International Journal of Population Data Science

Journal Website: www.ijpds.org

The causes of serious injuries to crew on UK commercial fishing vessels: An investigation combining free-text and coded data

Naylor, Steven^{1*}

¹The Health and Safety Laboratory

Objective

Commercial fishing is one of the riskiest occupations in the UK. While there is a strong evidence base concerning fatalities on commercial fishing vessels and their causes, there is less understanding of the causes of serious non-fatal injuries to crew working on board such vessels.

Conclusions

The application of text mining techniques in this study to extract knowledge from free-text data contained in the incident reports analysed, proved useful in elucidating on the specific circumstances under which vessel crew were injured.

Approach

This research aimed to extract knowledge from safety incident reports, using traditional statistical in combination with more novel text mining techniques, to generate data-driven insights as to the principal causes of serious injuries to crew working on board UK commercial fishing vessels and how they might be better mitigated. Safety incident data held by the UK Marine Accident Investigation Branch (MAIB), contained in their incident reporting database, provided the primary source of data for this study. Data relating to 1,660 incidents in total, where a member of crew was seriously injured, were analysed.

Results

Study findings demonstrated that the risks of serious injuries faced by crew working on board commercial fishing vessels are diverse, ranging from injuries received whilst operating fishing gear and other deck machinery, those received whilst processing bait and the catch and injuries received whilst carrying out general shipboard duties. Furthermore, findings suggest that underlying causes and contributory factors are multi-faceted and vary significantly across different types of fishing vessels and whilst different deck duties are being carried out by crew.

*Corresponding Author:

Email Address: steven.naylor@hsl.gsi.gov.uk (S. Naylor)