

## # Titanic Dataset: Visual Analysis Summary

### ## Passenger Age Distribution

- Majority were **young adults (20–40 years)**.
- Small group of **children (0–10 years)** traveled.
- Very few passengers were **older than 60**.
- **Right-skewed** distribution — more young people.

### ## Passenger Fare Distribution

- Most passengers paid **under \$50**.
- **High-fare outliers** (> \$200) suggest luxury travelers.
- **Highly right-skewed** — many cheap fares, few expensive ones.

### ## Age and Survival Relationship

- **Younger passengers** had **higher survival rates**.
- Survivors had a **lower median age** than non-survivors.
- Some **older survivors** exist, but they are **rare**.

### ## Fare and Survival Relationship

- **Higher fare** → **Higher chance of survival**.
- Survivors typically paid **much higher fares**.
- Non-survivors were often **lower-fare third-class** passengers.

### ## Age vs Fare by Class

- **First-class**: Highest fares, wide age spread.
- **Second-class**: Moderate fares, middle-aged passengers.

- **Third-class**: Lowest fares, mostly younger passengers.
- Clear separation between **classes** in **Age** and **Fare**.

## ## 📌 Final Insights

- **Class, Age, and Fare** were **critical factors** in survival.
- **Higher socioeconomic status** (first-class, expensive ticket) **boosted survival** odds.
- **Youthfulness** also improved chances of survival.