

High-tech presence, high benefit for all



Area Development Site and Facility Planning

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The site-seeking company of any stripe is advised to investigate areas with a large high-tech presence, as they are likely to offer a healthy economic environment

THE ABILITY of communities to support and assimilate technological innovations fostered by high-tech companies in their midst is having a profound impact on the regional economic landscape of the United States. The New Economy is roaring through the nation, from urban to rural settings - even in places where once low-tech operations reigned supreme.

Corporate managers would be wise to note which areas are attracting the most high-tech firms, and which companies have made substantial brick-and-mortar commitments in those locations. Such information may come in handy when it's time to discuss relocation or expansion plans, no matter what the industry. This is because in some respects, what's good for high-tech companies is often good for low-tech firms also conducting site selection.

Defining "High-Tech"

Where are the flourishing high-tech clusters, both established and newly planted? Before answering that inquiry, it should be noted that there seems to be disagreement among economic development professionals, hightech industry journalists, and even government officials about what "high tech" really means.

Some experts only want to attach the "high-tech" label to companies working with electronic equipment and components most commonly found in the telecommunications and computer industries. Others prefer to add to the mix firms working with pharmaceuticals, chemicals, plastics, data-processing, aircraft, biotech, and the like. Whether you subscribe to the stricter or looser explanation, the definition of high-tech is like that of good art: You know it when you see it.

Embracing the broader definition allows us to review where high-tech companies with different types of relocation criteria are congregating. While it's impossible to talk about all the communities attracting and retaining high-tech operations, we'd like to focus on some of the more noteworthy places providing fertile business ground for these highly-sought-after companies.

Identifying High-Tech Centers

The Santa Monica-based Milken Institute is a nonprofit economic think tank conducting research in economics, business, and finance. Through its efforts to explain the dynamics of world economic structure, conduct, and performance, it hopes to create "a better-informed public, more thoughtful public policies, improved economic outcomes, and better lives for people."

Last July the institute released a report examining the impact high technology has had on more than 300 metropolitan areas in the United States. (The report used the wider definition of high-tech by including companies in 14 industries.) The centerpiece of America's High-Tech Economy: Growth, Development, and Risks for Metropolitan Areas is a listing of the top 50 metro high-tech poles. (See chart at left, and visit the URL www.milken-inst.org/pub14/pub14_research.html for more details.) Employing a variety of statistics, the institute's researchers created a ranking of metropolitan areas based on two measurements: the overall high-tech output of a particular area and the concentration of high-tech goods/services in a metro area's total economy.

All top-50 metros share a large number of high-tech industries in their communities, from computer makers and chip manufacturers to software companies and telecommunications firms. California can claim seven metro areas in the top 50 (the others are Orange County, Oakland, San Diego, San Francisco, and Sacramento), while the West and South have more than the Midwest or East Coast areas. The institute is preparing to release an updated version of its high-tech report later this fall.

Top-10 High-Tech Centers Silicon Valley - the San Jose, Calif., metro area - is king on the Top 50 list. The region that gave birth to the PC industry is now developing the electronic networking industry and its offshoots for the information-hungry world. Companies calling the valley home include Internet-focused Cisco Systems, Oracle, Intel, Silicon Graphics, Sun Microsystems, HewlettPackard, Applied Materials, and similar powerhouse firms.

"Not only is San Jose's high-tech production value huge," reads the Milken report,

"but its high-tech industries are deep and broad. They employ more than 279,000 workers, with an average value per employee of \$142,500 (obtained by dividing a company's revenue by the number of employees). The San Jose area accounts for 5.8 percent of total national high-tech output."

Serious attempts have been made "across the country, and even around the world, to duplicate the San Jose experience," the report continues. "Many regions have at least to some degree made great strides in high-tech developments. But none has been as dynamic and as broadly developed as the Silicon Valley."

Dallas, Tex., earned a second-place position due to its diversified high-tech base. Seven out of the possible 14 identified "high tech" industries are concentrated here in numbers far greater than the national average. Furthermore, the metro area has attracted six of the country's 20 biggest telecommunications firms.

Third place belongs to the Los Angeles-Long Beach, Calif., metro area. The report cites the "high-tech portions of its vast entertainment industry" as the reason for its high standing on the Top 50 list.

Boston, Mass., takes fourth place. Not only can it boast an "above-average concentration in 11 high-tech industries," but it can point to its large number of leading research institutes and universities known throughout the nation and the world.

The last five places rounding out Milken's Top10 list are, in order, the Washington, D.C., metro area (more than 50 percent of the U.S. Internet traffic moves through local businesses); Albuquerque (with many electronic component manufacturers); Chicago ("important center of communications equipment"); New York ("enjoys its role as major player in telecommunication services"); and Atlanta ("high-tech capital of the South" attracting computer, data processing, and telecommunication services). The Milken Institute study and other research also indicate that not just urban centers are attracting hightech concerns. For example, in many rural college towns the collegiate faculty and student brainpower are also helping to develop some of the newest and best technologies, creating and supporting high-tech incubators, forging public-private partnerships of note, and instigating networking among a wide variety of industries.

Recruiters Identify High-Tech Areas

Besides research studies, another sure way to identify high-tech concentrations is to talk to employment firms placing employees with companies in related industries. Consider Hall Kinion, a recruitment company focusing almost entirely on high-tech

clients seeking top-level talent. "Our mission is to unite the `Silicon Valleys' of the world," says Jennifer Waldrip, regional director for recruiting services.

Headquartered in San Francisco, the firm has 37 offices nationwide; two of them are in Portland, Ore. The Portland marketplace is definitely the "Silicon Forest," attracting a large number of growing electronics, computer, and other high-tech industries into the area, she explains. "Fifty percent of the silicon chips sold in the United States are manufactured here. The city has become well-known for its software, hardware, and Internet development."

According to Waldrip, the region's high-tech industry dates back to 1946, and today provides a great number of jobs for state residents, "so much so that high tech drives our unemployment rate very low. We have a huge demand from clients to supply them with top talent for this area and around the nation. And they're willing to pay top dollar, too."

Other top markets Waldrip cites as hotbeds for high-tech employment include Seattle, Denver, Boulder, the Bay area, state of Virginia, Austin, Dallas, Houston, Boston, Orange County (Calif.), Salt Lake City, Phoenix, New York, Tampa, Raleigh, the Research Triangle Park area, Atlanta, and Minneapolis.

Ed Horton is founder of Horton & Associates, a Fairlawn, Ohio-based recruiting firm placing IT specialists, engineering professionals, and ancillary positions. Among the places Horton identifies as high-tech meccas are San Jose; Austin; Washington, D.C.; and Boston. "But areas that have been a complete surprise to me have been northeast Ohio and western Pennsylvania, particularly Pittsburgh and Allegheny County. That's why we're located here near Akron. There are a number of well-known companies in and around Akron, Cleveland, and Canton offering opportunities for high-tech talent both in traditional and start-up operations. Quite frankly, we can't meet the deadline for this area."

About 98 percent of all positions 1Jobs.com places are in the high-tech fields, notes Bob Sopko, vice president of marketing. His Internet-based recruiting firm, headquartered in Independence, Ohio (outside Cleveland), finds candidates through career fairs and the company's website. "For us, Dallas is a major hub. Other parts of the Southwest are steaming along, especially Austin. Another big hub is Seattle, Microsoft's backyard."

Any new up-and-coming areas in smaller markets? "Nashville is opening a Dell factory. And Huntsville, Ala., is very proud of its high-tech element due to the Space Camp there. They're starting to build up a high-tech presence." Sopko says a

continuing trend is for firms to move to areas offering a lower cost of living and less employee-- swapping activity among competing firms than the more well-known hightech spots.

What Do High-Tech Contenders Offer?

Two thumbnail sketches of cities attracting high-tech operations give glimpses of what it takes to do so. Greater Washington encompasses northern Virginia, suburban Maryland, and the District of Columbia. According to a regional report issued this past June by the Greater Washington Initiative (GWI), this area tops the nation both in the number of workers in hightechnology occupations and in hightech firms. An analysis of the economy "confirms that the New Economy.. is alive and thriving" in Greater Washington, observes Peter Nostrand, GWI chairman. "It's also clear that [our] rapidly expanding technology sector is contributing significantly to the region's outstanding business environment."

Why the accolades? In sum, an estimated 12,364 high-tech companies located here employ 242,130 workers. About 90 percent have fewer than 50 employees (a figure showing entrepreneurial activity). Furthermore, cuttingedge computer work is everywhere, as nearly 70 percent of high-tech services are involved in software development and systems integration.

Growth is fueled by highly educated employees who have more degrees than workers in any other major metro area, according to GWI. Regional federal procurement funding (\$25.7 billion in 1999) provides a solid base for private-sector businesses. Three area airports and a good quality life contribute as well. Moreover, there is a great deal of venture capital: Nearly \$1.5 billion of it was invested in Greater Washington in 1999, a 163 percent increase over 1998.

In the northern United States, Spokane, Wash., is nurturing an emerging high-technology industry which is fast becoming a driving force in its economy. Relaxed living, inexpensive power, and a low cost of living in this small city are among the reasons it was named one of 10 "family-friendly" cities in America - and why hightech companies are relocating here. Local industry firms of note include Cyan (which created the "Myst" game), Key Tronic (computer keyboards), Telect (controls, communications cables), Agilent (formerly Hewlett-Packard Co.), Getronics (formerly Olivetti), and Intronix, renowned for its computer workstation. Of the top dozen manufacturers in Spokane, eight are technologybased.

Perhaps one of its largest draws is the Spokane Intercollegiate Research and Technology Institute (SIRTI). Since 1995 the institute has developed 44

public/private partnership projects expected to generate more than \$13 million in company revenues by year's end. High-tech firms benefit from technology advances and product development generated by SIRTI projects. Another magnet is the Terabyte Triangle, a central business district wired with high-speed Internet access and high-capacity fiberoptic cable nurturing software, digital, and information technologies industries.

Site Selection Advice From a Developer

Finally, communities seeking hightech companies as well as site-seeking firms can learn from the Irvine Co.'s Investment Properties Group, Orange County's largest developer. It has attracted (and retained) 2,500 businesses - 800 high-tech and 25 Fortune 500 companies - to Irvine Spectrum, a multiuse project mixing retail, industrial, and office space. Located in the "Hub of the Technology Coast," which reaches from San Diego to the Silicon Valley and boasts the highest concentration of technology companies/talent, Irvine's tenants employ more than 400,000 people.

What does the area offer which other high-tech-hungry regions may or may not be able to duplicate? The list comprises six features:

1. Lots of flexible, available space: Some companies initially move into incubator space, then grow into larger office, "flex-tech," or R&D space within Irvine Spectrum.
2. Research colleges and universities in proximity to the business district
3. A cluster of high-tech companies, which creates synergy and promotes a high-paced, creative atmosphere
4. Affordable, plentiful housing (apartments to custom homes) close to work, plus good schools: Students who attend schools in and around Irvine score above county, state, and national SAT averages, and more than 90 percent of all high school graduates attend college.
5. Ample shopping, arts, and entertainment amenities: Irvine Spectrum is near a 500,000-square-foot entertainment, dining, and retail center. There are -also plenty of parks and golf courses.
6. A warm climate

Why should companies in any industry look at locations attracting high-tech firms? There are two reasons: First, some research postulates that the economic development factors required by high-tech companies are often the same ones on the wish lists of low-tech firms. The Milken study provides the other incentive when it predicts metros that "do not achieve some level of attainment in these critical [high-

tech] industries will likely experience substandard economic growth in the future."

Translation: A community with a high-tech presence may have a higher probability of developing and maintaining a more healthy economic environment, no matter which industries it supports.

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