

## COMPUTERS - AGONY AND ECSTASY

# Booming high tech boosts Oregon's economy

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Special to The Examiner

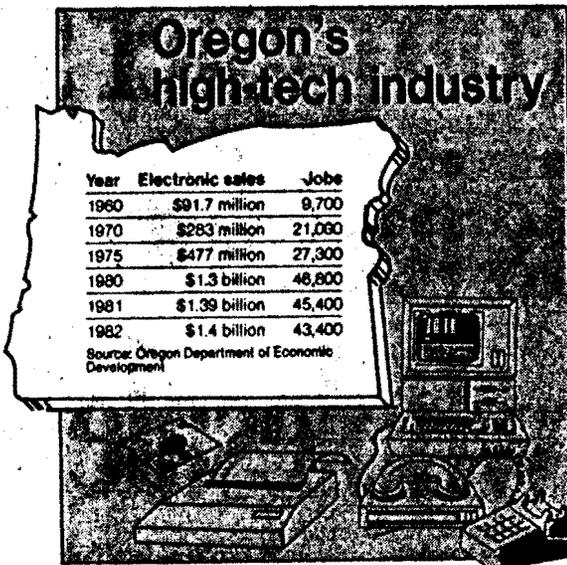
**P**ORTLAND, Ore. — Ten years ago, it was the log trucks that made rush hour on Sunset Highway a cardiac hazard for Type A personalities from the suburbs.

This year, it's cement trucks bound for the science parks and office campuses under construction along the Sunset Corridor while overhead helicopters ferry venture capitalists to still more undeveloped filbert orchards and wheat farms.

Oregon is on a high-tech roll. With the state's lumber industry on its knees and unmilled logs being shipped off to Japan to help ease the foreign exchange imbalance, electronics and computer makers have become the largest employers in four counties. Since May, more than \$500 million in new investment has been announced. It's expected to create 5,000 new jobs in three years.

The fact is, only California and Massachusetts have more computer and electronic firms per capita than Oregon, according to the American Electronics Association.

As of February, the AEA reported 338 electronics companies in Oregon, which based on 1980 U.S. Census figures works out to one per 7,700 residents compared to California's 4,054 companies or one per 5,948 residents. (The Oregon Department of Economic Development shows 863 high-tech employers, but that group includes the



state's multi-exotic-metals industry and some infant biochemical firms in addition to the silicon types.) Massachusetts boasts 937, or one for every 6,083 residents.

Repeal of the unitary tax gets some of the credit. It brought in highly visible Japanese and German investment. Oregon abandoned the much-resented tax on foreign earnings in July. Lawmakers switched to the federal

corporate-tax formula for foreign-owned corporations, which caused a revenue loss of \$30 million. California and 10 other states retain the unitary tax structure.

On Oct. 10, Epson Corp. said it will build a \$10 million dot-matrix printer plant in Portland's Sunset Corridor, and its chairman, Ichiro Hattori, said he intends to follow up with a \$50

million semiconductor plant. He made a point of the salutary effect of the unitary-tax repeal and the state's "favorable business climate and outstanding cooperation."

On Oct. 1, German-owned Wacker Siltronic Corp. mentioned "unitary tax" several times while announcing that it will add a polysilicon plant, the world's biggest, to the silicon wafer factory it already operates in Portland. Taxation policies "can be an important tool" in luring this type of industry," said Werner Freisleben, president, who flew in from Bavaria to make the speech. Wacker makes 35 percent of the silicon wafers used in the United States in its Portland plant. An \$85 million expansion program is underway there.

Also on Oct. 1, NEC America said "unitary tax" will be breaking ground for a \$25 million fiber-optics communications plant in the Sunset Corridor. NEC said its 10-year development schedule for that previously announced project has been accelerated because the U.S. market is growing faster than predicted.

Additional unitary tax finger-pointing has come from Fujitsu, which selected the Portland area in September for \$170 million in disk-drive and semiconductor plants.

For National Semiconductor, the unitary tax wasn't an issue in its Oct. 2 announcement of plans for a 2,000-job Sunset Corridor semiconductor plant, not far from the R&D laboratory that the Santa Clara-based chip maker al-

ready has under construction.

In fact, native start-ups and California's Silicon Valley satellites were already proliferating before the unitary tax became an issue.

Observers say that "critical mass" apparently has been reached in Oregon. There are enough engineers, marketers, job shops, venture-capital offices and highly visible role models driving Ferraris to make their own subculture.

State employment records show 40,500 high-tech workers. The biggest employer, Tektronix, reports 16,000. Intel Corp. has 4,400 employees in seven Oregon plants compared to 6,000 in its operations in the San Francisco Bay Area where the chip maker is based. By 1990, according to published reports, Intel will have the capacity for 12,000 Oregon employees.

Just three years ago, former Palo Alto computer scientist John H. Wensley disconsolately asked, "Where are your high tech bars where EEs (electrical engineers) get together after work?" Now, the Portland Sunday papers carry several times more electronics help-wanted display ads than the papers in Seattle, which is twice as big a city.

Wensley used to be on the staff of SRI International, the Menlo Park think tank. He and four others sold their Palo Alto homes and moved to Salem, Ore. The difference between Palo Alto and Salem house prices totaled almost a half-million dollars and furnished the seed financing for August Systems, their fail-safe computer company.

One-third of the nation's computer-aided engineering and computer-aided design (CAE/CAD) computer capacity is produced within 20 minutes of downtown Portland by Mentor Graphics and Metheus Corp., two Tektronix spinoffs. Tektronix itself has belatedly gotten into the CAE/CAD competition.

The established companies are flitting into semiconductor start-ups like Lattice Semiconductors, Bipolar Integrated Technology and Crystal Specialties; hardware companies like August, Sequent Computer Systems, Metheus Corp., Star Technologies and Planar Systems, and systems outfits like Mentor Graphics and Poorman-Douglas.

While most new firms have clustered in the suburbs of Portland, which employs half the state's workforce and holds 40 percent of its population, many settled into smaller cities along Interstate 5. Hewlett-Packard's personal-computer and calculator branch at Corvallis is Benton County's biggest employer. Litton Industries' aerospace electronics plant at Grants Pass is Josephine County's biggest.

The state's quirky, independent image may partly explain its attractiveness to entrepreneurial types. The late Gov. Tom McCall horrified Chambers of Commerce with his admonition, "Come to visit, but for heaven's sake don't stay," but he also installed the most advanced land-use system in the nation so that the environmental fire-fights are settled, land for development is clearly charted and suburban

Special to the Examiner is... Gov. Vic Ayres, a Portland rug merchant with long legislative experience, and economic development director John Anderson have pushed doorbells all over the United States and Japan, selling the state's educated workforce.