Management assistance, video libraries, and on-site access to consultants.

Group purchasing power for products and services such as health insurance, furniture, supplies, etc.

Professional services such as accounting and legal resources.

Relationships with financial institutions and venture capital funds.

Access to government and economic development resources and funding sources.

Technology transfer and access to university resources.

Foreign trade assistance.

New business opportunities through co-op ventures.

## **The Effectiveness of Business Incubators**

So it has been established that business incubators are a way to nurture young business and are becoming more abundant throughout the US, but just how effective in facilitating success are these machines? US statistics show that Business Incubators increase the success rate of start-ups from 20% to 87% (New Zealand Trade and Enterprise, 2003). However, the success of business incubators is difficult to measure. Success may be measured by the financial and overall achievement of the company or by the economic development, job creation, economic diversification and/or expansion of the tax base that the incubator creates. Due to the difficulty of measuring success of the incubator through research studies (it is difficult if not impossible to create a control given the different circumstances and variables surrounding each company), success of incubators is most often measured by longevity of the company and the economic success it produces and presents the surrounding area.

In truth, there are many well-known, fairly successful companies today that got their start in a business incubator. For instance, the Advanced Technology Department Center at Georgia Tech since its launch in 1981 has "graduated" more than 50 high-tech startups. This has translated into over 4,100 jobs and \$350 million in annual revenues for Georgia's economy (Bates, 2000). The success story does not end there: Google and Lycos search engines, Peapod the online grocer and the company that developed the cancer drug Taxol all began in incubators (Goral and Sausner, 2002). In 1998, Peapod generated \$60 million in revenues, a year after going public (Quittner, 1999).

In terms of economic development, studies have likewise shown that business incubators are crucial to economic development policy through employment, salary, and sales. In a study conducted by the University of Michigan, fifty incubators were selected as representative of location and type. Through surveys and reports submitted by the incubators it was determined that twenty-one businesses were created with an average of thirteen jobs per business. Finally, by utilizing a job multiplier it was determined that 702 jobs were created per incubator within a seven-year period. The public cost per job was estimated to be \$1,109 (Bernier, 2001). This is in comparison to other publicly supported job creation mechanisms which commonly cost more than \$10,000 per job created (Ohio University's Business Incubator, 1997 & 2002). Furthermore, it was reported that in 2001 alone, North American incubators assisted more than 35,000 start-up companies that provided full-time employment for nearly 82,000 workers and generated annual earnings of more than \$7 billion (Ohio University's Business Incubator, 1997 & 2002).

The National Business Incubation Association claims that incubators attract sources of capital because of the simple economics of convenience. Incubators are convenient since investors can find a multitude of investment opportunities under one roof, rather than searching for a variety of potential deals. The businesses an investor is likely to find inside an incubator, most likely in a highly technical industry which could feasibly make whatever dollars he or she invests go much further. With low rents, shared services and access to professional services and training at low/no cost, investors might gain a sense of comfort that their investment will last longer and take the business farther than might be true within a conventional business environment (National Business Incubators Association, 2003).

## The Business Incubator in Vermont

Most incubator businesses "graduate" the incubator program within 2-3 years of starting up. Additionally, 87% of incubator graduates survive and 84% remain in the community where the business was "incubated" (National Business Incubation Association, 2003). With such promising success of business survival incubators could quite easily have dramatic effects on the economy and the way business is conducted in a small state such as Vermont (Benoit, 2003). Incubators would aid not only in job creation in Vermont, but it could also build up local industries and attract potential entrepreneurs and incubator sponsors. The University of Vermont, with the help of a 1 million dollar appropriation procured by Senator Patrick Leahy, will launch the Vermont Center for Emerging Technologies (VCET). The VCET initiative "will enhance Vermont's competitive edge, further diversifying its industrial base in an increasingly competitive global economy" (Rainey and Associates, 2003).

The University of Vermont will join other Vermont technology incubators, like the Bennington Microtechnology Center, Middlebury College's Digital Bridges, Diamond Edge Technology Incubator in Windsor, the Marlboro College Technology Center in Brattleboro, the National Center for the Study of Counter-Terrorism and CyberCrime in Northfield, the Springfield Sustainable Technology Business Incubator in Springfield, and the Vermont Business Resource Center and Technology Business Incubator in Randolph (Wakefield, 2004).

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