

# AMERICAN ENGINEER<sup>TM</sup>

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## Contract Engineering

**Opportunities:** A quantity that, for engineers, varies like the weather in New Jersey. Opportunities for engineers vary with supply (degree production and immigration) and demand, and now we can add age discrimination. We have seen our engineering associates cut out of the profession to work in appliance stores like Trader Horn, etc., and be forced out of the profession forever. We also know our young graduates are not getting the engineering jobs for which they studied so hard.

On the positive side we have Contract Engineering (CE) or Job Shopping which, although also influenced by supply and demand, does provide some opportunities for those considered unemployable by age. Contract Engineering can also provide an alternate path to direct employment with a company.

Another important point is the assistance the Contract House provides in searching for a position for you. This third party arrangement is important since their assistance and contacts will help you, and they are motivated by profit. There is nothing better than having a third party recommend you for a position, and they may know about a job around the corner that you will never know about.

Besides the fact that there are so very many engineering types divided by discipline and specialties, we are also separated by the method in which we market our services. The point I like to stress is that we are all members of the same engineering community and we should not divide ourselves because we are direct employees, contract engineers (job shoppers) or independent contractors. It is time we all started helping each other and unite to discuss our opportunities and our problems. Stay tuned in to your profession and your associates. Don't be a diode! Let's talk and get information moving in both directions.

Since our last discussion on Over-Time one of our engineers increased his OT pay by \$14 per hour. Apparently, the Contract House was not paying the contract engineer his full OT rate. A little effort resolved this problem. There should be more in this AE about OT and the law (see page 4).

**CONTRACTS & NEGOTIATIONS:** The contract is an agreement between you, a CE, and the Contract House alone. It is an agreement between two parties, but it is also influenced by law. Try to delay the signing of any contracts between the Contract House and yourself. You can usually wait until the day or week you start the assignment. Once you are placed in your new assignment you will be in a better position to negotiate.

The contract is only between you the CE and the Contract House (CH). This contract will specify your DLR, OT rate, vacation, holiday, benefits and per diem. It will also include a Patent Agreement that you should not sign. The client company will want you to sign the Patent Agreement, and you can't agree to both parties.

**NEGOTIATING:** Initial negotiations will begin prior to any interview when a CH representative calls you about a job. The conversation will start with your availability and the requirements the client needs filled. Tell them what you have done, and know what is on your resume. Remember, you want this job so don't shoot yourself in the foot. Keep the conversation friendly and maintain a positive attitude.

**Direct Labor Rate:** Next they will bring up the rate of pay. How much will you accept? If you don't know, ask them what the company is paying their other people. Start high, since you can't go back up the pay scale. Forty dollars per hour is quite reasonable for engineers today and higher for specialties. It is most important here to know what is going on, so keep informed by speaking with your friends about the job market.

**Overtime Rate:** Overtime is controlled by state labor laws so, if they tell you the rate is straight time for OT, just ask what the state requires. Some shady Job Shops are billing time-and-a-half for OT and paying the CE straight time. Since you are hourly you should be getting the time-and-a-half rate.

**Per-Diem:** Perdiem (PD), today is almost unheard of due to the high supply and the low demand for engineers. Some Contract Houses will break out a portion of your pay check, if you qualify, for PD and pay you the Federal Recommended Rate for the geographic location of the company. This is taken off the top of your pay and not taxed. You may have to justify this at the end of the year so be careful and honest. However, some seedy shops will try to base your OT rate on your base pay less the specified PD rate. Please don't tolerate this and get some advice when you need it.

**Vacation - Holiday Pay:** Although not as significant as the above, this is still worth about 4% of your gross. Just know it may be available, but in this job market with our lack of strength, it is hard to fight for any benefits. It is hard enough just breaking even and getting a fair deal.

This should be enough to consider for a while. Keep the issues open and discuss them often. When you get something share it with others in AEA.

Richard F. Tax, AEA V-P

PO Box 2012, River Vale, NJ 07675-2012.

## Editor's Column

### ILLUSORY JOB ADS

This is a long-running column in AE, deservedly. Here's a job ad apparently slated for aliens. I judge that by the low salary (\$37.1K) and the heavy responsibility. Note that the job title is 'Project Director.' The phrase, "... proof of legal authority to work in the U.S." generally accompanies ads slated for aliens.

PROJECT DIRECTOR (Danvers) Design and develop novel appliances, including proposals, prototypes and testing. Supervise all aspects of product development projects for clients. Act as a liaison between clients representatives and company president. Coordinate all vendors, suppliers, and personnel assigned to a given project. Project Director is responsible for seeing that all projects are completed on time, at the specified level of completion, at the expected quality and at or below the planned cost. The position requires director to report to the president any problems that may materially influence the conduct of the project or the relationship with the client, before further activity can be implemented. The project director must report project status to the president and communicate with the client (if any) on a weekly basis. The project director must approve any expenditure or purchase that relates to the project and is ultimately responsible for billing each project's phases and sub-phases. Additionally, project directors are charged with completing "Daily Activity Sheets" and employee's sheets for payroll purposes. Project Directors are also required to travel nationally and internationally, as the fulfillment of the project demands. Finally, project director is intimately involved with national and international marketing. Applicants must possess a B.S. in engineering, two years experience as a project manager, and possess proof of legal authority to work in the U.S. Mon.-Fri., 9-5. \$37.123/yr. Submit resume in duplicate to: Case No. 60981, PO Box 8968, Boston, MA 02114.

### THE "BIT TAX"

The Dec. 2 '96 issue of *Barrons* contains an article entitled, "Phone Bill," which describes a battle between Internet Service Providers (ISPs) and regional Bell telephone companies. The results of that battle will drastically affect those of you who 'surf the Net,' use E-mail, or send FAXes over the phone line. Regional Bell companies have started a multi-million dollar campaign to persuade Federal regulators to let them attach a surcharge to phone bills for use of the phone to transmit data. The surcharge would be in the form of a long-distance access charge, for access to the ultimate recipient of your E-mail, not the local number of the ISP. I've spoken to several persons at FCC, and I'm not aware of any scheduled FCC hearings. However I do know that the FCC is beginning deliberations in 12/96. I urge all readers to: 1. Get and read the article; 2. Write FCC Secretary William Caton (address below) and FCC Commissioner Reed Hundt (same address or E-mail rhundt@fcc.gov) to express your opposition to this "BIT TAX." In case you feel disinclined to write a letter, here's a sample of what you can say. Feel free to use as is or edit to suit your taste.

Access AEA on the  
World Wide Website  
<http://www.aea.org>

Your return address  
City, State, ZIP  
Date

Mr. William Caton  
Secretary FCC  
1919 M Street NW  
Washington, DC 20554

Dear Sir:

I understand the regional Bell telephone providers are requesting permission to attach an access charge (or other rate increase) to their bills for use of the phone to transmit data. I urge you to deny any such request, as this would have a smothering effect on all Internet use, all E-mail and use of the phone to transmit FAXes. As much as the phone companies contribute to the wealth of the U.S., the enormous number of Internet, E-mail and FAX users contribute far more. To permit a surcharge is to penalize the nation for its progress in communication. Don't let it happen. Thank you for your consideration of this request.

Yours Truly,  
Signature  
Name printed

### "A RETIREMENT HOME FOR IMMIGRANTS"

This is the title of an article from the 2/20/96 issue of *The Wall Street Journal*, written by Robert Rector, senior policy analyst for welfare and family issues at the Heritage Foundation, (a Washington-based public policy research institute). He contends that the U.S. welfare system is rapidly becoming a deluxe retirement home for the elderly of poor countries. The article states that in 1994, nearly 738K noncitizen residents received SSI aid, which is a 580% increase in just 12 years (up from 127.9K in 1982). He states that if current trends continue, the U.S. will have 3M non-citizens on SSI within 10 years. The article includes a table on SSI and Medicaid costs from the House Ways and Means Committee: "Overview of Entitlement Programs: 1994 Green Book." It is reprinted below.

Cost of a Free Lunch				
Projected costs for resident aliens (with current growth in caseload)				
	NUMBER OF RESIDENT ALIENS ON SSI	(IN BILLIONS)		
		SSI COST	MEDICAID COST	TOTAL COST
1995	854,323	\$4.3	\$7.7	\$12.0
1996	988,794	\$5.1	\$9.3	\$14.4
1997	1,144,430	\$6.1	\$11.4	\$17.5
1998	1,324,563	\$7.3	\$14.0	\$21.3
1999	1,533,049	\$8.7	\$17.0	\$25.7
2000	1,774,351	\$10.4	\$20.8	\$31.2
2001	2,053,634	\$12.3	\$25.4	\$37.7
2002	2,376,876	\$14.7	\$31.0	\$45.7
2003	2,750,997	\$17.5	\$37.9	\$55.4
2004	3,184,003	\$20.9	\$46.2	\$67.1
TOTAL		\$107.3	\$220.7	\$328.0

Note: Average growth rate in caseload from 1982-1994 was 15.74% per year. Outyear projections are based on this figure. Medicaid costs per recipient were based on the average Medicaid costs of elderly disabled people. Future Medicaid costs are allowed to grow at the rate of medical inflation (5.5%). SSI costs per recipient were allowed to grow at the rate of inflation (3.0%).

Source: SSI and Medicaid costs from Committee on Ways and Means, U.S. House of Representatives, *Overview of Entitlement Programs: 1994 Green Book*.

Why do I include this information in an issue of AE? Because it illustrates something damaging to the well-being of the nation. As the nation goes, so goes the interests of those U.S. engineers who are employed, since they are among the taxpayers who support the mass of elderly, noncitizen SSI recipients. Also because a significant part of the population increase in the U.S. is attributable to influx of aliens, both legal and illegal. Environmentalists contend that the U.S. population should have a lower increase, or none at all (Zero Population Growth). This editor agrees with all these hypotheses. Tell me what you think.

#### END-OF-YEAR WISHES

This issue of American Engineer will be the last in 1996 or the first in 1997. In either case, I offer these wishes to our loyal readers. I wish for you what I wished for myself, before I was induced to retire in 1990: That you shall, during your career, function as a professional; that your colleagues shall do likewise.

Based on the leveling of engineering salaries and the virtual disappearance of overtime pay, I judge that there continues to be a surplus of engineers. The expansion of consulting as an engineering occupation attests to that fact. Many of these consultants are unemployed engineers, although a small fraction of them are actually consultants. This is despite the fact that Department of Labor reported unemployment for engineers is around 1%.

Why do you read American Engineer? I hope for the same reason that I continue to edit it: to contribute to the conversion of engineering into a profession. I stated in a past issue that a professional is a person of special skill that is publically recognized, derived from specialized learning, who confronts on equal terms the client or clients that pay his/her fees. A salaried engineer (the vast majority of practitioners) is totally subservient to the client who writes the salary checks—the employer. The tally of professions remains as always: medicine, law and the clergy. When will we be added to the list? When we obtain the critical mass to propel us into the list ~~professions. This is accomplished by effort, against great~~ opposition. Good luck on your efforts (and mine).

Robert Bruce, AE Editor

## Engineering Degree Titles Becoming Tower Of Babble (Sic)

As if we did not already have enough silly names for engineering degree programs (aerospace engineering, agricultural engineering, computer engineering, etc.), a new one has been added: "software" engineering. The first article on page 101 of the *Electronic Engineering Times* of October 14, 1996 reported, "Rochester Institute of Technology (RIT; Rochester, N.Y.) last month initiated what it believes to be the first baccalaureate program for software engineering in the nation." The title of the new degree is Bachelor of Science in Software Engineering (BSSE). A subarticle on the same page, titled, "BSSE: Risks and rewards," mentioned the following criticism of the new program: "There is nothing

sufficiently new, different or necessary in the proposed RIT BSSE curriculum to warrant a separate program; existing software education (in EE or CS) covers the subject matter adequately."

Creating unnecessary new engineering degree titles has the following disadvantages:

(1) — it further fragments the engineering profession, making unity more difficult.

(2) — it provides a new basis for shortage-shouting; employers can complain of a "shortage" of graduates with a specific degree title while there are plenty of available graduates with other degree titles who can do the jobs. For example, civil engineers, because of their structural engineering background, are commonly employed by aerospace companies to do stress analysis work.

(3) — it adds to the government's difficulty of maintaining engineering employment statistics. For example, the U.S. Dept. of Labor maintains separate employment statistics for "aerospace" engineers, but nobody really knows what an "aerospace" engineer is (Is it any engineer who works for an aerospace company? Or is it just an engineer with an "AE" degree?).

(4) — it further confuses the public as to the functions of different kinds of engineers.

(5) — it can cause an identity crisis for engineers, who may not know exactly what engineering specialty they belong to.

(6) — in a multidisciplinary program, too much material may be covered too quickly if the program length is kept at four years.

In many cases, courses in a specialized program are given special names to make them appear different, when in fact they are just duplicates of courses in other programs. For example, the subject matter in a "strength of materials" course in mechanical engineering might be covered in a course titled "stress analysis for aerospace engineers" in an aerospace engineering program.

In most cases, training in narrow engineering specialties can be provided by postgraduate work, elective undergraduate courses, or continuing education courses. It is usually not necessary to create a whole new, separate undergraduate program.

*Disillusioned Engineer*

### Change Of Address

Please let us know if you change your address. We have no way of keeping up with you unless you let us know. The Post Office will not let us know. Just send the address label from the most recent issue of the "American Engineer" along with your new address to: AEA, P.O. Box 820473, Ft. Worth,

## Help AEA's Growth

Obviously our American Engineering Association can do more for our membership when our membership reaches some substantial number. What that exact number is can vary but, we know that to do more for the profession we need more members, more visibility and more working capital.

First, is AEA worth any thing to our members? In cold cash terms the answer is "yes." A recent discussion among a few engineers about contract engineering resulted in a gross increase of \$280 per week in income for one of the engineers. Another claimed we saved him approximately \$155 per week in tax dollars. Just the camaraderie among engineers, I believe, is worth the \$30 per year membership fee.

On the opposite page we have placed an advertisement for AEA. We would like to see copies of this in every plant and engineering location in the U.S. Our members can help by making copies of this page and initiating the distribution. Please help and continue the effort for as long as is necessary. We will keep you informed about the results. It's time for you to make things happen.

## Overtime Pay For Contract Engineers

By Dr. Frederick D. Chichester

Two contract engineers working side-by-side on the same task for the same client company too often discover that one of them receives time-and-a-half for hours worked overtime while the other receives straight time or no pay for overtime work. However, New Jersey Statute NJSA 34:11-56a4, the most recent version of which took effect on January 10, 1996, states in pertinent part:

Every employer shall pay to each of his employees wages at a rate of not less than ...\$5.05 per hour as of April 1, 1992 for 40 hours of working time in any one week and (50% more) for each hour of working time in excess of 40 hours in any one week, except that this overtime rate shall not include any individual employed in any bona fide executive, administrative, or professional capacity...

The discrepancy in overtime compensation cited above could result from the actions of either the client company, the contracting firm that placed the engineer with the client or both in the following ways:

1. The client company may have classified the engineer not receiving time-and-a-half for each overtime hour as a salaried employee exempt from overtime pay. According to a spokesperson for the New Jersey Wage and Hour Bureau, federal law specifies that an employer is *not* required to pay for overtime hours of work for a professional employee with salary of more than \$180 per week or a supervisory employee with a salary of more than \$155 per week! The spokesperson pointed out that both of these thresholds fall *below* the weekly equivalent of the state minimum wage (\$5.05 per hour x 40 hours per week = \$202 per week).

2. The client company may not have reported the overtime hours worked to the contracting firm.

3. The contracting firm may not have paid the engineer for the overtime hours for which it collected from the client company.

4. The client company and/or the contracting firm may be discriminating against one or more contract engineers on the basis of age, national origin, race, sex or other identifiable categories.

All of the above actions could be regarded as violations of either state or federal labor laws. However, the spokesperson for the New Jersey Wage and Hour Bureau stated that, due to budget cutbacks by the current state administration, the Bureau's current policy, with few exceptions, is not to investigate alleged violations of the wage and hour laws for employees receiving more than approximately eight dollars per hour. The following procedure is suggested for a contract engineer employed in the state paid more than eight dollars per hour not receiving time-and-a-half for each overtime hour worked:

1. Collect documentation that the contract is paid by the hour and that other engineers doing comparable work for the same employer are receiving overtime compensation.

2. Confer with the contracting firm about receiving overtime pay as prescribed by New Jersey statute.

3. Try to determine whether there are other contract engineers working for the same client company and/or contracting firm who are *not* receiving appropriate overtime pay and any characteristics that they have in common such as age, national origin, race or sex.

4. A group of contract engineers not receiving overtime pay due to alleged violations of the wage and hour laws could consult with a labor lawyer with respect to instituting a lawsuit under which they could collect double the lost wages plus attorney's fees from the client company and/or contracting firm. In view of the magnitude of the potential settlement, many companies may choose to settle with the injured employees rather than risk the lawsuit.

Careful review of the applicable statutes in other states and consultation with their equivalents to the New Jersey Wage and Hour Bureau probably would yield comparable information for these states as well.

**FINALLY!**  
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that works FOR engineers.*

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for Engineers.**

**AEA** is dedicated to the enhancement of the engineering profession and U.S. engineering capabilities.

**AEA** is a nonprofit corporation with members in virtually every high-tech center and industry in the United States.

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**AEA** testified against and disproved the engineering shortage propaganda promoted by the National Science Foundation.

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**AEA** was the only engineering organization to testify in person against the 1990 Immigration Bill which opened the floodgates for foreign engineers to enter this country permanently.

**AEA** engaged legal action against provisions in the Free Trade Agreement which surrendered our rights to foreign trade attorneys.

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## Reader's Voice

This column in the "American Engineer" is for readers to voice an opinion about issues that affect the professional life of an engineer or other technical professional. Readers are encouraged to write AEA with their professional concerns. Each submission should include the name, address and phone number of the writer. Except for short excerpts, we'll publish the writer's name, city and state (unless the writer requests anonymity). In that case, we'll publish initials, city and state. Let's hear from you.

**From T.J. of Beavercreek, OH:** - Regarding the article, "Big Import: Cheap Foreign Labor," every sensible person recognizes the true meaning of 'prevailing wage.' (It means whatever the employer can get away with paying, regardless of laws about minimum wage or restrictions on the use of aliens.) The abuse of this by unscrupulous employers should be halted. In addition, it appears that because the imported worker is fulfilling a pressing need that can not be otherwise met, the employer should be willing to pay EXTRA for the unique help in meeting this severe requirement. Therefore, a tax on each imported worker in the amount of say \$1500 per month seems completely reasonable. The employer would benefit and thus be happy to pay, and the domestic supply of talent would not be adversely affected.

*Editor: This letter refers to an article in the Dec. '95 issue of "AE". I apologize for publishing it so long after its arrival. It still has relevance, even though one may dispute the exact levy on the employer for jobs held by alien workers. Perhaps this levy would magically reduce the use of aliens in jobs that could be filled by U.S. engineers.*

**From L.F. of L.A.:** - I'd like to call your attention to an article in the 10/96 issue of *Engineering Times*, the publication of the National Society of Professional Engineers (NSPE). It is entitled "Lifelong Learning: Riding the Whirlwind," and it gives examples of companies that are allegedly in the lead in providing employee training. One example was Motorola. The article states, "At Motorola, which has established its own 'Motorola University,' the company's goal is for each employee to receive at least 40 hours of training a year." Forty hours a year, equivalent to a week's work, amounts to only about 2% of an employee's time, and this company is supposedly a leader in employee training. However, to Motorola's credit, this goal of 40 hours is a minimum, rather than the average or maximum. The article also cites Boeing as an example.

The article continues, "But few companies do so much, particularly when it comes to education that will prepare an engineer to move into new areas. Management may talk about the importance of 'professional enhancement' or 'continuous learning,' but too often it's just talk. For now, the unfortunate reality for most engineers is this: Preparing for the brave new blustery world will mostly be their responsibility. They can expect little help from above."

*Robert Bruce, AE Editor*

*Box 620726, Little Neck, NY 11362*

## Editorial

### Bold Step

*By Loring Werbel*

Motorola Inc.'s decision last week to deny sales of switches to known manufacturers of land mines is sure to fuel the debate on the limits to corporate "stakeholder responsibility." Disputes have blazed in recent months as corporate boards have pondered such matters as Burmese divestiture and Maxxam Inc.'s plans to clear-cut old growth timber in California.

Many corporate officials champion the concept, perhaps most eloquently expressed by Cypress Semiconductor chief executive T.J. Rodgers, that corporate responsibility begins and ends with maximizing shareholders' return on investment. Poppycock.

**Regulatory agencies do not arise because government likes to pick on business.** Such agencies are created because corporations' short-term goal of maximizing profits often clashes with the broader community's long-term goals for environment and social policy. Granted, shareholders, if they are so inclined, can pressure corporate directors to abandon socially or environmentally destructive policies. But could such a mechanism operate in time to stop, say, Robert Hurwitz of Maxxam from squeezing everything he can from Pacific Lumber assets to make up for losses elsewhere?

Motorola has stepped into dangerous territory by refusing to sell components for products that neither the United States nor the United Nations has had the courage to ban. Critics will say that the company has inappropriately appointed itself judge of its customers' moral fitness. Skeptics may dismiss the effort as mere PR. Motorola itself will be hard-pressed to carry out its imposed ban, since land mine makers will be able to purchase Motorola switches through other channels.

Yet shareholders should applaud Motorola's courage in walking away from sales for the sake of a goal more far-reaching than profit. Maximized ROI can, in some cases, be reconciled with socially responsible business practice. But investors must realize that profits will sometimes take a hit when a company tries to do the right thing.

Until they do, any company that takes a step toward broader responsibility risks seeing the effort blow up in its face.

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### Letter To EE Times

T.J. Rodgers comes from an interesting world indeed. It is one where the real problem with companies is those "employees who sleep in the corporate womb" and a government that meddles with corporations, thwarting the wisdom of their leaders. Get real, T.J. In my experience, layoffs happened because the CEO and top managers failed to adapt

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to market changes, ignored problems or made strategic blunders. In nearly every case, the top people were let go with a "generous package," and the engineers and workers were shown the door. In one company, they didn't even get the customary two weeks' severance.

I emphatically disagree with his statement that "the choices that companies have made in a free market have consistently enhanced the lot of American workers for more than 200 years." If companies still had the freedom to make some of these choices, we would still be working in sweatshops under the hazardous conditions that prevailed here earlier in this century. The environment would still be a dumping ground. Due to our government meddlers and the labor movement, they can now only exercise these "choices" offshore.

The real function of the government is to set rules to balance the power of corporations' management, stockholders, employees, customers and the neighbor's downwind. If any one of these groups holds all the cards, we get problems that the hypothetical "free market" can't correct. To paraphrase T.J., it is not always good for us to submit ourselves to the dictates of groups that have made a priori the rest of us should behave.

Frankly, I don't know anyone who expects lifetime employment anymore, or who even wants a paternalistic employer. I've not experienced anything lately that looked like "corporate philanthropy." I must be like most engineers; I just want to create good products for my employer without being overworked out of my family, threatened, mismanaged or blamed for my management's mistakes.

Name withheld at writer's request On the Internet

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## Reach Out

Reach Out to the active volunteers that are making this publication possible. Tell them what you like or what you dislike. Provide them with questions, answers and information or just a hand-written note of appreciation. Believe me when I tell you that it is important to let your volunteers know that you care.

Reach Out to the following:

**Bill Reed, AEA President**

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

**Richard Tax, AEA VP, General Information**

PO Box 2012, River Vale, NJ 07675  
(201) 664-0803

**Robert Bruce**

"American Engineer" publication and related issues  
P.O. Box 620726, Little Neck, NY 11362

**Dr. David C. Lewis, Immigration**

609 Sideling Court, Vienna, VA 22180

**Richard Plummer, Anti-Discrimination**

P.O. Box 326, Valley Forge, PA 19481

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P.O. Box 129, Union, NH 03887

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## Dissident Engineer

### ENGINEERING CAREERS:

### SKILL DEMANDS RISE AS REWARDS FALL

The September 1995 IEEE *Spectrum* had two articles about engineering education: "Educating the Renaissance Engineer" and "Re-engineering Engineering Education." In the former article, the following comments from engineering faculty and management showed the rising expectations of the skills of new engineers:

"The engineers that industry needs today are almost like renaissance people. They may have their area of specialty, but they need exposure to other areas as well."

"It is not enough for engineers to be computer literate. They must be top notch."

"In Korea, engineers are needed in many professional areas like marketing, manufacturing, development, and research. This means that engineers need to have communications and writing skills." This commentator "added proficiency in foreign languages to the list—a value shared by technology leaders in Europe and Japan."

"The need for engineers to be able to manage projects, time, and money is currently the focus of attention in Germany, according to Klaus Petermann, professor of engineering at the Technical University of Berlin. He is coordinating the efforts of engineering faculties at universities across Germany to expand the managerial and business content of engineering curricula."

This *Spectrum* article also noted, "Five-year integrated bachelor's and master's programs are coping with the explosion of knowledge that must be imparted in a limited time."

In contrast, this *Spectrum* article said almost nothing about the decline in the rewards of an engineering career. The article did say something about the decline in job security:

"Mobility is more than an asset—it's a necessity for today's engineers, according to Irina Veretennicoff, a professor in the applied physics department of the Free University of Brussels, in Belgium. She believes that the recent recession has turned companies against long-term employment. 'I have the impression that the just-in-time strategy introduced by the Japanese for the management of stock has now also taken root in the management of human resources,' she told *Spectrum*." Otherwise, the article said nothing about the worsening problems of the engineering profession: unemployment, underemployment, age discrimination, salary compression, underutilization, inadequate retirement funding, etc.. In the engineering profession, it appears that the increase in skill demands is on a collision course with the decline in rewards (it might be more accurate to say that the collision occurred a long time ago).

The second article, "Re-engineering Engineering Education," discussed some of the current curricular "reforms." It said nothing of the controversies that caused the resignation of Louis Guy, Jr. from his position as the National Society of Professional Engineers' representative on the Accreditation Board for Engineering and Technology (ABET).

## Help!!

In many ways, this past year has been the pits for AEA. It seems as if each of the negatives of last year produced greater expenses than we expected. We look forward to a much better 1997.

Just to give you a sampling of the problems we faced last year: we were sued; we lost our mailing list and many of our non-member contacts through contaminated computer files, and we were faced with other "American Engineering Associations." Though we were still able to identify our members through our financial records, we have thus far been unable to convert those files in order to reload them in our computer.

Early last year, we faced a lawsuit filed in San Antonio, Texas. It related to a real estate sale and an inspection of a piece of property. It seems that a less-than-ethical engineer in San Antonio had done an inspection of a property and written a **false report**. He was doing business as the "American Engineering Association." It took nearly two months to straighten this out.

Our computer suffered an as-yet undefined problem that produced contaminated files. Though all of our files were backed up, the backups were contaminated before we realized there was a problem. We were unable to open the contaminated files. We've replaced everything in the computer except the power supply, and it seems to be working now.

Though our computer seems to be working fine, we still have not been able to reload the membership files. The people who do our financial records use a Unix based computer that contains our membership list. The program they use has security provisions that prevent its being converted and

saved as a file on a dos-based machine. We will have to re-enter all of the records by hand. That process is just beginning.

We have also found an organization of civil engineers in New York City who are operating as the "American Engineering Association." We contacted them and asked them to stop using our name. They agreed to stop, but we are not sure they will. We have filed to register our name with the proper authorities in Washington, DC. We expect this process to take six months to a year to complete.

Each of these unexpected happenings, as well as a few smaller things, has had a very deleterious affect both on our finances and on our services to you, our members.

We need your help. Please send us information on your membership status: your membership number, current address, e-mail address, phone numbers etc. In addition, we need names and current addresses of prospective members.

As you can imagine each of the above problems has been expensive and has run our operating funds dangerously low. We need your financial help. Please renew your membership, and if you can afford to, send another \$20, \$50 or \$100 to help offset these unexpected expenses. These funds will be deeply appreciated, both by AEA and by the members we are trying to serve.

Our objectives have not changed; our efforts have not diminished, and certainly the professional problems that caused you to join in the first place have not gone away. We believe the need for AEA is greater than ever.

*Bill E. Reed*

## AMERICAN ENGINEERING ASSOCIATION

P.O. Box 820473

Fort Worth, TX 76182-0473

<http://www.aea.org> (817) 656-2324

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