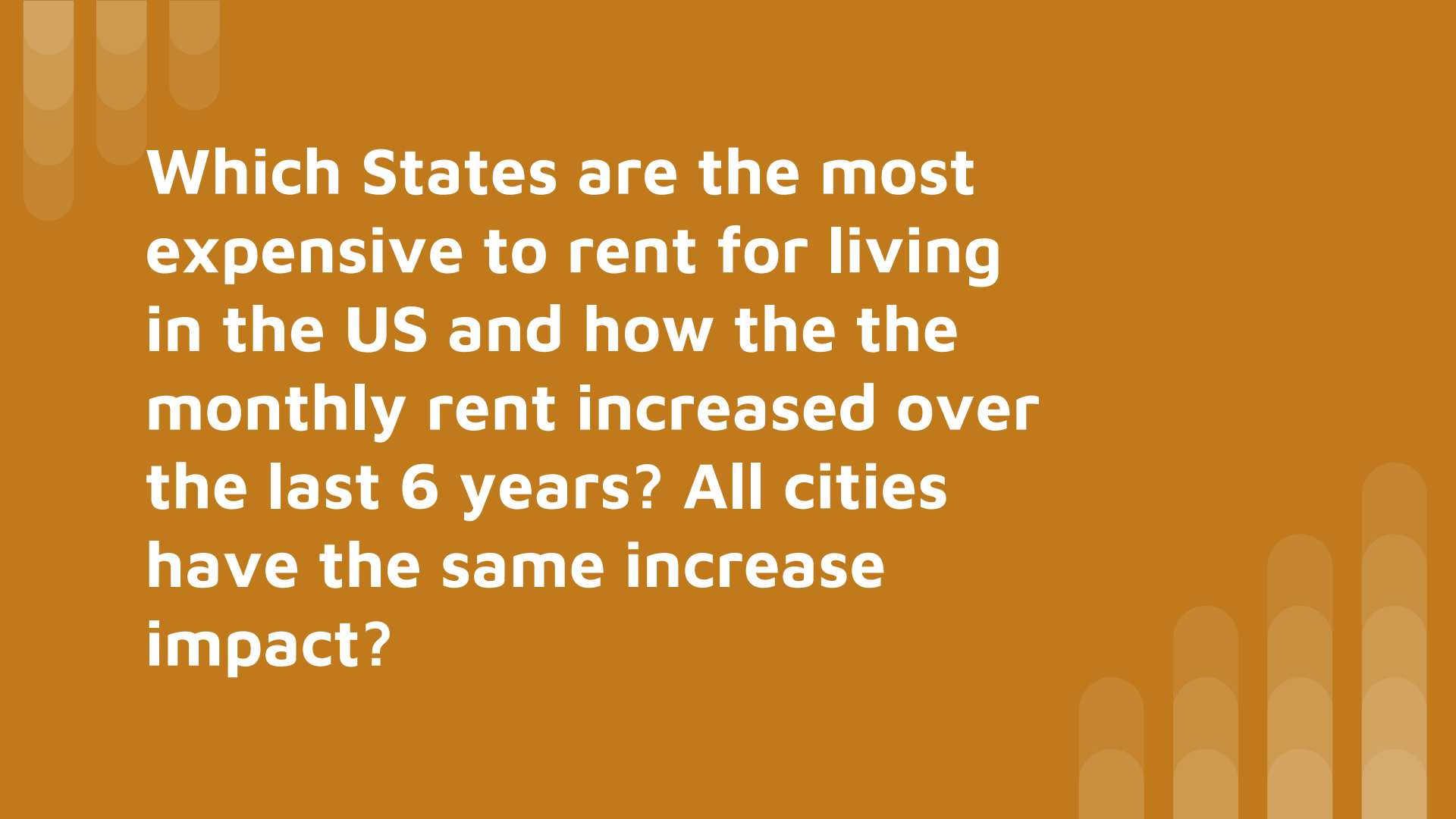


Most expensive and cheapest places to live in the US

Team # 2

Tadeo Salinas
Jose Rodriguez
Mauricio Ruiz
Juan Coronado

<https://www.zillow.com/research/data/>



Which States are the most expensive to rent for living in the US and how the the monthly rent increased over the last 6 years? All cities have the same increase impact?

```

# Rent average per state per year

rent_2023 = clean_rent.groupby('State')['Rent 2023'].mean()
rent_2022 = clean_rent.groupby('State')['Rent 2022'].mean()
rent_2021 = clean_rent.groupby('State')['Rent 2021'].mean()
rent_2020 = clean_rent.groupby('State')['Rent 2020'].mean()
rent_2019 = clean_rent.groupby('State')['Rent 2019'].mean()
rent_2018 = clean_rent.groupby('State')['Rent 2018'].mean()

# Creating a new data frame

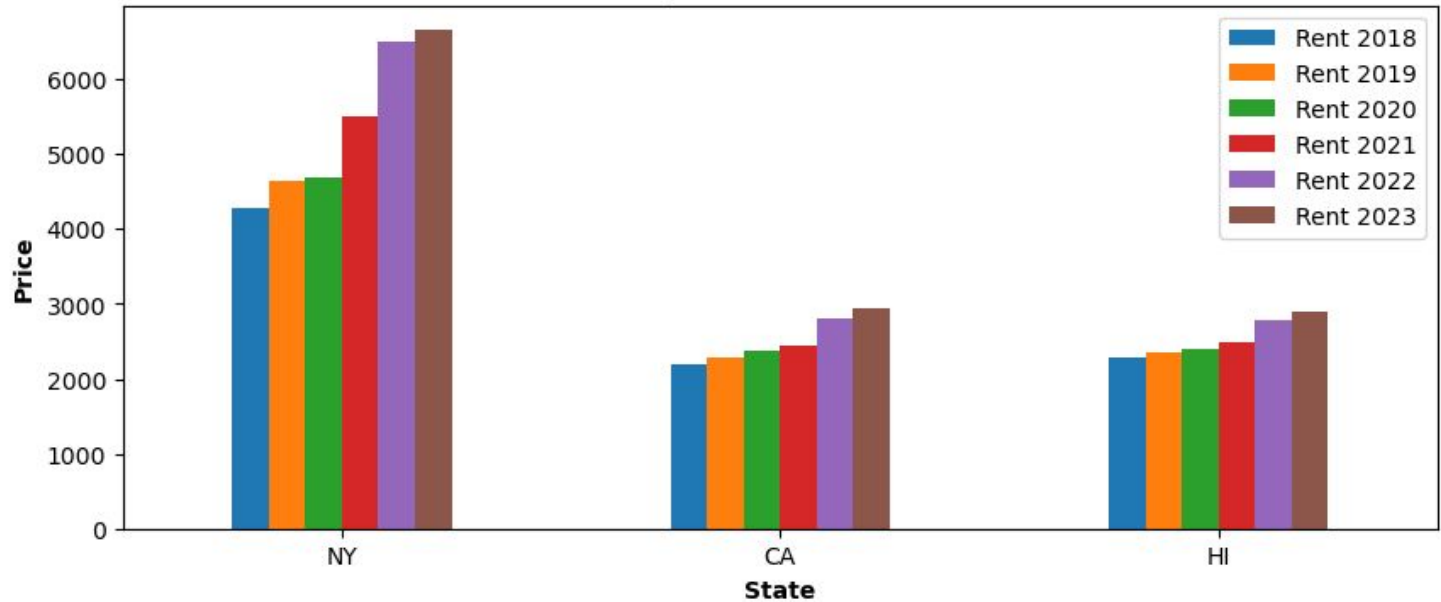
rent_increas = pd.DataFrame({
    "Rent 2018": rent_2018,
    "Rent 2019": rent_2019,
    "Rent 2020": rent_2020,
    "Rent 2021": rent_2021,
    "Rent 2022": rent_2022,
    "Rent 2023": rent_2023
})

# Sorting the value in a descending order
top = rent_increas.sort_values(by="Rent 2023",ascending=False)
top.head()

```

	Rent 2018	Rent 2019	Rent 2020	Rent 2021	Rent 2022	Rent 2023
State						
NY	4272.415933	4640.856538	4678.192134	5509.537419	6506.621057	6649.925170
CA	2189.997581	2288.799730	2366.955258	2439.551273	2794.249868	2930.340710
HI	2282.421408	2357.816960	2396.524964	2486.421919	2776.823981	2897.967213
MA	2024.887089	2107.112436	2177.489343	2107.428271	2417.146859	2633.743294
NJ	2005.196510	2055.392820	2121.171289	2127.631557	2378.039085	2591.863801

Most Expensive States to Rent

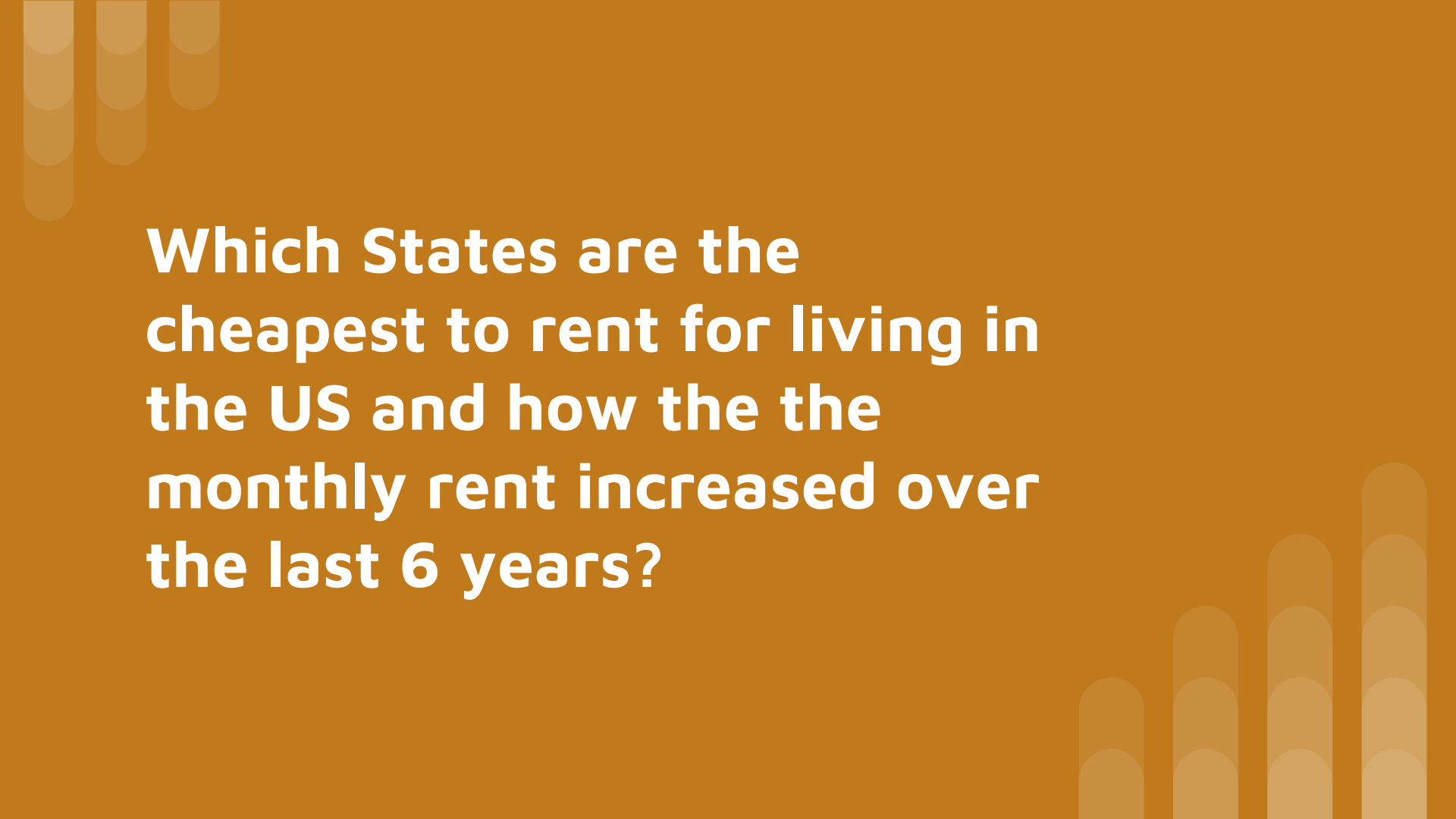


This chart shows the top 3 most expensive States to Rent a place in the US.

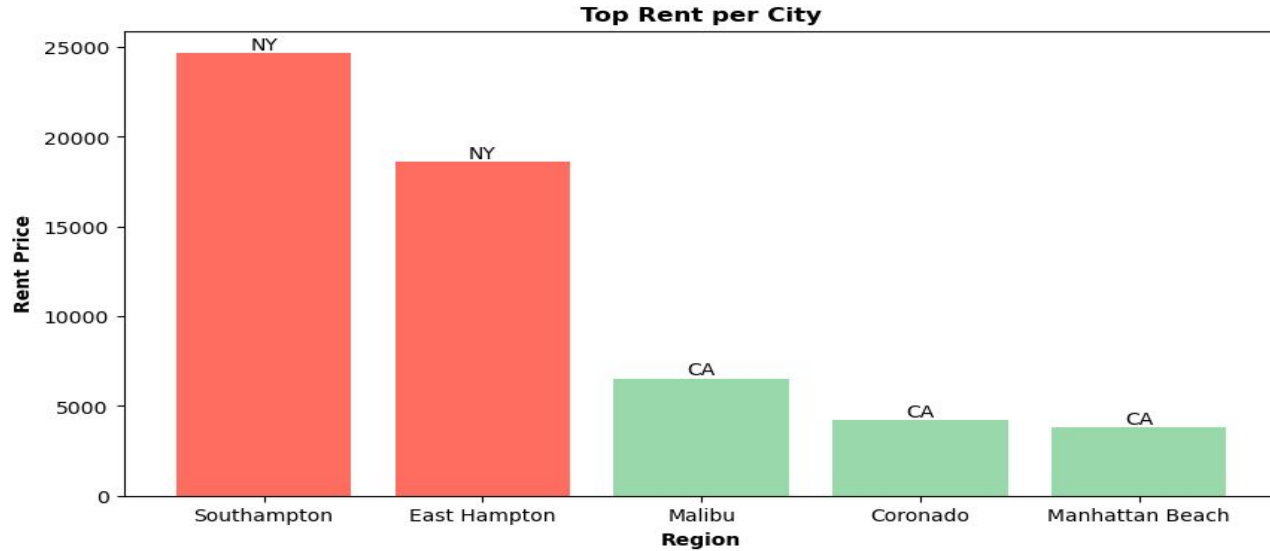
- x - axis = States
- y- axis = Rent price

Insights:

- New York city is the **most expensive** city to rent, rent price are more than the double rent price in California and Hawaii.
- The rent price over the last 6 years have impacted in a bigger scale to NY meanwhile California and Hawaii present a slight increase.



**Which States are the
cheapest to rent for living in
the US and how the the
monthly rent increased over
the last 6 years?**



This chart shows the top 5 most expensive Cities to Rent a place in the US.

- x - axis = Cities
- y- axis = Rent price

Insights:

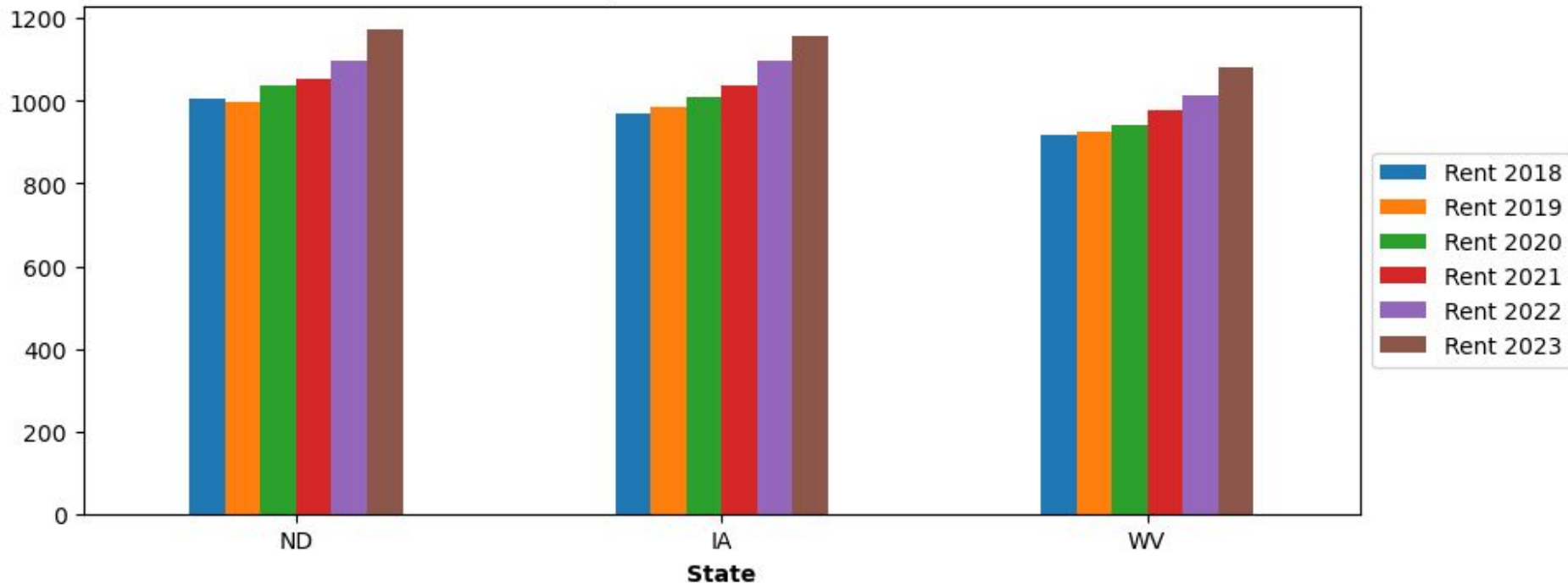
- Both Cities in New York Southampton and East Hampton are super expensive compared to California Malibu, Coronado and Manhattan Beach Cities.



**Which were the cheapest
states to rent a home in the
US in 2018?**

**Do these state have had
different increases through
time?**

Cheapest States to Rent




This chart shows the top 3 cheapest States to Rent a place to live in the US.

- x - axis = States
- y- axis = Rent price

Insight

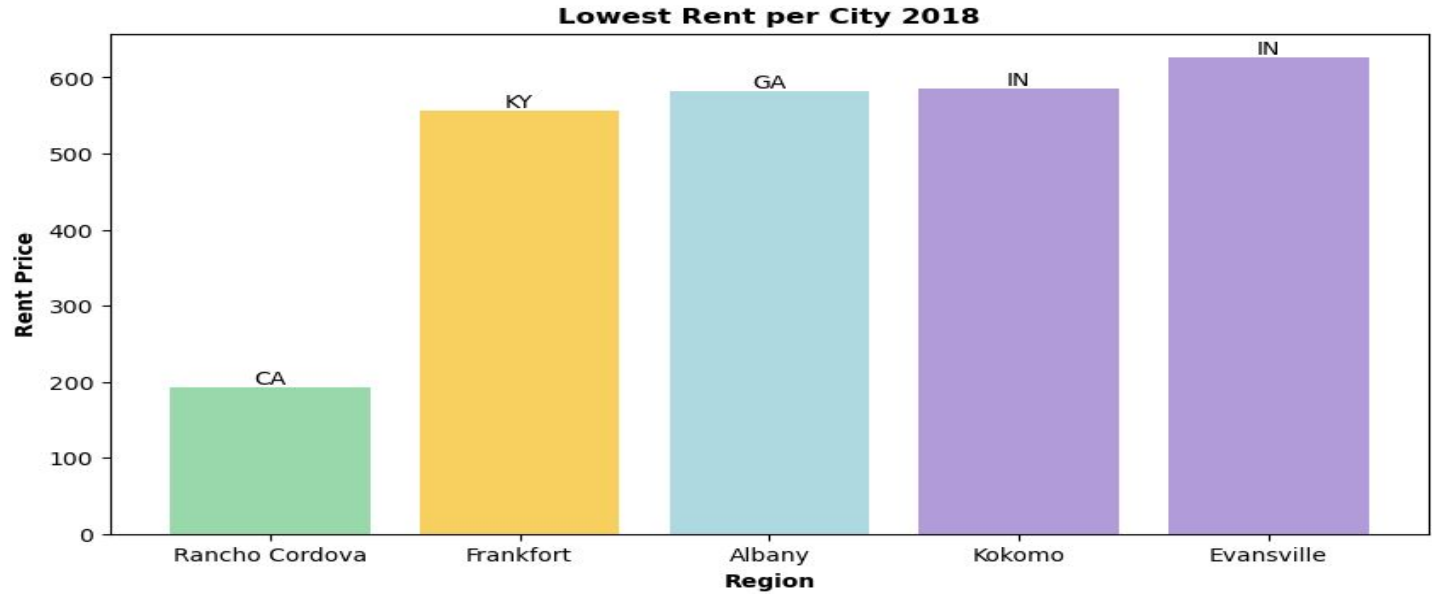
- Between North Dakota, Iowa and West Virginia we can observe a very similar rent price with same increase per year since 2018.



**Which were the cheapest
cities to rent a home in the
US in 2018?**

**Are these cities in the same
states?**





This chart shows the top 5 cheapest Cities to Rent a place in the US.

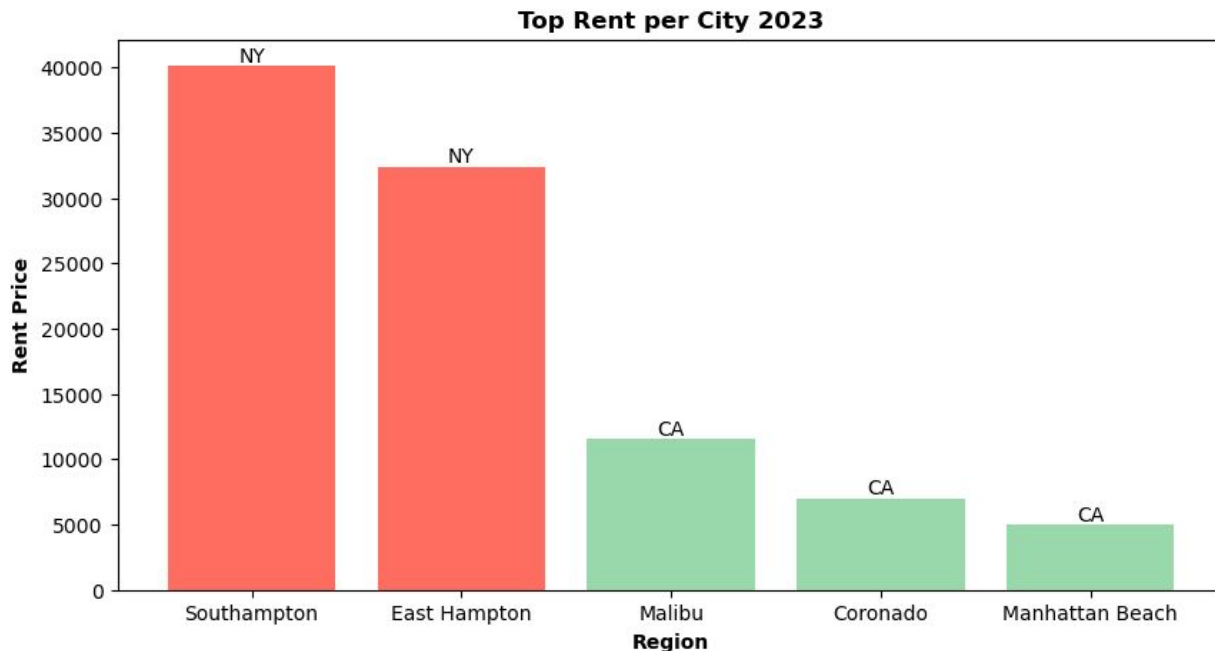
- x - axis = Cities
- y- axis = Rent price

Insights:

- The average rent price for Rancho Cordova in California is way cheaper than Frankfort, Albany, Kokomo and Evansville (Almost 33% cheaper).



**What are the most
expensive Cities to live?
Can you afford live in any of
those Cities?**

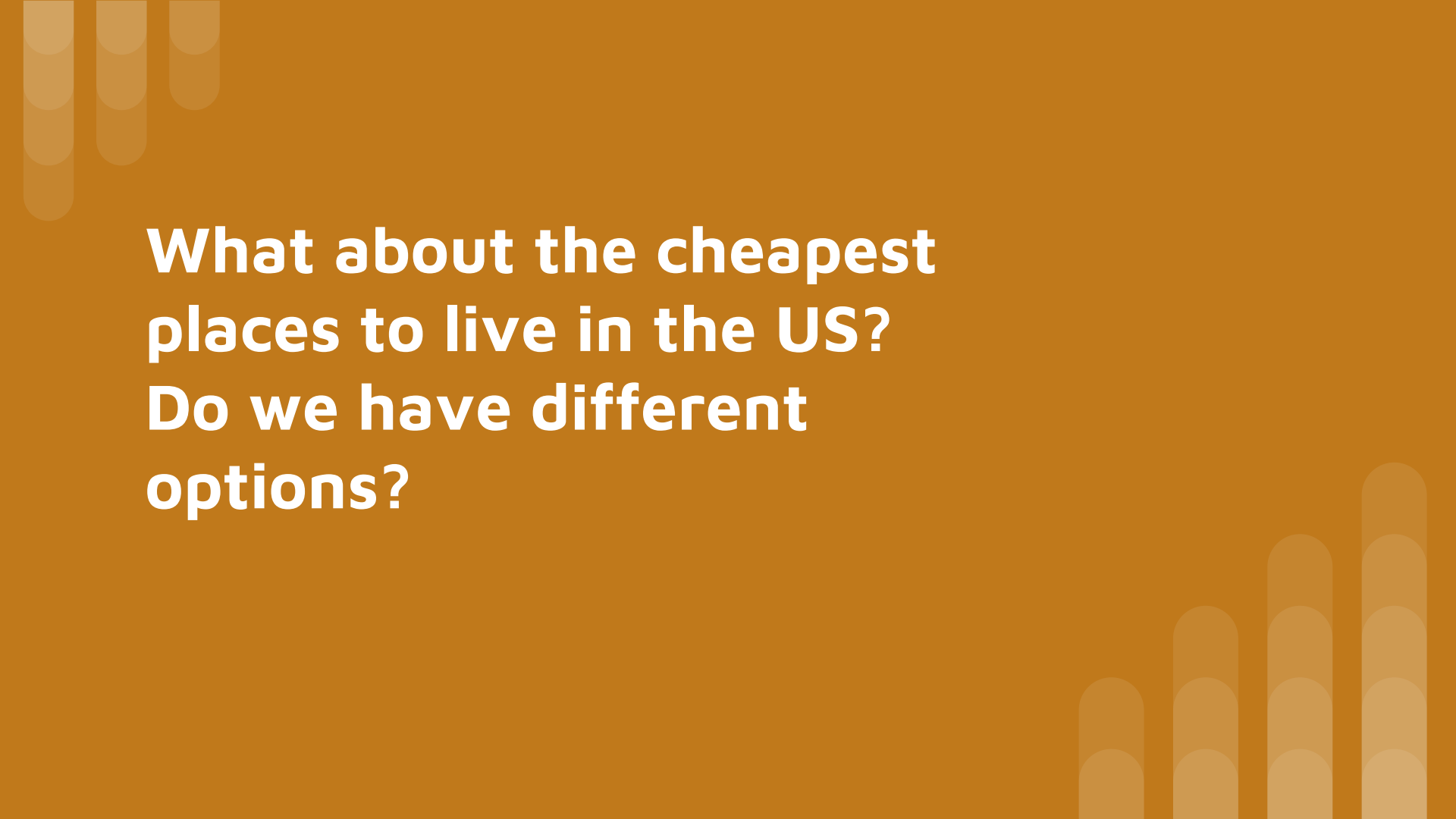


This chart shows the regions with the highest rent price in 2023.

- x - axis = region, state on label
- y - axis = average rent price

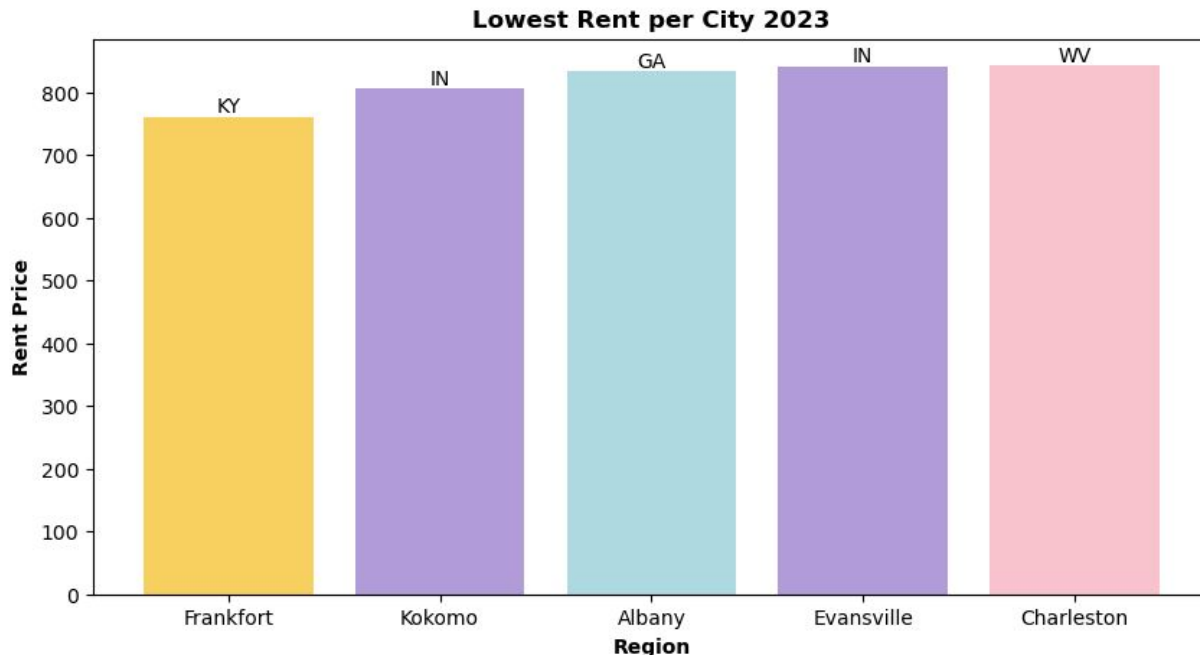
Insights:

- The **most expensive** city to **rent** is **Southampton**, located in **NY**.
- The **cheapest** (from the top 5 most expensive) to **rent** is **Manhattan Beach**, in **CA**.
- There are **two regions** in **NY** (Southampton and East Hampton) and **three regions** in **CA** (Malibu, Coronado, and Manhattan Beach) on the **most expensive list**.



**What about the cheapest
places to live in the US?
Do we have different
options?**

What about the cheapest places to live in the US? Do we have different options?




This chart shows the regions with the lowest rent price in 2023.

- x - axis = region, state on label
- y - axis = average rent price

Insights:

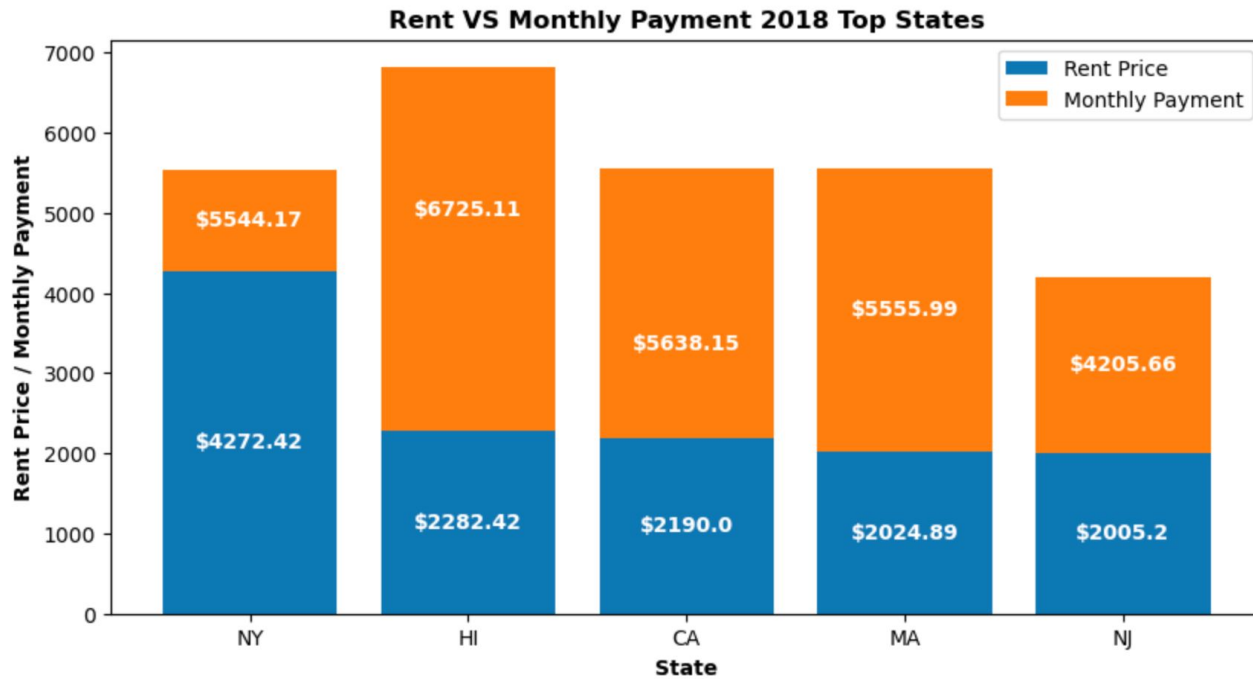
- The **cheapest** to rent is **Frankfort**, located in **Kentucky**.
- The most **expensive** (from the top 5 cheapest) to rent is **Charleston**, in **West Virginia**.
- There are **two** in **Indiana** (Kokomo and Evansville) on the **least expensive** list.



**In 2018, which were the
most expensive regions to
rent?**

**How does this compare to
the monthly payment price?**






This chart shows the most expensive states to rent and make monthly payments in 2018.

- x - axis = state
- y - axis = average rent price / monthly payment

Insights:

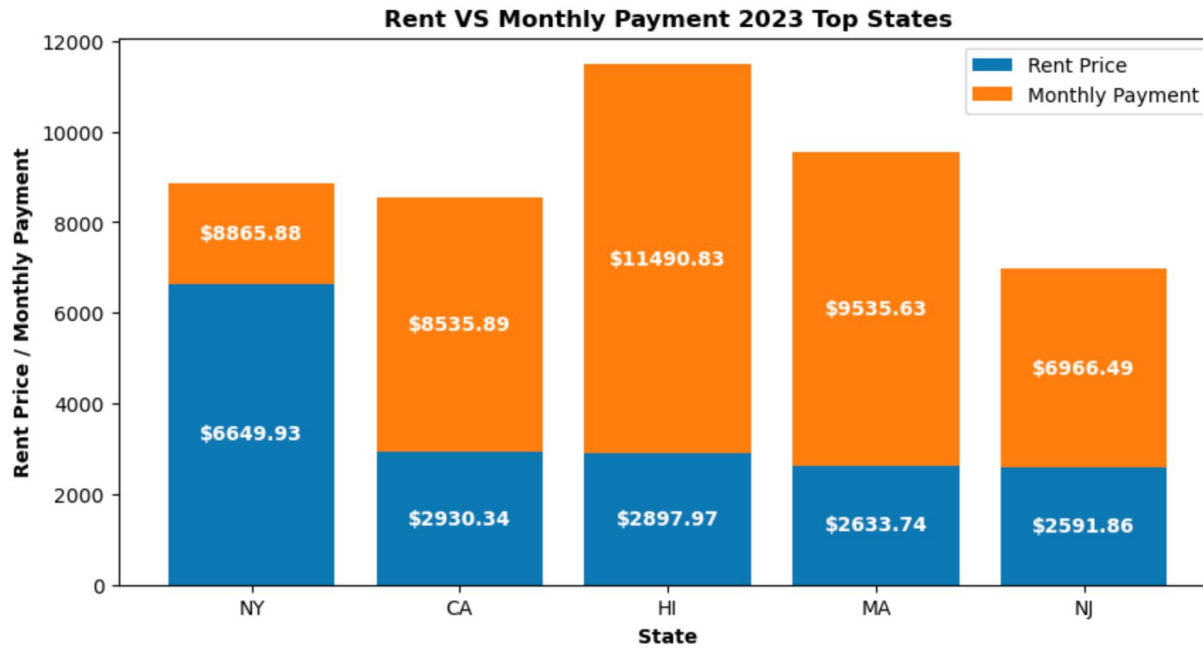
- The **most expensive** state on average to **rent** is **NY**, the **lowest** is **NJ**.
- The **most expensive** state on average for **monthly payments** is **HI**, the **lowest** is **NJ**.



**In 2023, which were the
most expensive regions to
rent?**

**How does this compare to
the monthly payment price?**





This chart shows the most expensive states to rent and make monthly payments in 2023.

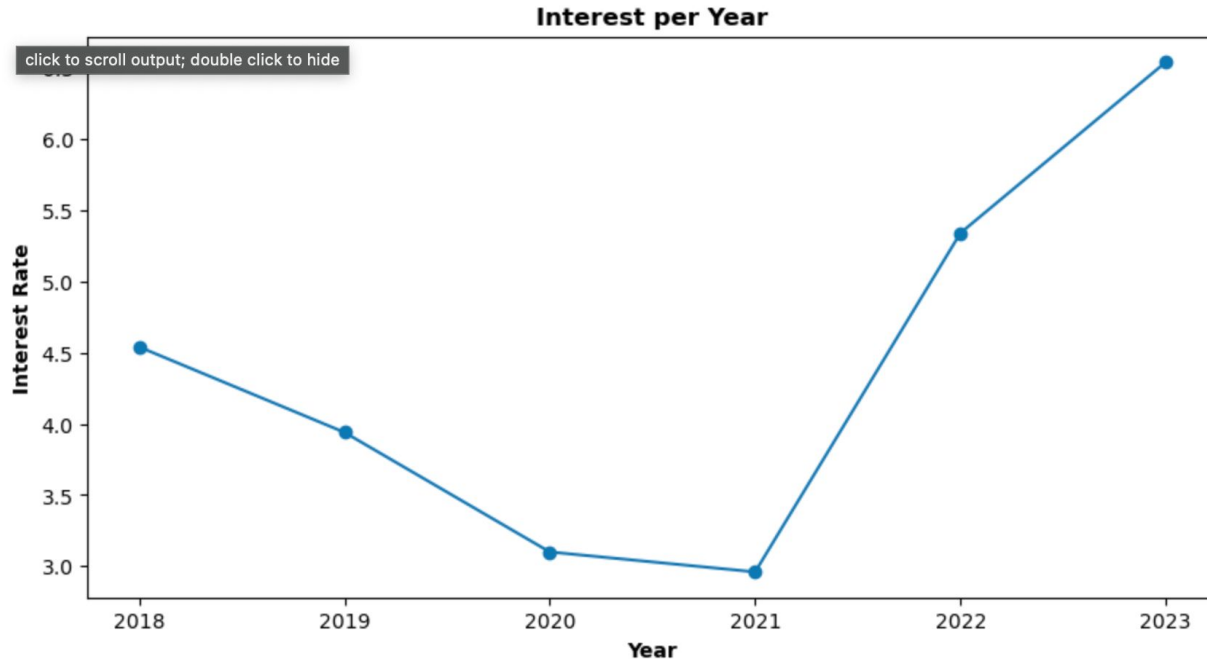
- x - axis = state
- y - axis = average rent price / monthly payment

Insights:

- The **most expensive** state on average to **rent** is **NY**, the **lowest** is **NJ**.
- The **most expensive** state on average for **monthly payments** is **HI**, the **lowest** is **NJ**.
- In comparison to 2018, CA climbed from third to second place as most expensive rent.



**Has the interest rate (%)
gone up or down over the
last 5 years?**



This chart shows the interest rate over the years from 2018 - 2023.

- x - axis = year
- y- axis = interest rate

Insights:

- Lowest interest rate was in 2021 at **2.96%** and the highest in 2023 at **6.54%**.
- Interest rate was on a **downward trend until 2021**, and then transformed into an **upward trend**.



Thank you.

