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DIGEST OF
A PERFORMANCE AUDIT OF
THE UTAH TECHNOLOGY FINANCE CORPORATION

The Utah Technology Finance Corporation (UTFC) appears to have a positive effect on Utah's economy and job market. Legislatively charged with the high risk operation of aiding Utah's emerging high-technology start-up businesses, UTFC has struggled in its attempt to become financially independent of state funding. Consequently, UTFC has evolved since its introduction resulting in a gradual shift to lower risk investments and in a number of allegations concerning inappropriate operations. None of these allegations were found to be material in nature. It is our conclusion that the allegations presented us are a direct result of personality conflicts that stem from changes and expansions of the corporation's structure and goals.

Though we believe UTFC is a beneficial organization, it is very difficult to measure UTFC's economic effect in precise quantitative terms. This is because UTFC is just one component in a much larger system of public and private funding sources that provide financial and non-financial assistance for the development and commercialization of high-technology products and ideas. Measuring the effectiveness of UTFC is further complicated by the organization's evolution. The following summaries briefly describe the major findings and conclusions of our audit:

UTFC Has Quality Programs But Conflicting Legislative Goals. UTFC appears to have quality programs designed to benefit Utah's emerging high-technology companies and the economy in general. Many of the companies which have received UTFC funding believe UTFC has been an integral part of their success, or, as the case may be, their maintenance. UTFC's success, however, is mitigated by two basic but conflicting legislative objectives of aiding very young, high-risk businesses and trying to achieve financial self-sufficiency. The attempt to achieve self-sufficiency has been shown nationally to be a difficult goal when aiding higher-risk start-up companies, especially without the ability to make equity investments. In Utah, the attempt to gain self-sufficiency has meant reducing the risk involved in investments and has effected the kind of companies receiving UTFC funding.

Our positive assessment of UTFC's operation is based largely on subjective judgements of effectiveness because it is difficult to quantitatively measure the economic impact of funding emerging, high-technology business. The inability to fully measure performance is due to the fact that UTFC is only one of many components in a broad system that helps emerging high-technology businesses get established. We believe that UTFC is contributing to the establishment of new businesses and helping to create new jobs and taxes through its loan programs, but we also believe that other funding sources are responsible for this increased economic benefit as well.

While UTFC is generally receiving positive comments, some of the funded companies do have concerns. Primarily, UTFC funded companies believe the level of support given by UTFC is not sufficient given the pressing capital needs of start-up companies, especially in high-technology industries. This concern does bear some scrutiny given funding levels in other states are many times higher than UTFC's average funding. Much of this difference can be attributed to UTFC's past policy of giving lower funding amounts to a greater number of participants.

Allegations Are A Result of Organizational Changes. The allegations we have received on questionable UTFC operations lack substance, and essentially result from concerns with the changing nature of the organization. The allegations questioned UTFC by-law changes, loan policies and procedures, administrative expenses, board appointments, and self-sufficiency. In each case there was a reason for the allegation but no material effect. There does not appear to be any violation of the **[Utah Code]** in any UTFC activity. UTFC board decisions have greatly shaped the direction of the organization. A number of these decisions have not been supported by individual trustees who have, at times, believed UTFC direction has not followed legislative intent, hence the allegations.

UTFC's enacting legislation is very general and has intentionally left operating decisions up to the UTFC board. The perception of conflicting goals within the legislation has, however, forced the board to adjust organizational direction and select which of the objectives UTFC should try to meet. There are, however, some board allowed activities that are no longer appropriate for the current organization. Board member contracts for UTFC work are no longer necessary given UTFC's trained staff. Additionally, organizational hiring practices should be reviewed and approved by the board in its entirety not by a limited number of members.

Chapter I
Introduction

The Utah Technology Finance Corporation (UTFC) appears to have a positive effect on Utah's economy and job market. UTFC is also working to decrease its dependence on state funding by developing alternative funding sources. While economic inroads are being made, it is very difficult to measure UTFC's economic effect in precise quantitative terms because UTFC is only a small part of Utah's attempt to provide start-up funding for high-technology industries. Like a number of other states, Utah has an informal system of public and private organizations that provides funding for developing and marketing high-technology ideas, and UTFC is one component of that system.

Further complications arise because two primary mandates of the empowering legislation (**Utah Code** 9-2-701 to 707) - attempting to become financially self-sufficient and to make relatively risky investments in young, start-up companies - are in conflict. This conflict has resulted in an evolutionary process of balancing legislative requirements and program needs. This inherent conflict also resulted in the allegations that initiated this audit. We found there was little substance to these allegations and that they are essentially a result of personality conflicts that stem from changes and expansions of the corporation's structure and goals.

UTFC Appears to Benefit Utah

The purpose of financing high-technology, start-up companies is to benefit Utah and its population. In theory, UTFC provides funding to emerging businesses that in return create higher paying jobs, increase the tax base, and strengthen local economies. While UTFC is not the only resource for aiding start-up companies, it is a useful tool within an informal system of federal, state, local, and private funding groups. While we can identify the costs of UTFC and the entire informal funding system, as well as identify qualitative reasons for providing funding, we cannot demonstrate quantitatively the effect that either UTFC or the total system is having on the economy. This is because a cause/effect relationship cannot be established.

The need for funding high-tech enterprises as a method of aiding the economy has been recognized both nationally and within Utah. In creating UTFC, the Legislature has attempted to balance the risk of using state money to fund fledgling, high-tech companies with the potential benefit of strengthening an increasingly important sector of the state's economy. In conjunction with this effort, local governments are also helping emerging technology businesses, with the aid of federal funding, in attempts to revitalize their communities.

Utah's Business Climate Is Good for High-Tech

Utah was nationally recognized in the early 1980's as a growth area for high-technology industry. National studies presented to the Legislature and Governor cited Utah's highly educated work force, close proximity of major universities, and overall work ethic as favorable to developing high-technology industries. The only item lacking in Utah's infrastructure was venture capital to finance the early stages of product development. There was, and has been, a concern that without venture capital to fund technology development, good ideas within Utah would eventually be taken outside the state in search of funding.

Utah's State Advisory Council for Science and Technology studied the issue of advancing high-technology in the state and made three recommendations. One of the recommendations was to establish the Utah Technology Finance Corporation to: (1) nurture high potential, home grown firms to increase Utah's job availability; and (2) leverage state funds in this behalf. The state Legislature accepted these recommendations in the 1983 legislative session and created the UTFC (**Utah Code** 9-2-701 through 707).

UTFC Appears to Provide a Needed Service

Because of the scarcity of capital for companies in the early stages of product development, UTFC was established to promote technology-based industries in Utah by providing funding at this critical time. Federal grant money is available for technology research and development at the university level, and private funding is available when there is greater certainty a business can be established and its product successfully marketed. UTFC was created to help bridge this funding gap and advance worthy, technology-based business ideas that might otherwise stagnate because of a lack of capital investment.

In this process of funding emerging, high-technology companies, the Legislature also intended to create a financially self-supporting corporation that would eventually function independently of state funds. Because of the inherent risk involved in funding developing companies and the likelihood of some failed investments, the Legislature provided for UTFC to take equity positions in start-up companies. The concept was that large returns from the funded "winners" would more than offset the losses of funded "losers," resulting in a profit for UTFC and, ultimately, self-sufficiency. Basically, this concept was meant to enable UTFC to behave in much the same way as private venture capital firms.

UTFC Operations Have Evolved

Because of concerns over the constitutionality of the enabling legislation after UTFC's creation, the organization has experienced considerable change over the years. UTFC has been unable to fulfill the implied legislative goal of financial self-sufficiency through funding high-risk projects in part because it was barred from receiving an equity interest in private businesses in return for funding it provided them. A 1983 lawsuit brought against UTFC by the Utah Attorney General resulted in a ruling that prevented equity positions by UTFC based on existing state law that prevents public ownership of businesses. This ruling forced UTFC to choose alternative ways of disbursing capital to companies and has created ongoing change for the organization in its attempt to meet state law while still following legislative intent.

The direction taken by UTFC is intended to increase the likelihood that the organization will become financially self-sufficient. There is, however, no clear definition of self-sufficiency. UTFC, by its own standards which are discussed in Appendix I, sees self-sufficiency as breaking even on its awards, meaning that by design UTFC will continue to call for state support of operating costs. Some other states view self-sufficiency as the ability to pay for one's own operating costs while depending on other sources to provide funding for capital investments. In our telephone calls to other states, we could not identify any high-technology funding source that is 100% self-supporting in all operational aspects.

Equity investments, as opposed to royalty or debt arrangements with fixed payback amounts, are the most potentially lucrative because there is no limit on future earnings. Though an equity investment is worth very little or nothing if a company struggles indefinitely or collapses altogether, one successful equity investment can compensate for several other failed investments. Losing the ability to invest in equities of young, high-tech companies reduced UTFC's likelihood of becoming self-sufficient because the opportunity for substantial investment returns was essentially eliminated. Besides undermining UTFC's ability to become self-sustaining, the suit also stalled the organization and prevented any forward movement until the case was settled three years later. In the interim, operations were completely held up and the office consisted of only the trustees, a secretary, a manager, and consultants under contract doing extra work.

Initially, UTFC made some straight grants that provided capital for technology development but did nothing to advance their goal of becoming financially self-sufficient. The grants were replaced by a royalty system that required funded companies to use revenue from product sales to return three times the principal amount to UTFC over a set time period. This royalty system, in turn, has been replaced by a straight term loan system where payback is essentially fixed. In addition to this evolving seed capital program, UTFC has also initiated new programs to aid previously funded companies. Further information on the development and operations of UTFC's funding programs can be found in Appendices I and II.

UTFC's trustees found they must devise some plan that would allow the organization to disburse funding to worthy new businesses while still attempting to become self-supporting. However, the goals of attempting to become self-sufficient while funding high-risk, start-up ventures are by nature in conflict. Even if UTFC had not been barred from taking an equity position in funded companies, achieving a self-sustaining operation would have been a difficult task. Funding early-stage companies is by definition a risky enterprise, and it is difficult for a lending source to make enough of a return on such investments, even using equity as an investment vehicle, to create a perpetually revolving fund, especially in a matter of a few short years. We found this to be the case in all of the states we contacted.

UTFC has been forced by the legal ruling, and over time has itself elected, to take the more conservative approach of funding more stable, less risky ventures that offer lower, more consistent returns. UTFC management has also stated they will continue to move toward making more secure investments without legislative direction to the contrary. This approach is taking the organization further away from its legislative purpose of providing early-stage, product development capital, and may be compromising its uniqueness as a funding source. The legislative language has not been altered since the legal ruling, so UTFC is operating under its same initial goals without the ability to make equity investments.

In addition to its problem with funding alternatives, UTFC's situation is further complicated by the maturation of the organization from its early reliance on its board to its current executive staff structure. The direction of the organization is of concern to a number of people because they can see neither purpose nor benefit in the changes. This is complicated by the lack of any quantifiable measures of organizational or systematic effectiveness.

UTFC Is a Small Part of the High-Tech Funding System

UTFC is part of a network of governmental agencies and private funding sources that work to bring new ideas successfully to economic fruition. UTFC was created to aid that system where it was thought to be the weakest: at the time in a start-up company's life when an idea or prototype needs to be developed into a working product. This period falls between grants to research and develop the idea, and private venture capital funding which is often used to get new products to market. It would be incorrect to view UTFC as a stand-alone organization for the promotion of high-technology businesses.

UTFC was purposefully created to provide critical preventure funding to emerging high-technology businesses within the state. It was believed that funding amounts at this crucial point would not necessarily have to be large but would have to be timely. The Science Council's review found that Utah indeed had the infrastructure to support high-tech business growth and even had an informal system to fund the growth. The only omission was the funding of businesses while they worked to develop their ideas into marketable products. Figure I shows the basic steps as an idea grows into a product and the funding sources as they come into play.

Figure I
The High-Technology Funding System

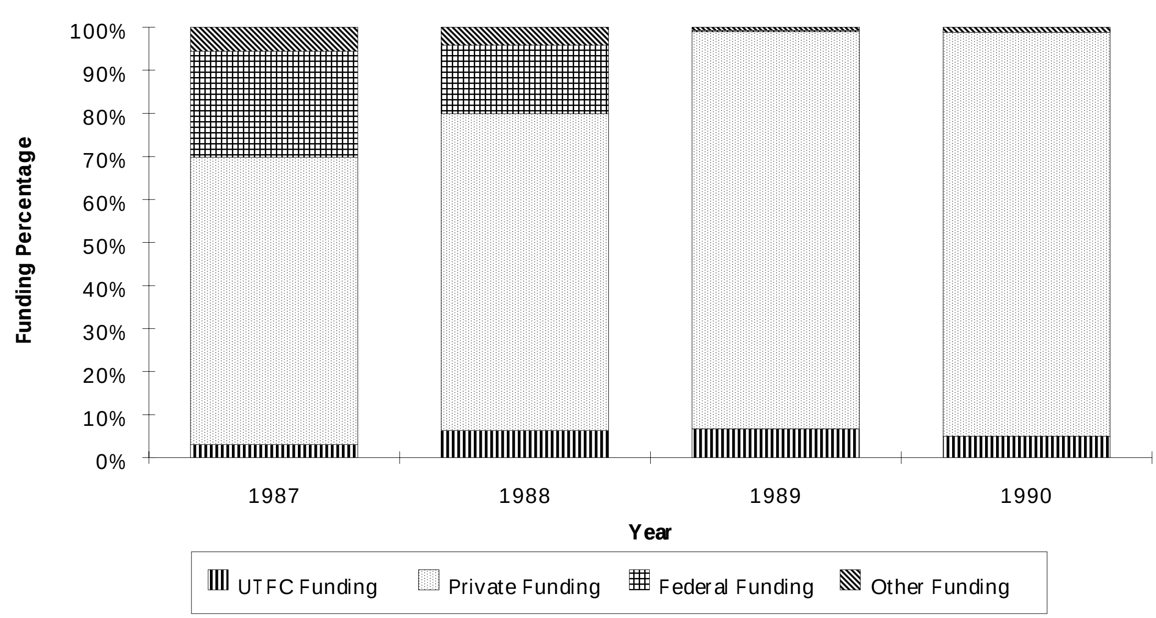
Stage of Development	Non-Personal Funding Sources
Embryonic Idea (Typically in University environment)	Federal SBIR Phase I Grants
↓	
Idea Development	Federal SBIR Phase II Grants State Centers of Excellence
↓	
Idea to Product	UTFC Phase I Federal Program Grants UTFC Phase II
↓	
Product to Market	UTFC Phase II Local AOG Funding HUD Loans and Grants UTFC Revolving Loans UTFC Participating Loans Venture Capitalists
↓	
Continued Support	Lending Institutions Venture Capitalists Public Issues

Figure I illustrates a sequence or system of funding sources for product research, development, and commercialization. These sources are not, however, always available to new businesses, nor are emerging businesses aware that funding is available. Figure I aids in showing why it was deemed important to create UTFC. UTFC places its resources in the idea-to-product and product-to-market stages where capital is typically scarce. It is in these stages that the federal grants run out and other funding sources shy away from the risk of financing a new business. The funding that does exist is only available for a small percentage of companies seeking capital, usually only those the lenders believe to have the greatest likelihood for extraordinary success. The investments made at this stage are very high risk.

While this stage is a critical time for the business, UTFC does not provide a large part of the funding utilized for development. Figure II shows the funding sources utilized by UTFC supported companies broken down by the year of UTFC's award. UTFC's monetary contribution to the overall development of a product and the resulting success of the new business is actually quite small. It is the timing of the funding that makes the support so important, a common acknowledgement we heard in our interviews with UTFC recipients.

Figure II

Total New Business Funding



Though not shown in Figure II in actual dollars, a great deal of money is necessary to move a technology-based business into the market. However, it is clear that UTFC's contribution to this process as a percentage of total funding is small, averaging less than 5%. What is not clear, however, is how critical each step in the funding system is in terms of timing. Many of the companies we talked with stated that while UTFC's funding was small in amount and not nearly sufficient by itself to develop their product, it came at a critical time when no other source was willing to accept the risk of supplying capital.

Audit Scope and Objectives

This audit was requested by Senator E. George Mantes and is based on his concerns about UTFC's ability to meet legislative goals, continuing allegations of board problems, and company selection favoritism. The Office of the Legislative Auditor General conducted a performance audit of UTFC earlier (Report #86-04) and found no major problems. That audit was conducted during a period of relative inactivity while UTFC awaited the court decision from the Attorney General lawsuit. Subsequent to that audit, UTFC began funding emerging businesses and began its evolution of deciding how legislative intent could best be fulfilled.

Our audit addresses Senator Mantes' concerns within the framework of a performance review to get a broader perspective of the organization. We contacted a number of participating companies, knowledgeable people within Utah, and similar organizations in other states. The following chapters and appendices review:

1. Measurement of UTFC operating performance.

2. UTFC placement within Utah's system for advancing high-technology industry.

3. Allegations of inappropriate UTFC operations in the context of the changing organization.

4. UTFC's funding programs.

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Chapter II
UTFC Has Quality Programs But Conflicting Legislative Goals

The Utah Technology Finance Corporation (UTFC) appears to have quality programs designed to benefit Utah's emerging high-technology companies. Most of the companies that have received UTFC funding believe UTFC has been of benefit. However, UTFC's success is mitigated by two incompatible goals: its legislatively set goals of aiding new high-risk businesses and achieving self-sufficiency. UTFC, while addressing the needs of new high-technology businesses, is struggling to meet the goal of self-sufficiency. UTFC's goal of self-sufficiency has been shown nationally to be a difficult goal to attain through an investment program with limited payback potential.

Our positive assessment of UTFC's operation is based on qualitative measures of effectiveness because it is extremely difficult to quantitatively measure emerging high-technology business funding. The inability to fully measure performance is due to the fact that UTFC is only one of many components in a state-wide system that supports emerging high-technology businesses. Regardless of the measure used, success cannot be attributed to any one contributing organization. Since the system of funding high-technology businesses has never been addressed as a whole, there has never been any attempt to measure or even design measures of the system's success. Rather, each individual component, including UTFC, identifies the successes of the system as their own.

Another flaw in this scheme of effectiveness measurement is that overlapping benefits can be claimed by any number of system components. In our opinion, any measure of system or component success is most accurately presented as a general contribution to the development of the economy rather than as the sole cause of economic benefit. While it is absolutely correct to assert that UTFC is contributing to the establishment of new businesses and helping to create new jobs and taxes through its loan programs as stated above, it is illogical to presume they are solely, or even primarily, responsible for the overall economic benefit derived from funding new ideas and products.

This chapter will detail three issues: two address UTFC's relative success and concerns with its legislative charges of addressing emerging high-technology businesses and being self-sufficient; one issue addresses some minor concerns identified by UTFC-funded companies.

UTFC Programs Have Been Well Received

We believe UTFC has a positive effect on Utah's economy and the initiation of emerging high-technology businesses. Approximately 100 business have benefited from UTFC's monetary and nonmonetary aid. The businesses that have benefited from this aid believe that UTFC has been helpful and often indispensable to that business' continued existence. Further, other funding organizations believe that UTFC does fill a necessary role within Utah's system that would not be filled otherwise. There is little hard data, however, to support this subjective conclusion.

We also believe that attempts to quantify the precise economic benefit of UTFC, or any funding source within Utah's emerging technology funding system, can be misleading. There are simply too many other organizations and external conditions that can influence a company in its infancy to assume there is a one-to-one correlation between any single source of assistance and the company's progress. Assessment can be made in qualitative terms capable of describing operations and commitment to addressing legislative goals. The chief method of getting these qualitative measures is to obtain user responses that relate directly to important issues.

Recently a report was released by the Utah Bureau of Economic and Business Research that followed a qualitative line of reasoning. That report, however, did include some quantitative assessment. No other state we contacted can accurately measure the quantitative contributions of the components within their systems. To illustrate the potential for overstating the economic benefits of funding start-up companies, an official in one state cited research from a Massachusetts economic development consulting group finding that the creation of a single job is claimed by each separate funding source within the system.

Funded Companies Believe UTFC Has a Positive Effect

Our visits with funded companies found that those companies believe UTFC certainly has had a positive effect on their business and should have a positive effect on Utah's economy. These visits resulted in many of the same qualitative endorsements of and concerns about UTFC that were identified in previous reports on UTFC. We see qualitative review as a valuable approach in measuring the effectiveness of UTFC as a source of small business assistance.

During the audit, we visited 22 companies that had applied for UTFC funding to understand how company officers generally view UTFC's funding programs. Though we encountered somewhat differing opinions from company officers, most spoke highly of UTFC and their loan programs, and all expressed appreciation to UTFC for their assistance. Most of the companies said UTFC's financial support was very important because it came at a time when capital was extremely scarce, and many of them believe they simply could not have survived without UTFC's aid. They also commented that UTFC's funding was not sufficient for all their needs but, given that no other funds were available, they were glad to get it. It would be difficult to know what would have happened to UTFC-funded companies had they not received the funding. To illustrate, we had an interview with one company and listened to two of the officers disagree over whether or not they would have been able to secure other funds if UTFC had not been an option to them. However, a majority of companies we visited said they do not think they would have survived without UTFC funding.

Loan participant comments show that UTFC does more than just offer capital to its participating businesses because capital alone will not insure a successful start-up. Often it is necessary to teach start-up companies how to conduct business and direct them to other resources. UTFC has done this with its training and seminars, which are often required. As an example, most recipients of Phase I loans (the earliest loan UTFC makes) are required to attend weekly classes in small business management, with a portion of the loan used to pay for these classes. UTFC also gives monetary support to small business and entrepreneurial groups that conduct seminars. Some loan participants objected to these requirements but later found them helpful in establishing needed relations with other businesses and funding sources.

In addition, there are other benefits that serve as qualitative measures of the effectiveness and utility of UTFC. Specifically mentioned in our interviews were the good business sense of UTFC staff and their expertise in helping companies establish business plans. Recipients feel UTFC has a progressive focus compared to other lending sources and is willing to work with entrepreneurs to promote the development of small business and the local technology-based industry. Also mentioned was the extremely valuable networking benefits that come through involvement with UTFC, and the credibility UTFC gives the business in the eyes of other potential lenders. Some companies also praised UTFC for their flexibility in dealing with problems of making loan payments on schedule.

Comments by businesses on UTFC funding and activities are good examples of the type of qualitative assessment of the benefit that UTFC is providing. To the extent these companies grow and become established in the market, UTFC funding can be credited for playing an integral part in that developmental process. Funding effectiveness in the form of sufficiency and timeliness is the central issue, but as can be seen in the above comments, often it appears that funding is a lesser problem for many of the businesses involved with UTFC.

Previous Report Identified Benefit of UTFC

At the request of UTFC, the Bureau of Economic and Business Research (BEBR) at the University of Utah evaluated the effect of UTFC on the state's economy. The results of this evaluation were generally positive and concluded that UTFC was benefiting the state. The greater part of this conclusion was based on qualitative interviews with UTFC-funded companies. The evaluation also included quantitative data such as the number of jobs created as a result of UTFC involvement.

BEBR's approach was to interview officers of UTFC selected companies that had received UTFC funding. BEBR staff asked how the UTFC-funded company's employment and wage levels would have differed in both 1989 and 1990 if they had not received UTFC funding. The BEBR report states they received responses ranging from UTFC having no effect on employment and wage levels to UTFC being totally responsible for the continued existence of the company. Qualitatively our interviews strongly agreed with those of the BEBR. However, we did receive a higher number of negative responses because we also interviewed businesses that had been turned down by UTFC and others that, although UTFC-funded, had failed.

The BEBR report went further than qualitative information and attached an industry-specific multiplier factor to employment and wage information given them by UTFC to arrive at the total economic effect that UTFC has on the state. We are uncomfortable with this sort of evaluation because there are so many groups involved in getting new businesses to market. As a result, no one group can claim sole credit for the resulting job growth. BEBR staff told us that, at the time of release, UTFC was not pleased with the results, believing that the calculated effect of their organization should be much greater. In fact, UTFC has been involved with funding businesses that have doubled their employment over the last five years. UTFC is responsible for some of this growth but certainly not all of it.

Self-sufficiency Is Not Compatible with Other Objectives or Fully Possible

UTFC's board of trustees has decided that the legislatively intended goal of self-sufficiency should be a major organizational objective. The result of this decision has been to move UTFC funding resources to lower-risk investments at the expense of the Legislature's other goal of providing financial backing to higher-risk, start-up businesses. Organizations in other states are facing this same problem, and some tend to believe that self-sufficiency, while an admirable goal, is not possible in any role government plays within this system.

Self-sufficiency demonstrates the balancing of risk and payback, both of which are necessary to achieve UTFC's goals. This measure of effectiveness is evidently supported by the board, according to at least one of the newer trustees with whom we spoke. He told us the board is moving away from trying to measure the number of jobs created and total economic benefit, and instead is looking at loan payback and company success as key indicators of UTFC effectiveness.

UTFC began funding more stable companies and moved away from making higher-risk investments to legislatively-mandated high-technology businesses so the organization could become self-sustaining. The attempt to meet this goal has been largely responsible for the evolution of programs and approaches UTFC has experienced. Some of this change includes converting the payback terms from royalty-based to straight term loans, broadening the selection scope from evaluating just the merits of a specific project or technology to looking at the strength of the company as a whole, and requiring personal collateralization of the assets of company officers as protection against loan loss. All of these changes have been made for the purpose of increasing UTFC security and the possibility of achieving self-sufficiency. A more in-depth view of the evolution of UTFC's funding programs can be found in Appendices I and II.

Our review of the self-sufficiency issue has found that individuals in similar organizations in other states as well as experts within Utah believe that self-sufficiency is not fully possible for government agencies. All require some funding from their state or from the federal government and all have adopted a definition of self-sufficiency that is somewhat unusual. UTFC is no different. The organization's definition of self-sufficiency is that the state need not continue to appropriate money for UTFC to provide funding to deserving companies. UTFC loan programs will be self-sufficient when the repayment and interest income from previous loans as well as money from other sources, like federal funding, constitute the necessary capital to make all future loans. State funding, however, will continue to be necessary for UTFC's operating costs, which is a similar need for organizations in other states.

A review of legislative intent in the **Utah Code** indicates that using self-sufficiency and funding success as performance measures may be useful. UTFC performance measures should address legislative intent, but as stated, the two major components of legislative intent, funding higher risk start-up businesses and the implied goal of UTFC self-sufficiency, inherently conflict. The Legislature and UTFC's trustees in addition to addressing the problem of conflicting goals are also faced with the problem of where to place UTFC within Utah's funding system to get the most out of their limited funding.

UTFC-Funded Companies Have Some Minor Concerns

Though most companies spoke highly of UTFC, there were concerns expressed by some of the companies we visited. Many of the companies that had received a Phase I loan said that while the money was helpful and very much appreciated, the $50,000 maximum was far too little capital to get a product developed and marketed. Companies commented that UTFC funding amounts were not sufficient to move their projects through problem areas of development, and consequently feel that greater funding amounts are necessary and would be very helpful. In effect, funded companies seem to see UTFC as a transitory funding source that keeps them going just long enough to obtain funding elsewhere. This statement is supported by UTFC's history of issuing smaller loans to more companies.

Another common criticism we encountered from funded companies was that UTFC is placing too many restrictions and controls on the little money they are providing. UTFC funding has been product and operation specific, often taking an approach of not releasing follow-up funds until some goal or benchmark has been achieved. Some of the companies said they feel UTFC is beginning to impose more stringent payback conditions than in the past in an effort to recapture their investment, and is consequently operating much like a bank. Many expressed concern that cash flows for a start-up company are not sufficient to meet a loan payment schedule, and some companies seemed to resent what they see as UTFC's inflexibility in requiring payback during such a precarious financial cycle. It is our observation that for many of these companies, UTFC represents the first source of funding that requires formal financial and business planning and is expecting an actual payback of loaned capital. The Phase I $50,000 loan maximum doesn't seem to go very far in the development of technology-related products and applications that often require many stages of engineering and development by well-educated and trained individuals who are typically paid higher salaries.

The concern over funding amounts mentioned by the companies we visited is supported by information we gathered from other states. We contacted organizations similar to UTFC in five states and, as shown in Figure III, the average amount of funding per company in each of the states is much greater than the average funding of all UTFC programs combined.

Figure III

Small Business and High Technology Funding in Selected States

State	Range of Funding Amounts Per Company	Average Funding Amounts Per Company	Average Number of Companies Funded Annually
Connecticut	$30,000 - 1,000,000	$400,000	24
Indiana	12,600 - 750,000	360,000	9
Iowa	50,000 - 500,000	200,000	4
Nebraska	50,000 - 1,000,000	477,000	4
Oregon	50,000 - 1,200,000	275,000	6
Average	8,520 - 890,000	342,400	9
UTFC	5,000 - 325,000	59,000[1]	20[2]

1 Average amount UTFC has provided to each of the approximately 140 companies it has funded through all loan programs.

2 Average number of Phase I loans UTFC has made per year from 1987 to 1992.

Figure III shows the UTFC average funding amount is well below the average of the other states, and the average number of companies funded annually is quite a bit higher than what is occurring in the other states.

In addition, we contacted an individual who does research in the area of seed capital programs and their effectiveness. His research group was responsible for a 1991 survey examining public and private seed capital funds across the United States, in which UTFC participated, and which is currently being updated. He told us his research has shown that a base level of funding of between $250,000 and $500,000 is usually required to move a technology-related enterprise through the critical stages of development and toward commercialization. He said public seed capital funds tend to invest about ⅓ the amount that private funds invest on a per company/project basis. His research also shows the failure rate for public funds is about 20% as compared to about 12% for private funds. He specifically mentioned that public seed capital organizations tend to supply insufficient amounts of capital over time to a company to get a technology-related product past the critical stages of development and into the marketplace.

UTFC's basic Phase I program appears to mirror this opinion of public seed capital programs: small amounts of money are given to get the business to the next stage. Also, UTFC still is funding at a much lower level that any of the states we contacted. A UTFC trustee told us that this has been viewed as a problem by the board and that UTFC will probably fund fewer businesses with greater amounts in the future. Some larger amount funding is already being done with UTFC's newer Phase II loan program whose maximum is being increased to $150,000. In addition, participating loans for less risky businesses are also being increased to between $125,000 - $150,000. There is, however, no formal legislative or UTFC plan on how UTFC should conduct its loan programs.

Recommendations

1. We recommend the Legislature resolve the conflict between UTFC's legislatively mandated goals of self-sufficiency and funding high-risk businesses.

2. We recommend that the UTFC board review UTFC's business support programs in relation to the existing **Utah Code** 9-2-701 to 707 requirements to determine the program's placement within the state's system for funding emerging technology. This review should include:

    a) types of companies to be served
    b) acceptable risk levels
    c) necessity for state funding support of UTFC operations

3. We recommend the UTFC board review funding volume and support levels given to individual companies to determine the adequacy of UTFC support relative to each company's needs.

4. We recommend the Legislature consider UTFC's funding requests in the context of the greater funding system within which they operate.

Chapter III
Allegations Are a Result of Organizational Changes

The allegations we have received on questionable UTFC operations have little substance and are the result of concerns with the changing nature of the organization. There does not appear to be any violation of the **Utah Code**, just differences in individual board of trustee opinions. UTFC board decisions have had a major effect on the direction of the organization and its management; a number of decisions have met with dissent from individual trustees who have, at times, believed UTFC direction has not followed legislative intent. We do not view UTFC direction as a major deviation from legislative intent because UTFC's enacting legislation is very general and has left operating decisions and directions up to the UTFC board. The legislation established goals and objectives as to what should be done, but left the approach to be taken up to the board. It is the board's responsibility, as an independent entity, to decide how resources should be utilized. The perception of conflicting goals within the legislation have, however, forced the UTFC board to adjust organizational direction and select which of the legislated goals they would try to meet. The following chapter addresses UTFC's changing organization and the specific allegations.

Changing the Board's Role Has Created Controversy

The greatest change for the trustees has been the adjustment from the role of a managing board to the role of a policy-making board. The control changes during the evolutionary process have resulted in the direct control of daily operations transferring from the individual trustees and their associated subcommittee assignments to staff. This redirection has meant trustees have had to adjust to two major changes: they have had to accept the role of policymaker rather than that of manager and they have had to depend on staff doing the work rather than doing it themselves or hiring consultants. Both of these activities were key components of early UTFC operations. UTFC only had two staff members in its early years, so trustees were used extensively in daily operations. Currently, UTFC has a staff of five full-time employees and up to four part-time employees.

The **Utah Code** 9-2-701 to 707 does not direct individual assignments within the UTFC organization. It states "The corporation shall be governed by a board of trustees…" and that "The corporation may…hire a full-time director and all other employees which the trustees determine necessary for the conduct of the business of the corporation…". It is not unreasonable to assume that the Legislature planned for the trustees to act as policymakers rather than day-to-day managers of the organization's functions. It has been our experience in Utah state government that volunteer trustees or board members are not meant to work on a daily basis with their organizations. The UTFC situation in its infancy was unique. The lack of staff virtually required trustees to volunteer time and effort to keep the organization going. We commend their effort during this period. Given the current staffing and work load of the organization, the high level of trustee support is no longer needed or desirable.

Another change in organizational direction has been UTFC's move from an academic approach to a more business enterprise approach. The evolutionary process has created a changing atmosphere at UTFC. During the early days of the organization it was located at the University of Utah's Research Park. The current UTFC director characterizes UTFC at that time as "a start-up advising start-ups" because UTFC was new to the work it was supposed to do. The early system was founded near a university because the board took the perspective of the federal grant program for Small Business Innovation Research (SBIRs). This set up a system that, like the federal system, was leaning toward technologies developed within a university setting.

The early board was also biased toward an academic nature rather than a business nature. This is understandable because academicians in the Legislature and later on the UTFC's board of trustees were the people who knew about the federal grant programs. Portions of the evolutionary process have been opposed by some members of the board because they have felt the legislative mandate has suffered.

In our opinion, these evolutionary changes in the organization have resulted in numerous complaints concerning UTFC's operations. Five allegations were presented to us and are listed and addressed in the following sections along with some other concerns.

Allegation 1: Are changes in UTFC by-laws inconsistent with legislative intent?

UTFC's by-laws are not inconsistent with legislative intent. Recent by-law changes do not conflict with legislatively set goals and objectives nor do they deviate from standard organizational practices. UTFC's revised by-laws were presented to the board of trustees in March 1991. The revised by-laws were rewritten in an attempt to structure UTFC more in line with a business organization rather than a state-run agency. The by-law rewrite was included in UTFC board minutes and was written by a contracted legal firm. Much of what was included in the revision had already been adopted by the trustees and the revision served to validate the past changes.

With the revised by-law ratification, board members were no longer officers of the corporation; these duties were assigned to staff. In effect, this change made the board the policymaking arm of the organization and the staff the operational arm. Power in the organization became centered in the executive director/president for daily operations and with the board's executive committee, specifically its chairman, for the majority of policy oversight duties. This change does, in fact, lessen the power of individual trustees and became a major point of contention.

Our opinion of the organizational structure is that it has improved and is now better able to carry out the intended workload. UTFC's board of trustees has been given the responsibility for the operations and direction of the organization. As the organization has evolved in its attempt to meet its legislative mandate, its board make-up and duties have also changed. These changes have resulted in a great deal of friction between board members revolving around questions of control. The trustees are still responsible and able to set and maintain policy for the organization, while UTFC's staff, under the direction of the president, perform the daily operations.

Allegation 2: Is UTFC following its own loan policies and procedures?

Our review of records for both seed capital and participating loan awardees did not identify any inappropriate loan activities. We do not believe that UTFC is making or has made poor loan choices. This allegation is based on one instance where a trustee believed staff committed UTFC to a loan prior to getting board approval. It appears that this did not happen. Rather, we believe there was a mix-up of dates for two distinct loans. This mix-up gave the appearance that the first loan was committed to before a scheduled board approval, and that the board approval was for a second loan. Actually, the first loan had been presented to and approved by the board's loan committee months before.

This allegation, like many of the others, is a derivative of the organization's changing direction and realignment of powers and duties. Originally, much of its loan-making ability and duties were assigned to board sub-committees. Over time many of these daily operational duties have been transferred to staff, often without formal board action. This has raised some concern over the loss of direct, daily operational control by the trustees, but this loss of daily control has not reduced board control over lending.

Allegation 3: Are UTFC's administrative expenses inappropriate?

In our opinion UTFC's administrative expenses are not inappropriately high. Given the wide variety of tasks performed by UTFC, the higher than average number of awards being processed, and the fact that no other organization is performing the same functions as UTFC, it would be difficult to characterize UTFC administrative expenses as inappropriate. As stated in the previous chapter, data are not available to measure the effectiveness of UTFC in monetary terms. When compared with total loan expenses of similar operations in other states, UTFC does have a higher than average cost. This can partially be explained by the nature of UTFC's program of smaller loans to more companies. Each of these loans still needs a complete evaluation, so it is logical to say that UTFC administrative expenses may be comparable on a per loan basis.

Some system members do believe that UTFC's expenses are high but none can identify where the expenses are greater than they should be or why they believe the expenses are greater. In any event, UTFC does not have a large, costly staff nor is it involved in only making loans. A great deal of staff time is spent in non-loan related activities that are beneficial to participating businesses (i.e. aiding in business plan preparation and a variety of training programs). A part of this allegation stems from the growth of staff as UTFC changed from a board-driven to a staff-driven organization. Some of the newer programs should reduce expenses as some expenses will be shared with other loan participants.

Allegation 4: Are the handling of board minutes and appointment of board members appropriate?

This allegation was based on an alteration of the board minutes after the minutes had been approved by the board secretary. While this change did occur we could not identify any substantive changes in UTFC board minutes. We do believe that this allegation, like some of the others, is the product of the evolution of the organization, in particular, the change from board-directed activities to staff directed activities. Board minutes have been changed in the past after the board secretary has approved them but not on issues of importance. It appears that this allegation is the result of a personality conflict and that this conflict escalated to a point where one board member was not reappointed.

The failure to be reappointed resulted in the second half of this allegation. This stems from UTFC staff successfully approaching the Governor to block the reappointment of one board member. The appointment and re-appointment of UTFC trustees is the sole privilege of the Governor. He has the ability and the right to accept counsel from any source of his choosing, including that of UTFC staff. We do not believe that any violation occurred; two people simply did not like one another and one lost in an unfriendly contest of wills.

Allegation 5: Can UTFC become self-supporting and is the state's funding investment beneficial?

This allegation is discussed in greater detail in the previous chapter because it is not a simple issue. In brief, we do not believe UTFC can ever be completely self-supporting from state government, given the organization's charge and current abilities. As also stated in the previous chapter, the benefit of UTFC cannot be measured in quantitative terms but can be addressed in qualitative terms. Qualitatively, UTFC has been successful in aiding Utah start-up companies, providing them with needed capital at critical times and business and marketing expertise as needed.

Unfortunately, it is not possible to assign a benefit value to UTFC or even to the greater system within which it operates. There are too many variables to say UTFC is responsible for a given percentage of the growth in the high-technology industry. UTFC certainly has contributed, but it is a judgment call for both the Legislature and the UTFC board of trustees as to how much.

Other Issues

An offshoot of the high level of trustee support in the early years was UTFC's use of consultants and trustee contracts. As UTFC evolved, consulting and trustee contracts have also resulted in allegations. First, the power to hire consultants was taken from individual trustee sub-committees and given to the trustee appointed director. Second, two trustees were awarded contracts to do specific work for the organization where each trustee had expertise. It is our opinion that neither of these actions are appropriate for the current organization.

In the case of consultant use, the early UTFC developed a dependence on consultants because of a lack of staff. Consultants made sense because the volunteer trustees could not be expected to do everything needed to be done to begin UTFC operations and, given the Attorney General's case against equity positions, there was not enough work to justify enlarging the size of staff.

When UTFC actually started to fund businesses it was justified in hiring staff to do that work. In hiring staff the trustees began to limit the use of consultants simply because consulting expenses were displaced by staff expenses in the limited UTFC budget. This displacement created further friction because it realigned UTFC's budget for the first time without direct trustee action. This has been viewed by one trustee as an inappropriate erosion of trustee powers because there was no direct discussion or trustee vote empowering the director to redirect funds or stop board sub-committees from hiring consultants.

The lack of staff also created a situation where UTFC contracted with some of its trustees as consultants, to utilize their expertise. Such a use is allowed for in the corporate by-laws. The two major examples of this contracting are the hiring of one trustee to perform due diligence work (testing of business, financial, and product worthiness of funding candidates) in the early funding rounds and the use of another trustee in soliciting federal loan funding. The first individual, because of the lack of trained staff, was volunteering large blocks of time to UTFC so the other trustees voted in a board meeting to pay for some of this time. The pay rate was set by contacting the federal government to find the average consulting rate and was set at $37.50 per hour. The second trustee given a contract, again at $37.50 per hour, worked extensive hours to secure federal funds for UTFC operations. That trustee's prior experience with a federal official on another UTFC matter gave him a better chance of securing HUD funding for UTFC revolving loans. He was successful in this endeavor. This contract was kept open so he could aid in training the current UTFC director.

We believe that these contracts had a place in the earlier operations of UTFC, given its lack of trained staff and limited work available. However, in the current structure, contracting with trustees is a questionable practice leading to concerns of favoritism. Current staff has sufficient size and training to handle the tasks contracted to trustees in the past.

A problem exacerbated by the rapid changes in the organization was the hiring of a past director. In this case the system created by the new by-laws led to confusion and what appears to be an inadvertent misuse of the controls. In this case the hiring and compensation setting of a past director was not done by the board in its entirety but by some members of the executive committee and, in particular, the board's chairperson.

In October 1989 UTFC was in immediate need of a new director. Its trustee chairman acted quickly on the hiring advice of two other trustees. He meet with the candidate and worked out an agreement consisting of a substantial raise in salary over that of the previous director, better benefits, and a four-day 32-hour work week, the latter to free the candidate one day a week for outside consulting work. One of the other two members of the executive committee was contacted and supported hiring of the candidate. Since this represented a majority of the executive committee, the candidate was hired. Of the three members of the executive committee, only the chairperson knew all the conditions and stipulations of the contract. A second executive committee member was informed of the stipulations but, because of a misunderstanding, believed that they were temporary while the candidate finished projects in his other job. The remaining member of the executive committee was never informed of the conditions.

Our interviews with a sample of past and present trustees found that none were fully aware of the past director's contract stipulations. The board chairperson defends his actions, telling us that a director was needed immediately and that particular candidate at that price for four days a week was a bargain. That executive director was in place during the period of rapid change for UTFC. It was necessary for him to work more than four days a week and, at his retirement, he was paid for 80% of his earned compensatory time with a lump-sum payment of $20,500.

We do not believe the hiring of the past director or compensation setting were appropriate; both issues should have received full board approval. The hiring of the most recent director was done in a different manner and has undergone both competitive listing of the job and scrutiny of the full board. There do not appear to be any non-standard conditions attached to the latest contract.

Recommendations

1. As mentioned in the previous chapter, we recommend UTFC submit proposed statutory changes to the Legislature that will clarify the organization's goals and mission.

2. We recommend UTFC's board of trustees review its policies for contracting with board members for extra work.

Appendices

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Appendix I
UTFC'S Seed Capital Program

UTFC's SEED CAPITAL PROGRAM

UTFC was created for the purpose of providing seed capital to emerging, technology-based businesses to help them succeed in the market. The ultimate objective of using taxpayer dollars in this behalf is to create local employment and stimulate the technology sector of the economy. The program for carrying out this goal, however, has changed notably over the years, primarily because of problems associated with getting paid back. With each successive step in the evolution of the seed capital program, UTFC has sought ways to minimize the risk of failed investments and increase the chance of receiving payback so as to achieve their goal of financial independence from the state.

The evolution of the seed capital program is the result of both the injunction against UTFC prohibiting equity investment and its desire to achieve a method of disbursing and recovering money that would allow UTFC to become self-sufficient. When UTFC was prohibited from taking equity in companies they were to fund, they were forced to choose alternative methods of providing seed capital. Appendix I first describes in detail the evolution of the seed capital program, and then describes the selection system UTFC has designed for choosing companies to fund with seed capital. To date, UTFC has made about 136 funding awards from its seed capital program for a total investment of about $6,278,000.

UTFC's Seed Capital Program Has Evolved

As mentioned above, the seed capital program has changed over the years because of the prohibition from making equity investments and the attempt to achieve the goal of financial self-sufficiency. The seed capital program has traditionally been the anchor of UTFC funding vehicles, accounting for about 75% of all the money UTFC has disbursed since its inception. The first funding program UTFC established for seed capital investment was referred to as the Small Business Innovation Program (SBIP) and was to act as local follow-on funding to the federally subsidized Small Business Innovation Research (SBIR) grant program. Most of UTFC's seed capital awards have been made under the SBIP. However, because of recurring problems associated with payback, the SBIP was recently renamed to become the Early Technology Business Capital (ETBC) program and restructured significantly in terms of payback conditions, maturity of companies selected for funding, and requirements placed on company officers.

UTFC's seed capital program represents a somewhat new financial responsibility for many companies because it is often the first entity supplying capital that is also expecting a payback.

This is a unique situation for many of these infant companies, several having received considerable amounts of federal and sometimes local grant money for research and development of their ideas and therefore are not accustomed to repaying borrowed money.

In fact, several of the companies we visited specifically mentioned their concern that grants are not a part of UTFC's funding programs. Their feeling is that grant money is ultimately repaid to the community many times over in the form of new jobs and tax dollars created from emerging companies, and requiring actual loan repayment places that much more of a strain on small businesses just trying to survive. Making the transition from receiving grant money to receiving qualified money has been difficult for many UTFC-funded businesses, but it was a necessary change to support UTFC's effort to become a financially self-sustaining operation.

The Small Business Innovation Program

The SBIP was a direct result of UTFC's legislative mandate to provide seed capital to emerging, technology-based ideas and companies to help boost the technology sector of the economy and create employment for talent coming from Utah's higher education system. The SBIP was designed after the Small Business Innovation Research grant program, which is offered through a variety of federal agencies. The SBIR program provides research and development grant money to private sector organizations whose research interests match the needs of the federal agency. The SBIR offers up to $75,000 of Phase I money essentially as a feasibility study on the proposed research. Phase II money of up to $750,000 for technology development is then available to those organizations with sound ideas.

UTFC modeled the SBIP after the SBIR, believing it would be a natural source of follow-on funding for local companies trying to commercialize a technology. UTFC would periodically conduct rounds of funding where companies seeking capital would submit a proposal of their project and the methods they would use to develop their technology. SBIP Phase I funding of up to $50,000 was provided to selected companies for product development and was the earliest-stage, capital investment UTFC would make. Realizing that $50,000 would not be sufficient capital to complete a project, UTFC provided for Phase II money of up to $100,000 for companies deserving further capital to market a developed product or technology.

The first few Phase I awards from the SBIP were actually made as technology- or product-specific grants to selected companies with an option by UTFC to set up an agreement for royalty payment within 90 days of the completion of the project. The UTFC board did not, however, exercise the option on those grants because, much like the SBIR program, their intention was to provide capital to companies purely for technology development without any requirement for payback. Subsequent to these first few grants, however, the board decided that all future SBIP awards would have to be made with some sort of payback condition to enable UTFC to become self-sustaining.

Because equity investment had been prohibited, UTFC decided that companies receiving SBIP Phase I funding would be required to pay back the money from a royalty on sales revenue from funded products once they went to market. The payback rate was set at 300% of principal to be paid over a specified period of time, initially set at three years. UTFC speculated that on average only one of three funded companies would survive because of the inherent risk in funding new technology. Payback at three times the principal amount from one loan would therefore cover the losses incurred from the other two loans. However, assuming this to be an accurate forecast of the success rate, UTFC's capital base would eventually begin to erode since payback would not cover any of the cost of operations or serve as protection against inflation. UTFC was, then, either going to have to rely on continued state appropriation to finance administrative expenses, or it was going to progressively have less of a capital base to fund companies if operating expenses were to be covered from investment returns.

Many of the first awards made under the royalty agreement were never recaptured because funded technologies had not yet been developed, much less commercialized, within three years, and no contingency plan had been established for collecting any money after that time. Over the course of future funding rounds, UTFC modified the SBIP to extend the time for royalty payback beyond three years, and stipulated that royalty payments would be based on company sales revenue, not just product-specific sales revenue. In spite of these efforts to secure a better investment return, UTFC continued to experience frustrations with royalty-based deals because many companies simply could not afford to give up 3% of sales revenue so early in their development, and there was ultimately nothing in the contracts specific enough to demand or guarantee payback. Figure IV illustrates disbursements and repayments for each of the 12 rounds of funding for SBIP Phase I awards.

Figure IV
SBIP Disbursements and Payback for Phase I Awards

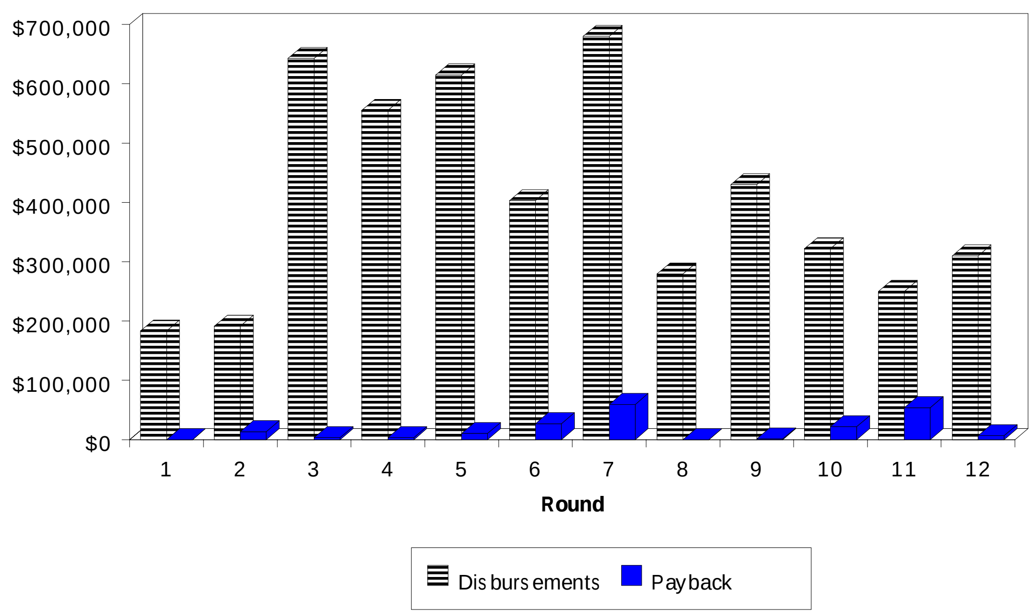

Figure IV illustrates the concern UTFC was having over payback revenues from SBIP awards and why they ultimately decided the program needed to be significantly restructured. Though payback may still trickle in from awards in some of the rounds, UTFC will not receive any more revenue from many of the awards because of the structure of the initial funding agreements. UTFC made about 111 awards under the SBIP worth about $4,862,000 before deciding the program needed to be restructured if the goal of financial independence could ever be achieved.

The Early Technology Business Capital Program

As part of the evolution of the seed capital program, UTFC discontinued the royalty-based SBIP and replaced it with the ETBC program in an attempt to minimize the inherent risks of providing early-stage capital. Like the SBIP, the ETBC program offers two stages of funding: Phase I for product development and Phase II for product commercialization and general working capital. ETBC maximum award amounts have recently been increased by board action, Phase I to $75,000 and Phase II to $150,000. The actual dispersal of money to funded companies is usually done in installments and is based on the company's achievement of specific goals or milestones.

The main differences between the SBIP and the ETBC programs were converting the payback terms from royalty-based to a straight term loan, expanding the program focus to fund companies as a whole rather than fund just specific projects or technologies, and requiring company officers to collateralize the loan with personal assets in the event payment cannot be made. All of these changes have been made for the purpose of increasing the security of the seed capital funding program and moving UTFC toward the goal of financial self-sufficiency.

Payback has been restructured. Under the ETBC program, Phase I funding is made as a term loan rather than on a royalty basis. The advantage of the term loan to UTFC is that payback is required within a specified time period and is not contingent on product sales or company revenues. Payback for an ETBC Phase I loan is usually made over a five-year period with a fixed interest rate set over the prime rate. UTFC staff told us they try to be flexible on the timing of payback because of the common problem these young companies have in making payment from limited cash flows.

UTFC's decision to adopt a term loan seed capital program effectively eliminated some of the problems they were experiencing with the royalty-based program. In our interviews with companies funded under the SBIP we discovered some perception of unfairness in that each company was obligated to repay three times the principal amount as a way of covering the loan losses from failed ventures. Though companies knew the conditions of the funding up front, many became somewhat disillusioned with the idea of using much-needed sales revenue to make royalty payments.

We also found that some of the companies had either modified their original plans or abandoned them altogether, and were using the UTFC funds to develop a different product than that for which they had initially sought capital. This change in product development plans technically removed the companies from their responsibility of making any royalty payments because revenue would be generated from the sale of a different product. Whether changing the course of product development was an intentional way for companies to avoid payback, or whether it was a necessary response to unfavorable conditions with initial plans, the royalty-based program presented many frustrating issues to UTFC which the term loan program essentially eliminated. In fact, UTFC management has tried to negotiate with several of the companies funded under the SBIP to convert the royalty-based arrangement to a straight term loan in an attempt to salvage something from the program. The advantage to UTFC is that they will recover something from investments that otherwise will likely never produce much of a return.

UTFC now funds companies rather than just technologies. Under the SBIP, UTFC focused on funding research and development projects in very young companies with the intention of moving them toward a commercial application. Problems with payback arose because many of the companies had no existing cash flow and were not obligated to make royalty payments unless there were product or company revenues within the time specified in the contract. With the ETBC program, UTFC has shifted the focus to funding projects in companies which are more mature and more financially stable as a way of increasing the likelihood of loan payback.

UTFC seeks further protection against loan defaults. For additional security under the ETBC program, UTFC is now asking the officers of funded companies to pledge personal assets against their loans in the event payback cannot be made. UTFC has stated they philosophically believe an entrepreneur should be willing to share in the risk of a proposed venture. They also feel they must help companies understand for their own sake that, while they may be used to receiving grant money, current and future funding sources are going to expect a return on their investment. However, UTFC is also concerned on a practical level about receiving loan payback, or at least salvaging something from a loan default, so they can progress toward their goal of financial independence from legislative appropriation. UTFC feels that requiring company officers to share in the risk of venture funding tends to weed out those who may only want money for research and development and who aren't serious about marketing a product.

UTFC has so far made some 11 ETBC Phase I awards worth about $500,000, but it is difficult to determine the effectiveness of the program because of its newness. Figure V presents additional information on the seed capital program regarding the performance and security of Phase I awards.

Figure V
Performance of Seed Capital
Phase I Program

Round	Year	Total Number of Phase I Awards Made	Number of Loans Being Paid Back	Percentage of Companies Making Payback	Number of Unsuccessful Projects or Loan Defaults
1[1]	1985	4 [2]	-	-	-
2	1986	4	2	50 %	2
3	1987	13	2	15	7
4	1988	16	2	13	7
5	1988	15	7	47	2
6	1989	9	4	44	0
7	1989	17	10	59	2
8	1990	6	0	0	1
9	1990	7	2	29	0
10	1991	8	2	25	0
11	1991	5	1	20	0
12	1992	7	1	14	0
13	1992	11	3	27	0
	Totals	122	36	29.5 [3]	21

1 Awards in rounds 1-12 were made under the SBIP while round 13 awards were made under the ETBC program.

2 Awards in round 1 were made as grants with no payback requirement.

3 Does not include round 1 awards made as grants.

Figure V shows the concern over security UTFC has had with the seed capital program. Both the 29% payback rate and the loan default ratio largely reflect the frustrations UTFC experienced with royalty payback under the SBIP. These figures also reflect other factors such as the selection of appropriate companies to fund, the adequacy of funding amounts and general business support provided by UTFC, and general economic and market conditions that make early-stage investment a risk.

Phase II money from the seed capital program is loaned out at the prime rate plus an additional percentage, and payments may be made on a fixed basis or on a royalty of company sales revenue. UTFC has made a total of 14 Phase II loans worth about $900,000 and has, so far, received about $56,000 in payments.

UTFC's Selection System Seems to be Comprehensive

The system UTFC has developed for selecting companies to fund with seed capital appears to be well-designed and comprehensive. UTFC has traditionally conducted periodic rounds of funding which are advertised throughout the state and open to any company with a technology-based idea or product. However, UTFC is moving toward a policy of accepting and reviewing applications on an ongoing basis as they are submitted as a way of spreading the work load more evenly over time. Companies applying for Phase I funding submit a detailed and specifically structured proposal of the product they wish to develop. Proposals are reviewed by UTFC staff as well as members of an independent, volunteer panel of people with a variety of backgrounds and experience, and are judged on a series of nine criteria aimed at predicting the potential success of these companies. Figure VI lists each of the criteria with an associated description and relative weight for calculation.

Figure VI
Selection Criteria for UTFC-Funded Companies

Criterion	Description	Weight
Technical Merit	The degree to which the proposed idea is technically sound	13.3% of total
Exclusivity of Technology and Proprietary Advantage	The degree to which the product is novel and a patent or copyright has been granted or is likely to be granted	10.0% of total
Market and Commercial Characteristics	The degree to which the product has a market and the company has a sound marketing plan	26.7% of total
Arrangements for Follow-on Funding	The probability that follow-on funding will be available to carry the product into the market place	10.0% of total
Long-Term Utah Employment	The probability that the company will provide lasting employment and financial benefits within the state	10.0% of total
Program Significance	The degree to which the steps contained in the project proposal will lead to the development and commercialization of a product	6.67% of total
Qualifications of Principals and other Resources	The degree to which the experience and character of company officers is outstanding	6.67% of total
Maturity of the Innovation	The degree to which a) the product idea is mature as measured by the amount of previous development, b) the remaining development risks are minimal, and c) a relatively short time is required to enter the market	6.67% of total
Proposer Share of Project Funding	The degree to which the company and its officers have invested and will continue to invest personal resources into the development of the product	10.0% of total

The criteria most heavily weighted in the selection process are the extent to which the product has an identifiable market and the company will be able to take it into the marketplace, and the technical soundness of the proposed product . As Figure VI illustrates, UTFC has a detailed system for identifying and evaluating those factors they feel are closely correlated to the potential success or failure of a company. The criteria UTFC uses are very much in line with criteria used by agencies in other states, and contribute to what appears to be a comprehensive and well-designed selection system.

After proposals are reviewed, UTFC staff conduct site visits at the offices of those companies that look most promising, and due diligence is performed either by UTFC staff or by consultants on contract as a final step before awards are made. Due diligence work consists of fairly in-depth reviews of a company's finances and tax history, the background of its officers, and its prior experience in technology application. Since its inception, UTFC has reviewed about 715 Phase I proposals and made about 122 awards, representing a 17.1% funding rate. It should be understood that UTFC administrative expenses are high in part because of the lengthy screening process that occurs before companies are ultimately selected for funding, all of which is important if UTFC is to select companies that will be capable of making payback.

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Appendix II
Additional UTFC Loan Programs

Additional UTFC Loan Programs

In recent years, UTFC has established other loan programs in addition to providing seed capital as a way of spreading out resources and increasing investment security. UTFC has developed programs of pooling money with other sources such as banks and local units of government to loan to more stable companies, and has most recently developed a bridge loan program for companies who need immediate, short-term capital. These additional funding methods have been developed as a way of leveraging UTFC's capital base as well as improving the likelihood of receiving payback. Appendix II describes in detail the other loan programs UTFC has developed. UTFC has pooled about $1,500,000 into making 40 joint loans with these other lending sources, and has made four bridge loans worth $362,000.

UTFC's Joint Loan Programs

In the fall of 1989, UTFC created the Participating Loan Program (PLP) which allowed pooling UTFC funds with those of Utah banks in support of small businesses. Under the PLP, UTFC provides up to half of the total value of a loan, with a Utah bank providing the other half. In any case, UTFC's portion of the loan is not to exceed $125,000, which is a recent increase from the previous maximum of $100,000. The loan is administered by the bank, with UTFC taking a subordinated position, and generally has a one- to five-year term with a variable interest rate. The program was designed to help small companies develop a borrowing relationship with a bank, and to help banks play a more active role in lending to technology-based companies. UTFC has so far made about 29 participating loans, their portion of which is worth about $1,341,000.

The other joint loan program developed by UTFC is the Revolving Loan Fund (RLF) which was established in the spring of 1991. In the RLF, UTFC money is pooled with money from local units of government, usually Associations of Government, to assist small, technology-based companies. Loans under the RLF are jointly financed by some combination of federal, state, and local government money, and can normally be made up to a maximum total loan value of $150,000, which is also a recent increase from the previous high of $100,000. The Department of Housing and Urban Development (HUD) has provided federal funds to augment UTFC money and to be used in the RLF, while local government groups also contribute capital to assist a company within their area. The RLF program requires that every $1 of public money be matched with at least $2 of private investment in a company. The term of RLF loans are generally 3-5 years at an interest rate that is close to prime. UTFC has so far been a part of about 11 revolving loans, their portion of which is worth about $210,000.

The PLP and the RLF were both designed to help leverage UTFC money and help companies establish borrowing relationships with other lenders. The loans made in these two programs are typically less risky than are ETBC loans, simply because Utah banks and local units of government do not provide seed capital like UTFC and instead seek a relatively secure investment. As a general rule, a bank or local unit of government will only make joint loans with UTFC to companies that are already established and that already have some source of income. This provides UTFC with the added assurance and protection they have been seeking in terms of loan security. Figure VII illustrates the performance and security of the joint loan programs.

Figure VII
UTFC's Joint Loan Programs

Loan Program	Total Number of Loans Made	Number of Loans Being Paid Back	Percentage of Companies Making Payback	Number of Unsuccessful Projects or Loan Defaults
Participating	29	24	82.8 %	1
Revolving	11	10	90.0	0

Figure VII shows the relative safety of the joint loan programs in terms of company payback and loan default rates, especially when compared to the performance of the seed capital program as illustrated in Figure V in Appendix I. The concern over minimal investment returns in the seed capital program is essentially why UTFC expanded its focus and established more stable joint loan programs.

UTFC's Bridge Loan Program

UTFC has most recently created the Bridge Loan Program which serves as a way of providing short-term financing to companies to bridge the "capital gap" that exists until they can realize revenue from product sales. Specifically, bridge loan money is designed for use as interim capital for operating expenses while a company collects its accounts receivable, or may even be used to finance purchase orders. In any case, companies must demonstrate some source of near-future income to be used to pay off the loan, which makes bridge loans among UTFC's most secure investments but also takes UTFC further from investments in higher-risk, emerging companies.

Bridge loans are made up to a maximum of $175,000 and can be renewed by a company up to three times. However, they are only available to companies that have received prior funding from UTFC and must be repaid within four months. UTFC charges a relatively high interest rate to stimulate payback and to encourage the company to make other financing arrangements as quickly as possible.

UTFC's current management has summarized that UTFC was initially a start-up advising other start-ups and has had to learn from its own mistakes. This is why UTFC has experimented with different ways of providing financing to small businesses. The result has been a move toward making more conservative types of investments. This shift to investing in more stable companies with more secure forms of financing does represent something of a departure from UTFC's original mission to provide seed capital to emerging companies. This departure is further pronounced by a movement away from investing solely in emerging technology-based industries and toward investing as well in established manufacturing companies.

Agency Response