Study of Cancers at IBM Is Released

Professor's Report Finding Higher Worker Death Rates Had Been Blocked for Years

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A long-suppressed study finding elevated rates of many cancers among workers at International Business Machines Corp. was published in Environmental Health, a peer-reviewed online scientific journal.

IBM has fought for several years to prevent release of the study done by Richard Clapp, a Boston University professor of environmental health. The study analyzes data collected by IBM itself on the ages and causes of death of nearly 32,000 people who had worked at IBM and died between 1969 and 2001. IBM has maintained the analysis is "junk science" that misuses the data.

Mr. Clapp got hold of the data, known as IBM's "Corporate Mortality File," as an expert witness who analyzed it for lawyers in California. They had sued IBM on behalf of a number of workers at a disk-drive plant in San Jose who got cancer. Although the plaintiffs settled after several lost their lawsuits, Mr. Clapp sought to publish his analysis.

The study attracted attention beyond the courtroom in 2004, when it was scheduled to be published in a quarterly issue of the scholarly journal Clinics in Occupational and Environmental Medicine, which is owned by Anglo-Dutch publishing giant Reed Elsevier. After IBM objected to use of the data, which had been released only for purposes of the case, Reed declined to publish Mr. Clapp's paper. Reed said the paper was original research that conflicted with the mission of the issue, which was to assess previous research.

Mr. Clapp said that earlier this year, IBM stopped attempting to block publication. The study, "Mortality among U.S. employees of a large computer manufacturing company," looked at death records of men and women who had worked for IBM for five years.

Mr. Clapp then compared the rate of cancer deaths among the workers to the national death rate from particular cancers. Among the 27,272 men who died, there are 7,697 cancer deaths -- "significantly greater" than the 7,206 cancer deaths that were expected based on the national average. Several individual cancers showed particularly high rates compared with national averages, including cancers of the digestive organs, kidneys, brain and central nervous system and malignant melanoma of the skin.

Among the 4,669 female deaths, 1,667 were from cancer, which Mr. Clapp said was well above the 1,454 that were expected based on national data. Breast cancer, lung cancer, female genital cancer, brain and nervous-system cancers rates were all elevated compared with national averages.
Mr. Clapp also concluded that deaths from cancer as a proportion of all deaths were also elevated among IBM manufacturing workers. For this part of his analysis, he used records for workers who had been involved for at least 30 days in semiconductor and disk-drive manufacturing plants in California, Minnesota, New York and Vermont.

Mr. Clapp said cancer rates were somewhat higher in the manufacturing subgroup, including for deaths from breast cancer in women and kidney cancer and melanoma in men.

Across the technology industry, semiconductor and disk-drive plants use chemicals and solvents that have been linked to cancer. But the database didn't have information specifying which workers were exposed to which chemicals. Mr. Clapp said the data also failed to provide any information on whether the dead employees had been smokers or what other jobs they might have held.

An IBM spokesman said the study is "based on flawed methodology and woefully incomplete data." He said an IBM-funded study led by a researcher from the University of Alabama at Birmingham, which has been published, found 126,000 current and former IBM workers at three semiconductor and hard-drive plants over three decades "had lower overall mortality and cancer incidence rates than the general population."

Mr. Clapp said that study's results were largely consistent with his except the IBM study wasn't adjusted to eliminate the "healthy worker" effect. Employed people are generally healthier than nonworkers, so comparing them directly to the general population is misleading, he said.

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