

**The State of the Wisconsin Incubation Industry in 2002:
An Analysis of the Results of the Survey of Membership**

Prepared for:

The Wisconsin Business Incubation Association

Prepared by:

**Thomas S. Lyons, Ph.D.
Fifth Third Bank Professor of Community Development
Director, Center for Research on Entrepreneurship & Enterprise Development
University of Louisville**

and

**Songmei Li
School of Urban and Public Affairs
University of Louisville**

With assistance from

**Biqi Zhao
School of Urban and Public Affairs
University of Louisville**

August 2003

Introduction

It is widely held that small businesses play an important role in propelling the national economy in the United States (Acs and Audretsch 1993). However, a majority of new start-ups fail due to factors such as lack of capital, poor managerial skills, and insufficient understanding of markets. The purpose of business incubation programs is to provide a supportive environment in which these skills and resources can be obtained (Gatewood et. al. 1985; Peterson et. al, 1983). Once an incubated firm is financially viable, and the entrepreneur has developed the necessary survival skills, it leaves the incubation facility and enters the open market.

In 2001, there were 950 business incubation programs in the United States, up from 587 in 1998 and 12 in 1980. Nearly half of these incubators were mixed use, serving a variety of clients. Over one-third focused on technology firms. Collectively, U.S. incubators assisted more than 35,000 start-up firms that provided 82,000 full-time equivalent positions and generated annual earnings of more than \$7 billion (Linder 2003).

Wisconsin has been recognized nationally as one of the leading states in terms of success in and dedication to creating and sustaining new businesses. The Wisconsin Business Incubation Association has conducted a series of five surveys of business incubators in that state between 1990 and 2002. The participating incubators in these surveys were asked to respond to questions in four major subject areas: facilities, tenants, finances, and management. The surveys were aimed at providing data on the development of Wisconsin incubation programs over this twelve-year period.

The first survey was conducted in 1990, with nine incubators participating. The second survey, in 1993, had twenty-four respondents. The third, in 1996, elicited twenty-three responses. The 1999 survey yielded twenty-five respondents; a response rate of eighty-three percent. The most recent complete survey was conducted in 2002. Thirty-three (33) Wisconsin incubation programs responded to the mail questionnaire. This study analyzes data from the 2002 survey and compares the findings to those of the previous four surveys, and national trends, where possible.

Wisconsin Incubation Industry Statistics

Results of the 2002 survey show that Wisconsin business incubation programs range in age from less than one year to eighteen years. The average age is 7.53 years. Among the 33 responding incubators, ten, or 30 percent, started their incubators within the previous two years. Thirteen incubation programs, or 39 percent, have been in business for more than ten years. The coexistence of older incubation programs and newer incubation facilities shows that Wisconsin business incubation is a vital industry with a healthy mix of established players and new talent.

Organization Type.

The type of organization that controls a given incubation program is important to understanding the function and structure of that program. According to the 2002 survey responses, the predominant type of controlling organization was the not-for-profit corporation, accounting for 82 percent of all responding incubators. This represents a substantial increase since 1993, when 46 percent of Wisconsin's incubators were 501 (c) (3) organizations. This is consistent with the national situation, where 84 percent of incubators are not-for-profit corporations (Linder 2003). Table 1 provides a breakdown of Wisconsin incubators by organization type.

Table 1: Organization Type of Wisconsin Incubation Programs in 2002

Organization Type	Number	Percent
Non-for-profit Corporation	27	82.0
Public Agency / Government	2	6.0
For Profit Corporation	2	6.0
4-year College / University	1	3.0
Others	1	3.0
Total	33	100.0

Source: Wisconsin Business Incubation Survey, 2002.

It is interesting to note that while much has been made in recent years of a heightened interest in for-profit incubators, only two of Wisconsin's 33 responding incubators are structured in this way. This suggests that business incubation in Wisconsin continues to be viewed as an activity that has a largely public purpose.

Stakeholders.

Incubation programs are not stand-alone entities. The support of a broad public-private partnership is very important to successful incubator development.

According to the 2002 survey, Wisconsin business incubation programs are typically promoted by a variety of organizations from the public and private sectors. These include local economic development organizations, local lenders, local governments, regional planning commissions, state government, four-year colleges or universities, small business development centers, technical colleges, and county governments. Drawing comparisons with similar data from the 1999 survey (see Table 2), it can be observed that there was a percentage decline in the involvement of local economic development organizations, local government, state government, and county government. On the other hand, participation by small business development centers, regional planning commissions, and the Service Corp. of Retired Executives (SCORE) increased. Of particular interest is the substantial drop in involvement by state government (a 24% decline) and local economic development organizations (an 18% decline). The former reflects a trend that has been going on for the past decade (Weinberg, Lyons and Shook 1995). The latter is a bit disturbing, as it may suggest that traditional economic developers in Wisconsin are losing interest in incubators. However, viewed in another

way, it may indicate that incubators have found their own niche and are becoming more self-sufficient. The fact that all but three major categories of typical collaborators in business incubation show a decline in participation might be interpreted as further evidence of incubation's efforts to achieve break-even status.

Table 2: Community Involvement

Public or Private Organizations	Percentage of Respondents rated as "considerable involvement"		
	2002	1999	Percent Change
Local Lender(s)	55%	60%	-5%
Local Economic Development Organization	58%	76%	-18%
Local Government	48%	64%	-16%
Regional Planning Commission	39%	32%	7%
State Government	36%	60%	-24%
Service Corp. of Retired Executives	33%	28%	5%
Federal Government	30%	40%	-10%
Four-year College or University	27%	36%	-9%
County Government	24%	40%	-16%
Small Business Development Center	24%	16%	8%
Two-year Technical College	24%	32%	-8%
Other	7%	0%	7%

Source: Wisconsin Business Incubation Survey, 1999 and 2002

The National Business Incubation Association reports that academic institutions are the most common incubation program sponsor. (Linder 2003) However, universities and research institutions have a relatively low level of participation in Wisconsin incubation. Opportunities to better link business incubators with educational institutions in order to access viable business ideas and high-quality, professional business services should be identified and pursued.

The level of professional stakeholder involvement in incubator start-up or operations management was also explored. Respondent incubators in 2002 indicated that neither attorneys, accountants, architects, engineers, nor construction trades people had a particularly high level of involvement in their programs. As in 1999, accountants were most likely to be involved. This fact could be interpreted as an opportunity to pursue greater professional involvement.

Location

The majority of Wisconsin incubation programs are located in either urban or rural areas, which when taken together account for 93 percent of survey respondents. Only two responding incubators, or 6 percent, reported that their facilities are located in a suburban area. This provides a very similar landscape compared to previous years. Between 1990 and 1999, urban incubation programs outnumbered rural programs, although that gap continues to narrow, and suburban incubators accounted for less than 10 percent of the total. The steady increase in the share of rural incubators over this time period mirrors a national trend. Entrepreneurship assistance has become the economic development strategy of choice in these areas, as other strategies have failed. Incubators are playing a leading role in this regard.

Clients Served

The twenty-six incubators that responded to this portion of the survey reported that they accepted approximately 135 companies, in total, into their programs each calendar year. This translates to an average of 5 new businesses for an individual incubator per year, greater than the 4 reported in 1999, 3 businesses in 1996, and 3.54 in 1993. On average, a tenant stayed in each incubation facility for 3.22 years in 2002, shorter than the 3.3 years in 1996 and 3.66 years in 1999. The shortened incubation period may help to account for the increase in new clients served. This suggests greater efficiency on the part of Wisconsin incubators; however, increased effectiveness in this regard can only be ascertained from a survey of program graduates.

Like other incubators in the United States, a large proportion of Wisconsin business incubation programs consist of mixed - use facilities. The clients served by these incubators are representative of a variety of industry sectors. Seventy-three percent (73%) of incubators had light manufacturing clients in 2002. This is down a bit from previous years, but still an indication that incubators are continuing to play an important role in fostering manufacturing activity in Wisconsin. The next largest category is the high technology and research sector. About 55 percent of Wisconsin incubators had high-tech and R&D client firms. Service and warehousing/distribution follow, with 52 percent and 33 percent, respectively. Compared to previous years, Wisconsin business incubation programs were serving more high technology start-ups and fewer heavy-manufacturing firms in 2002 (see Table 3). This should not be surprising, as it mirrors larger economic trends; however, the growth in the number of programs serving high tech clients is substantial and was predicted in the 1999 survey report.

Table 3: Type of Clients Served

Business Sector	1990	1993	1996	1999	2002
Heavy Manuf.	33%	96%	13%	8%	3%
Light Manuf.	78%	79%	82%	80%	73%
Service	78%	54%	78%	68%	52%
Retail	22%	21%	13%	4%	15%
Warehousing/Dist	44%	42%	26%	40%	33%
High Tech/Rs	44%	17%	39%	32%	55%
Other*	38%	21%	13%	16%	27%*

* arts & crafts, biomedical, food processing, high-tech plastic products, etc.

Source: Wisconsin Business Incubation Surveys, 1990-2002.

Some incubators reported a special focus. In 2002, over twenty percent (20%) of respondents had a strong focus on computer software and hardware businesses, a higher percentage than that reported in 1999 (12 percent). The second most common focus was medical and biotechnology, at 12.1 percent. Table 4 confirms that Wisconsin business incubation programs are increasingly focusing on the high-tech and computer industries. One example of a successful high-tech incubator is the Milwaukee County Technology Innovation Center established in 1993. The incubator currently assists 42 client firms. About two-thirds of its clients are focused on information technology, and the other one-third focus on medical and biotechnology. In a recent study conducted by the National Business Incubation Association (NBIA), the Technology Innovation Center ranked second nationally in terms of average revenue growth generated by client firms (Ochotnicki 2003). However, the percentage of incubation programs focusing on technology in Wisconsin is still lower than the national average of 37 percent (Linder 2003).

Some incubators have as their special focus minority-owned, women-owned and low-income businesses, which indicates their community development role in providing economic opportunities for disadvantaged people and reducing poverty in the local economy. Wisconsin incubators continue to have relatively strong representation in this empowerment arena of business incubation (see Table 4).

Table 4: Special Target by Wisconsin Business Incubation Programs, 2002

Special Target	No Focus	Somewhat Focus	Strong Focus	No Response
Computer/Software/Hardware	27.3%	36.4%	21.2%	15.2%
Medical/Biotechnology	69.7%	3.0%	12.1%	15.2%
Food Processing	75.8%	6.1%	6.1%	12.1%
Arts and Artisans	45.5%	36.4%	6.1%	12.1%
Low Income	54.5%	21.2%	9.1%	15.2%
Minority Owned Businesses	45.5%	33.3%	9.1%	12.1%
Women Owned Businesses	42.4%	36.4%	9.1%	12.1%
Others	3.0%	12.1%	33.3%	

Source: Wisconsin Business Incubation Survey, 2002.

Facilities

The facilities of the incubation programs that responded to the 2002 survey were built at various times from 1900 to 2002, with the average facility being 39 years old.

Approximately thirty-three percent (33%) of the facilities were built specifically for business incubation. This is lower than the 41.7 percent reported in 1999, but higher than the 25% percent in 1993 and 11% percent in 1990. This suggests that the rapid trend toward purpose-built incubators in Wisconsin may have leveled off. It also shows that there remains recognition of the community development value achieved by adapting existing facilities for use as incubators. A sizeable majority (82%) of Wisconsin's incubator facilities, retrofitted or purpose built, are owned by the incubation program, itself. This is one indicator of self-sufficiency.

The provision of physical space is a key element of residential incubation activities. Wisconsin incubator facilities have been steadily growing in their physical size. The average gross floor area of participating incubation facilities has increased eighty-seven percent (87%) over the period that the state-wide survey has been conducted, from less than 25,000 square feet in 1990 to 46,775 square feet in 2002. The size of the largest facility grew from 50,000 sq. ft. in 1990 to 190,000 sq. ft. in 1993, to 195,000 sq. ft. in 1996, and to 325,000 sq. ft. in 1999 and 2002. Twenty-nine business incubators reported that an average of 83 percent of their total square footage was leasable in 2002 (See Table 5). The average leasable floor area was approximately 29,500 sq. ft. in 1993, approximately 25,000 sq. ft. in 1996, 33,116 sq. ft. in 1999, and 33,230 sq. ft. in 2002. This represents a 13 percent increase in leasable space over the nine-year period. Incubators in Wisconsin are clearly growing in physical size. This is a good sign for their health and vitality, as it reflects their increased capacity to assist new small businesses.

Table 5: Average Net Leasable Square Footage, 1990-2002

Year	1990	1993	1996	1999	2002
Sq. ft.	23,446	29,500	24,827	33,116	33,230

Source: Wisconsin Business Incubation Surveys, 1990-2002

On average, about 12,709 square feet per facility was used for administrative purposes and common areas in 2002, accounting for 17 percent of the total gross square footage. Among the total leasable area, anchor tenants occupied 19 percent, and non-anchor companies represent 59 percent. Anchor tenants are larger, more stable tenants that are expected to stay in the facility for the long term, giving the incubator some stability in its flow of rent income (Lyons 1998). Only 22 percent of the leasable area were vacant in 2002, lower than the 27.9 percent reported in 1996 and the 35.6 percent in 1993, but higher than the 16.5 percent in 1999. The 78 percent occupancy rate (the percentage of incubator space leased to client firms) is still a strong positive indicator of the health of the business incubation industry in Wisconsin. Nationally, the average lease-up rate was 75% in 2002 (Linder 2003).

Services

Wisconsin incubation programs provided a substantial number of services to their client entrepreneurs in 2002. These services are categorized in three key areas: general office services, professional business services, and financial consulting assistance.

General Office Services

The most common general office services offered in 2002 were conference rooms, parking, garbage collection, photocopying, facsimile, custodial/maintenance, cafeteria/lunch room/kitchen, and building security. Among the 15 general office services, 13 (the exceptions being conference room and cafeteria/lunch room/kitchen) declined in terms of the percentage of Wisconsin incubators that offered them. The percentage of incubators that offered computer facilities dropped from 52 percent to 47 percent, for example. Audio-visual equipment, mail and postage services, and receptionist and telephone answering experienced large declines when compared to previous years. It would appear that general office services represent an area to which incubators have looked for cost savings in recent years. It may be that major price reductions on office equipment have made these items more widely affordable, thus rendering their provision less useful to entrepreneurs. If these are strategic cuts based on evidence that these services were unutilized or underutilized, this phenomenon may reflect increased incubation industry focus on efficiency and sustainability. If, however, these cuts merely reflect an unfocused effort to save money, they may indicate a potentially dangerous trend away from comprehensive service to client businesses and toward self-sufficiency because it is fashionable.

Professional Business Services

The new incubation model advocates the shift of focus from site development and subsidized rents to value-added business services. (Gonzalez and Lucea 2000) The key concept of business incubation is that the relationship between the incubation management team and the clients should not be a landlord-tenant arrangement. Start-up entrepreneurs usually have the technical background to operate a business, but lack the requisite financial and business skills. They are looking for managerial assistance combined with entrepreneurial training programs and networking opportunities. (Lichtenstein 1992). The quality and range of professional business services have an important influence on the success of client firms, and hence on the successful performance of business incubation. Capability in offering professional business services and support are vital for the long-term sustainability of the incubation industry.

Wisconsin business incubators build expertise over time through the development of local business networks and personal contacts and are, therefore, well qualified to provide various professional business services to their clients. The three most commonly offered professional business services in 2002 were preparing business plans, management assistance, and advertising and marketing help. In that year, there was an increase in employee relations and worker training services and a relative decline in other categories such as management assistance, relocation plans, legal services and accounting compared to previous survey years. For example, the percentage of incubation programs offering management assistance services dropped from 96 percent in 1996 to 88 percent in 1999, then to 87 percent in 2002. As with general office services, this trend is worrisome because it suggests a reduction in crucial assistance to client entrepreneurs. As incubators

are increasingly forced to become more self-sufficient, key components of their mission suffer. Sponsors must be made aware of this and educated to the fact that while efficiency can be good, like anything else, it has its limits. The devolution of business incubators back to their original role as purveyors of a commodity - cheap space - would be counterproductive. Lowering overhead costs, while helpful, is only one of the many needs of start-up enterprises.

If the money for continuing vital business incubation services is simply not available, then the answer lies in networking incubators with other entrepreneurship assistance providers in the community (SBDCs, colleges and universities, microenterprise programs, other incubators, etc.). In this way, providers can play roles in a larger “system” for enterprise development that permits the pooling of resources and risk (Lichtenstein and Lyons 2001).

Financial Consulting Assistance

Wisconsin business incubation programs provide financial consulting assistance to their client enterprises. Loan packaging and equity/ debt financing are the most common financial consulting services offered by incubation programs, having been listed by 69 percent and 63 percent of responding incubators, respectively. Financial assistance (including government procurement, business taxes consulting, and export assistance as well) remains an important service provided by the majority of Wisconsin programs.

It is worthy of note that of all of these services (general office, professional business, and financial consulting) for only four – mail/postage service, photocopying, faxing, and storage space – do the majority of Wisconsin incubators charge a fee. This would seem to indicate that these programs are not trying to achieve financial self-sufficiency “on the backs” of their clients. This is appropriate for programs that work with disadvantaged clients; however, for other programs, it may represent a missed opportunity. Each program needs to be strategic in making this decision. It might also be that some programs build the cost of services into their rents, rather than charging a specific fee for service. Incubation programs may want to consider providing an annual valuation of their services at fair market rates to incubated clients (i.e.: the C& L valuation model).

Tenants

This section includes information about incubation lease rates, criteria employed by programs in selecting tenant businesses, graduation policies, and affiliates programs.

Lease Rates

In 2002, lease rates varied by a tenant’s status as “anchor” or “non-anchor” and by client type. High tech and office/service anchor tenants paid, on average, \$6.75/sq. ft. and \$7.36/sq. ft., respectively, in 2002. This was much higher than the costs for other types of clients (see Table 6). The lease rates for administrative and common areas were, on average, \$3.21 per square feet in 2002, a 40 percent increase from the average of \$2.29

per square feet in 1999. Some incubators have graduated lease rate policies. For example, the lease rate of one Wisconsin incubator is variable: \$4.85 in the first year, \$5.34 in the second year, and \$5.87 in the third year. The graduated lease rate encourages the tenants to leave the facility when it is no longer to their advantage to stay. Overall, average 2002 lease rates are higher than those reported in 1996 and 1999.

Table 6: Lease Rates by Anchors and Client Types (\$/ square ft.)

	1993		1996		1999		2002	
	Anchor	Non-Anchor	Anchor	Non-Anchor	Anchor	Non-Anchor	Anchor	Non-Anchor
Manufacturing	8.00	4.50	3.33	2.43	4.70	4.21	4.85	4.31
Office/Service	17.50	5.50	6.44	5.75	7.03	6.47	7.36	6.74
Warehousing	7.68	2.74	2.73	2.69	3.15	3.15	4.06	3.97
High Tech/R & D	n.a.	n.a.	n.a.	n.a.	7.86	8.40	6.75	8.59

Source: Wisconsin Business Incubation Surveys, 1993, 1996, 1999, and 2002.

It is interesting to note that, for most industry sectors, anchor tenants are charged higher lease rates than are non-anchor tenants. The justification is typically the longer-term nature of anchor tenant leases and the fact that anchor tenants are usually more established businesses. However, for the high tech/R&D sector, non-anchor tenants have consistently paid more than anchor tenants have since 1999. In part, this may be the result of having to provide more specialized equipment for clients and having to engage in more sophisticated real estate development to accommodate them. It also reflects the greater growth potential of these firms and helps to explain their increasing popularity as the focus of incubation efforts.

Admission Policies

The majority of Wisconsin incubation programs evaluated prospective tenants before they were permitted to enter the facility. Table 7 details the characteristics responding incubators listed as important factors in selecting tenants for their facilities. The most important factor for screening tenants is the ability of prospective client firms to pay for rent and services. About 94 percent of responding incubators believe this is very important. Job creation potential, status as a new, start-up firm, and a completed business plan are also cited as important factors considered by the majority of Wisconsin business incubators in 2002. Most Wisconsin incubators do not have a technology orientation. Only eight incubators, or 26 percent, reported that high technology is an important factor in selecting firms for their facilities. Eleven incubators, or 35 percent, believe it is not important at all. This confirms that pure technology incubators still represent only a relatively small portion of Wisconsin incubation programs. However, taking into account other data generated by the survey, incubating technology companies appears to be a growing focus. The majority of Wisconsin incubators still chose broader job creation and local economic development as their goals for business incubation and screen accordingly.

Screening Criteria	Very Important		Somewhat Important		Not Important		Total
	Number	Percent	Number	Percent	Number	Percent	Number
Ability to Pay for Rent/Services	31	94%	1	3%	1	3%	33
Job Creation Potential	25	76%	4	12%	4	12%	33
New, Start-up Firm	23	70%	8	24%	2	6%	33
Completed Business Plan	20	61%	8	24%	5	15%	33
Locally Owned	13	39%	15	45%	5	15%	33
Experienced Manager	12	36%	17	52%	4	12%	33
Specific Industries	10	30%	14	42%	9	27%	33
Business Owners Equity Position	9	27%	16	48%	8	24%	33
High Technology	8	24%	13	39%	12	36%	33
Significant Profit Potential	7	21%	23	70%	3	9%	33
Existing Firm	6	18%	17	52%	10	30%	33
Proprietary Product	5	16%	14	45%	12	39%	31
Willingness to Grant Equity Position to Incubator/Manager	1	3%	9	29%	21	68%	31

Source: Wisconsin Business Incubator Survey, 2002.

Graduation Policies

Most incubators in Wisconsin have no graduation policy - a specified time period that an enterprise can occupy space in the facility. Sixteen respondents, or 48 percent of the total, had a graduation policy in 2002, higher than the 40 percent that had such a policy in 1999. As a result of these policies, tenants leave the facility after an average of 3.73 years, essentially the same as the 3.77 years reported by responding incubators in 1999. For incubators without a graduation policy, the following factors are considered when deciding whether or not it is time for a tenant to move on:

- “space needs”
- “ability to move out and into the community”
- “ability to survive and proper business strength”
- “marketplace and business decision” and
- “business maturity and financial feasibility” (see Table 8).

Also, as noted above, some incubators adopt flexible lease rate policies to encourage hatchling firms to leave the facility when they are ready.

Table 8: What criteria are used to decide when tenants should leave the incubator?

Screening Criteria	Number	Percent
Firms only rent units for a fixed time	14	42.4%
Firms leave to get more space	8	24.2%
Ability to survive and proper business strength	16	48.5%
Marketplace and business potential	4	12.1%
Consultation with manager	4	12.1%
Graduate lease rate policy	2	6.1%
Job creation	1	3.0%
No particular exit criteria	4	12.1%

Source: Wisconsin Business Incubator Survey, 2002.

The fact that the majority of Wisconsin incubators do not rely on fixed graduation policies should be considered a positive. It is equally encouraging that, among programs with fixed graduate policies, the average incubation period has remained the same as well. Inflexible graduation policies may cause fledgling businesses to be evicted from the incubator before they are ready, wasting the investment made in them to that point. With flexible policies, the clients can leave the incubators when they have the capacity to operate independently. In other words, the client graduates only when they and the incubator management agree they are ready.

Affiliates

An increasingly common development in business incubation is the creation of “affiliates” programs. Affiliates are client businesses that operate outside of the incubator facility, but receive many of the same services as do residential clients (Lyons 1998). In a survey of its membership in 1995, the National Business Incubation Association found that 51% of the incubators had affiliates programs (Adkins 1996). In its 2002 State of the Industry report, the NBIA reported that the percentage of incubator clients nationally that were affiliates was at an all-time high (Linder 2003). In Wisconsin, responding incubators reported that about 55 percent of incubation programs had affiliates programs in 2002. This represents a slight decline from 1999, when 58% had such programs, but still exceeds the 1996 figure of 52%. On average, thirteen affiliates are served by each incubator, for a total of 183 affiliated clients in Wisconsin.

Interestingly, but not surprisingly, rural incubators were the most likely to have affiliates programs (60%). However, urban incubators were not far behind at about 56 percent. None of the responding suburban programs had affiliates programs. Affiliates programs are one mechanism for helping incubators to achieve self-sufficiency because they allow them to expand their client base without incurring substantial overhead costs. They also extend the reach of the program to the larger community or region. This latter point is particularly important in rural areas where sufficient economic critical mass for sustaining business activity is widely dispersed.

Gross Job and Wealth Creation

This section includes information graduation rate, job creation, and graduate retention rate.

Graduation Rate

The 2002 survey found that 683 firms have graduated from 27 responding Wisconsin incubation programs over the latter's lifetimes. This represents an 83 percent increase in the total number of new businesses added to the state's economy by its incubation programs over what was reported in 1999. On average, each incubation program has graduated 25 firms since it began operations, a substantial increase from the average of 17 in 1999. As discussed above, the average incubator in Wisconsin has been in operation for 7.6 years. This means that an average of 3.3 firms graduated into the larger community from a typical incubator each year. Among current tenants/affiliates, approximately 80 percent were profitable in the year 2001, a slight increase over the 78 percent of 1998 (covered by the 1999 survey).

Since the participating Wisconsin incubation programs were established, on average, 79 percent of their tenant firms are still in operation. This ratio is a bit lower than the national average and the 83.55% found in Wisconsin in 1999. This latter finding may be due, in part, to the recent economic slowdown. About 7 percent of the tenant firms were involved in acquisition / merger. Among incubator graduates, an average of 80 percent are still in operation, and approximately 12.4 percent have been involved in acquisition or merger. Among tenants that never graduated, 83% are in operation, and 11.4 percent have been taken over by another company. Overall, these numbers are quite good. The great majority of businesses that Wisconsin incubators "touch" remain viable enterprises.

Job Creation

Wisconsin incubation program client firms have created a substantial number of full-time equivalent (FTE) positions. In 2001, current tenants generated an average of 75 FTE positions, and affiliates provided 28 full-time equivalent positions per facility. This translates to a total of 2,475 positions in the calendar year 2001, up from 1,883 in 1998 and just 624 in 1989. Table 9 documents the continuing contribution of the Wisconsin incubation industry to the local economy in this regard.

Table 9: FTE Positions Created by Wisconsin Incubators, 1989-2002

Year	FTE Positions Created
1989	624
1992	1,826
1995	1,578
1998	1,883
2001	2,475

Source: Wisconsin Business Incubation Surveys, 1990-2002.

Only six incubators answered the question regarding the number of full-time jobs created by their graduates. These six incubators reported that their graduates currently employ 1,305 full time equivalent (FTE) positions, or an average of 217 FTE positions per incubator. Information as to why the response rate was so low is not available; however, it is likely that most incubators were simply unable to provide this data because they do not keep such records on their graduates. This represents a lost opportunity to reinforce the case for the contribution of Wisconsin's incubators to job creation in the state.

Wealth Creation

In the 2002 survey, only six respondents of the 33 surveyed reported the total sales of their current tenants. The total reported for these six programs was \$98,427,322 combined, or an average of \$16,404,554 for each incubator in 2001. No incubation program tracked its affiliates' sales. Two respondents said the combined total sales of their graduate businesses were \$1,759,452 and \$60,965,000, respectively. This further indicates that incubators do not track their tenants/affiliates/graduates consistently. Moreover, no respondents tracked their tenants', affiliates', or graduates' out-of-state sales.

The vast majority of incubation programs did not track their tenants'/affiliates'/graduates' payroll annually. When asked if they track the growth of their graduates when they leave the incubator, only four out of twenty-eight respondent incubators, or 14.3 percent, answered "yes". Some respondents do track their graduates' locations annually. In 2002, five incubators said that some of their graduates moved out of the county of residence at an average rate of 2.3 graduates per incubator. Seven respondents said that some of their graduates moved out of state. There was less of this activity reported in 1999. NBIA member incubators reported that 84 percent of their graduates stay in their communities to benefit the local economy (Linder 2003). However, because the majority of business incubators in Wisconsin do not track their graduate company's destinations or their performance, it is difficult to draw national comparisons or evaluate the impact of these firms on the state or local economies.

Engaging graduate companies is important to ensuring that incubator operations have long-term benefits to the areas where they are located. More benefits can be achieved

through after-graduation services and graduate networking, ensuring that job and wealth creation effects are retained in local economies.

Finally, the 2002 survey asked Wisconsin incubator programs if they took equity positions in their tenant companies. Not one of the 31 programs responding to this question takes such a position. This is down from the 12% that took equity positions in client companies in 1999.

Finances

Start-up costs for incubation facilities have increased greatly over the past ten years. In 1993, the start up cost was, on average, \$480,414 per incubator. The figure climbed to \$650,000 in 1996, \$967,710 in 1999, and \$1,215,402 in 2002. The average annual growth rate of 9.7 percent in the start-up costs reflects, in part, the increasing size of business incubation establishments. According to the 2002 survey, 86% of responding incubation programs financed start-up costs using both equity and debt capital; 14% used debt capital only. In 1999, about 60% percent of start-up financing utilized equity capital, and 40% percent was debt capital.

The highest proportion of start-up costs went into building construction/retrofitting (60.2 percent), followed by real estate development (17.5 percent), and equipment and furnishings (8.56 percent) in 2002. Management and staff represented only 5.40 percent of total start up costs, which is the lowest percentage ever reported. This appears to suggest that Wisconsin business incubators focus substantially greater resources on physical facilities than professional business services and tends to reinforce the earlier finding regarding declining provision of professional services. The facilities are certainly the most expensive aspect of incubation. It is also important to note that it has always been easier to find capital for the “bricks and mortar” costs of incubation than for the business development costs. This tends to reinforce the physical focus. Nevertheless, the trend toward still greater investment in the building than in business development activities raises questions about priorities that require deeper consideration.

Table 10 lists the percentage of start up costs allocated by the different functions based on the four surveys conducted beginning in 1993.

Table 10: How are Start-up Costs Allocated for Wisconsin Incubation Programs?

Cost	1993	1996	1999	2002
Building	71.7%	0.0%	56.00%	60.20%
Real Estate	8.2%	0.0%	5.06%	5.21%
Soft Costs	3.0%	0.0%	1.54%	3.06%
Real Estate Development Costs	7.9%	64%	23.05%	17.57%
Equipment and Furnishings	1.8%	18%	6.15%	8.56%
Management/Staff	7.4%	18%	8.20%	5.40%

Source: Wisconsin Business Incubation Surveys, 1993, 1996, 1999, and 2002.

The 27 responding incubators also reported that their initial financing came from the following sources:

- approximately 40 percent from the local community;
- 30 percent from federal government, with the majority of this coming from the Economic Development Administration (EDA);
- 10 percent from the State, with almost all of this coming from Community Based Economic Development;
- 20 percent from private organizations, over half of which came from private banks.

Table 11, below, looks at the difference between these funding sources in 1999 and 2002. While funding from federal and state government and private organizations declined over this time period, there was a significant increase in local community support. This suggests that, in Wisconsin, communities that wish to start incubators must increasingly supply that support themselves, as other sponsors have pulled back on their assistance. Should this trend continue over time, it may severely limit the number of communities that have incubation programs. On the positive side, it may also show that smaller communities have come to recognize the value to their local economies of investing in the incubation of local businesses.

Table 11: How are Wisconsin Business Incubators' Start-Up Costs Funded?

Source of Funding	Percent		Percent Change 1999-2002
	2002	1999	
Local Community	40	22.5	17.5
Federal Government	30	38.2	-8.2
State Government	10	13.5	-3.5
Private Organization	20	25.8	-5.8

Source: Wisconsin Business Incubation Survey, 2002.

Responding Wisconsin incubators reported that their total assets increased by 7%, on average, between 1999 and 2001. This is down from the average 20% increase in assets between 1996 and 1998. Additionally, on average, total assets outstripped total debt for each of the three years: 1999, 2000, and 2001. Furthermore, average total debt decreased by 23% between 1999 and 2001. Median assets outstripped median debt in all three years. All of this information speaks well for the financial health of Wisconsin incubation programs.

The majority of incubators have the aim of eventually reaching break-even, but this is a relatively long-term objective. Twenty-five responding Wisconsin incubator programs (86 percent) consider breaking even a goal. This is down from the 1999 figure of 95%. Thirty-six percent (36%) had reached break-even by the time of the survey in 2002, which

was substantially lower than the 55 percent reported in 1999 and the 47 percent reported in 1996. This decline from 1999 may be explained, in part, by the addition to the respondent pool of new, young incubators that have not had sufficient time to achieve break-even status. On average, a total revenue amount of approximately \$189,099 and an occupancy rate of 80.74 percent were considered to be the break-even points in 2002. Since 1999, Wisconsin incubators have increased their total revenue requirement for break-even and decreased their required occupancy rate. This mixed result may, in part, reflect the increased average size and increased lease rates among Wisconsin's incubators.

Almost 63 percent of responding business incubation programs report that their sponsors/owners do not provide an annual operating subsidy. The subsidies received by the remaining 37% consist of a fairly balanced mix of cash only, in kind only and a mixture of cash and in kind. Ninety-four percent (94%) of these subsidized business incubators said that, if their subsidy ceases, they would reduce their services or provide no services at all. Nationally, over 50% percent of business incubators were self-sufficient or could be self-sufficient if subsidies ceased in 2001 (Linder 2003). Wisconsin's situation compares favorably to the national scenario in this regard.

As Table 12 indicates, however, distinctly fewer subsidized incubators reported that they could continue to maintain activities at their current level should they lose their subsidy in 2002 than in 1999. More subsidized programs in 2002 indicated that they would have to curtail activities or reduce them drastically were they to lose their subsidy than reported the same in 1999.

Table 12: If the incubator receives operating subsidies and this funding was stopped, what would the effect be on its operation?

Importance of Operating Subsidies	2002		1999	
	Number	Percent	Number	Percent
Incubation activities could be maintained at current level	1	3%	6	24%
Incubation activities would be maintained at a reduced level	8	24%	6	24%
Incubation activities would be stopped or be maintained at a minimal level	9	27%	5	20%
No response, do not know	15	45%	8	32%
Total	33	100%	25	100%

Source: Wisconsin Business Incubation Survey, 2002.

These findings raise some important policy issues for business incubation in Wisconsin. While the majority of programs are no longer subsidized, this number remains virtually unchanged from 1999. This suggests that some programs may always require subsidy, especially those programs that work with disadvantaged entrepreneurs. It appears that the self-sufficiency that has been attained in the industry may be coming at a price – reduced services to entrepreneurs in some cases and an increasing amount of the cost of their incubation being born by entrepreneurs, themselves, in others. This raises the question of

whether or not this is a sustainable situation. Can Wisconsin's incubation industry continue to add value to economic development efforts under these conditions in the long run?

Finally, 28% of responding Wisconsin incubators did not pay property taxes in 2002; down sharply from the 55% who did not pay such taxes in 1999. Thirty-eight (38%) of responding incubators reported that their program was part of an enterprise zone, empowerment zone, or other special local, state or federal development zone or tax designation. This was up from the 30% reported in 1999.

Management and Staff

The quality of the management team is a key to successful incubation activities. The managers of the responding incubation programs have worked in that position for anywhere from less than one year up to twenty-one years. On average, they have been in place for about six years; the same average length of tenure reported in 1999.

In 2002, the managers worked an average of 1,252 hours per year. This is about 60% of the standard for full time employment of 2,080 hours/year. This was a decline from 70% in 1999 and represents a continuing trend toward part-time incubation management in Wisconsin that began in 1996.

The managers' average annual salary was \$36,293/yr in 2002, lower than \$38,587/yr. in 1999 and \$40,000/yr. in 1996. Approximately 73 percent of managers receive fringe benefits. These figures further reflect the trend toward part-time incubation program managers.

In 2002, managers spent more time on fundraising, and less time on tenant management assistance, compared to the previous years of 1993 and 1999. In 2002, a Wisconsin incubation program manager typically spent his/her time on the following activities, in order of the percentage of time spent: (1) real estate development (32.14 percent); (2) tenant management assistance (27.37 percent); (3) marketing of the incubator (14.52 percent); (4) fundraising (11.07 percent); and (5) community relations (8.78 percent); followed by other miscellaneous activities (5.12 percent). (See Table 13)

Table 13: How do managers spend their time by activities?

Activities	1993		1999		2002	
	Hours Per Year	Percent	Hours Per Year	Percent	Hours Per Year	Percent
Tenant Management Assistance	612	39.5%	746	37.4%	358	27.37%
Real Estate Development	289	18.6%	624	31.3%	388	32.14%
Marketing of the Incubator	170	11.0%	287	14.4%	175	14.52%
Community Relations	209	13.5%	219	11.0%	118	8.78%
Fundraising	n/a	n/a	74	3.7%	146	11.07%
Other	270	17.4%	42	2.1%	67	5.12%
Total	1,550	100.0%	1,992	99.9%	1,252	99%

Source: Wisconsin Business Incubation Survey, 1993, 1999, and 2002

Note: Percentages do not total to 100% due to incomplete responses.

Two items stand out in this data. First, managers are now spending more time on real estate development activities than on tenant management assistance. This is discouraging, as management assistance should be the core business of incubation programs. Second, fundraising has become an increasingly important activity for managers. This is not surprising in light of the financial challenges facing incubation programs in Wisconsin; however, it would appear that fundraising is cutting into managers' time for tenant management assistance activities.

In addition to the manager, Wisconsin incubators employed, on average, 3.82 full-time, paid persons and one part-time paid staff person in 2002. This represents a significant increase in full-time staff since 1999 (1.2 full-time paid employees), back to the level achieved in 1996. Six respondents have volunteers currently working in the facility, with an average of seven full time and four part-time volunteers. The other 80 percent of responding incubation programs had no volunteer staff in 2002. This latter figure represents a continuing increase in the percentage of programs without donated staff or volunteers staff persons from 70% in 1996 and 76% in 1999.

While the numbers of part-time paid and volunteer staff has remained the same and declined, respectively, the fact that full-time staff has increased raises some interesting possibilities. This may help to explain the relative shift in managers' activities toward fundraising and real estate development and away from tenant management assistance. If the full-time staff is handling the management assistance duties, the manager may be freed to spend more time on fundraising and real estate development. In order to better understand what is taking place in this regard, future surveys might include a question about the ways in which staff spends their time.

Observations and Recommendations

A detailed survey like this one offers considerable insight into the workings of the Wisconsin business incubation industry. Its results, when combined with those of the four surveys conducted between 1990 and 1999, illuminate both successes achieved by Wisconsin's incubators and old and new challenges they face. This section of the report presents observations regarding these successes and challenges and recommendations for furthering the already impressive work of Wisconsin's business incubation practitioners.

Observations

Successes

The successes attained by Wisconsin incubation programs and documented in the findings of the 2002 survey are many. They include the following:

1. Wisconsin has an especially strong business incubation "infrastructure" that represents a major investment in the future of the state's economic development. The state has one of the largest collections of business incubation programs in the United States. It includes a rich mixture of established programs and new incubators. These programs can be found in urban, suburban and rural contexts, and they have served literally hundreds of start-up companies over their combined lifetimes.
2. The Wisconsin incubation industry is serving more clients than ever before. This suggests a growing demand for the services afforded by the state's incubators. As business attraction becomes increasingly infeasible as an economic development strategy, business creation will continue to rise in stature. As larger corporations continue to downsize, self-employment will become increasingly attractive. Given these trends, Wisconsin's incubation programs will be needed to play a still larger role in the state's economic development efforts.
3. The State-led efforts to enhance Wisconsin's stature as a home to high technology businesses are reflected in changes in the clientele of incubation programs. There has been a substantial increase in the number of high-tech companies Wisconsin incubators serve and an increase in the number of incubators with a focus on incubating high tech firms. Thus, the state's incubators have successfully assumed an important role in the transition of Wisconsin's economy to one in which high technology is a major focus. It should be noted, however, that more can be done in this regard, as the percentage of Wisconsin incubation programs focusing on technology still lags behind that of the nation as a whole.
4. Wisconsin incubators continue to play an important part in fostering businesses among disadvantaged entrepreneurs. This is a vital role in the face of continued efforts to move people from welfare to work while, at the same time, employment

opportunities in larger corporations are shrinking. It also provides employment options to disadvantaged individuals who are victims of downsizing.

5. There has been steady growth in the average size of Wisconsin incubator facilities over the past 12 years. This has permitted these programs to serve more clients and position themselves to take on the role suggested in #2, above. It is obvious that such expansion has been money well spent, as incubator vacancy rates in Wisconsin are at their lowest levels since 1993. It speaks well of the stability of these programs that the great majority (82%) of their facilities are owned by the programs, themselves.
6. There is strong evidence that Wisconsin incubators are truly helping their client entrepreneurs, their local economies, and the state economy. Survey findings show a major increase in new businesses created. The percentage of current incubator tenants and affiliates that are profitable is at an all-time high of 80%. Among client companies, there is continued growth in the number of full-time equivalent (FTE) positions created.
7. While incubation program managers are spending increasingly less time on the job, the increase in the average number of full-time paid staff positions to a level that approaches the previous high is encouraging. This suggests that the human capital is available to not only offset the loss of managers' time but to ensure adequate coverage of the major services provided.

Challenges

In addition to the above-noted successes, the survey results indicate important challenges that face business incubation in Wisconsin today and in the future. Some of these challenges are ongoing, while others are immediate and short-term in nature. The opportunities embedded in these challenges should be embraced and acted upon by the WBIA and its membership.

1. There has been a major decline in financial support for Wisconsin's incubation programs from state government and local economic development organizations. While this is understandable in terms of the current economy and government budget shortfalls, it is disappointing in that the work being conducted by incubators is precisely of the nature necessary to facilitate economic recovery. Furthermore, incubators can point to objective measures of the value they add. They can justify the expenditures made on them. It is an investment with a return. In addition, there has been a decline in all but three of the major sources of stakeholder support for Wisconsin incubators. This is equally disturbing. It suggests that stakeholders may be losing sight of incubators' contributions to the economy; that business incubation may be in jeopardy of falling victim to the fad mentality that has plagued economic development. Action must be taken to reverse these manifestations of faltering support.

2. There is evidence that Wisconsin's incubators are not utilizing connections to public and private institutions of higher education to the extent they could be. Recent studies show that the role of incubators in technology transfer has grown rapidly. This appears to be a missed opportunity for some of Wisconsin's incubation programs. Tech transfer represents only one avenue for collaboration between incubators and colleges and universities, however. Incubators can provide educational and business opportunities to students and faculty in exchange for resource support. Colleges and universities can be sources of low or no cost expertise to incubators. The potential for interaction between these two types of entities is enormous and worthy of fuller exploration.
3. In terms of services provided by Wisconsin incubation programs, there has been a distinct reduction in the provision of both general office services and client management assistance services. It is logical to assume that this erosion of services is, in part, a reflection of the declining overall support for incubation programs in Wisconsin noted above. This is particularly troublesome when taken together with the fact that for no service (other than photocopying and faxing) do the majority of Wisconsin incubators charge a fee. While it is never a good idea to force client businesses to bear the full cost of their incubation, it would seem that an opportunity is being lost to recoup some of the cost of service delivery. If a service is of value to the client, then they will generally be willing to pay something toward its delivery. If the service is of no value to clients, then it should be purged from the list of services rendered. Having said that, management assistance services, in particular, are at the heart of successful business incubation. A reduction in their delivery, under any circumstances, does not bode well for the long-term sustainability of an incubation program.
4. The rise in average incubator lease rates in Wisconsin is probably to be expected. It reflects overall price increases as well as a reasonable attempt to recoup lost revenues in other areas. Nevertheless, it makes incubation less affordable to entrepreneurs and likely precludes some from availing themselves of the help provided by incubators. Affiliates programs offer some relief in this regard, but survey results show that the number of incubation programs in Wisconsin with affiliates programs has stagnated.
5. As was the case with the findings of the 1999 survey, tracking of incubator graduates was lacking in 2002. Programs were still unable to provide important information about the current location of their graduates or their sales, etc. Information about sales (in and out of state) and payrolls of current tenants and affiliates was also lacking. This can be difficult information to get and track, but it is crucial to making the economic development case for incubators and, thus, attracting funding support. Tracking graduates is particularly important. They are the finished products of incubation efforts. As such, they represent the incubator's ultimate impact on the economy. They are also the incubation program's alumni, in which capacity they represent sources of support, advice, mentorship to current clients, and so forth. They are invaluable to the program.

6. While it is no surprise that start-up costs for incubation programs in Wisconsin are ever increasing, the decline in federal and state funding for incubator start-up serves to exacerbate this situation. With the local community as the only growing source of start-up funding, it is becoming increasingly difficult for many communities to join the ranks of those with incubators. This represents a clear potential barrier to the growth of the industry in the state.
7. Two findings of the 2002 survey are problematic relative to the ability of Wisconsin incubators to achieve their core mission. First, the lowest percentage of start-up costs in the history of the WBIA survey now goes to supporting incubator management and staff. Second, in a reversal of an important finding of the 1999 survey, incubator managers once more spend more of their time on real estate-related activities (including building management) than they do on tenant management assistance. It would appear that the physical aspects of business incubation are again taking center stage, despite repeated reminders in recent years that the real business of incubators is the development of their client entrepreneurs and their businesses.
8. The 1999 survey report included several findings that suggested that Wisconsin incubators were well on their way to self-sufficiency. In 2002, this progress appears to have stopped and, in some cases, reversed itself. There was a decline in both the percentage of incubators having break-even as their goal and in the percentage that had reached break-even status. The percentage of subsidized programs remains the same as in 1999. Of those programs that are still subsidized, almost all (94%) report that loss of that subsidy would result in the drastic reduction and/or elimination of services. This might suggest that there is a limit to self-sufficiency in business incubation. Some programs may never be reasonably expected to achieve it. Yet, these programs are still doing valuable work.
9. The job of incubator manager in Wisconsin is becoming increasingly part-time and average salaries are declining. While some of the workload may be accounted for by the finding that full-time paid staff members are increasing, there is still cause for concern. It has been well documented that a good manager is crucial to incubator success. Yet, it is difficult to continue to attract highly skilled people to management positions when they will be working reduced hours at relatively low pay. It should be noted, however, that incubator managers might be splitting time with other activities (managing an affiliated economic development program or administering an academic unit, for example). The next WBIA survey might be revised to include a question regarding what incubator managers do with their work time outside the incubator, itself.
10. Wisconsin incubators continue to attract very few volunteer staff members. In fact, the number of programs with volunteer staff has decreased steadily since 1996. While this might be hailed as the further professionalization of the incubation industry, it also represents a lost opportunity to attract talented college students, retirees, budding

youth entrepreneurs, and others to get involved. This is particularly important in a difficult fiscal time.

Recommendations

To the WBIA and its Membership

In light of the observations noted above, the following recommendations are offered for the purpose of positioning the business incubation industry in Wisconsin for increased effectiveness and growth in the coming years.

1. The WBIA can play an important role in helping to generate increased financial support for incubation by:

a. Undertaking presentations, workshops, and other activities designed to heighten the awareness of state and local government officials relative to the value of enterprise development as an economic development strategy and the role of business incubators in enterprise development efforts;

b. Identifying realistic and uniform performance standards for Wisconsin incubators, monitoring these, and using them to demonstrate to sponsors that there is a clear return on their investment in the state's incubation programs;

c. Developing a template for uniform, relevant output and outcome data gathering and encouraging member incubation programs to more aggressively track their tenants, affiliates, and graduates;

d. Continuing its regular surveys of the membership and using the results to aid the three previous suggestions.

2. The WBIA and its membership should be more pro-active in pursuing partnerships of all kinds with institutions of higher education throughout the state.

3. In this era of severe resource constraints, Wisconsin incubators should consider becoming highly strategic about the way in which they determine the services they offer. This suggests that services should be chosen based on an assessment of the specific needs of client entrepreneurs (See Lichtenstein and Lyons. 1996. *Incubating New Enterprises*. Washington, DC: The Aspen Institute for a model for how to do this). This will afford greater efficiency and increased effectiveness. Along these same lines, incubators might look for opportunities to fulfill unmet needs in ways that generate income to the program. As an example, if basic office equipment has become so cheap as to make it readily accessible to most entrepreneurs, some incubation programs might explore providing high-end equipment as a leaseback opportunity, where appropriate. Incubators also should more fully explore the option of developing strategic partnerships with other service provider organizations to deliver services that meet client needs.

4. Wisconsin incubators that do not already have affiliates programs should explore the feasibility of expanding their service delivery beyond the facility, itself. This could open up new client markets and provide additional income to the program. It could also serve to create a feeder system to the resident facility.
5. The WBIA should launch an outreach campaign of awareness and training for its current membership and prospective programs that encourages a focus on the business development aspects of incubation as the core business of incubation programs. Developing and maintaining real estate assets and pursuing funding are important activities, but they are merely support activities to the core business. The WBIA might explore ways to lighten the load of managers and staff in the real estate management and fundraising arenas (e.g.: joint fundraising efforts among incubator programs).
6. The WBIA could lead an effort to confront the issue of self-sufficiency with its members and their sponsors. Questions that might be examined include: What does self-sufficiency actually mean in business incubation? When is it appropriate to pursue a strategy of self-sufficiency and when is it not? When self-sufficiency is appropriate, what is the best strategy for approaching it? It might also be useful to explore the concept of “investment” in incubation by sponsors and how incubators can provide and document an appropriate return on that investment (See Recommendation #1).
7. Further attention should be given to incubation program managers’ salaries. A study of managers’ salaries in urban, suburban and rural contexts from across the nation might be conducted to provide baseline data.
8. Further efforts should be undertaken to expand the volunteer base of WBIA member incubators. The WBIA may want to encourage a facilitated “brainstorming” session on new sources of volunteers and strategies for attracting them.

To Incubation Program Stakeholders

1. Rather than decreasing its financial support to business incubation activities, the State of Wisconsin should be increasing that support. Entrepreneurship assistance is a vital part of 21st century economic development. Business incubators are at the forefront of that assistance.
2. Consideration should be given to networking the state’s business incubators to other entrepreneurship assistance provider organizations, including microenterprise programs, Small Business Development Centers, local economic development offices, venture and angel capital providers, institutions of higher education, etc. This would permit greater efficiencies in assistance delivery and would help to fill the gaps in entrepreneurial assistance found in some sub-state regions. This type of

coordination requires an organization with visibility at the state level, perhaps even state government.

3. Local and regional stakeholders should consider “incubator investment” line items in their budgets. When they do this, they should incorporate performance expectations for their investments. These should be realistic and not solely focused on traditional economic development outcomes, such as jobs created, over which individual incubators have very little control. The WBIA could work with stakeholders to craft these “new” performance standards.

References

Acs, Zoltan J. and David B. Audretsch. 1993. “Has the role of small firms changed in the United States?” In *Small Firms and Entrepreneurship: An East-West Perspective*. New York: Cambridge University Press.

Gatewood, B., L. Ogden and F. Hoy. 1985. “Incubator centers – where they are and where they are going.” In J.A. Hornaday, J.A. Timmons, E.B. Shils, and K.H. Vesper (Eds.), *Frontiers of Entrepreneurship Research*. Wellesley, MA: Babson Center for Entrepreneurial Studies.

Gonzalez, Marisela and Rafael Lucea. 2000. The state of the incubation industry in the Pittsburgh region. Pittsburgh, PA: Center for Economic Development, Carnegie Mellon University.

Lichtenstein, Gregg A. 1992. *The significance of relationships in entrepreneurship: A case study of the ecology of enterprise in two business incubators*. Unpublished doctoral dissertation. University of Pennsylvania, Philadelphia.

Lichtenstein, G.A. and T.S. Lyons. 2001. The entrepreneurial development system: Transforming business talent and community economies. *Economic Development Quarterly* 15, 1:3-20.

Lyons, Thomas S. 1998. Business incubation in Wisconsin: Results of a six-year analysis. Madison, WI: Wisconsin Department of Commerce.

Linder, Sally. 2002. 2002 state of the business incubation industry. Athens, OH: National Business Incubation Association.

Ochotnický, John. 2003. Milwaukee county technical innovation center ranks 2nd in U.S. *Wisconsin Innovation Network*, January 21.

Peterson, R.A., G. Kozmetsky, and N.M. Ridgway. 1983. Perceived causes of small business failures: A research note. *American Journal of Small Business* 8,15-19.

Weinberg, M. L., T.S. Lyons, M. L. Shook. 1995. State government support of business incubators: A survey of current efforts in entrepreneurial development. *Economic Development Commentary* 19, 1:17-21.