



CONTENTS

ANNUAL MEETING2
EXECUTIVE COUNCIL4

NEWS3
PEOPLE4

The
2001 HFES
Membership
Survey: Findings

*By Michael P. Linegang,
Heather L. Williams, &
William F. Moroney*

The 2001 HFES Membership Survey was designed to update the 1996 survey and provide data to the HFES Executive Council. The questionnaire obtained data related to:

- HFES objectives
- Outreach to nonmembers
- Communications and publications
- HFES governance structure
- Member information needs
- Demographic characteristics

Surveys were mailed to all members ($N = 4815$), and the usable 1530 responses yielded a 32% response rate. Announcements of the survey and reminders were provided by postcard, in the *HFES Bulletin* and in two e-mail reminders. Details on the survey process are available in Linegang, Williams, and Moroney (2001).

The findings described here are essentially top level; however, cross-tabulation analyses have been performed to examine the position of various subgroups within the Society.

Membership Representation

In any survey, it is essential that the demographic characteristics of the respondents be comparable to those of the population. In spite of the low response rate for the survey, the overall respondent demographics are reasonably representative of the membership. However, there was an overreporting by technical group members. While only 48.4% of the members belong to at least one technical group, 65.6% of the respondents reported membership in at least one technical group. This 17% difference may reflect the greater willingness of TG members to support HFES activities.

HFES Objectives

Respondents described the following as the highest priorities for the Society: (94% assigned a rating of important, very important or extremely important; more than 19% of the respondents ranked these in the top three in importance):

- Promotes the exchange of HF/E scientific & technical information among members
- Supports the advancement of HF/E as a science
- Promotes HF/E as an important means for improving the quality of life
- Promotes the dissemination of HF/E scientific and technical information to other disciplines.
- Supports the practice of HF/E
- Educates and informs business and industry

Outreach to Nonmembers

Respondents ranked “industry/business/leaders” as the most important target for outreach; 42% ranked industry/business leaders as the top priority and 85% ranked them among their top three choices. “Government decision makers/Congress” and “professionals in related fields” were also ranked as important targets for outreach, with 60% ranking these in the top three. General public, students, and trade associations were ranked less important by respondents, with 65–75% ranking these fourth, fifth, or sixth.

Communications and Publications

In the area of HFES publications, 80–90% of respondents were satisfied, very satisfied, or extremely satisfied with the Annual Meeting Proceedings, *Ergonomics in Design*, *HFES Bulletin*, *HFES Directory and Yearbook*, and *Human Factors*. Specifically, there was lower satisfaction with the *HFES Bulletin*; 12% of respondents reported “dissatisfied,” and 2% reported “very dissatisfied.” With respect to *Human Factors*, 44% were extremely or very satisfied; 35% were satisfied, 10% were dissatisfied, and 5% were extremely or very dissatisfied. The highest level of satisfaction with *Human Factors* was among psychologists.

Most respondents (45–60%) have not used the on-line member directory, on-line cumulative index to HFES periodicals, or HFES CD-ROM proceedings. However, 80–85% of the respondents who had used them found them to be moderately to extremely useful.

“CD-ROM only” or “CD-ROM and paper” are the preferred format for the Annual Meeting Proceedings. Paper was the preferred format for *Ergonomics in Design* and *Human Factors*.

Of the respondents reported, 87% strong support for access to literature search tools. Moderate support was reported for links to HF/E organizations (65%), on-line membership survey (59%), and on-line membership renewal (58%).

HFES Governance Structure

Most respondents were unfamiliar with the 1996 HFES Strategic Plan (69%) and had no opinion whether it made HFES more effective (85%). Meanwhile, 54% agreed or strongly agreed that the technical group structure is an effective vehicle for technical information exchange among HFES members with similar interests.

Member Information Needs

The most-preferred (43%) source for knowledge and expertise was hard-copy publications, closely followed by on-line sources

continued on page 5

Improving Working Conditions in Developing Countries

By *Maria J. Brunette*

A stimulating discussion took place during the colloquium, "Human Factors/Ergonomics Role in Promoting Corporate Social Responsibility," at the HFES 46th Annual Meeting in Baltimore. Participants, who included students and corporate representatives, talked about how and why the human factors/ergonomics (HF/E) profession should encourage local companies and multinational corporations (MNCs) to act responsibly, especially with regard to improving working conditions and occupational safety and health for workers.

The colloquium offered an opportunity to share important issues related to working conditions at the global level and to consider how our profession can make a difference. The group discussed both the current situation and potential steps to improve it.

The Current Situation

Basic human and labor rights apply all over the world regardless of color, gender, age, citizenship, religion, and culture. This statement offers a positive view, but the global reality is very different. In reality, corporations do not recognize the universality of workers' rights and also ignore workers' basic human dignity. Unfortunately, many local companies and MNCs are not proactive in improving working conditions to prevent injuries and accidents.

The situation in developing countries also occurs in the United States. Workers are exposed to serious ergonomic risks and dangers at the workplace. Occupational Safety and Health Administration actions aside, more needs to be done to provide safe work environments for all. The working populations affected the most in this country are immigrants and those with low incomes. Colloquium participants mentioned that most U.S. engineering programs do not incorporate social or cultural aspects of working populations in research projects and curricula. Worldwide issues

related to working conditions and unsafe workplaces for the low-income working population are largely ignored.

Also discussed was the transfer of HF/E approaches from developed to developing countries. Techniques, methods, and theories that have been applied in developed countries might apply in developing countries, but this knowledge does not apply universally. Therefore, caution is needed when conducting HF/E research in the developing world. Participants also pointed out that nearly all the studies conducted in developing countries have been carried out from a micro perspective.

Another difficulty with regard to conducting research in the United States is the concern among international students who are interested on doing research in developing countries that they will not find academic support and funding for their projects. The fear that these students will not be "marketable" once they complete their degree is another critical barrier to conducting such research.

Potential Remedial Steps

The colloquium participants suggested four major steps toward promoting corporate social responsibility and improving working conditions among those with limited opportunities around the world. A critical first step would be the introduction of corporate social responsibility into the HF/E curriculum. The inclusion of these topics in management schools could create a significant impact among future generations of professionals through improvement of decision-making abilities.

A second step relates to the inclusion of cultural and socio-economic aspects in HF/E research. HF/E professionals are not experts in all areas, and the help of professionals from other disciplines is essential in conducting thorough research. The multidisciplinary nature of the HF/E profession is a unique attribute that needs to be exploited.

Third, the establishment of partnerships between universities and companies from the production and service sectors might increase awareness of HF/E issues. Implementation of studies and interventions conducted by the research community could ultimately contribute to the improvement of working conditions and the provision of safe workplaces for all. However, participants believed that this step might be a difficult one because some companies are reluctant to open their doors to universities.

Finally, through sponsorships from HFES local chapters, HFES student chapters can participate in community programs. Getting into community groups to conduct research involving working conditions needs to be considered in the HF/E professional agenda. University-sponsored research projects have credibility among workers, but if they are continuously exposed to interviews, surveys, and other types of data collection methods without seeing any change in their working lives, this could become a major drawback.

Maria J. Brunette, who chaired the colloquium, earned her Ph.D. at the University of Wisconsin-Madison. In January she will join the University of Massachusetts-Lowell Department of Work Environment. She may be reached at mjbrunette@students.wisc.edu.



Bulletin

Volume 45, Number 12 December 2002

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.

Copyright © 2002 by the Human Factors and Ergonomics Society. Printed in the USA. 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.

Executive Council Meeting Report

The annual meeting of the HFES Executive Council took place at the Baltimore Marriott Waterfront Hotel on September 28–29, 2002. Following is a report of the discussions and actions taken at that meeting.

Annual Meeting

The Professional Development track has been designated four sessions during the annual meeting. Development of PD sessions will be overseen by the Education and Training Committee.

2003 Budget

The following budget was approved:

Income	
Membership	\$ 657,500
Membership Services	\$ 43,250
Communications/Publications	\$ 373,050
Annual Meeting	\$ 155,125
HFES Institute	\$ 42,000
Miscellaneous	\$ 4,150
Total Income	\$1,275,075
Expenses	
Membership Services	\$ 97,260
Publications	\$ 320,300
Administrative	\$ 628,600
HFES Institute	\$ 36,950
Committees, Officers	\$ 45,100
Annual Meeting	\$ 69,000
Interorganizational	\$ 12,750
Total Expenses	\$1,209,960
2003 Surplus	\$ 65,115

Chapters

Council approved the establishment of a Local Chapter Distinguished Service Award, a committee-level award administered by the Chapter Affairs Committee. The award will be presented at the business meeting of the Chapter Affairs Committee at the Annual Meeting.

Diversity

HFES will once again participate in the MESA Summer Camp program during 2003. See the September 2002 issue of the *HFES Bulletin* (available at <http://hfes.org> under "Publications") for a report on the Society's participation in the 2002 camp. In addition, the Diversity Committee will continue to display HFES materials and services at upcoming conferences for minority professionals.

Membership

The following new members and changes of status since April 2002 were approved: 20 Members, 14 Associates, 53 Affiliates, 76 Student Affiliates; 5 Associate to Member, 1 Transitional to Member, 1 Affiliate to Member, 3 Transitional to Associate, 5 Member to Life Member (now called Emeritus), 7 Student to Transitional.

The requirement that Full Members who have lapsed for more than one year must reapply has been eliminated. Lapsed

members will be reinstated on payment of dues without having to submit a completed application.


Council approved a waiver of up to two years' dues for Members who are out of work and submit a written request for a dues waiver. This applies to Members who become unemployed, are actively seeking employment, and are not employed as a paid consultant; it does not apply to Members employed part-time. Members who become employed after the dues waiver (between January 1 and September 30) are asked to pay dues for that year. If unemployment continues into a second year, the Member must request an extension of the waiver.

Outreach

The Outreach Advisory Committee has been authorized to form a Museum Exhibit Task Force to investigate the feasibility and resource demands of putting together an interactive museum exhibit demonstrating the value of human factors/ergonomics.

Council approved a proposal to designate every October as National Ergonomics Month. The Outreach Advisory Committee will consider proposals for special NEM programs.

Professionalism

Council empowered HFES President Barry Beith to appoint a task force to develop, with input from the Education and Training Committee and the Education Technical Group, an undergraduate education accreditation program. 

NEWS

TSA Grant

The Transportation Security Administration (TSA) Aviation Security Research and Development Division (AAR-500) at the William J. Hughes Technical Center, Atlantic City International Airport, will be awarding research grants in areas of experimental psychology that have potential relevance to transportation security issues. Though much of the current research is related to aviation security, other transportation modes have important security needs, and research related to them would be considered. Grant proposals should be related to one of these five general research areas: (a) attention/object recognition/visual search, (b) decision making under uncertainty, (c) vigilance/fatigue, (d) selection tests/training, and (e) motivation/worker performance.

The mechanism for the application process is the FAA's Grants For Aviation Research Program Solicitation 97.2. This grant application can be found at <http://www.tc.faa.gov/contracts/grants/solicitation.html>. Although Program Solicitation No 97.2 typically serves as an open solicitation, for the purposes of this research initiative, the grant application procedure will be additionally constrained by a technical review process and the fact that only research that has clear theoretical implications for the tasks performed by aviation and transportation security screeners will be considered. The postmark deadline for grant applications is

January 31, 2003. Applications postmarked after that deadline will not be considered.

It is anticipated that grant funding decisions will be made by March 31, 2003. The TSA intends to allocate at least \$750,000 to fund 1 to 5 grants. Grant amounts are expected to range between \$80,000 and \$160,000 per year.

A nonbinding, not-required e-mail letter of intent to josh.rubinstein@faa.gov would be greatly appreciated. For grant administration questions, please contact Barbara Fuller, Grants Officer, 609/485-4919; barbara.fuller@faa.gov. For technical questions related to the research plan, please contact Joshua Rubinstein, TSA Principal Investigator, 609/485-4463; josh.rubinstein@faa.gov.

Ergonomics Working Group

The Cal/OSHA Standards Board is likely to authorize a working group to explore issues raised by the California Labor Federation (CLF) regarding the state's ergonomics regulation. In 1994 the board rejected the Division of Occupational Safety and Health's proposed replacement of California's ergonomics standard. Instead of beginning the lengthy process reopening the discussion of the 1994 ergonomics proposal, the CLF asked for an advisory committee to examine specific aspects of the existing standard and submit a modified version of the proposal. The committee will report back to the board by the end of the year. According to the CLF, the committee will have a specific mandate "to review issues which contradict the statutory requirement for a standard 'designed to minimize the instances of injury from repetitive motion' and which make enforcement of the standard extremely difficult."

Source: *Cal-OSHA Reporter*, September 27, 2002, Vol. 29 No. 37.

Leading Causes of Workplace Injury

Liberty Mutual Group's recently published 2002 Workplace Safety Index cites overexertion as the leading cause of workplace injury in 1999 (the last year for which data are available). Overexertion accounted for more than 25% of direct costs in 1999. According to the report, the direct cost of workplace injuries in 1999 rose 3.6% over the previous year to \$40.1 billion. Other leading causes of injury include falls (same level and lower level), bodily reaction (injuries from bending, standing, reaching, and slipping/tripping without falling), struck by object, and repetitive motion.

View a copy of the report on the Cal-OSHA Reporter Web site at <http://www.cal-osha.com> under Resources.

Source: *Cal-OSHA Reporter*, April 26, 2002, Vol. 29, No. 17

Updating PE Industrial Engineering Exam

The Professional Engineering exam in Industrial Engineering is being updated to better reflect the professional activities practiced today. The current task involves defining the skills and

knowledge areas required of a practicing industrial engineer. This specification will be based on input gathered from as many academics and practitioners as possible who represent the widest breadth of the profession.

An on-line survey has been constructed to collect data from anyone who is an industrial engineer or practices industrial engineering. Taking the survey is *not* limited to currently registered PE's; hence, anyone practicing in any subarea of industrial engineering is encouraged to participate. The survey takes 30 minutes or less to complete. The results will be used to define the new exam specification in spring 2003, and the first administration of the new exam is planned for fall 2004.

The survey can be found at www.websurveyor.com/chauncey/g10. This site provides instructions as well as a telephone number if questions arise about the survey. Any comments or questions about the overall effort to update the PE exam should be directed to Bill Ferrell, 110 Freeman Hall, Box 340920, Clemson, SC 29634-0920; 864/656-2724; fwillia@ces.clemson.edu. ☒

PEOPLE

On October 21, 2002, Howard L. (Jack) Parris, a longtime HFES member, passed away peacefully. Jack was born in Cedertown, Georgia, on February 13, 1917. He was an Air Force veteran with more than 22 years of service and flew 29 combat missions as a lead navigator during World War II in Europe, winning two Distinguished Flying Crosses and four Air Medals. Jack did his undergraduate work at Piedmont College and received an M.S. from the University of Southern California and a Ph.D. from Ohio State University in industrial psychology. He later served at Wright-Patterson Air Force Base and helped select the original seven *Mercury* astronauts, worked on the *Apollo*, and helped develop the human factors curricula for the Air Force Academy. His civilian work experience included the NASA Mission Control Center in Houston for Philco Ford; human factors supervisor at Lockheed Missiles & Space Company in Sunnyvale, CA; manager of human factors on the C5A Super Cargo aircraft at Lockheed Georgia; chief scientist at the Air Force Human Resources Lab in San Antonio; and human factors program manager for the Electric Power Research Institute in Palo Alto. He was a Fellow in both HFES and the American Psychological Association, and in 1986 was the recipient of the HFES Jack A. Kraft Innovator Award. Jack was always extremely friendly, courteous, professional, and a true gentleman. He was a pioneer in the fields of military psychology, human factors engineering, and nuclear power human factors. Jack typified a member of Tom Brokaw's "The Greatest Generation." He served his country well and with pride, both in combat and in peacetime. He is survived by his wife, Bernice; two children; and a grandson. Funeral services were held on November 7 at Arlington National Cemetery, where he was interred. Jack's wife, Bernice, can be reached at 226 Treasure Way, San Antonio, TX 78209.

— *Stu Parsons & Joe Seminara* ☒

(41 percent). The least-preferred (53%) source for knowledge and expertise was on-site events.

Of the respondents, 75% said HFES can best help them obtain the HF/E knowledge and expertise they need in the future via books, manuals, and so on. With respect to search options, most respondents (65%) prefer to search for full text of HF/E literature via the Internet.

Demographics

Selected demographics of our members and respondents are provided in Linegang, Williams, and Moroney (2001). The employment sectors represented by the respondents are provided in Figure 1 (respondents could select only one area).

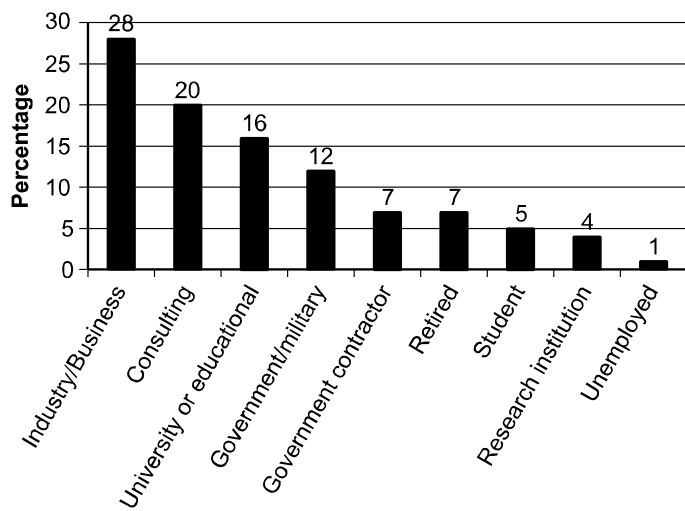


Figure 1: Employment sector reported by respondents.

When asked to select up to three reasons for maintaining their HFES membership, most respondents (61%) reported “publications/information” followed closely (60%) by “Desire to maintain awareness/personal development.” These were followed by “Professional affiliation/credentials” (44%), “Networking/career advancement” (28%), and “annual meetings” (23%).

Overall Satisfaction

The last question asked members to “rate your level of satisfaction with your HFES membership.” As shown in Figure 2, the majority of our members are satisfied with their membership. These values reflect very positively on our Society, when one

considers that this question was asked *after* the members had completed a detailed review of the activities and services provided by HFES.

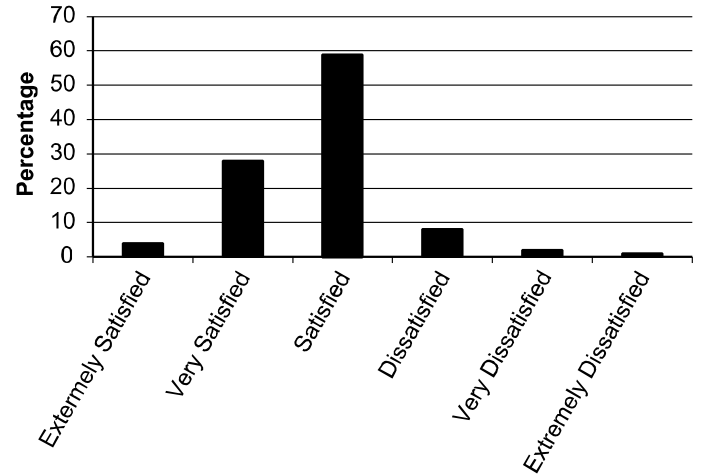


Figure 2: Satisfaction with HFES membership (N = 1510).

Conclusion

The 2001 HFES membership survey reflects the overall position of its members on a variety of issues and has provided valuable feedback and direction for the next five years. The data obtained from this survey have been used by the Executive Council in updating the Strategic Plan and will influence the development of subsequent action plans. We thank the respondents and the participants in the pilot study for the time and energy they devoted to this effort.

References

Linegang, M. P., Williams, H. L., & Moroney, W. F. (2001). The 2001 HFES membership survey: Development and Demographics. In *Proceedings of the Human Factors and Ergonomics Society 45th Annual Meeting*. (pp.1539-1543). Santa Monica, CA: Human Factors and Ergonomics Society.

Michael Linegang received his M.Ed. from Ohio State University in 1998. He is currently a human factors analyst at Aptima, Inc. Heather Williams is currently employed by Elsevier Science in Miamisburgh, OH. William Moroney earned his Ph.D. in 1968 from St. Johns University. He is the director of the experimental psychology-human factors program at the University of Dayton.

United States Postal Service Statement of Ownership, Management, and Circulation. (1) Publication Title: HFES Bulletin. (2) Publication Number: 1527-3660. (3) Filing Date 10/17/02. (4) Issue frequency: Monthly. (5) Number of issues published annually: 12. (6) Annual subscription price: \$42.00. (7) Complete Mailing Address of Known Office of Publication: Human Factors and Ergonomics Society, P.O. Box 1369, Santa Monica, CA 90406-1369 Contact Person: Lynn Strother. Telephone: (310) 394-1811. (8) Complete Mailing Address of headquarters or General Business Office of Publisher: Same as 7. (9) Editor: None (10) Owner: Same as 7. (11) Known Bondholders, Mortgages, and Other Security Holders Owning or Holding 1 Percent of More of Total Amount of Bonds, Mortgages, or Other Securities:

None. (12) Tax Status: Has not changed during preceding 12 months. (13) Publication Title: HFES Bulletin. (14) Issue Date for Circulation Data Below: August 2002. (15) a) Total number of copies: Average (Ave.) 5272, Single Issue Nearest to Filing Date (Sing.) 5253. b1) Paid/Requested Outside-County Mail Subscriptions: Ave. 547, Sing. 552. b2) Paid In-County Subscriptions: Ave. 3806, Sing. 3787. c) Total Paid and/or Requested Circulation: Ave. 4353, Sing. 4339. g) Total Distribution: Ave. 4353, Sing. 4339. h) Copies not Distributed: Ave. 936, Sing. 914. i) Total: Ave. 5289, Sing. 5253. j) Percent Paid and/or Requested Circulation: Ave. 100, Sing. 100. (16) Publication required. Will be printed in the December 2002 issue of this publication. (17) Signature and Title: Lynn Strother, Publisher, 10/17/02

Bulletin

Volume 45, Number 12 December 2002

Communications Director: Lois Smith
Student News Editor: Melanie Diez
Assistant Editor: Alexandra Sartor
Advertising: R. C. Bublitz & Associates,
818/992-0366

POSTMASTER:

Send address changes to the HFES Bulletin,
Human Factors and Ergonomics Society,
P.O. Box 1369, Santa Monica, CA 90406-1369 USA,
310/394-1811, fax 310/394-2410.

General Information: info@hfes.org
Editorial/Advertising: lois@hfes.org
Placement Service: placement@hfes.org
Annual Meeting: lois@hfes.org

Opinions expressed in BULLETIN articles are those of the authors and should not be considered as expressions of official policy by the Human Factors and Ergonomics Society.

F L A S H !

Give a gift of HFES!

Buy an HFES publication or gift certificate for a colleague this holiday season. Look over our offerings at <http://hfes.org/publications/Menu.html>.

To place an order, contact
Member Services at 310/394-1811 or
danyelle@hfes.org.

HAPPY HOLIDAYS & NEW YEAR!



Human
Factors
and
Ergonomics
Society

P.O. Box 1369
Santa Monica, CA
90406-1369 USA

PERIODICALS
POSTAGE PAID
AT
SANTA MONICA, CA
AND ADDITIONAL
OFFICES