

remember here is: Does it show *readily* the real truth of the situation examined? If the truth is there, but hard to get at, busy managers and others who should see it will not have time to dig it out. If a casual inspection of the data, as presented, does not make the vital points stand out, very erroneous impressions may be gained. Therefore, with this in mind, the hygienist must decide the best method of presenting his data. This may be in summary only, but much is bound to be lacking so it is better to follow the summary of salient points with some more details.

Many times these can best be given in *tabular* form. Tables present all the data, grouped in whatever ways best bring out the truth. Much thought should go into the drawing up of the form for every table: what items are to appear in the column headings and what ones are to be listed down the left side. It may be that reversing or otherwise changing them will give a better picture to the reader.

A very excellent way to present many kinds of data is *graphic* presentation. Here, again, there is need to be absolutely sure the picture the observer gets is the correct one. For example, variation in the scales used for a graph can mean the difference between correct and incorrect interpretation by the reader. Visual impressions are very vivid and if a graph *looks* one way—contrary to the truth of the data—even though the numbers on it show otherwise, the erroneous visual image is apt to prevail. Such a graph is a very poor one—in fact, worse than useless. Unfortunately, many such have been published. One should always take a special look at his presentations to see if they are true representations.

One of the best forms of graph in many situations, probably the easiest to construct, and one that will be almost universally understood, is the *line drawing*. Whenever applicable, this is a good choice for the first graph constructed. *Bar diagrams* of several types are a second and reasonably well understood kind of graphs, which often present very vivid pictures of the data. Figure 9 shows a well-constructed bar diagram.* One can go from there through an extensive variety of types of graphs, each applicable to some particular situations and kinds of data. Every chart or graph is an instrument to make more vivid, and more quickly and easily understood, the data that must previously have existed in tabular form. If the graph becomes so cluttered or otherwise involved that it does not accomplish this, it should be revamped or abandoned entirely in favor of presentation of the table itself.

Another point to remember is that *every* table and *every* graph should be self-explanatory. Each should contain within itself, including all title and subscript material, *all* the information necessary to the complete understanding of the material presented. No one should ever have to search through accompanying text in order to understand exactly what a graph or a table means. The text can amplify and otherwise describe: it should never have to clarify the meaning of data presented in tables or graphs.

* *Injury Rates in New York State Industries, 1952*, New York State Dept. of Labor, Publication B-74, 1954.

It seems appropriate to mention here another excellent method available to the industrial hygienist for "graphic" presentation of his message. This is through the medium of photographs. Photographs tell stories with a minimum of explanations needed. "Before" and "after" pictures often can be particularly effective. As an adjunct to statistical and textual material, pictures should be used more often by industrial hygienists in their reports.

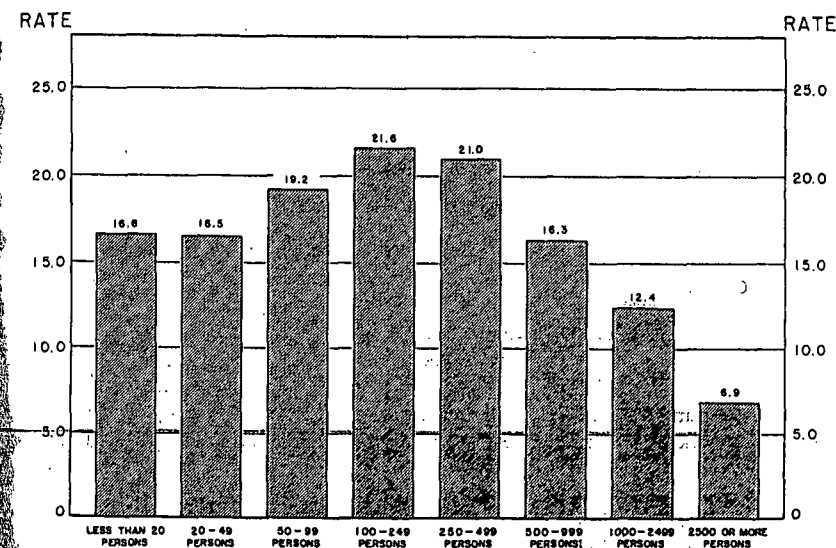


Figure 9. Injury-frequency rates (number of disabling injuries per million man-hours worked) in manufacturing industries, by size of reporting unit, New York State, 1952.

V. Industrial Hygiene Reports

The industrial hygiene survey report is the medium through which the results of the survey and the recommendations arising therefrom are transmitted to management. This report should include a brief description of the plant or department (unless it succeeds the first of a series on the same subject), the nature of the operations or any significant changes in operations since previous surveys, a discussion of control measures already in operation, tables listing the samples collected and results found, and an interpretation of these results in understandable terms. If available, the results of medical examinations or other findings on the individuals exposed should be correlated with the sample results. Finally, the report should include specific recommendations for control of the hazards found—an industrial hygiene report that includes only criticism of conditions without constructive recommendations is better retained in the