

# Accident Analysis

Experience has proven that the most effective way to reduce accidents is to concentrate on one phase of the accident problem at a time, rather than attempting to stop all accidents at once. Even in large operations when hundreds of accidents may occur annually, only rarely do two accidents occur in the same way. However, accidents do follow general patterns.



**Leading Writer**  
of workers' compensation  
insurance in the U.S.



**\$24.8 Billion**  
in total assets



**\$3.5 Billion**  
in GAAP surplus capital

Grouping accidents according to common features will uncover relative patterns in groups of accidents. Finding the patterns and common features of groups of accidents is the basis of accident analysis.

To analyze accident experience, it is essential that good reporting and accident investigation procedures are in place and function properly. The information supplied on the accident and investigation reports can be tabulated into a group or category. Once this is done, conclusions can be drawn from the data collected.

One method of collecting the data is to select an area of information from the accident reports and record the number of accidents that have occurred during any period of the selected time. Any area of information can be selected.

Examples of areas that can be used are:

1. Department where injury occurred
2. Occupation of the injured employee
3. Type of accident (fall, slip, struck by, strain)
4. Part of body injured
5. Equipment involved (press, saw, hand tools)
6. Task being performed at time of injury
7. Age of injured employee
8. Experience on the job
9. Nature and severity of injury
10. Unsafe act
11. Reason for unsafe act
12. Mechanical or physical hazard

Various areas of accident information can be selected. Additional information can include the name of the employee (which will be of value in identifying accident repeaters), day of week, etc.

The next logical step after tabulating the accidents according to area is to determine what specific features are common in the highest percentage of accidents. The conclusions reached will identify the principal area to concentrate on for preventing accidents. Further study and evaluation of the key features may be necessary to find out why the features are common in the accidents.

When the facts that directly lead to the cause of the accidents are uncovered, it should be clear to the analyst what needs to be done to prevent similar accidents. Finally, it is imperative to conduct effective accident investigations at the time of the loss or near-miss event, for certainty that the information developed is as thorough and accurate as possible. This strengthens the validity of the identified trends.