



Crime & Punishment

James Alan Fox on criminal behavior and the justice system

MISCELLANEOUS

Fatal flaws in biolab report

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If you build it, they will come, a much overused expression for just about any kind of venture, originally referred to a Field of Dreams ballpark in an isolated Iowa cornfield that would attract the unsettled spirits of disgraced ballplayers. In the case of the Boston University Bio safety Lab on Albany Street, which has stood for several years awaiting resolution of a controversial risk assessment, it is more like If you open it, they may come.

The they in this instance are a lot more worrisome than a bunch of ghosts with leather gloves. The they include nefarious folks, terrorists and saboteurs who would see the facility as a prime target for their malicious schemes.

Despite a healthy dose of resistance from my South End community to a perceived health risk, Boston University has been eager to establish a Level 4 biosafety lab for research on highly dangerous pathogens. The interests of science were delayed, however, when the first risk assessment report, released two years ago, was deemed wholly inadequate, particularly given the high stakes of potentially exposing a densely populated area to Ebola and other deadly viruses.

The recently-released [draft supplementary report](#), no less than 1,750 pages in length, does an exhaustive job of attempting to evaluate the risks (likelihood of occurrence, consequent health effects and emergency response) associated with a wide variety of threatening events, both accidental and intentional. And although it would seem kind of late for such an analysis given the awaiting structure and the green light from local politicians, the assessment compares three potential sites for the lab, one urban (Albany Street in the South End of Boston), one suburban (in Tyngsborough, Mass.), and one rural (near Peterborough, N.H.).

Risk assessments of incidents like an earthquake or an accidental airplane crash may be reasonable, but the coverage of so-called malevolent acts is questionable, at best, having been grounded in unsupported assumptions concerning the likelihood of such misdeeds. While one may calculate the probabilities of certain calamities, the likelihood of a terrorist mission targeting the facility or of a disgruntled employee intent on sabotage is inestimable.

The research team does attempt to gauge the chances of criminal acts, appealing to a measure known as the CAP (Crimes Against Persons/Property) Index. This statistic predicts such things as rape, robbery and

burglary that might impact on a commercial establishment, such as a restaurant or a retail store, but is silent on the kind of concerns associated with a research laboratory. According to Jon Groussman, President of the company that produces the CAP Index, the measure is definitely not designed to determine probabilities associated with terrorism or employee disgruntlement. The biolab assessment team also interviewed federal, state and local law enforcement officials as well as representatives of the BU police force, but there is little data that would permit the chances to be quantified.

At the end of the day, the assessment team punted, concluding that It would be speculative to attempt to provide an estimate of the consequences of malevolent scenarios involving the removal of pathogens from the facility. Instead, the report decided to use another, more tractable threat as a proxy:

"Because of the importance of the MRF [[Maximum Reasonably Foreseeable] event, an evaluation of an aircraft crash was performed to confirm the expectation that the severe earthquake bounds (i.e., has consequences and frequencies that are not exceeded by) an aircraft crash. Appendix F presents this comparison and demonstrates that the severe earthquake bounds an aircraft crash in terms of both frequency and consequences. Malevolent acts were not considered in the selection of the MRF event, 'because the potential number of scenarios is limitless and the likelihood of attack is unknowable' (DOE 2002). As recommended by the DOE NEPA Guidance, malevolent acts were evaluated by comparison to accidents with similar consequences (see Chapter 6)."

The potentially fatal flaw here is in mixing probabilities and outcomes. While the consequences of a malevolent act and an earthquake may be somewhat comparable, the probabilities are certainly not. One is knowable, the other elusive.

No one can say with any degree of certainty whether they will come,-- whether launching Level 4 research activities will be irresistibly attractive to intruders or insiders wishing to create havoc by releasing pathogens into a highly congested area. BU scientists may wish to experiment with dangerous biological agents, but they shouldn't experiment with the safety and well-being of the millions who live or work in the surrounding area.

A research lab devoted to the most dangerous of viruses does not belong in Boston, or any urban area. Maybe they should move it to that isolated ballpark in Iowa -- a Field of Nightmares. After all, the old time ballplayers there are already dead.