Engineering Employment Outlook

It never fails — one of the first questions anybody asks when we say we're with the Employment Assistance Committee is "how does the employment situation look?" So, here's an attempt at an answer. Much of the following data was supplied by the IEEE-USA Workforce Committee. For questions or additional information, contact Vin O'Neill, v.oneill@ieee.org, 202-785-0017.

Engineering employment in the United States has always been characterized by booms and busts — by substantial increases in employment in the late 1960's, by cutbacks in the early 1970's, by sustained growth from 1975 through the 1980's and by sharp cutbacks between 1990 and 1993. As can be seen in fig. 1, in this decade alone, engineering employment peaked at 1.86 million in 1990, dropped to 1.72 million in 1993 and jumped back up to 1.89 million in 1994.

Cutbacks in defense spending coupled with corporate mergers, acquisitions and downsizings in the face of increasing international competition resulted in unprecedented increases in the numbers of

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Skills Banks: A Local Job Network Solution

by Gary Johnson, EAC Resource Member

How do the members in your section feel about the employment situation locally? Do they want help finding a job? Are they actively networking with peers?

If you don't know the answers to these questions then you aren't spending enough time talking with members. Maybe it's time to start a local Skills Bank. Skills Banks aren't just for the unemployed, they should be actively guiding member careers by providing a picture of the local and national job market, skill sets in demand, and salary ranges. They should be a place to network with fellow engineers and stay prepared for the next job change.

Three or four years ago Skills Banks opened up in several of the larger Section hardest hit by the defense downsizing.

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unemployed engineers between 1989 and 1993, from 27,000 to 73,000 (fig. 2). Along with the increase in employment, 1994 ended with a decrease in the number of unemployed engineers, down to 68,000. Although some observers feel that the crisis is over, others don’t think that America’s engineers and scientists are out of the woods yet.

The sharp increases in the number of engineers who were displaced in the early 1990’s also boosted unemployment rates from a historical average of around 2% to 4% in 1992. And, although the unemployment rate for all engineers dropped back to 3.5% in 1994, the rate for electrical and electronics engineers increased from 4.0% in 1993 to 4.3% in 1994 (fig. 3).

The Bureau of Labor Statistics reports that for the first quarter of 1995 engineering unemployment is down to 2.7% and electrical engineering unemployment is down from 3.2% (4th quarter 1994) to 2.9%. And, from the soon to be released IEEE-USA 1995 Salary and Fringe Benefits Survey follows this trend with a number of unemployed respondents dropping from 2.7% (in 1993) to 2.3% and the average duration of unemployment decreasing from 34 to 31 weeks.

However, to put a different light on the situation, engineers’ unemployment rates, while still well short of those experienced by the general force in general still distinctly higher than those of managers and other kinds of professionals. According to BLS data, while engineering unemployment shot up above 4%, unemployment rate for all professional occupations has been hovering around the 3% level.

The American Management Association’s 1994 Survey on Downsizing and Assistance to Displaced Workers reports that while workforce reductions as still frequent among their corporate members (713 respondents, most representing large companies grossing more than $10 million annually) with 47.3% downsizing during the previous year, the cuts are not as deep as in the past, 9.2% in 1994 vs. 10.4% in 1993. And, since more than 67% of downsizing companies concurrently hired new employees, the net job loss was only 5.2%.

AMA also concluded that the reductions have returned to the pre-recessionary pattern of this mid-80’s; the reductions are strategic rather than recession-driven; cuts target specific units, functions, and localities rather than across-the-board; salaried workers are more vulnerable to job loss; and downsizing will continue unabated for the foreseeable future.

In addition, the survey reported the highest ever “future index” (i.e., firms planning to cut jobs in the coming year). This is notable because the number can only increase; past surveys show that the actual share of firms that downsize over a survey period is double — in some years, triple — the share that reports plans at the outset of the period.

Skills Bank

While the JLS can replace much of the job listing function provided by the local Skills Bank, it cannot replace the job networking and support function. It cannot replace the personal contact and local network you build with area industry. Rather than completely phasing out the Skills Banks, we need to adapt to the changing employment situation. Companies are not downsizing as dramatically as in the past few years. Hiring is up almost everywhere in the USA but the job skills are much different than in the past. The successful engineer today and in the future must constantly update their skills. The days of lifetime employment are gone forever.

With your guidance more Skills Banks could be started by a few local volunteers. IEEE-USA has plenty of material available and will assist you in starting and continue successful Skills Bank activities.

To Start a Skills Bank in your Section:
1. Discuss the need to form a Skills Bank at your local section EXCOM meeting. Find volunteers to work together to continue the process. Contact other Skills Banks for information and ideas.
2. Discuss the need to form a Skills Bank at section meetings and recruit more volunteers.
3. Schedule an initial meeting of the Skills Bank. Announce the meeting in the Section Newsletter.

May-June 1995
4. Get the message out to as many members as possible. This is the first step in building a peer network. Remind members that this group is for all members, not just the unemployed.

5. At the first meeting:
   - Determine the needs and interests of the membership.
   - Bring a printout of the jobs from the IEEE-USA Internet listing. Bring copies of the literature that describes how the auto-response and ftp listings can be retrieved by the members themselves.
   - Agree to meet on a regular basis. Even if it is only before or after regular section meetings.
   - Get names, addresses, and phone numbers of attendees and distribute to each attendee.
   - Get volunteers to form an ad hoc committee to determine the organizational structure.

6. Advertise the following meetings in the Section Newsletter.

7. Consider the following activities for your new Skills Bank. These activities both help find employment and improve networking skills.
   - Find speakers who are hiring managers or contract recruiters to talk about the skills they look for.
   - Find speakers who can help with resume writing and interviewing skills.
   - Set up a means for distributing the Internet job listings weekly. IEEE-USA updates the listing every Friday.
   - Use members who are currently employed to find positions that are open in their companies. Inside information is always beneficial for the applicant. Remember that most jobs are not advertised but are filled by recommendation from within the company.
   - Work on computer skills. The majority of unemployed members don’t own or use computers or modems. Computer skills are paramount in today’s engineering workplace.
   - Skills Banks become support groups of sorts. It keeps unemployed members in contact with each other. Encourage members to apply for jobs they are interested in even if they don’t qualify 100%. Remember job descriptions are often wish lists.

8. Students may be interested in joining your Skills Bank. Try to set up a relationship with local university placement offices. This may be a great way to increase IEEE membership as well.

9. Once an organization has been formed, think about getting an answering and fax machine. Then you can advertise your service to the engineering community. You provide a free service to companies looking to fill positions.

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