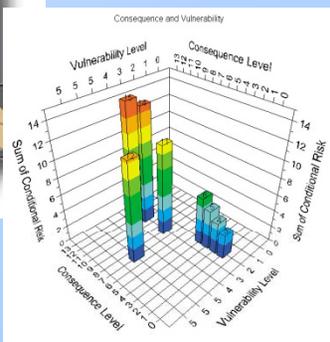


Chemical Facility Risk Analysis

Data Systems Sciences & Engineering Group

Computational Sciences & Engineering Division



- **Problem Statement:**

- The Department of Homeland Security needs to evaluate consequences and risk for onsite intentional release, theft, diversion, and sabotage scenarios at U.S. chemical facilities

- **Technical Approach:**

- Models onsite toxic plume releases
- Models onsite vapor cloud explosion releases by over-pressure
- Models indoor release of theft/diversion material
- Models sabotage release in generic location
- Incorporates highest resolution U.S. population model (LandScan USA)

- **Benefit:**

- Provides rapid processing for entire U.S.
- Ranks and tiers chemical facilities for each chemical and applicable attack scenario

- **Technology Readiness Level 9**

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