plans assume that wages will grow at their current annual rate of 7 or 8 percent. Others project a negligible growth of only 1 or 2 percent.

With such a large, built-in "fudge factor," the figures generated are not too reliable because there are no standards for actuaries the way there are for engineers. The only way of finding out what a company's data really means is to ask its actuaries.

Still, Mr. Regan believes the Security and Exchange Commission figures he accumulated for the study do have a real, practical value.

"All that IMS wanted to do was publish in one place all of the numbers disclosed in SEC findings," he says.

"I think that when a securities analyst—or a banker who might have a loan outstanding with one of these companies—uses the study he will look to see how the numbers compare with others in the same industry.

"And then he will go beyond that and try to find out if all these companies use the same set of assumptions, or whether there are radical differences. Does one company have a higher turnover? Does it have younger workers?"

"Nobody would even think to ask those questions unless they had something like this study, with all the data in one place."

**AT THE ANNUAL DINNER**

Banquet speaker John S. Mayo

Section officers flank new fellows

New Senior Member Dick Tax and spouse

Membership Chairman Joe Flinn and wife

**NJ Section Meeting Will Hear Both Presidential Candidates**

Irwin Feinst and Jerome Susan, IEEE presidential candidates, will be our guest speakers at our August 9th meeting. This meeting is sponsored by the North Jersey Section and its Professional Activities Committee. It will be held at the ITT Conference Center, Nutley, N.J., at 7:30 P.M. This meeting is open to all IEEE members and their guests.

Irwin Feinst received his BSEE degree from City College of New York in 1951. He earned his MSEE degree from case Institute in 1955, and another MSEE degree in 1974.

He is a licensed Professional Engineer in the State of New Jersey and an independent consultant in the areas of CRT displays, electromechanical servo systems, signal processing, medical electronics, radar analysis, and power supply design. Prior to 1969 he was employed by several corporations and for seven years as an Assistant Professor of Physics and Electronics at Adelphi University.

Irwin is the founder, editor and publisher of a newsletter entitled the "Committee of Concerned Engineers." This publication is now in its sixth year. Through these efforts he has had his hands on the pulse of the engineer and is most in tune to the problems beating the profession and the practicing engineer. He is a petition candidate for the position of President of the IEEE.

Jerome Susan obtained his BSEE degree from Columbia University in 1949. In 1976 he was awarded the degree of Doctor of Engineering, honoris causa, from Syracuse University for his pioneering work in solid-state technology and for the development of the implantable heart pacemaker.

Prior to joining General Electric in 1952, he held engineering positions at the J.W. Meucker Co. and at Motorola, Inc. As Manager of the General Electric Company's Electronics Laboratory, he has been active in the development of solid-state devices and circuits and in the management of the Laboratory's operations. He is co-author of two books on resistor circuits, has published 40 papers in professional journals and holds 15 patents. He was a non-resident instructor of MIT from 1959 to 1963 and is an associate professor at Syracuse University.

Jerry was appointed to the Advisory Board of the Sunyacontent's University Institute for Energy Research for 1978. He was Vice President of Publications Activities with the IEEE for two years and is currently Vice President of Educational Activities with the IEEE. He was active on a committee of the National Academy of Science, is on the accreditation committee of the BCPD and is a Professional Engineer in the State of New York.

He is the Board candidate for the position of President of the IEEE.

We invite all engineers, IEEE members, their wives or husbands and guests to attend. This is your opportunity to meet the candidates, evaluate their goals and inform them of your expectations and needs. Please, take advantage of this opportunity.

**Time:** 7:30 P.M., Wednesday, August 9, 1978

**Place:** ITT Conference Center, 500 Washington Ave., Nutley, N.J.

**Refreshments:** Refreshments will be served.

**Additional Information:** Richard Tax, North Jersey PAC Chairman (201) 373-0387 after 7 PM.
Major Electronics Firms Show Deficit Fundings Of Pension Plans

Pension funds that are millions of dollars in the red may leave hundreds of thousands of workers in poverty if their companies go bankrupt. That is why the banks, the central banks, and large companies around the world are so concerned.

The money is supposed to come from a tax on companies' assets, and it is supposed to be a windfall for investors. But in reality, it is a windfall for a firm only if it is mortgaged or has less than 30 percent of its net worth. For such companies as Lockheed and Westinghouse, the law leaves a large gap for the PBGC to make up—if it can.

If some conglomerates were to go bankrupt at the same time, the PBGC itself could go under. Already it is experiencing severe fiscal problems (see THE INSTITUTE September, p. 1).

The law also has the potential to weaken the status of other indicators. They are, in fact, "left," according to Patrick J. Regan, who prepared the study for IMS.

Mr. Regan is vice president of BEA Associates, the Manhattan-based investment firm that prepared the 46-page report, 1977 Unfunded Pension Liabilities, which was released last July.

The problem lies in the games actuaries play, Mr. Regan explains. And they don't all play by the same rules:

The actuary tries to estimate how many people will be working at a company to retirement age, so he needs numbers to determine the projected turnover, disability, and death rate.

"Then he projects the employee's earnings ahead and figures the cost of today's employees who will be around long enough to be vested."

In short, there are "a thousand-and-one estimates" that have to be made, and every company's actuaries get their own numbers, by their own means. Naturally, the figures wind up with wide and wildly are "just not comparable from one company to the next."

For example, the expected stream of benefit payments has to be related to the size of the pension fund and discounted at some calculated rate of return.

"Most companies are using a rate of 5.5 to 6 percent," Mr. Regan says. "But some are using rates as low as 4 or as high as 8 or more."

Further, some plans base the amount of a member's benefits on his final salary. In figuring what that will be, some

percent of U.S. companies account for roughly 75 percent of the nation's major unfunded pension obligations, which are instead of being amortized, these amounts will skyrocket in the next 50 years due to inflation and the expanded number of pension plan participants. And, under generally accepted accounting principles, companies are not required to make public the value of pension assets.

The amounts under discussion are the unfunded benefits in a corporate pension plan—the amount of benefits that exceed the fund's assets. Vested benefits are those claims that, by law, cannot be taken away from an employee unless the fund itself goes broke. The particular benefits involved vary from one plan to another, of course.

Some plans that do go bust—but not all of them—are insured by the Pension Benefit Guarantee Corporation, which was created by ERISA. The PBGC pays vested (legally guaranteed) benefits, up to a maximum limit for each participant (see THE INSTITUTE, October, p. 1).

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