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Engineers reviewed more than 15,000 work orders in the quest to identify the extent of preventable maintenance for major corporations in North America.

The concept of preventable maintenance ("Focusing on Preventable Maintenance," MT 10/95, pg 23) has matured into one of the most powerful factors used by HSB Reliability Technologies' (HSBRT) engineers to drive the reliability improvement process and lead clients to manufacturing excellence.

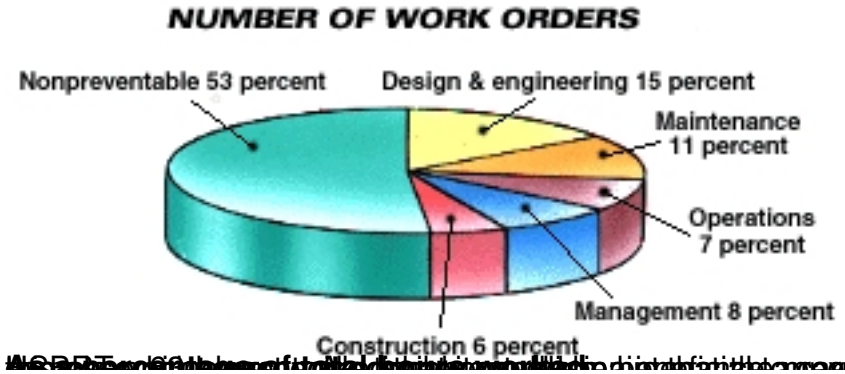
As with most good ideas, the process has been enhanced with experience. In addition to improvements in the investigative process, significant progress has been made in the solutions arena. It is also clear that there is still room for improvement of the investigative process.

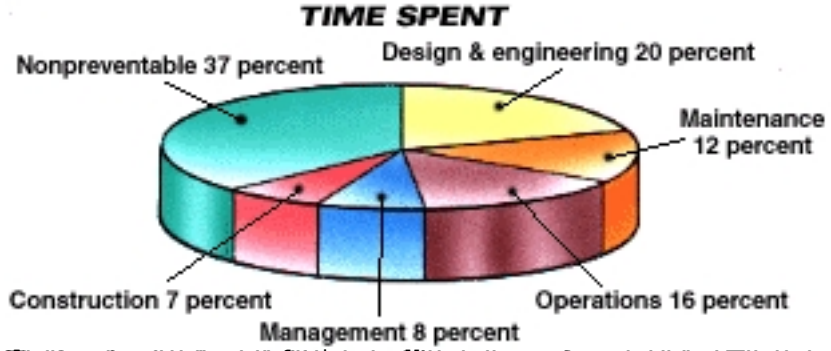
HSBRT engineers now review two more aspects of the extent of preventable maintenance. The accompanying pie charts, from a study of more than 1000 work orders in a large plant, depict preventable maintenance in three ways.

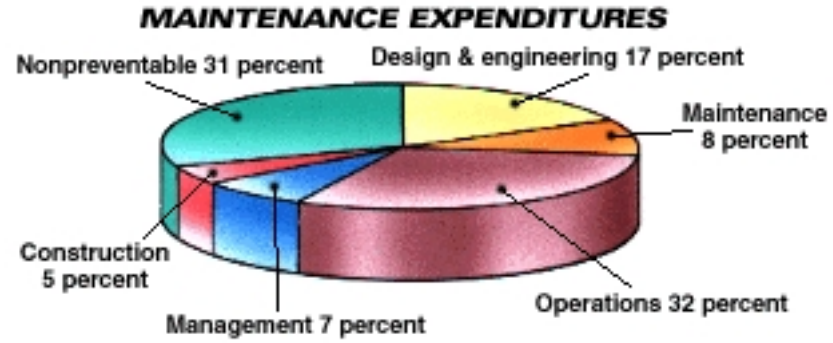
It is first expressed as a percentage of the total number of work orders reviewed. The next chart shows preventable maintenance as a percentage of total maintenance hours. The third chart depicts preventable maintenance costs as a percentage of total maintenance costs.

As a percentage of total work orders

The graph confirms the original assumption that reasonably preventable maintenance approximates half of the work accomplished in most organizations. In this case it was exactly 47 percent. In this plant, an overly simplistic conclusion would be that about $18 million of labor and material was wasted.


NUMBER OF WORK ORDERS
Nonpreventable 53 percent
Design & engineering 15 percent
Maintenance 11 percent
Operations 7 percent
Management 8 percent
Construction 6 percent


TIME SPENT
Nonpreventable 37 percent
Design & engineering 20 percent
Maintenance 12 percent
Construction 7 percent
Management 8 percent
Operations 16 percent


MAINTENANCE EXPENDITURES
Nonpreventable 31 percent
Design & engineering 17 percent
Maintenance 8 percent
Construction 5 percent
Management 7 percent
Operations 32 percent