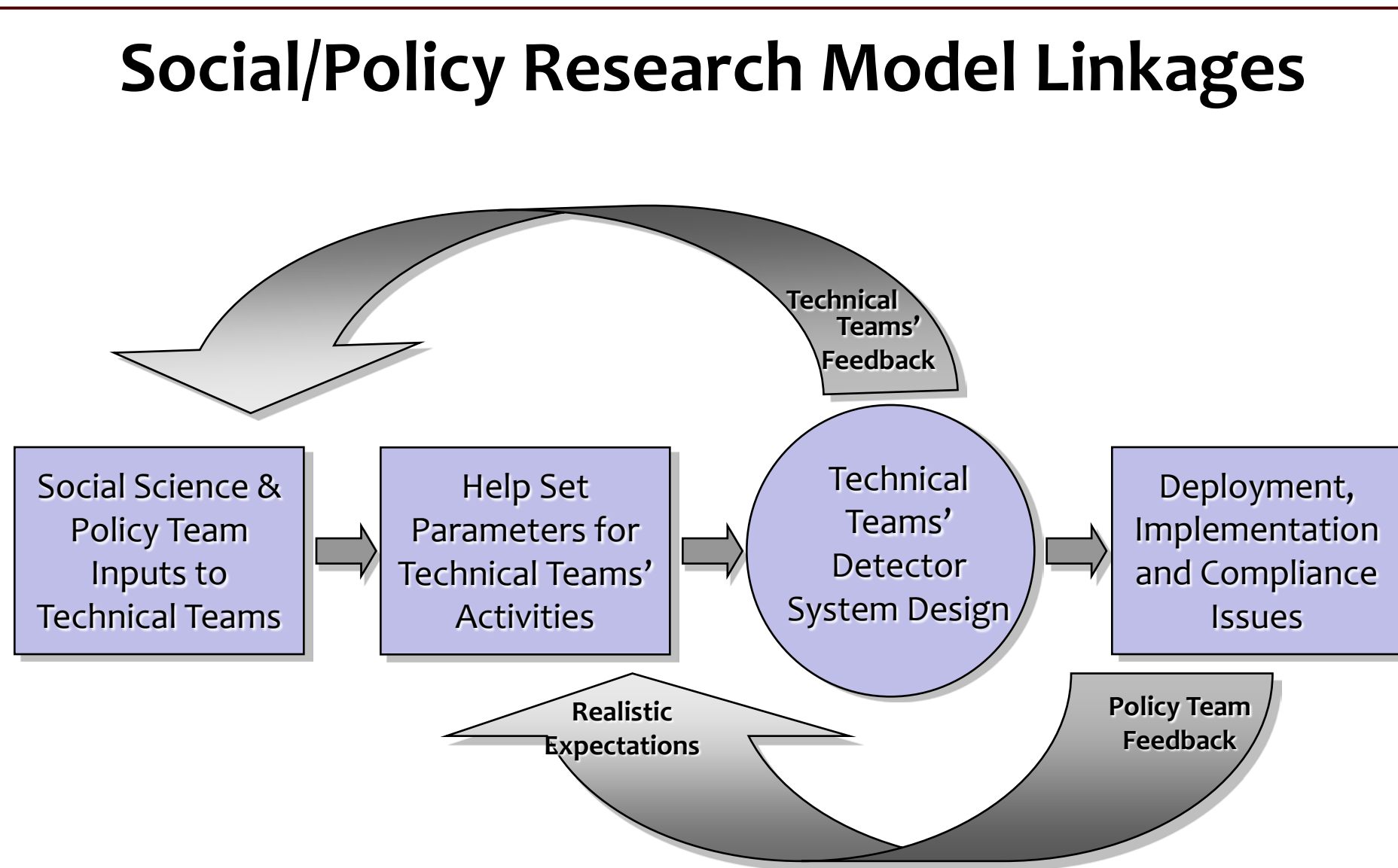


# Social Science and Policy Factors Affecting Detector Design and Implementation

Arnold Vedlitz, Ph.D., Eric Lindquist, Ph.D., Xinsheng Liu, Ph.D., Deanna Green, M.S. – Institute for Science, Technology and Public Policy, Texas A&M University  
Christopher Sprecher, Ph.D., Douglas Kuberski, M.A. – Department of Political Science, Texas A&M University

In order to support, design, fund and implement a viable and effective detection strategy, the public and decision makers will require a context of trust, information and understanding about the threat and its key dimensions.



The development and implementation of nuclear detection technologies must address not only capacity issues, but also civil liberties, reliability, and efficiency concerns.

Contact:  
Arnold Vedlitz, Ph.D., Director  
Institute for Science, Technology and Public Policy  
Bush School of Government and Public Service  
Texas A&M University  
College Station, Texas 77843-4350  
979.845.2929  
avedlitz@bushschool.tamu.edu

### Public opinion surveys

Terrorism and national security rank #2, after Iraq, in Gallup's November 2007 Top 10 Priority List of issues facing America.

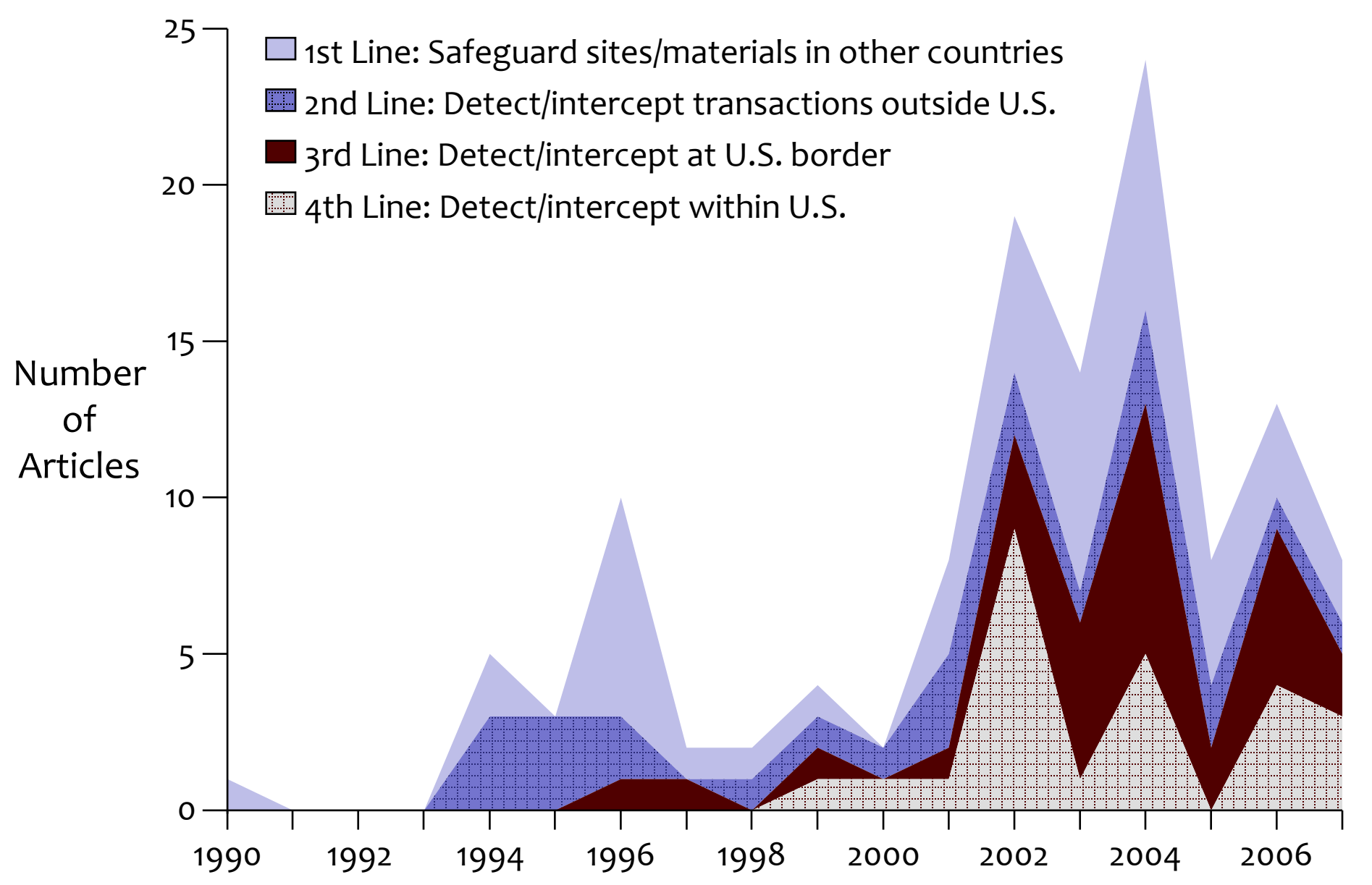
3 *Great Global Challenges* (Harris Poll, 2006)  
Terrorism is the greatest challenge facing the world today according to adults in America and the U.K.  
However, concern for other issues surpasses terrorism in some European countries.

**Top Concern**  
Terrorism – U.S. & U.K.  
Religious Fanaticism – Germany, Italy, Spain  
Global Warming – France

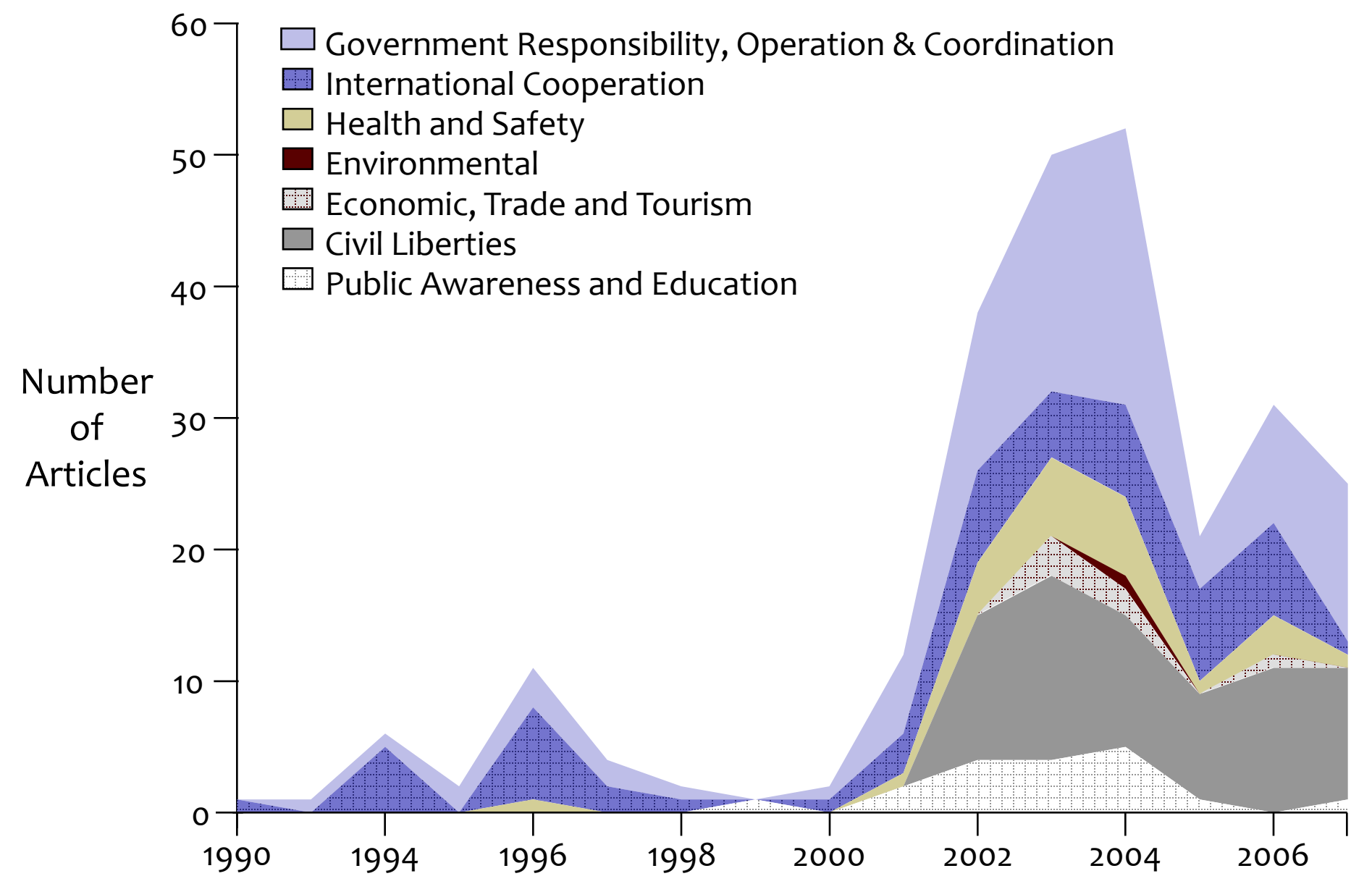
There is a high risk of nuclear terrorist acts due to insufficient protection according to 54% of those surveyed across 18 countries (International Atomic Energy Agency, 2005).  
62% of Americans are concerned about the possibility of a nuclear attack on U.S. soil (Saga Foundation, 2007).  
Nearly half of Americans surveyed perceive “a splinter terrorist group like Al Qaeda” as a greater nuclear threat to the U.S. than any nation or government (Saga Foundation, 2007).

### News Media Analysis

Attention to nuclear terrorism has increased in the post-Cold War area, particularly since 9/11.  
There is growing coverage of nuclear terrorism prevention in the news media.



Media coverage of nuclear terrorism involves multiple dimensions.



### Significant International Concerns

18 nations produce uranium in significant quantities. A number of these are located in politically unstable regions of the world, such as the former Soviet Union and the Middle East (World Nuclear Association, 2007).

Public opinion on these states expresses concerns that “loose nukes” and terrorist support will emanate from these regions.  
While treaties exist that regulate the spread of uranium, these states are not as amenable to enforcement or the monitoring necessary to ensure non-proliferation of uranium.

This research undertaken as part of Domestic Nuclear Detection Office - National Science Foundation Academic Research Initiative (ARI) project:  
**A Framework for Developing Novel Detection Systems Focused on Interdicting Shielded HEU**  
under the direction of  
Warren F. Miller, Jr.  
Arnold Vedlitz  
Gary M. Gaukler  
William S. Charlton  
Wolfgang Bangerth