

What is Success: NEES TGoSuccess Committee

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Essential to establish metrics for evaluating the success of NEES to provide:

- accountability for financial support,
 - evaluation of past efforts, and
 - guidance and direction for future work.

Task Group on Success

- To begin development of these metrics the Board authorized formation of the Task Group on Success (TGoSuccess)
- Committee authorized in June 2006 Board Meeting
- Committee membership was formulated in July 2006

Committee Membership

- Charles Roeder, Chair, University of Washington
- Jill Andrews, California Institute of Technology (later had to withdraw for personal reasons)
- Jacobo Bielak, Carnegie Mellon University
- Ian Buckle, University of Nevada, Reno
- Craig Comartin, CD Comartin, Inc
- Shirley Dyke, Washington University
- Marc Eberhard, University of Washington
- Jerome Hajjar, University of Illinois at Urbana-Champaign
- Roberto Leon, Georgia Institute of Technology
- Tom O'Rourke, Cornell University
- Cliff Roblee, Executive Director, NEESInc
- Sharon Wood, University of Texas at Austin

Process

- Initial one day meeting of the group, July 29, 2006, at Chicago Airport to plan process
 - Joy Pauschke invited to participate at this meeting
- At this meeting broad ideas for focus were laid out
- Subgroups of the committee were assigned responsibility for drafts of more complete development of these broad concepts
 - Drafts developed during August and September of 2006. Editing and updating proceeded through Autumn 2006

Process (2)

- A first draft was completed by November
- Draft documents were reviewed in the November 2006 and February 2007 Board meetings
- At these meetings additional broad ideas were added and modification in focus was proposed
- Original focus was for specific metrics in each focus areas
 - Some difficulty with this
 - Some participants wanted to deal in broad arm concepts rather than specific measures
 - Specific measures were thought to be moving targets since they must change from year to year

Process (3)

- As result, the focus was changed to a somewhat broader perspective.
 - The broader perspective was to include fairly ways in which success could be determined, but did not propose specific measures for doing this
- Document was edited further and reviewed and circulated among the group during the early months of 2007
 - Broad committee participation was more limited during this period
- Current document fits this general format

8 Broad Focus Issues for Success

- Success through Site Operations
- Success through IT Operations
- Success through Transformation of Research
- Success through Transformation of Practice
- Success through Transformation of Engineering Education
- Success through Development of a Well Informed Public
- Success through International Exchange and Cooperation
- Success through a Loyal and Active Membership

**Great deal of interrelation
between these issues but
each has some unique focus**

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**Limited elaboration on each of these
issues is provided**

Success through Site Operations

- Continual availability and operation of the sites essential
- However, research conducted at each site varies with time due to variations research proposals and funding
- Uncertainties and unexpected events due to breakdown, maintenance and repair
- Difficult to suddenly scale up (or down) operations at any particular site
- Flexibility is needed to adapt to these variations while assuring continuity of operation
- Ability to address these diverse demands will define success of NEES - NEED CONTINUITY WITH FLEXIBILITY

Success through IT Operations

- IT provides one of the new and defining features of NEES - Development of NEES based upon IT
- Need to make continual advances with new technology
- Need to work with new analytical and testing capabilities such as hybrid testing
- While we need to be continually moving forward, we also need to permanently maintain data in an understandable and useable format
- This is perhaps one of the most important issues before NEES and success or failure in this area is likely to play a dominant role in the perceptions of the organization

Success through Transformation of Research

- Goal is to do our research in ways that provides broader understanding of behavior, more rapid assimilation of research results into practice, and utilization of the best talents and facilities to accomplish this work
- Concept affects success in nearly all areas but also depends greatly in participation and involvement of individuals
- Not specifically a NEES Inc responsibility - Depends heavily on success in other others and member buy in
- Actual measures for this issue are less clear than some others

Success through Transformation of Practice

- Engineering research is most valuable when used to improve our society. Earthquake engineering has particular goals of reducing risk, saving lives, and reducing economic loss during earthquakes
- Need to have more rapid translation of research into practice
 - Practitioners and stakeholders need greater involvement in research
 - Researchers need to show how their research results benefit practice
 - Current communication between researchers and practitioners is often poor
 - Organizations such as EERI and ATC can benefit this transfer
 - Should facilitate seminars where NEES projects with strong practical applications are presented to engineers and stakeholders
- Area where we don't have much going yet

Success through Transformation of Engineering Education

- Education and outreach are major focuses of NEES and REU and other programs are in place - Obviously these programs need to continue -- Includes the usual lecture aids and site visits but more is required
- Methods for encouraging students to become engineers are desirable
 - Parents, high school teachers, advisors and others frequently do not know what engineers do and may not advise students well -- NEES could help through programs that make future engineers and their parents and advisors aware of the importance of engineering to society
- Measurable metrics since the contacts can be counted and monitored

Success through Development of a Well Informed Public

- In a somewhat related direction, museum exhibits, public displays, and other exhibits can make the public aware of:
 - Research results that affect their lives.
 - Importance of earthquake engineering research and practice.
- Again this can be a very measureable metric

Success through International Exchange and Cooperation

- Considerable interest in NEES in other countries and many other countries have similar efforts in progress
- By working with these international researchers and research facilities we can:
 - Increase our database and understanding of important issues,
 - Provide fresh insight into our problems and concerns, and
 - Reduce the cost of our research
- Considerable progress has been made through:
 - Existing agreements with researchers at the NEID/E-Defense Shaking Table in Japan and NCREE Laboratory in Taiwan,
 - International workshops and symposiums, but
 - Other opportunities are available

Success Through a Loyal and Active Membership

- NEES is more than NSF, NEESInc, the Equipment Sites, and funded researchers. NEES is everyone that has an interest in earthquake engineering and the benefits that it produces
- Many people have a personal and economic interest in what NEES is doing. They should be participating. They should be aware.
- NEES has to provide services to these memberships to satisfy their needs and interests
- Work has started in this area through categories of membership
- Dues are desirable to help support these services but also to demonstrate that members value the services
- Progress has been made, but considerable effort is needed
- Clearly quantifiable measure of success