

AMERICAN ENGINEERTM

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Engineer's Per Diem At \$8

Today is August 1, 1996, yet the headline could very well be from the 1940's. This is just one of the many subtleties about the engineering profession that never gets visibility. Another, is the fact that the hourly rate for contract engineers is below the 1984 rate. It is important to note that these \$8 per diem rates are being paid to engineers working on government and military programs. Government employees, working in the same geographic locations as our engineers, are getting more reasonable per diem rates of \$100 per day. Why is per diem (out of town living expenses) for contract engineers virtually non-existent?

Hi Ralph! How is the new assignment? That's good news? What's that? You're getting \$56 per week for your per diem rate? And, your base rate was higher in 1984. Anecdotal information, such as this is all we have at the present but, it

has been a source of value and a great indicator of issues to investigate further. When funding is available we will survey these issues and document them for future action.

Let's keep the issues alive and visible so we can better be prepared to address them. I am particularly interested in the salaries of members of the engineering community by hourly rate, engineering discipline, degree or non-degree, title or function, over time rate (straight or time and one half) even when defined by state labor laws, industry, contract house or job-shop name and location, and client name and location. Information provided for previous assignments would also be very helpful. Questions supplied by our members are also useful and will be published in "American Engineer." The more we know about our business the greater our advantage. Send your responses to Richard F. Tax, 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, the specialized experience and the requirement for an MS degree. Note also that the job title is not 'Electrical Engineer' or 'Electronics Engineer,' but 'Surface Acoustic Wave Design Engineer.' This job is for an applicant to assume project responsibility at under \$35K.

SAW (Surface Acoustic Wave) Design engineer. \$34,580/year. Design, document, prototype & test Surface Acoustic Wave (SAW) devices applying principles & techniques of electrical engineering. Develop applications of devices for manufacture & distribution. Interface w/customers, suppliers & manufacturing dept. during design & production phases to ensure that devices function properly & conform to customer requirements. Req. Master of Science, Electrical Engineering with at least one course or one research project involving SAW. Apply at the Texas Workforce Commission, TEC Building, Austin, TX 78778, JO # 7855288. Ad paid for by an 'Equal Opportunity Employer.'

I do not judge this opportunity to be equal. U.S. citizens would waste their time by applying, since the ad has all the earmarks of a 'hire alien' ad. Here's another one with the same earmarks:

Electrical Engineer. 8am to 5pm. \$38,000 per year. 40 hours per week. Duties include: (1) maintain, repair, test and debug computer equipment,

parts and systems; (2) design, develop, and direct the manufacture of new electronic or computer equipment, including torque-turn control/monitoring computers; and (3) create or modify computer application software, including database application software and C++/C programs for control/monitoring systems. Master of Science degree in electrical engineering or computer engineering. 1 year's experience required. Experience with C-language computer control systems and programming. Experience with computer torque monitoring technology. Experience may be demonstrated by prior work experience, academic training, or a combination of both. Submit curriculum vitae, academic transcript; or letter from prior employer through whom experience acquired. Contact LA Office of Employment Security, Job Order 452827, 706 East Vermillion, Lafayette, LA 70502.

JOB SECURITY FOR ENGINEERS

Elsewhere in this issue, there's an editorial by Bob Bellinger of *EE Times*, entitled "Job security: Who has it?" I'm aware that it was written in January 1996, and the job market appears to have improved since then. But how much? According to Robert Rivers, publisher of the *Engineering Manpower Newsletter* (also on the Publications Committee of this newsletter) there were 1.9M U.S. engineers in the second quarter of 1996, of which 35,000 were out of jobs. Thus unemployment of engineers was about 1.8%. This is good news (since it was above 4% at the peak unemployment), as long as you're not one of the 35,000. Also it's common knowledge that unemployment figures do not include those whose un-

(Continued)

employment checks have run out. Bellinger points out that layoffs during last November alone totaled 42,000, which is 45% higher than the previous November. 'Lean and mean' are the watchwords of U.S. industry, and this is how it will be for the foreseeable future.

Bellinger seems to be saying that stable, long-term engineering jobs are no longer to be had. From where I stand, this is reality. The U.S. job market has undergone a permanent change of work environment, as U.S. firms outsource in order to minimize their paid staffs. So what's a U.S. engineer supposed to do in order to keep earning an income? My advice is: keep versatile; try to stay up with rapidly-changing technology; read the job ads to see what's in demand, and try to get into that; read your employer's or client's financial statements (if any). That's self-help advice, which is good for the short term. What's your long-term plan? I think it should include doing something to strengthen the profession, by supporting organizations like AEA, which work for this goal. Advice is cheap. I'm publishing this newsletter. What are you doing for the profession, and thus for yourself?

"TOO MANY ENGINEERS, TOO FEW JOBS"

is the name of a *New York Times* article from their March 19, 1996 issue. It debunks the tales of an acute shortage of skilled scientists and engineers. This alleged shortage is offered by Sun Microsystems, Intel, Microsoft, the National Association of Manufacturers and the American Immigration Lawyers Association as justification for the recruiting of thousands of foreign workers. These organizations are vigorously lobbying Congress to let in more foreign nationals to alleviate the 'shortage.' Their lobbying helped to defeat Sen. Alan Simpson's proposed immigration-reform legislation.

Robert Bruce, AE Editor

Vote! - First Call The White House

Richard F. Tax, Vice President, AEA

Two years ago I wrote to President Clinton with a plea for assistance for the AEA and the members of the Engineering Community. Because his reply was so generic and insensitive and to spare him the embarrassment, I chose to return his letter without publishing it in *AE*. I wrote a second letter returning the first response and again expressed our concerns about the destruction of our profession and the hardships imposed on our engineers by U.S. government agencies.

Our second letter's response was a phone call suggesting we go to the National Institute of Science and Technology (NIST). They offered no help but, we do have a telephone number to call.

After watching the Democratic Convention I feel it is apparent that the Gay Community is more thought of and has more clout than members of the American Engineering Community.

Now, you can help by calling the White House at (202) 456-7486 and ask for Henry. Tell him you are a member of the

U.S. Engineering Community and would like to express your dissatisfaction with the President's response, and the government intervention to damage our profession and your engineering career.

Tell Henry that members of the U.S. Department of Education, the National Science Foundation (NSF) and others have disseminated engineer shortage propaganda to benefit their bureaucratic empires at the expense of the members of our Engineering Community. Just express your concerns and keep AEA informed.

Dissident Engineer

ACADEMICS BASH AMERICAN WORKING ENGINEER

An *Aerospace America* (a magazine published by the American Institute of Aeronautics and Astronautics) article titled, "A Course Correction For Engineering Education" (May 1995, page 22), written by James G. Ladesic and David C. Hazen, professors of aerospace engineering at Embry-Riddle Aeronautical University, bashed American working engineers by arguing that "a decline in the capabilities of this nation's aerospace engineering graduates has been a major contributor to diminished U.S. competitiveness, and that this decline stems from the inadequacies of aerospace engineering programs typically offered today." But America's engineering education programs could not be any worse than Japan's, for example; the Japanese themselves have admitted that their engineers get most of their engineering educations from their employers.

The article made the common lamentation that most engineering programs overemphasize theory at the expense of design work. The nostrums of other "reformers" include calls for more emphasis on liberal arts, English-language skills, business administration, foreign languages, and social and environmental impacts of technology. Some "reformers" even want to introduce tinkertoy design work early in the curriculum in order to help maintain the interest of students and thus help keep classrooms filled. And some "reformers" even want to make engineering the new "liberal arts" major. However, with only four years to play with at most engineering schools, it should be obvious that there is simply not enough time available to create a program that would be all things to all people. There would be much more flexibility in redesigning engineering curricula if the four-year straitjacket were done away with, and programs allowed to expand to five or six years; but to do that would require revolutionary changes in the entire engineering profession: the rewards of an engineering career would simply have to be made commensurate with a longer program, i.e., age discrimination, salary compression and inversion, job insecurity, etc., would all have to be eradicated. Another solution, especially considering the rapid obsolescence of engineering knowledge today, would be an increase in American industry's investment in employee training, an investment which on average now stands at only about 1 percent of payroll costs, according to a recent article in *U.S. News & World Report* ("A School for Success," May 22, 1995, page 53); obviously, this is one area where American industry has not tried to emulate the Japanese.

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 Dr. W.R. Kleckner of Lecont, FL: - I couldn't get your parting words "This issue has more reprints than original material" out of my mind. (Editor's Column, 6/96 issue of AE) so I decided to write. Are jobs more remunerative or more secure than a year ago? I think not. Are we so preoccupied with survival that we don't have enough spare time to write? I think not. While I can't speak for my fellow engineers, I decided upon an early retirement rather than continue to fight with industry, the federal government, and foreign engineers.

The President and his administration just don't give a damn about the present plight of the American engineer. Just look around at the number of foreign cars on the road, and plant closings as goods and materials stream across the borders. The bottom line is simple. The President has managed to break the system, mainly by ignoring major employment issues.

I went to Penn State. In my day, no engineering professor in his right mind would state that U.S. engineers are overpaid in a globalized economy. Not if he or she wanted to hold on to a job, that is. What is the right salary range for American engineers who have moved technology further ahead in this century than at any time in recorded history?

I have nothing against foreign engineers, Orientals and Indians who come to this country to get jobs. However many come for the sole purpose of taking jobs in order to gain access to new technology which will benefit their home country at a future date. This must be dealt with. We may have been the land of opportunity at one time, but now it appears as though we have become the land of the gullible.

As for my retirement, I look about and see other engineers who were forced to retire early as their jobs simply vanished, or they were replaced by foreign engineers or younger engineers willing to work for less pay. One such older gentleman has the perfect solution. Levy a 60% income tax on foreign engineers working on a green card, and see how many stick around. In addition, strictly limit the amount of money they can send out of the country. Early on, I thought we should just close the doors to foreign engineers, but then I remembered it was foreign engineers working with American engineers who perfected the Atom Bomb. It was foreign engineers working side by side with American engineers who developed the basis for today's advanced computer technology. But these are exceptions, not the rule.

I'm an electrical engineer by profession. What do we know about electricity today that we didn't know years ago? What's new, if anything? We still generate electricity by steam, wa-

ter, air, and engine-driven generators. We still haven't been able to harness lightning, mainly due to the fact that we still don't fully understand it. We can determine and measure E Fields and H Fields, but we don't fully understand how and why they exist. So what does a foreign engineer know about electricity that American engineers don't? If any of the readers have an answer, I'd sure like to hear it.

American industry is also to blame. With their continued downsizing, he who works the cheapest stays employed. I have always been of the opinion that American engineers work well, not cheap.

I became an engineer to fulfill my dreams as a youth. Given today's circumstances, as a youth today, I would not dream of becoming an engineer, because I could not foresee continued employment or the means to raise my family, as I desired. As an engineer now, I would enjoy no security, and would wind up taking a position outside my profession. As Americans, we are supposed to enjoy the protection of our constitution and our government. Unfortunately, as engineers, we do not. I guess my parting question would have to be, "If we are Americans, why does our profession make a difference?"

From L.F. of L.A.: - A *Science* magazine article titled "In the U.S., Engineers Oust Old Regime" (April 21, 1995 page 359) reported "In a narrow upset last week, NAE (National Academy of Engineering) members turned down a candidate for president—Cornelius Pings—who had been hand picked by the leadership's nominating committee. Instead by a slim margin of 697 to 660 votes, members elected Harold Liebowitz, a candidate campaigning to break up the 'old boys' club' that he claims dominates the leadership." (The article points out that Liebowitz is ironically a member of the 'old boys' club' himself.) He is in addition the former dean of engineering at George Washington University. The article continues, "Late in the campaign, members say, they received by mail an endorsement of Pings by Robert Seamans of MIT. One of NAE's older members, Chalmer Kirkbridge, president of the American Institute of Chemical Engineers in 1954, says the letter angered him by referring to Pings' relative youth (he is 64; Liebowitz is 70). Kirkbridge fired off an endorsement of Liebowitz, urging members to challenge the 'good old boys' club' and 'come to the party and vote.' This recalls a similar incident in which the 1980 Republican presidential-primary candidate John Conolly criticized his opponent (Ronald Reagan's) advanced age; their respective ages were similar to Pings' and Liebowitz's. An astute journalist observed that Reagan was only six years older than Conolly. The attack did Conolly little good, as he was quickly eliminated from contention in the primary.

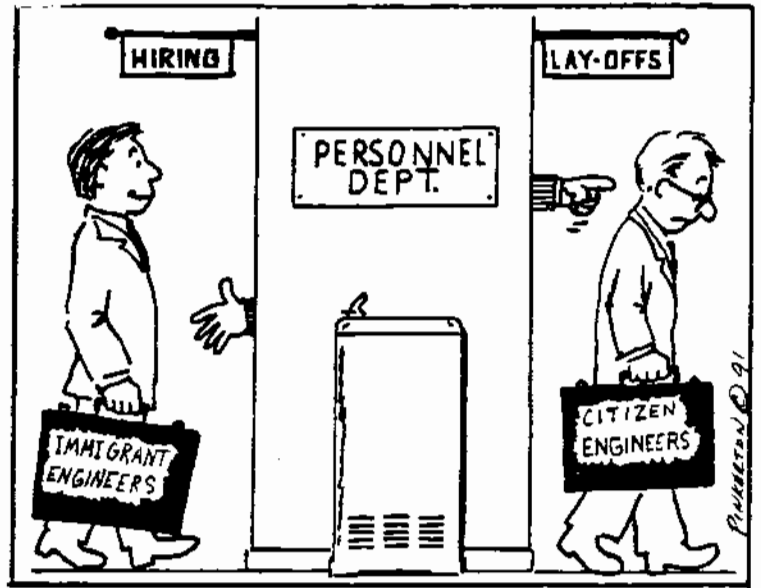
The academics are lucky in that they do not have to worry much about age discrimination until they are 70. Indeed there has been recent debate over whether academics should be forced to retire at this age. In contrast, engineers generally must start worrying about age discrimination after age 30, and the problem becomes full-blown by age 40. Of course, the rampant age discrimination in industry suits the academics just fine. After all, it helps fill their classrooms.

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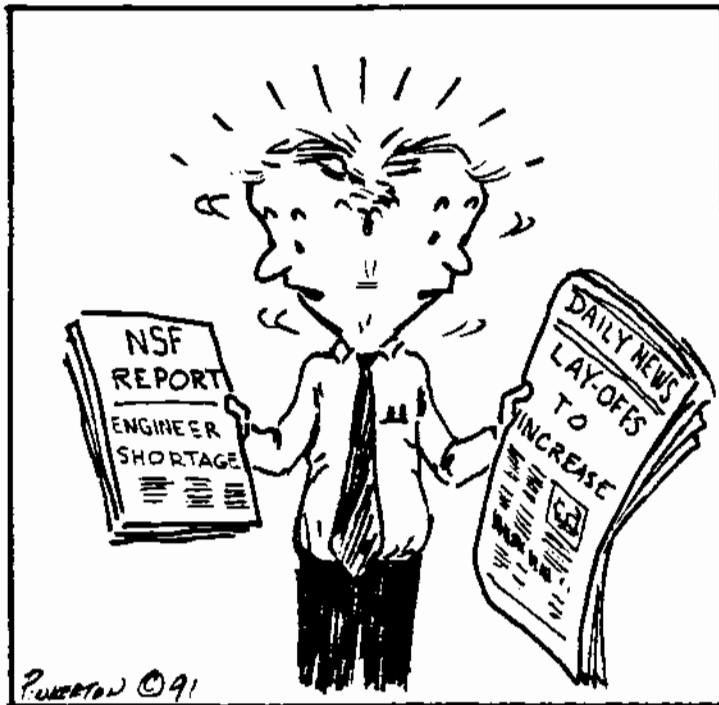


DADDY, IF YOU HELPED DESIGN THAT STUFF, WHY DID THEY LAY YOU OFF?

AMERICAN ENGINEER - JULY, 1991



AMERICAN ENGINEER - APRIL 1991



AMERICAN ENGINEER - MAY, 1991



"The one thing we can say with absolute certainty is that we have a very real shortage of American Engineers."

D. Allan Bromley, Director
Office of Science and Technology Policy

AMERICAN ENGINEER - June, 1992

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Please Post

Audit: Drop Foreign-Labor Programs

By Robert Bellinger

Washington—More fuel has been added to the immigration-reform fire, with the release of a scathing report claiming that the Department of Labor's foreign-labor programs "do not protect U.S. workers' jobs or wages from foreign labor."

In an audit prepared for the Labor Department, the U.S. inspector general has recommended that both the Permanent Labor Certification (PLC) and the temporary H-1B Labor Condition Application (LCA) programs "be eliminated as they currently exist."

To replace them, Labor should launch more effective programs funded in part by the employers who benefit from foreign labor, the report said. "(Labor's) role under the current program design amounts to little more than a paper shuffle for the PLC program and a rubber stamping of applications for the LCA program," it charged.

The Clinton administration backs the suggested reform, which would require an act of Congress. "Unfortunately, the inspector general's audit confirms what the administration has been saying for a number of years," said Labor Secretary Robert Reich. "These programs are in desperate need of reform if we are going to do right by U.S. taxpayers and working families."

Engineering groups, including the IEEE, agreed, but industry and free-market advocates trounced the findings.

"This documents all the things we have been saying," said Edith Holleman, board member of the American Engineering Association, a Fort Worth, Texas, group that has long complained that engineering employers abuse the certification programs. "The Permanent Labor Certification program is a sham. And the H-1B is not being used for (its intended) purpose."

PLC is designed for U.S. companies looking to hire aliens as permanent employees. LCA is aimed at staffing temporary projects, after which the foreign workers are expected to return home. Critics charge that companies often first hire foreign workers as temps and then make their jobs permanent under PLC.

But Stuart Anderson, author of a Republican-funded study titled "Employment-Based Immigration and High Technology," dismissed the inspector general's report as "lots of data and no context."

The audit, released in mid-April, lands just as the Senate is mulling immigration reform. Republicans on the Senate Judiciary Committee have succeeded in splitting the measure into two bills, on legal and illegal immigration, with only the latter given much chance of passage.

However, Sen. Alan Simpson, R-Wyo., and Sen. Edward Kennedy, D-Mass., are attempting to reattach "worker safeguards" that would give engineering groups at least some of

the protections they have sought for their members. The American Business for Legal Immigration lobbying group, representing technology and other industries, vigorously opposes what it calls these "onerous amendments."

Particularly rankling to engineers is a provision of the PLC program that requires employers to conduct a "test of the labor market" to ensure there are no U.S. workers "qualified, willing and available for employment in a job for which a labor-certification application has been made."

That test is often a sham, critics charge. Indeed, the inspector general's office audited all job orders related to alien certification applications at 12 state employment offices over a six-month period. It found that of 28,682 applicants, only five people were hired for the jobs listed; the other slots, presumably, were already filled by aliens whom the companies were trying to make permanent.

Some of those job orders sparked the single-spaced, one-column classified ads with which engineers are familiar. Critics claim the job requirements listed in these ads are so specific that they can fit exactly one person; the alien who already holds the job. The audit confirms that. From Oct. 1, 1992, to Sept. 30, 1993, the ads resulted in a paltry 0.8 percent placement rate, it found.

Anderson, who wrote his pro-immigration report on behalf of Empower America, the Jack Kemp-William Bennett GOP interest group, said that admitting aliens under a temporary-worker program is often the only way to staff up quickly. Trying to hire a permanent employee directly from foreign shores would entail a wait of two to three years for the approval process. "No one in the real world hires someone and says 'you start in the year 2000,'" said Anderson, who is a policy analyst with the Cato Institute, a free-market think tank.

Wages and jobs

The inspector general's draft audit claims the PLC program "allows aliens to immigrate based on their attachment to a specific job and then shop their services in competition with equally or more qualified U.S. workers without regard to prevailing wage."

Indeed, in his Empower America study, Anderson cites National Science Foundation surveys that indicate foreign-born PhDs and master's in engineering consistently outearn Americans. Last summer's *EE Times* "Salary & Opinion Survey" also found that respondents born in Taiwan, India and Europe made more than the overall average. Only Vietnamese-born engineers—an extremely small sample—lagged the *EE Times* norm.

George McClure, IEEE-USA chair of the Career Policy Council, said the report supports contentions that IEEE-USA has long made that certification programs don't work and that workers need safeguards.

IEEE-USA says member surveys show that inflation-adjusted salaries for electronic engineers have been on the decline or static over the past 20 years. However, Anderson points to the Engineering Workforce Commission surveys of engi-

(Audit: Drop Foreign-Labor Programs ... Cont.)

neering employers as proof that "the real median salary for engineers in electronics, electrical machinery and computers, seven years after receiving a BS, rose by 43.4 percent from 1975 to 1995." That compares with a decline of 12.6 percent in real wages for other private-sector workers, he said.

In the audit of the temporary H-1B LCA program, the inspector general found that nearly 75 percent of the aliens worked for employers who "did not adequately document the specified LCA wage." Some 12.7 percent of these foreign workers "were paid below the advertised prevailing wage," the report said.

Computer and software engineer groups have targeted the LCA, claiming that employers are putting temps into jobs once held by Americans. SoftPac, an Austin, Texas, programmers' group, cited IBM for "replacing" American programmers in Austin with much less expensive temporary foreign workers.

But Anderson told *EE Times* that he could find only seven cases of complaints by workers alleging that they were replaced by aliens.

IEEE-USA rebuts that workers fear reprisals or may not even realize they've been replaced. "They're already gone," said one official.

The appearance of a highly controversial inspector-general audit in the middle of the Senate's immigration debate has led to charges that it was politically motivated.

Complicating matters, senators are scrambling to attach provisions on raising the minimum wage to either S.1664 (on illegal immigration) or S.1665 (legal immigration). That makes voting one way or the other on the bills more complicated.

FOREIGN-BORN EARN MORE THAN NATIVE-BORN

Median salaries of U.S. recipients of MS degrees in science and engineering

| Years since earning degree | Foreign-born | Native-born |
|----------------------------|--------------|-------------|
| 1 to 5 | \$41,400 | \$40,300 |
| 6 to 10 | \$48,000 | \$47,900 |
| 11 to 15 | \$52,000 | \$50,000 |
| 16 to 20 | \$56,000 | \$52,000 |
| 21 or more | \$55,000 | \$58,200 |

SOURCE: NATIONAL SCIENCE FOUNDATION

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Engineering - The Business

Salaries, benefits, working conditions are all part of the engineering profession and we are forbidden by our contracts to discuss these details. Since there has been an obvious effort in the U.S. to reduce engineers' salaries, and some academics claim engineers earn too much, we in AEA shall make a concerted effort to give visibility to these issues and provide you with information to enhance your economic position and protect yourselves from the bean counters.

Contract Engineering (CE) or job shopping is one method of marketing your services and other than that CE's or job shoppers are not much different from Independent Contractors (IC's) or engineers directly employed by companies. We are all part of the American Engineering Community and efforts to enhance one group will tend to enhance the others. So, from now on, we are going to address the forbidden, and dedicate space in the "American Engineer" to satisfy these needs.

Pay for CE's, at the same location, can vary by a factor of 2:1 with the unknowing or new CE being the victim. Supply and demand is the driving force with today's rates creeping back up to those of the mid 1980's or about \$40/hour for degreed engineers and a no-benefit package. Some engineers are getting half this figure. In Contract Engineering or job shopping we have a third party situation: client company, contract house and you the engineer. Two rates involved are the Billing Rate (BR), that which the house charges the client company, and the Direct Labor Rate (DLR) which is what the House pays the engineer. There are many variables in these numbers, such as benefits, which may complicate the issue but, we will ignore those for now. Delta or the difference between the BR and the DLR is a variable and since it includes the House business expense and profit it is some-

thing the House will maximize even at the cost to the engineer.

Billing Rates will vary from a low of 1.14xDLR to 2xDLR with 1.35xDLR being a fair number with a vacation and holiday pay included. A rate of 1.25xDLR is reasonable for a no-benefit package. Our goal is to get the DLR up and keep the Delta fair.

Next time you get a call from a Contract House (CH) about a job and they ask you for your rate, find out two things: Does the CH have any engineers at the location and what are their Direct Labor Rates? You should target the higher rates as your starting figure and try to maximize your rate. Remember, down time is no time and a very real part of contract engineering.

More in the future issues of *AE* if you believe it helpful.
Richard F. Tax

Professional Pipeline

By Bob Bellinger

JOB SECURITY: WHO HAS IT?

One of the TV networks recently broadcast the results of a poll that said two-thirds of the respondents felt "very secure" in their job and that they'd likely retire from that company.

Oh, brother. Are they in for a surprise, as AT&T workers have found out.

We have some serious delusions going on here. While the worst of the downsizing has passed the electronics industry—for now—corporations haven't abandoned their basic strategy of offloading non-essential functions and using downsizing to keep costs in line.

One evidence that layoffs are alive and well: Challenger, Gray & Christmas's monthly tally. The November toll sounded for nearly 42,000 souls, 45 percent higher than for the previous November.

We have to wonder where those confident, "I'm here for the rest of my career" types mentioned in the TV poll came from. Not government. When an election sweeps out your boss, you go too. Not banks. Megamergers have devastated the ranks of VPs and tellers alike. Certainly not from retail, which traditionally has never been a harbor of long-term employment. Bankruptcies and mergers swept through the retail industry at the peak of its selling season.

Perhaps the TV network interviewed outplacement employees and moving-van drivers. They've got the closest thing to a sure job as anyone.

It's important for all of us, in these excellent times, to plan for not-so-good times ahead. For they shall return. At some point, there will be one too many networking companies; an overload of wireless products; and a glut of chip capacity. Hmm. Maybe we have reached that point.

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The Other Certain Thing

By Brian Santo, bsanto@cmp.com

Last week, *EE Times*'s Peter Clarke reported that various government organizations, from the State of Florida to the European Commission, are considering the imposition of a bit tax.

The idea is anathema. Most Internet users believe that information should be free and that placing a tax on the bit stream will provide an unnatural impediment to continuing development of the Net.

Some will contend that taxing the bit stream is not only counterproductive but impractical from an economic viewpoint. Who's going to create, install and maintain the equipment

necessary to monitor every bit?

That's an attractive but losing argument. Access providers all know how to put a meter on their lines, even if they haven't made final decisions about installing them or not. The extension of the argument is that costs of the metering equipment will be passed along to consumers, and that would be unfair.

Well, costs are always passed on to consumers; that's what consumers are for. You drive a car and a tax is passed on gasoline—you're over a barrel, so you pay the tax. When it comes to the bit stream, many of us are already over that barrel, and we're being joined there by more people every day. A tax doesn't have to be fair, it just has to avoid being onerous. As long as the tax is mild, it will be a minor impediment to the eventual growth of the Internet.

The transmission of bits is a service; some aggregations of bits will constitute products. You can hole up on a remote ranch in Montana and threaten to hold your breath until you turn blue while arguing the point, but goods and services are taxable, and someone is eventually going to impose that tax.

I'm all for opposing any bit tax, but I also think that that will be a losing battle unless the battle lines can be moved.

Where should the line be drawn?

Pretending the Internet is a special case where all the old rules are off and the new rules have yet to be formulated is a foolish approach—witness the arguments over cyberporn. I would propose that the line be left where it is now. If software was taxable if it was sold on a disk in a shrink-wrap box, or if a service was taxable if it was rendered in an office, then it's fair game for taxation on the Net. The worst situation would be if the transmission of bits was taxed. Every time you logged on to a Web site or an on-line service, you'd be taxed, and that should be completely unacceptable.

What do you think?

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In The News: FEDERAL AUDIT CONCLUDES THAT H1-B PROGRAM IS A "SHAM"

By Edith Holliman

Legislation to deal with abuses of immigration programs for professionals like engineers and computer programmers is "dead," according to one of its sponsors, Sen. Alan Simpson (R-Wyoming). Indeed, provisions in the separate bill passed by the House will weaken the government's ability to police existing programs even more, if they are adopted when the two measures go to conference committee later this year.

The most interesting development in the last quarter is the impending release of a new audit of immigration programs by the inspector general of the Department of Labor. According to a report April 14 in the *Washington Post* (William Branigin, "Immigration Laws for Foreign Workers are a 'Sham,' Audit Finds," p. A11), the inspector general found that "the foreign labor programs we audited do not protect U.S. workers' jobs or wages from foreign labor because neither program meets its legislative intent." The department looked at the H1-B program for temporary workers and a related category of employment-based permanent immigration.

The Labor audit provides the first statistical evidence supporting anecdotal reports that some employers are routinely using foreign workers located in the U.S. for jobs formerly held by American citizens. In the cases studied by the Department, 98.7 percent of the applications for visas for permanent residency came from people who were already in this country, and 74 percent were already holding jobs, most of them as H1-B's.

The Department investigated 10,631 job orders in 12 states. By law, state employment agencies must be used to advertise these openings to qualified U.S. workers. The state agencies were able to refer 28,682 applicants; of all those people, only five were hired. One reason for the extremely low rate of placement of other applicants may be that the job specifications are written with the H1-B incumbents in mind (see the sidebar accompanying this story).

In combination with work on immigration done by David North (see "Foreign Engineers in the U.S.: the Gates Open Wide," *ENGINEERS* Vol. 1, No. 4, October, 1995), the Labor audit shows that the typical pattern of foreign labor movements to engineering jobs in this country starts with academic study, followed by employment under H1-B status, permanent residency, and then competition in the general labor market.

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.

HOW TO SPOT FAKE "EMPLOYMENT OPPORTUNITIES"

The "Government/Industry" section of the classified employment opportunities listings in the March, 1996 issue of IEEE's well-known *Spectrum* magazine (pp. 76-69) included a total of 31 announcements. Over 60 percent of those ads conformed to a single consistent pattern: they were from a state employment agency, and they included a requirement that applicants should have served from six months to as much as seven years in the same job being offered! To be sure, most of the notices implied that one could also apply if a lengthy list of alternative requirements were met, such as fluency in French, German, or Hebrew, or extremely specific technical experience ("Job also requires: 1) PhD dissertation research in the field of switched reluctance motor modeling and analysis; 2) experience conducting research in magnetic field computation of switched reluctance motors; 3) 2 professional publications that appeared in refereed journals in the area of performance prediction of switched reluctance machines, 1 of which addressed drive issues").

Think you just might have qualified anyway? Think again. These ads were written for the specific resume of an incumbent. By law, these positions *had* to be advertised, because their incumbents were likely to be foreign workers whose ability to work legally in the United States was coming to an end. Thus to keep a person in place, employers needed to justify an application for permanent residency. The extremely specific job requirements ensure that nobody can qualify for a position except the person who already has it.

The only reason these positions have been advertised at all is that they are held by foreign engineers whose ability to work in the U.S. will end unless their employers can establish that no American can fill their jobs. And according to the data in the accompanying story, that's just what the employers do establish 99.98 percent of the time. So don't waste your efforts on ads that call for experience in the same job that's being offered. And thank the people in the state agencies for insisting on providing a few good clues in all these notices, so that ordinary job seekers can see them for what they really are: a legal facade, not genuine employment opportunities.

(By the way: many publications other than *Spectrum* also include these ads, and we do not fault media for running them. IEEE may feel that it should not discriminate in accepting paid advertising. More important, running these ads is a public service, because they are a form of legally mandated disclosure of these practices.)

(Reprinted with permission from the April 1996 issue of "Engineers," a publication of the Engineering Workforce Commission of the American Association of Engineering Societies.)

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