

**“A Strategic Framework for Advancing Societal Resilience and
the Role of Resilience Engineering”**

by

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A presentation to the

Department of Civil and Environmental Engineering

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Escalating societal losses associated with foreseeable and unexpected events such as natural disasters, pandemic outbreaks, terrorism, and the mounting dangers associated with cyber-attacks are focusing attention on new approaches to reducing damages, mitigating consequences and adapting to non-stationary risks. In the United States, the Obama Administration has identified resilience as a national imperative in recent presidential policy directives, strategy documents, and organizational changes. It has defined resilience as “the ability to prepare for and adapt to changing conditions and withstand and recover rapidly from disruptions...[it] includes the ability to withstand and recover from deliberate attacks, accidents, or naturally occurring threats or incidents.” However, there is an array of barriers to making greater societal resilience a reality, necessitating a new strategic framework to guide national and international efforts. Additionally, the resilience imperative creates new challenges and opportunities for engineering research and education. These include improving the understanding of how engineered assets and large critical infrastructure systems can be better designed to adjust their functioning prior to, during, and after naturally-occurring and human-made disruptive events of growing complexity and uncertainty, so that those assets and systems remain operational and safe, and can recover quickly.

Dr. Stephen Flynn is a Professor of Political Science, Director, Center for Resilience Studies, and co-Director of the George J. Kostas Research Institute for Homeland Security at Northeastern University in Boston, where he recently completed a major study on lessons learned for critical infrastructure resilience from Hurricane Sandy that was sponsored by the Alfred P. Sloan Foundation. At Northeastern, he is also the Graduate Academic Director for the M.S. in Security and Resilience Studies Program. He has served as an expert advisor to the Bush and Obama administrations on homeland security, is a frequent media commentator and contributor to *Foreign Affairs*, and the author of two widely-cited books, *The Edge of Disaster: Rebuilding a Resilient Nation* and *America the Vulnerable*.



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Education

- PhD, International Relations, *THE FLETCHER SCHOOL OF LAW AND DIPLOMACY, TUFTS UNIVERSITY*
- M.A.I.D, International Relations, *TUFTS UNIVERSITY*
- BS, Government, *U.S. COAST GUARD ACADEMY*

Research Interests

- **Critical infrastructure protection**
- **Catastrophic terrorism**
- **Community resilience**
- **Homeland security**
- **Maritime and port security**
- **Transportation security**
- **National security**

Selected Service and Awards

- **Founding Director, Center for Resilience Studies**
- **Co-Director, George J. Kostas Research Institute for Homeland Security**
- **Academic Director, NEU Master in Security and Resilience Studies Program**
- **Former President, Center for National Policy**
- **Former Senior Fellow, National Security Studies, Council on Foreign Relations**