



PHOTO: TYSON RITTER

The Humboldt County Export Economy: IT INDUSTRY

Prosperity! was developed with the direction of over 300 business and community people. It's about growing and sustaining our community—our people, our businesses, our environment, our lifestyle. It's about competing—and winning—in an extremely competitive global marketplace. It's the North Coast strategy for economic development. And it's working.

The export industries of Humboldt County grew wages 11.2% in the last two years... that's faster than the whole economy, and that's the point. These industries *drive* the local economy...and *thrive* on the quality of life that we all cherish.

While the verdant river valleys of Humboldt County may never gleam with the bluish-gray of silicon, information technology continues to strengthen a growing knowledge-based economy and provide high-skill, high-wage jobs for the county's citizens. Today's IT professionals may turn out an end-product—software or hardware—or supply expertise that helps businesses of all kinds compete with the world.

“We're not only an industry cluster by itself; we're also in every other cluster around the county, so it's kind of a support industry too,” says Tina Nerat, an IT consultant and a member of the Redwood Technology Consortium (RTC) board of directors.

Such a widespread presence makes it easy to underestimate the number of IT jobs in the county. A technical position at a bank, for example, may appear as a finance job in state employment figures. The official tally may also overlook self-employed individuals and telecommuters. But third-quarter 2005 data do clearly show that many IT jobs rank among the top quartile of high-wage occupations in the North Coast region—positions such as software engineers (\$34.73 mean hourly wage), programmers (\$29.17), systems analysts (\$24.55), and network and systems administrators (\$24.15). Still other positions, such as database administrators and data communications analysts, have mean wages above \$21 an hour. New state employment projections through 2012 list computer systems analysts and computer support specialists among the fastest-growing occupations on the North Coast. In many cases, such jobs have their roots in Humboldt's celebrated entrepreneurial spirit and the lure of its quality of life.

The county did get a late start, however. While California leads the nation in broadband use, for example, one recent study ranks the state 14th in the nation in developing policies that encourage broadband deployment, including its reach into lower-use communities like Humboldt County. The first fiber-optic line into Humboldt is under three years old and still serves only the heart of the county. ►

INFORMATION TECHNOLOGY

Now, as the California Department of Transportation prepares to charge telecommunications companies right-of-way fees for fiber-optic line, increasing access on the North Coast seems to be a more difficult proposition—and certainly a more expensive one. Led by the Redwood Technology Consortium (RTC), advocates continue to push for the expansion of broadband, wireless access in population centers and a redundant fiber-optic connection, providing a valuable backup and increased competition.

Given these and other area challenges, including transportation and housing, local IT boosters have downplayed the idea of a “big bang” origin for the Humboldt IT industry, says Christopher Crawford, president of Justice Served, a small Eureka-based provider of tech services to court systems that has competed with—and bested—the likes of IBM. “Cisco Systems is not going to come in and buy Samoa and put in a huge plant,” Crawford admits. Instead, local gains in infrastructure, talent and training have

brought steady, organic growth to the sector.

Humboldt Merchant Services, for instance, had its start in 1993 as a division of Humboldt Bank that provided credit card processing for retailers. Even after its acquisition by First National Bank of Nevada in 2003, the company remained in Eureka and today ranks among the top U.S. processors of Visa and MasterCard transactions. That’s possible because of leased lines connecting the company and its 80 employees with the bank in Reno, its processor in Omaha, Neb., and thousands of merchants nationwide.

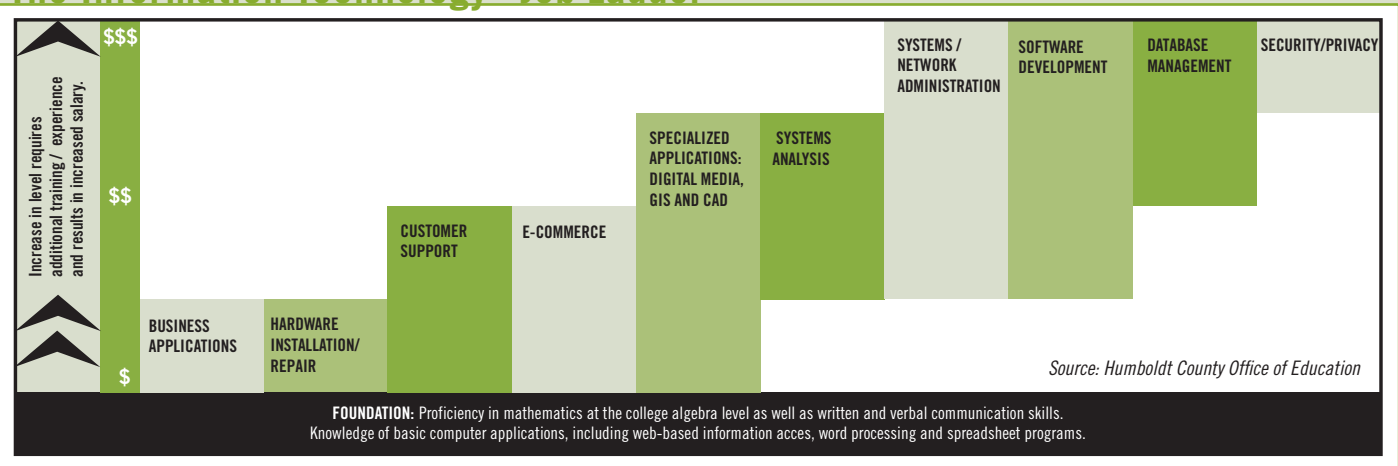
In December 2005 alone, some \$145 million in Visa and MasterCard processing flowed through Humboldt County on those data lines. While dedicated bandwidth in a relatively rural area is expensive, it has allowed the company to double processing volume in the past three years. It also made it possible to keep the company in Humboldt, where certain costs of doing business, such as labor and rent, are lower and the quality of life is sky high. Most importantly, the employees here built the company and know the business inside and out, explains Ken Musante, president. “You just can’t take the knowledge base that we’ve created over the past dozen years and suddenly transplant that,” he says.

Other successful IT firms have had even more humble beginnings, usually involving one or two bright people who have

specialized skills but who don’t want to leave the area, says John McBrearty, director of IT at College of the Redwoods. “So they think up something innovative that they can make a profit on, then sell it directly to the wider world,” he says.

That’s precisely what Jim Hubbard, president of HealthWare Solutions, did after he started his company in the early 1990s while still a student at Humboldt State University (HSU). In recent years the company has seen steady growth as a provider of software and support for emergency medical service providers around the country. “The nice thing about software is that you can do it anywhere in the world,” Hubbard says. In fact, his company’s biggest challenge in doing business here is not the relatively new IT infrastructure; it’s the limitations on travel, given the necessity of on-site client support. “When you sell a piece of software, you’re really selling a service too, because the software doesn’t work without people helping it,” he explains. Once the logistics of moving people and equipment out of Arcata became too difficult, the company opened a small office in Los Angeles that may grow as necessary. “But I don’t want to live in Los Angeles,” Hubbard adds. HealthWare Solutions still has 15 employees in Humboldt County—double the number of three years ago—because lower labor costs here still offer a decided advantage. (The Humboldt job categories listed above, for example, pay ►

The Information Technology “Job Ladder”



from 26 to 39 percent less than the same positions in the Silicon Valley.) “If we were in the Bay Area we probably wouldn’t be able to survive because the salary levels are so much higher,” Hubbard admits.

Keeping costs down is what has allowed StreamGuys, today one of the largest content delivery networks for Web audio and video streaming, to be profitable from day one, says Jonathan Speaker, chief operations officer. Though the company employs nine people at its Arcata operations center and plans to hire two or three more this year, it contracts with five data centers around the world to do its high-bandwidth processing. StreamGuys counts among its clients many of the nation’s largest National Public Radio stations, for which it provides both audio streaming and podcasting. The exploding market for all kinds of streaming and hosting, in fact, has helped the company achieve 80 to 100 percent growth annually.

Like Speaker, an outdoors enthusiast who loves the area, Jill St. Claire chose Humboldt as home for its quality of life. The founder and operating manager of JSC Marketing moved to Ferndale from San Diego less than two years ago to be near family. Being part of the IT field has also allowed her to enjoy Humboldt’s slower tempo while maintaining most of her client base outside the area. Her work for local companies—roughly 20 percent of her business—has been a pleasant surprise, involving mostly Web site development and search engine optimization.

Aside from the appeal of Humboldt’s natural setting and lower labor cost, an area tech center or business incubator is one exciting idea for attracting entrepreneurs and talent, business leaders say. Both Speaker and Hubbard, a member of the county Workforce Investment Board, believe creative startups that could share space and expensive infrastructure, such as a T3 line, would have a greater chance of success. Speaker

offers as one example the Nashville Business Incubation Center, which over the years has spawned dozens of successful companies and added millions to that local economy. “That kind of thing would’ve been very helpful to us in our early stages, and I’m sure it could be helpful for other companies,” Speaker says. “You’ve got to set the stage for high-tech companies like us.”

Elsewhere around the county, dozens of smaller, home-grown service providers are the neural connections that keep IT buzzing, together forming the technological capacity of the entire local economy. Although companies like Morse Media of Eureka and JSC Marketing aren’t large employers themselves, they help companies of all sizes both inside and outside the county—stay competitive and grow by providing services such as Web site development, Web hosting and online marketing. They are, in effect, leveling the playing field for many Humboldt companies in the global marketplace. As Crawford points out, “there is no such thing as a low-tech business” anymore.

That should come as good news to students in local college and university ▶

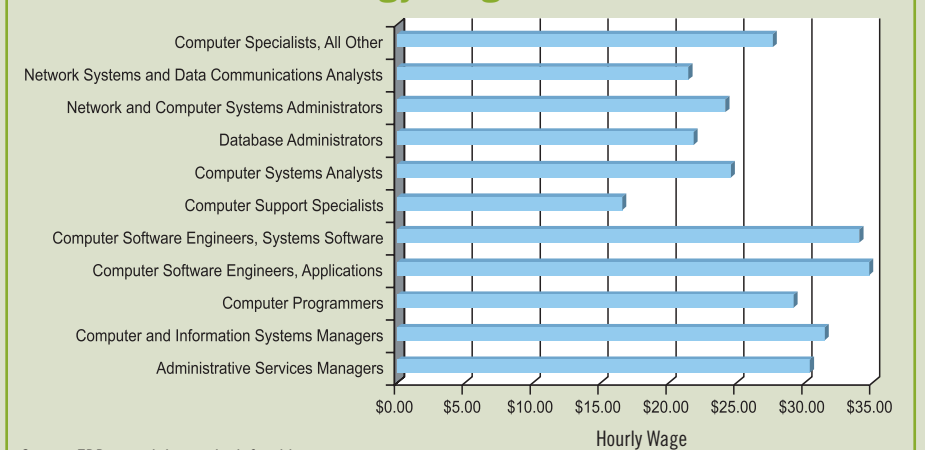
Five Reasons Why

Telecommunications Infrastructure is critical to the Humboldt county economy:

- Growing and existing businesses are reliant on fast, secure and dependable telecommunications to stay competitive.
- In order to prepare and educate the future workforce, our students need robust access to technology resources.
- Businesses in all industry clusters require access to global markets.
- Technology based businesses support higher wage jobs.
- Telecommunications supports new forms of interconnectivity for a more informed citizenry and responsive government.

Developed by Redwood Technology Consortium

Information Technology Wages on the North Coast



HIGHLIGHTS

Source: Dennis Mullins, EDD:
www.labormarketinfo.edd.ca.gov

In 2005 there were 39 establishments within the Information Technology cluster. This number decreased by 7.6% from 2003, while the number of employees rose by 7.1%. During this same period, total wages rose 23.6% to almost \$12 million. Average wages also rose by 15.4% to \$44,067 per person. The IT cluster represents 1% of the total economy and 2% of the base economy in Humboldt County.

INFORMATION TECHNOLOGY



PHOTO: TYSON RITTER



PHOTO: MAHANE MORSE / MORSE MEDIA

PHOTO: LOUIS ARMIN-HOLLAND

programs, which to date have produced more graduates than the local industry has jobs. The Department of Computing Science at HSU offers two undergraduate degrees, computer information systems (CIS) and computer science, which last fall had 95 and 45 majors, respectively. “I think many students that have been in the department have wanted to stay here and have found it difficult because of a lack of opportunities in the area,” says Sharon Tuttle, department chair.

Those graduates who leave typically head for West Coast urban areas, where they may find higher salaries but also a steep cost of living. Those who stay sometimes find that local IT needs aren’t as sophisticated as what might be required in a more corporate, urban setting, so they often scale back and look for niches within the local market, says Chris DeHart, a counselor in the HSU Career Center. Management information systems and systems administration are good examples of local niches that are especially congruent with the CIS degree, he says. College of the Redwoods also offers associate degrees in programming and CIS networking.

Still, despite a surplus of local graduates, some Humboldt companies often have to look outside of the area to larger labor pools to fill specialized, high-skill positions. StreamGuys’ Jonathan Speaker—himself a former student in the CIS program at HSU—thinks local academic programs can do much better in serving Humboldt companies. By providing students with real-world experience through internships or by keeping the curriculum up to date with market conditions, students will be prepared to enter the job market.

That kind of win-win cooperation between industry and educators should improve as the fledgling IT sector offers more opportunities to job-seekers. Although IT has struggled nationwide since the end of the 1990s tech boom, DeHart sees the need for graduates starting to pick up. One byproduct of local growth may be that Humboldt develops an IT specialty that would focus

the region’s talent and attract outside clients. Crawford suggests that the county’s reputation as an arts community, for example, could help it become the graphic arts center of the digital world. “There are lots of things we can do here to brand ourselves,” he says.

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Information Technology: The Road Ahead

CRITICAL TECH ISSUES TO ENHANCE HUMBOLDT COUNTY ECONOMY

- Establish redundant fiber line
- Expand broadband to un-served areas
- Increase usage of internet and broadband services (business and personal)

TECH EDUCATION AND OUTREACH NEEDED TO ADVANCE IT SECTOR

- Convene forums on relevant topics
- Monthly meetings with informative talks
- IT expertise in local jurisdictions
- Increase effective technology use in business
- Stimulate increased usage of internet and broadband by population
- Build strategic cross-cluster partnership

CURRENT INITIATIVES

- Establish redundant fiber line
- Expand broadband to unserved areas
- Build wireless hotspots
- Adopt communications element in general plan

CHALLENGES

- Broadband service access needs to be extended to the whole community; many people don’t have access.
- Risk of damage to telecom infrastructure and serious interruption of service from storms and hazards.
- Travel distance to meet with clients out of the area. Improved airport and highways are critical.
- Lack of data about our industry growth - hard to quantify the IT sector because IT is utilized across all sectors of economy.
- Finding, recruiting and training IT workforce in rural location. Connecting needs for IT expertise with existing experts...no one knows who can do what.
- Increasing public understanding of the power and value of broadband to increase their earning power.

Developed by IT industry leaders in their Prosperity! industry cluster work-plan.