

## Report: Titanic Data

### Background:

The dataset includes demographic information about 2,201 passengers who traveled on the Titanic. The data includes four variables recorded for each passenger:

- Class (crew, 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>)
- Age (adult, child)
- Sex (male, female)
- Survival status (died, survived)

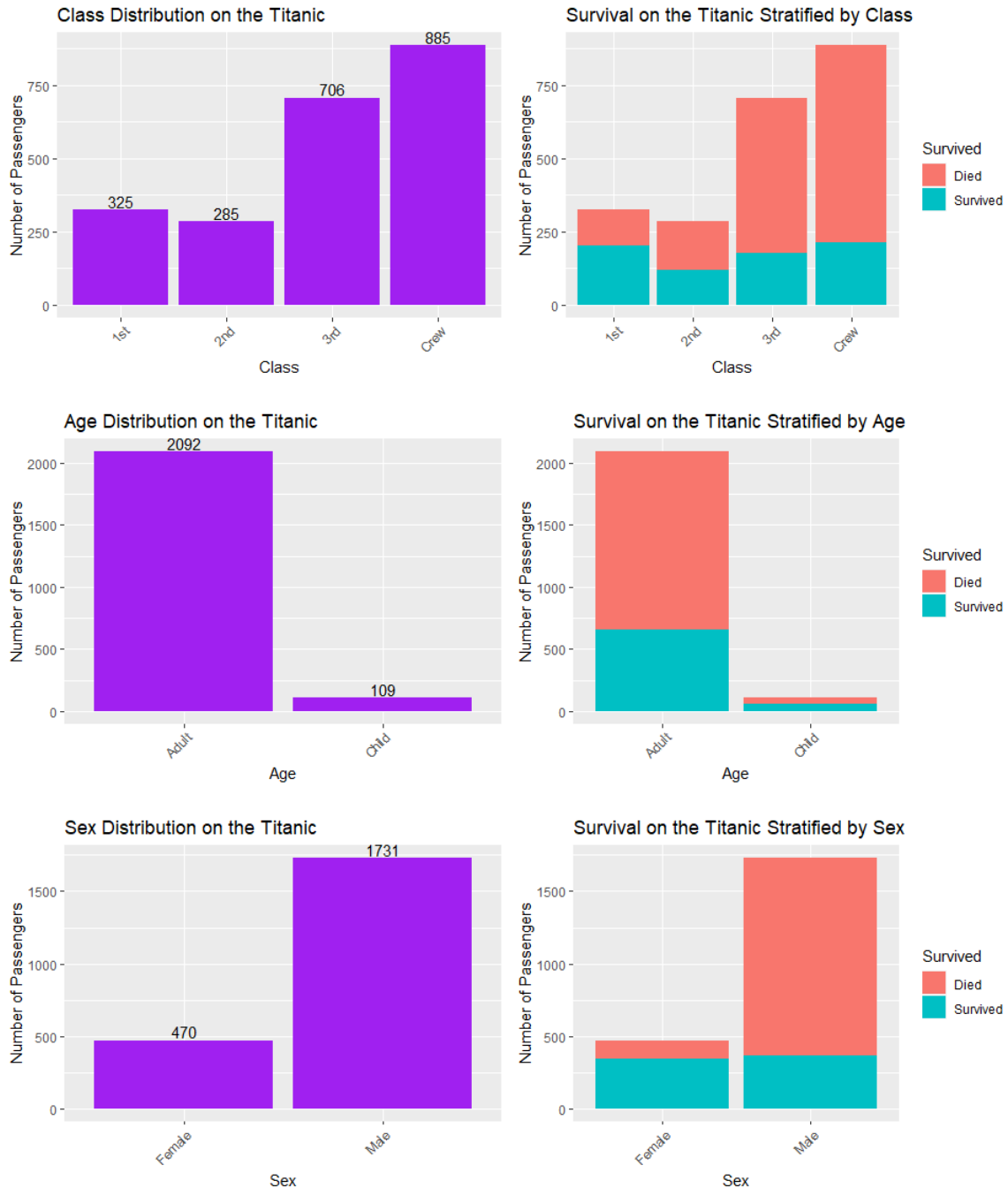
### Descriptive Statistics:

	Died (n=1490)	Survived (n=711)	Overall (n=2201)
<b>Class</b>			
1st	122 (8.2%)	203 (28.6%)	325 (14.8%)
2nd	167 (11.2%)	118 (16.6%)	285 (12.9%)
3rd	528 (35.4%)	178 (25.0%)	706 (32.1%)
Crew	673 (45.2%)	212 (29.8%)	885 (40.2%)
<b>Age</b>			
Adult	1438 (96.5%)	654 (92.0%)	2092 (95.0%)
Child	52 (3.5%)	57 (8.0%)	109 (5.0%)
<b>Sex</b>			
Female	126 (8.5%)	344 (48.4%)	470 (21.4%)
Male	1364 (91.5%)	367 (51.6%)	1731 (78.6%)

Descriptive statistics show that the majority of passengers in the dataset were male (79%), adult (95%), and classified as crew (40%). 1490 of the 2201 passengers died, and survival status appears to be related to all three of the other variables.

### Visualizations:

We can better visualize the observed distributions of the class, age, and sex variables by constructing bar plots for each:



The barplots show the observed distributions of the class, age, and sex variables. The majority of passengers were adult, male, and either 3<sup>rd</sup> class passengers or crew members. Considering relative survival; women were more likely to survive than men, children more likely to survive than adults, and higher class status was correlated with better survival.