Titanic Insights and Lessons for Modern Safety Measures

- Analyzing Survival Patterns and Recommendations for Future Safety

- **Name** - Sumit Baviskar
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OVERVIEW

Objective:

- Analyze passenger demographics, fare distribution, and survival trends.
- Provide actionable insights to improve modern safety measures.

Key Areas of Analysis:

- Gender and Survival Trends
- Class and Fare Impact on Survival
- Age-Based Survival Patterns
- Recommendations for Safety Improvements

GENDER IMPACT ON SURVIVAL

- **Higher Female Survival Rates:** Across all classes, females had higher survival rates than males.

- **Class Variation:** First-class passengers of both genders had the highest survival rates, with survival disparity decreasing in lower classes.

- **Third-Class Male Risk:** Males in third class had the lowest survival rates and highest mortality risk.

Survival Count Across Passenger Classes
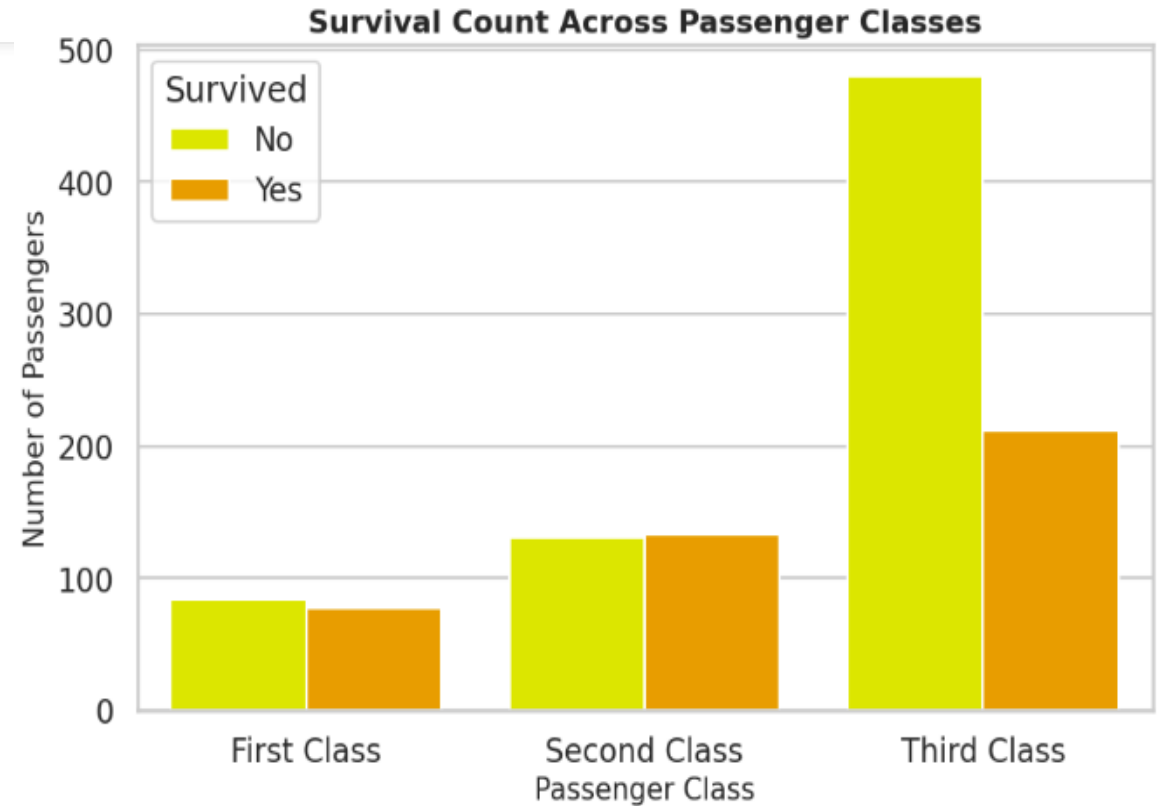
CLASS AND FARE DISTRIBUTION

- **Higher Fares in First Class:** First-class passengers consistently paid the highest fares, reflecting access to better amenities and safety resources.

- **Second and Third Class:** Moderate fares in second class, with third class showing the most affordable and consistent fares across age groups.

- **Survivors vs. Non-Survivors:** Survivors in all classes tended to pay slightly higher fares on average than non-survivors.

Fare Distribution by Class and Survival Status
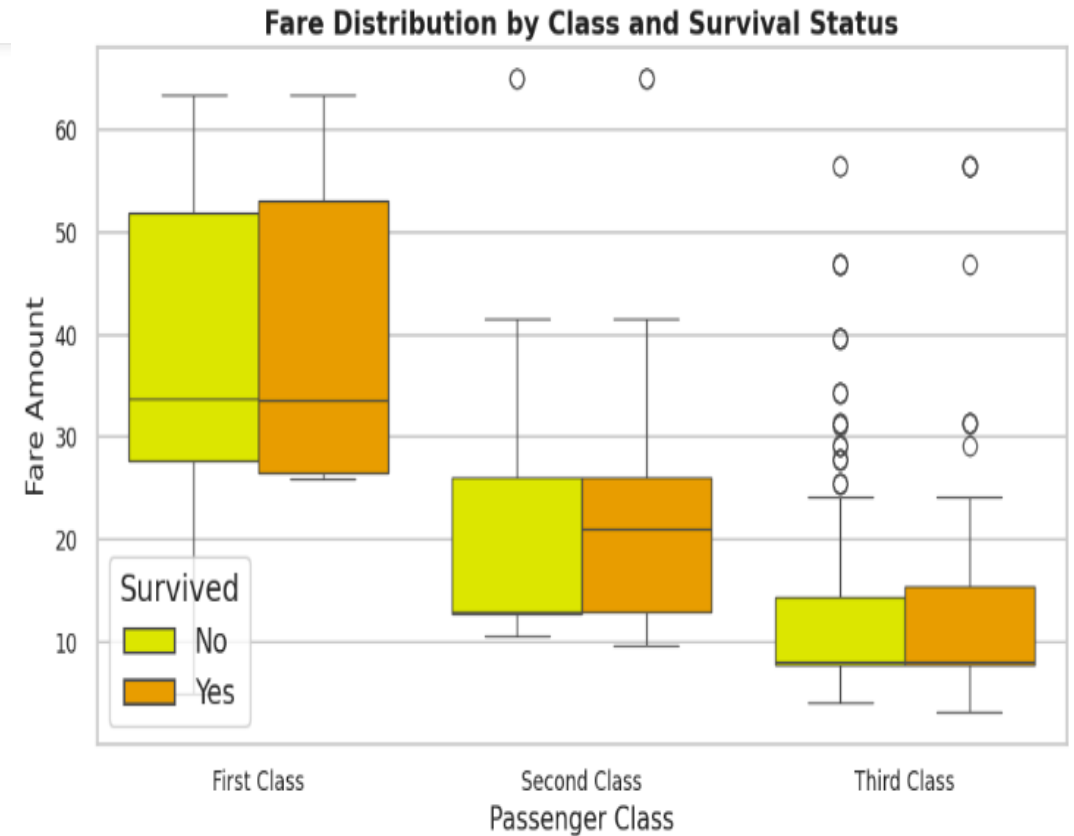
AGE IMPACT ON SURVIVAL

- **Younger Passengers:** Children had higher survival rates compared to middle-aged and senior passengers.

- **Age Difference in Survival:** Survivors across all age groups were slightly younger than non-survivors.

- **Class-Specific Patterns:** Younger passengers in first class paid lower fares compared to seniors.

Average Fare by Age Group, Pclass, and Survival
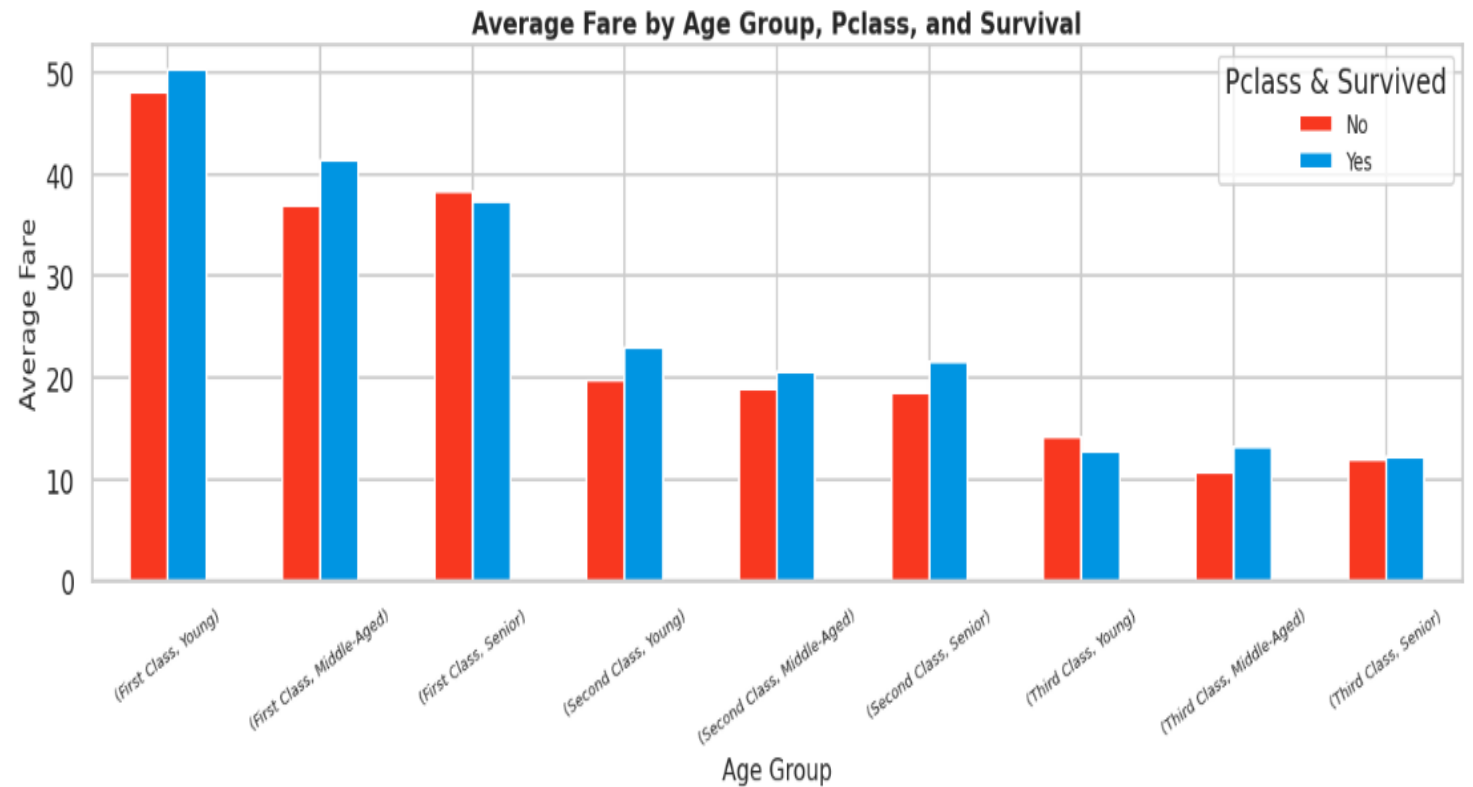
SOCIOECONOMIC INFLUENCE

- **First-Class Advantage:** Survival rate of 48% in first class compared to 30% in third class.

- **Class Inequality:** Third-class passengers faced the highest mortality, with 480 non-survivors.

- **Fares and Safety:** Higher-paying passengers had better access to lifeboats and evacuation routes.

Survival Count Across Passenger Classes
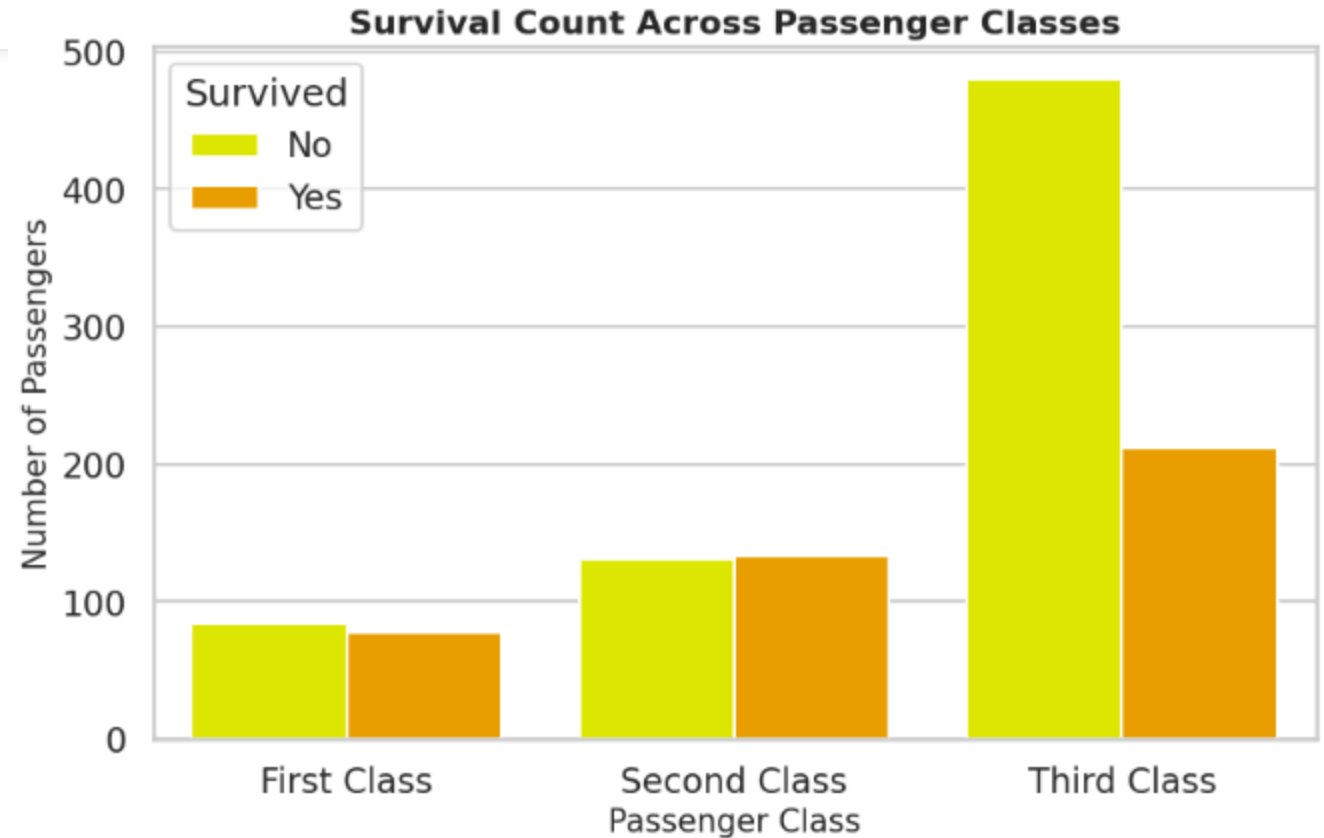
RECOMMENDATIONS

Improved Safety Measures:

- **Equitable Evacuation Policies:** Ensure all passengers, regardless of class, have equal access to lifeboats and safety resources.

- **Enhanced Ship Design:** Balanced placement of lifeboats and evacuation routes to reduce class-based disparities.

- **Comprehensive Training:** Regular emergency preparedness drills for both crew and passengers to promote efficient and unbiased evacuation.

- **Data-Informed Planning:** Leverage historical data to optimize safety protocols for modern maritime transport.

CONCLUSION

Key Takeaways:

- The Titanic disaster underscores the importance of equitable safety measures.

- Gender, class, and age significantly influenced survival outcomes.

- Historical data serves as a critical tool for designing inclusive safety protocols.

Questions

Thank You!

Feel free to ask any questions or share your thoughts.