

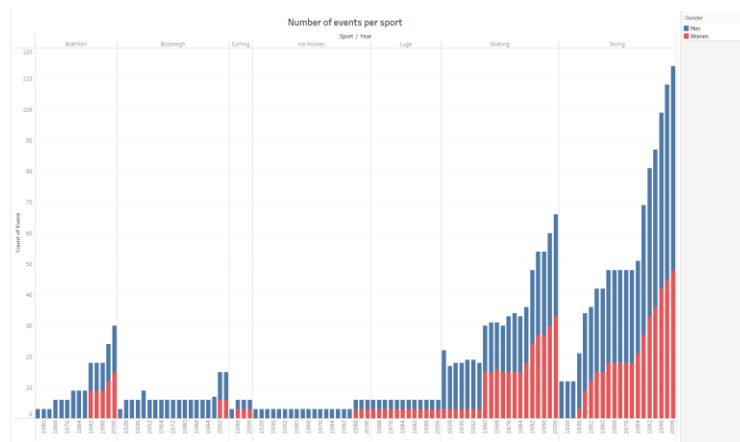
Exercise 1 Report: exploring the evolution of women's participation in sports

Motivation: The analysis is centered on exploring the evolution of women's participation in sports and identifying areas that require further attention. The analysis aims to examine the distribution of wins by female athletes in skating and skiing across multiple countries. The primary objective is to gain a comprehensive understanding of gender parity in these sports and identify any discrepancies that may exist.

Data augmentation: To capture the perspective of the author, the 'Event' field was used as a Measure (count of events) on the row shelf.

Task: The objective is to assess how women's inclusion in sports increased over time.

Sub Task 1: Analyzing Trends in Women's Participation



Expressiveness of design: In order to effectively display the trends in women's participation in each sport over time, a bar plot was chosen as the most suitable graph. The graph was created with the Year variable on the Column shelf and Number of Events on the Row shelf. To make it easy to visualize the progress in the inclusion of women in sports, the bar plot was color-coded based on Gender.

Effectiveness of the solution: The bar plot was further enhanced by adding the Sport variable to the Column shelf. This division of the graph allows for a clear view of the changing trends in women's participation in different sports over time. By visualizing the data in this way, it becomes easier to understand which sports have seen increased inclusion of women and which may need further attention. This information can be used to make informed decisions and to promote greater gender equality in sports.

Interaction: The study has developed a comprehensive dashboard featuring a color legend that specifies which color represents female athletes and which represents male athletes. This feature enables users to distinguish between the distribution of wins by male and female athletes in across all sports over time. The color legend provides users with an intuitive visual cue that helps them understand the data and draw meaningful insights from it.

Sub Task2: The previous analysis highlighted similar trends in the inclusion of women in skiing and skating events in the Winter Olympics. The current analysis aims to identify the countries that have made strides towards this inclusion and to determine which ones are leading the way.

Expressiveness of design: To gain a better understanding of women's success in sports, geographical maps were used to analyze the distribution of wins in skating and skiing. Colormaps were employed to visually represent the number of medals won by women in these sports across different countries, with the color intensity reflecting the medal count. This approach allowed for a more comprehensive analysis of the trends and patterns in women's achievements in sports and provided valuable insights into their performance at the international level.



Effectiveness of the solution: The use of colormaps to visually represent the distribution of wins in women's skating and skiing has been shown to be an effective method. This approach enables users to quickly identify countries with higher or lower medal counts based on the intensity of color, providing a clear indication of the distribution of wins across different nations. As a result, this method allows for a more efficient analysis of the data, which provides valuable insights into women's achievements in sports at the international level.

Interaction: The maps that incorporate colormaps are equipped with filter interactions, which allow users to narrow down the time frame, focus on specific countries, or explore additional details if desired. These filters enable users to customize their analysis by selecting specific parameters that are relevant to their research interests. This feature enhances the user experience and facilitates a more personalized analysis of the data.

Conclusions: The analysis conducted on the distribution of wins in women's skating and skiing using colormaps has revealed a positive trend in the inclusion of women in sports over time. The colormaps visually highlight the success of women athletes from various countries, showcasing their achievements and contributions to the field. Although the analysis does not make a direct argument, it emphasizes the progress made in promoting gender equality in athletics and highlights the importance of continued efforts to support women's participation and success in sports. This approach provides valuable insights into the advancements made in women's sports and serves as a reminder of the work that still needs to be done to ensure equal opportunities for all athletes.