Student Professional Awareness Conferences—Planning for the Future

by Cecelia Jankowski, Chair
Student Professional Awareness Committee

A Student Professional Awareness Conference (S-PAC) is an exciting and effective way for future engineering professionals to be introduced to non-technical career issues. Experienced, practicing engineers who are familiar with engineers' professional concerns present these issues in a forum where students can ask questions about the value of advanced degrees, about confronting ethical dilemmas in the workplace, about developing careers in technical work, management, marketing, and sales, and about the value of professional society membership. For student organizers, S-PACs provide opportunities to increase visibility, to build self-confidence, and to establish professional track records for their careers.

IEEE-USA's Student Professional Awareness Committee (SPAC, without the hyphen) is responsible for assisting Student Branches in Regions 1-6 in organizing S-PACs at their universities. Six Regional S-PAC Coordinators, one from each Region, serve as the primary contact point for student organizers. These Coordinators work closely with students to help them in determining the appropriate conference program, in selecting speakers to address topics of interest to fellow students, and in obtaining S-PAC funding. Personal contact and flexibility in dealing with students is important, since student organizers, their interests, and the university's size and culture differ from school to school.

The six Regional S-PAC Coordinators for 1992 are: Leann Asselin (Region 1); Mary-Ann Boyce (Region 2); Larry Dwon (Region 3); Harry Bostic (Region 4); Bill Klos (Region 5); and Joe Wujek (Region 6). A Support Coordinator, serving on the SPAC as a Corresponding Member, assists each Regional Coordinator.

In recent years, the SPAC has included a Student Member to ensure that students' perspectives on S-PACs are incorporated into the Committee's decision-making. Karen Butterfield, IEEE Student Branch Chairman at New Mexico State University, is the SPAC Student Member for 1992. She was selected for her outstanding performance and the experience she gained as Chairman of an S-PAC at her university last year.

In addition, the SPAC schedules meetings on location at an S-PAC. In April, the SPAC will meet with student organizers at a University of Texas, San Antonio, S-PAC to be held concurrently with a Region 5 meeting.

The Student Professional Awareness Activities (SPAA) Subcommittee of IEEE's Regional Activities Board Student Activities Committee supports the S-PAC program in all Regions. Gerald Karam is the SPAA Chairman for 1992 and is an ex-officio member of the SPAC. Although S-PACs were first undertaken in the United States, the concept quickly spread to other IEEE Regions, and IEEE-USA's S-PAC reference material is made available to schools in those Regions.

Professional Activities Committees for Engineers (PACE) leaders in all IEEE units are encouraged to participate in S-PAC programs in several ways. Leaders can:

- Identify potential high-quality, local speakers who can relate to students and their concerns about professional issues. Invite these speakers to give presentations at a Section Student Night, and ask for feedback from the students attending. Since SPAC's leading objectives are to increase the number of available speakers in each Region and ensure coverage of major topics, send the names of the speakers to your Regional S-PAC Coordinator;
- Encourage Student Branches to hold S-PACs. Meet with students to discuss the importance of professionalism to their careers. Put students in contact with Regional S-PAC Coordinators who can discuss options for an S-PAC at their school; and
- Provide students with industry connections, and support their S-PAC planning and presentations; if possible, assist students with finding appropriate locations, coordinating local publicity efforts, or identifying local industry funding sources.

If you haven't participated in an S-PAC, attend the next one held at a school in your area. (Watch for announcements in your local newsletter or call your Regional PACE Coordinator, listed in this issue; see "A Minute for PACE.") Tomorrow's young engineering professionals face increasing challenges. Share their excitement about the future!

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Communicating IEEE-USA's Strategic Objectives

As you probably know, Impact is designed to enhance communication among IEEE, USAB and PACE leaders throughout the United States. Enhancing communication is one of USAB's five strategic objectives. That objective doesn't change with time, nor is there any expectation that it will. Contrastingly, perhaps USAB's principal strategic objective, which is to improve the competitive stance of the United States in relation to its trading partners, may become redundant by the end of this millennium; we hope that it will.

In light of this objective, Impact's editorial policy will be to give priority to meaty stories, and reprints that will create a better understanding of specific changes IEEE members can focus on to improve U.S. competitiveness. While competitiveness is USAB's paramount goal during 1992, two other goals are probably of greater immediate interest to U.S. members. To the extent that it can, Impact will support IEEE-USA's Employment Assistance Committee efforts to provide guidance for our unemployed members to help them lead the reformation of standards in U.S. competitiveness during National Standards Week. This event, annually celebrated during the second week of October by the standardization community, focuses national attention on the importance of standards to commerce, industry, and government. The competition is open to all individuals in the private sector or government who work in facilities located in the United States. Employees of nationally recognized private-sector firms who develop or organizations are ineligible. In addition to showing how competitiveness can be promoted through the application of standardization practices, the paper should make an important contribution to furthering the development and understanding of standardization in government, commerce, and industry. For copies of contest rules and entry forms, write to the National Standards Week Paper Competition, Standards Engineering Society, P.O. Box 2307, Dayton, Ohio 45401-2307. Papers should be received by the National Standards Week Committee no later than June 15, 1992.

President's Budget Highlights Research and Development

The Bush Administration continued its emphasis on electronics and information technology development, an investment in the Nation's future in its 1993 budget submission to Congress. The proposed budget would provide $76 billion for R&D, an increase of three percent over FY 1992. This increase, which just keeps pace with inflation, is significant because of tight constraints on domestic discretionary spending mandated by the 1990 budget agreement and proposals for sharp cuts in defense spending following the collapse of the Soviet Union. Within FY 1993 budget request, funding for applied research would increase by three percent, to just over $59 billion. Basic research would grow by eight percent, to approximately $36 billion. Approximately $3 billion is slated for R&D facilities. Total R&D for civilian programs would grow by seven percent, to $36 billion. Key initiatives include increased investments in high-performance computing and communications, advanced materials, biotechnology, U.S. global climate research, and the advanced energy system. Defense R&D would expand by only one percent to $40.5 billion, of which $4.3 billion is slated for the basic and applied research that supports the Defense Electronics Technology Base.

These and other highlights of the Federal R&D budget request and key issues that will help shape action in Congress are summarized in IEEE-USA's Technology Policy Council Report "Electrotechnology in the Federal FY 1993 Research and Development Budget Request," due for release in March 1992. Complimentary copies are available on request to the IEEE-USA Office in Washington, D.C.

IEEE USA Approves Position Statements

IEEE's United States Activities Board approved these position statements during its last two meetings of 1991. Copies are available from the IEEE-USA Office in Washington, D.C.

- Engineering Utilization and the U.S. Standard of Living
- FCC Approves U.S. Standard of Living
- Recognizing that High Resolution Systems (HRS) development will have a significant impact on many industries, IEEE-USA encourages all entities participating in standards development to develop and adopt an open architecture where flexible standards for HRS systems can be implemented.
- Fusion Power—While research in fusion power is aimed at a timely demonstration of fusion as a viable, inexhaustible power source for base load electric power generation, IEEE-USA supports Federal funding levels adequate for studying the physics of a high-gain burning plasma, in addition to physics research for the development of fusion technology.
- Research Needs in Health Effects of Power Frequency Electric and Magnetic Fields—IEEE-USA points out the general areas of investigation that would make the greatest contribution to understanding the interaction of relatively low-intensity, low-frequency electric and magnetic fields with living matter, in addition to identifying specific risk assessment objectives.
- Spectrum Auctioning—The Federal Communications Commission must continue to make spectrum allocations on a public interest basis, not subject to auction. Consideration should be given to using auctions in the licensing process and use the process to improve spectrum utilization and management. IEEE-USA believes that these suggestions will enhance the benefits of the license auction process and help clarify where auctioning is appropriate.
- Domestic Transfer of Federally Funded Technology—IEEE-USA strongly supports the transfer of Federally funded technology to the commercial sector to promote U.S. competitiveness.

---continued on p. 6---

IEEE March 1992

Further information about IEEE-USA, engineering career and technology policy issues, and copies of testimony, IEEE-USA Position Statements, and complimentary publications are available from the IEEE-USA Office, Write or phone IEEE-USA, 1831 L Street, N.W., Suite 1202, Washington, D.C. 20036-5104. (202) 785-8007.

The newsletter for IEEE-USA's Professional Activities Committees for Engineers

IMPACT is designed to enhance communication among leaders of the Professional Activities Committees for Engineers (PACE) throughout the United States on matters concerning the leadership of PACE, the United States Activities Board, and IEEE. As a medium for both opinions and news, the editorial objective of IMPACT is to inform its readers in a timely and objective manner on newsworthy activities related to IEEE's professional programs, to comment on institutional professional matters, such as the actions of IEEE committees and boards, to serve as a forum for debate on professional matters of concern to PACE through publishing submitted articles, invited editorials, and letters to the editor, to provide news of IEEE activities, appointments, and awards, and to encourage member interest in professional activities.

Send contributed articles and letters to the editor to Robert T. Nash, Vanderbilt University, S1-B, Electrical Engineering Bldg., P.O. Box 1853, Nashville, TN 37233. Address for other mail: IEEE IMPACT, 1831 L St., N.W., Suite 1202, Washington, DC 20036. Originals for publication must be in hand at least 30 days prior to the first day of publication month listed below:

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### IEEE UNIT | ACTIVITY | CONTACT | IEEE UNIT | ACTIVITY | CONTACT
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Region 2
| Region 2 Akron | Edward J. Doyle, Chairman of the IEEE/USA Committee on U.S. Competitiveness, spoke on international competitiveness at a Section meeting; provided judges for local Science Fairs; sponsored Engineers-for-a-Day programs; published PACE news in the Section newsletter. | Peter J. Allegra | 216/384-5624 | Region 2 Delaware Bay | Hold a Section meeting on "The Future of Engineering," with speaker Mike Emory, Dupont Senior Vice President; hold an annual Student Night at the University of Delaware. | Wyman J. Prister | 302/734-8325
| Region 2 Baltimore | IEEE President-Elect Merrill Buckley spoke on "The Practical Aspects of Career Development," sponsored a Job Search Seminar; scheduled a Career Conflicts Workshop. | Donald W. Burmer | 301/281-2727 | | Lehigh Valley | Held a Careers Phase II Workshop; published feature articles about Careers Phase II Workshop in the Section newsletter. | Halie M. Koor | 610/771-7221
| Region 2 Erie | Published PACE articles in the Erie Engineering Societies Council newsletter. | Paul E. Batchelder | 216/413-0893 | | National Capital Area Council | Co-sponsored Employment Assistance Workshops and Job Fairs; sponsored an Employment Assistance Seminar and Consultants Network; initiated a local salary survey; participated in Washington Academy of Science and Engineering Societies competition, new activities, and precollege education programs; established an Industry Relations Committee and; local network of volunteers to contact members of Congress. | James F. Sterett | 703/751-4886
| Region 2 Cincinnati | Participated in NEW activities; held Section meetings on professionalism; participated in local MarComs contest and in Science and Engineering Fairs. | William B. Jarzembski | 513/761-2251 | | Northern Virginia | Established an employment assistance network and the Virginia Coordinating Council; supported NEW activities; established a post-calculus program for high school students. | Marc T. Apter | 703/462-1090
| Region 2 Cleveland | Organized a Careers Phase II Workshop; sponsored an Engineers-for-a-Day program during NEW; held a joint Section meeting with Case University and Cleveland State University; participated in S-PACs at Case Western Reserve and Cleveland State Universities; initiated a student paper contest; presented an Engineer of the Year Award to an outstanding IEEE Section member; participated in the Section's annual Awards Night; published articles on PACE in Section newsletter; provided judge awards for the Northeast Ohio Science and Engineering Fair; initiated the Edison Lecture Series and a computer/electronics swap meet. | William Naggi | 216/479-3430 | | Philadelphia | Restructured the Section Executive Committee to incorporate several PACE positions; provided members with information on various bills being considered in Congress; held two meetings of the Section's consultants network; initiated a "Candidates Night" and an Engineer of the Year Committee to hold meetings on various NEW activities; participated in Delaware Valley Science Fairs. | William W. Middleton | 215/687-1482

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### Region 2

- **Akron**
  - Held Section meeting on the IEEE Life Insurance Program; featured presenters on professional issues. 
  - Supported local Consultants Network; participated in setting up Job Fairs and Employment seminars. 
  - Held two Job Fairs; speakers discussed professional topics at monthly Section meetings; published articles on professional issues in Section newsletter.

- **Boston**
  - Held a Career Seminar and Job Fair; sponsored Section meeting; speakers gave talks on professional topics; created local Consultants Network and Entrepreneurial Network; conducted lobbying activities on employment issues at national and state levels; provided monthly reports on issues affecting the professional interests of engineers.

- **Buffalo**
  - Organized an Economic Development Committee under PACE; held Employment Assistance Seminars and Job Fairs; sponsored a Science and Engineering Education—Kindergarten through Graduate School Conference; co-sponsored National Engineers Week (NEW) activities with other engineering societies; provided judges and cash awards for the Connecticut Science Fair at junior and senior high schools; began planning an Entrepreneurs Network, an Industry Affiliates Group, and an Academic Awards program.

- **Connecticut**
  - Organized a Consultants' Network; created an Economic Development Committee under PACE; held Employment Assistance Seminars and Job Fairs; sponsored a Science and Engineering Education—Kindergarten through Graduate School Conference; co-sponsored National Engineers Week (NEW) activities with other engineering societies; provided judges and cash awards for the Connecticut Science Fair at junior and senior high schools; began planning an Entrepreneurs Network, an Industry Affiliates Group, and an Academic Awards program.

- **New Jersey**
  - Held Section meeting on the IEEE Life Insurance Program; featured presenters on professional issues. 
  - Supported local Consultants Network; participated in setting up Job Fairs and Employment seminars. 
  - Held two Job Fairs; speakers discussed professional topics at monthly Section meetings; published articles on professional issues in Section newsletter.

- **New York**
  - Supported local Consultants Network; participated in setting up Job Fairs and Employment seminars.
  - Held two Job Fairs; speakers discussed professional topics at monthly Section meetings; published articles on professional issues in Section newsletter.

- **Ohio**
  - Organized a Career Seminar and Job Fair; sponsored Section meeting; speakers gave talks on professional topics; created local Consultants Network and Entrepreneurial Network; conducted lobbying activities on employment issues at national and state levels; provided monthly reports on issues affecting the professional interests of engineers.

- **Rochester**
  - Conducted survey to determine professional issues of greatest interest to Section members; published results in the Rochester Engineer magazine; Edward J. Doyle spoke on U.S. competitiveness at joint meeting with Rochester Chapters; Charles Clea spoke on IEEE's position on energy issues at a Section meeting; started a videotape library on technical and professional topics; posted job opportunities on the Section's electronic bulletin board; formed a Precollege Education Committee.

- **St. Lawrence**
  - Volunteers made National Engineers Week Discover-EG presentations to 15 high school grades in three local school districts.

- **Ohio**
  - Organized a Career Seminar and Job Fair; sponsored Section meeting; speakers gave talks on professional topics; created local Consultants Network and Entrepreneurial Network; conducted lobbying activities on employment issues at national and state levels; provided monthly reports on issues affecting the professional interests of engineers.

- **Pennsylvania**
  - Organized a Career Seminar and Job Fair; sponsored Section meeting; speakers gave talks on professional topics; created local Consultants Network and Entrepreneurial Network; conducted lobbying activities on employment issues at national and state levels; provided monthly reports on issues affecting the professional interests of engineers.

- **South Carolina**
  - Organized a Career Seminar and Job Fair; sponsored Section meeting; speakers gave talks on professional topics; created local Consultants Network and Entrepreneurial Network; conducted lobbying activities on employment issues at national and state levels; provided monthly reports on issues affecting the professional interests of engineers.

- **St. Lawrence**
  - Volunteers made National Engineers Week Discover-EG presentations to 15 high school grades in three local school districts.

- **Texas**
  - Organized a Career Seminar and Job Fair; sponsored Section meeting; speakers gave talks on professional topics; created local Consultants Network and Entrepreneurial Network; conducted lobbying activities on employment issues at national and state levels; provided monthly reports on issues affecting the professional interests of engineers.

- **Virginia**
  - Organized a Career Seminar and Job Fair; sponsored Section meeting; speakers gave talks on professional topics; created local Consultants Network and Entrepreneurial Network; conducted lobbying activities on employment issues at national and state levels; provided monthly reports on issues affecting the professional interests of engineers.

- **Washington**
  - Organized a Career Seminar and Job Fair; sponsored Section meeting; speakers gave talks on professional topics; created local Consultants Network and Entrepreneurial Network; conducted lobbying activities on employment issues at national and state levels; provided monthly reports on issues affecting the professional interests of engineers.
A Minute For PAGE
by Carl K. Kintzel, Chair
PACE Information Committee

Impact continues "A Minute For PAGE," a column presenting brief announcements and news bulletins that local PACE leaders can share in their Chapter meetings. Our purpose is to give higher visibility on the local level to current concerns of IEEE United States Activities and its PACE program. Here is this issue's PACE Minute, contributed by Region 6 PACE Coordinator Wayne E. Amacher.

The PACE Region 6 Activities Committee has provided audio training tapes to each U.S. Region for the use of members. The tapes contain material similar to what many companies use in management training programs.

Tapes available on loan from your Regional PACE Coordinator are Self Esteem and Peak Performance (particularly helpful to members who have experienced layoffs); How to Deal with Difficult People; Teams Doing Things Done to Delegate Work and Ensure That It's Done Right;

WASHINGTON—continued

- Dual Use of Technologies—Noting the growing importance of leveraging Federal research dollars through investment in dual-use technologies, which contribute to national security and to our economic competitiveness in the United States, IEEE-USA supports efforts to stimulate the development and effective transfer of technologies having both military and commercial applications.
- Medical Device Evaluation—IEEE-USA recommends that the U.S. Food and Drug Administration consider using failure-mode analysis in evaluating medical devices, in order to reduce risks to patients, operators, and other medical staff, and for developing standards and pre-market approval.
- U.S. Government Advisory Entities Concerned With Health-Related Issues—To promote safety, efficacy, and responsible care, IEEE-USA urges that the selection process for membership on U.S. Government commissions, committees, and advisory panels involving health care technology include consideration of engineers with a biomedical specialty.
- U.S. Government Management Positions Responsible for Engineering Decisions in the Field of Health Care—IEEE-USA recommends that all government positions responsible for engineering decisions affecting health care be filled by biomedical professionals skilled in engineering disciplines or computer science appropriate to the technical matters involved in the decision-making process.
- United States Competitiveness—To improve the U.S. competitive edge over other major countries, especially in critical electrical and electronics industries, IEEE-USA strongly advises that the U.S. manufacturing process and total quality of its products be improved; the economics of the manufacturing business be changed; the quality of U.S. education, particularly in Grades K-12, be enriched; U.S. R&D efforts be re-focused in more practical areas; antitrust laws be modified; a realistic trade policy be developed; and reform be implemented; and a coherent national policy be adopted.
- Nuclear Fuel Cycle in the United States—IEEE-USA recommends that a comprehensive nuclear fuel cycle plan be developed and implemented on a timely basis by the Federal Government in cooperation with utilities, the nuclear industry, and the public to include mining, enrichment, utilization, temporary storage, reprocessing, and waste storage.
- Space Station—IEEE-USA believes that with consistent budgetary support, a revised space program balancing automated and manned projects, including a redesigned space station focused on NASA's life science research mission, will help re-establish U.S. technological leadership.
- National Energy Policy—To ensure an environmentally sound, continuous and reliable supply of all energy, IEEE-USA strongly urges the development of a National Energy Policy.
- Tax Policy and Technological Competitiveness—Because tax policies can have a critical influence on business investment decisions, IEEE-USA encourages and supports stable Government tax initiatives that stimulate the U.S. industrial community to invest in engineering R&D and to act aggressively in commercializing resulting technological developments.
- Employment Discrimination by Employers of Engineers—IEEE-USA's position is that employers of IEEE's U.S. members should manage in a manner that encourages high productivity and morale among all employees; provide equal opportunity to all levels of employees to receive continuing education as well as training and assignment assignments; give recognition and promotions based on merit; provide employment opportunities that enhance the pursuit of an engineering as a lifetime career; and recognize that experience acquired during a career has continued value to the enterprise.

IEEE United States Activities Board

USAB Chairman's Message

USAB Chairman's Message

How Well Do We Communicate?

If asked, most IEEE members would say they know how to communicate, however, they know about messages that are transmitted and receiver impudence for best efficiency—about frequency, bandwidth, data rate, modulation—and we can rattle off a host of other technical attributes. We might even say we know the difference between data and information. At least, we probably know about Shannon's theory, entropy, and that sort of thing. Is that all there is to communications and information transfer?

Most of us might also say we know something about communicating information—about the world of communications engineers and professional communicators. There, communications is not very technical. People on that side of the business often say we engineers don't know much about communications, and when we do it, we do it poorly. From this perspective, most of us would perhaps agree that we do not always do it all that well. Yet we must continually communicate our message to our peers, among our acquaintances, to the public, and to the decision-makers. Indeed, we may really know a lot about communications technology, but how well do we communicate? Aren't such communications skills essential to public understanding of our profession and of our role as engineers within U.S. society?

Last month I asked you, as IEEE-USA leaders, to consider our many activities and "what it all means." Now I ask you to add to this continuous challenge the corresponding challenge of improving communications. Getting our message across is essential to the effectiveness of all our IEEE-USA operations and our work as dedicated volunteers.

IEEE-USA has developed many vehicles for communicating messages to our target audiences at many levels. Most of these vehicles should be familiar to you, such as Impact, which you are now reading, our Professional Perspective information, IEEE-USA's Let Lany, Other vehicles, such as our many position statements, press releases, public testimony to Congress and legislative bodies, IEEE communications and correspondence, and a literal mountain of internal IEEE-USA memos and correspondence are visible perhaps only as they touch your activities. Are these communications of value? How well do they work?

We really need your assistance and feedback in the communications process. I need to know how well we communicate to you and how we might support your communications to others. From theory, we know that feedback is an essential aspect of communications. Your feedback is thus essential to letting us understand how well we communicate. We often solicit your feedback through surveys, such as the recent Impact Readership Survey, but your comments are encouraged at all times. How well do we get the message across to your peers, to the public at large, and to the decision-makers? What should be done to improve this process? We need to hear from you!

Communicating is so much more than the information transfer technology we know so well. We believe our message is important, and it is certainly worth our effort to do all we can to ensure our intended audience understands what we are saying. We must overcome our "poor communicators" image and get our message across in such a way that it is both well-received and understood.

Beyond improvements to our current communication vehicles, new ideas to improve our communication processes must be tried. Along this line, something new this year will be a series of open meetings with IEEE's U.S. members. These meetings, called Members' Open Forums, will be held by IEEE-USA around the country. We are planning three in 1992, to be held in the Baltimore-Washington area on April 11, Southern California on June 27, and St. Louis on October 24. We will work with Regional Directors and Regional Council, and Section PACE leaders to publicize these forums and encourage member participation.

We ask you who live in these areas to make every effort to attend and to bring your colleagues. You can interact not only with IEEE-USA Council Chairmen and other IEEE-USA leaders, but you can interact with the President Merrill Buckley and President-Elect Martha Sloan. Our goal is to improve our two-way communications with U.S. members. This forum will hear from many of our IEEE-USA activities, but most importantly, we really want to hear how we are doing and how we can do better. We will try to tell our members what it all means. In turn, we hope to hear what it is all worth.

As we go along through 1992, I ask each of you to tell me how we are doing. Let us know what you think, and how we can do it better. Speek up, loud and clear! After all, aren't we engineers only as effective as our communications?

—Ardv G. Larson, Ph.D.

IEEE Impact
March 1992
Rivers Predicts Longer Engineering Employment Difficulties

by Frank E. Lord, Editor
Career Activities Council

This forecast is sixth in a series of quarterly engineering unemployment forecasts produced by Robert A. Rivers. Each quarter, he refires projections for the next seven quarters. Compared to last quarter’s figures, the projections in this table are higher. Rivers concludes that the result will be a longer period of employment difficulty for engineers than he previously predicted.

For comparison purposes, actual unemployment statistics from the Bureau of Labor Statistics (BLS) for previous quarters are included. The latest BLS figure of 2.5 percent unemployment equates to 48,000 engineers. Rivers forecasts that a significant improvement cannot be expected until the fourth quarter of this year.

The three main parameters that Rivers employs in deriving his projections are the Federal Funds rate, the level of U.S. exports, and the extent of defense spending. Of the three variables, the Federal Funds rate is the most significant, influencing the overall results by 50 percent.

At present, Rivers is concerned that the U.S. banking system is not responding to the current state of the economy as it has in past recessions. Bankers have grown more conservative about granting small business loans in response to increasingly zealous regulators. The regulators have become more stringent about forcing banks to charge off bad loans against capital, which reduces reserves and allowable new loans.

In banking parlance, this action is referred to as classifying, a term you may see in a newspaper’s financial pages. When you read articles about how lower interest rates will stimulate the economy, you may not be getting the whole story.

Rivers’ Engineering Unemployment Forecast

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</table>

*from Bureau of Labor Statistics (BLS) data
NOTE: Transition engineering unemployment rate at times of full engineering employment = 0.3 to 0.4 percent

Job Fairs Update

IEEE co-sponsored job fairs are planned (although all contracts have not been finalized) in these locations in the first half of 1992:

<table>
<thead>
<tr>
<th>DATE</th>
<th>LOCATION</th>
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</thead>
<tbody>
<tr>
<td>March 2-3</td>
<td>Dallas Section (LG)</td>
</tr>
<tr>
<td>March 9-10</td>
<td>Nat’l. Capital Area Council (LG)</td>
</tr>
<tr>
<td>March 23-24</td>
<td>Boston Section (LG)</td>
</tr>
<tr>
<td>April 6-7</td>
<td>Twin Cities Section (BPI)</td>
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<tr>
<td>April 6-7</td>
<td>Chicago Section (LG)</td>
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<tr>
<td>April 13-14</td>
<td>North Jersey Section (LG)</td>
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<tr>
<td>April 13-14</td>
<td>Houston Section (LG)</td>
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<td>April 13-14</td>
<td>Bay Area Council (W)</td>
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<tr>
<td>May 4-5</td>
<td>Nat’l. Capital Area Council (LG)</td>
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<td>May 11-12</td>
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<td>May 11-12</td>
<td>Orlando Section (BPI)</td>
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<td>May 18-19</td>
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<td>June 8-9</td>
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<td>June 22-23</td>
<td>North Jersey Section (LG)</td>
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</tbody>
</table>

Job fairs are open to all engineers. For more information concerning the locations of the job fairs marked (LG), please call (800) 562-2820; Virginia residents should call (800) 533-1827. For those fairs marked (W), call (510) 866-8566, and for those marked (BPI), call (800) 328-4032. At each number, ask for the IEEE Career Fair Coordinator.

Reminder...

Nominations for IEEE United States Activities Board Awards are due by March 31. Call (202) 785-0017 or Fax (202) 785-0835 your request for information and nomination forms to the IEEE-USA Office in Washington, D.C.