

A Workshop for a Cross-Disciplinary Program for Disaster Resilience, Vulnerability, and Risk Reduction

June 1, 2011 – June 3, 2011

Detailed Workshop Agenda:

Wednesday, June 1, 2011

Breakfast (NSB Boardroom, Rm. 1235): Breakfast will be served from 7:30-8:30.

Welcome: Welcome by the PIs and NSF Directorate Program Directors – Bob Detrick, Bob O’Connor, and Dennis Wenger – who will also provide their Charge to the Workshop – *Creating a More Disaster Resilient America* (CaMRA).

Self-Introductions: Everyone will be asked to introduce themselves, their affiliations and their areas of research specialization.

Overview of Workshop: Will discuss the goals of the workshop and briefly discuss the agenda, with special but limited attention to our expectations from each agenda item.

Vulnerability, Resiliency, and Risk Reduction – Key Questions and Issues. The remainder of day one will be devoted to three sections focusing respectively on vulnerability, resiliency, and then risk reduction with each section identifying key research issues and questions. Each section will consist of: 1) “white paper” presentations, 2) a breakout session, followed by 3) the presentation of breakout findings and general discussion by all workshop participants.

- a. **The “white-paper” presentations (30min)** on the state of the science, opportunities, and constraints. Each section (vulnerability, resiliency, and risk reduction) will have a set of three presentations by an interdisciplinary team of participants representing SBE, GEO, and ENG. Each set of presentations will provide a picture of the *state of the science* and discuss the research *opportunities* and *constraints* for disciplinary and interdisciplinary research within this area.
 - i. **Vulnerability:** SBE: Tierney, ENG: Kiremidjian, and GEO: Houghton.
 - ii. **Resiliency:** SBE: Cutter, ENG: Bruneau, and GEO: Reddy
 - iii. **Risk Reduction:** SBE: Lindell, ENG: Davidson, and GEO: Shapiro
- b. **Breakout sessions (75min)** will follow the presentations. There will be three *interdisciplinary* breakout groups for each of the vulnerability, resilience, and risk reduction sections. Each breakout group will elect recorders and spokes person tasked documenting and presenting the findings for each group using a power point presentation. Each group will be tasked to address three questions:
 - i. What are key interdisciplinary opportunities that should be targeted in these areas?
 - ii. What are the key disciplinary research questions that should be addressed in these areas to facilitate interdisciplinary research?
 - iii. What are the key factors or issues constraining the science in these areas?
- c. **Breakout findings and discussion (45min).** Following the breakout sessions there will be a power point presentation of each group’s findings followed by a full discussion by the workshop. Each workgroup will present their agenda power point, clarification questions may be asked during and following each presentation. After all presentations are made, there will be a general open discussion seeking to develop a consensus.

Steering Committee Meeting: The Steering Committee will meet sometime in the early evening to discuss the day's results and make plans for the day 2.

Thursday, June 2, 2011

Breakfast (NSB Boardroom (Rm. 1235)): Breakfast will be served from 7:30-8:30.

Steering Committee – Re assessment and adjustment meeting. (1 hr., 7:30-8:30)

- The steering committee will meet to discuss yesterday's event.
- If a degree of consensus was reached, we can present the common research themes that emerged, along with the detailed questions.
- Make final decisions about the structure of the day's workgroup activities and workgroups themselves.

Review: Where we stand and the tasks for the day. (30 min., 8:00-8:30)

- Discuss conclusions of Steering committee
- Discuss workgroup structure changes and topics for the day

Breakout session I, Toward a Consensus. (1.5 hrs., 8:30-10:00) The focus of this session will be for each breakout group to distil the output from day one into grand issues and questions and begin the process of defining how the science should be carried out. Again, each workgroup should elect recorders and a presenter for their findings in power point format. The following are the critical issues to be addressed:

- What are the grand questions and issues that should be central for the new cross directorate program on vulnerability, resiliency and risk reduction?
 - What are the secondary or more specific questions for this program?
- In light of these questions, how should the science be structured? In other words, how should the research addressing these questions be undertaken?
 - Do we need to fundamentally shift the type of research funded from short-term episodic research projects to long-term targeted data collection activities?
 - If long-term data collection activities should be the focus, what types of factors should be considered in site selection?
 - Should there be targeted hazard specific research (drought, flood, hurricane, tornado, earthquake, tsunami, industrial accidents, etc.) that facilitates comparative hazard research, or some combination?

Breakout session I presentations and discussion. (45 min., 10:00-10:45). Each workgroup will present their power point, clarification questions may be asked during and following each presentation. After all presentations are made, there will be a general open discussion seeking to develop a consensus.

Breakout session II, Research and Data Issues. (1.25 hrs., 10:45-12:15) This breakout session will address further data issues. The types of issues that should be addressed include:

- What types of formal criteria should determine the selection of data collection sites?
- What are the appropriate units of analysis? What are the particular problems that will be encountered when addressing multidisciplinary research for unit of analysis issues?
- How many data collection activities are occurring in how many sites within regions (multiple communities/municipalities, counties, urban/exurban/rural, etc.)?

- Should there be ongoing primary data collection activities (periodic surveys, panel studies; and/or on going qualitative/ethno-graphic data collection)?
- Should emphasis be placed on the gathering and processing of secondary data from a variety of sources (parcel data sets, census community study data, land use data, documentary data collection of land-use and building code policies and changes in those policies, local mitigation and recovery plans, etc.)?
- Should protocol development be considered as part of this program?
- Should there be attempts at coordinating activities across research sites?
- How might the observatory promote special relationships to Federal and state agencies such as the U.S Census, Census Research Data Centers¹ (RDCs), BEA, USDA-ERS; Census State Data Centers (CSDCs), USGS, U.S Army Corp of Engineers, FEMA (NFIP), Department of Commerce, NOAA, EPA, etc. to acquire, develop and maintain comprehensive longitudinal datasets?

Breakout Session II Presentations and Discussion (and working lunch). (45 min., 12:30-13:45). Each workgroup will present their power point, clarification questions may be asked during and following each presentation. After all presentations are made, there will be a general open discussion seeking to develop a consensus.

Finalizing Workshop Recommendations for the new Cross-Directorate Program. (45 min. 13:45-14:30). This session will consist of an open discussion of the overall findings of the workshop and how these findings should be integrated into a final report for NSF and disseminated out to the various constituencies and researchers within the broader communities funded by SBE, GEO, and ENG.

Wrap-up (30 min., 14:30-14:45). Farewell statements by PIs and NSF program officers – (Bob Detrick, Bob O’Connor, and Dennis Wenger.

Friday, June 3 2011

Steering Committee ONLY (Rm. 970)

Day three, half day: Day three will be reserved exclusively for the steering committee. Essentially the steering committee will discuss the outcomes from the workshop and strategize on how best to structure a final report to incorporate these outcomes. Writing assignments will be discussed and short timelines will be established.

¹ RDCs are secure Census Bureau facilities located at partner institutions where a researcher with Special Sworn Status (SSS) can access a limited amount of confidential Census Bureau data needed for a specifically approved project.