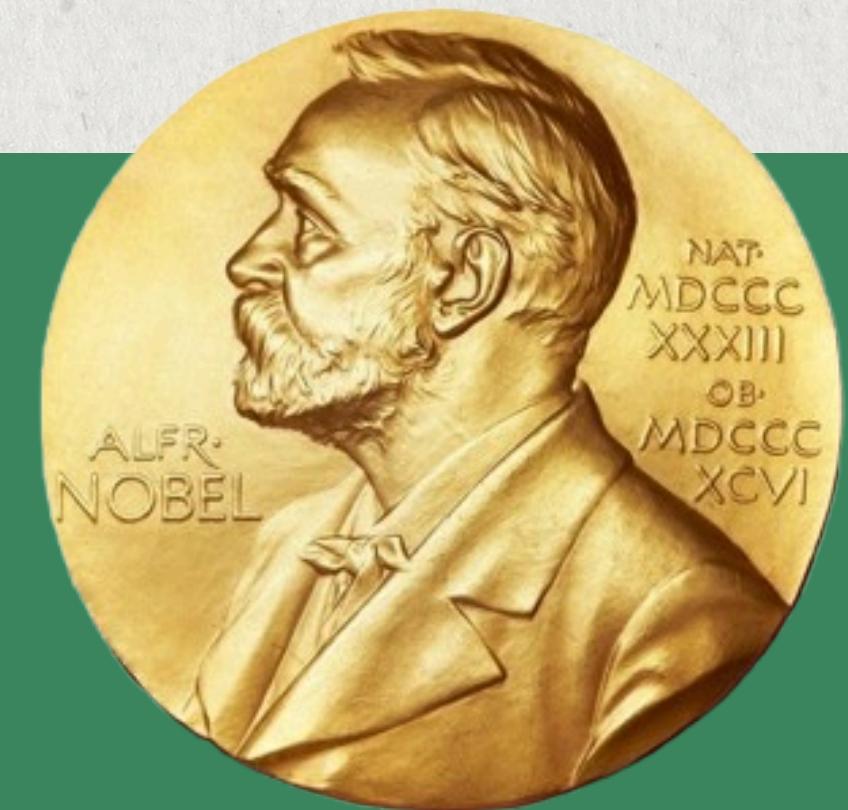


# The Nobel Prize Winners



# Problem Statement

The Nobel Prize has been one of the most prestigious international awards since 1901. Each year, prizes are given in chemistry, literature, physics, physiology or medicine, economics, and peace. Along with the honor, prestige, and significant prize money, winners also receive a gold medal featuring an image of Alfred Nobel (1833-1896), the founder of the prize.

The primary goal of this analysis is to explore the Nobel Prize dataset to uncover interesting trends and patterns related to gender, nationality, and the evolution of prize categories over time.

# Goals

1

Identify the most common gender and birth country of Nobel Prize winners.

2

Analyze the trend of US-born Nobel Prize winners over time.

3

Investigate the proportion of female Nobel Prize winners by decade and category.

4

Identify the first female Nobel Prize winner and her category.

5

Find individuals who have won the Nobel Prize multiple times

# Dataset

The dataset used for this analysis is the `nobel.csv` file, which contains information about Nobel Prize winners, including their name, category, country of birth, year of award, and sex.

The Nobel Foundation has provided a dataset listing all Nobel Prize winners from the inception of the awards in 1901 through 2023.



# Outputs

01.

What gender and birth country have been awarded the most?  
Store as string variables  
'top\_gender' and  
'top\_country'.

02.

Which decade had the highest ratio of US-born Nobel Prize winners compared to total winners across all categories?  
Store as an integer variable called 'max\_decade\_usa'.

03.

What decade and Nobel Prize category had the highest proportion of female laureates? Store as a dictionary called 'max\_female\_dict', where the decade is the key and the category is the value (only one key-value pair should be included).

04.

Who was the first woman to win a Nobel Prize, and in which category? Store as strings named 'first\_woman\_name' and 'first\_woman\_category'.

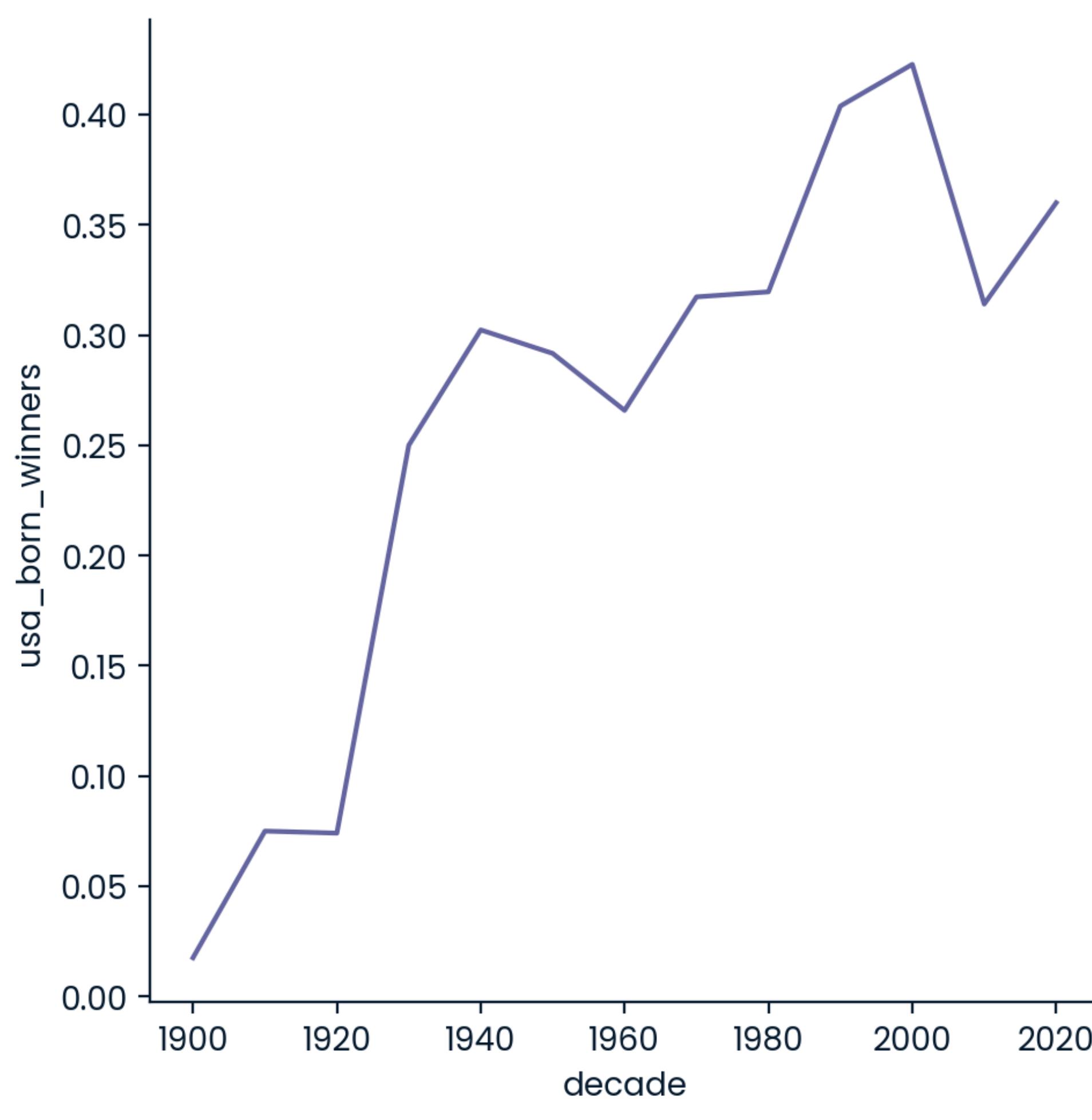
05.

Which individuals or organizations have won the Nobel Prize more than once?  
Store their full names in a list called 'repeat\_list'.

# Data Findings

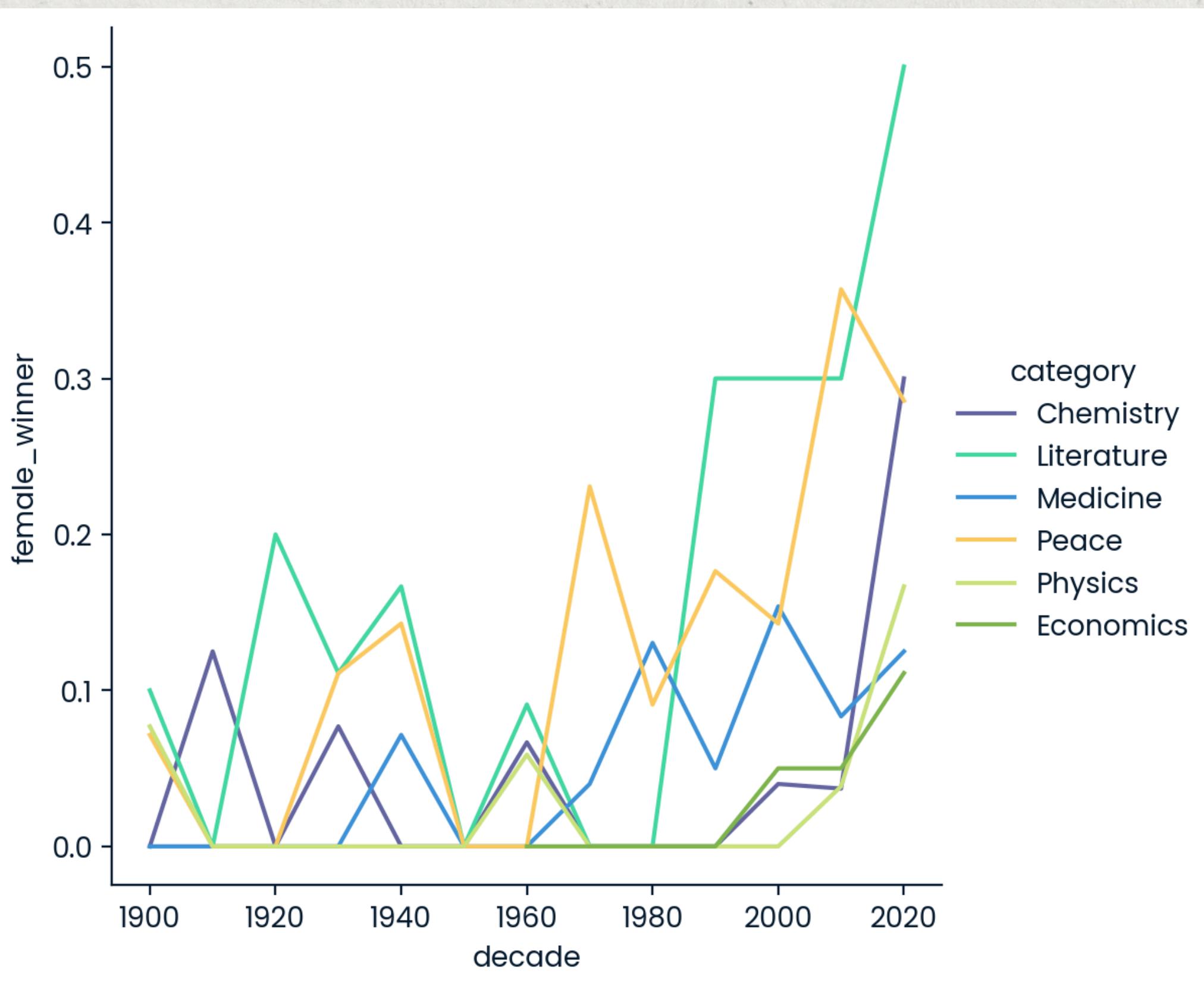
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- **Most Common Gender and Birth Country:** The most common gender among Nobel Prize winners is male, and the most common birth country is the United States of America.
- **The decade with the highest proportion of US-born Nobel Prize winners compared to total winners across all categories is the 2000s.**
- **Female Winners:** The decade and Nobel Prize category had the highest proportion of female laureates is the 2020s particularly in categories like Literature.
- **First Female Winner:** The first female Nobel Prize winner was Marie Curie, who won the Physics Prize in 1903.
- **Repeat Winners:** Several individuals have won the Nobel Prize multiple times, they're Comité international de la Croix Rouge (International Committee of the Red Cross), Linus Carl Pauling, John Bardeen, Frederick Sanger, Marie Curie, Office of the United Nations High Commissioner for Refugees (UNHCR).



This line chart visualizes the proportion of US-born Nobel Prize winners across different decades.

- **Upward Trend:** The overall trend shows an increase in the proportion of US-born winners over time, especially from the 1920s to the 1990s.
- **Peak in the 1990s:** The highest proportion of US-born winners is observed in the 1990s.
- **Recent Decline:** There's a slight decline in the proportion of US-born winners in the 2010s and 2020s.



This line chart visualizes the proportion of female Nobel Prize winners by decade and category. Each line represents a different Nobel Prize category (Chemistry, Literature, Medicine, Peace, Physics, and Economics).

- **Overall Trend:** The proportion of female winners has been increasing over time, particularly in recent decades.
- **Category-Specific Trends:** Some categories, like Literature and Peace, have seen a more significant increase in female winners compared to others, such as Physics.
- **Outliers:** There are a few instances of a high proportion of female winners in specific decades, such as the early 20th century for Literature and the late 20th century for Peace.

# Insights

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- **US Dominance:** The United States has consistently produced a high number of Nobel Prize winners, particularly in the fields of science and medicine.
- **Increasing Female Representation:** While historically dominated by male winners, the Nobel Prize has seen a growing number of female recipients, especially in recent decades.
- **Diverse Categories:** The Nobel Prize is awarded in various categories, reflecting the breadth of human achievement.