

Survival and Demographics

Gender:

The survival rate was significantly higher for females than for males. The "Survived by Sex" chart shows that out of 342 survivors, 233 were female (68.13%), while only 109 were male (31.87%).

Age:

The "Age Distribution" chart suggests that children and women had a higher frequency of survival compared to men, especially at younger ages. The **Died Average Age** was 30, and the **Survival Average Age** was 28, indicating that on average, younger passengers were slightly more likely to survive.

Correlation Heatmap

The **Correlation Heatmap** provides insights into how different variables relate to each other.

Survival:

The row labeled 'survived' is key. It shows a strong positive correlation with 'fare' (0.32), a moderate positive correlation with 'pclass' (0.008), and a moderate negative correlation with 'parch' (-0.058). This suggests that a higher fare and having a parent or child on board had a slight positive impact on survival. The correlation with 'sex' (0.64) is the strongest, confirming that gender was the most significant factor in survival.

Fare:

The fare has a strong negative correlation with passenger class ('pclass'), which is logical since first-class tickets would be more expensive.

Age:

Age shows a weak negative correlation with 'parch', suggesting that older passengers were less likely to be traveling with parents or children.

Overall Summary

The data strongly indicates that **gender was the most significant factor in a person's chance of survival** on the Titanic. Other factors like passenger class and fare also played a role. The dashboard effectively visualizes the various demographics and their relationship with survival outcomes, with the correlation heatmap providing a concise summary of the interrelationships between all the variables.



First Class

Survival Demographics

Gender:

Out of 216 total passengers, 94 were female and 122 were male. However, of the 136 total survivors, 91 were female (66.91%) and only 45 were male (33.09%). The "Survived and Died by who" chart visually confirms this, showing that 89 women survived compared to only 2 who died. In contrast, 77 men died while only 42 survived.

Age:

The average age of all passengers was 37.00. The average age of those who died was 41, while the average age of survivors was 35. This suggests that younger passengers had a better chance of survival on average.

Embarking Point:

The majority of first-class passengers boarded in Southampton (127) and Cherbourg (86). Cherbourg had a relatively high survival rate, with 43 passengers surviving and 17 dying. Southampton had 46 survivors and 28 deaths.

First Class

Correlation Analysis

The correlation heatmap indicates how different variables relate to each other:

Survival:

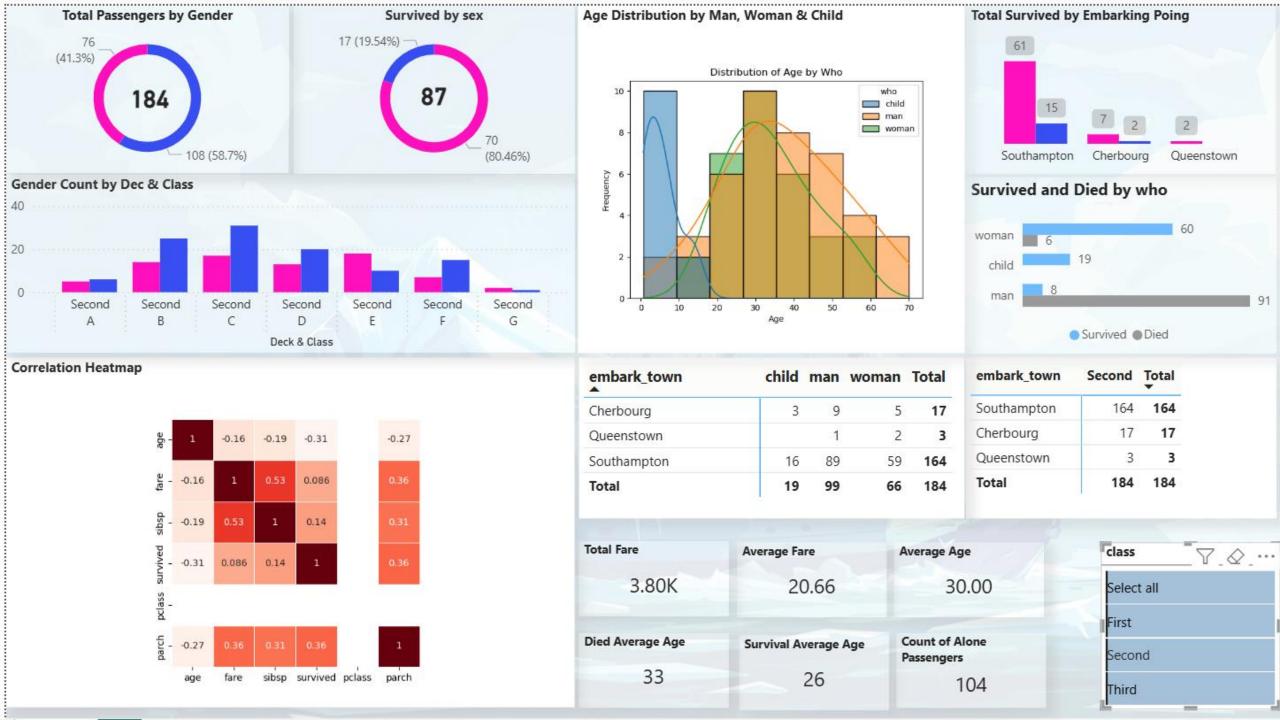
The strongest relationship with survival is with sex, although not explicitly shown on the heatmap, the high survival rate for females is a key finding of the dashboard. The heatmap shows a weak positive correlation between survival and fare (0.18) and sibsp (0.16), suggesting that a higher fare and traveling with a sibling or spouse slightly increased survival chances.

Age:

Age has a very weak negative correlation with survival (-0.17) and a negative correlation with parch (-0.18), indicating older passengers were less likely to be traveling with parents or children.

Fare:

There is a strong positive correlation between fare and parch (0.42), indicating that those traveling with parents or children tended to pay a higher fare.



Second Class

Survival Demographics

Gender:

Out of 184 total passengers, 108 (58.7%) were male and 76 (41.3%) were female. The survival rates were starkly different: 70 females (80.46%) survived, while only 17 males (19.54%) survived. The "Survived and Died by who" chart reinforces this, showing that 60 women survived while only 6 died. For men, 91 died compared to just 19 who survived.

Age:

The average age of second-class passengers was 30.00. The average age of those who died was 33, while the average age of survivors was 26. This indicates that younger passengers were more likely to survive.

Embarking Point:

The majority of second-class passengers boarded in Southampton (164). Cherbourg had 17 passengers, and Queenstown had 3. The "Total Survived by Embarking Poing" chart shows that Southampton had 61 survivors, Cherbourg had 15, and Queenstown had 2.

Second Class

Correlation Analysis

The correlation heatmap highlights relationships between several variables:

Survival:

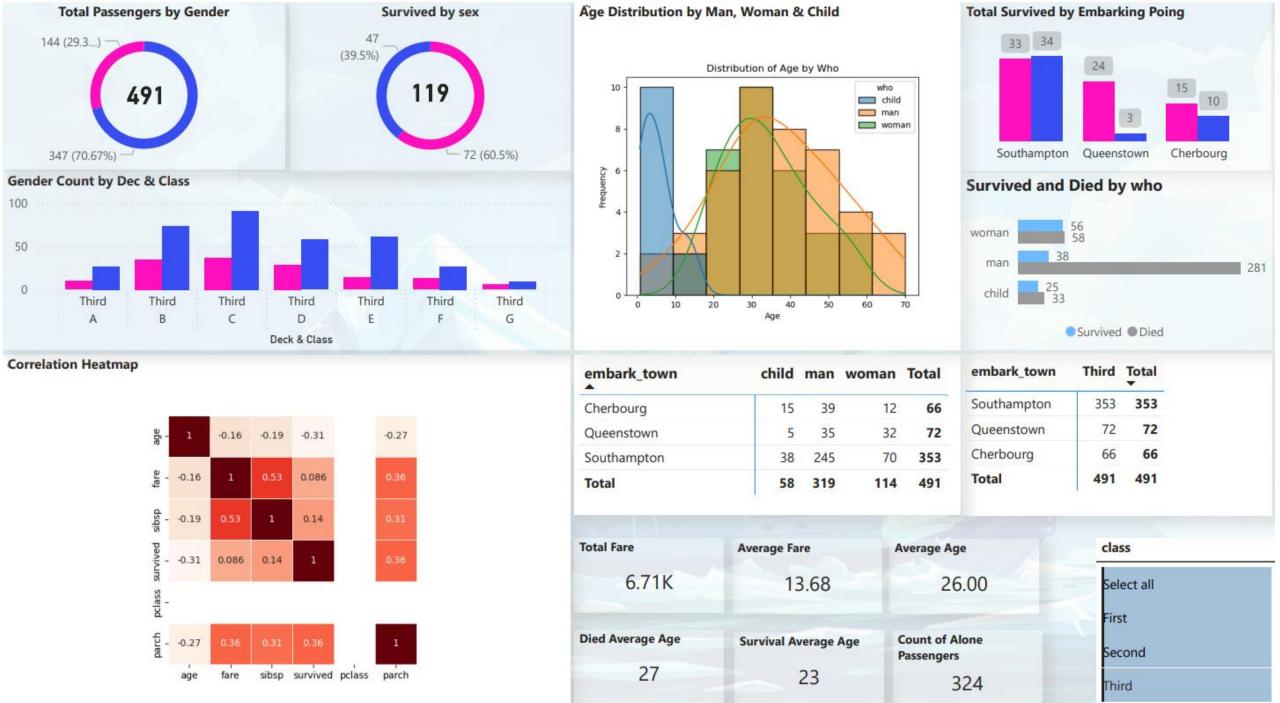
Survival has a weak positive correlation with fare (0.18) and sibsp (0.16). This suggests that a higher fare and traveling with a sibling or spouse slightly increased survival chances.

Age:

Age has a weak negative correlation with survival (-0.17), which aligns with the finding that the average age of survivors was lower than the average age of those who died. Age also has a negative correlation with parch (-0.18), indicating that older passengers were less likely to be traveling with parents or children.

Fare:

There is a strong positive correlation between fare and parch (0.42), indicating that those traveling with parents or children tended to pay a higher fare.



Third Class

Survival Demographics

Gender:

Out of 491 total third-class passengers, 347 (70.67%) were male and 144 (29.3%) were female. Of the 119 total survivors, 72 (60.5%) were female, while only 47 (39.5%) were male. The "Survived and Died by who" chart further illustrates this, showing that while 56 women survived and 58 died, only 25 men survived compared to 281 who died.

Age:

The average age of all third-class passengers was 26.00. The average age of those who died was 27, while the average age of survivors was 23. This suggests that younger passengers were more likely to survive. The "Survived and Died by who" chart indicates that 38 children survived, while 25 died.

Embarking Point:

The majority of third-class passengers boarded in Southampton (353). Southampton also had the most third-class survivors with 33, followed by Queenstown with 24, and Cherbourg with 15.

Third Class

Correlation Analysis

The correlation heatmap highlights relationships between several variables:

Survival:

Survival has a moderate negative correlation with age (-0.31). This is the strongest correlation with survival, indicating that younger age was a significant factor. There is also a moderate positive correlation with parch (0.36), suggesting that traveling with parents or children increased survival chances.

Fare:

Fare has a strong positive correlation with sibsp (0.53) and parch (0.36), which means that those traveling with more family members tended to pay a higher fare.

Age:

Age shows a moderate negative correlation with parch (-0.27), indicating that older third-class passengers were less likely to have parents or children with them.