



## Peering into the Poverty Gap

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### **Will the rich get smarter while the poor play videogames?**

Students in dirt-poor Hancock County, Ga., have always had to make do with less. They have no art teachers, no speech therapists and no full-time physical education program in the elementary schools.

One thing they do have is computers. A pair of Apple II Plus micros was delivered to the high school two years ago, gifts of the Southeastern Consortium for Minorities in Engineering, a group of 22 colleges and universities that helps predominantly black high schools. This fall,

impressed with what the new machines were doing for their students, county officials sprang for six more. "If we hadn't gotten the first two for free," says Superintendent M.E. Lewis, "we wouldn't have any at all."

Hancock County, deep in the cotton belt, is a lucky exception to a disturbing modernization of an old saw: the rich are getting a richer dose of the new technology, while the poor get left further behind. Computers are starting to appear in schools in large numbers. The total, which more than doubled in the past year, is approaching 130,000, or an average of 1.6 classroom computers for each of the nation's 82,000 public schools. But the number of machines available to each school varies widely. A survey by Market Data Retrieval Inc. found that 80% of the country's 2,000 largest and richest public high schools now have at least one micro, while 60% of the 2,000 poorest schools have none. Says Market Data President Herbert Lobsenz: "If computers are the wave of the future, a lot of America is being washed out."

In Menominee (pop. 10,000), a manufacturing town on Michigan's Upper Peninsula, 2,400 high school students must share just three Apple computers. Downstate in Ovid, teachers at the town's elementary school had to hook their only computer to a television set because they could not afford the standard video monitor. "We have a sense of panic," says Principal Tom Van Deventer. "A year ago, a computer was a luxury. Now it is a necessity." But there are competing necessities. In New Orleans, where fewer than 7% of the schools have computer classes, one school district administrator contends, "Kids here need a lot of other things. They need counselors, basic textbooks, a bathroom that works."

Even when poor rural and inner-city schools elect to spend their limited funds on computers, the teachers are often inadequately prepared. Pressured to improve basic skills quickly, they take the most direct route, using computers as electronic flash cards for simple drill and practice. By contrast, specially trained teachers at more sophisticated schools are introducing ever younger children to the art of programming. In Georgia's affluent De Kalb County, 445 teachers a year take four-hour instruction sessions one night a week. Says Frank Barber, the training coordinator: "We believe the nicest thing that can happen to a child is to have a teacher who really understands what computers can do."

Not surprisingly, rich private schools such as Dalton in New York City, Lamplighter in Dallas and the Harvard School near Beverly Hills have enough machines to give every student access. And in areas where parents know and care about computers, like California's Silicon Valley or Boston's ring of electronics-oriented suburbs, public schools are using computers in most of the regular curriculum. Ann Arbor, Mich., which has been wired up for more than a decade, has 200 micros in its 26 elementary schools, 50 in its five intermediate schools, and 52 in the three senior high schools. Further, as more and more couples acquire low-priced

home computers, often with the express purpose of giving Johnny a head start, they begin lobbying school boards to get the funds for classroom machines.

Even among educators who worry about too much tilt to technology, there is growing agreement that a computer is a powerful motivator of a school-age child. Students with access to a micro spend more time studying and solving problems. Those who write at their keyboards compose more freely and revise their work more thoroughly. "It's not just a matter of number crunching," argues Arden Bement, a vice president of TRW. "It's a new way of thinking. The kids who don't get indoctrinated to computers by seventh grade are not going to develop the same proficiency." Says Andrew Molnar, computer education specialist at the National Science Foundation: "Power is not distributed evenly now, and computers will broaden that gap."

Other observers disagree, seeing instead a potential educational leveling device. "In the long run, all God's children will have computers," says Computer Consultant Charles Lecht. "Students who used to fail because they could not master geometry the first time around will be able to turn to the computer for relief. The machines will emerge as great equalizers." But the majority in the field worry about the near-term specter of the rich taking control of the technology while the poor play video games.

In an era of tight money and taxpayer rebellions, government is not likely to redress the disparity. In fact, the Reagan Administration is urging a one-third cut in the funding for the federal program under which most of the few computers in inner-city schools were purchased. Another much ballyhooed prospect for help is also in trouble. Steven Jobs, the 27-year-old chairman of Apple Computer, had proposed donating a free computer to every school in the country, provided Congress grant manufacturers the same tax break that would be available if they gave the equipment to a university. The companies that took advantage of the law would then have been able to do a public service, while also building future markets. But Jobs is now backing off, unhappy with various limitations in the version of the tax break that has passed the House and is awaiting Senate action. If he were to get the bill he wants, the delivery of thousands of free machines would help to even out the inequities. "Computers will be taught in most schools eventually," says Jobs. "But that's five to ten years from now. The question is why wait?"

—By Philip Faflick. Reported by Bruce van Voorst/New York and Roger Witherspoon/Atlanta

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