What We Don't Know About Chemical Accidents

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The fertilizer-plant explosion last April 17 in West, Texas that killed 15 and demolished a good part of the town was only the most recent of a number of accidents involving hazardous chemicals that have happened in Texas over the years. Home to a large number of refining and petrochemical plants and other high-tech industries, Texas has had more of its share of explosions, fires, releases of toxic and polluting chemicals, and other chemical-related accidents. But when a team of Dallas Morning News reporters tried to answer what they thought was a simple, straightforward question about the frequency of chemical accidents, they found a mare's nest of conflicting and incomplete statistics. Is this a basic problem that leads to a higher rate of accidents than we would otherwise have? Or is it just an inherent difficulty that comes about because of the nature of chemical accidents?

The News reporters were unable to find a single database of national scope that answered the question they were asking. I think what they wanted to find was something like what the U. S. Center for Disease Control (CDC) maintains on statistics such as cases of measles or rabies, or the National Transportation Safety Board's database on fatal accidents involving air transport. But what they found instead was a hodgepodge of things: raw unfiltered lists of emergency calls to the U. S. Coast Guard, lists of incidents investigated by the Occupational Safety and Health Administration (OSHA), and data collected by the Chemical Safety Board, which relies primarily on media reports—in other words, the reporters themselves! They found glaring inconsistencies among the numbers cited by the various sources of information, and although they were able to identify 24 potentially serious chemical accidents in Texas between 2008 and 2011, they were almost sure that the true number was higher.

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