'Women and children first': Men, statistics show your best chance is on the port side

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If you were a man on the Titanic, which side of the ship would have given you the best chance of making it into a lifeboat -- and surviving?

Well, according to data analysis by Michael Friendly, a professor with the Psychology Department at York University, the boats launched from each side of the doomed ship show a different pattern when it comes to percentage of men on board: on the port (left) side, the first few boats were only lightly loaded, and contained a large number of male passengers and crewmen. On the starboard side, where good order was maintained throughout, the boats were fully loaded – and almost completely with women and children.

Finding the right graphical representation for data often plays a key role in science discovery, and Friendly is speaking today on the history of graphic analysis in science at the American Association for the Advancement of Science (AAAS) Annual Conference in Boston, which runs from February 14 to 18. His focus will be the key role that insightful graphics have played in helping scientists both make new discoveries and explain them to the public.

The foundation of scientific graphics was laid in the early 19th century by statisticians like André Michel Guerry, who prepared the first ever comprehensive analysis of data on what were called "moral statistics" (crime and suicide rates, literacy, etc.). Many other scientists adopted and refined the use of visual displays, with one of the most famous examples being the work of John Snow, who proved the link between

cholera and contaminated water by mapping cholera deaths in London in the 1860s. He traced the source of the disease to a single water pump on Broad Street, and with the removal of its handle, the outbreak stopped within a few days.

One hundred and fifty years later, the challenges of data analysis have become more complex, and researchers have come to rely on more sophisticated graphic models, such as multi-dimensional graphs. Dr. Friendly's own work is the development of graphical methods for categorical data (data that fall into a discrete set of categories, such as gender, marital status, etc.), and the history of statistical graphics.

Source: Natural Sciences and Engineering Research Council