# Rural Development Center Newsletter-January 1999

**University of Maryland Eastern Shore**

**INCUBATORS REVISITED**:
Incubators were heavily reported in the beginning months of this year. Within a few months, the boom was over and the fad cycle quickly turned against incubators. As dot.com stocks crashed last April, incubators took the brunt of the fall, and the leading firms, like Safeguard Scientifics, Softbank and the Internet Capital Group, now trade at 15 to 30 percent of their highs. Among some entrepreneurs today, the term incubator has become a dirty word.

Does this quick change of opinion make sense? Was interest in incubators just another symptom of dot-com mania? We don't think so. A shake-out among Internet incubators is happening, and some crazy ideas -- such as incubators that incubate incubators -- will thankfully be put to rest. But, there is a need for some incubator services. The challenge ahead is to find a niche in this market, and to find a way to make a profit at incubation.

The basic concept for an incubator is not necessarily new or revolutionary. In fact, the first U.S.-based business incubators date back to the 1950s, and they have even formed their own trade association, the National Business Incubation Association **http://www.nbia.org/**. But, the Internet has spawned a boom in new incubators. A recent Harvard Business School study identified more than 356 for-profit incubators in the United States. It also noted that new incubators grew at a rate of six per month between January 1999 and August 1999. After September 1999, growth rates skyrocketed, averaging roughly 27 new incubators per month up until May 2000.

These new incubators have different origins. Some are started by venture capital firms or by established corporations, but the majority (58 percent) are classic start-ups. Much like entrepreneurs themselves, these firms tend to cluster in certain high-tech hotspots like Silicon Valley, New York City, and Boston. A huge proportion of the new incubators (92 percent) is focused exclusively on serving Internet-specific companies.

How do these incubators work? While there are a host of models, most offer a similar suite of services. In addition to advice and technical assistance, incubators provide below-market office space, support services (such as legal and accounting), and opportunities for firms to network with fellow tenants and others in the industry. These specialized services are designed to "hatch" new companies quickly and help new firms grow to a self-sustaining scale over a compressed period of time.

Because so many of these incubator are new, it is probably too early to offer a final judgment on their performance. But, the early returns are not glowing. The Harvard researchers found that a majority of incubators (62 percent) had not yet produced a graduate. A recent Industry Standard survey found that only one in 10 companies had used an incubator, and nearly half of the surveyed firms questioned the value-added provided by such services.

In hindsight, the turn of opinion against incubators is understandable. When numerous start-ups crowd into an already crowded market with the same business model, the prospects for success are limited. When this is combined with a simultaneous downturn in the whole Internet sector, the problems facing many new Internet

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incubators seem inevitable.

In this environment, only the truly outstanding firms can survive and prosper. Indeed, that is what seems to be happening. Many of the newer and weaker incubators are exiting the business. The firms that remain are better managed, better financed, and have proven track records. Not surprisingly, the age of an incubator tells us much about its performance. The Harvard researchers found that incubators more than two years old performed significantly better by serving more companies, graduating more incubatees, and accessing new equity capital for graduates.

The other good news is that incubators are finally gaining a grasp of what services add value. Generic business advice and access to professional services may be helpful for new firms, but these services are widely available. Thus, entrepreneurs need not use an incubator for this purpose. However, incubators can offer real added value when they focus on a specific market niche where they have special connections or expertise. For example, Seattle-based Ignition is specifically focused on incubating wireless technology firms. The U.K.-based incubator, antfactory, has differentiated itself through its tight connections with Europe's largest corporations, thus ensuring that it has deep pockets to invest in promising new firms. Its ability to open up the doors to leading corporate investors provides a much-needed service for entrepreneurs.

The Harvard study also found that formal networking opportunities are highly valued by entrepreneurs, and our own research confirms this finding. Thus, incubators that emphasize networking opportunities may find a successful niche. Such networking goes beyond simple schmoozing at the water cooler; it involves direct and formal links such as sales and marketing partnerships between incubatees.

Based on these trends, the future for Internet incubators does not appear as bleak as the pessimists claim. But, at the same time, the short-lived era of the start-up Internet incubator may also be coming to an end. Success will depend on deep pockets, deep connections, and focused industry expertise. The model Internet incubator of the future is likely to be managed by a large corporation such as McKinsey, Panasonic or DuPont (all of which have set up incubator programs), or by experienced and well-funded entrepreneurs who offer unique services to incubatees. Thus, the newly announced firms 12 Entrepreneuring (started by CNET founder Halsey Minor) and Comstellar (headed by former executives at Bell Communications and Sun) may face bright prospects. If these predictions do indeed come to pass, it's likely that future incubators will look more like traditional venture capital funds or holding companies like CMGI and less like the risk-taking start ups with unique names like Bhive, eHatchery, or Planet Zanett.

The incubator market remains in great flux, and the profitability of this model remains uncertain. However, it is clear that incubators provide a service that entrepreneurs need and want. Finding a way to provide these services, and make money while doing it, is the challenge facing firms over the next year.

(Morten T. Hansen, Nitin Nohria and Jeffrey A. Berger, The State of the Incubator

Marketplace, Cambridge, MA: Harvard Business School, June 2000). The report summary is available at **www.hbsp.harvard.edu/hbr/incubator/incubator1_4.pdf**. To visit NCOE website: **http://www.ncoe.org/**.)

**ATTRACT COMPANIES--SCHOOL-TO-WORK PROGRAMS FOR SKILLED LABOR**:

The much-written about labor shortage is still with us, making the challenge of attracting companies to your community even more difficult. One long-term solution you can support in your community is school-to-work partnerships. Across the nation, working under umbrella initiatives called school-to-work (STW) or school-to-career (STC), corporations are coordinating with schools to provide opportunities for students to learn about the variety of jobs available, skills and knowledge needed for these jobs, and the responsibilities expected in the work place.

The effort is noteworthy. A recent survey of American manufacturers commissioned by the National Association of Manufacturers' (NAM) Center for Workforce Success found that 88% of responding manufacturers report difficulties in finding qualified candidates in at least one job. Sixty percent of responding manufacturers typically reject at least half of all applicants as unqualified, lacking both relevant skills and work experience. More than three-fourths of responding associates said that K-12 school systems are not doing a good job. Eighty percent said that public job-training programs are not doing a good enough job. Yet, responding companies that have participated in STW initiatives had high praises for the partnerships they had formed with high schools and claimed that the biggest benefit to STW is the life changing and career defining direction students obtain.

While many corporations have practiced versions of STW programs for some time, the concept became formalized when President Clinton signed into law the School-to-Work Opportunities Act of 1994 (STWOA). The Act made it easier for states and communities to facilitate implementing STW "systems," by providing five-year federal grants as "seed money."

Much of the STWOA funding flows to local partnerships. These partnerships are required under the STWOA to include employers, educators, labor representatives, and students and may also include a wide range of other public agencies and community groups. Most local funding is in the form of grants awarded by states from their federal grants, but the federal government also funds some local partnerships directly. To date, all 50 states, Puerto Rico, the District of Columbia, six island territories, 18 Out-of-School Youth grantees, 20 grantees that serve Native American youth, and 100 high-poverty communities across the United States have been awarded STWOA funds. Nearly 18 million students in more than 36,000 schools are in geographic areas served by these partnerships. Nearly 178,000 employers are involved in STW activities, and 109,000 employers are providing work-based learning for students. Over $1.85 billion in federal funds will have been invested by the time the legislation sunsets on Sept. 30, 2001.

While each state, territory, or grantee may implement its STW slightly differently, each initiative is simultaneously and proactively investing in potential employees. The efforts

are important to corporations that are facing critical shortages of workers in this labor shortage environment. Take Santa Clara, CA-based Intel Corp., for example. The high-tech company started a program it calls Strut (Students Recycling Used Technology) to give high school students an opportunity to learn how to disassemble computers, upgrade them, and load software. Intel has implemented the program in schools throughout California and six other states.

"Five schools are now doing training," says Cliff Monroe, Strut director. Cisco Systems Inc. began a Virtual Networking Academy program in 1997 as an answer to its own high-tech skills shortage. The program teaches not only high-school students, but those living in homeless shelters as well. The program is not just an act of charity though. According to an article in the June 5, 2000 issue of Business Week, U.S. employers will need 1.6 million tech workers this year, yet only half of the positions are expected to be filled. Cisco hopes to close that gap by graduating more than 10,000 students around the world from its Virtual Networking Academy this summer.

One of the most ambitious and fastest-growing programs out there, Cisco has already graduated 4,100 of its 21,000 students at 3,432 locations in 60 countries. Once the curriculum is completed (the course is taught over two full school years) students can take the Cisco Certified Network Associate (CCNA) exam, a networking-industry test administered by independent agencies. Once students pass the exam they can land network engineering jobs that pay as much as $50,000 to $70,000 directly out of high school!

Business Week points out that Cisco will have spent more than $50 million in direct contributions by the close of its fiscal year 2000, ending July 31including $1.37 million to wire 10 of the nation's poorest school districts. The program is opening doors of opportunity for students who might never have considered going into this kind of technical field.

Alan Hershey at Mathematica comments that STW has changed the way students, parents, schools, and industry think about what school systems should be doing with students. "They believe students should be given exposure to careers, even a limited amount," he says.

But, he points out, STW clearly has its limitations such as accountability, the testing of students involved in STW, constraints on students' available time, the number of employers willing to make such positions available, the resources needed to develop and monitor workplace activity, and the willingness of parents to have their children commit to workplace programs. "Companies have expressed varied interest and involvement," he says. "The major challenge is to create workplace learning opportunities whose value and appeal stem from the intellectual challenges they offer rather than the career areas in which they occur."

Then there is the issue of future funding for such programs and partnerships. "The ultimate question is whether the partnership concept, after the expiration of federal funding, will be supported financially and sustained," he says. One thing is certain, he concludes, STW is good for everyone in the community.

To read more about these types of programs and find out what other states are doing to increase the use of the initiative go to **www.busfac.com** to read the July 2000 article entitled Education for the Future. (Source: CUED)

**1998 MANUFACTURING WORKERS ALMOST 17 MILLION**:
The nation's manufacturing sector employed 17 million people in 1998, according to Internet tabulations released today by the Census Bureau. That number was not significantly different from 1997.

The tabulations, from an Internet report titled **1998 Annual Survey of Manufactures, Statistics for Industry Groups and Industries**, show employment and payroll, number of production workers and wages, cost of materials, value added by manufactures, new capital expenditures and other measures of economic activity for all manufacturing establishments.

The transportation equipment manufacturing subsector was the largest manufacturing employer in the economy, with 1.9 million workers. Other major employers include manufacturers of fabricated metal products (1.8 million), computer and electronic products (1.7 million), food (1.5 million), and machinery (1.4 million).

**1999 STATE AND COUNTY POPULATION ESTIMATES**:
The Census Bureau released annual estimates, from 1990 to 1999, of the population by age, sex, race and Hispanic origin for 50 states, the District of Columbia and 3,141 counties.

The population estimates use the 1990 census as their base along with estimates of births, deaths and net migration for the 1990-1999 period. The population estimates are not Census 2000 results, which will be released beginning in late December.

The data for states and counties include estimates of the population by single years of age (to 85 and over), sex, race (White, Black, American Indian and Alaska Native, and Asian and Pacific Islander) and Hispanic origin. Additional tables show rankings of population by race and Hispanic origin for states and counties in 1999.

The state data tables include--

❑ 1990 to 1999 Annual Time Series of State Population Estimates, by Race and Hispanic Origin

❑ 1990 to 1999 Annual Time Series of State Population Estimates, by Age, Sex, Race and Hispanic Origin

❑ 1999 State Population Estimates, Ranked by Race and Hispanic-Origin

The county data tables include--

❑ 1990 to 1999 Annual Time Series of County Population Estimates, by Age and Sex

❑ 1990 to 1999 Annual Time Series of County Population Estimates, by Race and Hispanic Origin

❑ 1990 to 1999 Annual Time Series of County Population Estimates, by Age, Sex, Race and Hispanic Origin

❑ 1990 to 1999 Annual Time Series of County Population Estimates, by Selected Age Groups

❑ 1999 County Population Estimates, Ranked by Race and Hispanic Origin.

**ELECTRONIC SHOPPING AND MAIL-ORDER FOR COMPUTER HARDWARE AND SOFTWARE SALES**:
Electronic shopping and mail-order houses sold $22.9 billion in computer hardware, software and supplies in 1997, more than any other type of retail business, according to one of two new reports released by the Census Bureau.

In 1997, electronic shopping was not yet a significant segment of the industry we call 'electronic shopping and mail-order houses. But that segment is growing, and Census will identify electronic shopping and electronic auctions in categories separate from mail-order houses in 2002, for the next economic census.

Retail Trade-- Merchandise Line Sales is the first in a series of reports from the 1997 Economic Census to explore the lines of goods sold or sources of receipts by industry type.

Highlights--

❑ Of the $56.4 billion in sales of computer hardware, software and supplies by all types of retailers, 41 percent were made by electronic shopping and mail-order houses. Conventional computer and software stores followed with 39 percent; radio, television, and other electronics stores, 12 percent; and office supplies and stationery stores, 5 percent.

❑ Sales of all types of merchandise from the electronic shopping and mail-order houses totaled $79 billion in 1997. Computer hardware, software and supplies accounted for 29 percent; clothing and footwear, 15 percent; and drugs, health aids and beauty aids, 13 percent.

❑ Sales of cigarettes, cigars, tobacco and smokers' accessories amounted to $37 billion in 1997. Of that total, 37 percent were sold by gasoline stations (including those with convenience stores); 24 percent by supermarkets and other grocery stores; 10 percent by warehouse clubs and superstores; 9 percent by convenience stores; and 7 percent by tobacco stores. Vending machines accounted for less than 1 percent of tobacco sales.

The 1997 Economic Census is the first to identify casino hotels separately from other hotels, and the second report, Accommodation and Foodservices: Merchandise Line Sales, covers these businesses.

Highlights--

❑ Hotels and motels excluding casino hotels obtained 73 percent of their receipts from guestroom rentals in 1997, with meals and alcoholic beverages accounting for most of the rest.

❑ Casino hotels depended on guestroom rentals for only 13 percent of their receipts, while 66 percent came from gaming (including casino games and slot machines).

**1994-1998 Hispanics Voters Up**:

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More than one-half million more Hispanics voted in the congressional elections of 1998 than did in 1994, increasing this ethnic group's presence at the polls from 3.5 million to 4.1 million, according to new analysis of a recent report by the Census Bureau.

While the overall number of voters nationwide dropped by 2.6 million, the number of Hispanics going to the polls between 1994 and 1998 rose sharply. The information is in **Voting and Registration in the Election of November 1998**.

The number of Hispanic citizens of voting age increased from 10.4 million in 1994 to 12.4 million in 1998.
The overall turnout rate for Hispanic citizens of voting age was unchanged between 1994 and 1998 33 percent. Nationally, the turnout rate for all U.S. citizens of voting age fell from 48 percent in 1994 to 45 percent in 1998, which was the lowest participation rate recorded since the Census Bureau began collecting voting and registration data in 1964.

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