
GLOBAL ELECTRONICS INFORMATION NEWSLETTER

Number 28

January, 1983

WEEKLY SEMINAR

Beginning Friday, February 11, PSC will hold weekly seminars on the social and economic implications of high technology electronics. The seminars will not only focus on the global division of labor in electronics production, the emphasis of this newsletter, but on the consequences of the introduction of microelectronics and computers into the workplace, the home, the school, etc. Each seminar will begin at 3:30 p.m. and continue for approximately two hours at PSC's library/office in Mountain View. For more information call PSC at 415/969-1545.

SIGNETICS CLOSURE

Signetics, the Silicon Valley-based subsidiary of Philips, has reduced the workforce at its Manila, Philippines assembly plant from 900 to 200 and has announced plans to cease operations there later this year. The company continues to run its older assembly plants in Seoul, South Korea and Bangkok, Thailand, which employ a total of 4,000. The company also assembles military-specification chips in Sacramento, California. Signetics employs over 10,000 people worldwide, primarily in the U.S. and Asia.

Though the Philippines facility is Signetics' newest offshore plant, it is reportedly less effi-

cient than the other two plants. Signetics spokesman Robert Mollerstuen said automation, not the economy, was responsible for the shutdown, "We've made this decision because of recent advances in mechanization." This report counters a common prediction that automation would drive offshore assembly back to the U.S. Rather, it appears to be reducing offshore employment without returning any work to the U.S., at least in this case. (*Electronics News*, January 31, 1983; *Peninsula Times Tribune*, January 29, 1983)

MATTEL - S.S.S.I.

Solid State Scientific, a Pennsylvania-based semiconductor producer has agreed to sell a 48% equity share and a controlling voting interest to Mattel, the Southern California-headquartered manufacturer of toys such as the Barbie Doll and games such as Intellivision. The deal would give SSSI the cash it needs to cover loans on which it has missed payments. In the agreement, which awaits approval by SSSI stockholders, Mattel promises to purchase at least \$8 million in chips from SSSI in 1983 and \$12 million in 1984. Mattel will not be required to buy more than 20% of its IC's from SSSI, while SSSI will not be required to sell Mattel more than 25% of its yearly output. (*Electronics News*, December 13 and 30, 1982)

INDIA

Indian "manufacturers" of micro-computers and minicomputers are said to be taking the government for a ride as the only "manufacture" they actually do is assembly of parts, almost all of which they import. The Department of Electronics (DOE) of the Indian government and customs officials are fully aware of the problem, but they are helpless to intervene.

Most of the firms which have received industrial licenses to make small computers employ their user import licenses to import 90 percent of their parts needs, including peripheral devices. As most of these concerns have original equipment manufacturers' (OEM) agreements with their foreign partners, they are free to remove the foreign labels on the imported parts and substitute their own tags to give them an India-made look.

These bogus manufacturers are favored by concessional import duties on imported peripherals. The basic levy on 70 percent of them is 60% of value, to which a 15 percent auxiliary duty is added. In addition, imported components attract a countervailing duty of 31 percent. This contrasts sharply with the import duty of 168 percent on direct imports of such parts by users of small computers. This "screwdriver technology" enables factory owners to make substantial profits, merely by attaching peripheral devices to their machines.

Depending upon configuration, a micro-computer in India costs between 500,000 Rupees (\$1.00 = Rs 9.50) and Rs 1.5 million, while the cost of a similar microcomputer may be \$5300 (Rs 50,000) in the U.S.

In 1982, the Indian government issues 64 licenses for the manufacture of microcomputers and minicomputers, including at least 40 issued to traders formerly in the edible oil or grain business. Each license permits the holder to manufacture 300 to 500 systems yearly. Some license-holders reportedly do not even assemble their own systems, but sell their

cheaply imported parts to assemblers at a profit.

Meanwhile, the government semiconductor complex at Chandigarh, in northern India, is having severe problems. The complex was organized to design and manufacture integrated circuits not only for the watch industry but to meet the sophisticated demands of the telecommunications industry. About Rs 500 million is to be invested on plant and equipment. However, the public-sector Indian Telephone Industries (ITI), the biggest prospective customer, is reportedly making arrangements to procure its chips elsewhere. ITI, with headquarters in the southern industrial city of Bangalore, is said to have imported machinery worth about Rs 200 million to set up a chips unit of its own.

Although the Chandigarh complex was originally conceived several years ago, its completion was greatly delayed as committees and delegations of experts and bureaucrats combed the industrially advanced countries for a suitable foreign partner. Finally, in April, 1981, the government signed an agreement with Hitachi to provide production knowhow. The complex is supposed to make large scale integrated (LSI) circuits, but its technology may be obsolete by the time it enters full-scale production. Watch chips may end up as its sole line of business.

JAMAICA

The Caribbean island nation of Jamaica, now under the conservative leadership of Prime Minister Edward Seaga, has joined the chorus of Third World countries asking for high technology investment. In January, when Seaga addressed a conference at Stanford University, he met with several Silicon Valley executives. Jamaica offers an English-speaking workforce, a location near the continental U.S. in one of the same time zones, and workers who can be hired for US\$1.20 per hour, including benefits. (San Jose Mercury, January 15, 1983)

HIGH-TECH SITES

The Congressional Joint Economic Committee has prepared a report on the "Location of High Technology Firms and Regional Economic Development" (June 1, 1982). Written by committee staffer Dr. Robert Premus, the report summarizes the results of a survey conducted by the committee, in which 691 of 1750 high tech companies responded. Premus concludes that high tech firms are "footloose" - that is, they have great flexibility in making siting decisions. Not surprisingly, high tech firms rank labor skills/availability and labor costs as the top two factors in their regional location factors, with the tax climate running third.

The report data is misinterpreted in its foreword, written by committee member Congressman Clarence Brown (D-Ohio). Brown concludes, "The study shows that there will be a significant increase in the portion of the country's high technology firms located in the Midwest, Southeast, Southwest, and the Mountain and Plain states. The most significant gain in this regard is registered by the Midwest region of the country." The data shows that companies survey plan to increase the number of facilities in those areas by small amounts, but because they have so few plants in those regions, the projected percentage gain is great. The Midwest, for instance, currently has 7.2% of surveyed companies' plants and offices. By 1986, that figure should rise to 9.6%, a whopping 33% gain.

The data does show that New England and the Far West, home to California's Silicon Valley and Massachusetts' Route 128 complex, will both decline in their shares of high tech sites, but that data is flawed by the report's methodology. Both Silicon Valley and, to a lesser extent, Route 128 are renowned for their ability to support start-up firms. New companies prefer such established centers, where they can utilize specialized services while hiring staff from other companies. But the Joint

Economic Committee study offers no projection of the 1986 facilities of firms which were not in operation when the survey list was organized. Thus, it undercounts the projected shares of the Far West and New England by a substantial percentage.

In arguing that high-tech is playing an increasing role in the U.S. economy, Premus oversteps the usual definitions of high technology. He includes 40% of the U.S. manufacturing workforce in high-tech. Fortunately, the survey and other data in the report is more carefully generated.

QUME TO RUN

Qume, an ITT subsidiary that produces disk drives, daisywheel printers, and video terminals, has announced plans to shut its printer operations in San Jose (Silicon Valley), California. In January, the company laid off 55 white collar employees and disclosed plans to eliminate 300 more jobs later this year. Since Qume employs nearly 1200 other workers in San Jose and nearby Hayward, the company expects to transfer many of the 300 to other positions.

Qume Vice-President David Wies blamed "extremely tough price competition from foreign companies" for the shutdown. It is moving its entire printer operation to Puerto Rico, where it began printer production in 1982. Wies told the press the company has found it cheaper to make printers in Puerto Rico than in California. *Electronics News* (January 24, 1983) suggests that personnel costs - two times as high in the U.S. as in Puerto Rico - are the major factor. (See also *San Jose Mercury*, January 25, 1983)

BRITISH WOMEN

The Equal Opportunities Commission (Overseas House, Quay Street, Manchester, M3 3HN England), in conjunction with the Leeds Trade Union and Community Resource and Information Centre, has just published **New Technology and Women's Employment**, by Ursula Huws. Huws studied the impact of microprocessors, robotics, fiber optics, and remote sensing and control on women in 40 workplaces in West Yorkshire.

British women, like their American counterparts, are concentrated in the service sector and unskilled and semi-skilled manufacturing, fields in which the new technologies are being rapidly introduced. Huws found that automation resulted in accelerated job loss, decreased promotion prospects, increased job stress, and new health hazards.

New jobs are being created in scientific and technical fields, Huws wrote, but they are jobs for which few women are qualified. Those women who are losing their jobs to the new technology are not being retrained. "We have a situation where as a result of traditional patterns of job segregation and inadequate education and training in scientific and technical subjects compared with men, women are disproportionately affected . . .," she concluded. "Not only are they more likely to lose their jobs, but they are also more likely to find that the quality of work has deteriorated in the jobs that remain."

SUBSCRIPTIONS

To continue to publish the **Global Electronics Information Newsletter**, PSC needs more paid subscriptions. If your copy is stamped, "Please Renew," that means our records show that you have not paid for current issues. Please do renew, by sending a check or money order to PSC. Our rates remain:

US\$5.00 in U.S.
US\$6.25 in Canada & Mexico
US\$10.00 overseas airmail

**Pacific
Studies
Center**

INSTA
 PRINT

222B View Street, Mountain View
California 94041 USA
415/969-1545

Address Correction Requested

BULK RATE
NON-PROFIT ORGANIZATION
U. S. POSTAGE
PAID
PERMIT NO. 155
MOUNTAIN VIEW, CA.