

Identifying Obstacles to the Success Of Rural Business Incubators

National Business Incubation Association

May 2001

Contractor Paper 01-08

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Identifying Obstacles to the Success Of Rural Business Incubators

Introduction

Challenging Circumstances

For the past 20 years, public officials, universities, and economic development groups have often created business incubators in challenging circumstances—whether in low-income inner-city neighborhoods, Indian reservations, or rural areas that are low-population or lacking in critical infrastructure. Incubator developers have asked the National Business Incubation Association (NBIA), “How rural is too rural; how small a population is too small?” Until the release of this study, there has been no easy answer to this question.

NBIA leaders have long been aware that an incubator that needs to operate in a self-sufficient manner without significant subsidies must also be large enough for the real estate operation to throw off adequate revenues to fund the incubator’s business assistance program.

This is of particular importance in rural areas. Few rural communities can afford continuing significant infusions of cash to keep their entrepreneur assistance efforts afloat. If nothing else, elections are likely to bring in politicians with a different set of priorities—and the entrepreneur support program that is the darling of one politico becomes the least favored child of his or her successor. Then funding for the project is cut. This has contributed to the NBIA belief that real estate is an important component in the business incubation equation, even if it isn’t the ultimate defining characteristic. The Association maintains, in fact, that a *business incubator is a comprehensive business assistance program targeted to startup and early stage firms with the goal of improving their chances to grow into healthy, sustainable companies*. There’s no mention of real estate in this shorthand definition.ⁱ

ⁱ Still, the real estate is an important contributor to the success of most incubators, as they are currently constituted. It is the *vessel* in which a critical mass of startup businesses can be collected and served. It supports *synergy* among clients, who learn from each other; *self-sustainability* of the incubation program; efficient provision of an array of *services*, including training programs and oversight of companies. It also provides a *focal point* for community entrepreneur support activities that is both appealing to stakeholders and the public and helps to market the services

Given the scenario above, however, it becomes obvious that the incubator must become sustainable without too greatly taxing the public purse or the resources of other stakeholders if it is to have the longevity required to achieve its goals. Key to this is deal-flow—do sufficient numbers of qualified incubator candidates exist within the market service area of the incubator to justify the program and support the real estate that represents a critical piece of its income? Thus, the population of the service area, the types of businesses already located there, tradition and history, and entrepreneurial bent, all play a role in incubator sustainability and are objects of scrutiny in any good incubator feasibility effort.

Rural incubator developers have ingenuously adopted all sorts of means to address this problem. These means include networked incubators that involve a “hub” program servicing satellites in less populous communities; incubator-without-walls programs, where there is no real estate at all; incubators supported by resource-rich institutions such as universities, which take the pressure off the incubator’s bottom line; and co-location of public service agencies within the incubator to provide business assistance services and to support the real estate through rental fees. Many incubators also reserve space for “anchor” tenants—mature businesses that pay market rents and do not need incubation services.

Despite these efforts, however, many rural incubators operate under highly challenging circumstances. A 1998 NBIA study of the incubator industry shows that rural incubator managers have significantly fewer clients and graduates, and significantly smaller operating budgets than their suburban and urban peers. An incubator manager compensation study conducted by NBIA concurrently with this effort revealed that top executives of rural incubators make a median salary of \$45,000 (average \$47,000) compared to an overall median salary in the industry of \$63,500. In urban areas, the median is \$60,000 and it’s \$64,000 in suburban

program. NBIA Executive Director Dinah Adkins refers to this as the S³F theory of incubator buildings.

communities.ⁱⁱ NBIA membership data show that half of all rural incubator managers are *not* members of the Association, compared to urban and rural incubators whose percentage of membership is much higher. It could be that NBIA needs to provide more services targeted to the needs of rural incubators to attract them. It could also be that rural incubator managers often do not have large enough budgets to attend Association training, buy publications, or pay membership dues. Whatever the case, rural managers have not made their voices strongly heard, and they have also often been unable to avail themselves of information on incubator best practices and successful strategies of incubator development promulgated by NBIA.

Project Goals

Aware of the considerable needs of rural incubators, the Association for years sought funds to conduct a thorough study of the obstacles to rural incubation, with hopes of finding ways to alleviate those obstacles. A research contract was finally awarded by Tennessee Valley Authority Rural Studies Program through the University of Kentucky Research Foundation. The present document presents the findings of the most comprehensive study ever conducted of rural incubators and the obstacles to success that they face. The results have answered some of the questions that incubator developers and funders have long posed to the Association and these are described in the chapter immediately following.

NBIA conducted the study in collaboration with Ohio University College of Business. The partners developed information from business incubator managers on their challenges, their practices, and the external factors (e.g., community population, access to educational institutions, etc.) that may contribute to or hinder success. The project goals include the following:

- Identify challenges and obstacles that rural business incubators must address in order to improve performance and, thus, achieve a greater return on both public and private investments in these programs.
- Identify external factors that might contribute to or hinder incubation, such as population size, access to educational institutions, cooperation among service providers, etc.
- Identify rural incubators operating within the southeastern United States that have developed solutions to problems that plague their peers.
- Inform NBIA and incubator sponsors such as TVA, Aaaa Rrrr Cccc (ARC), EeeeDddd Aaaa (EDA) and state economic development programs of issues and obstacles to rural incubation, including those that can be addressed by developing peer consulting, training or other assistance programs for rural incubators.

The ultimate goal is to strengthen rural incubation programs throughout the TVA region, the southeast United States, and the nation.

The Research Methodology

The study was regional, though it stepped beyond the TVA service area enough to develop an adequate sample. The relatively large number of incubators located in the southeastern United States represents about 40 percent of the approximately 120 rural U.S. incubators that were operating at the time this research began. In March 2000, the researchers mailed or emailed the survey to 48 incubators located in 11 states east of the Mississippi River. One of this sample of incubators declined to participate on grounds that it was really sited in a metropolitan corridor and was not rural, reducing the pool to 47. Of these, a relatively small number of programs (15) completed the survey and provided usable data. This represented a response rate of 32 percent.

The research design of this study included the use of a focus group, a pilot study, an in-depth survey instrument and telephone interviews. The focus group and pilot study that preceded the survey helped the researchers create an effective survey instrument.

Focus Group

A group of six incubator managers from five states gathered in Cincinnati, Ohio, in January 2000 with representatives from the Tennessee Valley Authority, Ohio University and NBIA for

ⁱⁱ "Compensation Among Top Executives of Business Incubation Programs," National Business Incubation Association, 2000.

a day-long session to initiate the research project. The incubator managers were

Russ Combs
Friendship EDZ Business Development Center.
Friendship, N.Y.

Jeff Dukes
Mississippi Department of Economic and
Community Development. Jackson, Miss.

Steve Hodges
Jubilee Business Incubator. Sneedville, Tenn.

Kevin Liska
Business Media Center. Cookeville, Tenn.

Giles McDaniel
Northeast Alabama Entrepreneurial System.
Anniston, Ala.

Joe Rahn
Economic Development Director for City of
Hastings. Hastings, Mich.

During the morning session a lengthy discussion ensued regarding the challenges faced by rural incubation programs followed by a session on how some of the challenges are managed. Finally, the group critiqued a draft survey instrument, providing insight into word choice, question choice, increasing response rates, and methods of distribution.

Pilot Study

In February 2000, the survey team piloted the survey product that resulted from the focus group. The researchers chose five selected rural incubators not located within the target population, and the survey instrument was mailed to the managers of these incubators. Four managers completed and returned their surveys. The researchers followed up with them by conducting telephone interviews to identify strengths and weaknesses of the instrument and to determine ease of completion in order to develop the final survey.

Survey

In March 2000, the final survey (See Appendix C) went out, either through e-mail or in hard copy, to 48 incubators located in 11 states east of the Mississippi River. Ten of these rural incubators were located in the Tennessee Valley

Authority jurisdiction. Respondents were to return the completed survey within three weeks. Given a low response rate after this three-week period, all incubator managers who had not returned a survey received a reminder either by phone or e-mail; this effort resulted in five additional surveys.

The detailed survey instrument asked managers to provide responses to nearly 200 queries, including both closed and open-ended questions. Closed questions focused on providing information about the incubator facility, its clients and locale, incubator financial information, and information about types of services the incubator provided, as well as a host of effectiveness measures related to staff, salaries, governing bodies, and goals, objectives and mission of the incubator. The open-ended questions sought information regarding specific obstacles facing the incubation program in its effort to develop more successful new ventures within its service area. These questions also asked about successful programs and practices the incubator had developed to solve obstacles they faced.

Because the survey was not an outcome survey (e.g., not looking at performance outcomes), many questions asked for answers in a selection of ranges of numbers rather than actual numbers.

Telephone Interviews

Given the open-ended nature of the survey questions associated with the practices rural incubators use to overcome obstacles they face, few incubator managers responded with any detail. Because of this, the research team followed up to confirm information and obtain more details on manager practices. What became apparent from both the surveys and the telephone interviews was that most of the practices the rural incubator managers described as “best practice” are generally very basic to business incubation—rural or not. These included providing a computer laboratory or a business library, hosting a training program in e-commerce or cash flow, or even using standard selection criteria for clients. A few of these suggestions merit further research; an example of one that should be better documented in the future is the Tennessee Technological University incubator’s use of CDs, satellite computer sites, student interns and volunteers to teach business and e-commerce skills. Generally, however, basic information about how incubators have developed training programs and advisors and how they

screen companies has been more than adequately covered in the many NBIA publications and it is impossible to duplicate that information here. What is apparent from looking at the surveys, however, is that given the budgets of these incubators, rural incubator developers and managers may not have accessed these publications or association training and networking opportunities, particularly networking opportunities with high-performing programs.

The major findings of the research effort are described in the following chapter. Appendix A presents the incubators responding to the survey. Without their help it would be impossible to have gained important insights in the workings of rural incubators. We owe them a considerable debt of gratitude for taking time to answer such a lengthy survey. Detailed findings about the general population of rural incubators who responded to the study are contained in Appendix B. Appendix C presents the complete study questionnaire.

The authors provide important recommendations for sponsors, managers, and stakeholders of rural incubators. These recommendations are presented in the "Recommendations" section of this paper.

To illuminate how rural incubator managers have successfully resolved deep-seated obstacles encountered by respondents to this survey, NBIA developed case studies from the experiences of four successful incubator program founders and managers whose programs are located both within and outside the research region. These interviews were structured to address primary obstacles encountered by the incubator managers, which seemed to arise from how they were structured, how they were funded and how good a job the incubators' organizers had done in setting up the programs in the first place. The case studies are included in the "Case Studies" section of this paper.

Major Findings of This Study

The major findings of this study effort include:

1. Top performing incubators are organized differently, to achieve higher performance and client outcomes.
2. Top performing incubators studied in this particular sample all represented incubator networks or they were organizing networks.

3. Top performing incubators reflected high compliance with generally accepted incubator best practices.
4. Top performing incubators were *organized for success* through their network structure and, in one case, through significant support from an institution of higher education.
5. Top performing incubator managers had higher salaries than lower performing programs.
6. Top performing incubators had larger budgets and more employees than lower performing programs.
7. Top-performing incubators' managers spent more time working on incubator activities and more time developing client businesses.
8. There is no significant correlation between community size and incubator performance *so long as* the incubator program is organized to deal with the challenges inherent in serving a low-population service area.
9. Top performing incubator programs had a clearly identified mission and program goals.
10. Top performing incubators were based on incubator feasibility studies all of which were highly predictive of the size and composition of the client base, as well as the incubator's revenues and expenses. These studies also identified prospective incubator clients.
11. The lowest-performing incubators faced constant funding difficulties and had difficulty gaining community acceptance and understanding of their importance to community economic development.
12. Low-performing incubator sponsors pay more in subsidy costs for programs that perform less well.

As already noted, the study team developed a detailed profile, presented in Appendix A, of the incubators that responded to the survey. However, this picture was too general to provide value in understanding all the obstacles these incubators face and how such obstacles might be surmounted. To do that, the team decided it

would be necessary to segregate those programs that seemed to be performing on a high level and compare them to others. The questions we attempted to answer were: “What made for stronger programs? How were they organized? How did they function? What were their practices?”

High- and Low-Performing Incubators

The important findings of this research effort fall out of comparisons of the high- and low-performing programs. To accomplish this the incubator surveys were divided and responses were placed in each of three “buckets.” The authors used responses to question 32, describing incubator manager compliance with 35 generally accepted incubator best practices, to segment the group. Three incubator managers reported complying with 32 to 35 of the best practices and

these were placed in the top-performing bucket or group. Six incubator managers reported complying with 23 to 27 best practices and these were placed in the middle bucket. Finally, six managers reported complying with 14 to 20 of the best practices; these were placed in the low-performing bucket. For the purposes of this report, the authors then compared responses from the top and bottom performing buckets. The comparisons were stark, but the authors caution that the sample sizes on this level were too small to be representative of the entire population of rural incubators. Still the authors feel the responses provided below can be useful in characterizing the differences between these two groups in this survey sample, and they illumine the problems of rural incubation programs and potential solutions.

Attributes of High- versus Low-Performing Programs

Table 1: Comparison of Top and Low Performers

	<u>Top-Performers</u>	<u>Low-Performers</u>
Year incubator started	1996 (n=3)	1993 (n=6)
Service area population (avg.)	108,666 (n=3)	99,778 (n=6)
Previous fiscal year expenditures (avg.)	\$169,679 (n=2)	\$91,423 (n=6)
Previous fiscal year public subsidy (avg.)	\$16,000 (n=2)	\$52,500xx
Gross square footage (avg.)	65,789 sq. ft (n=3)	15,230 (n=5)
Occupancy rate (avg.)	93% (n=3)	80% (n=6)
No. clients since program inception (avg.)	43 (n=3)	18 (n=5)
No. graduates since program inception (avg.)	9.5 (n=3)	7.75 (n=4)
Graduates in business (avg.)	9 (n=2)	7 (n=4)
Current clients serving local/regional markets (avg.)	9.33 (n=3)	3.3 (n=6)
Current clients serving national /international markets (avg.)	15 (n=3)	2.67 (n=6)
<u>Firm growth rates (avg.)</u>		
Negative or zero growth	.5	1.25
10% or less growth	1	1.5
10-25% growth	6	1.5
25-50% growth	4.5	.25
Greater than 50%	2 (n=2)	.5 (n=4)
Hours manager worked in incubator (avg. per week)	43.33	27 (n=5)
Salaries as % of total expenses	48.4%	36% (n=6)
Full-time equivalent incubator employees (avg.)	3	1 (n=6)
Time management staff spends delivering business development services (avg. wk.)	40 (n=2)	13 (n=6)
Time management staff spends on other activities (fundraising, recruiting, building mgt., etc.)	40 (n=2)	27.33 (n=6)
Hours of volunteer service to incubator, excluding client consulting (avg. wk.)	6.67	9 (n=5)

The incubators' compliance with generally accepted best practices are also useful in characterizing the very different operational activities of the two different groups.

Table 2: Compliance with Generally Accepted Best Practices (avgs.)

Response (agreement) on a 1-5 scale, with 5 indicating strong agreement	<u>Top-Performers</u>	<u>Low-Performers</u>
This incubator regularly collects information on client outcomes.	4.7	3.0
This incubator engages in wide-ranging effective marketing of its program and achievements.	4.3	3.0
This incubator's staff salaries are at a level necessary to attract and retain people capable of running a model program.	3.7	1.5
This incubator's board/sponsoring agency recognizes that management's primary responsibility is to help the incubator's clients in order to ensure their success.	4.3	3.0
If the incubator were to lose a major funder, it could identify a replacement funder in order to continue in operations at the same or a higher level.	4.0	1.33
This incubator's governance structure contributes to rather than detracts from effective program operations and client service.	4.7	3.7
This incubator keeps elected leaders informed of its needs and achievements.	4.7	4.0
This incubator incorporates program changes as the result of thorough, systematic evaluation.	5.0	3.0

The High-Performing Incubation Programs

When the responses are looked at this way, it's possible to identify best practices rural incubators as those that are organized differently to achieve better performance and client outcomes. They are organized for success. The incubators in this particular sample represent networked incubators or those in the process of building networks. In any case, they have all achieved sufficient scale to be self-sustaining and have positive beneficial impacts on their communities. They have higher paid management, are programs of sufficient size to operate more effectively, have better incubator financial performance and better client outcomes. Those in the low-performing bucket have significantly more problems, most of which seem to relate to how they were organized, poorly paid management, and the lack of a feasibility study or with a poor feasibility study. While responses to the Likert-scaled statement, "This incubator's board or other governing body and its management have agreed on and support the

mission statement," showed no statistically significant difference between the high- and low-performing groups, the quality of the mission statements provided by the respondents varied widely for the two groups. Many of the low-performing incubators lacked coherent mission statements.

As noted, in this sample the top-performing incubators are either network programs or programs that are in the process of developing a network. All serve county or multi-county areas (one serves 16 counties with satellite systems to provide training in business, computer technology and e-commerce; another serves three counties with three linked incubator facilities; the third currently serves only one county but is developing a system of satellite incubators). Survey data show that the average population of the region (county and multi-county area) is 108,000. Two of the incubator systems (networks) are organized to stand independently; one is a program organized and run by a university. All have written mission and/or goals statements. The

average square footage of the three is 52,374, despite the fact that one program primarily works through satellite computer centers and serves a greater number of affiliates than in-house clients. All reported that feasibility studies were conducted prior to the start-up of the incubator program and that these studies were highly predictive of the composition of their client base, the optimal incubator size, and incubator revenues and expenditures. The studies also identified prospective clients.

All three of the incubators provided pre-incubator services to clients and one provided post-incubator services. Two of the three had access to the services of a Small Business Development Center to augment services provided by managers and volunteers. These incubator managers reported that their clients faced the same primary obstacles as faced by most rural incubator managers: lack of financing for the company, lack of entrepreneurial background and expertise in entrepreneurship, incomplete and/or inadequate management teams, limited access to relevant networks and problems accessing networks as the result of distance.

These incubators each worked with 16 in-house clients in 1999; and one also worked with 32 off-site affiliates during the same year. Despite the fact that one of the incubators was only two years old, the average number of clients served for each incubator since the inception of their programs was 43 (totals were 41,18, and 70). Only two of the incubators had graduates, but these two programs boasted an average of 9.5 graduate companies. Only one of the 19 total graduates was reportedly no longer in operation. These incubators claimed to serve clients with only regional, national, and international markets; none served clients whose markets were primarily local. Top-performing incubators provided the following additional information on their clients (the number of responses in each category are indicated in parentheses):

Client Success Measures

- Current client revenues
 - \$3 million or more (2)
 - \$1-2 million (1)
- Graduate employment
 - 50 to 100 jobs (1)
 - 75 to 150 jobs (2)

All high-performing survey respondents reported providing almost all the services offered on the list of potential services. Services most commonly not provided were intellectual property management, childcare, and loaned executives to serve in a management capacity.

One incubator manager supported by a university did not provide information on his incubator's finances. However, the remaining two reported average annual operating expenditures of \$170,000; one reported a \$32,000 subsidy for the previous fiscal year. Payrolls for these incubators averaged \$82,000, or about 48 percent of total operating expenses.

The three incubators reported an average of three full-time-equivalent employees, and all incubator managers reported working a minimum of 40 hours per week in their programs. Two of the high-performing program managers reported that management staff spent an average of 40 hours each week (per incubator) delivering business development services to their clients and affiliates. One manager in this group did not provide a breakdown of responsibilities taking up the time of management staff. All reported considerable volunteer assistance in services excluding client assistance for which they would otherwise have to pay. All incubator managers had relatively high pay among rural managers—two in the \$51-75,000 salary range and one in the \$36,000-50,000 range. Despite their access to volunteers and employees and the fact that all these managers were full-time employees, they joined other incubator managers in bemoaning a lack of time and personnel, including time to develop high-quality training. Other obstacles mentioned were lack of a skilled labor pool, inadequate financial resources, and the need to create greater community awareness.

Finally, all three of these high-performing incubators indicated that their programs complied with an overwhelming number of management, governance and client assistance best practices. Only one manager provided a neutral response, indicating his concern that his program would be able to continue operations at the same or a higher level if the program lost a major funder. This same manager was concerned about whether his program's salaries were adequate to attract and retain qualified staff, and also indicated the incubator's staff did not consistently review clients' financial statements at least quarterly.

Despite this and the fact that some information was missing from one or another of

the incubator manager's surveys, the group as a whole seemed to be performing at well above the level of low-performing incubators in the study, as evidenced by practices, services offered, salaries of management and, most importantly, overall impacts (gauged by the number of clients served). Review of the low-performing "bucket" revealed a different situation altogether.

The Low-Performing Incubators

Six surveys were placed in this bucket, most of them representing extremely small programs with very anemic resources. Given the challenges they face, all managers evinced a great number of areas of concern with their programs in the area of best practices. As a group, these incubators were small in terms of square footage, number of clients served, number of graduates, jobs created, and revenues and expenditures. On average, these incubators started operations in 1993. As was the case with the incubators in the previous batch, one of these reported having only opened in 1999. What is not clear from the survey responses is whether these incubators could operate more successfully if they were part of larger networks, with more resources at their disposal. It is likely that some of these incubators have failed to achieve sufficient scale in their operations to be able to provide high-quality services in a sustained fashion. Three of the respondents reported "no paid staff or no incubator payroll. One incubator manager who worked more than 50 hours was apparently an unpaid volunteer.

A caveat is necessary here. The "outcomes" of the incubators in relationship to their resources and the skills of the clientele they serve is unclear. All but one incubator manager (the manager whose program started in 1999) provided data on current in-house clients, but all indicated they provided services to in-house clientele. It is possible that all incubator managers in this group are dedicated individuals serving their clients as best they are able. But it is also possible that in some cases they have been dealt hands that are difficult to play, either through lack of resources or skills or access to the sophisticated services that their clients need. We should note again that they have been placed in the low-performing bucket due to a high degree of ambivalence about their own incubator's incorporation of best practices.

Now, let's describe these incubators. Two of them report serving single counties, two a multi-county area, and one a city. The population in the

incubators' service areas is, on average, only 99,778, although service areas range from 4,000 to 230,000. Only one of the six programs has no sponsorship and operates independently; local government, economic development agencies, a university and a technical college sponsor five.

Two incubators have well-defined mission statements; two do not appear to have formal mission statements, and two mission statements are weak or the incubators do not appear to be organized to achieve their missions. One of the incubators has a mission to "assist new, high technology companies in overcoming the hardships of starting a new business." However, this incubator's mission may be in conflict with its resources since it is unable to provide access to bank loans, noncommercial loan funds, equity investment, strategic alliances or other such resources. It is also unable to offer e-commerce assistance, human resources, management team building, comprehensive business training programs or access to specialized equipment. This incubator also reports entrepreneurs who lack technology literacy, who are unwilling or incapable of success and who profoundly lack personal economic resources, business literacy or education. Given this, the mission appears to have been pulled from a "wish list," and the incubator manager would be well advised to develop a mission more in harmony with the incubator's clientele and resources. Another four-year-old incubator with a mission to foster the growth of biotechnology companies has "no paid staff," nor graduates, and only four clients. It appears likely that this incubator does not have sufficient deal-flow.

Excluding a single very large program that represents a data "outlier," the five remaining programs boast an average of only 15,230 square feet among them (Responses for all six incubators were 3,400, 7,000, 11,000, 26,400, 28,600 and 106,000 square feet). Yet, they report an occupancy rate of only 80 percent (the range is 49 percent to 100 percent occupancy). Five of the six were developed without benefit of a feasibility study, and the one incubator with a feasibility study indicated the study had only predicted the composition of the client base. This, however, was the incubator that had recruited four clients in four years, suggesting again that the chosen client base bore little relationship to the local market.

Two incubator managers said they offered many of the 29 services listed in Question 12, "Types of Services," a broad range of services that

might typically be offered by an incubator and/or its network of service providers. The incubators said they offered, on average, 16 services.

Four incubators reported providing no post- or pre-incubator services; however two reported offering pre-incubator services. Five of the six have access to SBDCs with which they are co-located; however, one of these three reported that the SBDC *does not* provide substantial client assistance. One reported co-location with a manufacturing extension program, and one with an industrial extension partnership; however, the respondents did not indicate that these groups provided substantial services to clients. One reported access to a regional entrepreneurial group and two venture capital groups. All programs in this group (and all other groups) reported that other business assistance programs including collaborating SBDCs represented no obstacle to their programs. None of the incubators in this group participated in a network of incubators.

Five of the incubators in this group provided information on clients and graduate firms. The average number of current clients and affiliates was quite small, not quite eight; the average number of clients served since inception of the programs was 18. Four of the incubators reported a total of 31 graduates (avg. 8 per incubator program). It is unclear from the managers' answers how many of these are still in operation or located in their original communities, due to failure to respond as requested to the survey.

At the time of the survey, five of these incubators served 38 current total clients (an average of eight per incubator). Information on markets was provided for 36 of these clients, including seven who addressed local markets; thirteen that served regional markets; nine serving national markets, and seven serving an international market.

The incubator managers represented in this group reported obstacles similar to other incubator managers but indicated a higher percentage of clients "profoundly lacking in personal economic resources, business literacy and/or education." Two of the incubators reported in-house client total employment of less than 25 each; two reported 25-50 client employees; one reported 50-75 employees and one 75-100 employees. Two also reported less than 25 affiliate employees each.

Three reported client revenues of \$100,000 to \$250,000 and one each reported less than \$100,000 in client revenues, \$1-2 million in client

revenues and more than \$3 million in client revenues. Two incubators reported not having graduates with employees; one reported graduates with less than 50 employees, two with 100-250 employees, and one with more than 500 employees.

Four incubators reported client growth rates as follows:

Client Growth Rates

	<u>No.</u>	<u>% of Total</u>
Negative or zero growth	5	25%
10% growth or less	6	30%
10 – 25% growth	6	30%
25 – 50% growth	1	5%
More than 50% growth	<u>2</u>	<u>10%</u>
<u>Total current clients</u>	20	100%

These incubator managers worked, on average, 27 hours per week. One unpaid manager reported working more than 50 hours per week; two managers worked 20 hours weekly and one worked 45 hours per week. Three reported no paid staff or failed to respond to this question. On average, this group reported 13 hours in direct client services. Other time (on average 27.5 hours per week) was spent in a variety of activities, including paperwork, building management, and administrative management. One incubator manager reported significant time spent building the network of partners. The managers spent a total of 16 hours on client recruitment. Only two managers reported a total of 45 hours (5 and 40 hours) spent by volunteers during an average week on services that the incubator would otherwise have to pay for. Managers also reported a total of 11 volunteer mentors and business professionals working regularly with their programs. As noted, two managers indicated the incubator has no paid staff (a third did not provide this information). Of three respondents to this question, one reported less than \$25,000 and two reported \$36-50,000.

Obstacles cited by the incubator managers in response to the open-ended question (frequencies are noted in parentheses) were

1. Client funding (4)
2. Lack of community understanding of the incubator's role (3)

3. Inadequate facilities or space for clients (3)
4. Incubator cash flow (2)
5. Lack of full-time staff dedicated to the incubator (2)
6. Lack of governing board involvement (1)
7. Inability to follow-up with clients to address issues (1)
8. Difficulty recruiting clients (1)
9. Difficulty getting entrepreneurs to participate in educational programs (1)
10. Lack of funds to create prototypes (1)
11. Lack of angel investor network (1)

As already noted, this group of incubator managers indicated substantial noncompliance with generally accepted incubator best practices including:

- This incubator has developed a strategic plan containing quantifiable objectives to achieve the program mission.
- This incubator selects only applicants that meet approved criteria.
- This incubator regularly (annually) collects information on client outcomes (performance measures).
- This incubator has developed an effective network of local business service providers and other resources.
- This incubator evaluates the contributions of members of its service network to ensure high-quality service to all its clients
- This incubator is highly visible within its service area and is viewed as the premier entrepreneur service organization.
- If this incubator were to lose a major funder, it could identify a replacement funder(s) in order to continue operations at the same or a higher level.

- This incubator's facility is appropriate to serve its clients and to encourage client synergies.
- This incubator's management reviews client financial statements on a quarterly basis at minimum.
- This incubator incorporates program changes as the result of thorough, systematic evaluation.

Taken together, these incubators present a somewhat troubling picture of programs operating on a shoestring, with difficult clients, with inadequate facilities or insufficient community or governing body support. These programs could likely gain benefits from participating in an incubator network—were any available—or from developing their own networks. One new incubator in this group could still be in the process of addressing the challenges it faces, although the current size of both the facility and its community suggests it could never be self-sufficient as a stand-alone program. The others face challenges that could result in continuing low performance, the burnout of management, or eventual closure due to constrained community resources.

Recommendations to Policy Makers and Incubator Stakeholders

1. Make certain that a thorough, objective feasibility study precedes the establishment of any rural incubation program. Such a study should adequately examine obstacles and give clear direction for overcoming them. The study should pay particular attention to determining proper incubator size, client type, financial sustainability and strategies for providing a rich mix of business assistance services.
2. Those involved in supporting and developing an incubator should bridge political and organizational boundaries to ensure that everyone in the community who can bring value to startup companies is coordinating their efforts for maximum impact. Services should be consolidated whenever possible.
3. Where entrepreneurship has not traditionally been a strong part of the culture or the economic development strategy, incubation

program proponents should work to educate and demonstrate the impacts that startup businesses can have on the community, thus building buy-in and enthusiasm before the project starts. Incubation program executives should continue to keep all key persons in the communication loop once the program is under way.

4. Incubator developers should make it a top priority to hire and adequately compensate a talented, experienced top executive to oversee the program and ensure that this individual has the skills to help companies succeed.
5. Incubator developers should pursue all pathways possible to ensure that the facility is technologically up-to-date so that client companies can meet the challenges posed by the digital divide.
6. Incubation programs should be designed to draw the necessary expertise to their companies. If that expertise is not locally available, the manager must identify ways to bring resources from outside the region to clients. This can be accomplished through maintaining a network of statewide contacts, using the Internet, exploring distance learning, etc.
7. When the population an incubation program will serve is exceptionally small, incubator developers should explore ways to network more than one incubator together to create economies of scale and ensure financial sustainability.
8. Incubation program development should occur in tandem with workforce development and financing resources development. These two elements will be critical for company viability.
9. Incubation program developers and managers should take advantage of business incubation training and professional affiliations that will allow them to network with others in the field.
10. Rural communities developing incubation programs should continue to place emphasis on improving infrastructure—from roads to communications technology—through all

means available. This will also enhance business retention.

Case Studies of Rural Incubation Programs

Case Study I: Rural Incubator Spurs Building of Industrial Park and Keeps Jobs at Home

Hastings Industrial Incubator, Hastings, Mich.

Obstacles/Challenges

Distance to resources (and work), sparse population, diversifying the economic base of the region, obtaining sufficient scale to have significant impact on the county's economy.

The Case

Hastings Industrial Incubator launched in Hastings, Mich., in 1993 with the primary purpose of increasing local employment. Joe Rahn, economic development director for the city, has overseen the program since its inception, and brought his strong grant-writing skills to the table when he took the position.

Because Hastings is situated near larger metropolitan areas, it was traditionally a bedroom community for cities like Lansing and Grand Rapids. "Some 50 percent of our population went out of county for employment," says Rahn. Thanks to the incubator, which has created about 325 jobs between the current incubator companies and graduates, more residents now stay in the area to work. There are also a significant number of incubator jobs that are held by those workers who couldn't commute to larger metropolitan areas due to transportation issues.

The Rationale

Because the incubator is located on a brownfield site, several studies—namely EPA-related testing—took place prior to breaking ground. The block grant project funding came through quickly, but the EPA grant took about five years to obtain. "We had no idea it was going to take that long," says Rahn. In a sense, he says, the wait in itself proved that the project had staying power, and that it wouldn't just disappear after a year or two of waiting for the funding. He also says that market demand was already proven prior to opening the incubator.

The impetus behind the incubator was a need for smaller and newer firms in the region. Four companies that have been in business over 100 years basically supported the area. The industrial

base is mainly heavy manufacturing, a sector that the incubator itself relies on for clients. “That was our employment base,” Rahn explains. “Those companies don’t grow very much. And while they provide stable jobs, they don’t create new ones. Plus, with four major metro areas close by, the smaller firms were a better bet for Hastings, which couldn’t compete with its larger neighbors for large relocating companies.”

The Region

Hastings is a rural area within 45 miles of four major metropolitan areas. “There are cornfields, then smack in the middle there’s Hastings,” says Rahn. The town itself is home to 6,700 people, some of whom became worried about their jobs when a few plants closed in the area back in the late 1980s. The incubator became the means for diversifying the local economy and creating local employment.

The incubator team works not only with the community, but also sources various state and local grants, matched with local funds. The city often over-matches the funds, and private investment came into play when an industrial park started up across the street to house graduate companies. The incubator’s activities and rent basically pay for the project, so the city doesn’t subsidize the industrial incubator. However, it does subsidize other economic development activities, according to Rahn. The city has a local development finance authority that takes the entire industrial district and recaptures property taxes and makes improvements to the district, which includes about 10 brownfield sites.

Countywide—the area served by the Hastings Industrial Incubator—there’s a population of about 50,000, and Rahn describes the economic climate as “good.”

The Incubator

To build the incubator, the city put in \$154,000, which was matched with an EPA grant of \$300,000. The five-year funding effort resulted in a 44,000-square-foot facility that currently houses ten companies. Rahn says capacity is about twelve. There have only been a few instances since 1993 when occupancy was at less than 85 percent, and he says the incubator doesn’t keep a waiting list because entrepreneurs typically want to move within a 60-day timeframe. “So far we have been able to keep the project full,” he adds.

Rahn says during the Hasting Industrial Incubator’s early days most of the companies were

permanent manufacturing firms with self-assembly operations. Today, the incubator houses more high-technology companies. For example, the program recently moved a company out into the adjacent industrial park that uses applied sonic bonding technologies to manufacturer auto supplier equipment. Other companies include those involved in robotics, plastic injection molding and various other industries.

The incubator is located on a 40-acre plot where there are currently four building projects in progress, each of which will be about 8,000 to 14,000 square feet in size and will house four incubated companies. Rahn says the incubator will reach about 50,000 square feet in total when those projects are completed. Another 50,000 square feet of spec building will be housed next to the incubator, and yet another 50,000 is in the industrial park across the street. The spec buildings and industrial park are bringing in revenues to support the entire economic development effort, says Rahn, who attributes a strong grant-solicitation effort to the overall success of the program.

The industrial park was built to house incubator graduates, who previously had no options for appropriate space in Hastings. It was created more out of need than want, according to Rahn, who says that before the industrial park was added about three years ago 90 percent of the incubator graduates left the county. The only space available was for commercial or retail businesses, he says.

The support not only to build, but expand, the park came from community members who wanted to work in their own city. Thanks to the taxpayers, and the enthusiasm of community and civic leaders, the seeds were planted. Once the incubator proved itself in terms of becoming self-sustaining, creating an industrial park for its graduates, and maintaining a high occupancy rate, other opportunities like private investment came into play, making it that much easier for the Hastings Industrial Incubator to succeed.

The incubator’s size and program have both continuously evolved since it opened. With seven more acres of buildable land still available, Rahn applied for, and received, a waterfront grant from the Michigan Department of Environmental Quality. A trail system will be built along the river with a canoe launch, fishing piers and a park, so the park will include both recreational and industrial uses.

Rahn says that prior to the incubator's opening, there wasn't another company of greater than five employees started in the area in about 30 years. That changed when the incubator opened; then was amplified when incubator graduates formed the nucleus population of the 40-acre industrial park. Currently, there are only two lots left in the industrial park.

The Challenges

Rahn says in any rural incubator the focus has to be less on the economics of the project and/or the real estate operations, and more on the mission of the program, which should be to create local employment. "Those impacts may or may not be greater or less than an urban incubator, though I suspect they are less," he says. For instance, the larger metropolitan areas have endless pools of industry to draw from, so the economics of those projects tend to take higher priority in the eyes of local businesses and government. In Hastings, however, Rahn and his team deal with smaller numbers, so they have to focus on the mission of creating jobs in order to get a return on the investment for an incubator project. In other words, it's all about selling the business and local community on the value of the incubator.

That can be challenging for the incubator, say Rahn, especially when it comes to proving the size and experience of the existing labor force to the small companies considering incubation. He says the unemployment rate in Hastings is about two to three percent, so he often sees entrepreneurs avoiding business opportunities altogether because they don't think they'll have the labor force required to bring their ideas to reality. But some creative companies are using technology—instead of warm bodies—to get the job done.

"Some smaller companies are applying technologies to their processes just as much as the larger companies are," says Rahn. This leads to more efficient operations, in terms of using technologies like robotics, for example. Overall, the companies in the incubator have used technology to make their processes more efficient instead of saying, "we're going to hire more bodies."

Rahn says the fact that incubator companies are graduating poses something of a dilemma. It's a good sign, of course, but one that leaves the incubator scrambling to find tenants to fill the voids without losing too much rent in the process. "As the incubator project ages, and as you go

through the funding challenges—which by now are long gone—you come across other challenges," says Rahn. As the successful companies graduate, the program inevitably loses its biggest and best tenants.

If an incubator were run strictly as a real estate operation, the property manager or owner would certainly not want that to happen—much like a mall wouldn't want to lose its anchor tenants. For a rural incubator like Rahn's, it's a double-edge sword: "If they are successful, we move them to the industrial park. However, when we lose them, that impacts the incubator's funding."

Rahn says the answer is to educate the community (or in his case, the city council) about the mixed blessing: the inevitable loss and gain for the community. He says it's a matter of explaining to the community that yes, the loss will impact revenues. However, because the mission of the incubator is to help grow and graduate clients, it's an inevitable problem. "We let them know there are going to be vacancies for 60 or 90 days, even major ones sometimes," he adds. "In fact, there have been a couple of cases where we lost 10,000-square-foot tenants, but we've also been successful in filling those spots within 90 days."

Keys to Success

- *Support from the city of Hastings has been constant.* Rahn says the most critical factor in the success of Hasting Industrial Incubator is the fact that the city council has sponsored and supported the incubator since day one. For example, council members accompanied Rahn in his quest to sell the project to the community at large and keep it in the front of the public's mind. As a result, the community has also stepped up to the plate. "A project like this has to be owned by the community," says Rahn.
- *The community maintains a sharp focus on recruiting small companies, and doesn't try to compete with nearby metro areas for larger firms.* Hastings Industrial Incubator knows its place as a breeding ground for small to midsized companies. While focusing on smaller companies, and not competing with the four cities within a 50-mile radius of Hastings, the incubator has been able to keep occupancy at or above 85 percent since inception. Nearby metropolitan areas like Grand Rapids and Lansing are less interested in Hastings'

smaller businesses and more focused on attracting medium- to large-size firms. Rahn isn't interested in those companies and, instead, goes after smaller firms with whom he can build one-on-one relationships.

- *The community aggressively pursues grant money.* Rahn has extensive grant writing experience, and is proud of the incubator's "very aggressive" stance with such funding. Over the years, Rahn has been able to show the city council that he's collected multiples of his salary in terms of actual grant funds. And those figures look pretty good when budget time rolls around and he can say to them: "regardless of the incubator, if we took a company out of there and revenues went down because they moved into the industrial park, we still have other grants in progress that are in multiples of what we pay in payroll." That keeps everyone very happy," he adds.
- *The incubator puts a tight focus on building relationships with the startup companies.* In fact, Rahn says all successful rural incubator programs need to focus on relationship building. At Hastings Industrial Incubator, for example, the program team works with incubated companies on an almost-daily basis as opposed to having a client car that goes out once a month or once a year to talk to the owner of the company.
- *The incubator supports ancillary services that benefit the community.* The Hastings Industrial Incubator also hosts an opportunity center in which troubled youths are able to channel their energy into a class that will hopefully lead to a GED. "They're already out of the school system, so we have a school class here that's industrial arts-oriented," says Rahn. Hosting the Center is another way of contributing to the community and increasing support for the incubator.

By working in tandem with the community and not depending on the four major metropolitan areas within 45 miles of its site, the Hastings Industrial Incubator has been able to maintain a constant clientele of about ten tenants and even spin off graduate companies to a nearby industrial park where they can continue to thrive.

Census data indicate that the incubator project—and the industrial park that grew from it—creates 40 percent of all new manufacturing jobs within the county. The community has pride in its success stories, too. For example, one incubated company produces about 200 recumbent bicycles a year that sell for \$2,000 each. They're a common sight in Hastings, and everybody knows that they support their riders and the Hastings economy in style.

Case Study II: Networked Incubators in Mississippi

Northeast Mississippi Business Incubation System, Corinth, Mississippi

Obstacles/Challenges

Distance or access to networks, limited access to relevant expertise; lack of company financing, low-population communities.

The Case

The Northeast Mississippi Business Incubation System offers a case study of a network of rural incubators whose goal is creating a self-sustaining system for supporting the needs of entrepreneurs, in this case including three rural counties bordering Tennessee. Giles McDaniel founded the system, with assistance of the Mississippi Department of Economic and Community Development (MDECD). McDaniel, who provided the bulk of information for this case study, is currently executive director of the Northeast Alabama Entrepreneurial System, another incubator network being developed from a hub in Anniston, Ala. Ray McClellan is the current manager of the Northeast Mississippi Business Incubation System.

The Rationale

It is not terribly difficult to raise the money to get an incubation program started—to fund the bricks and mortar. But, "when you start talking about operating costs, not too many step up with assistance," McDaniel explains. "The network model was designed to carry the incubator program after those initial monies have been expended, and to reach self-sustainability." The economic rationale to develop a network is to merge marketing, management, and purchasing activities and thus save money, all while serving a larger region more effectively. The issue of self-

sustainability—important to all business incubators—is critical in rural areas, where local governments could not continue to support incubator operating subsidies, and where the deal-flow and pool of potential entrepreneurs may be limited.

The Region

In Northeast Mississippi, all three counties—Alcorn, Tippah and Tishomingo—have a total population of only 80,000, and Mississippi is a “slow growth” state, according to McDaniel. At the time the network was conceived, the income of the region was growing at a rate of about nine percent below the state average, but bank deposits were four percent above the state average. There were no ties to higher education institutions in the counties.

Manufacturing and services formed the basis of employment in the region; new businesses licensed averaged 100 annually. Alcorn County offered the site for the hub facility and a strong manufacturing base for a small, rural town. Of the three counties, Alcorn might perhaps have sustained a stand-alone program, says McDaniel, but the other two could not have done so. Even so, says McDaniel, Alcorn is a small community, “it’s the kind of place where somebody will leave a basket of tomatoes in your car in the summer if you leave the car doors unlocked.”

National Geographic magazine is printed in Alcorn County and the printing plant employs 700 or 800 people. Kimberly Clark has a manufacturing company there employing approximately 1,000-1,200 people. Both plants hire engineers and professional people. In addition, Caterpillar Tractor has a remanufacturing facility and a large contract manufacturer of PC boards is sited in the county. Together, they employ probably 1,000 to 1,200 people. So this hub county has large-sized, quality manufacturers.

The incubator was able to pull entrepreneurial employees into the facility in Alcorn County to start businesses. In fact, many already had businesses on the side in bedrooms and garages. This group formed the incubator’s core of businesses that inspired others who might need more encouragement to start a new company.

Tippah and Tishomingo counties are both much smaller and were primarily agrarian. At the time of the feasibility study, Tishomingo County had a TVA nuclear plant that was subsequently abandoned before completion. In the early 1990s

that site was chosen by Congress to manufacture the next version of the solid rocket booster for the space shuttle. Unfortunately, with \$1 billion in tax dollars invested in this project, the long-time congressman supporting the plant had a stroke and died. Says McDaniel: “About the time that the deal’s signed and money’s appropriated and we bought an existing building... this project was cut.” However, some of the 1,000 engineers who subsequently lost their defense contractor jobs decided that they would stay in the area and start businesses. The project was killed *after* space had already been acquired for the incubator. So the community decided to permit some of the incubator space to be used for assisting existing companies in the area to expand. While this made the project doable, subsequent growth in this networked incubator has not been as great as it would have been had the defense contractors remained.

Tippah County, also with primarily an agrarian economy, boasted a growing upholstery furniture manufacturing industry as well.

The Incubator Facilities

Community Development Block Grant (CDBG) funds were used to purchase the 64,000 square foot hub facility in Alcorn County, which was brought up first. This was an old hardware/lumber building. Upfront it had 20,000 square feet of open floor space that had been a show room for hardware, and this was divided for office space. In the rear of the building, 40,000 square feet of space was reserved for manufacturing. The building acquired in Tishomingo County totaled about 20,000 square feet. The newly constructed facility in the Tippah County totaled 12,000 square feet. Altogether, the incubators provided 96,000 square feet of space, including more than 75,000 in leasable space.

The incubator developers acquired the first facility in 1993. About six months later, they acquired the second. Construction on the third facility started in 1995. It took two to two-and-a-half years until all three facilities were up and running.

In the seven years since the incubator’s inception, the Northeast Mississippi Business Incubation System has served 41 clients (16 in 1999 alone). The incubator has graduated 13 clients, 12 of whom remain in business. Eighteen former clients left the program without graduating. Incubator clients and graduates have

created 100-150 and 50-100 jobs, respectively. Client firms' combined annual fiscal year revenues were more than \$3 million in 1999.

Keys to Success

- *The incubators had no debt service.* Financing sources included Community Development Block Grant (CDBG), Tennessee Valley Authority (TVA) and Appalachian Regional Commission (ARC) funds, as well as county and state monies. Mississippi has a zero coupon bond fund that is used to finance incubators. The Mississippi Department of Community and Economic Development, now the Mississippi Development Agency, managed this fund. The state will sell up to \$.5 million in bonds, and \$250,000 of the proceeds can go toward financing of the incubator. The other \$250,000 is held in reserve to pay off the bond. As a result of this innovative funding scheme devised by MDCED employee Jeff Dukes, now Division Director, Existing Industry and Business, the resulting incubators are able to open debt-free.
- *The counties cooperated.* While they had not traditionally worked together, the counties had scarce resources. To begin the process, McDaniel says, TVA and MDCED supporters “brought the key players of these three communities—the bankers and the politicians—to the table first to get their blessings.” Organizers created one board to govern the three incubators, which was organized as a 501(c)(3). In addition to state and TVA nonvoting representatives, the project board had four voting representatives from each participating county. “By having [representatives of] TVA and the state on the board with their resources that these communities like to dip into from time to time, it didn’t take a lot of arm-twisting to get the community leaders to the table,” says McDaniel. County leaders were “urged to employ common sense and recognize that ‘we have some success here and no one will be slighted by being second or third. Looking at this as a long-term project, everyone is going to get his or her benefit.’” The arm-twisting proved to be valuable; once the communities learned there was more to be gained by
- cooperation than competition, they began working together on other projects.
- *The business plan worked.* The initial startup costs were \$2 million. Property acquisition was \$1.15 million, renovation \$400,000, and the developers set aside \$500,000 for operating expenses for three years—long enough for the incubator to become self-sustaining—that is, the income from rents and services would be equal to or greater than expenses if it followed plan. This in fact occurred, and \$250-275,000 has been thrown off each year to fund operations. While client graduations sometimes drop the incubator temporarily back in the red, new clients eventually boost it back into the black.
- *The incubator management is unified.* Staffing, training programs, purchasing and marketing budgets are combined; the program also has consistent accounting systems, thus achieving considerable economies of scale. Regional marketing maximized exposure, according to McDaniel. And perhaps even more importantly, McDaniel served as the lone executive director—manager of all three facilities—and hired administrative staff for each facility. Given the networking system, however, the program was able to pay salaries sufficient to attract quality personnel for each position. This was critical, given that all industry leaders concur that it is not possible to have strong positive economic impact without hiring excellent staff who have the skills to help companies grow.
- *The incubators provide a comprehensive program of services.* This includes a training program and consulting services that address the needs of entrepreneurs in management team building, marketing, sales and financial management. The incubators also provide standard services including copying, faxing, mailing, small package handling and reception services. All incubators in the system have access to an outside advisory group of successful entrepreneurs that will scrutinize business plans, and the program has gained considerable respect from the banks, who are much more favorable to making loans to program clients. The system also has access to a Small Business Development Center and is

aligned with an Alabama nonresearch university that it can call on.

- *Equity financing is a component of the assistance package.* In response to the incubator's needs, individuals got together and formed a private venture capital group. Individuals from outside the region who brought in more money than would have been available in the three counties alone were included in this group.
- *The project achieved scale.* This particular system involved a total of about 96,000 square feet with approximately 75,000 square feet of leasable space after all three facilities were brought on board. As noted, two buildings were acquired and one was new construction. The incubators were ramped up within a period of two-and-a-half years. Rents were market rate and, according to McDaniel, the facilities provided high-quality rental space not otherwise available. These rents are sufficient to support the incubator in most months without any outside subsidies.

In this case, networking rural incubators led to creation of a more sophisticated and sustainable system that would otherwise have been the case. Further, the incubator network achieved sufficient scale to have a greater and more beneficial impact. The Northeast Mississippi Business Incubation System proves that rural networks can succeed. According to McDaniel, it's necessary to do due diligence up-front, develop a business plan and have a clear vision of the goals of the project. To gain regional support it's also necessary that management has political skills and "makes sure that everyone is getting publicity and credit."

Case Study III: Very Small Community Proves Incubation Can Work

Small Business Incubator Facility, a project of the Early Economic Development Corp., Early, Texas

Obstacles/Challenges

Extremely small population, remote location, limited resources

The Case

About five years ago the state of Texas established a program to support business incubation within the Texas Department of Commerce. At the time, Early, Texas, was one of only two communities in the state that successfully made application for a matching grant to develop its own business incubation program. Today, Early's program is known as the Small Business Incubator Facility, and it is run by Quincy Ellis, executive director.

Prior to building the incubator, the community conducted a feasibility study to determine whether or not the region could truly sustain and provide the necessary critical mass and infrastructure that a successful rural incubation program would require. According to Ellis, it passed with flying colors. "The study proved that a business incubation program in this part of Texas would in all likelihood be successful," says Ellis, adding that the incubator then applied for the matching grant and was successful in garnering a \$482,000 grant from the state. Using its economic development sales tax, Early matched that amount and the incubator got rolling in April of 1996.

The incubator's original mission, which Ellis says hasn't changed much since inception, was to attract and retain businesses that were either in a growth or startup mode. "Our overall mission is to help those entrepreneurs create wealth and create jobs," he adds.

The Rationale

At the time of the incubator's inception, Ellis says the community was competing for large companies. Going head to head with larger rural communities and urban areas for such companies—especially those needing to fill even 50 to 100 positions—was inconceivable, since Early's social infrastructure "just can't sustain that kind of growth anyway," he says. Realizing that in 1998 only 400 companies actually changed zip codes nationwide, Ellis says he knew the community would only be able to land one of those large, relocating firms once every 12 years.

So instead, Ellis and his team decided to support the 10-, 15- and 20-employee companies that would fit perfectly into the community. "What we wanted to do was grow our own," he says. "In other words, our goal was to attract those entrepreneurs who were already in our town or region, and see if we couldn't help their businesses start, grow and be successful." Going after the

smaller companies worked: since its inception nearly five years ago, the Small Business Incubator Facility has grown 16 businesses from seedlings to blooming entities.

“Everyone out there is competing for the large companies,” says Ellis. “Taking the incubator route has allowed us to grow businesses at a unbelievable rate.”

The Region

Early is 150 miles southwest of Dallas, just across a bayou from the town of Brownwood, population 19,000. Early’s population is about 2,380, and Ellis says the incubator’s region has a total population of about 25,000. Just west of Early, the land is arid and is mostly populated with cattle, oil wells and dust storms. “We’re in rural Texas, right smack in the center of the state,” says Ellis.

Early created its incubator to boost its shrinking economy, which comprises light to medium manufacturing companies, primarily in the agribusiness sector. The region’s economic base includes a few large manufacturing companies, like Kohler Corporation and 3M, which has a large plant in the area. Operating alongside those midsize-manufacturing plants are “lots of great smaller businesses,” says Ellis. Overall the economy is good, though 2000 found the region in the throes of a devastating drought. “Other than that, the business climate is excellent,” says Ellis.

The Incubator

Early’s incubator contains 18,000 square feet of space and is currently filled to capacity with 11 companies. The tenant mix is a “hodgepodge” of services and manufacturing-based companies—plus one technology-driven firm—and the program is “general purpose” in nature. With below-market lease rates, shared office and business services and a wide range of technical assistance programs, the incubator provides tenants with a supportive and dynamic business environment. Perks include professional building management, conference rooms and a light manufacturing area that includes a loading dock and two bay doors.

When the incubator was originally built, the internal build-out was put on hold until the small businesses were found to fill the spaces. Sponsors had the overall design, but purposely did not finish off the service area because doing so would be like “throwing a party without knowing who

might show up. Our strategy was to wait until businesses came to us, then finish it out quickly.” The strategy worked well, since not all companies had the same wants and needs. Ellis says that allowing the tenants to have input on the interior build-out process made tenants immediately feel like part of the incubator team.

When it came to find clients to fill those spaces, Ellis says he initially thought it would be challenging. His assumption was incorrect. “We attracted three small businesses right off the bat, the minute we opened the doors,” he recalls. And while the incubator may be filled to capacity right now, Ellis says his team continues to market its services and value to businesses in the region. “One of the key lessons we’ve learned as a rural incubator is never to let your guard down from a marketing standpoint, even though you’re full.”

The Small Business Incubator Facility holds continuous training for clients. It starts with training on how to formulate a business plan, and then clients are taken through marketing plans and sales training. Training in areas of financial and cash flow management are also provided. Most training occurs in the incubator’s own training room; occasionally Charleston State University also hosts classes for small businesses in the incubator and brings its own staff to teach them.

To help its clients with funding, Ellis says the Small Business Incubator Facility uses the Texas Capital Fund for both infrastructure and capital improvement dollars. The incubator also uses the USDA Business and Industries Loan Program.

To benchmark the companies’ successes, the incubator conducts informal reviews monthly and formal ones twice yearly. “We monitor their top-line sales,” says Ellis. “In startup businesses, you can’t manage costs until you create the sale, so that’s where our focus lies with these companies.”

The Challenges

Since the incubator opened its doors, Ellis says challenges have reared their heads on a regular basis. From a planning standpoint, he says it’s the region’s limited resources that tend to hamper growth for such an incubator. To combat the limited funding, personnel and various other resources available to the Small Business Incubator Facility, Ellis says doing it right the first time is often the key to success.

“The fact that we’re rural requires a more specific target market plan to be in place because in the urban environment, resources are more

readily available and abundant,” says Ellis. For example, some urban areas have universities to provide incubator services—and sometimes they even run the entire incubator program on site. Not in Early. “We just don’t have that luxury here,” says Ellis. “Any rural incubator without a carefully thought-out plan and a supportive community will find itself in real trouble right out of the chute.”

Lack of personnel can also be a challenge, says Ellis. In many small, rural communities, civic leaders wear many hats, and Early is no exception. In addition to serving as the program’s executive director, Ellis also manages the Economic Development Corporation and the Chamber of Commerce with his assistant director, Dana Curtis. The pair not only recruit companies and help them grow and hatch in the incubator, but also court new businesses to the area and host Chamber of Commerce meetings and functions.

It all comes back to the allocation of resources, a recurring theme amongst rural versus urban incubators. But according to Ellis, who obviously lives by “the more you do, the more you can do” philosophy, leading the trio of complimentary organizations presents him with unique opportunities—and a healthy, consistent challenge.

“An incubator with 11 companies in it, an Economic Development Corporation and a very active, outstanding Chamber of Commerce Board keep us busy trying to meet the needs of all the community and business activities,” says Ellis, adding that effective scheduling and communication processes help keep the programs running smoothly. Meeting problems head on, and not letting them fester into even larger issues, also keeps the workload somewhat manageable.

“We try to foster communication between the businesses themselves, and let them share with one another to help solve problems,” says Ellis. “We also try to steer client companies to the right resources. If we can stamp out a problem in the beginning, then we can move onto other things that are more important in the companies’ planning processes.”

Ellis says one of the bigger problems that clients in his rural incubator deal with is market positioning. The Achilles heel for most of the incubated companies, he says, is that they may have a terrific product or service, but no real means of getting that out to the rest of the world. Many, it seems, have adopted a “small town” mentality, thinking primarily about how to sell to

the immediate region, but not to the rest of the world.

“Most just don’t know and/or understand how to market very well at a competitive level,” he explains. “Instead, they tend to think on a micro level. When they find that they’re actually in a macro market, they suddenly realize just how much more there is to learn about the marketing process.”

The incubator aids those companies in their quest to rise up from the regional-marketing mentality and into one where they can succeed on a national or even international level. Ellis says the program relies on its staff’s years of business experience and expertise—and help from already-successful companies in the area—to assist the incubated firms in creating strong marketing plans. In doing so, he urges all companies to examine all aspects of marketing—from advertising and packaging, to pricing, promotion and distribution. Of those elements, he says distribution can often be the hardest to master. “We wrestle with it almost on a daily basis,” he says. “Sometimes, just getting that product or service into the marketplace is the biggest challenge.”

Keys to Success

- *Graduate companies tend to stay in the region once they leave the incubator.* Ellis says this is one of the integral factors in the incubator’s success. “We see ourselves as a regional process, and not just an Early process,” he adds. “That’s been one of our strongest foundations all along, especially when it comes to marketing the incubator itself.” And though the ultimate goal is to keep all graduates in Early, namely because of the investment in time and money made in each company, Ellis says he’s still pleased when they decide to move to another community within the region.
- *The incubator maintains close ties with the community and its resource base.* “While doing my initial homework on incubators that had experienced difficulties, my first observation was that they tended to be very ‘unconnected’ with their communities,” says Ellis. Often, community leaders and citizens see such projects as money pits. Because of this, Ellis says his program’s strategy includes staying connected with the community, marketing

with vigor, networking with business and community leaders and keeping the entire project “community based.” Keep them in the loop, he says, and the incubator has a much better chance of succeeding. Indeed, Early’s incubator is integral to the overall economic development objectives and plans of the community.

- *The incubator urges the community to come inside to see how it works.* The Small Business Incubator Facility hosts community meetings at the incubator itself whenever it can. “We do as much as we can to become connected to everyone in the region,” says Ellis. “We host meetings in our training room, which is used almost on a daily basis—not only to facilitate the reason why the meeting exists, but also to give us a chance to market our program to the outside region.”
- *Incubator staff are “movers and shakers” in Early and have sufficient business experience to help companies grow.* As head of the local Economic Development Corporation and the Chamber, Ellis participates in all aspects of recruitment and retention services and is intimately familiar with the community. Additionally, he has significant business skills and experience of his own. Further, Ellis is an entrepreneur in his own right, and the training and consulting offered by the incubator reflect this experience and are regular, comprehensive and hard-nosed.
- *The economic impact has been significant and quantifiable.* To date, the Small Business Incubator Facility has provided space for 14 businesses. Two have graduated, one failed and one relocated to another city. Perhaps more significantly, the program has already pumped \$4.5 million into the region’s economy. According to Ellis, when those dollars churn back and forth in the economy, total impact is \$14 million. The incubator has also created 44 jobs and expects 150 to be added following the opening of a ceramic tile factory and the expansion of a concrete plant this year.

Early’s incubator is located in one the nation’s smallest communities to successfully operate such an entity. This program’s success suggests that

community size is less important than planning and leadership skills in managing a successful program. Knowing the limitations of their region, Ellis and his team have found a way to make rural incubation work through alliances within the community and a strategy of recruiting the smallest companies and helping them to grow and become successful.

Case Study IV: University Creates Region-wide Effort to Support Entrepreneurs

Ohio University Innovation Center, Ohio University, Athens, Ohio

Obstacles/Challenges

Distance to resources, sparse population, lack of financing for businesses, lack of industry base.

The Case

A state university-based incubator originally geared toward research and technical fields opened in the city of Athens in rural southeastern Ohio in 1983. The center’s developer and first director was Dr. Wilfred Konneker, a physicist who had founded two nuclear research companies. He felt that by developing high-technology industries such as telecommunications, robotics, and biotechnology, the state of Ohio could create jobs and regain economic stability.

Long-range plans for the Ohio University (OU) Innovation Center were to promote economic growth in southeastern Ohio and to expand the student and faculty experience with industry and the problems of small business. The university originally planned to build a research park along with the incubator, and then OU-president Charles Ping named a special committee to look at other universities’ established facilities. However, because of a limited pool of potential clients in the area, the research park never materialized.

The Rationale

The obvious advantage for a rural incubator like the Innovation Center is its access to the many resources of the university in which it operates. But the mere existence of these resources does not create an atmosphere that fosters economic growth and entrepreneurship. For years the incubator received limited support, as few professors had interest in consulting with start-up companies, and regional economic development

officials focused on industry attraction. Individuals in the region who recognized the importance of supporting entrepreneurial start-ups were “scarce as hens’ teeth,” says Dinah Adkins, NBIA executive director and former incubator manager. Recently, however, at Adkins’ and others’ urgings, university and incubator officials have given greater recognition to the need to integrate efforts and develop a regional economic development strategy aimed at supporting entrepreneurs. By linking its various resources and collaborating with other regional service providers, the university and its incubator can achieve a higher level of success. Ohio University, the Innovation Center and others in the region are now aggressively working toward this end.

The Region

The Innovation Center obtains most of its clients from Athens County, although it is now concentrating on a multi-county region. When it opened, the major employers in the area besides Ohio University amounted to little more than coal companies, a shoe manufacturer, and a business forms firm. Thus, while the incubator had access to some university technologies and resources, other sources provided little deal flow. The Innovation Center tried to operate as a technology incubator, but no feasibility study had been performed. The critical mass of research generated at Ohio University needed to support a tech-based incubator did not exist. Access to financing was lacking, as were local professionals with the expertise to assist technology start-ups. Even retired persons who could serve as advisors and mentors were in scarce supply.

Over the years, the Innovation Center has shifted its focus from technology to mixed-use, including technologies companies. This has provided more potential clients but even these companies are hindered by the relative isolation of the county. Athens is 75 miles from a major airport, has almost no industrial infrastructure, lacks significant sources of investment capital and has a limited highway system.

Today, the four-county region has a population of about 111,000. Athens is the largest of the counties, with 61,000 residents, and Vinton is the smallest, with just 12,200. Three of the four counties have double-digit unemployment, with Athens being the exception. Its unemployment rate, four percent, is closer to the national average because the university is located there.

The Incubator

The Innovation Center operates as a mixed-use incubator assisting technology, service and light manufacturing start-up and emerging businesses. Its mission is two-fold: To provide critical services to business start-ups to encourage their growth, and to promote the transfer of Ohio University-invented technology for commercial use through business formation.

Housed in a former medical hospital, the incubator has 11,000 square feet available to lease at its current location. It has graduated 35 companies. Currently at 100 percent capacity, the incubator houses 12 tenants, including three anchor tenants—the Ohio Valley Venture Fund, the National Business Incubation Association and Diagnostic Hybrids, one of its graduates that remains in a campus building the incubator formerly occupied.

The Innovation Center is structured to give it high visibility within the university. Its staff reports to the university vice president for research, as do the technology transfer office, the administration of university research grants and the Edison Biotechnology Institute, a program that stimulates technological innovation and business development in Ohio by leveraging the technology resources of the state with those of the private sector.

The staff of the Innovation Center shares administrative responsibilities and physical space with the technology transfer office, which began operations in 1991 as a response to the growth of Ohio University research and the desire to increase research commercialization.

This flow of ideas makes the Innovation Center stronger than many rural incubators. The university provides management, financial, and intellectual property assistance for all businesses within the incubator. Clients also hire student employees and access computer training classes, the university’s high-speed Internet lines, the university employees’ credit union and its recreation facilities.

Ohio University’s Small Business Development Center (SBDC), located in the same building as the Innovation Center, is an active partner to incubator clients as well as other local entrepreneurs and small business owners and managers. The Center has assisted more than 800 small businesses in southeastern Ohio since it opened in 1985, providing free consultation in market research, business planning and computer usage.

A hub of entrepreneurial activity on the OU campus, the Innovation Center also is a part of the university's integrated economic development plan for the region. The plan—to assist the 29 counties of Appalachian Ohio by helping to build a technology-based entrepreneurial economy—is called the Appalachian Regional Entrepreneurship Initiative (AREI). The program is part of the university's Voinovich Center for Leadership and Public Affairs. AREI has received financing—mainly state funds—and has begun hiring. At this point, the program has five full-time staff, four interns, and is in the process of hiring a director.

AREI

The overall objective of AREI is to build an infrastructure of support for high growth potential, technology-related businesses in Appalachian Ohio. The initiative will do this by developing a high-quality, comprehensive, integrated program of business assistance, including a major equity fund targeted at regional firms.

The program has four objectives. The first is to develop a Web service for online technical assistance. This service will improve the business management skills of existing small businesses and emerging entrepreneurs in the region by increasing their technical expertise and access to computer hardware and software, as well as providing ongoing direct assistance in using business management technology.

To address the problem of a lack of venture funding at the \$200,000 to \$2 million range, AREI also is creating the Appalachian Ohio Development Fund, a \$15 million dollar community equity fund that will be run as a separate, stand-alone organization. The fund was founded with a \$2 million dollar investment from the Ohio University Foundation, and so far, \$10 million has been raised. Wilhelm & Conlon, a public strategy group in Chicago, has charge of developing the fund. A partner in the firm is David Wilhelm, a university alumnus who was campaign manager of President Bill Clinton's 1994 presidential campaign. Jakki Haussler, from Opus Capital Advisors, is managing the fund.

The third AREI objective is to offer custom consulting services to high-growth technology businesses seeking funding. Three of the financing sources are AREI collaborators on the project: the Appalachian Ohio Development Fund, the Enterprise Fund operated by the

Community Action Committee of Pike County and the microenterprise loan fund of The Appalachian Center for Economic Networks (ACEnet), a second Athens-area incubator that specializes in food production businesses.

The AREI fourth objective will provide specialized services and technology support training to regional economic development organizations in Appalachian Ohio. AREI will offer local agencies specialized services and training to increase officials' understanding of the need to support entrepreneurs and to help them gain skills necessary to better assist new businesses.

"The university recognizes that we are the largest public institution in the region of Appalachian Ohio and that part of our mission is to act as a resource center and facilitator of economic development for the region," says Hugh Sherman, who is in charge of the AREI program. "Obviously, this effort could not have been undertaken without the support of the president, provost, and board of trustees."

Keys to Success

- *The effort is guided by an inspiring vision of the future.* The Innovation Center is planning a new incubator facility, although it is still in the grant-writing process. If all goes well, construction will begin July 1 on a 32,500 square foot building with 25,000 square feet of leasable space. The university's goal is to have AREI, the SBDC and the Technology Transfer office all in the incubator facility. AREI will provide incubator clients technical assistance and, potentially, access to investment funds. "We don't want to duplicate services [with AREI]," says Linda Clark, director of the Innovation Center. "So if we can save the university money by, for example, we're using their services and they're using our space, then it's just a very good fit." The new building is expected to cost \$4.75 million, with funding expected from the Economic Development Administration of the U.S. Department of Commerce, the Appalachian Regional Commission and Ohio University. The university development office is working on private funding for the facility. Believing that no big successes ever result from small ideas, the collaborating organizations share a vision of sufficient scope

to motivate participants and the communities they serve.

- *The incubator and AREI leaders are devoted to networking and building synergies, beginning with the incubator clients themselves.* Developing contacts is “one of the most difficult problems that a new entrepreneur encounters,” especially in rural areas, says Clark. To address this problem, the incubator holds monthly networking luncheons for tenants to discuss the challenges, opportunities, and successes of the past month. Problem solving continues even after the luncheon, and regular networking puts clients in contact with future customers, investors, and other entrepreneurs, says Clark. Increasingly, the incubator and AREI have developed supportive contacts in the state capital and among alumni and other resources far from Athens. If the closest expert help for a particular company isn’t available in southeastern Ohio, Clark or others in her network help locate and bring in an expert from another area.
- *The Center maintains close relationships with Ohio University faculty.* Business and engineering school classes often take on an incubator client as a case study for a quarter, and an Innovation Center client recently sponsored research with the engineering department to design and build a working prototype for a piece of equipment. The company had received quotes of up to \$180,000 from a commercial prototype builder, but was able to build it with the help of engineering students for \$7,500. Projects like these not only benefit incubator tenants, they provide great learning experiences for students.

- *Service providers and resources are knitting themselves together.* The Innovation Center has access to many complementary programs, including the SBDC, AREI, the Ohio Valley Venture Fund and the Appalachian Ohio Development Fund. The hope is that all of these programs will be located under one roof, if the plan for a new incubator facility comes to fruition. This would create even more opportunities for companies and service providers. “Everybody wants companies to succeed,” Clark says. “So we’re all like cheerleaders.”
- *The university actively seeks to commercialize technology through new company formation.* Through the Technology Transfer office, the Innovation Center is able to evaluate university inventions to see if there is the potential for business formation. It also serves as a resource center for nonuniversity incubator clients and other local businesses, providing technical assistance on licensing agreements and doing patent searches.

While the university incubator and AREI are yet to achieve the level of integration and service to entrepreneurs they hope will occur, their efforts are gaining support with each success. One of the first university incubators in the United States, the Innovation Center contented itself with “batting in singles” for years because it was isolated from the surrounding region and had difficulty gaining the support of critical resources on campus and off. Now that these resources are collaborating effectively, the Center and its partners are clearly loading the bases for success.

Appendix A: List of Incubation Programs Participating in the Study

Incubator Name	Location	TVA*
Golden Triangle Enterprise Center	Starkville, Miss.	Y
Northeast Mississippi Business Incubation Systems	Corinth, Miss.	Y
New River Valley Competitiveness Center	Radford, Va.	N
Bay County Small Business Incubator	Lynn Haven, Fl.	N
Giles Business Incubator	Narrows, Va.	N
Ozark Technology Center	Ozark, Ala.	N
Ohio University Innovation Center	Athens, Ohio	N
N.E. Alabama ENTR	Anniston, Ala.	N
The Regional Business Technology Incubator	Cookeville, Tenn.	Y
FOUR Lakes Rural Business Incubator	Hartsville, Tenn.	Y
The EDGE Center, INC.	Belle Glade, Fla.	N
SVCC Small Business Incubator	Blackstone, Va.	N
Kemper County Industrial Incubator Center, Inc.	De Kalb, Miss.	Y
Eastern Carolina Technology Center	Greenville, N.C.	N
CFBIC/STBIC	Sanford, Fla.	N

* Y = TVA Region, N = non-TVA Region

Appendix B: Detailed Analysis of Surveys

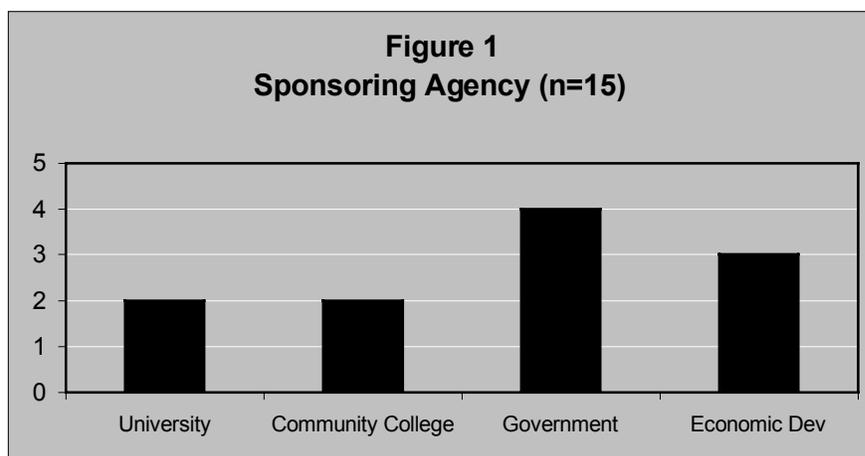
Characteristics of Rural Incubators

The research team pooled the data from all incubator manager respondents to the survey and created a profile of the incubators. Much of this profile is based on results from the closed-ended questions of the survey. Closed-ended questions focused on characteristics including the incubators' clients, types of services and financials, as well as issues regarding their staffing and governance. As noted, the incubator managers returned 15 surveys—a response rate of 31 percent—representing seven of the targeted 11 states; 50 percent (n = 5) of the TVA incubators returned their surveys. This profile shows:

General Incubator Characteristics

The incubator age:	5.57 years
Avg. gross square footage:	29,617 square feet
Avg. occupancy rate:	74%
Avg. population of service area:	114,513.

Additionally, 14 of the 15 respondents drew the majority of their clients from either a county (seven) or multi-county (seven) area, with the remaining incubator drawing its clients from the city limits. More than two-thirds of these incubators (74 percent) have a major sponsor and do not operate in a stand-alone capacity. The breakdown for sponsored programs is noted in Figure 1.



The survey asked each incubator manager to specify its incubator's formal, written mission statement. Approximately half of the respondents provided a coherent mission statement. Although the statements are unique, two themes emerge. Overwhelmingly, and perhaps obviously, the formal statements of these programs include job creation and/or growth and development of new or expanding businesses within their areas. Second, many of the incubators focused on transferring invented technology for commercial use through business startups, or encouraging the creation and growth of technology firms.

Fully one-third of the respondents had not conducted a feasibility study prior to initiating their programs. Ten incubators claimed to have completed a feasibility study, but less than half of these studies predicted the composition of the incubator's client base (46 percent) or optimal incubator size (40 percent); and only about one quarter of the feasibility studies identified prospective clients (27 percent) or predicted revenues and expenditures (27 percent). Yet these are critical issues to be dealt with in a feasibility study and important predictors of success.

Types of Services

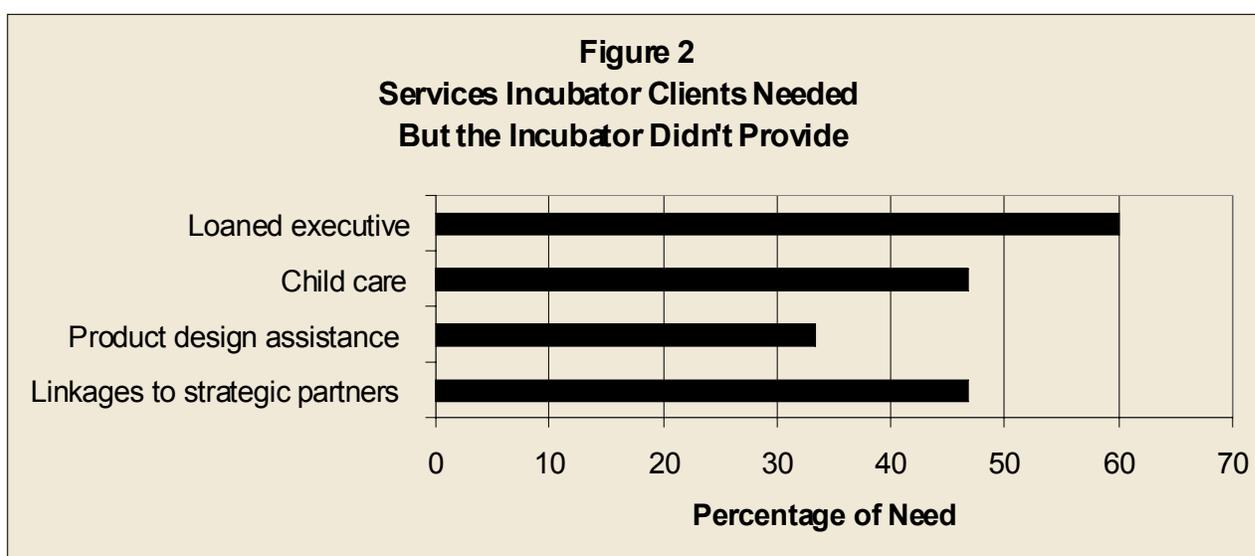
Table 3 shows the percentages of incubators that offered various common incubator services to their clients and identifies the services that more than 30 percent of managers said were needed but not available.

Table 3: Services Offered by Rural Incubators and Needed by Rural Incubator Clients

Type of Service	This Service Offered by Your Incubator or Referral	Your Clients Need This Service, But It is Not Available from Incubator
Help with business basics (developing business plan, pro formas, etc.)	100%	
Human resources / personnel development / training	80%	
Management team development	66%	
Comprehensive business training programs	60%	
Shared administrative / office services	86%	
Specialized equipment / facilities (fume hood, computers, forklift, kitchen); equipment leasing		
Accounting / financial management	86%	
Shadow boards / mentors		
Linkages to angel or venture capital investors	53%	
Linkages to strategic partners (e.g., co-bidding, marketing collaborations, joint selling or distribution arrangements, subcontract or co-provider arrangements, research and development contracts, beta test sites, design collaborations)		47%
Help access commercial bank loans	93%	
Help access specialized noncommercial loan funds / loan guarantee programs (RLF, equity pools, microloans, receivables, etc.)	73%	
Business management process / customer assessment service / inventory management (MIS)		
Marketing assistance (advertising, promotion, market research)	86%	
Regulatory compliance	60%	
General legal services	60%	
Networking activities among incubation program clients	93%	
Federal procurement assistance	73%	
Commercializing technology		
International trade assistance	60%	
Intellectual property management		
Assistance with manufacturing practices, processes, and technology (CNC)	66%	
Assistance with product design and development practices, process and technology (CAE, CAD)	53%	33%

Linkages to higher education resources (e.g., student interns, faculty considerations, specialized lab facilities)	86%	
Child care / services		47%
Loaned executive to act in management capacity		60%
Internet access	86%	
Economic literacy training		
Assistance with e-commerce	53%	

As shown in the Figure 2 below, these four services were 1) linkages to strategic partners, 2) assistance with product design and development practices, process and technology (CAE, CAD), 3) childcare services, and 4) loaned executives to act in a management capacity for the fledgling companies. It should be noted that many respondents noted that they were unable to provide a wide variety of services, but these four were the most widely needed that were unavailable.



Two-thirds of the incubators provided formal pre-incubation services (e.g., entrepreneur readiness training, FastTrac and/or other business assistance services designed to improve the program's applicants) while one-third provided both pre-incubation and formal post-

Incubation services (e.g., post-graduate follow-up consulting and advice to graduates or assistance in locating post incubation space. Fully one-third provided neither formal pre- nor post-incubation services.

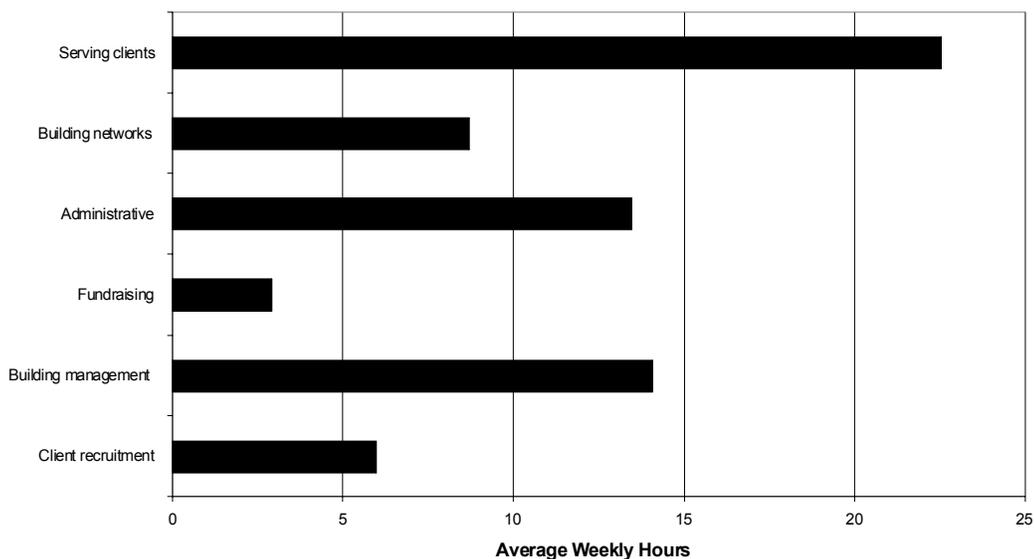
Sixty-six percent of the rural incubators are co-located with other agencies, organizations or institutions that provide services to the entrepreneurs, including Chambers of Commerce, university offices, government agencies, and Small Business Development Centers (SBDCs). Twelve of the 15 (80 percent) respondents said other organizations—primarily SBDCs, provide substantial assistance to their incubator clients.

Human Resources

Information on the number of hours all paid employees worked provided a look at how staff time is allocated to various incubator activities. On average, paid management staff worked a combined 71 hours per week in the incubator, and about 23 hours per week were devoted to delivering business development services to clients and affiliates. Thus, as a group, it's clear that they spend a healthy amount of their time helping clients. Building management and administrative duties combined took up a quarter of management staff's time, however. Most incubator managers were paid \$36,000 to \$50,000 for an average 32.7 hours per week.

Rural incubators in this sample rely on volunteers (24 hours per week on average) to do nonbusiness assistance-related tasks and they rely on outside service providers to offer regular assistance to clients. Figure 3 below provides a graphical presentation of management staff hours spent in incubator-related activities.

**Figure 3
Management Staff Hours**



Client Profile

An affiliate company pays fees to participate broadly in the incubator’s service program and activities but is not sited in the facility. An anchor tenant is located in the facility, but pays market rates and does not routinely participate in the incubator’s service program and activities. For most incubators, affiliates and anchor tenants represent a relatively small percentage of total clientele. Incubator clients residing in the facility comprise the majority of companies served by most incubators. Findings regarding client firms and those that have graduate from the incubation program into the community are reported in average figures found in Table 4.

Table 4: Client and Graduates According to Program Duration and Most Recent Fiscal Year

Client Information	From Founding of Program until 12/31/99	1999 Calendar Year or as of 12/31/99
a. Incubator clients residing in incubator facility	18.8	9.8
b. Incubator affiliates* not located in facility	10.5	5.5
c. Anchor tenants** who never participated as clients in your program	2.25	1.75
d. Incubator graduates, no longer located in facility	6.6	2.0
e. Incubator graduates, now an anchor** tenant still located in facility	0.5	0.3
f. Incubator affiliate* company graduates (never located in facility):	14.6	—
g. Former clients who left the program without graduating	5.1	2.0
h. Number of graduates still in business (including those acquired or merged)	6.9	2.6
i. Number of graduates still located in your service area	6.6	2.3

The following list shows the average number of clients for each defined market area, clearly revealing that that *two-thirds of all clients are poised to address local and regional markets.*

Client Markets

Local markets	3	
Regional markets	13	
National markets	4	
International markets	4	n=15

Across the sample of rural incubators, the average length of participation in full incubation services by the programs' graduates is 27 months.

Nine of the 15 incubators' current tenants provided total jobs (jobs per incubator) of fewer than 75 full-time employees. Only seven of the incubators reported having affiliate companies as clients and four of the seven reported total employment of their affiliate companies was less than 25 full-time workers.

Table 5: Frequencies of Current Total Employment (in FTEs) of Current Tenants

<u>n</u>	<u>Range of FTEs</u>	
3	Less than 25	
4	25 - 50	
2	50 - 75	
3	75 – 100	
1	100 – 150	
1	Over 150	(n = 14)

The most recent combined total annual fiscal year revenues of the business incubation program's current tenant firms fell mostly in the \$100,000 - \$250,000 range. The incubators serving incubator affiliate companies each reported those companies having less than a total of \$100,000 in revenues for the previous fiscal year. See Table 6 for Revenue data.

Table 6: Frequencies of Total Combined Annual Revenues of Tenant Firms (Most Recent Fiscal Year)

<u>n</u>	<u>Range of Revenues</u>	
2	less than \$100,000	
4	\$100,000 - \$250,000	
0	\$250,000 - \$500,000	
0	\$500,000 - \$1 million	
0	\$1 million - \$2 million	
1	\$2 million - \$3 million	
0	more than \$3 million	(n = 13)

Obstacles to Serving Clients

Next, the survey included both closed and open-ended questions aimed at identifying the obstacles and challenges of rural incubation. In the closed-ended section, respondents ranked the obstacles primarily encountered by incubator clients. The most significant obstacles faced by these clients are listed in order with

the most prevalent obstacle on top. This list shows the number of incubator managers who ranked this item as *one of the top five* obstacles.

Obstacles Ranked by Managers in the Top Five

1. Lack of company financing. (n=13) [Eight managers claimed this was number one.]
2. Entrepreneur lacks background/expertise in entrepreneurship. (N=12)
3. Incomplete/inadequate management team. (n=9)
4. Entrepreneur profoundly lacks personal economic resources, business literacy and/or education. (n=6)
5. Distance or access to networks. (n=7)
6. Limited access to relevant networks / expertise. (n=4)
7. Lack of technology literacy. (n=3)

Factors Determining Incubator Effectiveness

The final section of the survey included thirty-five 5-point Likert-scaled items in which the respondent rated agreement to each statement ranging from strongly agree (5) to strongly disagree (1). See Table 7. The information obtained from this question (Question 32) helped to identify additional obstacles that may be the behind-the-scenes causes of problems faced by these incubators as well as areas of noted strength for incubators. Examples of the items within this section include a lack of an agreed-upon mission statement, a failure to evaluate the incubator's impacts, and insufficient time spent by management on firm assistance. Incubator managers clearly recognized three areas that were problematic for their programs (average rankings on the 5-point scale are noted in parentheses). Managers expressed strong concerns about reviewing client financial statements regularly, incubator staff salaries and the consequences of losing a major funder.

If this incubator were to lose a major funder, it could identify a replacement funder(s) in order to continue in operations at the same or a higher level. (2.35)

The incubator's staff salaries are at a level necessary to attract and retain people capable of running a model program. (2.57)

This incubator's management reviews client financial statement on a quarterly basis at minimum. (2.85)

As a group, they also indicated concern that the incubator's facility was not appropriate to serve its clients and to encourage client synergies and that the incubator does not adequately evaluate the contributions of members of its service network to ensure high-quality service to all its clients.

The incubator managers indicated strong compliance with five areas of generally accepted incubator best practices:

The incubator's finances are subjected to an annual outside audit. (4.3)

The incubator has close ties to post-secondary educational institutions and/or research institutions (4.38)

The incubator has a clear and concise mission statement. (4.43)

The incubator's board or other governing body and its management have agreed on and support the mission statement. (4.43)

The incubator effectively utilizes new technology to assist client development. (4.59)

Table 7: Table of Incubator Best Practices

Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5	Not Applicable NA
					<i>SD D N A SA</i>
This incubator has a clear and concise mission statement.					1 2 3 4 5 NA
This incubator's board or other governing body and its management have agreed on and support the mission statement.					1 2 3 4 5 NA
This incubator has developed a strategic plan containing quantifiable objectives to achieve the program mission.					1 2 3 4 5 NA
Incubator management is held accountable for achieving formal goals and objectives.					1 2 3 4 5 NA
This incubator selects only applicants that meet approved criteria.					1 2 3 4 5 NA
This incubator regularly (annually) collects information on client outcomes (performance measures).					1 2 3 4 5 NA
This incubator regularly (annually) collects information on program activities (e.g., number of participants in training programs, business plans reviewed, etc.).					1 2 3 4 5 NA
This incubator has developed and implemented a realistic business plan of its own.					1 2 3 4 5 NA
This incubator has developed an effective network of local business service providers and other resources.					1 2 3 4 5 NA
This incubator evaluates the contributions of members of its service network to ensure high-quality service to all its clients.					1 2 3 4 5 NA
This incubator is highly visible within its service area and is viewed as the premier entrepreneur service organization.					1 2 3 4 5 NA
This incubator engages in wide-ranging effective marketing of its program and achievements.					1 2 3 4 5 NA
This incubator's staff salaries are at a level necessary to attract and retain people capable of running a model program.					1 2 3 4 5 NA
This incubator's board/sponsoring agency recognizes that management's primary responsibility is to help the incubator's clients in order to ensure their success.					1 2 3 4 5 NA
If this incubator were to lose a major funder, it could identify a replacement funder(s) in order to continue in operations at the same or a higher level.					1 2 3 4 5 NA
This incubator's facility is appropriate to serve its clients and to encourage client synergies.					1 2 3 4 5 NA
This incubator has the broad support and understanding of local real estate firms.					1 2 3 4 5 NA
This incubator's sponsors and supporters are capable of ensuring its continued operation and effectiveness.					1 2 3 4 5 NA
This incubator maintains a management information system and regularly collects statistics and other information necessary for on-going program evaluation and improving its program effectiveness.					1 2 3 4 5 NA
This incubator's governance structure contributes to rather than detracts from effective program operations and client service.					1 2 3 4 5 NA
This incubator keeps elected leaders informed of its needs and achievements.					1 2 3 4 5 NA
This incubator is adequately staffed to meet the key needs of its clients.					1 2 3 4 5 NA
This incubator's staff has written job descriptions.					1 2 3 4 5 NA
This incubator's management has bottom-line responsibility for incubator finances.					1 2 3 4 5 NA
This incubator's management reviews its financial status on a monthly basis.					1 2 3 4 5 NA
This incubator's staff is evaluated annually through a formal review.					1 2 3 4 5 NA
This incubator incorporates program changes as the result of thorough, systematic evaluation.					1 2 3 4 5 NA
This incubator's finances are subjected to an annual outside audit.					1 2 3 4 5 NA

This incubator effectively utilizes new technology (the Internet, office productivity software, up-to-date computer hardware, etc.) to assist client development.	1	2	3	4	5	NA
This incubator has a formal graduation policy requiring clients who meet certain benchmarks to graduate from the incubation program and requiring those that fail to meet these benchmarks to leave the incubation program.	1	2	3	4	5	NA
This incubator's management reviews client financial statements on a quarterly basis at minimum.	1	2	3	4	5	NA
This incubator maintains effective strategic alliances and collaborations with almost all other potential partners in its service area.	1	2	3	4	5	NA
This incubator has close ties to one or more post-secondary educational institutions and / or research institutions within its service area.	1	2	3	4	5	NA
This incubator's sponsor strongly supports staff professional development.	1	2	3	4	5	NA
This incubator's management is committed to staff professional development, and keeps abreast of incubator industry best practices.	1	2	3	4	5	NA

It turned out that the incubators' compliance with these practices ranged very widely and was highly useful in segmenting the respondent programs to look at how and in what environments they operate, as well as to determine the differing characteristics of high-performing from low-performing programs.

Incubator Financial Statements

It is difficult to compare or even understand incubator financial statements due to the wide variety of organization types, revenues, contracts and subsidies. Incubation programs may operate as divisions of a larger operation with extensive hidden subsidies. For example, in universities, building maintenance or even utilities may not be charged to the incubation program. Likewise, staff of the incubator may be paid for another function, such as teaching or research, and not receive any salary for managing the incubator. If co-located in an economic development agency, the incubator may share a receptionist and building maintenance services, without any of these being charged to the incubator budget. In the case of the Early, Texas, incubator described in the Case Studies, the manager wears three hats because he holds three major responsibilities. His activities seem to harmonize and provide value to the incubator's clients. In other situations, management's time may be siphoned away by other responsibilities to such an extent that there is little time left for clients. These situations—whether for good or evil—can make understanding financial statements difficult.

In addition to rents and fees for services, which are normally significant contributors to incubator revenues and sustainability, the program may obtain contract revenues for providing business-training services, or for managing a loan fund. Of course, the incubator may also receive a direct subsidy to make up shortfalls when clients graduate and income diminishes. In some cases, particularly programs with small facilities that cannot throw off substantial rental revenues, and which do not have access to the economies gained through networking, the incubator may require an ongoing hefty subsidy. This is much more likely to be the case if the incubator must amortize a large debt for acquisition and renovation of its facility. It is preferable for incubator developers to obtain sufficient grant funds and gifts up-front to acquire and renovate the facility without debt. In such circumstances, management can use all the building revenues for funding operations.

The existence of subsidies, per se, may not be indicative of lower-performing programs. Few other economic development activities—industry attraction, general business advising (such as in an SBDC, for example)—are required to pay their own way. In fact, it is normally assumed that these are activities that by their public nature are worthy of considerable financial support. Such is often not the case with business incubators, however. They have long been required to contribute significantly to their financial maintenance—a requirement that may have arisen from expectations of the real estate that is a component of most incubation programs.

NBIA and industry leaders have often suggested that requiring ongoing significant subsidies puts the incubation program at a disadvantage, however, since it makes more likely the possibility that funding will be withdrawn and the entire entrepreneur support effort will be lost. The study team therefore urges incubator

managers to recognize the need to generate significant revenues from operations and incubator stakeholders to ensure a sound feasibility study and business plan with believable financial statements.

While management salaries may be hidden in the budget of another organization, pay for incubator managers *is* indicative of the level of importance sponsors give to business incubation. Level of staffing and whether the program is required to keep business-like records are also indicative of support for the incubator and the quality of the sponsors and management. Few incubators that have been established in or operate in an unbusiness-like manner can serve as role models for the companies they purportedly serve. Low pay scales for incubator managers often indicate that the sponsor has hired a low-level building manager—not an individual who can help companies grow and succeed. Other research has already shown that incubation program success is largely a function of the skills of the manager and how much time he or she spends in direct service to clients.

Table 8 provides average financial data for the study sample. Lines do not add up because many incubators reported incomplete financial data.

Table 8: Financial Information of Most Recent Fiscal Year

INCOME	Amount	EXPENSES	Amount
Total Income (100%)	\$118,369	Total Operating Budget (100% Expenses)	\$113,749
Rents and / or client fees for services	44,638	Total payroll/benefits	71,732
Revenues from services contracts / grants (i.e., contracts to provide business training, micro-loan assistance, etc. – requiring specific service deliverables)	60,004	Building costs (maintenance/repairs, lease or mortgage expenses)	51,287
Cash operating subsidies (i.e., funds granted to offset operating deficit – no requirement for specific deliverables)	70,332	Other (supplies, equipment, utilities, phone, etc.)	37,051
Other: _____	37,052		

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APPENDIX C:

RURAL INCUBATOR SURVEY
OBSTACLES TO SUCCESSFUL ENTREPRENEURSHIP

1. Your name / title: _____
2. Name of your business incubation program: _____
3. Year your incubation program was established: _____
4. City / state where this incubation program is located: _____
5. The area from which you *actually* draw the majority of your clients comprises:
 _____ neighborhood / town _____ city _____ county _____ multi-county _____ state
6. Population of your incubator's service area: _____
7. Do you have a sponsoring agency, government, university or other entity under whose authority you operate (check *no* if you are self-governed and do not report to an outside organization)?
 _____ Yes _____ No

If *yes*, indicate the primary sponsor type of your business incubation program? (check one)

- | | |
|---|---|
| <input type="checkbox"/> University | <input type="checkbox"/> For-profit business entity |
| <input type="checkbox"/> Community / technical college | <input type="checkbox"/> Hybrid (accountable to a consortium with no single controlling entity) |
| <input type="checkbox"/> City / county / state government | <input type="checkbox"/> Other (please specify): _____ |
| <input type="checkbox"/> Technology / commercialization group | _____ |
| <input type="checkbox"/> Economic development organization | _____ |

8. Specify your incubator's formal, written mission statement (if lacking, indicate primary goals): _____

9. As of December 31, 1999, what was the gross square footage of your incubation program's space (exclude space permanently rented to anchor tenants who do not receive business incubation services)?
 _____ square feet
10. On average during the past calendar year, what was the occupancy rate for the business incubation facility as a percentage of gross square footage? (Be sure to exclude anchor tenants who do not receive or participate in full incubation services.) _____ %

11. If a feasibility study was conducted prior to initiation of your incubation program, did it accurately (check all that apply):
 - predict the composition of your client base?
 - predict optimal incubator size?
 - identify prospective clients?
 - predict revenues and expenditures?
 - NA, unknown or no feasibility study

12. Types of Services Provided - The list below includes services typically offered by incubators to their clients, either through their network of service providers or by in-house staff. Check those services that your incubator provides to its clients, and then identify services that your incubator does not currently provide that would be helpful to the success of your clients.

Type of Service	This Service Offered by Your Incubator or Referral	Your Clients Need This Service, But It is Not Available from Incubator
Help with business basics (developing business plan, pro formas, etc)		
Human resources / personnel development / training		
Management team development		
Comprehensive business training programs		
Shared administrative / office services		
Specialized equipment / facilities (fume hood, computers, forklift, kitchen); equipment leasing		
Accounting / financial management		
Shadow boards / mentors		
Linkages to angel or venture capital investors		
Linkages to strategic partners (e.g., co-bidding, marketing collaborations, joint selling or distribution arrangements, subcontract or co-provider arrangements, research and development contracts, beta test sites, design collaborations)		
Help access commercial bank loans		
Help access specialized non-commercial loan funds / loan guarantee programs (RLF, equity pools, microloans, receivables, etc.)		
Business management process / customer assessment service / inventory management (MIS)		
Marketing assistance (advertising, promotion, market research)		
Regulatory compliance		
General legal services		
Networking activities among incubation program clients		
Federal procurement assistance		
Commercializing technology		
International trade assistance		
Intellectual property management		
Assistance with manufacturing practices, processes, and technology (CNC)		
Assistance with product design and development		

practices, process and technology (CAE, CAD)		
Linkages to higher education resources (e.g., student interns, faculty considerations, specialized lab facilities)		
Child care / services		
Loaned executive to act in management capacity		
Internet access		
Economic literacy training		
Assistance with e-commerce		
Other (specify): _____		

13. Does your incubator provide formal pre-incubation services (e.g., entrepreneur readiness training, FastTrac and / or other business assistance services designed to improve your program’s applicants) or formal post-incubation services (e.g., post-graduate facility, follow-up consulting and advice to graduates)? Check all that apply.

- Pre-incubator services
- Post-incubator services
- Neither

14. Is your incubator housed with other agencies, organizations or institutions that provide services to entrepreneurs? If so, which? _____

15. Does another agency or organization (e.g., Small Business Development Center) provide substantial assistance to your incubator’s clients? If so, which? _____

Does the presence of this organization represent an obstacle to your program? __ Yes __ No

16. Is your incubator a member of a network of incubators that shares staff, volunteers, equipment or other assets in order to reduce each incubator’s costs? ____ Yes ____ No

17. **Client Profile** - Please complete the following activity report to measure the number of firms that have fully participated in your business incubation program. In the first column, include those clients participating *since the incubator’s inception through December 31, 1999* (or if data is unavailable, provide data for all years for which you have records). In the right-hand column, include those clients served during *calendar year 1999 or those who graduated or dropped out of the program in 1999*.

Client Information	From Founding of Program until 12/31/99	1999 Calendar Year or as of 12/31/99
a. Incubator clients residing in incubator facility		
b. Incubator affiliates* not located in facility		
c. Anchor tenants** who never participated as clients in your program		
d. Incubator graduates, no longer located in facility		
e. Incubator graduates, now an anchor** tenant still located in facility		
f. Incubator affiliate* company graduates (never located in facility):		

g. Former clients who left the program without graduating		
h. Number of graduates still in business (including those acquired or merged)		
i. Number of graduates still located in your service area		

- * An affiliate company pays fees to participate broadly in the incubator’s service program and activities but is not sited in the facility. Do *not* include companies that are limited participants (e.g., attend training programs) but do not otherwise meet the same criteria as companies you serve on site.
- ** An anchor tenant is located in the facility, but pays market rates and does not routinely participate in the incubator’s service program and activities.

18. How many of your incubator’s current clients (in-house and affiliate) are poised to address each of the following markets? (If a company is not currently selling products / services, but in a pre-business stage, indicate the anticipated primary market.) Answers should equal the total of your clients. DO NOT give percentages.

- # of clients
- _____ Local
 - _____ Regional
 - _____ National
 - _____ International
 - _____ TOTAL Number of Clients

19. Primary Obstacles Encountered by Incubator Clients – From the selection below, rank the top five most common obstacles encountered by your clients. (Use 1 to rank the most significant obstacle and 5 to rank the least significant obstacle.)

- _____ Lack of financing for company
- _____ Entrepreneur lacks background / expertise in entrepreneurship
- _____ Lack of customer acceptance
- _____ Incomplete / inadequate management team
- _____ Limited access to relevant networks / expertise
- _____ Limited market potential
- _____ Entrepreneur profoundly lacks personal economic resources, business literacy and / or education
- _____ Entrepreneur unwilling / incapable of success
- _____ Distance or access to networks
- _____ Lack of technology literacy
- _____ Other (specify): _____

20. What is the average length of participation in full incubation services by your program’s graduates? (Add months of participation for all graduates for whom records exist and divide by the number of these graduates.) _____ months

21. What is the range of the current total employment in full time equivalents of your business incubation program’s current tenants housed at your incubator.
 _____ Less than 25 _____ 25-50 _____ 50-75 _____ 75-100 _____ 100- 150 _____ over 150

If applicable, what is the range of the current total employment in full time equivalents of your business incubation program’s current affiliates? (An affiliate company pays fees to participate broadly in the incubator’s service program and activities but is not sited in the facility. Do *not* include companies that are limited participants (e.g., attend training programs) but do not otherwise meet the same criteria as companies you serve on site.)

_____ Less than 25 _____ 25-50 _____ 50-75 _____ 75-100 _____ 100- 150 _____ over 150

22. Please indicate the range for the most recent combined total annual fiscal year revenues of your business incubation program's current tenant firms housed in your incubator?
- less than \$100k \$100k-\$250k \$250k-\$500k \$500k-\$1m
 \$1-2mm \$2-3mm more than \$3mm

If applicable, indicate the range for the most recent combined total annual fiscal year revenues of your business incubation program's current affiliates? (An affiliate company pays fees to participate broadly in the incubator's service program and activities but is not sited in the facility. Do *not* include companies that are limited participants (e.g., attend training programs) but do not otherwise meet the same criteria as companies you serve on site.)

- less than \$100k \$100k-\$250k \$250k-\$500k \$500k-\$1m
 \$1-2mm \$2-3mm more than \$3mm

23. What is the range of combined total jobs created by your incubation programs graduates:
- less than 50 50-100 100-250 250-500 more than 500

24. For each category below, identify the total number of all your clients that grew in terms of revenues from the end of 1998 to the end of 1999.

of clients

- Negative or zero growth
 10 percent growth or less
 10 percent - 25 percent growth
 25 percent - 50 percent growth
 More than 50 percent growth
 TOTAL Number of Clients

25. **Financial Information** – Please complete the following table concerning your incubator's financial data for the last complete fiscal year.

INCOME	Amount	EXPENSES	Amount
Total Income (100%)		Total Operating Budget (100% Expenses)	
Rents and / or client fees for services		Total payroll/benefits	
Revenues from services contracts / grants (i.e., contracts to provide business training, micro-loan assistance, etc. – requiring specific service deliverables)		Building costs (maintenance/repairs, lease or mortgage expenses)	
Cash operating subsidies (i.e., funds granted to offset operating deficit – no requirement for specific deliverables)		Other (supplies, equipment, utilities, phone, etc.)	
Other: _____			

26. In an average week during the last calendar year:
- a. How many combined hours did all paid incubator staff actually work at the incubator? Do not include board members, business advisors or others available through your resource network.
- _____ hours per week

- b. How many of these same hours, mentioned in 'a' above, were spent by you and other program management staff to services to deliver the following services. Count time spent personally by you and other management-level staff. Do **not** include any hours spent on non-incubator related activities.
- _____ Delivery of business development services to your resident and affiliate clients
 - _____ Building the network of business resources / partners / political supporters
 - _____ Administrative / paperwork
 - _____ Fundraising
 - _____ Building management
 - _____ Client recruitment
 - _____ Other (please identify): _____
- c. How many hours did volunteers contribute to other aspects of your incubation program excluding client consulting assistance (e.g., clerical, special events management, legal advice to the incubator, etc.) Do not include time spent in board meetings, but volunteer services that you would otherwise have to pay for. _____ hours
27. On average, how many outside service providers, mentors, volunteers, business professionals and academics provide assistance to your clients on a regular basis (e.g., more than five times a year)? _____
28. What is the salary range of the incubator manager?
- _____ less than \$25k
 - _____ \$25-35k
 - _____ \$36-50k
 - _____ \$51-75k
 - _____ \$76-100k
 - _____ more than \$100k
- 29. How many hours per week does this incubator manager work on incubator business?** _____

30. **Incubator Obstacles** - Identify and describe 3-5 of the most important obstacles that your incubation program encounters when trying to develop more successful new ventures in your service region. Please use the back of this sheet, if more writing space is required. Feel free to use a word processor, and attach the comments as well. In the left-hand column, circle either 'past' or 'current' to identify whether this obstacle is either a past or current obstacle. In the middle column, rank the importance of the obstacle.

When?	Obstacles Encountered by Incubation Programs	Rank?
Past Current		Rank ____

31. **Incubator Practices** - Identify and describe 3-5 of the most successful practices or programs that your incubation program has developed to help assist new businesses in becoming more successful. Include any practices that have solved obstacles listed in question 29 above.

Most Successful Practices / Programs Developed by Incubators	
1	
2	
3	
4	
5	

32. In this section, note the degree to which you agree / disagree with the following statements using the following scale:

Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5	Not Applicable NA
This incubator has a clear and concise mission statement.					SD D N A SA 1 2 3 4 5 NA
This incubator's board or other governing body and its management have agreed on and support the mission statement.					1 2 3 4 5 NA
This incubator has developed a strategic plan containing quantifiable objectives to achieve the program mission.					1 2 3 4 5 NA
Incubator management is held accountable for achieving formal goals and objectives.					1 2 3 4 5 NA
This incubator selects only applicants that meet approved criteria.					1 2 3 4 5 NA
This incubator regularly (annually) collects information on client outcomes (performance measures).					1 2 3 4 5 NA
This incubator regularly (annually) collects information on program activities (e.g., number of participants in training programs, business plans reviewed, etc.).					1 2 3 4 5 NA
This incubator has developed and implemented a realistic business plan of its own.					1 2 3 4 5 NA
This incubator has developed an effective network of local business service providers and other resources.					1 2 3 4 5 NA
This incubator evaluates the contributions of members of its service network to ensure high-quality service to all its clients.					1 2 3 4 5 NA
This incubator is highly visible within its service area and is viewed as the premier entrepreneur service organization.					1 2 3 4 5 NA
This incubator engages in wide-ranging effective marketing of its program and achievements.					1 2 3 4 5 NA
This incubator's staff salaries are at a level necessary to attract and retain people capable of running a model program.					1 2 3 4 5 NA
This incubator's board/sponsoring agency recognizes that management's primary responsibility is to help the incubator's clients in order to ensure their success.					1 2 3 4 5 NA
If this incubator were to lose a major funder, it could identify a replacement funder(s) in order to continue in operations at the same or a higher level.					1 2 3 4 5 NA
This incubator's facility is appropriate to serve its clients and to encourage client synergies.					1 2 3 4 5 NA
This incubator has the broad support and understanding of local real estate firms.					1 2 3 4 5 NA
This incubator's sponsors and supporters are capable of ensuring its continued operation and effectiveness.					1 2 3 4 5 NA
This incubator maintains a management information system and regularly collects statistics and other information necessary for on-going program evaluation and improving its program effectiveness.					1 2 3 4 5 NA
This incubator's governance structure contributes to rather than detracts from					

effective program operations and client service.	1	2	3	4	5	NA
This incubator keeps elected leaders informed of its needs and achievements.	1	2	3	4	5	NA
This incubator is adequately staffed to meet the key needs of its clients.	1	2	3	4	5	NA
This incubator's staff has written job descriptions.	1	2	3	4	5	NA
This incubator's management has bottom-line responsibility for incubator finances.	1	2	3	4	5	NA
This incubator's management reviews its financial status on a monthly basis.	1	2	3	4	5	NA
This incubator's staff is evaluated annually through a formal review.	1	2	3	4	5	NA
This incubator incorporates program changes as the result of thorough, systematic evaluation.	1	2	3	4	5	NA
This incubator's finances are subjected to an annual outside audit.	1	2	3	4	5	NA
This incubator effectively utilizes new technology (the Internet, office productivity software, up-to-date computer hardware, etc.) to assist client development.	1	2	3	4	5	NA
This incubator has a formal graduation policy requiring clients who meet certain benchmarks to graduate from the incubation program and requiring those that fail to meet these benchmarks to leave the incubation program.	1	2	3	4	5	NA
This incubator's management reviews client financial statements on a quarterly basis at minimum.	1	2	3	4	5	NA
This incubator maintains effective strategic alliances and collaborations with almost all other potential partners in its service area.	1	2	3	4	5	NA
This incubator has close ties to one or more post-secondary educational institutions and / or research institutions within its service area.	1	2	3	4	5	NA
This incubator's sponsor strongly supports staff professional development.	1	2	3	4	5	NA
This incubator's management is committed to staff professional development, and keeps abreast of incubator industry best practices.	1	2	3	4	5	NA

33. Based on your knowledge, what rural incubation program in the United States would you identify as the most successful program in assisting new businesses in becoming more successful? Why?

34. **Additional Comments:**
