

## Scatter Plot 1: Medals Won by Men vs. Women Over Years

```
ggplot(medals_gender, aes(x = year, y = medal_count, color = sex)) +  
  geom_point(alpha = 0.7, size = 2) +  
  scale_color_manual(values = c("M" = "blue", "F" = "red")) +  
  labs(title = "Medals Won by Men and Women Over Time", x = "Year",  
       y = "Medal Count", color = "Gender") +  
  theme_minimal() +  
  theme(plot.margin = margin(20, 20, 20, 20))
```

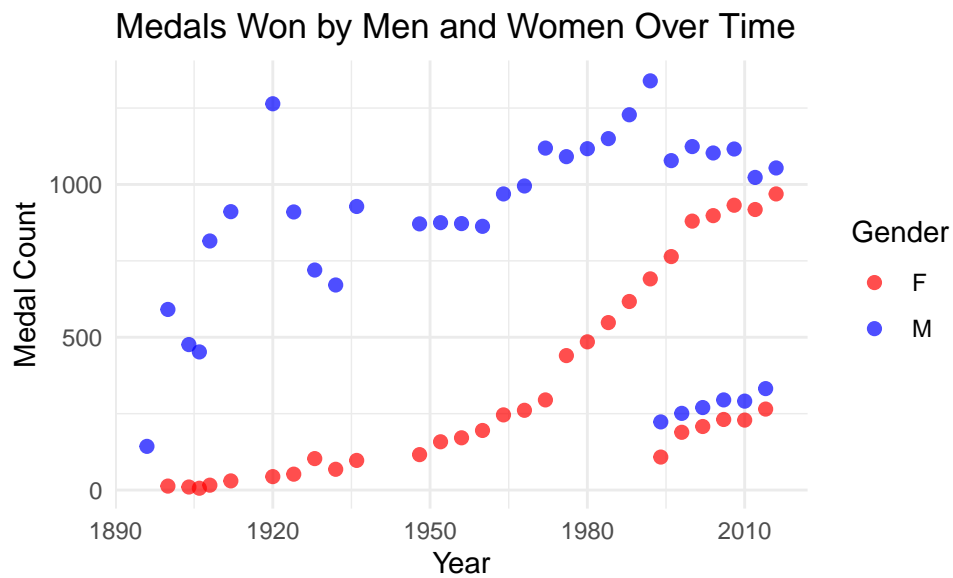


Figure 1: Medals Won by Men and Women Over Time

### Observation:

While historically dominated by male athletes, the gap in medal counts is closing, particularly visible from the late 20th century onwards, underscoring a shift in competitive dynamics and greater opportunities for women athletes to excel and compete.