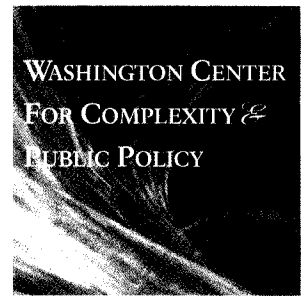


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**SINCE 9/11, USE OF COMPLEXITY SCIENCE IS GROWING
AMONG PUBLIC AND PRIVATE INSTITUTIONS**

Washington, D.C.—The use of complexity science and its state-of-the-art technologies for research and policy planning purposes is growing rapidly according to a new report by the Washington Center for Complexity and Public Policy. Complexity science is a new approach to understanding the structure, interdependencies and dynamic behavior of complex physical, biological and social systems, where seemingly small actions can create major system impacts.

The terrorists attacks on September 11, 2001 pushed leaders at all levels to quickly find new ways of thinking about and planning for the future. Complexity science, which has already found wide applications in manufacturing, financial management, high tech, medicine and other fields, is increasingly being used by government agencies, universities and private institutions to provide insights on all kinds of important questions and issues including climate change, infrastructure interdependencies and vulnerabilities, the impact of terrorist activities on the economy, and combat scenarios.

This landmark report, *The Use of Complexity: A Survey of Federal Agencies, Private Foundations, Universities, and Independent Education and Research Centers*, provides a broad overview of the complexity science landscape in Washington, DC and around the country. In general, the authors found three categories of complexity science activity: research, business, and education.

The report shows ten out of the fifteen federal departments are involved in complexity science research. For example, the Center for Complex Adaptive Systems Simulation at the Argonne National Laboratory, which is part of the Department of Energy, is using agent-based modeling, one of the new complexity-based technologies, to model a variety

(more)

of physical, economic and social systems. President Bush, House Speaker Hastert, Secretary of Energy Abraham and Homeland Security Secretary Ridge toured this facility in July of 2002.

Overall, few federal departments are using complexity approaches in a *strategic* sense—to address broad system issues and challenges the country currently faces. The Robert Wood Johnson Foundation is one of the few organizations that has funded projects applying complexity science to major systems, in this case the health care system.

“Complexity science helps us understand the big picture context, to develop intuitive, associative forms of pattern recognition, and use nonlinear thinking to recognize and respond to emerging situations. It can help us see problems coming, before a crisis arises. ‘Complex systems thinking’ is *the* essential 21st century leadership skill,” according to Irene Sanders, executive director of the Center and co-author of the report.

The survey was funded by the U.S. Department of Education at the request of Secretary Rod Paige. “This report will help the Department of Education take the lead in developing ways to use this approach strategically—to create a new framework for transforming education in this country,” said Sanders.

The Washington Center for Complexity and Public Policy is a private, non-profit organization established in 2001 in response to the growing interest in complexity science as a framework for thinking about and planning for the future. Through its education and research programs, the Center is at the forefront in promoting complexity science literacy and the development of new approaches to public policy-making. The Center’s website can be found at www.complexsys.org.

In collaboration with the Fine Arts Program of the Federal Reserve Board, the Center has opened an art exhibit, COMPLEXITY. Through a variety of visual media and technologies, the artists make many of the basic concepts, principles and real world applications of complexity science easy to understand. The exhibit runs through November 28, 2003. For reservations call: 202-452-3778. ###