

A New Trail Takes Oregon to High Tech

OREGON, From A1

They can be seen at the plant Praegitzer has built on the outskirts of this tiny Willamette Valley town.

Praegitzer, 53, started working in a sawmill at 14 and had his own portable mill by 21. But in the late 1970s, with inflation leading to crazy bidding for timber rights and soaring interest rates crippling the construction market, Praegitzer got out of the business.

In 1981, two years after he closed his mill, he and a California partner opened a plant here to manufacture electronic circuit boards. He now employs 105 people—almost as many as he had working for him at the height of his lumber operations. Not one is a carry-over.

The change in Praegitzer's business is directly related to the events Friday in nearby Salem, where the state house passed a bill to give Oregon a 5 percent sales tax as part of a massive restructuring of the revenue system designed to attract new jobs and industry. The sales tax, which has been rejected six times in the past by the voters, passed the Democratic-controlled house 39 to 21, with the endorsement of Republican Gov. Victor G. Atiyeh, who in the past had been adamantly opposed to it as most Democrats were.

A key to its passage was pressure from the high-tech industry, which sought relief from high income tax rates and sought a more stable source of school financing than the property tax provides.

It is another sign of the new era in Oregon. In the late 1960s and early 1970s, this state was riding an economic boom. Population

jumped by one-sixth between 1965 and 1975. Gov. Tom McCall (R), in office during most of that decade, epitomized Oregon's efforts to slow its growth. McCall went on national television to say, "Come visit, but for God's sake, don't stay."

But even then, technological advances in the timber industry and the shift of its operations to the Southeast were reducing employment in the forests and mills. The severe economic cycles that climaxed in the 1981-82 recession knocked out any complacency in Oregon. Between 1979 and 1982, 26,000 lumber and wood-products jobs were lost. In 1982 and 1983, Oregon's population fell 65,000.

That trend turned around in 1984, but the comeback in lumbering has been spotty. A study in mid-1984 found that fewer than half the lumber and wood-products jobs lost during the recession had been restored. Praegitzer says that "a lot of the woods and mill jobs we've lost, we'll never get back."

Fortunately for Oregon, the decline in the lumber industry has coincided with the rise of a high-tech industry, centered largely in Washington County, just outside Portland, where in 1946 Howard Volium and Jack Murdock started a garage operation that has grown into Tektronix, an electronics giant employing 15,000 in Oregon.

Tektronix has spawned dozens of offshoots, run by former "Tekkies," and these firms have filled the flanks of the Sunset Highway and the "Silicon Forest" and are spreading down the I-5 corridor running south to Eugene. Overall employment in the industry is estimated at 40,000 jobs (compared to 63,000 in lumber and wood-products). The

Oregon Employment Division has estimated that three major segments of high-tech electronics will add more than 24,000 jobs in the 1980s. Some consider that estimate modest.

There are concerns that the state may be split into two sectors, one expanding and the other declining. "The unemployment rate in the Portland area's three counties is 7.5 percent and stabilizing," Julie Tripp of the Portland Oregonian wrote. "The rate in Oregon's other economy is 4 points higher, and in many counties, climbing." In some lumber-dependent areas, year-end unemployment topped 20 percent.

A parallel concern is that the shifting economic base may force many people from high-wage to low-wage jobs. A mid-1984 legislative report warned that "the declining numbers of 'family wage' jobs" constitute "a threat to Oregon's economic health." It said "60,000 of the 75,000 jobs Oregon lost to the recession were in industries paying an average wage of more than \$10 an hour . . . [But] Oregon's recovery has been fueled primarily by growth in services and retailing industries with average wages between \$5 and \$6.50."

There is debate about how serious these economic threats are. Praegitzer, for example, says he starts his circuit-board employees at \$3.50 an hour "but within a couple years, they're making \$15,000 a year. My sawmill people made more an hour, but not in a year, because these people are working regular."

As for the "two economies" fear, such high-tech executives as C. Norman Winningstad, president of Floating Point Systems, a Tektronix spinoff, say they think that in



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Thomas Bruggere has become a spokesman for Oregon's high-tech industry.

time the high-tech industry will spread into more of the state.

Part of Oregon's high-tech growth comes from people and companies moving out of California's high-priced, densely packed Silicon Valley. Both Winningstad and Thomas H. Bruggere, president of four-year-old Mentor Graphics, are Californians who worked for Tek before starting their own firms. Both have emerged as spokesmen for the high-tech industry in reshaping Oregon's economic policy toward expanding the electronic job pool.

The impact can be seen clearly in the related areas of taxation and education policy. High-tech lives off education facilities; Stanford Uni-

versity's engineering school virtually spawned Silicon Valley. Tek's birthplace in Washington County was in that sense an anomaly, for there was no first-class university nearby. But the industry is forcing the state to fill the vacuum. Although Oregon State University in Corvallis, 80 miles south of the main high-tech center, traditionally has been the locus of engineering studies, Portland State has been adding courses. The high-tech firms have organized a privately financed graduate center in computer sciences to allow a handful of their people to work for advanced degrees.