

Country's strength threatened by lack of engineers

By JACKIE KLEIN

At a time when the world faces an enormous need for engineers to help solve a long list of ills, the United States lags behind Japan, West Germany and the Soviet Union in the number of engineering graduates per capita. That's the assessment of Donald J. Giffels, vice president of business de-

velopment in the Southfield-based Giffels Associates Inc., architects, engineers and planners.

Giffels, who is president of the Detroit Chapter, Michigan Society of Professional Engineers, spoke at last Thursday's Southfield Chamber of Commerce luncheon at Michigan Inn. His talk was geared to the theme of the Feb. 22 28 National Engineers

Week — "Engineers and Opportunity for Progress."

"In Germany and Japan, the emphasis is on science and math in primary and secondary schools," he said. "In the Soviet Union, all students are required to complete five years of physics and four years of chemistry."

"About five times as many Soviet students as Americans go on to engineering training. Our principal commercial or military rivals recognize that future superiority rests heavily on competence in applied science and engineering. They've been preparing their young people for the world of the future."

PERSONS in the Detroit area might not believe there's a shortage of engineers because they know a few who have been laid off from jobs with auto companies or supplier firms, Giffels said.

But those engineers are being snapped up by industries in other parts of the country that haven't yet been seriously attacked by overseas industrial competitors, he said.

A recent study shows that 75,000 engineers leave the market each year because of retirement, promotion, career changes or other reasons, Giffels said. But in 1980, fewer than 50,000 bachelors degrees in engineering were awarded by all educational institutions.

It will require a national awareness and concentrated effort to bring resources to the opportunity, Giffels said. "We've heard about the loss of productivity, the low quality of our products, high interest rates and taxes, over-regulation, inflation, the rising cost of energy, scarcity of critical materials and environmental problems," Giffels said.

All these problems have been trumpeted by the press and on our TV

screens. Many of these problems are going to have to be solved by engineers, some with the help of businesspersons."

IT COSTS the auto industry \$1,000 to \$1,500 more to produce a car the same size and kind as one produced in Japan, Giffels said. And the perception in the minds of a growing number of persons on both sides of the Pacific Ocean is that the quality of the lower-cost vehicle is superior, he said.

The American auto industry, according to Thomas C. Page, vice president of Ford Motor Co., is expected to invest \$80 billion by 1985 to upgrade products and plants, Giffels said. The industry must produce new products and try to eliminate the \$1,000 per vehicle cost disadvantage, he said.

"This will require better design, engineering, machinery, tooling, better use of automation and work dedication," Giffels said. "If we fail to achieve

the objectives of better products and productivity, the outlook for the auto industry will be dismal.

"We've already lost the battle to our foreign competitors in high quality cameras, television, stereos, watches and small computers. Other industries like steel and heavy industrial machinery are also in the middle of a very tough battle."

President Ronald Reagan said we now have the national will to do what we all know we must. This will be the great test of our national resolve. I hope our legislators have the courage to do the job that's needed to provide the part of our equation called opportunity.

When the message about the country's shortage of engineers gets out, the free market law of supply and demand will provide the needed professionals, Giffels said.

Youth Symphony to perform

Oakland Youth Symphony, under conductor Ervin Monroe, will present an exciting concert on Sunday, March 15, at 7:15 p.m. in Varner Recital Hall on the campus of Oakland University, Rochester.

This performance will include the Brahms Symphony No. 4 in E minor, Op. 98, and will be climaxed by a dazzling version of Tchaikovsky's Capriccio Italien, featuring the superb artistry of the Oakland Youth Brass Section. Tickets are \$3 for adults and \$2 for students and may be purchased in advance or at the door. Information can be obtained by calling Mrs. Lewis at 624-1540 or 345-0035.

Oakland Youth Symphony is made up of young musicians ranging in age from 11 to 18 from the metropolitan Detroit area. Now in its seventh season, Oakland Youth has since its origin been conducted by Ervin Monroe, principal flutist and soloist with the Detroit Sym-

phony Orchestra. As Music Director, Monroe selects exciting and challenging music designed to develop the members' musical abilities beyond usual school levels. Oakland Youth Symphony has not only a nine month orchestral program, but also offers a summer orchestral camp utilizing the beautiful Oakland University Campus. Students enrolled in the summer camp receive in-depth training in conducting, music theory, Chamber Music, and are featured in a formal concert as part of the Meadowbrook Music Festival Series. Oakland Youth Symphony maintains a close relationship with members of the Detroit Symphony Orchestra, many of whom have been involved in auditions, sectionals and competition judging. The annual Detroit Symphony-Oakland Youth Softball game is an example of this delightful aspect of professional involvement with our young musicians.

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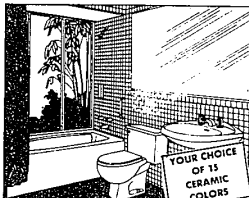
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