

Project 10: The Role of Public and Private Mitigation for Homeland Security Policy (Smith)

This research examines how private risk perceptions and mitigation plans are affected by private individuals’ knowledge and evaluation of public activities to reduce threat and consequence. Particular attention is directed to the factors that create or enhance the perception on the part of private individuals that their actions enhance (or complement) public activities.

Modeling Area: Economic Assessment

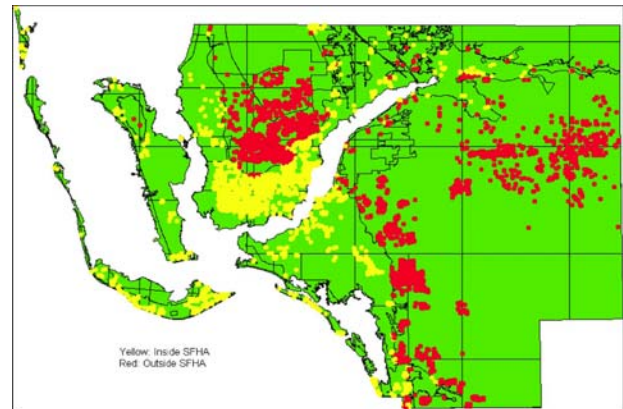
Application Area: Intelligence and Analysis

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Brief Description:

DHS efforts to reduce risk must necessarily be undertaken *ex ante*. Efforts associated with reducing consequences can involve *ex ante* preparation as well as *ex post* action. In principle both the public sector and private agents can be involved in both sets of activities. This research focuses on the design of public activities in ways that create incentives for supporting private responses. In economic terms these incentives arise when the activities from public and private sectors are complementary. There is a large literature on the nature of the incentives for private provision of public goods, but most of this research considers situations where private and public actions are substitutes. In this case, increases in public intervention and action can cause private activities to decline because the two are substitutes. During the past year the research associated with the project focused largely on what could be learned from natural experiments involving hurricanes and flooding.



Distribution of Houses in FEMA Flood Hazard Areas

Objectives:

This research seeks to meet three objectives:

1. Explore the factors that create private/public complementarities in activities that reduce the risk and/or consequences of actions associated with homeland security;
2. Develop lessons about risk perception, adjustment and mitigation from past natural hazards that is transferable to situations involving homeland security;
3. Develop a survey tool for obtaining representative questions, and deploy to obtain insight.

Major Products and Customers:

The major product of this effort will be a survey of U. S. households’ willingness to undertake private mitigation activities that would reduce the vulnerability of regional as well as the national economy and health delivery system to terrorist activities. In addition, pilot questions to estimate household’s willingness to pay for airline security will be tested as part of an effort to determine our ability to value national defense or homeland security activities. This would be used by public policy decision makers and DHS officials in formulating policies on security measures. Also, three journal articles are projected from this research.

Technical Approach:

1. Background Research for Scenario Design -- Obtain specific, credible descriptions of threats and *ex ante* behaviors, determine sensitive dimensions of the economic and health delivery systems to characterize 8 to 10 alternatives.
2. Conduct Focus Groups -- Collect contextual information, evaluate questions framing and collect “data” from a highly selected sample.
3. Design and Implement Two Internet Questionnaires -- Conduct survey of private households’ willingness to undertake mitigation, risk perceptions and responses to information, and willingness to pay for airline security.
4. Evaluate Survey Responses -- Summarize and extract lessons from the background research and focus groups, evaluate the stated choice responses estimating households’ willingness to pay to avoid disruptions in infrastructure and health related services relates to private and public mitigation activities, summarize risk perceptions and attitudes toward public policies and information programs associated with homeland security.

Major Milestones and Dates:

1. Background Research for Scenario Design -- November 2005
2. Conduct Focus Group – December 2005
3. Design and Implement Pilot Internet Questionnaires for private mitigation and airline security -- February 2006
4. Evaluate Survey Responses -- March 2006
5. Conduct Focus Groups – November 2006-10-12
6. Design and Implement Revised Internet Questionnaire – February 2006.