

# AMERICAN ENGINEER<sup>TM</sup>

A PUBLICATION OF THE AMERICAN ENGINEERING ASSOCIATION

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NOVEMBER, 1992 Volume 2, Number 8

## AEA Dues Increase

AEA has been in existence since 1979 and we have never had an increase in dues. To the contrary, we have added two lower cost membership dues levels to encourage growth and participation.

It is unfortunate but, we must announce an increase in dues for membership in the American Engineering Association. The Member level dues will increase from \$20 per year to \$30 per year, effective January 1, 1993. Any application postmarked after December 31, 1992 will be subject to the new rates.

Our other two levels of membership, the Professional Member and the Sponsoring Member levels will remain the same at \$50 and \$100 respectively. These member levels, although not given wide visibility, provide those who can afford more with an opportunity to contribute more and still have the membership fees tax deductible. With concern for our unemployed members we will provide a 50 percent rate of \$15 for annual membership.

As we reported in our September issue of the "American Engineer" the costs of running AEA have increased significantly. Our primary or outstanding expense covers occasional mailings of the "American Engineer" to Congress to bring our concerns to Washington. Included here are also the costs of sending promotional copies of the "American Engineer" to the press, trade publications and members of the engineering community to increase exposure and stimulate growth. As you can understand, we are in a "Catch 22" situation. We need funds to get more members to get more funds, etc....

Activities for 1991 cost more than the \$20 Member fees would have covered. To resolve this problem we are left with only a few choices. We can reduce our efforts, accomplish less and run the risk of being dull and boring and lose the interest of our members or we can increase our income. Increasing income can only result from an increase in membership or an increase in our dues. This is a major concern and we would prefer to strengthen our activities rather than diminish them.

Increasing membership is one activity in which we can all participate but, it is a voluntary effort that has not reached our expectations since extending our efforts almost two years ago. Had each AEA member recruited one new member this year our membership would have doubled and the dues increase may have been avoided. We must improve our recruiting efforts to reach the strength of a professional society.

An important goal of AEA is to provide our members with opportunities and benefits that would make our membership fees a good investment. An annual fee of \$30 is reasonable if we can satisfy the needs and address the concerns of the members. Again, we need members to get benefits to attract more members. We shall strive to give our members more for their money.

## Membership Renewal

Time to renew—The date on your mailing label is the date to renew your subscription, membership and support for the American Engineering Association. Get your renewal in early and save us the time and expense of sending you a reminder.

Please try to get your associates to join AEA before the new dues rate becomes effective. The American Engineering Association is an association we can boast about and be proud of. Remember, we want to enhance the engineering profession and U.S. engineering capabilities. Share AEA with your associates and together we will take our fight to Washington to provide more opportunities for the members of the engineering community. Have faith; we shall keep trying but, we do need your help.

*Richard F. Tax, AEA Vice-President*

## Schweizer Loses Appeal On Contract

On September 28th the Government Accounting Office upheld the Department of Defense decision to award the Enhanced Flight Screener program to Slingsby Aviation Ltd. of England. The contract is to build some 113 aircraft to be used by the USAF to screen candidates for the Air Force pilot training program.

Slingsby's bid of \$55 million was some 8.9 percent higher than Schweizer's bid of \$50.5 million. The Congressional Research Service estimates each dollar spent overseas costs an additional 39.5 cents in lost revenue. If this cost was applied to the Slingsby contract it would raise the cost of their bid to \$76.725 million or one hundred fifty two percent of the Schweizer bid.

Another cost to the United States is the cost of unemployment and other social services to some 168 Schweizer employees who had been laid off during the previous six month period. Most of these people would have either been called back or not laid off had Schweizer received the contract. The 168 laid off employees represented some 30 percent of Schweizer's work force. Engineers were among those laid off by Schweizer though we do not know exactly how many.

In response to an AEA inquiry on Schweizer's behalf, Eleanor Specter, Director, Defense Procurement, said "The Department of Defense is required by the Competition in Contracting Act to compete procurements when acquiring defense equipment. After competition, we award contracts based on the best value to the government. We do not have a preference for foreign products."

In 1990 the Department of Defense gave 91,722 contracts worth over \$100,000 each for a total of \$130 billion; in 1991 the totals were 99,903 contracts awarded for a total of \$136 billion. We believe some twenty to thirty billion dollars per year of defense funds go to overseas competitors with more than one billion per year being in R&D contracts. If we apply the 39.5 percent factor this gives us an additional cost of between \$27 billion and \$42 billion per year. Estimates indicate each billion dollars spent overseas costs America some 25,000 jobs.

*U.S. Tech*, an electronics publication, states "According to a spokesperson from Schweizer, historically whenever a protest has been filed with the GAO, the decision being protested has never been reversed. How sad." How true!

*Billy E. Reed, AEA President*

## Editor's Column

### AUTHORS IN THE SEPTEMBER ISSUE OF AE

We omitted some authors' names in the September issue of "American Engineer." The first page article, "AEA Requests New Immigration Reform," was written by AEA President, Bill Reed. The page 2 article, "AEA Challenges Trade Pact," was written by Bill Reed and attorney Jerome Zeifman, member of AEA Board of Advisors and of the National Council for Industrial Defense (NCID).

### MICHAEL WHITELAW'S PETITION CANDIDACY FOR IEEE PRESIDENT

The March 1992 issue of AE carried a petition to place Michael Whitelaw's name on the 1992 IEEE ballot as a presidential candidate. Many of you already know that the petition failed to obtain enough signatures. Nevertheless I adhere to my former position. It is that IEEE members benefit from diversity of candidates, and Mr. Whitelaw has the background that merits his appearance on the ballot as presidential candidate. Also Mr. Whitelaw has the energy to circulate another petition and try again. Besides, there's a new development.

This year, the IEEE Board of Directors changed a Bylaw. The new Bylaw allows them to nominate only one candidate for president, whereas before they were obligated to nominate at least two. This means there might be only one Board-nominated Presidential candidate on the 1993 ballot instead of two, as before. Apparently the Board learned from the experience of the 1990 and 1991 ballots, on which there were two Board-nominated candidates who divided the conservative vote, so that a petition candidate won. Both Merrill Buckley and Martha Sloan are winning petition candidates. At this time, I don't know who won the Presidency in 1992; it will be known by the time you read this.

Elsewhere in this issue, there's a petition to place Mr. Whitelaw's name on the 1993 ballot. AE readers who are also IEEE voting members and would like to see professional progress via IEEE should circulate the petition for signatures and mail it back to Mr. Whitelaw before May 15, 1993.

### CORRECTION DEPARTMENT

The KEEPING UP TO DATE section in the Editor's Column of the July 1992 issue of AE, contained a statement that Yale University is considering discontinuing its engineering college for lack of enrollment. I learned from a California reader that Yale has allowed its engineering teaching staff to drop by attrition and is not considering discontinuation. My apologies for this error.

### ENGINEERS' PAY RAISES

The July 20 issue of *Design News* contained a short article about the relation of the consumer price index to engineers' salaries. It stated "...for the fifth year in a row, compensation for engineers has not kept up with inflation. That's what the latest salary survey of the American Association of Engineering Societies (AAES) shows." It goes on to state that the median base pay of engineers rose only 1.2% from early '91 to early '92, while consumer prices rose 2.8%. There were individual engineers who fared better, because they received pay raises for an additional year of experience. The AAES survey covered salaries of 125,045 engineers at 250 private organizations; 3,577 engineers at 19 federal, state and local agencies, and 16,911 faculty members at 277 engineering schools. AAES officials cite the following reasons for the phenomenon: The number of engineering graduates doubled from 1975 to 1985; the government cut defense budgets; economic recession slowed recruitment, and unemployment among engineers hit 4%, which is a record high. In the face of this information, does any reader doubt that engineers must find a way to regulate entry into the profession? And we must forcibly refute engineering shortage propaganda. The above information simply indicates an unfavorable supply/demand ratio for engineering talent. My experience tells me that such a situation existed for most of the years since the 50's, when I entered the profession.

Robert Bruce, AE Editor

## Professional Pipeline

By Bob Bellinger

### Holding Onto Your Dignity

This spring, at the Electro show, Irving Weiner spent three days sitting at an informal IEEE jobs booth, collecting resumes. The purpose was to compile a job data bank. Weiner is still reeling from his experience.

There wasn't any advertising to speak of, or much real publicity. But Weiner got 300 to 400 resumes. From managers. From engineers with patents. From experts and journeymen. From guys who've seen every flub, every errant circuit and miscue that can plague a system. Most, like Weiner himself, were unemployed, over-50 engineers who've found themselves in a hell hole that no self-respecting college-educated professional engineer ever thought they'd see in their lifetime.

"It was horrendous," says Weiner.

His voice is firm, but you hear pain as he described how tough it is to keep these men (and, yes, it is primarily males in this age range) going.

"The most important thing is to keep them moving. Don't give them false encouragement, but (tell them) to keep their heads high. If they take a job at McDonald's, that it be seen as a stopgap measure."

Even now, two months later, Weiner gets six to eight resumes a week. Is there a job? Do you have any leads? they ask. Hope in search of a crumb.

Jobs are scarce. So too, apparently, is courtesy on the part of companies. Besieged with resumes, too many human resource departments have bypassed common courtesies. Weiner knows too well how the job-hunting process erodes one's self-confidence and dignity, when no one will give you the courtesy of a reply to your application. "That's the first level of lousiness," Weiner says. And how, if miracle upon miracle, you get an interview, you don't get a postcard later, informing you of the job status. "That's lousiness squared." And how those dreaded words, "overqualified" infuriates applicants. "That's a code word for 'too expensive,'" Weiner says. In this current dismal job climate, some engineers who once earned \$60K, \$70K, are willing to swallow their dignity to take \$40K. Even then, they won't get a chance.

You see, they're over 50.

The engineers who dropped off their resumes at the IEEE Electro booth were not, insists Weiner, "dead wood. They got out in '80-'90." Nor were they, contrary to popular perception, "ready to jump ship for another 10 cents an hour," says Weiner. "They're 50. You think they're going to get another job offer?"

Weiner, a veteran analog engineer, looked into the faces of dozens of jobless engineers, and saw well-trained, up-to-date engineers that he'd hire in a second—if he weren't in the same boat.

The IEEE is trying to deal with an unprecedented unemployment problem among its members. Unemployment may have been higher in the post-Vietnam '70s. But Weiner and others think this downturn is worse—because it may be permanent, at least while we have a peacetime economy. For engineers in their 40s and 50s, "unemployment for extended periods was not too common," says Weiner. "Now it is."

Among the older engineers, "the fear is," says Weiner, "that once they've gotten thrown off the train, they can't get back on."

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### Change Of Address

Please let us know if you change your address. Just send the address label or a copy from current issue of the "American Engineer" along with your new address to: AEA, P.O. Box 820473, Ft. Worth, Texas, 76182-0473. You are very important to AEA—WE DON'T WANT TO LOSE YOU!

## Reader's Voice

This column in the "American Engineer" is for readers to voice an opinion relevant to any issues that affect the professional life of an engineer. Articles or letters should be in good taste and not slanderous. Each submission should include the name, address, home and business phone of the writer. Except for short excerpts, we will include the writer's name, city and state (unless the writer requests anonymity). We reserve the right to edit each submission, as long as we don't change the gist of it. We assume that authors who send us material have accepted these conditions, unless they instruct us otherwise in writing.

From M.E. of TX: - "Several comments are appropriate, relative to the July 1992 issue of AE.

"1. Re Leland Teschler's article, 'The Problem With Industry Is Where It Puts Its Money' (reprinted from *Machine Design*):

"In my opinion, Teschler failed to identify the true problem. The fact that industry management gives sales personnel higher rewards than engineering is not solely the fault of management. They are only seeking to maximize the rewards they (management) receive. At present, these rewards are typically based on short-term monetary results, such as quarterly profits and/or stock-price gains, things abetted by a good sales force.

"Until it becomes in the interest of management to seek long-term results, companies will continue to postpone investment in engineering-intensive R&D. Thus if we wish to expand opportunities for engineers, we need to make it in the best interest of industry to invest for the long run. An approach to that goal involves changing the tax structure to favor long-term capital gains. However revising the tax structure can only be achieved by an act of Congress. Therefore, if engineers are interested in reviving their profession, they need to become far more aggressive in lobbying for changes such as a capital gains tax.

"Next time a colleague complains to you about the economics of the engineering profession, ask him for the last time he forwarded constructive criticism to his legislative representatives. If he hasn't communicated his desires, he should not be complaining.

"2. Re the letter from AE reader Frank Smerke, regarding IEEE President Merrill Buckley's position on the supposed shortage of engineers:

"Mr. Buckley spoke at the June 11, Los Angeles IEEE Section meeting at Loyola University. He dealt at length with engineering unemployment. Unfortunately the attendance was poor, so few could question him first hand. Had Mr. Smerke been there, he might have realized that Mr. Buckley's positions are not very different from his own. Those engineers who wish to see IEEE change, need to change themselves. They need to get involved."

*Editor: I can vouch for the fact that Mr. Smerke is involved in*

*engineering professional activities. The fact that he wasn't present for IEEE President Buckley's speech simply means that he was involved in some other professional activity. Note his letter below, an example of what he writes to newspapers, legislators and to AEA. However, the point is well taken. Too many engineers gripe about unprofessional treatment without doing anything about it. AEA is doing something about it, both by publishing this newsletter and by testifying in Congress.*

From F. Smerke of CA: - "Lack of protection from foreign-country competitors is the reason that venture capital has dried up. The economy can not and will not recover as long as General Motors and other major (U.S.) employers continue to move into Mexico, China and Poland and then are allowed to re-import their products for sale in the USA without compensating tariffs to offset wage differentials.

"Please see the United Nations Industrial Development Organization Treaty, signed by Ronald Reagan on January 17, 1980. Treaty Document 97-19, U.S. Government Printing Office job number 89-118 0, Washington: 1981. The treaty commits the USA to '...work toward the goal of ensuring that 25% of the world's industrial plant is located in the developing world by the year 2000... to insure that the goal will be reached, even if it means shutting down their own industries which are identified as being more suitably located in the Third World.' "

From L.F. of LA: - "In a front-page article on July 1, 1992, the *Los Angeles Times* announced that Hughes Aircraft Company will lay off 9,000 workers over the next 18 months and close 92 facilities. (The same announcement appeared in the July 6 issue of *Aviation Week & Space Technology* and probably in many other places.) About two thirds of the layoffs will be in Southern California. Hughes Chairman, C. Michael Armstrong, said that the company was taking these actions to improve competitiveness and adapt to lower defense spending. He said that the layoffs will fall across all occupations, but will hit upper-level managers especially hard, adding, '...this is going to affect good people, professional people, management people, high-salary people, friends of ours.' Because Hughes is a heavily technologically-oriented company, it may safely be assumed that a good number of the managers to be laid off are engineers and scientists. The *Times* article noted that this elimination of 9,000 workers does not include additional job reductions resulting from: (1) attrition caused by a hiring freeze; (2) Hughes' agreement to buy General Dynamics' Southern California missile operations, which could result in the loss of 4,500 jobs; (3) Hughes layoffs of 3,000 workers already this year."

*Robert Bruce, AE Editor*

*P.O. Box 4493, Great Neck, NY 11023*

## APPLICATION FORM

AMERICAN ENGINEERING ASSOCIATION  
P.O. Box 820473, Fort Worth, TX 76182-0473

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City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Home Phone: \_\_\_\_\_ Work Phone: \_\_\_\_\_

Engineering Discipline: \_\_\_\_\_ Industry: \_\_\_\_\_

MEMBERSHIP FEE (\$20.00)

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

All members receive a subscription to the AEA publication "American Engineer".

Annual membership begins on receipt of Application. Dues in the American Engineering Association are tax deductible

Page 3 - November, 1992 - "American Engineer"

# U.S. Needs New Architecture For Powering Its Economic Engine

By Robert J. Kuntz, Ph.D.

San Jose, Calif. enjoys a unique tourist attraction called the Winchester Mystery House. It was the product of 38 years of construction by Sarah Winchester, daughter-in-law of the famed Winchester Rifle manufacturer. The house had 160 rooms when she died and included doors opening onto blank walls, staircases stopping at ceilings and blind chimneys.

Like Sarah Winchester, the White House, Congress and state governments have continued to build a body of laws, regulations and policy without any notion of what is being constructed.

The analogy goes further. The U.S. today has no architectural (strategic) plan to accomplish anything, since there is no vision of what the country should be.

There are individual construction drawings. Each has a well developed marketing plan, financed with political action committee funds to suit its own interests.

The product is a hodgepodge of policy with no unified objective—an American Winchester House. The owner is still alive and construction continues as new vested interests appear on the building site with plans for further modifications. As of Jan. 1, California added more than 1,200 new laws and an equal number of administrative regulations to its books. The federal government and the other 49 states have similar "accomplishments."

There is an old engineering phrase that goes, "when all else fails, read the instructions." The fact is there is no set of instructions for America's future.

America's great institutions today are process-oriented. The important thing is to continue modifying regardless of the product. This has resulted in a "building" that lacks a unified function. The nation is institutionalized upon paradigms that have no relevance to what is happening domestically or internationally.

For example, the Omnibus Tax Revision Act of 1986, designed to increase revenues, contributed to the failure of hundreds of savings and loan institutions that had become cavalier with other people's money under prior tax, investment and regulatory policy. The result was not new revenues but a \$500-billion burden for U.S. taxpayers. The 80,000-word law also drastically affected investment and capital flow, further stimulating leveraged buyouts in contrast to real growth in strategic assets.

## POLICY SHORTCOMINGS

The modern, overused term, "competitiveness," justifies many programs lacking in focus. Economists have observed that America is in a post-industrial era and is moving into a service and information-based economy. As the economy tightens, the vested interest groups increase their demands, and the political system, financed by the same interest groups, builds more blind chimneys, staircases leading into ceilings and doors that open onto blank walls.

The old saying, "as you sow, so shall you reap," is still relevant. The nation's policies will determine the direction of its economy. U.S. policy currently favors:

■ **Debt-service over profit.** Debt service reduces taxable gross income, but profits are taxed before they can be used to provide capital improvements, fund research and development or to distribute dividends.

■ **Transfer of asset ownership over the creation of new sources of wealth.** Tax policy stimulates large companies to acquire the assets of smaller ones through mergers and acquisitions, rather than invest in their own new products with associated financial and legal risks.

■ **Merchandising over manufacturing.** Many U.S. major industrial firms have reduced or discontinued domestic manufacturing and now purchase their components and full assemblies in other nations. Automobiles, electrical appliances, athletic equipment, tools and even weapon systems, made offshore, carry American labels. Taxes, regulatory practices and product liability lawsuits all contribute to de-industrialization.

■ **The destruction of the technology infrastructure.** Federal procurement and local property tax laws promote the destruction of technology infrastructure from completed or cancelled defense and space

contracts. For example, the U.S. landed humans on the Moon and, then the capability to go back was intentionally shelved by the Nixon Administration.

Contractors had to dispose of all hardware, files and government-owned facilities and equipment to receive final contract payments. Rocket engines, vehicles, test stands and equipment were sold as scrap. Correspondingly, contractor-owned equipment and facilities were also sold or destroyed to remove them from property tax roles. The combined result was destruction of the nation's largest expendable space vehicle launch system.

It is time to start with the basics and establish a foundation for a new American "home." As with any building, the architect must have a vision of the completed edifice. The nation can either continue the current practice of random policy construction or build a beautiful, functional facility that can meet the needs of its people today and in the future. Some of the specifications are:

■ **A rededication to technology—the fuel of the nation's economic engine.**

■ **Application of technology to high-quality products that excel in the domestic and world markets.** Production must be encouraged in efficient, high value-added enterprise that raises and distributes domestic wealth.

■ **Creation of sufficient taxable cash flow to finance the nation's infrastructure, education and social needs.** Broad distribution of wealth is essential to building the political support for policy change.

For the past 50 years, the major stimulus for U.S. technology research and development has been the design, development and production of weapons and space systems. Many commercial products today are the result of technologies developed for defense applications, microelectronics, cryogenics, digital computers, integrated circuits, advanced materials, lasers, numerically controlled machine tools, satellite remote-sensing and communication systems solar photovoltaic cells and so on.

However, the economic return on investment for weapon systems spin-off technologies is small compared with the commercial, market-driven products created by trading partners who focused on economic power rather than military superiority. Japan comes to mind.

The nation must have a goal, and rededication to technology, product development and industrialization serves that need. What is not needed is more creative government spending. The past policy approach to complex-problem solutions has been to throw money at the symptoms.

## REWARDING PRODUCTIVITY

Government must create a positive environment for the private sector to do what it does best. A new government-funded research center at a university may not be as important as a positive tax and investment policy that stimulates long-term capital flow and the growth of productive enterprise and domestic wealth.

Independent entrepreneurship policy should focus on stimulating and rewarding creativity and productivity. Existing statutes, regulations and policies should be re-evaluated as to whether they support or impede invention, technological innovation and industrialization.

An industrial-based economy must become axiomatic, and the political forces should debate on how best to accomplish this objective. The California Engineering Foundation, offering its unique capability as a catalyst for change, has initiated a four-component project to begin the long-term economic revitalization process. The foundation is involving representatives of industry, government, academia, trade, professional and technical associations and societies in all facets of the project.

The foundation's efforts will coalesce in a summit scheduled for Nov. 12-13, in Costa Mesa, Calif. This meeting will be the beginning of a coordinated effort to make fundamental changes, thus creating a positive policy environment in all sectors for an industrial-based economy.

The future of the nation is at stake. Like the Winchester Mystery House, more staircases to ceilings and doors entering blank walls can be built, or the nation can establish the architectural goal of greatness and mobilize its resources.

For the first time in 50 years, America is in a position to apply its



technological resources in a manner not driven by weapons and defense, and yet maintain a defense capability second to none in the world. How the nation makes this transition will determine its destiny.

Robert J. Kuntz, Ph.D., is president of the California Engineering Foundation, a non-profit organization that addresses science and technology policy and raises public awareness and appreciation of technology. He also is president of Professional Engineering and

Research Consultants, Inc. a Sacramento, Calif.-based consulting firm specializing in the socioeconomic aspects of technology. He spent 19 years in the aerospace industry, focusing primarily on liquid rocket engine development, exploratory development and diversification.

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## Who Is Doing What To Whom?

Robert A. Rivers

PO Box 129, Union, NH 03887

The expectation of a lifetime engineering career is rapidly disintegrating. A confluence of negative influences upon demand is affecting all engineers but new entries and older engineers more seriously. At the same time, the available supply has been enhanced by several new developments.

The demand due to the domestic economy normally supporting slightly over 50% of engineering employment has been reduced by the lingering recession. The small business sector that normally creates the greatest portion of employment expansion coming out of a recession has been hamstrung by the regulator induced banking crisis. The threat of having the regulators classify perfectly good small business loans has made it more risky to lend to small businesses. The result of regulatory pressure is that the banks now have more than 50% of their assets in government notes and bonds leaving less for commercial sector loans.

The defense sector offering employment for almost 14% of all engineers has gone from contributing to expansion of demand in most of the eighties to contraction of demand in the 90's. There is little ability to forecast the defense demand because congress does not pass budget authorizations until just before or just after the start of the new fiscal year. In addition, employment resulting from one budget level does not necessarily result in proportional engineering employment at another budget level. Anecdotal data indicates a much greater reduction in defense engineering employment than would be suggested by the reductions in real expenditures. Further planned reductions will continue to produce career dislocations. If peace is really declared, the eventual defense employment reduction could be 90% instead of the 40% expected.

Engineering employment due to exports is the second most important sector. Exports support approximately one quarter of employment. It has been found that exports have been growing at a long term real rate of 6.2% modified by a highly correlated dependence on the value of the trade weighted dollar. The value of the dollar leads export volume by five quarters and can thus forecast exports and export employment. With the present low value of the dollar, exports have a positive influence on the demand for engineers.

On the demand side of the equation, the Federal Reserve, the Bank Regulators, and Congress are the controllers. Congress controls defense expenditures. Congress controls banking regulations. The Federal Reserve controls employment when it wants to produce a recession. The Bank

Regulators also control unemployment with their ability to restrict credit. In the recent past, the Federal Reserve and the Bank Regulators have been working at cross purposes. While the Feds have been trying to expand credit, the Regulators have been restricting credit by their continuing heavy handed regulation. The Fed's control of the economy has been likened to a string, easy to pull but difficult to push. The over regulation and the institutionalized memory of it will probably cause the banks to respond poorly to Fed control for some time. The economy will probably show poor performance for an extended period. The result will be extended higher levels of engineering unemployment until the excess supply transfers into other occupations.

The supply consists primarily of present practitioners, new graduates, immigrants, transfers and upgrades. New graduates will continue to experience difficulty in entering the workforce. In the 1982-83 recession, an estimated abnormal 15% of the new graduates never entered the engineering workforce. A similar situation is probably prevailing now especially with the downsizing at larger employers that normally provide initial training. New immigration regulations can result in the addition of tens of thousands of engineers per year to the supply. No current data is available, the latest data is for 1990 prior to the implementation of new-regulations. Transfers and upgrades are probably lower than normal but the long term effect of transfers and upgrades is to provide about 30% of the employed population. No current data is available.

Who is doing it to whom?

Congress is doing it to you by cutting defense expenditures without compensating increases in other engineering programs, by scheduling increases in required reserves of the banks, and by increasing immigration quotas for engineers.

The Federal Reserve is doing it to you by scheduling a recession on top of a banking crisis.

The bank regulators are doing it to you by creating the banking crisis.

Your employers are doing it to you by using your own money to promote enrollments with such programs as Discover E, by outsourcing engineering, and by using your organization to collect salary information to keep you in line.

The medical profession is doing it to you by making it so expensive for health insurance that employers are forced to get rid of high risk older engineers.

A large majority of you are doing it to yourself by failing to demand that your professional society produce a controlled engineering practice environment defined by the profession.

On a positive note, the administration is doing something for you by trying to promote exports.

WE, THE UNDERSIGNED VOTING MEMBERS OF THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC. (IEEE), NOMINATE MICHAEL J. WHITELAW, 1988/89 VP-REGIONAL AND 1990/91 VP-PROFESSIONAL, FOR THE OFFICE OF PRESIDENT-ELECT OF IEEE FOR THE 1994 TERM AND THE OFFICE OF PRESIDENT FOR THE 1995 TERM.

Name (Please Print)	Signature	Mailing Address (as in IEEE records)	Membr. # (if known)	Date
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If elected, I will serve  
*M. J. Whitelaw*

Please return to Michael J. Whitelaw, 556 Maple Hill Ave., Newington, CT 06111-3618, by May 15, 1993.

## Weak Regs Endanger Pensions

Federal investigators report "serious" weaknesses in the way the government is safeguarding the pensions of 62 million American workers and retirees.

The General Accounting Office (GAO), Congress' investigating arm, claims that shoddy audits of private pension plans are exposing billions of dollars in pension assets to an increased risk of fraud.

GAO issued the finding in a new study in which it evaluated the adequacy of audits done by independent public accountants for pension plans with 100 or more participants.

Such audits are required under the Employee Retirement Income Security Act (ERISA), and are a key safeguard for protecting much of the \$1.5 trillion in assets held by 55,000 large plans subject to audits.

"What this (study) means for retirees is that their pension plans are not getting good audit support," says Gerald W. Peterson, assistant inspector general of the Labor Department. "They should be concerned." GAO promptly called for legislation to strengthen auditing requirements.

But the fact that some audits are flawed doesn't necessarily mean their assets are at risk, says Washington pension attorney Michael S. Gordon. "There can be all kinds of bungling in the audit but that doesn't mean the plan has serious problems," he says. "The problem is that it could have."

GAO's findings support conclusions reached three years ago by the Labor Department's Inspector General (IG). In 1989, the department's acting IG, Raymond Maria, touched off a furor when he warned that lax enforcement of pension laws was creating a "ripe environment" for fraud.

Maria contended that the potential existed for a savings-and-loan-type scandal in the pension field. He based his charge on an IG study showing that 64 of 279 randomly selected plan audits violated at least one auditing rule.

Also, he noted, the Labor Department's Pension and Welfare Benefits Administration, which monitors pensions, is able to investigate less than 1 percent of all plans, making these independent audits especially crucial to the enforcement of ERISA.

Initially, Maria's warning was rejected by the Pension and Welfare Benefits Administration, which argued that Maria's concerns were exaggerated.

The controversy prompted several congressional committees to ask GAO to review Maria's findings. In doing so, the agency randomly selected 25 audits from among those the IG reported as violating at least one auditing standard.

Of the audits investigated, more than a third "had audit weaknesses so serious that their reliability and usefulness were questionable," GAO reports.

In some cases, GAO says, the auditors failed to adequately test investments amounting to millions of dollars or to test the appropriateness of millions of dollars in payments to insurance companies. "Overall, the IG's criticism of employee benefit plan audits was reasonable," GAO finds.

GAO singled out for criticism a provision in ERISA that permits accountants to conduct so-called limited scope audits. The provision allows pension plans to exclude from the auditing process investments held by certain regulated institutions, such as banks and insurance companies.

"This (provision) so weakens the audit that we've taken the position that you would almost be better off not having one," says assistant IG Peterson.

"In light of what's happened in the banking and insurance industries, we can no longer blithely assume these industries are 100 percent sound," says Judy Hushbeck, a policy analyst at AARP's Public Policy Institute.

As one part of a larger reform package, GAO urged Congress to eliminate the "limited scope" provision—a recommendation embraced by the Labor Department as well. Full-scope audits are needed, says Ian Dingwall, chief accountant at Labor's Pension and Welfare Benefits Administration.

Other GAO recommendations, however, turned out to be more controversial. A case in point: GAO's proposal that auditors be

required to report fraud or serious irregularities immediately to the Labor Department.

Some experts agree. "If the auditors don't do it, who's going to do it?" asks Peterson.

But the American Institute of Certified Public Accountants strongly opposes that move, contending it would turn auditors into policemen while violating their confidentiality with clients.

The Association of Private Pension and Welfare Plans, which represents plan sponsors, also objects, saying it would put auditors and clients in an adversarial relationship.

"The vast majority of plans operate under very strict scrutiny," says James Klein, the association's executive director. "People who operate them take their responsibility seriously."

Whoever is right about this provision, one thing is clear: There isn't going to be corrective legislation anytime soon. Sources on four Senate and House committees with jurisdiction say bills are unlikely because the issue right now doesn't have a high priority with lawmakers.

But GAO officials say they will continue to press for improved auditing practices to deter potential wrong-doers. "We're not making these suggestions to catch people," says GAO's David L. Clark, who supervised the just-released study, "Once you catch them the money's gone. It's more a matter of prevention, not detection."

## Check It Out

Information on how to monitor a pension plan is available from two sources:

For a copy of "How to Obtain Employee Benefit Documents from the Labor Department," write the Pension and Welfare Benefits Administration, Department of Labor, Public Disclosure Facility, Room N5507, 200 Constitution Ave. N.W., Washington, DC 20210.

To order a copy of "Guide to Understanding Your Pension Plan," send a postcard requesting stock no. D13533 to: AARP Fulfillment EEO294, P.O. Box 22796, Long Beach, CA 90801-5796. Please allow six to eight weeks for delivery.

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## After The Pink Slip: How To Handle The Job Merry-Go-Round

Monday morning, you come to work only to discover a pink slip on your desk: You've been laid off. You knew your company was experiencing tough times, but you didn't expect it to affect you. Now what?

Given the wave of economic difficulties and corporate downsizing that's hit the US electronics industry, engineers are facing the prospect of losing their jobs more often. Learning to cope with job changes has therefore become a necessary career skill, says vice president John Challenger of Challenger, Gray, & Christmas Inc. (Chicago, IL). The firm is the nation's oldest outplacement company, with 16 regional offices in the US and abroad.

"These days, you don't see many people retiring after 35 years with a gold watch," says Challenger. Each year his company counsels nearly 2500 displaced employees, including many engineers. Since the mid-1980s, the average employee's length of service has dipped to eight to 10 years, he notes. Engineers are likely to face four or five job changes during their working lives.

### Downsizing: a way of life

"Downsizing is not a passing fancy, so people must learn to manage the time spent between jobs as normally as they do the time spent in a job," says executive vice president Charlie Ehl of the Executive Career Resource Group (Wellesley, MA). The firm's three offices provide outplacement and career management services to nearly 500 clients a year in New York, Massachusetts, and Connecticut.

Says Ehl, "If you're down on yourself or angry or bitter, that will come through to prospective employers. Job skills and knowledge are important, but the real thing bosses look for is someone who confidently projects their company's values."

(Continued)

(Continued from page 7)

## Pink Slip

### Consider the unlikely

Through his experience with hundreds of job seekers, Challenger notes that opportunities often arise in unlikely places. "For example, some of the best current job prospects exist with companies that are experiencing economic difficulties. Unless it's going bankrupt, a troubled company has a more urgent need for qualified people than many economically fit companies."

These troubled companies are looking for invigorating talent, says Challenger. In fact, as many as 40% of the job seekers he counsels find new jobs at such companies. "There is always a ready employment market at such companies for people who show they can improve business," says Challenger. "Negative reports, such as news about layoffs, can be a signal the firm needs an immediate infusion of fresh talent."

Challenger notes that lay-offs often require realignments and restructurings that can also create new jobs. "You won't know until you ask, because many of these new positions haven't even been formalized yet," he says.

Many of the electronics companies experiencing difficulties don't have histories of major problems during more favorable economic conditions, Challenger points out. "These firms have the strong bases and resources to snap back when the economy improves," he says. "If you're hired and perform well, chances are excellent you'll stay on the payroll when the company regains its stride."

### Support helps with success

A supportive environment is the common element among Challenger's clients who successfully deal with losing a job. These individuals draw upon this environment, often consisting of family, friends, or professional mentors. In fact, deeper and stronger relationships are frequently a benefit of losing a job.

In counseling displaced employees, Ehl has discovered that becoming unemployed involves far more than losing a paycheck. Personal identity and self esteem are often tightly intertwined with a person's professional life. "People tend to identify themselves with their roles," he explains, "and forget about their own personhood."

Losing a job provides EEs with a chance to re-evaluate themselves, see themselves as others do, and reappraise what job would make them happiest. "Developing more sensitivity and considering the perceptions of others is a positive good that can carry over into

all your relationships," says Ehl, "and help you be a more complete person."

Engineers seeking jobs, continues Ehl, must consider the needs of others by discarding the "differential" thinking their discipline has traditionally taught, where engineers are considered part of a select group. Instead, they should adopt an "integrative" approach to their profession, where everyone works together as a team.

"Technical professionals consider themselves valuable because of what they know. In employment situations, they tend to rely on and leverage that fact," observes Ehl. "But in reality, most companies hire the person who shares the organization's business philosophy."

For that reason, Ehl believes, technical professionals cannot separate "pure engineering" from other corporate functions. Instead, they must relate their work to the company's overall marketing and customer-service goals and demonstrate this understanding to potential employers.

"Companies can't hire engineers to come in and form their own club," says Ehl. "Employers are looking for engineers who have a market perspective, who can see customers' needs and devise solutions that will attract new business."

While Ehl advises engineers to consider others' perspectives, he nevertheless counsels clients to avoid being "company men" and to instead view themselves as independent economic entities. "Security today doesn't come from an employer," Ehl concludes, "but from within. You need an entrepreneurial attitude about your career. Marketing yourself continues through your entire working life, whether you're in a job or between jobs. That's why losing any one job shouldn't throw you too far off balance, since your real work is ongoing and hasn't really changed."

*Mark Ward, EDN News Contributor*

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*(Reprinted from "EDN News" (April 30, 1992). Copyright 1992 CAHNERS PUBLISHING COMPANY, a Division of Reed Publishing USA.)*

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