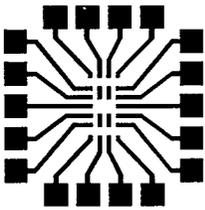


Photo by Chip Henderson, courtesy of N.C. Department of Commerce

Microelectronics: Easy Angling in Legislative Waters

by Stephen R. Kelly



It was hotter than a handful of glowing vacuum tubes in the press conference room of the Department of Administration last June 30 as a line of speakers waded through the heat to talk about a cool new wave of technology. The speakers — academics, scientists and interested citizens — were addressing the hazards and high points of microelectronics, the term loosely applied to the manufacture and use of the tiny silicon wafers that power a computerized America.

For more than a year, Gov. James B. Hunt had been trolling east and west to attract microelectronics companies and their explosive growth to North Carolina. Hunt had also been fishing the waters of the N.C. General Assembly, hoping to snag a \$24.4 million state appropriation for a microelectronics research and training center he hoped would prove an irresistible lure.

But several public interest groups, including the sponsors of this informal hearing, the Durham-based North Carolina Occupational Safety and Health Project (NCOSH), were worried the state was rushing into the microelectronics business without a meaningful debate on either the industry's risks or rewards. "We have attempted in every way we could to get the legislature of this state to hold this type of a hearing," Dub Gulley of NCOSH told the sweaty audience. "Since they have not seen fit to do so, we are here today."

Equipment at North Carolina State University, such as this machine, is used to develop materials for the fabrication of microelectronics chips.

Not all the invited speakers showed up, however. Absent were a spokesman for General Electric, which had already broken ground for a \$100 million microelectronics plant near Raleigh, and Commerce Secretary D.M. "Lauch" Faircloth, whose department had done most of the industrial recruiting. Also absent was George Herbert, chairman of the board of the Microelectronics Center of North Carolina, the corporation established with state funds to plan and build Hunt's center.

But Herbert did send along some remarks. "Not doubting the sincerity of those who express concerns about some aspects of the microelectronics industry," Herbert's statement began, "most negative statements are based largely on a lack of knowledge about the current technologies, processes, and wages of the microelectronics industry."

Herbert's statement, and the entire hearing, contained several ironies. It took place in the very room where Hunt and Herbert had so often extolled microelectronics to the state's media as the bootstraps by which North Carolina could pull itself from its perennial last-place ranking in average manufacturing wages. Hunt seldom shied from theatrics or hyperbole during these sessions, once spending \$1,300 on a television-satellite

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hookup from Denver to Raleigh to announce the capture of the General Electric plant and to bill microelectronics as "the fastest growing industry in the world." On another occasion, Hunt deadpanned that his microelectronics push was "the biggest step any state in the nation has ever made." And in a slick brochure introducing the Microelectronics Center, Hunt described the industry as "our chance — perhaps the only chance that will come along in our lifetime — to make a dramatic breakthrough in elevating the wages and per capita income of the people of this state."

In another irony, the state Senate that very June afternoon, with no mention of microelectronics, approved a state budget containing \$24.4 million to build and equip Hunt's Microelectronics Center, one of the largest single appropriations for a new project in the supposedly tight budget. A few days later, the House did likewise, with only a brief and ineffectual protest about the industry Hunt was trying so hard to woo. The legislators had thus appropriated large and continuing sums of state money to a project about which, as Herbert noted in his written statement, public knowledge was limited.

They had done it virtually without controversy, despite the doubts expressed by outside groups such as NCOSH, and in sharp contrast to the donnybrook that had broken out over Hunt's proposed increase in gasoline taxes.

For a variety of reasons — the nature of the budget process, the strong backing of the Hunt administration, the desperate desire to create jobs — the lawmakers had committed the state to an economic development strategy about which few knew anything beyond what the Hunt administration had told them. "I hate to say they knew little or less than they should have," said Rep. Wilma Woodard (D-Wake), one of only three legislators to attend the NCOSH hearing. "I just have a feeling they took it on faith."

"Who the hell knows anything about microelectronics?" said Sen. Marshall Rauch (D-Gaston), who sat on the Advisory Budget Commission that originally approved Hunt's request. "In my opinion, the legislators just accepted what they considered fact from the Governor."

The push to make North Carolina a top contender for the microelectronics industry was born of the convergence of ongoing research and a good piece of luck. Throughout the 1970s, scientists at several North Carolina universities had been studying semiconductors, the materials that form the base of microelectronics' integrated circuits. To attract research grants, some of those scientists had even begun pooling their efforts with their counterparts

at the Research Triangle Institute (RTI), a scientific think tank located in the successful Research Triangle Park between Raleigh, Durham, and Chapel Hill.

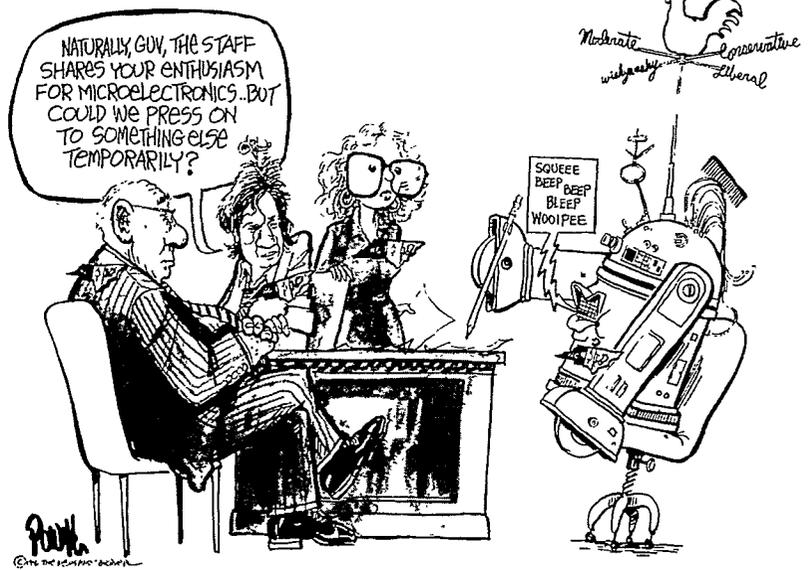
At the same time, the N.C. Science and Technology Committee, a group of researchers, academics, and state officials, had begun to explore microelectronics as a point of focus for its own research grants.* The Committee believed the industry's rapid growth, capacity for creating jobs, and likelihood of continued expansion offered great promise for the state and in late 1977 briefed Hunt on its work. While Hunt seemed interested, nothing further happened until early 1980, when a potential windfall tumbled North Carolina's way.

General Electric, the ninth largest corporation in the country, informed Hunt that it was eyeing a North Carolina location as one of some 25 possible sites nationwide for a new \$100 million microelectronics research, development, and production plant. Company officials also told Hunt they would make a decision by August 1. Now confronted not just by a theoretical scheme for future economic development but by a live prospect as well — one that any governor would like to land — Hunt decided to act.

In the first week of April 1980, the Governor called together the heads of Duke University, the 16-campus University of North Carolina (UNC) system, and the state's community college system to discuss the feasibility of launching the state into a microelectronics boom similar to that of California's Silicon Valley, the industrial basin south of San Francisco that harbors a third of the country's microelectronics companies. In the 1960s and 1970s, Silicon Valley had sprouted up around Stanford University's Integrated Circuits Laboratory, whose technical support was credited with starting and sustaining the growth of the microelectronics industry there. Hunt wanted to know, first, if North Carolina should pool the resources of its own educational and research facilities to attract the industry in general, and snare General Electric in particular. And, second, if it was a good idea, Hunt wanted to know how to do it.

UNC President William Friday took on the first question, and a study group headed by Hunt's science advisor, Dr. Quentin Lindsey, tackled the second. On June 2, they reported back: yes, it seemed like a good idea. "If we can establish a visible and successful microelectronics education and research program, it should prove a powerful attraction for industrial microelectronics facilities and a stimulus for the creation of small high-technology business here," said the group's draft

*The group is now called the N.C. Board of Science and Technology.



Courtesy of Duane Powell, *The News and Observer*

report.

In answer to Hunt's second question — how to do it — the group suggested a nonprofit corporation made up of the institutions already active in microelectronics — Duke University, the University of North Carolina at Chapel Hill, North Carolina State University, North Carolina A&T, and Research Triangle Institute (soon thereafter, the University of North Carolina at Charlotte joined the effort). The corporation would use state funds to establish a research and training center in the Research Triangle Park that students from all the participating schools could use and from which new industry could benefit in both trained manpower and in research advances.

Building a central facility, sharing the costs and benefits of its exorbitantly priced equipment, and using it to lure semiconductor companies to the state all seemed like good ideas. They also fit squarely into the most beloved theme of Hunt's 1980 re-election campaign — economic development — which out on the stump translated into jobs, jobs, jobs. But time was critically short. General Electric would make up its mind in less than two months. And given the rapidly evolving field, as the draft report noted, "It is almost too late to enter the microelectronics race: next year will be too late."

On June 19, Hunt met with the study group and gave the go-ahead. Eight days later, he got \$972,360 in first-year start-up money for the proposed Microelectronics Center from his Contingency and Emergency Fund. On July 16, the center was incorporated and held its first board meeting. On August 1, with a company official calling the center a "key factor" in the decision, General Electric decided to come to North Carolina.

In its rush, the study group had not been able to consider all the implications of the massive importation of a new and rapidly changing industry to the state and its environment. Dr. Lindsey later explained that the group felt the General Assembly could examine those questions when it met in 1981 to consider full funding for the center. But such an examination never really took place. The way in which Hunt got the center its initial funding was to have important implications later on.

The governor's Contingency and Emergency Fund is for use, as the name implies, in cases where insufficient time exists to check with the General Assembly or the Advisory Budget Commission (ABC), the ultra-powerful budget body made up of 12 gubernatorial and legislative appointees. Use of the emergency funds must be approved by the Council of State, made up of the elected heads of state departments, the governor, and lieutenant governor.

By using Contingency and Emergency funds, Hunt avoided going through the legislators for approval, even though they had adjourned from their summer budget session on June 25, 1980, only two days before Hunt sought and won the funds from the Council of State. Hunt's budget officer, John A. Williams, said the funds were used because there simply wasn't time to prepare a special funding request to run by the lawmakers. "In no way was this done in order to avoid involvement with the General Assembly," Williams said. But the move would later allow Hunt to point out to the General Assembly when it met for its regular full session in January 1981 that the state had already invested nearly \$1 million in the center. Legislators are generally more partial to projects in which the state already has something invested than projects being started from scratch.

In early October 1980, Herbert, who doubles as president of RTI and chairman of the Microelectronics Center board, sent a two-year request for the 1981-1983 budget to Hunt's budget office asking for approximately \$24 million to build, equip, and staff the center. Another \$6 million eventually was to come from other sources. The budget office forwarded Herbert's request to the ABC, which takes the governor's budget requests, adds its own, and puts together the proposed budget for final approval by the General Assembly. Since the ABC is made up of the chairmen of the legislature's top money committees, its recommendations are only rarely altered in the rest of the legislative process, because few lawmakers are willing to quibble with the same budget bosses who control the appropriations for everyone's special bills.

While the ABC was still deliberating in November, Hunt took a well-publicized trip to Silicon Valley to court microelectronics firms. There he made the center part of his pitch, announcing to industry executives that he was seeking \$24 million for the center from the legislature. Upon his return, Hunt told reporters the microelectronics funding was his top budget priority.

When it finished work in December, the ABC included \$24.4 million over two years for the Microelectronics Center and the request appeared in the budget bill introduced in the General Assembly in January 1981. Thus before the full legislature could get involved, Hunt had invested \$1 million in state money in the center, advertised plans for it to the nation, attracted one company in part because of it, and won ABC approval of his budget request. "The Governor basically boxed the legislature in," said one legislative budget

staffer. "He had the legislature facing essentially a *fait accompli*."

After the legislators arrived in Raleigh in January, the microelectronics request lay dormant for four months while the lawmakers tried to shrink a state budget many of them said was already bloated, given the unstable economy and federal budget cuts. Meanwhile, sources outside the legislature began to raise questions about the wisdom of Hunt's microelectronics push.

Reporters at one press conference asked Herbert if building the Microelectronics Center in the Research Triangle didn't contradict Hunt's highly-publicized policy of balanced growth — the spreading of new industry around the state. After all, the Triangle area is already better endowed with high-technology industry than are most other parts of the state, and the California experience suggests that microelectronics companies chose to cluster near Stanford University's laboratories in Silicon Valley rather than spread all over the state. Herbert responded then, and in a recent interview, that the semiconductor fabrication plants probably would initially cluster along the Piedmont Crescent, if not solely in the Research Triangle area. But Herbert predicted a later dispersion of the users of semiconductors, as opposed to their manufacturers, for whom proximity to a research and training center would not be as crucial.

The Conservation Council of North Carolina expressed concern about the environmental effects of an imported microelectronics industry, which produces a variety of corrosive and toxic hazardous wastes, and asked that money be used to study these effects if funding for a center was approved. NCOSH distributed literature to legislators warn-



Sample of equipment used at Data General, one of the electronics companies that has recently located facilities in North Carolina.

Photo by Chip Henderson, courtesy of N.C. Department of Commerce

ing of possible hazards to workers in microelectronics plants.

Academics at several Raleigh-area universities raised questions about water use, land planning, and wage levels in the microelectronics industry.

Compared to other protestors who stormed the 1981 session, however, the doubters on microelectronics were easy to ignore. They were mild, late to organize, and only the Conservation Council had a full-time lobbyist. Whatever the validity of the questions they were raising, the budget subcommittee that began reviewing Hunt's microelectronics request on May 12 seldom stopped to consider them.

In three separate meetings, during which Herbert and Commerce Secretary Faircloth lauded the industry and dismissed warnings about occupational safety as "scare statements," the subcommittee received only one formal presentation about the negative aspects of microelectronics. And that presentation, by a legislative staffer assigned to the subcommittee, was quickly rebutted by Herbert.

A standing request from the Conservation Council's lobbyist to address the subcommittee was denied by its chairman, Rep. Edd Nye (D-Bladen), this despite Nye's own stated preference for letting any interested parties address his subcommittee and a specific provision in the state's Executive Budget Act that "to these sessions... shall be admitted with the right to be heard all taxpayers or other persons interested in the estimates under consideration."* Nye said he denied the request because the appropriations committee chairmen, Sen. Harold Hardison (D-Lenoir) and Rep. Billy Watkins (D-Granville), told him a public hearing would be held for other points of view, and his subcommittee "should look at the fiscal aspects."

On May 20, Nye's subcommittee approved funding for the Microelectronics Center. Eight days later, Watkins scheduled a meeting on the issue for the full Joint Appropriations Committee, although its Senate leaders were away at another committee considering Hunt's proposed gas tax. But Watkins said even this meeting was not a public hearing, only an "informational session" for the benefit of committee members. The only speakers invited were UNC President Friday, Faircloth, and Herbert, all of whom, not surprisingly, agreed, as Faircloth put it, that the center was "one of the smartest investments this state can make."

No legislator ever asked for a true public hearing on the pros and cons of the microelectronics industry or the proposed center, and none was ever held, even though a total of 35 public hear-

ings on topics ranging from litter control to day care were held during the 1981 session. By the time NCOSH mounted its own informal hearing in that steamy press conference room June 30, it had about the same effect on the budget juggernaut as a fly splattering on the windshield of a speeding 18-wheeler.

The smooth sailing and uncritical examination that characterized the Microelectronics Center's voyage through the legislative process was not expected by all legislative leaders. "I was surprised that it did not have more vocal opposition," said House Speaker Liston Ramsey (D-Madison), a veteran of the 1975 brouhaha over building a medical school at East Carolina University and the 1978 fight over the new veterinary school at North Carolina State University, budget proposals requiring similarly large appropriations.

While both of those fights invoked regional loyalties, noted Ramsey, the Microelectronics Center involved five universities spread from Charlotte to Raleigh. In addition, Ramsey said, where both school projects were likely to create employment for relatively small groups of people, the Microelectronics Center would help create jobs not only for the students enrolled but for thousands of other workers if it succeeds in bringing new companies to the state, a feature that made it especially attractive to lawmakers.

"I think people in this state, legislators especially, are hungry for good jobs for the people they represent," Ramsey said. "The legislators are grasping for some way to increase the average income in this state."

Other legislative hands explained the center's easy passage by pointing out that Hunt had all but committed the state to building the center before the lawmakers got to town, thus making resistance to what appeared an accomplished fact seem futile. Rep. Joe Mavretic (D-Edgecombe), who attended the NCOSH hearing as a panelist and gave Hunt's hazardous waste legislation its closest scrutiny, suggested the center also was spared from attack because it was safely ensconced in the budget package, which the governor and the ABC successfully defend as a unit.

Finally, the legislators may just have been awed by the technology and the breadth of the microelectronics "revolution" predicted by Hunt. Where Hunt had to lobby vigorously to protect his gas tax and hazardous waste legislation, little effort was needed to keep lawmakers in line on microelectronics. Anxious to create jobs, equally anxious about affronting the powerful legislative leaders who control the budget, distracted by other controversial issues and presold by Hunt, the legislators were content to take Hunt's word that microelectronics, as Sen. Rauch wryly put it later, "was the greatest thing since popcorn." □

*G.S. 143-14.