

EDA – Summer Olympics



Prepared By : Harjeet Kaur

# Summer Olympics - EDA



This EDA represents the Data analysis for Summer Olympics history back from 1896 till 2012.



Olympics Hosting

Countries Participation over the Olympics History.

Olympics hosted Cities



Medals :

Top 5 Countries in Olympics History

Trend in medal won count over the years.

Top 3 Countries over the history



Sports and Discipline added over the Years.



Men and Women Performance over the years



India Performance in Olympics History



Top 10 - Men and Women Athlete

# Data Pre-processing

## Overview

### Dataset info

Number of variables	9
Number of observations	31165
Total Missing (%)	0.0%
Total size in memory	2.1 MiB
Average record size in memory	72.0 B

### Variables types

Numeric	1
Categorical	8
Boolean	0
Date	0
Text (Unique)	0
Rejected	0
Unsupported	0

### Warnings

**Athlete** has a high cardinality: 22762 distinct values **Warning**

**Country** has a high cardinality: 148 distinct values **Warning**

**Discipline** has a high cardinality: 67 distinct values **Warning**

**Event** has a high cardinality: 666 distinct values **Warning**

Dataset has 2 duplicate rows **Warning**

## Overview

### Dataset info

Number of variables	10
Number of observations	31163
Total Missing (%)	0.0%
Total size in memory	2.4 MiB
Average record size in memory	80.0 B

### Variables types

Numeric	1
Categorical	8
Boolean	0
Date	0
Text (Unique)	0
Rejected	1
Unsupported	0

### Warnings

**Athlete** has a high cardinality: 22762 distinct values **Warning**

**Country** has a high cardinality: 148 distinct values **Warning**

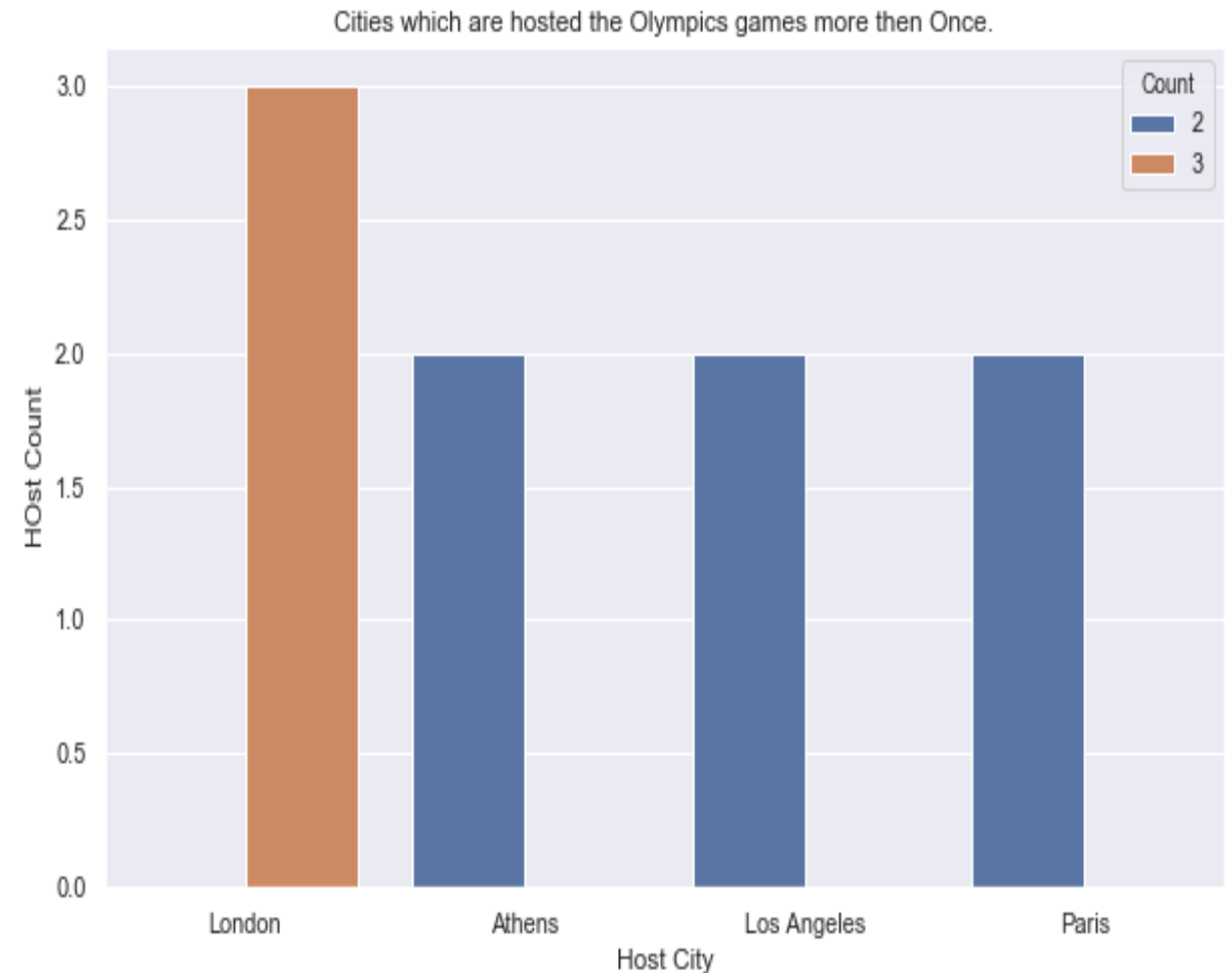
**Discipline** has a high cardinality: 67 distinct values **Warning**

**Event** has a high cardinality: 666 distinct values **Warning**

**Year** is highly correlated with **index** ( $p = 0.97064$ ) **Rejected**

# • Olympics Hosting City

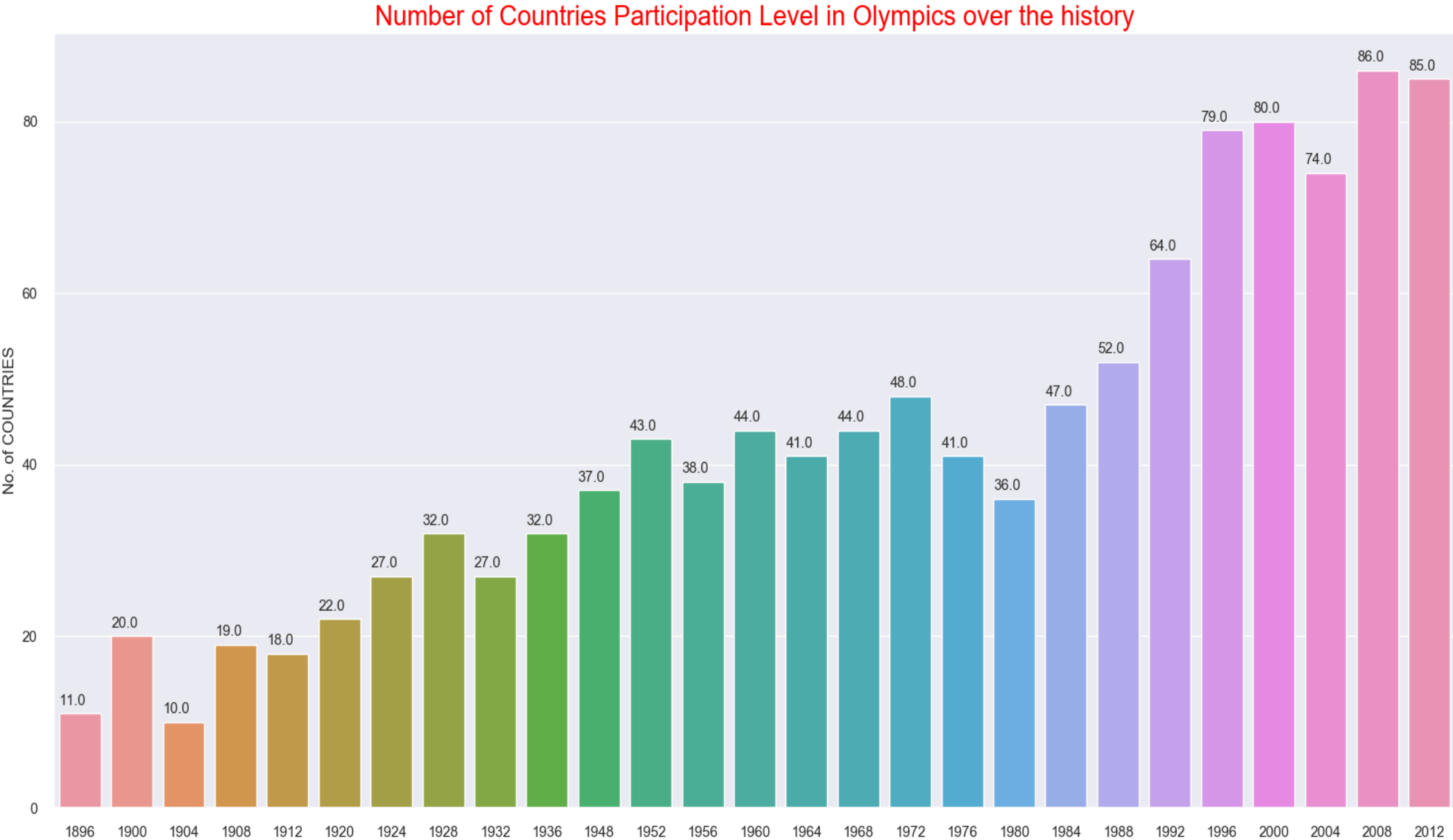
- Four cities had hosted the Olympics games more than ONCE, but **London** has hosted the Olympics games 3 times.



```
Number of times the Olympics has been hosted since 1896 :- 27
Number of Distinct cities hosted the games 22
```

# Countries Participation Level in Olympics History

Maximum number of Countries participated in Olympics	Country	86
Minimum number of Countries participated in Olympics	Country	10

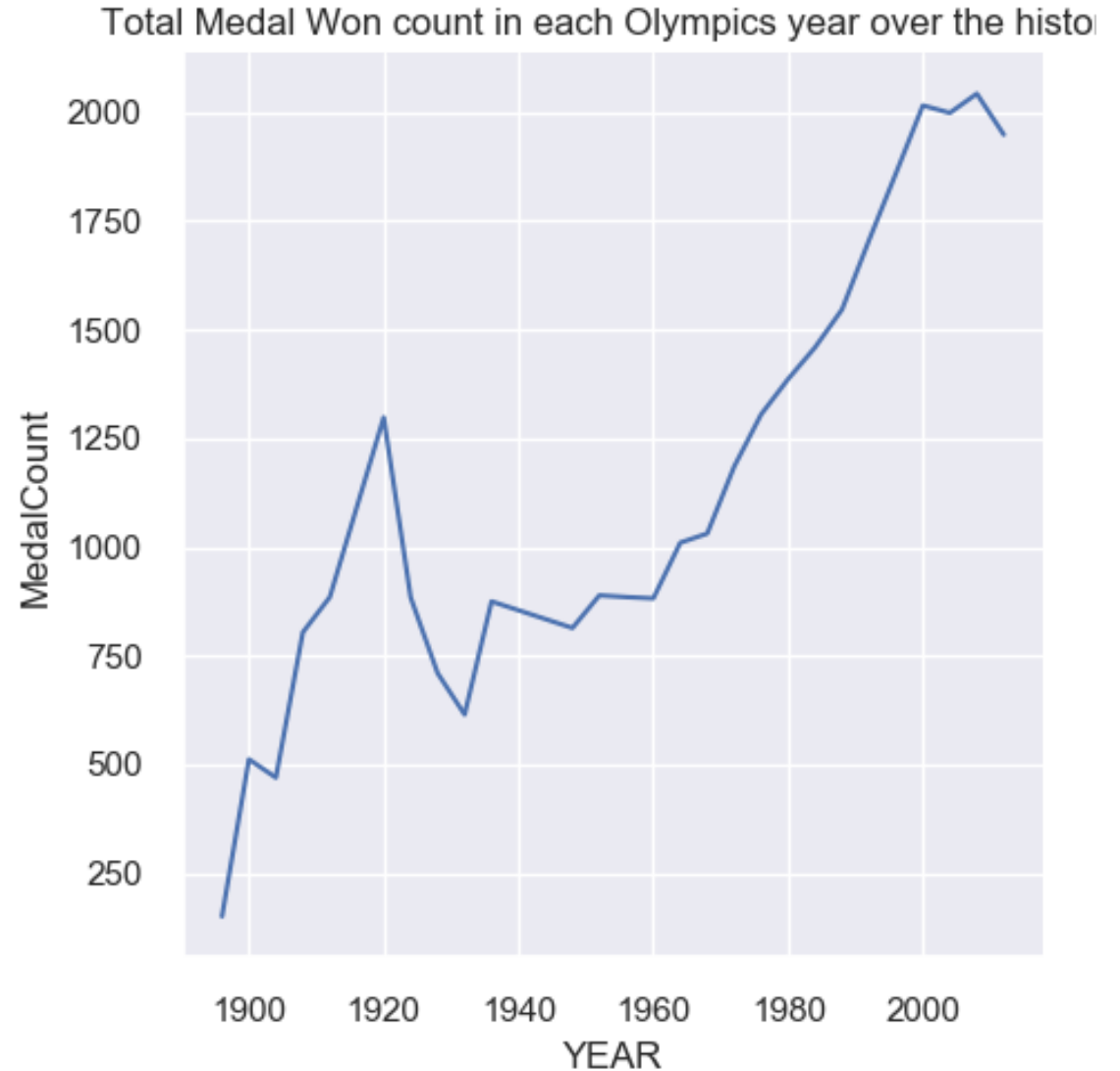






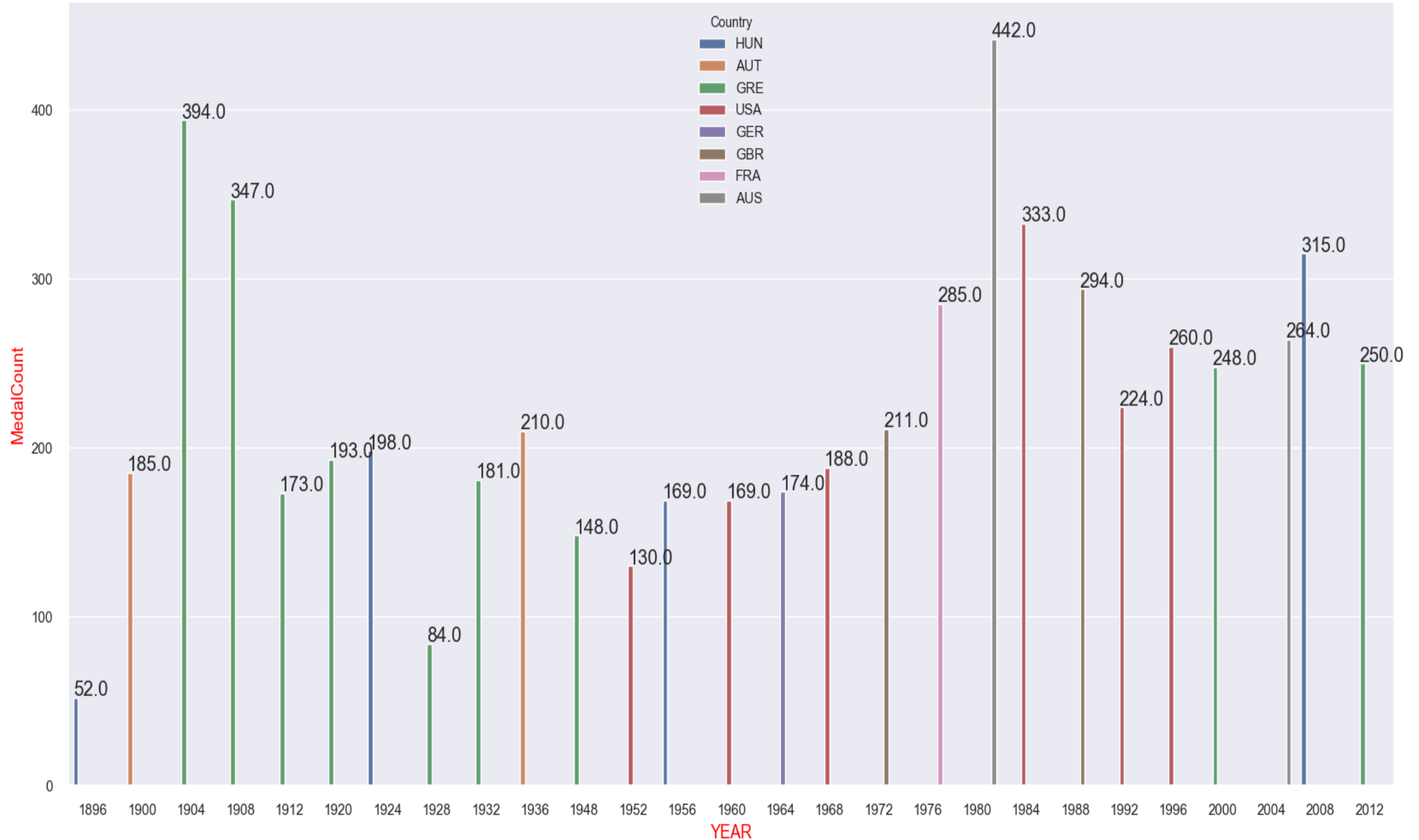
# Total Medal Won Count in Olympic History

- Overall Positive trend in number of medal won count in each Olympics over the history.
- There is steep rise in Medal won in 1920 as 1250 medals and few dips in next 20 years but picking up upward pace from 1960 Olympics onwards.



Total number of Medal won in Olympics till date Medal 31163

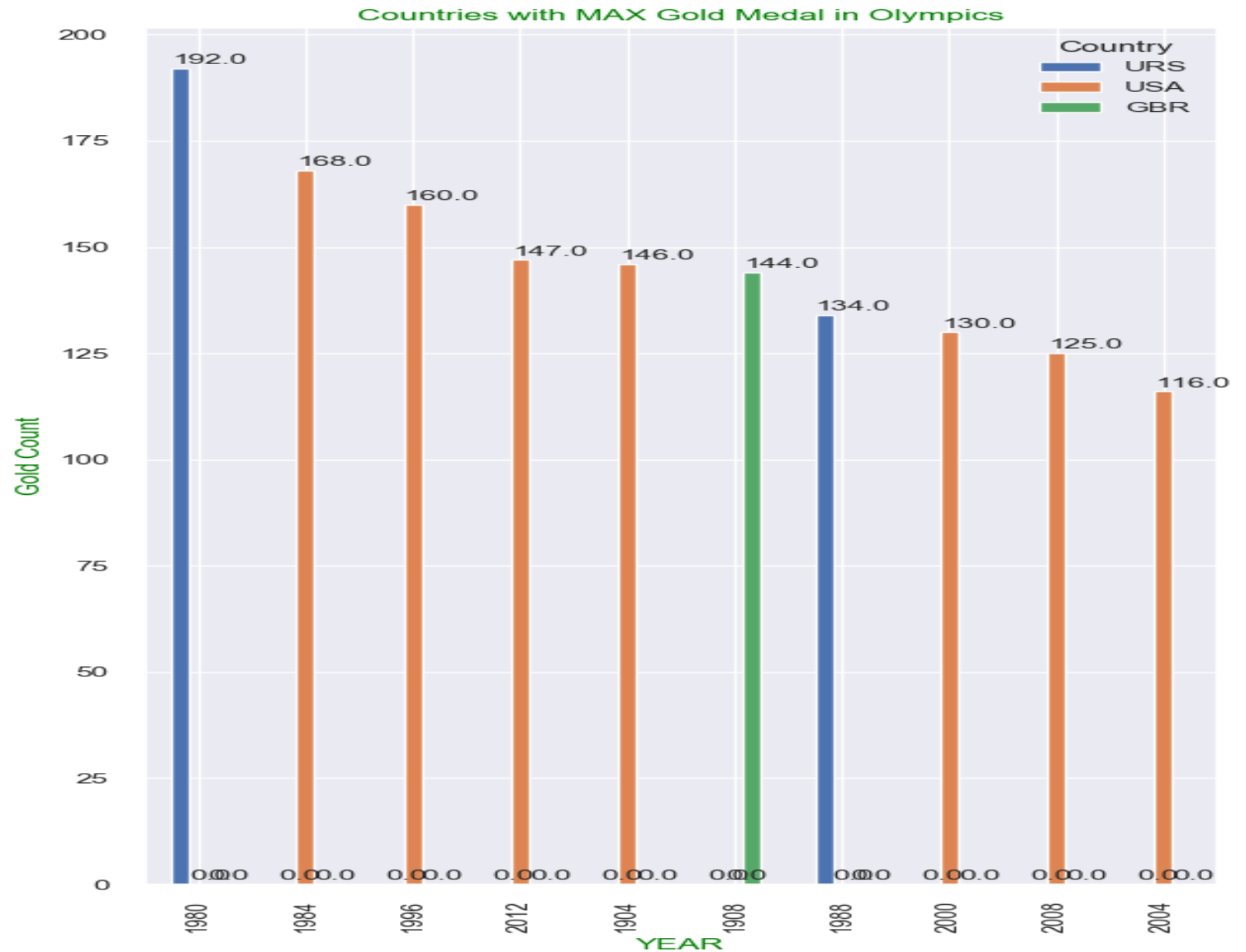
## Top 8 Dominating Countries with MAX Medal won count in Olympics History





Top 10 Countries  
with MAX Gold  
Medals in  
Olympics.

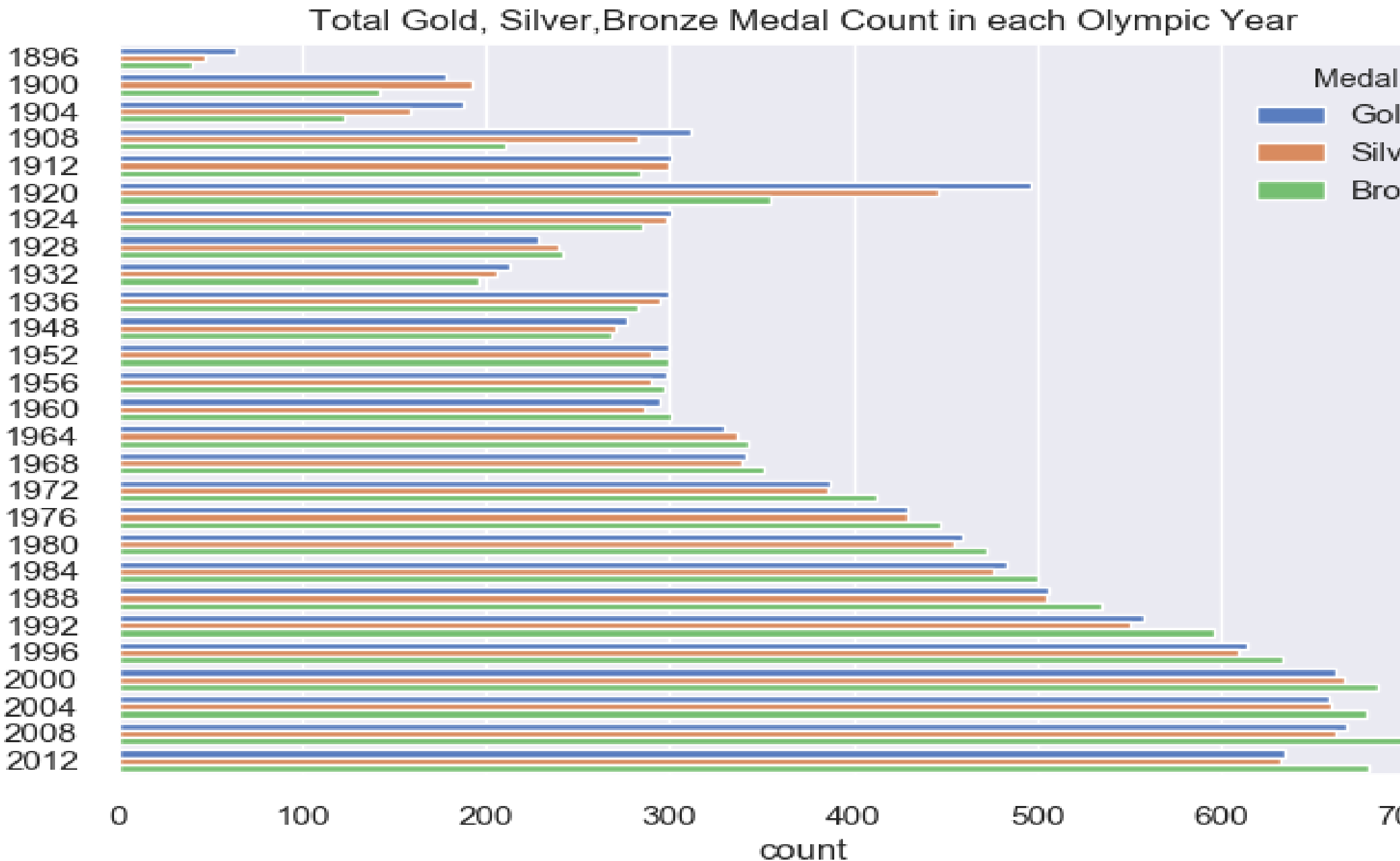
URS, USA and  
Great Britain are  
dominating in Gold  
Medal Count



Total number of Gold Silver,Bronze medal won over the Olympic history:-

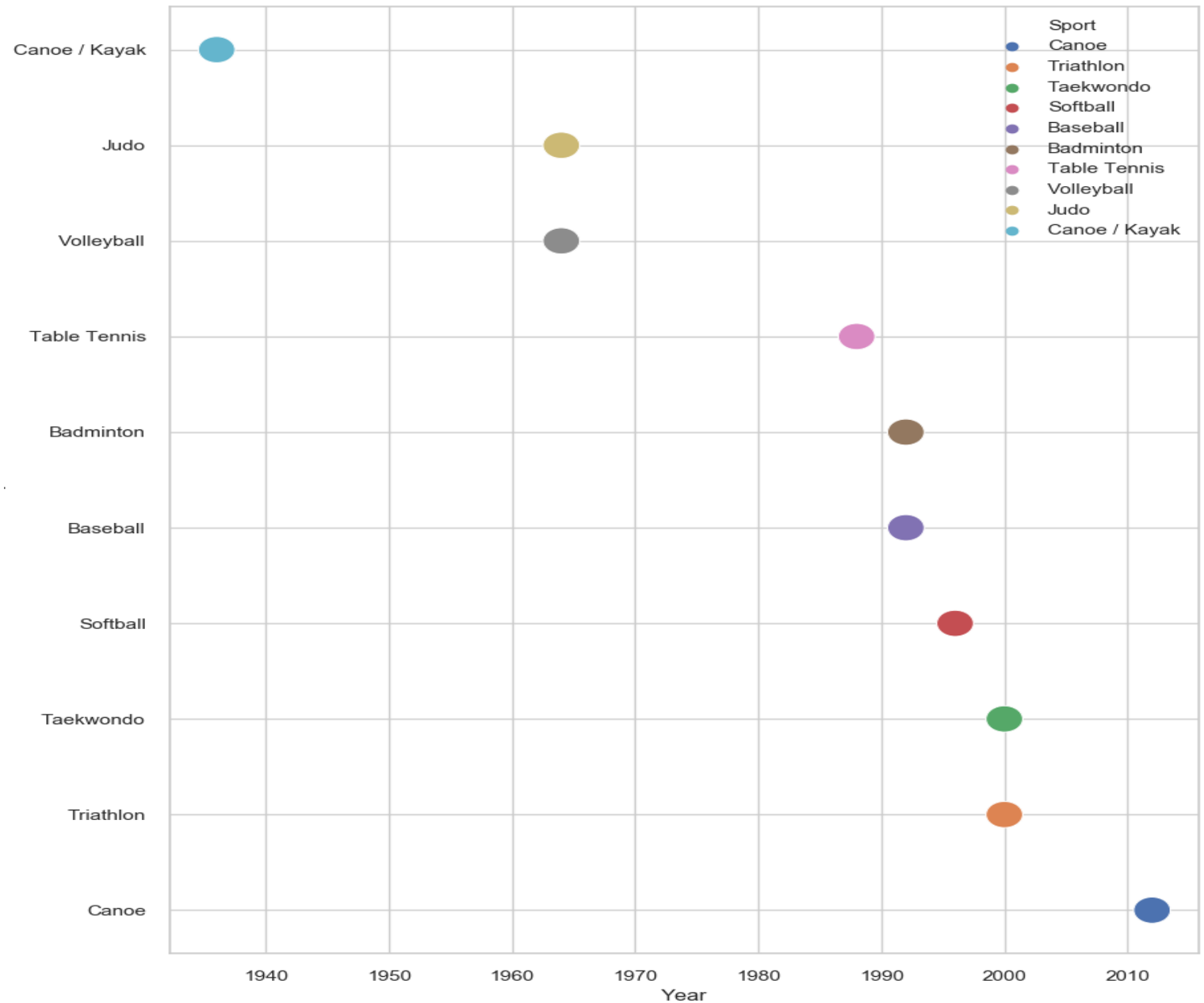
1. Around 500 Gold medal won in 1920
2. From 1976 , more than 400 medals has won each year.
3. Medal crossed 700 mark in year 2008
4. Highly positive trend.

Year



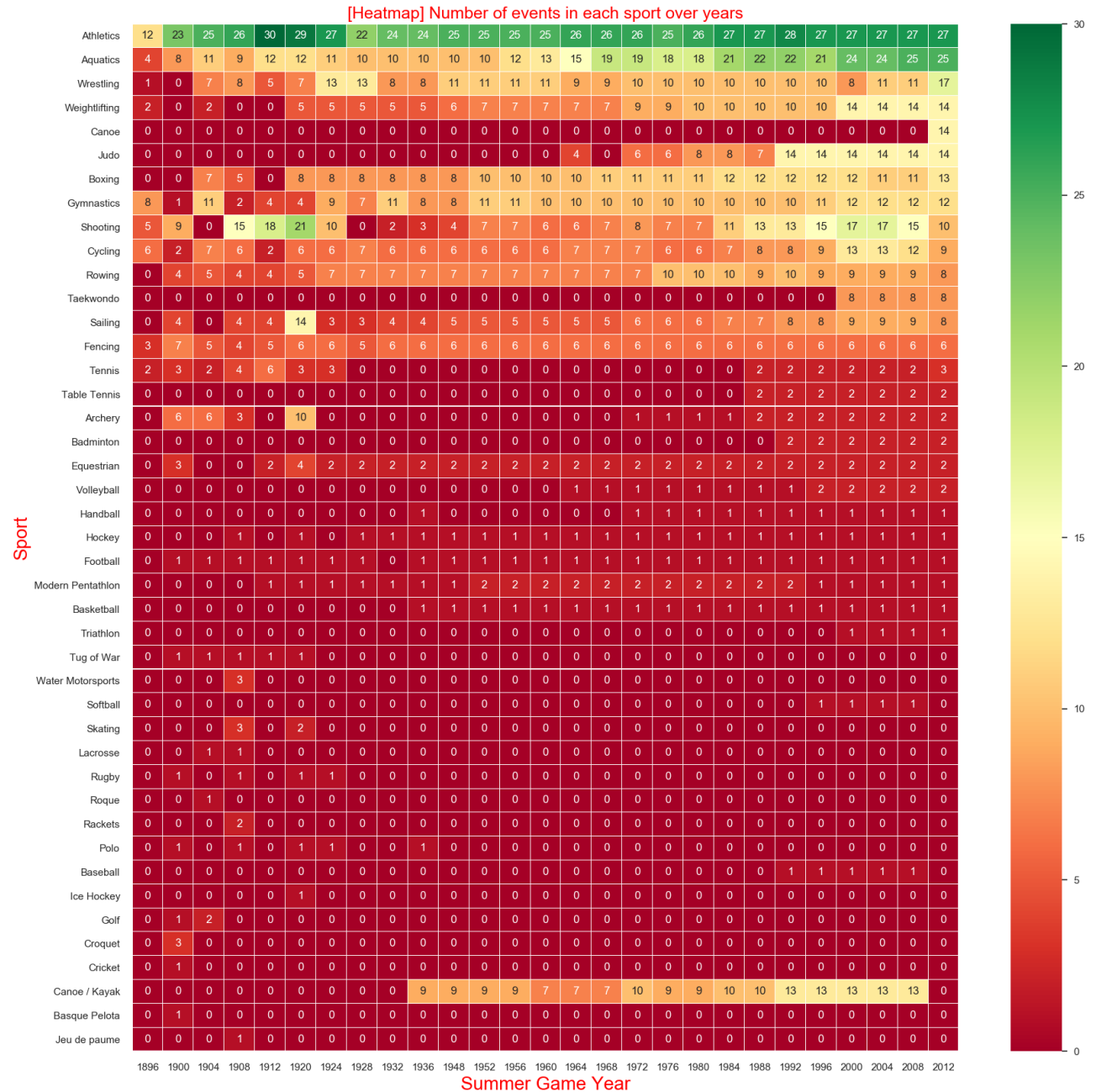
Sports AND  
Discipline added  
over the years

Canoe and  
Triathlon has  
recently added in  
Olympics



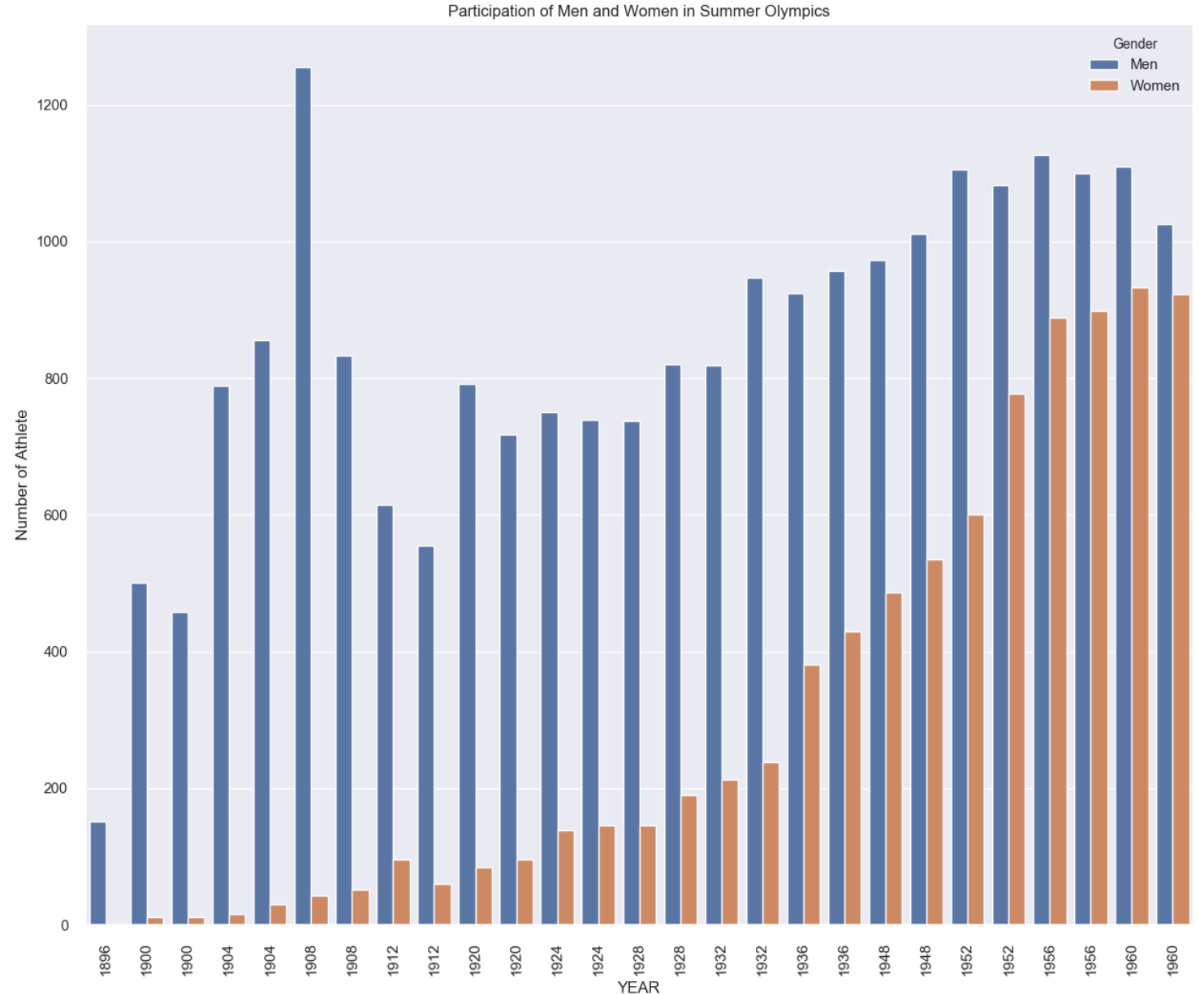
- Athletics and Aquatic host maximum number of events.

- Athletics and Aquatic host maximum number of events.



1. Men Athlete are dominating in participation.

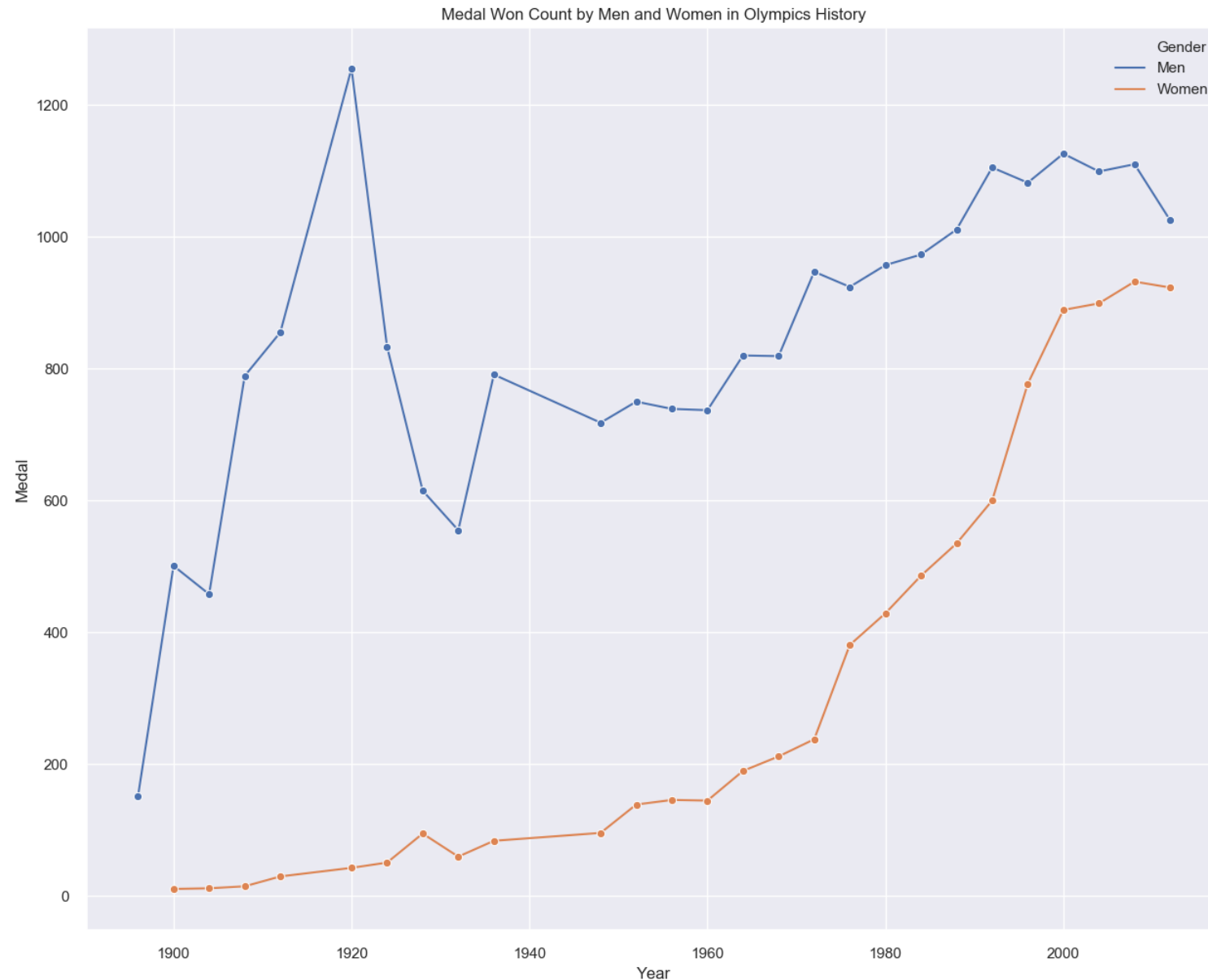
2. Women participation increasing over time and may surpass the men in near future.



# Performance of Men and Women Athlete in Olympics History

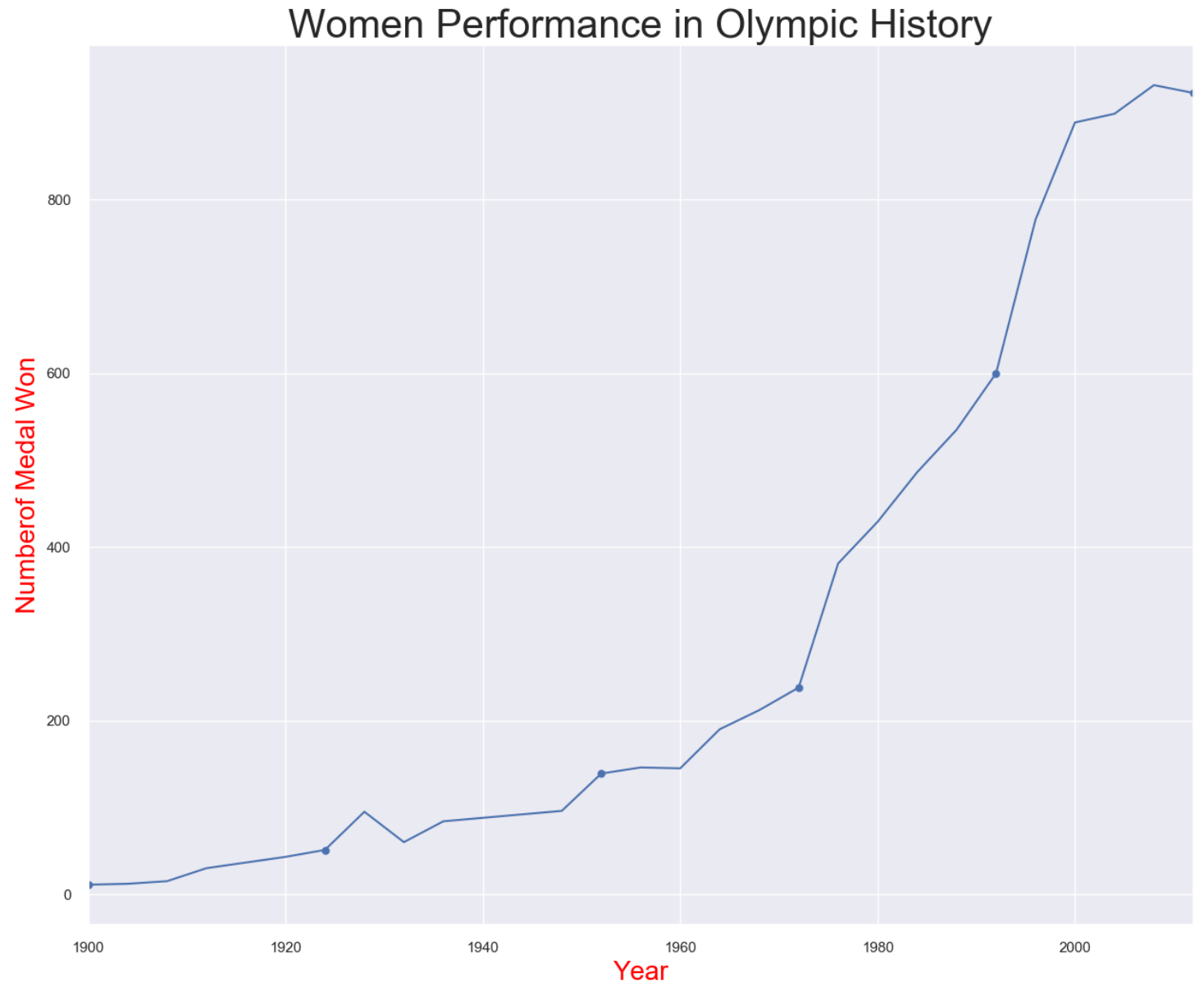
1. Women Athlete Started performing from the year 1900 onwards.
2. There are highly uprising trend in their performance over the years.
3. Men Athlete are dominating in bagging the Olympics Medals, but Women Athlete performance almost converges to men towards year 2000.

Medal	
Gender	
Men	22745
Women	8418





Women Performance in Olympics significantly increase in the history. There were highly positive trend. Women performance increase 800% .

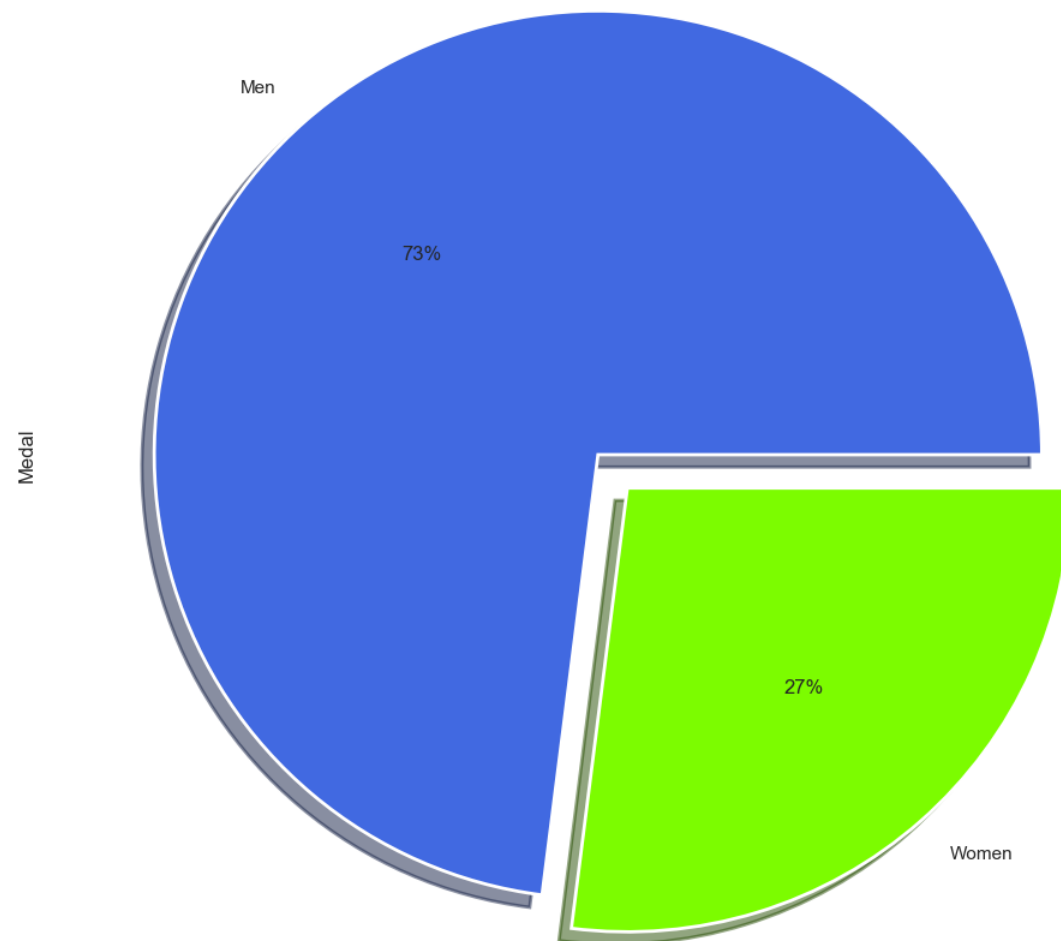


# Medal Won by Men and Women in Olympics in Percentage

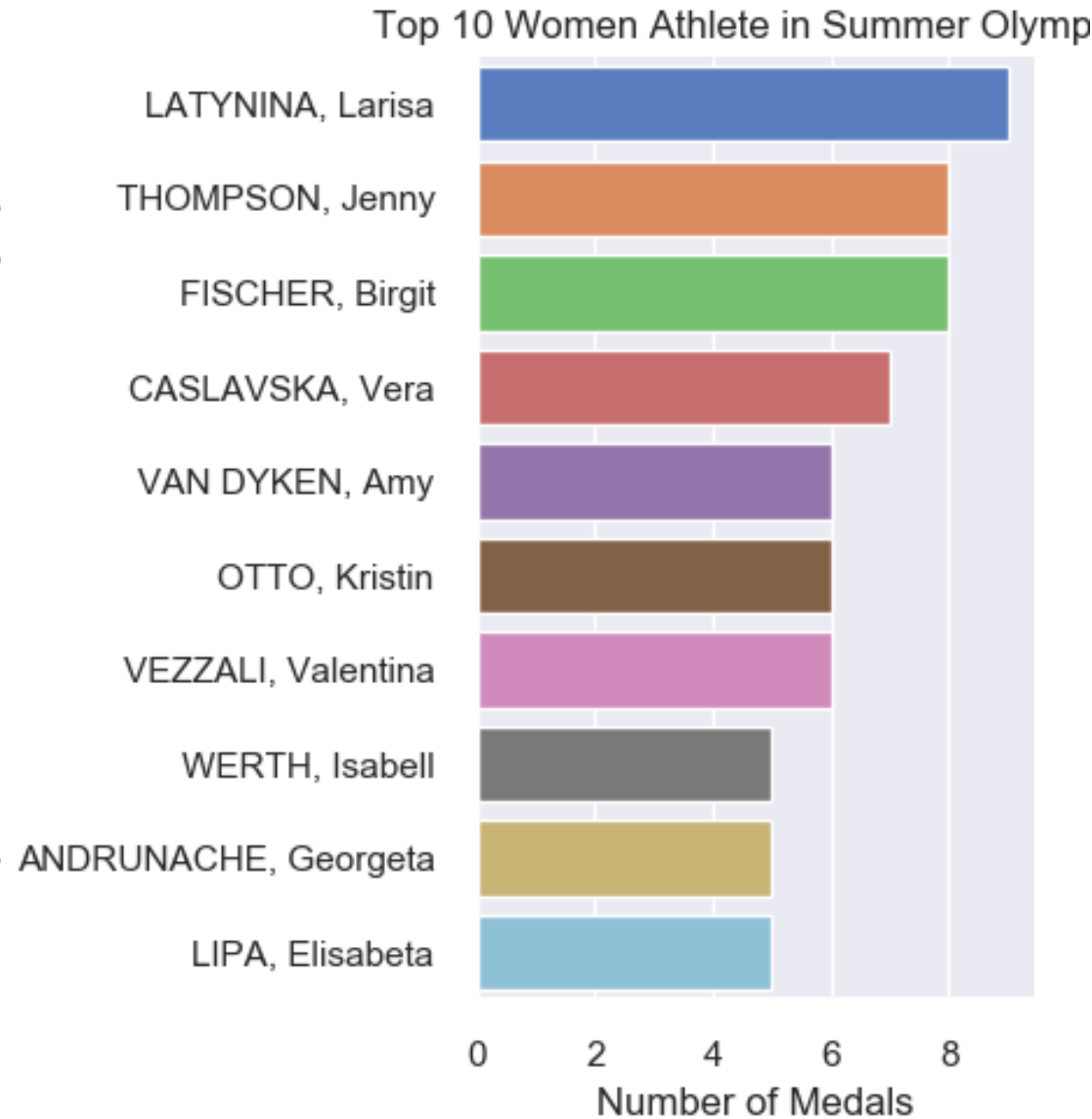
73% of the total medal won count in Olympics were Men and women contributed to 27%.

Men were dominating in medal count, but women also started contributed close to 1/3<sup>rd</sup> of total medal won count after year 1900.

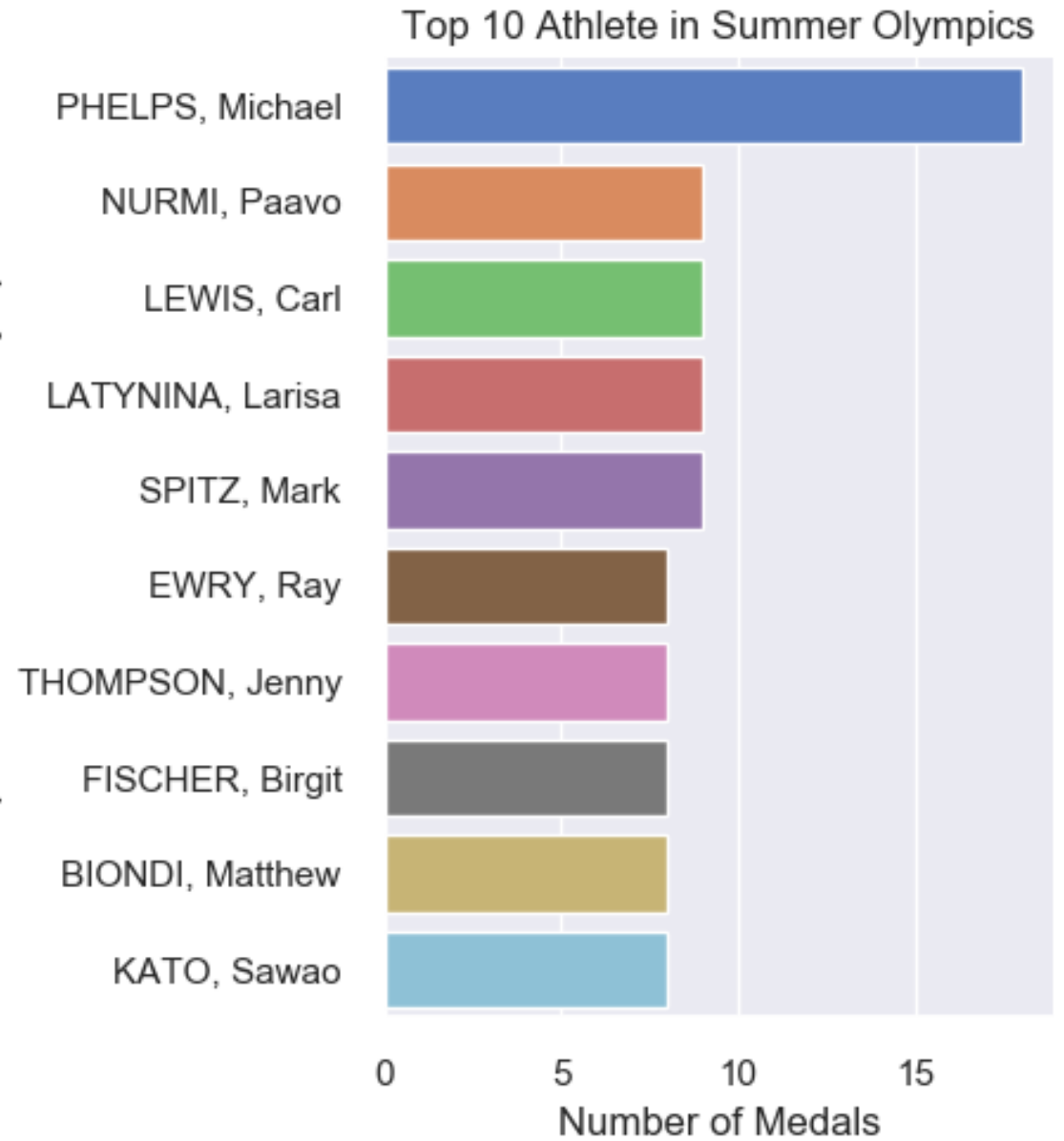
SUMMER OLYMPICS - Medal Won (Gender wise)



Top 10 Women Athlete in Summer Olympic

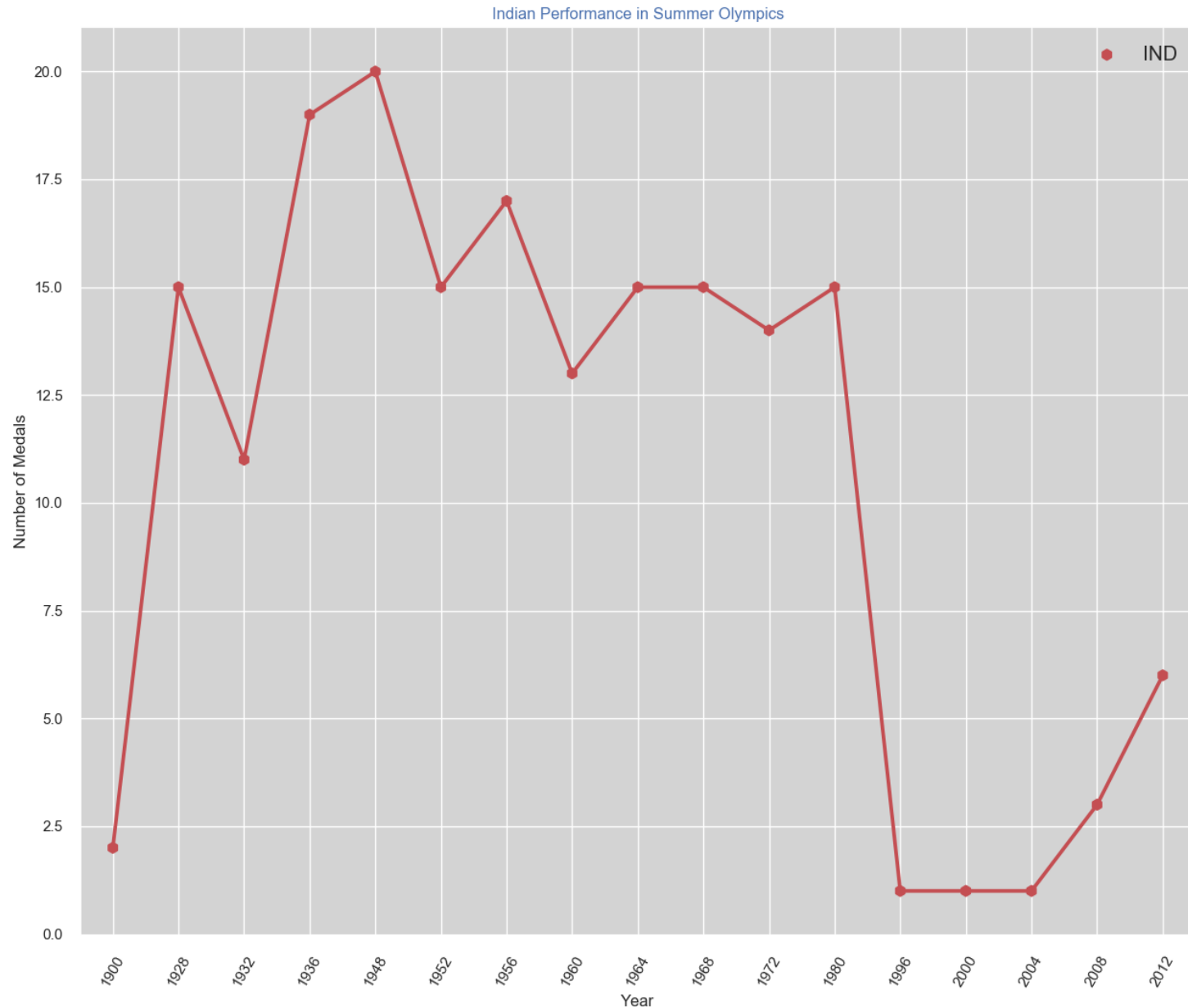


Top 10 Athlete in Summer Olympic



Top 10 Athlete in Olympics history

- Indian Performance in Summer Olympics
- India has performed quite well in early Olympics.
- India bagged maximum 20 Olympics medal in the year 1948 which is the year when India got Independence.
  - This shows that the sentiments and victory plays important role in Athlete moral level.
- After 1948, India's performance decreased over time.
- India has not won any Medal between 1980 to 1996 in FOUR Olympics games.
- There is again positive trend shown after 1996.

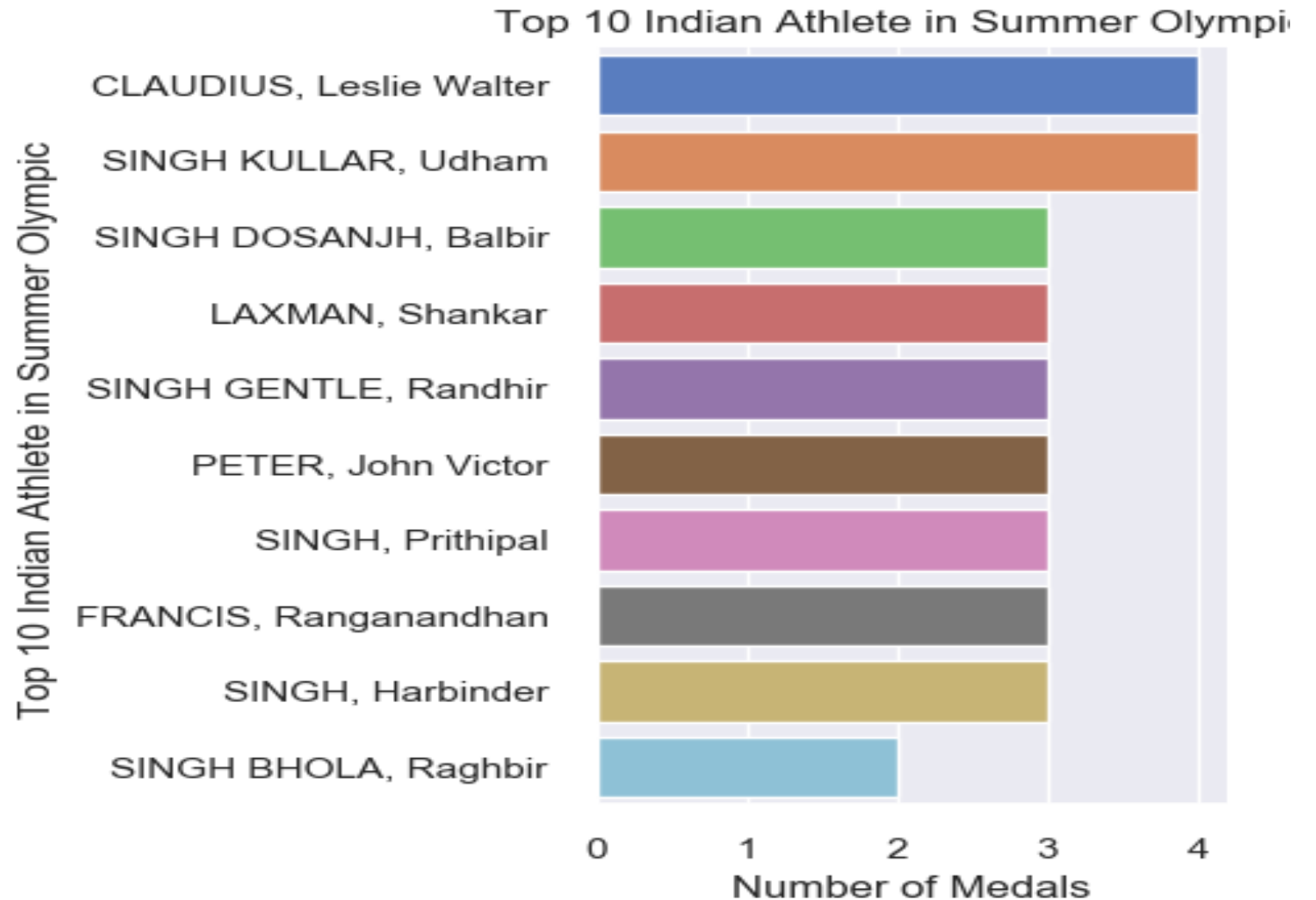


# Top Ten Indian Athlete in Olympics Games

Leslie Walter Claudius was the FIRST Athlete to bag a Olympic Medal for India.

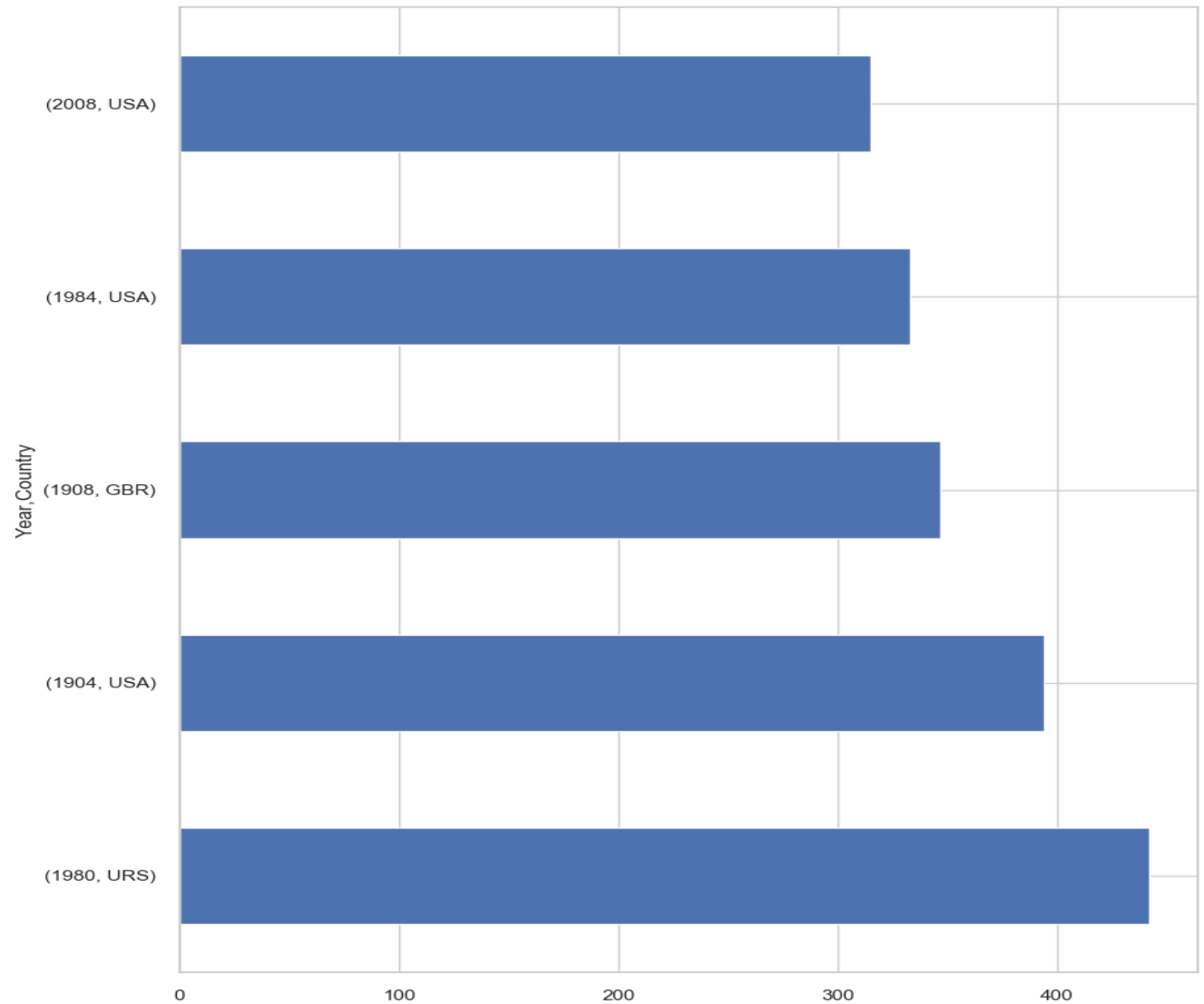
Udham Singh Kullar and Balbir Singh Dosanjh were the top Indian Athlete.

2 Athletes has bagged 4 medals whereas 7 bagged 3 Olympic medals each.



## Countries – Won Olympics games more than once.

- URS, USA, GBR remain the countries which won the Olympics games more than once.
- The countries has total won count more than 325.

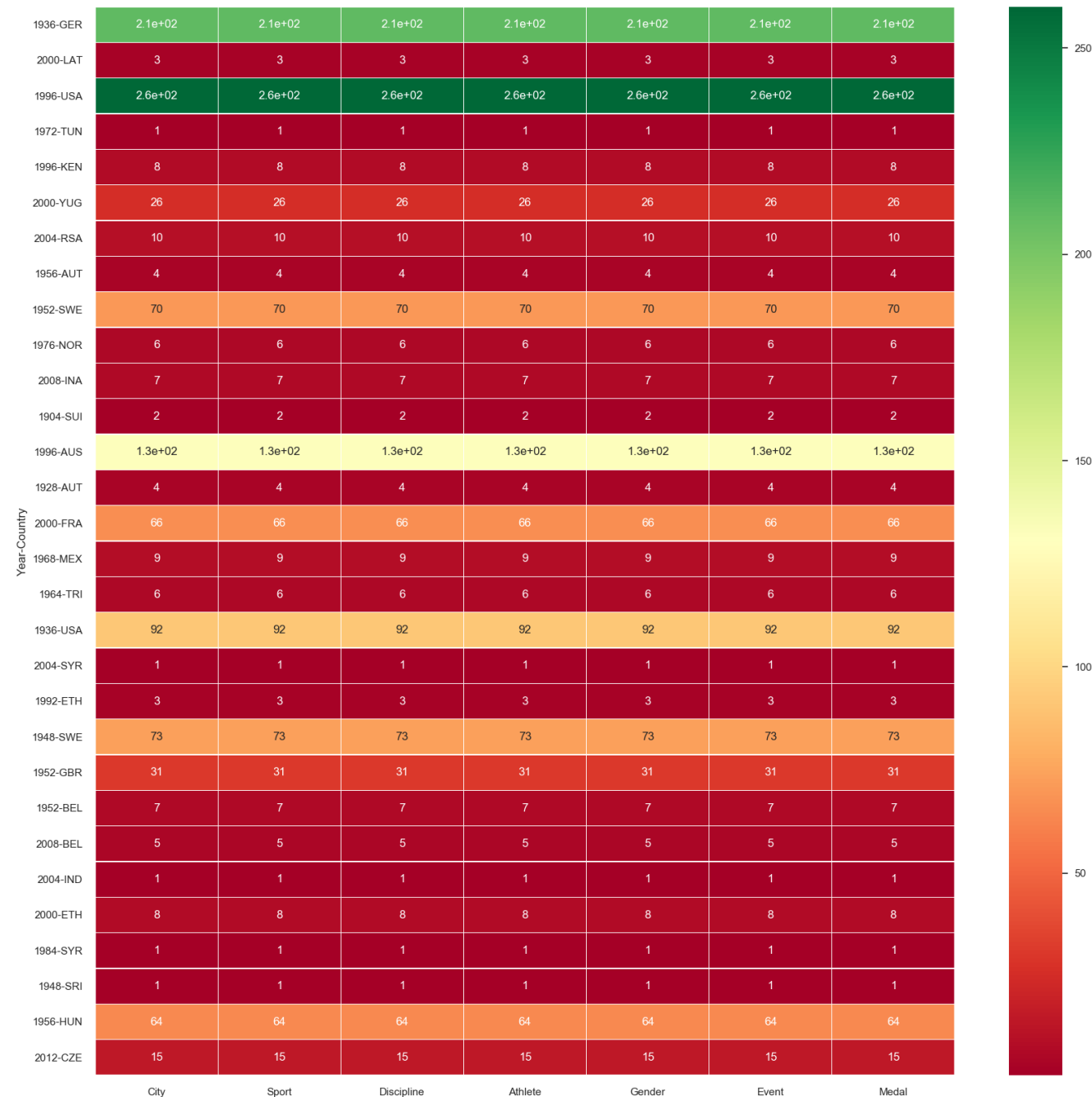




USA (1924),GER has high positive co-relation and won maximum medals in different Discipline and events in Olympics in different games.

GBR,AUS has some co-relation exists in winning medals in Olympics.

Whereas JAM,ETH,SRI,IRL among the countries with negative correlation and hardly able to won any Olympic medals.



# Conclusion

- The Olympics games being held for **27 times** since 1896 and **22 different cities** around the world hosted the games.
  - **London hosted the games maximum of 3 times** , whereas **Paris,Athens,Los Angeles hosted more than once**.
- The participation level also increase dramitically in Olympics from 1896 onwards. It was 10 countries participated in FIRST Olympics games which rises to 86 Nations world wide by the year 2012. There is higly upwards trends and Olympics again Popularity in few years from start.
- The Medal won count increases over the period and from 1964, more than 1000 medals won by athletes in different events which rises close to 2000 medals.
- **Australia,Great Britain,USA** were dominating countries in MAX medal won count.
- **URS,USA,GBR** are the Countries with **Maximum Number of Gold Medals** in History
- From 1988 onwards, on an average 500 medals being won by different countries.
- *Canoe,Trithalon,Teakwondo,Softball\_* are the **Newest games added** to Olympics.
- **Athletics,Aquatics** were the Sports with **maximum events**.
- Men were dominating in bagging Olympics medals but women Athlete also pick up the pace with time. **73% Men 27% Women**
- Women Athlete Performance increased significantly over the period.
- **LATYINA Laisa, Thompson Jenny,FISCHER** Birgit are the TOP THREE women Athlete.
- **Michael PHELPS , Paavo NURMI,Carl LEWIS** are the TOP THREE Men Athletes.
- **Indian Olympics Performance was good from 1928 to 1956 with on average 15 Medals per Olympics**
- **Indian Performance dropped from 1980 to 1996 with ZERO medal and gain momentum from 1996 onwards**
- **Leslie Walter Claudius** was the first Indian to bag MEDAL in Olympics followed by **UDHAM Singh Kullar,Balbir Singh Dosanih**



# Thank You

- GitHub References
  - [https://github.com/harjeet31/Summer-Olympics-EDA/blob/master/Olympic Project Term1%262.ipynb](https://github.com/harjeet31/Summer-Olympics-EDA/blob/master/Olympic%20Project%20Term1%262.ipynb)
  - <https://github.com/harjeet31/Summer-Olympics-EDA/blob/master/Summer%20Olympics%20-%20EDA.pdf>
  - [https://github.com/harjeet31/Summer-Olympics-EDA/blob/master/OlympicsDataset After preprocessing.html](https://github.com/harjeet31/Summer-Olympics-EDA/blob/master/OlympicsDataset%20After%20preprocessing.html)