At A Glance
Statistical Sampling and Data Analysis in Product Liability and Mass Torts Litigation

Overview

Product liability and mass tort lawsuits often require extensive data collection and statistical analysis to develop reliable estimates of, for example, how many products were distributed, how many individuals were damaged, and how many claims will be filed. However, relevant records or data may not be easily accessible and may not be in electronic form. Where electronic data are available, an in-depth review may still be time-consuming and expensive. In such cases, well-designed statistical samples can extract a small but reliable subset of the relevant population for review to efficiently and cost-effectively provide the necessary evidence in the case.

Experts at NERA have designed samples for a variety of purposes, including:
- estimating the size of property damage or personal injury classes;
- quantifying the rate of product defect, contamination, or failure;
- determining the expected rate of injury or illness; and
- assisting in the resolution of insurance disputes.

Industries in which we have worked include construction products, medical devices, pharmaceuticals, asbestos, and food products.

Examples of Recent Cases

Sampling Erroneously Paid Health Claims: A well-known insurance company wanted a precise estimate of what share of dollars paid on six million health claims had been paid in error. NERA experts designed a sampling strategy to ensure that claims were represented in the sample in proportion to their overall costs to the insurer.

The resulting sample of 1,000 claims allowed the insurance company to audit a manageable and representative pool of medical claims, providing a rigorous estimate of the amount paid in error.

Testing Allegedly Defective Construction Products: A California roofing company was faced with a $100 million class action suit alleging that its product deteriorated at an expedited rate. NERA experts designed a means to select a reliable sample of roofs from neighborhoods and houses relevant to the litigation. Defendants were able to obtain agreement that the extent of the deterioration in the sample could be used as a basis for assessing any damages, as it was representative of the entire class of homeowners.

Sampling Recalled Petrol Products: A large oil company purchased fuel pump nozzles that were designed to prevent fumes from leaking into the atmosphere, but were found to be defective. After recalling all 8,200 of the nozzles, the oil company retained NERA to select a representative sample of nozzles to be tested. All of the recalled nozzles were

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stored in a warehouse in crates, with no written records or electronic cataloging of the nozzles. NERA experts designed a cluster sample in which the nozzles were divided into groups, and then randomly selected for testing. Half of the 100 nozzles tested were found to be defective, and the oil company was able to use these results successfully in its litigation against the manufacturer.

Determining the Extent of Counterfeit Medical Devices

: A large medical device company hired NERA after receiving complaints alleging that independent pharmacies were selling counterfeit medical devices. NERA experts designed a sample of the over 20,000 independent pharmacies across the US, using a two-stage cluster sample to limit the total number of locations visited while maintaining the ability to produce precise results. Investigators purchased products from 400 selected pharmacies and we were able to determine that the counterfeiting problem was quite small. We also discovered that many pharmacies were selling merchandise intended for sale through other channels, a significant issue for our client of which it had been previously unaware.

Allocating Claims to Insurers in Pharmaceutical Litigation

: NERA was retained to review, classify, and allocate defense and indemnity claims in litigation lasting close to 20 years. Using our understanding of demographic trends and forecasting, NERA experts advised on how to structure settlements with a series of insurance companies so that nearly all indemnity and defense costs were paid by the insurers. NERA experts also maintained all claimant files and produced invoices according to a complex system of allocation across layers of insurers. Additionally, NERA experts created projections of future claims for continuing litigation of third and fourth tier insurers once primary insurer limits were exhausted.

Class Action to Compel Medical Intervention

: A large tobacco company faced a class-action lawsuit alleging that it owed medical treatments for illnesses associated with smoking. NERA experts were asked to provide statistical evidence on issues of commonality of the proposed class seeking certification across a variety of US states. To generate accurate estimates, we needed to account for demographic patterns, including mortality and morbidity, and to understand how these patterns were related to smoking behaviors. The analysis required us to aggregate and manage large, complex data sets from multiple sources, including data from the US Census.

About NERA

NERA Economic Consulting (**www.nera.com**) is a global firm of experts dedicated to applying economic, finance, and quantitative principles to complex business and legal challenges. For over half a century, NERA's economists have been creating strategies, studies, reports, expert testimony, and policy recommendations for government authorities and the world's leading law firms and corporations. NERA serves clients from more than 25 offices across North America, Europe, and Asia Pacific.

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