Letter from the EERI President

Advocating on Behalf of NEHRP

Dear Fellow EERI Members:

Early in May, Executive Director Tubbesing and I, accompanied by members of EERI’s Public Policy Committee — Arrietta Chakos, Director of the Acting in Time Disaster Recovery Project at Harvard Kennedy School, and Judith Mitrani-Reiser, an EERI Young Professional member on the engineering faculty of Johns Hopkins University — made the rounds in Washington, D.C. It was an incredible learning experience for me personally, and I think we had an important positive impact on how earthquake engineering and the National Earthquake Hazards Reduction Program (NEHRP) are perceived in the Capitol.

We met with congressional representatives, NSF, FEMA, NIST, and USGS on behalf of NEHRP, and visited the offices of Senator Feinstein, who sits on the Senate Appropriations Committee, Senator Boxer, and Speaker Pelosi. We visited with the House Science and Technology Committee, which has jurisdiction over the NEHRP reauthorization, and with the House Homeland Security Committee and Transportation and Infrastructure Committee, which have oversight over FEMA and the Stafford Act, respectively. Martin Hight of the ASCE’s Government Relations office, co-chair of the NEHRP Coalition, accompanied us on several of these visits. At each meeting, EERI was recognized as a respected advocate and speaker on behalf of the nation’s earthquake community.

continued on page 4

News of the Institute

1,400 9USN/10CCEE Abstracts Received

The Technical Program Committee of the 9th U.S. National and 10th Canadian Conference on Earthquake Engineering (9USN/10CCEE) is pleased to announce that nearly 1,400 abstracts have been submitted to the online submission web site. Authors will be notified of acceptance by July 15. The committee, co-chaired by professors Shamim Sheikh of the University of Toronto and Catherine French of the University of Minnesota, estimate that 800 final papers will be submitted and 1,500 people will attend from all over the world. They are planning for approximately 100 technical sessions, including several panel discussions, augmented by two plenary sessions and six special sessions with invited speakers, as well as poster sessions.

With the theme of “Reaching Beyond Borders,” the 9USN/10CCEE is scheduled for July 25-29, 2010, in Toronto, Ontario, Canada. Technical tours are planned for the CN Tower and the SkyDome on Monday and Tuesday, 5:30-7 p.m., immediately after sessions end. An all-day field trip on Friday will tour Niagara Power Project and Niagara Falls in the morning, followed by lunch at Queens Landing and a visit to Niagara-on-the-Lake in the afternoon.

So far, 24 organizations are co-sponsoring the conference, and more are expected to sign on. Members of co-sponsoring organizations will receive the EERI-CAEE member rate for conference registration. For ongoing updates of this growing list and for more information about the conference, visit www.2010eqconf.org.
News of the Institute

Summary of the Minutes of the Board of Directors Meeting of February 11, 2009

President Farzad Naeim called the meeting to order at 8:37 a.m. Also present were Directors Thalia Anagnos, William Anderson, Regional DesRoches, S. K. Ghosh, Marshall Lew, Jack Moehle, Andrew Whittaker, Executive Director Susan Tubbesing, and Publications Manager Eloise Gilland. Director Masayoshi Nakashima was unable to attend. Greg Hempen of the EERI New Madrid Chapter and EERI Special Projects Manager Marjorie Greene joined the meeting at 11:15 a.m. and 11:30 a.m., respectively. Naeim welcomed Anderson and DesRoches, the two newly elected Board members.

Publications/membership reports: Sales of publications for 2008 increased 75%, primarily because of the new monograph that was published in September, Soil Liquefaction During Earthquakes. EERI experienced a small loss in total individual members between February 2008 and February 2009, from 2162 to 2150. Tubbesing reported that she has e-mailed academic members to encourage more students. This category is currently approximately 30% below last February.

Election of officers: Marshall Lew was elected by the Board for his 4th year as Secretary/Treasurer. Jack Moehle was elected to serve as Vice President.

Overview of issues facing EERI in the coming year: The Board discussed the challenges facing EERI, including the retirement of Executive Director Tubbesing, the need to increase membership, and the need to get new people involved in committees and activities. Naeim pointed out that the way to attract students and young professionals is not by giving them chores but rather through providing them enjoyable networking and educational opportunities.

Honors Committee charge and rotation: The Board approved the following revisions to the charge and rotation of the Honors Committee: (1) that the chair be nominated (rather than selected) by members of the committee from the current committee membership; (2) that the committee be composed of five EERI members who serve maximum terms of three years; (3) that new members be selected annually by the Board from nominations provided by the committee; (4) that retiring members rotate off the committee at the time of the Annual Meeting; and (5) that EERI members eligible to serve on the committee include: past presidents of the Institute, past members of the Board of Directors, Honorary Members, and past recipients of the Housner Medal, Distinguished Lecturer Award, the Special Recognition Award, Wm. B. Joyner Lecture, and the Bruce Bolt Medal.

Subscribing Member Board contacts: Naeim assigned Board contacts to Subscribing Members. The contacts will call them periodically to ask about their concerns and let them know how much their Subscribing Membership means to EERI.

Student chapters: Naeim assigned each Student Chapter a Board contact, who will let the student members know about the availability of the Distinguished Lecturer and Visiting Professionals. At Moehle’s request, Tubbesing will write up a one-page set of talking points for calling student chapters, Subscribing Members, and others. Tubbesing will also provide the All About EERI CD to all Board members for possible future use in making presentations on behalf of EERI.

Request from IAEE: The Board approved a request from IAEE to post historic papers on their web site — papers published by EERI for the two world conferences that EERI sponsored: the 1WCEE (1956) and the 8WCEE (1984). IAEE is approaching other international organizations to get similar permission for the rest of the world conferences, in order to make the most important papers more accessible.

Secretary/Treasurer’s Report

Overview of revenue and expense report: The Board reviewed the combined balance sheet and revenue and expense reports of December 31, 2008. EERI ended 2008 with a deficit of $16,588, less than the projected deficit of $20,000 in the 2008 budget. The combined balance sheet showed an opening fund balance of $191,201. EERI’s total liabilities of $575,652 combined with the total fund balance of $174,613 equaled $750,266.

The Endowment Program’s opening balance of $958,404 was reduced by $280,204, reflecting the downturn in investments in the stock market. Lew emphasized that it is only a paper loss unless the securities are sold. Total liabilities in the amount of $329,752 combined with the total fund balance of $678,201 equal $1,007,953.

The balance of the combined association, endowment, and technical programs equals $1,758,218.

Tubbesing pointed out that over the long term, EERI must identify new sources of revenue, from new products or more members. She noted that this is the most challenging time financially since she has served as the Executive Director.

Review 2009 budget: The Board reviewed the 2009 budget. It shows a projected deficit of $43,619, based on the same number of members as 2009, an 8% dues increase, and a 3% raise in staff salaries. Revenue of $56,250 is projected for technical seminar registration.

Investment report and overview: Lew reported that the Shah cash prize this year will be $5,000. The Fried-
man Visiting Professional Program generates about $12,000 per year. The accounts are invested in fairly safe preferred corporate stocks and bonds. Both accounts also have money market funds. The Operating Funds Report showed a balance of $506,438. The balance in the interest-bearing checking account was $183,553. The combined funds in both the General Administrative checking and investment accounts totaled $689,991.

The Endowment Fund balance totaled $706,960; the Friedman Family Investment Fund totaled $167,277; and the Shah Family Innovation Prize totaled $133,716.

FEMA Cooperative Agreement: The FEMA Cooperative Agreement lets EERI keep registration fees low for technical seminars. It also underwrites the Oral Histories, EERI’s website, Mitigation Center development, and two fellowships. This year there were no applicants for the Professional Fellowship. Those funds ($30,000) were diverted to support the Undergraduate Seismic Design Competition as a one-time use. These funds, together with a major contribution of $20,000 from CSI and smaller contributions from other Subscribing Members, enabled EERI to cover all costs associated with the competition. EERI is committed to awarding the Professional Fellowship and holding the Design Competition in the future. Tubbesing indicated that she would contact FEMA’s Mitigation Directorate to see if they can increase the overall amount of funding in the Cooperative Agreement by $30,000. This would enable EERI to run both programs.

LFE Program: EERI is in the middle of the three-year LFE grant cycle. On the 2009 dues statements, the LFE Program was included as one of the specific areas members could designate donations be applied. A number of members have taken advantage of this opportunity.

NEHRP scenario workshop: The purpose of last year’s scenario workshop, funded by NEHRP through the USGS, was to identify guidelines for future scenario development for inclusion on a web-based resource site. A report is due to be submitted to USGS in the second quarter of 2009, along with an outline of the web-based resource.

OES Concrete Buildings project: EERI’s Concrete Coalition received funding from the California Office of Emergency Services, (formerly called OES and now CalEMA) as part of FEMA’s Hazard Mitigation Grant Program to help the State identify and assess the earthquake risk posed by nonductile concrete buildings. The project collaborates with PEER and ATC and involves a large number of volunteers from EERI’s northern and southern California Chapters and SEAOC. They are developing criteria to identify at-risk structures, their locations, and their use. On January 28, 50 people met at Marshall Lew’s office in Los Angeles. Another meeting is scheduled for February 24 in San Francisco. Funding runs through the spring. The intent is to expand to other areas in the State and eventually throughout the west coast. Former EERI President, Craig Comartin, is serving as volunteer project director, working closely with EERI Special Projects Manager, Marjorie Greene.

Joint US/Canada National Conference: Plans for the Joint US/Canada National Conference in 2010 are moving along well, overseen by a conscientious organizing committee and conference co-chairs. The call for abstracts was issued late in 2008 with a deadline of March 31, 2009. E-mail reminders are going out regularly. Gilland is working with many co-sponsoring organizations who are being asked to promote the Call for Abstracts to their members.

ICC publication sales: Following up on a suggestion by Director Ghosh, Tubbesing reported that ICC is enthusiastic about working with EERI to promote and sell each other’s publications that might be of interest to their respective members. EERI will purchase a select number of these publications to resell to members. ICC will, in turn, purchase a supply of EERI publications to resell at a discount to their members. ICC has also become a new EERI Subscribing Member.

Update on New Madrid Scenario planning: Greg Hempen, president of EERI’s New Madrid Chapter, reported on plans for the New Madrid Scenario. The chapter wants their materials to be useful to the various sectors of the community. They are about to identify individuals who will ride herd on each of the sectors, and they are hoping to be able to use students to help rural communities inventory their buildings so they can carry out their own HAZUS runs. The chapter has contributed its own funds towards the scenario and received $2,000 from State Farm. Collaboration with schools has been good, and the chapter is hoping for additional partners. It is developing a Shlemon Specialty Conference on Advancing New Madrid Region Time-History Determination, to be held June 3–5, 2009, in Memphis, Tennessee, with the support of the USGS and the University of Memphis’ Center for Earthquake Research and Information.

Housner bequest: The Board reviewed the 7th amendment to the George Housner trust, which stipulated a $250,000 bequest to EERI. The Board discussed how best to use this generous bequest. Naeim and Whittaker will draft a proposal for Board consideration regarding possible projects.

2009 Board Meetings: Board meetings were scheduled for May 20, September 22, and December 16, at EERI headquarters in Oakland, California.

The meeting adjourned at 5:05 p.m.
Advocating for NEHRP
continued from page 1

We learned that NEHRP reauthorization hearings are likely to be held later this month. We impressed upon members of the House Science Committee that this program serves as the cornerstone of our nation’s efforts to reduce earthquake losses through research and implementation, and that the program must continue to be strengthened, not diluted with a broader charge or hampered by reduced funding. Changes made in past reauthorizations have made NEHRP a stronger and more effective program and should be sustained. We were encouraged in all of our meetings to hear how much support the earthquake program has and the positive light in which its accomplishments are viewed.

Arrietta Chakos, Chair of our Public Policy Committee, spoke with staff on the Homeland Security Committee and House Committee on Transportation and Infrastructure about the need to provide better mechanisms to enable communities to mitigate earthquake hazards through pre- and post-disaster hazard mitigation grants. We learned that legislation to remove FEMA from the Department of Homeland Security has recently been reintroduced in Congress. We will continue to track this issue. Judy Mitrani-Reiser, one of our local members in Washington DC, will be attending upcoming meetings of the NEHRP Coalition and the Hazards Caucus Working Group and will help us keep you apprised of activity on the NEHRP reauthorization as well as other legislation of interest to our community.

— Farzad Naeim
EERI President

News of the Membership

Spotlight on Build Change in China

On May 5, National Public Radio’s (NPR) program “All Things Considered” featured the post-earthquake housing reconstruction program in Sichuan, China, being carried out by the nonprofit organization Build Change, whose CEO and founder is EERI member Elizabeth Hausler. Build Change now employs 30 Chinese professionals who are working every day with homeowners, builders, and government officials to build safer houses. Operations expanded to seven villages in Tumen on April 20, covering approximately 9,700 families. Build Change provides hands-on training courses for homeowners and engineers. Staffers also meet one-on-one with homeowners and draft individually tailored layouts that incorporate their preferences and earthquake-resistant design features.

Build Change makes sure villagers are reinforcing the brick masonry of their new houses with reinforced concrete and steel. “When we use reinforced concrete columns and beams around the masonry walls, they act like rubber bands. They tie the walls together,” Hausler says. “So if the wall cracks a little bit, it won’t collapse.” Poor farmers in the area “automatically expect that I’m going to want them to build to a higher standard that they can’t achieve. But we’ve managed to condense our suggestions down to what makes the biggest impact, the most important things that need to be done to make the house safe.”

The daughter of a mason, Hausler spent summers laying brick in the town where she grew up outside Chicago. She first visited Sichuan a month after the May 12, 2008, M7.9 earthquake and contributed to EERI’s report on the event (see the October 2008 EERI Newsletter). She is a 2006 Draper Richards fellow, was a 2002-03 Fulbright Scholar to India, and has a Ph.D. in civil engineering from the University of California, Berkeley. She has lectured on sustainable, disaster-resistant construction in eight countries. Around her neck, Hausler always wears a silver pendant with “dream big” stamped on it. Build Change has worked on creating safer homes in earthquake-hit areas around the world, including India, Iran, and Indonesia. Build Change is a 2008 Tech Awards Laureate and winner of the Katherine M. Swanson Foundation Equality Category Cash Prize for making culturally appropriate, earthquake-resistant housing solutions available to all homeowners, regardless of income level.

For the text and video of the NPR feature, visit http://www.npr.org/ templates/story/story.php?storyId=103781626. For more information about Build Change, including how to make a donation, visit http://www.buildchange.org/.

Elizabeth Hausler at a construction site in China (photo: Andrea Hsu/NPR).
Earthquake Hazards Reduction Fellowship Announced

Under a cooperative agreement established with FEMA, the Earthquake Engineering Research Institute is pleased to offer the 2010 Professional Fellowship to provide an opportunity for a practicing professional to gain greater skills and broader expertise in earthquake hazards reduction, either by enhancing knowledge in the applicant’s own field, or by broadening the applicant’s knowledge in a related but unfamiliar discipline.

Who Should Apply?

This unique fellowship is designed to bring together an experienced career professional with other professionals conducting significant research, thereby providing opportunities to both enrich the applicant’s knowledge and skills and to broaden the research base with challenges faced in practice. The Professional Fellowship is not intended to fund work towards a degree.

The Award

The fellowship provides a stipend of $30,000, commencing in January 2010, to cover tuition, fees, and relocation and living expenses. The fellowship will be awarded on the basis of a specific project, with the proposed work or course of study to be carried out over a period of up to one year. The recipient will have the flexibility to work less than full time with the host institution and academic sponsor, with the understanding that the effort will result in a report by the end of twelve months.

Criteria

Applicants must provide a detailed work plan for a research project that would be carried out in the twelve-month period. The fellow will be expected to produce a written report upon completion of the project. All application materials must be submitted electronically to EERI, including a professional resume and letter of nomination from the faculty host at the cooperating educational institution. Faculty members should also indicate the institution’s ability to provide research facilities, including library, work space, telephone, and computer access. Applicants must hold U.S. citizenship or permanent resident status.

To Apply

Candidates may download an application form from EERI’s web site at http://www.eeri.org/site/awards/fellowships/professional

Deadline for electronic submission of all application materials is September 4, 2009.
Announcement of the award will be made October 16, 2009.
Announcements

Propose a Session for 2010 SSA Meeting

The 2010 Annual Meeting of the Seismological Society of America will be held April 20-23 in Portland, Oregon, and will commemorate the 30th anniversary of the Mount St. Helens eruption. SSA is accepting session proposals in the broad topic areas of earthquake science, geotechnical and earthquake engineering, and seismology, as well as paleoseismology, earth structure, explosion monitoring, nonvolcanic tremor, slow slip processes, earthquake processes, other seismic source processes, and hazard analysis. One focus of the meeting will be regional seismotectonics and seismic hazards of the Pacific Northwest, encompassing such topics as the Cascadia subduction zone, urban earthquake hazards, episodic tremor and slip, volcanism seismology, studies of crustal faults in the Portland area, and local planning and emergency management issues associated with earthquake and tsunami response.

Send session proposals by October 1 to 2010Program@seismosoc.org. To see examples from the 2009 meeting, visit http://www.seismosoc.org/meetings/2009/special-sessions.html.

IUGG Assembly

Save the date for the XXVth General Assembly of the International Union of Geodesy and Geophysics (IUGG), scheduled for June 27-July 8, 2011, in Melbourne, Australia. With the theme of “Earth on the Edge: Science for a Sustainable Planet,” the program will feature multidisciplinary cutting-edge science, comprehensive state-of-the-art symposia addressing scientific issues of global and regional significance, as well as field trips and workshops. For more information, visit http://www.iugg2011.com.

RFP for Global Databases

The public-private partnership, GEM (Global Earthquake Model), intends to develop the first global, open-source model for seismic risk assessment at a national and regional scale, and aims to achieve its goals by developing state-of-the-art open-source software and global databases necessary for reliably mapping earthquake risk.

GEM has recently issued the following calls for proposals for hazard global components (with target budgets and durations in brackets):

- Global Historical Earthquake Catalog and Database ($400,000, 24 months)
- Global Instrumental Seismic Catalog ($450,000, 24 months)

GEM anticipates that proposals will be prepared and submitted by international consortia. They will be subject to peer review, and will be selected by the GEM Scientific Board, with awards expected in mid-September 2009. The deadline for submission is 15 July 2009.

For more information, visit www.globalquakemodel.org.

Nominations Sought for Prakash Award

The Shamsher Prakash Foundation is soliciting nominations for the 2009 Shamsher Prakash Annual Prize for Excellence in the Practice of Geotechnical Engineering, which is given to a young (less than 45 years old) engineer, scientist, or researcher from anywhere in the world. Candidates should be specialists in geotechnical engineering or geotechnical earthquake engineering, have had significant independent contributions to the field, and show promise of future excellence. The award includes a cash prize of $1,100.

Nominations are due on or before September 30, 2009. All nominations will be reviewed by a judging committee of international experts from Canada, Japan, Ireland, Taiwan, and the United States. The award will be announced by December 31, 2009.

For information on submitting nominations, visit http://www.yoga10.org/prize_excel_MST.html.

Subscribing Member News

CSI Releases SAP2000-V14

EERI Platinum Subscribing Member Computers & Structures recently announced the release of SAP2000 V14, its integrated software for the modeling, analysis, and design of structures, available in basic, plus, and advanced levels. The innovative enhancements in this version include a nonlinear, layered shell element using a directional material model for pushover analysis of shear-wall structures and similar applications; material-based damping for linear and nonlinear direct-integration time-history analysis as well as steady-state and spectral (PSD) analysis; fully automated bridge design check per AASHTO Guide Specifications for LRFD Seismic Bridge Design 2009; and new design code-related enhancements.

For more information, visit http://csiberkeley.com/SAP2000_news/v14/.
**CALENDAR**

Items that have appeared previously are severely abbreviated. The issue containing the first appearance, or the most informative, is indicated at the entry’s end. Items listed for the first time are shown in bold.

### JUNE


8. PEER/Caltrans Seis. Research Seminar, Sacramento, CA. Info: [http://peer.berkeley.edu/events/transportation_seminar.html](http://peer.berkeley.edu/events/transportation_seminar.html) (1/09)


21-24. 19th World Conf. on Disaster Mgmt. (WCDM), Toronto, Canada. Info: [www.wcdm.org/](http://www.wcdm.org/) (10/08)


22-25. NEES Annual Meeting, Honolulu, HI. Info: [www.cmmigranteconference.org](http://www.cmmigranteconference.org) (2/09)


### AUGUST

13-14. ANCKER Wksp., Univ. of Illinois at Urbana-Champaign. [http://illinois.edu/goto/ANCER](http://illinois.edu/goto/ANCER) (2/09)


### SEPTEMBER


10. Seminar on NGA Models, Salt Lake City, UT. Info: [www.eeri.org](http://www.eeri.org) (5/09)


20-23. 4th Intl’l Conf. on Geohazards, Sun Moon Lake, Nantou, Taiwan. Info: [http://www.engconfintl.org/9ad.html](http://www.engconfintl.org/9ad.html) (5/09)


### OCTOBER

2-3. EQ Geotech. Eng. Satellite Conf., Alexandria, Egypt. Info: [mamsakr@yahoo.com](mailto:mamsakr@yahoo.com) (12/08)


### NOVEMBER


### DECEMBER


### 2010

#### FEBRUARY


#### APRIL


#### MAY


24-29. 5th Intl’l Conf. on Recent Advances in Geotech. EQ Eng. & Soil Dynamics and Symp. in Honor of I.M. Idriss, San Diego, CA. Info: [5geoeqconf2010.mst.edu](http://5geoeqconf2010.mst.edu) (4/08, 1/09)

#### JULY


#### AUGUST

30-Sept. 3. 14th European Conf. on EQ Eng. (14ECEE), Skopje-Ohrid, Macedonia. Info: [www.eaee.boun.edu.tr/eaee.htm](http://www.eaee.boun.edu.tr/eaee.htm) (12/08)

#### SEPTEMBER

5-9. Gen. Assembly of European Seis. Com. (ESC 2010), Montpellier, France. Info: [nottin@emsc-csem.org](mailto:nottin@emsc-csem.org) (5/09)

#### 2011

#### JUNE

27-July 8. XXVth IUGG Assembly, Melbourne, Australia. See page 6. (6/09)
News of the Institute

Implementation of Nonstructural Restraints

EERI has issued a new online report, Identification of Methods to Achieve Successful Implementation of Nonstructural and Equipment Seismic Restraints, co-authored by EERI member John Masek of VIE Consultants and Robert Ridge of Brigham Young University. The report is the outcome of a research project that was supported by the Special Projects and Initiatives Committee of the EERI Endowment Fund. It can be downloaded at no charge from http://www.eeri.org/.

The purpose of the project was to identify methods to bring about the proper design and construction of nonstructural and equipment seismic restraints as a matter of standard practice, including force-related requirements, deflection-related requirements, detailing provisions, construction practices, and inspection requirements in modern building codes and design standards. The research identified the primary inhibiting and enabling factors, including perceptions of current compliance with existing codes and standards; why compliance was lower than required by building codes; and who should be responsible for nonstructural seismic design and construction. The researchers also investigated how to bring about the proper budgeting of nonstructural seismic work. Interdisciplinary communication gaps and resulting procedural problems among the owner, design team, code enforcement groups, and the construction team were explored.

Over a period of 12 months, the authors conducted telephone interviews, in-person interviews, and gathered data using an online technical survey tool. These data-gathering efforts were done across the common disciplines that are involved in developing a building or facility project, including owners, designers, code enforcement professionals, equipment suppliers, contractors and others. There was consistent agreement that the current state of the practice for nonstructural seismic design and construction was not adequate, and that noncompliance with current building codes occurred frequently. The report concludes, therefore, that implementation of its recommendations is likely to have measurable and significant positive effects.

Causative and corrective factors can be simplified into four categories: (1) educational; (2) definition of design responsibility; (3) plan review and building inspection processes; and (4) design fees and construction costs.

Spectra in Science Citation Index

EERI has been notified by Thomson Reuters Products and Custom Information Services that Earthquake Spectra has been selected for coverage in the Science Citation Index, beginning with the first issue of Volume 25. This achievement recognizes the quality that Spectra has maintained since its inception in 1984, reflected in its Impact Factor and other indicators of scientific excellence.

Science Citation Index provides researchers with quick, powerful access to the bibliographic and citation information they need to find relevant, comprehensive research data. Essential data from over 3,700 of the world’s leading scientific and technical journals across 100 disciplines is contained in this database. That Spectra is now rated among this group of scientific journals is a tribute to the many professionals (editors, editorial board members, editorial staff), past and present, who have voluntarily devoted their time to maintain excellence in Spectra’s areas of focus.

The ultimate tribute must go to the authors who have chosen it as the platform to publish their research for the benefit of the global community of earthquake engineers.