY RATING (PER) IS A PER-MINUTE RATING DEVELOPED BY ESPN.COM COLUMNIST JOHN HOLLINGER. IN JOHN'S WORDS, "THE PER SUMS UP ALL A PLAYER'S POSITIVE ACCOMPLISHMENTS, SUBTRACTS THE NEGATIVE ACCOMPLISHMENTS, AND RETURNS A PER-MINUTE RATING OF A PLAYER'S PERFORMANCE." IT APPEARS FROM HIS BOOKS THAT JOHN'S DATABASE ONLY GOES BACK TO THE 1988-89 SEASON. I DECIDED TO EXPAND ON JOHN'S WORK AND CALCULATE PER FOR ALL PLAYERS SINCE MINUTES PLAYED WERE FIRST RECORDED (1951-52).





# DISCUSSION

## DOMINIQUE

ALTHOUGH MAJORITY OF PLAYERS IN THE NBA ARE BETWEEN THE AGES OF 19-25, PLAYERS FROM 26-31 TEND TO GET PAID THE MOST.

## SABURO

THE GM'S OF THE NBA TEND TO PAY MORE FOR PLAYERS WHO HAVE A HIGHER PER (POSITIVE CONTRIBUTION TO THE GAME)

## BEN

THE FEW DOMINANT STATES LIKE CALIFORNIA, TEXAS, AND NEW YORK PRODUCES THE MOST PLAYERS BUT THEY AREN'T PAID RELATIVELY MORE OR LESS.

## BRYANT

ALTHOUGH THERE IS A WEAK NEGATIVE CORRELATION BETWEEN MEDIAN HOUSEHOLD INCOME PER STATE AND MEDIAN PLAYER SALARY BY STATE, IT NONETHELESS SUPPORTS THE HYPOTHESIS THAT PLAYERS FROM ECONOMICALLY WORSE OFF STATES RECEIVE HIGHER VALUE CONTRACTS.

THE WEAK POSITIVE CORRELATION BETWEEN THE POVERTY RATE OF A STATE AND THE MEDIAN PLAYER SALARY ALSO HELP TO SUPPORT THE HYPOTHESIS AS THOSE FROM A STATE WITH A WORSE POVERTY RATE TRANSLATE TO HAVING HIGHER SALARIES.



# POST MOR TUM

- WOULD HAVE EXPLORED MORE FACTORS THAT DETERMINE SALARY.
- WOULD HAVE CREATED MORE

