

# **Case Study D**

## **The Titanic Disaster Revisited**

## Background

- RMS Titanic sank on April 14, 1912 with ca. 2200 souls on board, 2:40h after impact
- 16 lifeboats could carry only about half the passengers yet far fewer have been saved



## Goals of Study

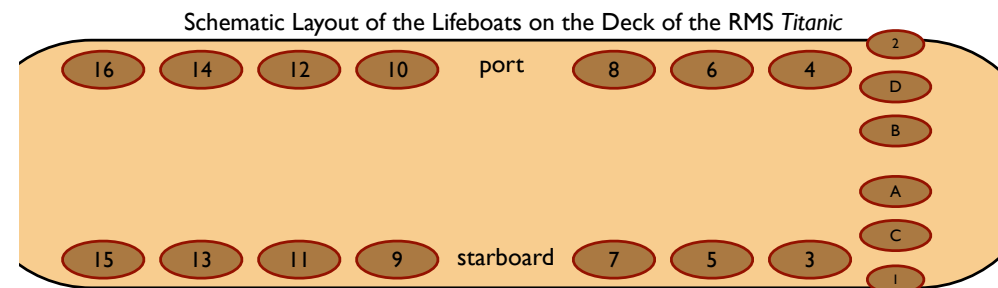
- Study distribution of passengers on board
- Analyze patterns relevant to survival outcome
- Follow the sequence of lifeboats and find patterns to reveal procedures possibly used

## Description of Data

- *Survival dataset:* (The British Wreck Commissioner's Inquiry Report)
- Class - class (first, second, third, crew)
- Age - dichotomized (child, adult)
- Gender - gender (male, female)
- Survived - survived (yes, no)

### *Lifeboat dataset:*

- Class - class (first, second, third, crew)
- Gender - gender (male, female)
- Boat - number of the boat (1–16, A–D)
- Sequence - number of the boat in the launch sequence
- Side - location of the boat (starboard, port)



## Analysis

- Patterns in the data and survival
  - barcharts of Survived, Age, Class, Gender
  - select Survived = yes and follow barcharts and spineplots
  - mosaic plots of Gender  $\times$  Class, add Age
- Lifeboat data
  - Note: the dataset is in weighted form, so always weight by Count!*
  - barcharts Gender, Class
  - multiple barcharts mosaic plot of Side  $\times$  Class and Boat  $\times$  Class  
(order boats in a barchart by launch sequence:  
7, 5, 6, 3, 1, 8, 10, 9, 12, 14, 15, C, 2, 11, 4, D, A, B)
  - use brushing by Class in barchart and spineplot of Boat
  - mosaic plot Gender  $\times$  Side

