Human Factors and Ergonomics Society

Bulletin

Volume 47
Number 4
April 2004

CONTENTS

What Do HFES Members Need to Know?

By Nancy J. Cooke & Jamie C. Gorman

In 2003 the HFES Education and Training Committee developed a survey for the purpose of assessing the education and training needs of HFES members. The survey was Web-based, and the URL was broadcast via e-mail to HFES members in the summer. The committee was extremely pleased that 933 members responded (30% response rate) and would like to thank all of those who contributed to these results.

The results of this survey will be used by the HFES Education and Training Committee to identify and prioritize members' education and training needs. In this report we highlight some of the most interesting results. Space restrictions preclude a more detailed report, but interested parties can find additional results from the survey on the Web at http://www.hfes.org/Memberdesk/survey.pdf.

Demographics

Overall there were 933 survey respondents. However, some respondents provided only partial information. The leading educational level among survey respondents was Ph.D., followed closely by a master's degree (see Table 1).

Table 1. Respondents by Highest Degree Obtained

Degree	Count	Percentage
BS/BA	109	12.3
MS/MA	330	37.1
PhD	385	43.3
MD	15	1.7
EdD	7	0.8
Other	43	4.8

Note: Effective sample size = 889

We also inquired about respondents' major field of study and concentration if appropriate. We received an extremely wide variety of responses to this question, ranging from astrophysics to zoology. We thus simplified the scope of this question by categorizing responses as engineering (1), computer science (2), medical/biology (3), behavioral science (4), other/none of the above (5), or no response (6). By far, the two best-represented fields were behavioral science (58%) and engineering (26%). In general, engineering respondents had either a master's degree (42%) or a Ph.D. (40%). The majority of behavioral science respondents had Ph.D.s (51%).

Respondents' occupations were predominantly practitioners (67.9%), followed by academics (20.1%) and students (12%). Although the precise numbers are difficult to track down, we believe that this breakdown closely reflects the percentages of practitioners, academics, and students who make up the HFES membership.

We also asked respondents to specify up to three human factors/ergonomics (HF/E) areas that best described the field in which they worked. The top three responses were usability, safety, and industrial ergonomics, each getting between 8% and 10% of the total responses.

General Education and Training Needs

The items pertaining to general education and training needs were specific to particular occupational subgroups (e.g., students might have a greater need for information on career opportunities than would academics or practitioners). Therefore, a set of survey items differed depending on whether the respondent was a student, academic, or practitioner.

Each respondent was presented with the opportunity to offer his or her opinions on needs specific to his or her group. Respondents were asked to judge a series of items in terms of how much they felt each was needed to enhance HF/E education and/or training. The response options were "a need," "an important need," and "not a need." In order to rank-order responses, we combined the "a need" and "an important need" responses. This combination contrasts a more general "need" category with "not a need." We then rank-ordered the various needs in order of highest to lowest percentage of responses in the combined need category.

The top five needs of each group are displayed in Tables 2a, 2b, and 2c. As might be expected, students' top concerns tend to be career and job related, whereas academics seem most concerned about attracting and retaining students and faculty. Similarly, practitioners have concerns related to personnel and their training.

Table 2a. Top Five Student Needs and Percentage of Responses

Education & Training Need	A Need	Not a Need	*n*
Information on current job openings	100	0	107
Information on HF/E career opportunities	98	2	107
More HF/E internships	97	3	108
HF/E books	95	5	108
More HF/E courses	94	6	108

continued on page 4

National Ergonomics Month 2004

By Betty Sanders, HFES President

The goal of National Ergonomics Month (NEM) is to encourage HFES members to focus on promoting the science, application, and profession of human factors/ergonomics (HF/E) in business, education, and community activities. Early discussions about establishing NEM were received with little enthusiasm at HFES Executive Council meetings because the task seemed enormous for a volunteer organization. However, the persistence and optimism of a few individuals prevailed and, in October 2003, HFES held the NEM kickoff session at the 47th Annual Meeting in Denver. Persistence and optimism continue to be important ingredients in planning and implementing programs for a successful NEM in 2004.

After only a few months on the job, NEM Chair Ron Shapiro led the 2003 launch event. He reported that his committee, consisting of Haydee M. Cuevas (NEM cochair) and Karen R. Young (NEM editor), had generated considerable interest in the annual event and had identified several potential activities. In only a few months, his committee had written several *HFES Bulletin* articles, identified materials, and orchestrated a contest among student chapters. Further, the official NEM Web site was launched in October 2003 through the diligent efforts of designers Jennifer Trich Kremer and Cindy Lu.

The focus of NEM is to promote awareness of HF/E through teaching, learning, networking, service, and fun. However, in a broader sense, it is a new and exciting call to volunteerism in and for HFES. So, in my presentation (as the incoming president) at the kickoff session, I talked about volunteerism and shared some of my thoughts about the opportunity it offers for our members. Also, having worked with numerous volunteer organizations throughout my life, I offered the following advice when working with volunteers:

1. Realize that the people who show up as volunteers for your project are the ones who are supposed to be there. Welcome all participants and do not fret or regret the ones who did not choose to come.
2. If people choose to leave or withdraw their commitment after having heard the plan, permit them to do so without guilty feelings.
3. Accept volunteerism as a valuable gift that comes in many forms, such as an idea, feedback, money, time, and energy. Show gratitude whether in your opinion the gift is great or small.
4. Acknowledge contributions with sincerity and humility. Look for a variety of ways and opportunities to demonstrate your appreciation for the support given.

At the end of my presentation, I gave attendees an opportunity to generate ideas for future NEM programs by asking them to respond orally and in writing to the following question: "What project would you take on for National Ergonomics Month 2004 if you knew you could not fail?" Their answers were amazing, creative, and worthy of publication. Thanks to the organizational efforts of Linda Baer, many of the ideas are listed below:

Group I: Education

- Start an ergonomics summer camp.
- Give a presentation that relates ergonomics to the use of computers.
- Develop HF/E games, demonstrations, and experiments for schools.
- Speak on careers in HF/E at high schools and colleges.
- Have students design a product, then conduct an HF/E evaluation of it.
- Write a grant for a school project in HF/E.
- Give an HF/E speech at the National Association of Laboratory Schools.
- Conduct HF/E workshops for engineering majors.
- Make HF/E courses mandatory for future engineers.
- Develop a video game that teaches ergonomics principles.

Group II: Business

- Give a presentation on ergonomics related to computer use.
- Teach HF/E guidelines and principles to engineers.
- Improve selected workspaces by following HF/E guidelines.
- Give presentations to various service and community groups about HF/E.
- Visit businesses to share how HF/E improves the quality of human life.
- Prioritize ergonomics as an element in company safety programs.

Human Factors and Ergonomics Society **Bulletin**

Volume 47, Number 4 April 2004

The *HFES Bulletin* (ISSN 1527-3660) is published monthly by the Human Factors and Ergonomics Society, 1124 Montana Ave., Suite B, Santa Monica, CA 90403 USA, http://hfes.org. Address inquiries and address changes to HFES, P.O. Box 1369, Santa Monica, CA 90406-1369 USA, 310/394-1811, fax 310/394-2410, http://hfes.org.

The *HFES Bulletin* is provided to members of the Society ($10 of annual dues covers member subscriptions); nonmembers may subscribe for $40/year. Periodicals postage paid at Santa Monica, CA, and additional mailing offices. USPS #018-206.

Group III: Media

- Develop a special program for the Science Channel.
- Air a series of commercials about HF/E.
- Produce a show called "Celebrity Ergolympics."
- Get a notable HF/E person to appear on *Nightline*.
- Air a science show called "Ergo-Eye for the Non-Design Guy."
- Create a media campaign with consumer advocacy groups nationally. Publish articles about HFE in major magazines and newspapers.
- Integrate an ergonomics theme into mainstream comics.

Group IV: HFES

- Sponsor a traveling exhibit.
- Use the Web site to send HF/E e-greetings/e-cards during holidays.
- Fund a high-visibility project and promote it with media coverage.
- Ask chapters and technical groups to develop major campaigns.
- Sponsor design awards for government and private industry.
- Network more effectively with other professional organizations.
- Brief elected officials on HF/E accomplishments.
- Identify HF/E issues in public facilities and buildings.
- Increase media coverage at the annual meeting.

Perusal of the NEM Web site (http://hfes.org/NEM/nem_home_page.htm) will reveal that resources are readily available to support 2004 events. For example, through the NEM Speakers Bureau, coordinated by Kim Sherman and Margarita M. Posada, you can request an HF/E professional to speak at a school in your community. A new packet prepared by Christina Costanzo Mendat is available to help members introduce HF/E to school-age children. Shapiro has also offered to share his popular presentation "Games to Explain Human Factors" with the members.

HFES is happy to report that NEM has taken its place on the 2004 calendar and beyond. What will you be doing in October?

Participate in National Ergonomics Month!

By Haydee Cuevas, NEM Cochair

In last month's Student Views column, we wrote about several ways to fully maximize the potential of your HFES student membership and the importance of becoming actively involved in the professional organizations that represent your field of study. This article in our continuing series on student professional development offers you the opportunity to increase the general public's awareness of our discipline, which, in turn, will help to ensure that you will be able to embark on a successful career in this field.

HFES has designated October as National Ergonomics Month (NEM), a time to focus on promoting the field of ergonomics to corporate executives, students, and the general public by disseminating information and providing service to the community. As such, NEM is a time for teaching, learning, networking, service, and fun. Active involvement from HFES student chapters is critical to the success of NEM, and the success of NEM is critical in promoting the value of our discipline.

Therefore, we are asking all students and student chapters to create a plan of action to begin promoting NEM to the general public when classes start in the fall (particularly during the month of October). The best individual and student chapter ideas will be recognized at the HFES 48th Annual Meeting in September. Remember, even though NEM is officially observed during October, it is never too early to start planning, particularly if your student chapter is less active in the summer. For more information on NEM, visit the NEM Web site at http://hfes.org/NEM/nem_home_page.htm. Also, refer to the August 2003 issue of the *HFES Bulletin* for ideas on activities to include in your action plan.

To enter your student chapter's activity plan in the NEM Best Action Plan Contest, please send the following information in an e-mail attachment (MS Word preferred) to Haydee M. Cuevas at ha651622@ucf.edu. The submission deadline is *August 15, 2004*.

- Proposer's name(s)
- Proposer's contact information, including address, e-mail, and daytime telephone
- Indicate whether the entry is on behalf of an official student chapter (If yes, please specify the chapter's name.)
- Names of other students (if any) participating in organizing/implementing your NEM action plan
- Names of nonstudent professionals (if any) participating in organizing/implementing your NEM action plan
- Title of your proposed NEM action plan
- Brief description of your proposed NEM action plan (i.e., what activity/activities are planned?)
- Timeline for your proposed NEM action plan (i.e., when will you be implementing your plan?)
- Goal(s) of your proposed NEM action plan, such as "What do you seek to accomplish?" or "What audience (e.g., community, students, corporations) are you targeting?"

What Do HFES Members Need to Know?

(continued from page 1)

Table 2b. Top Five Academic Needs and Percentage of Responses

Education & Training Need	A Need	Not a Need	*n*
Opportunities for student HF/E internships	98	2	166
Improved HF/E facilities	93	7	160
Attracting undergraduates to HF/E	92	8	171
Improved ability to attract and hire quality HF/E faculty to HF/E programs	92	8	171
Attracting and retaining Ph.D. students	88	12	169

Table 2c. Top Five Practitioner Needs and Percentage of Responses

Education & Training Need	A Need	Not a Need	*n*
More HF/E specialists with practical HF/E experience	97	3	579
More practitioner training and development opportunities	93	7	570
Web sites on specific topics (e.g., workload, virtual reality, training) regularly updated by experts	92	8	567
More professional HF/E specialists at MA/MS level	89	11	578
Higher-quality graduate programs in HF/E	89	11	571

Highlighting Accreditation Issues

Opinions on issues of accreditation in education and training were also elicited within the "specific needs of groups" sections. Although the accreditation issues did not make it onto the top-five lists above, we thought that the results were worthy of highlighting.

Respondents in each of the specified groups were asked for their opinions on whether they felt HFES accreditation was a need, an important need, or not a need for both graduate and undergraduate HF/E programs. (Currently HFES accredits graduate programs but not undergraduate programs, though the latter has been raised recently as a possibility.) Academics were additionally asked for their opinions on the need for changes in the accreditation process and accreditation criteria. Table 3 provides percentages of responses to these accreditation items in each of the three need categories. Across the three occupation subgroups, respondents largely favored graduate accreditation over undergraduate accreditation, with the majority stating that accreditation was either an important need or a need. About half the academics believed that changes in the process were needed.

In addition, we segregated the responses to the accreditation questions by demographic subsets based on highest degree obtained and major field of study. For highest degree obtained, we simplified the categories into premaster's including B.S./B.A., master's including M.S./M.A., and post-master's including Ph.D., M.D., and Ed.D.

Interestingly, sentiment in favor of both undergraduate and graduate accreditation was less pronounced for those with higher degrees, with the majority of premaster's respondents stating that graduate (92%) and undergraduate (81%) accreditation is either an important need or a need. However, 88% and 73% of master's-level respondents and 80% and 56% of post-master's respondents were in favor of graduate and undergraduate accreditation, respectively.

Table 3. Academic, Practitioner, and Student Responses on Accreditation Issues (%)

	Imp. Need	A Need	Not a Need	*n*
	Academic			
Accredit. graduate	34	42	24	174
Accredit. undergrad	18	36	46	174
Changes in process	12	39	49	161
Changes in criteria	13	37	50	156
	Practitioner			
Accredit. graduate	34	53	13	576
Accredit. undergrad	21	48	31	573
	Student			
Accredit. graduate	52	39	9	107
Accredit. undergrad	30	41	29	106

In terms of major field of study, we examined the two largest groups: behavioral science and engineering. Whereas both groups stated that graduate accreditation was a need or an important need (engineers = 87%, behavioral scientists = 83%), the two groups diverged on the importance of undergraduate accreditation. Of the engineers, 74% – but only 59% of the behavioral scientists – responded that undergraduate accreditation was an important need or a need.

E&T Specific to Content Areas and Skills

All respondents were asked about how relevant specific content areas (e.g., automation) and skills (e.g., cognitive task analysis) are in the work they do. Responses included "extremely important," "somewhat important," and "not at all important." Ranks were determined by the combined percentage of responses in the "extremely important" and "somewhat important" categories. In addition, in a separate set of ratings, they responded to the same set of content areas and skills in terms of their perceived need for further education and training on each topic or skill. Responses included "an important need," "a need," and "not a need." Ranks were determined by the combined percentage of responses in the "an important need" and "a need" categories.

Tables 4a through 4e summarize the top five responses on importance or need scales and associated percentages for content areas or skills. As Table 4b indicates, the content areas rated as most important hold across both engineering and behavioral science subgroups. Again, percentages indicate the responses associated with judgments of importance to work or need for training, depending on the table. Additionally, these tables give a breakdown by occupation: student, academic, or practitioner.

Table 4a. Importance to Work: Top Five Content Areas

Content Area	Overall	Student	Academic	Practitioner
Cognition	96	94	96	96
Display, GUI, signage	93	90	92	94
HCI	91	92	88	92
Sensation-perception	90	87	89	91
Individual differences	89	92	92	88
Training	89	83	90	89
Expert systems	82	89	81	81

Note: Shaded cells indicate top five.

Table 4b. Importance for Engineering and Behavioral Science Subgroups

Content Area	Engineering	Behavioral Science
Cognition	95	97
Display, GUI, signage	92	93
Sensation and perception	86	92
Individual differences	91	87
HCI	90	92
Training	86	88

Note: Shaded cells indicate top five.

Table 4c. Need for Education and Training: Top Five Content Areas

Content Area	Overall	Student	Academic	Practitioner
Display, GUI, signage	71	78	59	74
HCI	70	82	59	72
Cognition	64	78	57	64
Sensation-perception	64	74	59	64
Situation awareness	61	69	61	61
Training	61	75	57	61
Expert systems	60	76	56	59
Individual differences	57	75	55	55
Medicine and HF/E	45	54	59	41

Note. Shaded cells indicate top five.

Table 4d. Importance to Work: Top Five Skills

Skill	Overall	Student	Academic	Practitioner
General computer skills	98	98	99	98
Oral communication skills	98	97	99	98
Writing skills	97	97	98	97
Applying HF/E principles	96	98	95	96
Statistics/data analysis	95	96	97	95
Task/cog. task analysis	95	96	93	96
Experimental methods	90	93	95	89

Note: Shaded cells indicate top five.

Table 4e. Need for Education and Training: Top Five Skills

Skill	Overall	Student	Academic	Practitioner
Task/cog. task analysis	71	83	68	71
Simulation methods/tools	65	82	60	64
Statistics/data analysis	65	84	63	64
Test and eval. methods	65	81	56	66
Usability analysis	65	80	52	67
Applying HF/E principles	63	79	59	63
Workload measurement	63	82	61	62
Modeling	60	78	64	58
Teaching of HF/E	48	66	63	43

Note: Shaded cells indicate top five.

Interestingly, respondents were more likely to judge a content area or skill as important to their work than a need for education and training. Further, though the top content areas overlap considerably between the importance and need judgments, skills do not. In fact, the three skills that members judged to be most important to their work (i.e., general computer skills, oral communication skills, and writing skills) did not make it on any group's top five list for education and training needs. One interpretation of this disconnect is that members do not perceive these skills as falling within the scope of education and training efforts of HFES. These data should be valuable in developing future education and training opportunities such as workshops and tutorials.

Forums for Education and Training

Respondents were also asked questions about the best forum for education and training on topics or skills of greatest interest to them. Of the respondents, 60% attended workshops or short courses within the last three years. Of these, 28% had attended a course or workshop held by a scientific or technical society other than HFES, and 23% attended one held by a private company or organization. Seventy-eight percent indicated that they would participate in a fee-based workshop or short course on a topic or skill of great interest to them, and the relative majority (33%) preferred a full-day format in comparison to a half-day or two-day format.

Respondents were asked about the need for specific education and training forums. The response possibilities were "an important need," "a need," and "not a need." Again, rankings are based on the combined "important need" and "need" categories. The top and bottom five forums are listed in Table 5.

Table 5. Need for Specific Education and Training Forums

Top Five Forums	Percentage Combined Need	*n*
Books on HF/E topics	94	845
Journals covering HF/E topics	93	839
Annual meeting workshops	93	847
Web sites on specific topics updated by experts	92	841
Courses that provide deep coverage	92	834
Courses that provide broad coverage	77	836
Electronic participation in annual meetings (via Web cast of lecture sessions)	74	843
Satellite courses	69	837
One-time satellite seminars	68	837
Annual meeting social events	60	844

Apparently, deep coverage of topics is preferred to broad coverage and with the addition of Web sites; traditional educational media (books, journals, workshops) are preferred to satellite seminars, Web casts of meetings, or social events.

We received various constructive comments from individuals about the survey itself. The most common feedback was that the survey was too long. A few individuals also pointed out that by segmenting the membership into student, practitioner, and academic groups, we omitted those who were retired or who otherwise did not fall neatly into a category.

continued on next page

What Do HFES Members Need to Know?

(continued from page 5)

Conclusions

The survey provides a wealth of data for the Education and Training Committee as well as for others planning various educational or training opportunities in the HF/E area. Based on these data and various constraints, the Education and Training Committee will begin to set priorities to address the education and training needs of HFES members.

Many individuals assisted with the development, analysis, data interpretation, and reporting associated with this survey, including Dee Andrews, Barry Beith, Cristina Bubb-Lewis, Nancy Cooke, Pat DeLucia, Tom Eggemeier, Richard Hornick, Mark Lee, Ben Morgan, Lois Smith, and Lynn Strother. Special thanks go to Jamie Gorman, who greatly assisted with the Web implementation of the survey and data analysis. *Nancy J. Cooke is a professor at Arizona State University East and science director of the Cognitive Engineering Research Institute in Mesa, Arizona. Cooke is on leave from these positions and working at the Air Force Research Laboratory in Mesa under a National Research Council appointment. Jamie C. Gorman, a graduate student at New Mexico State University, is working on his Ph.D. while pursuing research at ASU East and the Cognitive Engineering Research Institute.*

STUDENT VIEWS

Call for HFES Student Award Nominations

By D. Kristen Gilbert, Student Affairs Committee Chair

The Student Affairs Committee requests applications from qualified applicants for this year's student awards. In order to apply for these awards, students and/or student chapters must send three copies of a completed application and supporting materials to the address at right. The deadline for all awards is *June 15, 2004*.

Student Member with Honors

The purpose of this designation is to honor students who have made an outstanding contribution to the discipline or to HFES during their tenure as a student. Students may apply for this designation when they apply for membership in HFES, or they may send an application when they have met the eligibility requirements, which are as follows:

- Class standing of junior or senior for an undergraduate or any graduate student
- GPA of 3.75 or its equivalent for graduate students (as evidenced by a transcript)
- GPA of 3.50 or its equivalent for undergraduate students (as evidenced by a transcript)
- Student Affiliate member of HFES (or application pending)
- Successful completion of at least one human factors-related course with a grade of A or its equivalent (as evidenced by a transcript or letter from the instructor)
- Two letters of recommendation, at least one of which must be from a Full Member of HFES.
- At least two of the following:
  - (a) A human factors-related presentation at a regional or national meeting (provide photocopy from program or letter from adviser)
  - (b) Evidence of design contribution (e.g., award, patent, letter from supervisor)
  - (c) Publication of human factors work in an approved journal (e.g., *Human Factors*, *Ergonomics in Design*, *Applied Ergonomics*, or any other journal approved by the Awards Committee)
  - (d) Significant service to HFES at the national or local chapter level (provide letter from committee chair or officer of the group)

Outstanding Student Chapter Awards

The purpose of these awards is to honor student chapters that have made an outstanding contribution to the discipline, HFES, their campus, or their community in a particular year. Up to three student chapters may be honored each year.

Examples of outstanding contributions include the following:

- Significant increase in percentage of members in the student chapter; numerous chapter activities such as colloquia and field trips
- Service to the community such as sponsoring a design competition at a local high school or involvement in a career day
- Participating in a design competition, developing a product, or conducting a research project
- Service to HFES at the national or local chapter level (e.g., coordinating the HFES International Book Drive)
- Notable electronic presence (e.g., innovative use of a Web site)

In order to apply for these awards, chapters should provide supporting materials. These include letters of recommendation, a written description of the activities of the student chapter, and other materials that will support the application, such as brochures, announcements, and videos.

For further information or to request an application for the Student Member With Honors Award or the Outstanding Student Chapter Award, contact Kristen Gilbert, University of Montevallo, Station 6440, Montevallo, AL 35115; 205/665-6445; gilbertk@montevallo.edu.

ANNUAL MEETING

Call for Student Volunteers

The HFES 48th Annual Meeting Host Committee invites full-time students to serve as student volunteers in New Orleans. Student volunteers perform many essential functions and help to ensure that the annual meeting runs smoothly.

To volunteer, please send the following information to the address below:

- Complete contact information: address, telephone, and e-mail address
- Your department, university, and current course load (must be full-time according to your university's definition)
- Your first, second, and third choices from the list of key areas given below
- Anticipated date of arrival at and departure from the meeting

Address requests to Director of Member Services Carlos de Falla, HFES, P.O. Box 1369, Santa Monica, CA 90406-1369 USA; 310/394-1811, fax 310/394-2410; carlos@hfes.org.

Help is needed in the following key areas: **workshops** (September 20), the **HFES Placement Service** (September 20–23), the **registration desk** (September 20–23), **daily on-site newsletter** (September 20–22), and **poster sessions** (September 21–23).

You may request assignments in specific areas, and every effort will be made to ensure you receive your first or second choice. About 60 student volunteers are needed. A limited number of reduced-rate hotel rooms will be available, so early student volunteer sign-ups and annual meeting registration are strongly encouraged. Volunteer slots are limited and will be accepted on a first-come, first-served basis. (The early registration deadline is August 27.) First preference will be given to HFES Student Affiliate members. Assignments will be made and instructions sent prior to the meeting. A student volunteer room will be available at the headquarters hotel for checking in for assignments, networking with other students, and obtaining signatures for completed work.

Students who volunteer for eight hours will receive a reimbursement of the full registration fee, and those who volunteer for four hours will be reimbursed half the registration fee. Refunds are processed after the meeting.

OUTREACH

Decade of Behavior Seeks HFES Input

The Decade of Behavior (DOB) initiative is seeking responses from scientists about significant developments in the behavioral and social sciences. Interested parties are encouraged to submit an answer to the following question: "What recent breakthroughs, discoveries, or new applications from behavioral and social science research are likely to change lives in the 21st century?"

All suggestions should be submitted to dob@apa.org and should include the following four items: research example (with citations, if possible) and how it will affect people's lives; your name; your e-mail address; and the discipline with which you are affiliated. Examples that showcase multidisciplinary research are encouraged and welcomed. The deadline for all submissions is *July 15, 2004*.

Initiative organizers hope to compile a publishable list of the top 10 breakthroughs in the behavioral and social sciences and thereby increase awareness among members of the public and policy makers about the importance of behavioral and social science research.

DOB, launched in September 2000, is a multidisciplinary initiative focused on advancing the themes of health, education, safety, prosperity, and democracy during this decade. HFES is one of 64 societies participating in the initiative.

INSIDE HFES

Why HFES Sends You E-Mail

Periodically, the Society sends informational e-mail messages to members whose e-mail addresses are listed in the database. Such messages could contain reminders of upcoming deadlines, requests to participate in surveys or to provide feedback on HFES initiatives, late-breaking news, or informational items that can't wait for publication in the next issue of the *HFES Bulletin*. The additional benefit of using e-mail for member communication is that it is very economical compared with postal mailings and supplemental publications.

Nevertheless, HFES recognizes members' desire to control incoming e-mail. If you prefer not to receive future messages, please send a request to Member Services (membership@hfes.org). Otherwise, please be sure to notify us whenever you add or change your e-mail address. In addition, please be sure that spam filters do not block HFES messages, which always have "HFES" in the subject line.

NEWS

Questions Sought for Engineering Exam

HFES member J. P. Purswell requests the assistance of Society members who are also registered Professional Engineers in reviewing and writing questions for the Principles and Practice Exam in Industrial Engineering. As the current director of professional registration for the Industrial Engineering Exam and a participant in the recent reformulation of content areas tested on the exam, Purswell notes that the portion of the exam devoted to ergonomics and work safety has been limited by the lack of question writers and reviewers for this area. If you are interested in preserving and expanding the coverage of ergonomics on the IE PE Exam, contact Purswell at jp.purswell@purswell.com or 719/330-0126.

Bulletin

Volume 47, Number 4 April 2004

Communications Director: Lois Smith
Student Views Editor: Melanie Diez
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Advertising: R. C. Bublitz & Associates,
800/485-5029; dick-rcb@juno.com

POSTMASTER:
Send address changes to the *HFES Bulletin*,
Human Factors and Ergonomics Society,
P.O. Box 1369, Santa Monica, CA 90406-1369 USA,
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FLASH!

Plan to Attend!

HFES 48th Annual Meeting
September 20-24, 2004
New Orleans, Louisiana

The 2004–2005 HFES Directory and Yearbook will be mailed in April.

If you are a Full Member and did not receive an awards nomination ballot, call Membership Services at 310/394-1811.

Human Factors and Ergonomics Society
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