Technology Company Resource Needs

September 2003

By Gwen Richtermeyer, Ph.D.
Director

BRIdG

RESEARCHING
SMALL BUSINESS AND
ENTREPRENEURSHIP

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Abstract

The BRIDG study of technology companies in Missouri yields a picture of the entrepreneurs, their companies, capitalization history, and learning needs and preferences. Companies varied widely with regard to annual gross sales, but have experience growth in the past two years. Companies reported an average of 31 total employees, and expected this figure to increase to 42 in the next 3-5 years. Identified opportunities to provide assistance to this target audience include management, sales and marketing, and financial, as well as SBIR/ STTR grants.

Methodology

This study utilized survey methodology. A database of technology-oriented companies for the U.S., CorpTech, was purchased and companies with a Missouri address were extracted. The Missouri list was then hand cleaned to remove any companies known as primarily non-technology companies and multiple sites. The resulting list contained 734 companies. The list included name of CEO or President, company name and mailing address.

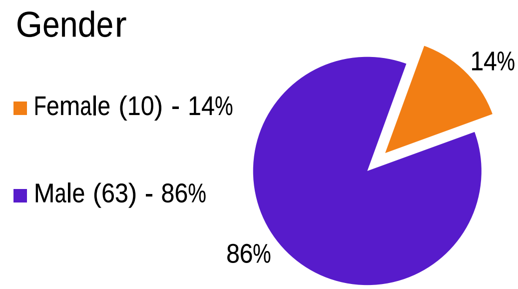
The Dillman Method was followed for this research study[1]. A total of 56 surveys were returned undeliverable. We received 75 surveys at the conclusion of eight weeks, resulting in an 11.1 percent response rate. Considering the lack of any relationship between BRIDG, University of Missouri and the technology companies targeted for this study, this response rate is quite acceptable. If additional resources had been available for follow-up telephone calls, the response rate would have no doubt increased.

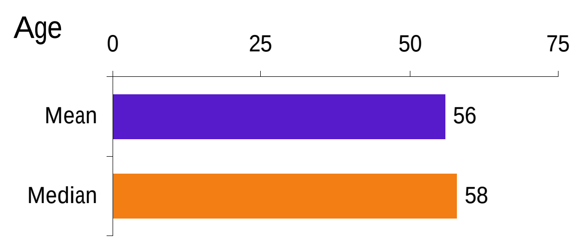
1 The Dillman Method is the recognized leader in mail and electronic survey methods. For mail surveys, it proposes a minimum of three mailings to the identified survey participant. The first is a complete mailing of survey, letter asking for a completion, and self-addressed, postage-paid return envelope. The second mailing includes a reminder postcard and is sent two weeks following the first mailing. The third mailing is another complete set of materials — survey, second request letter, and return envelope — and is sent two weeks following the postcard reminder mailing.

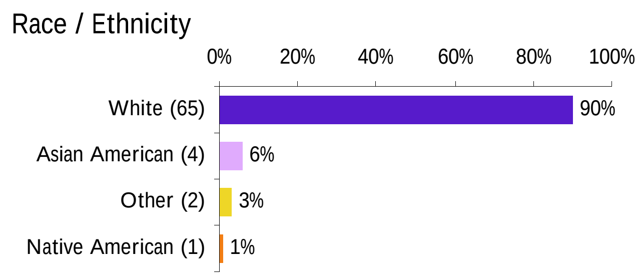
Demographics and Firmographics

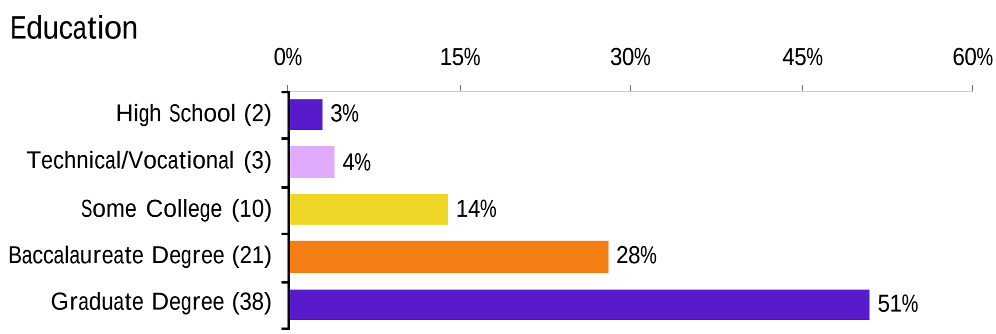
Most (86 percent) of the respondents are male, middle-aged (mid-50's), White (90 percent) and well educated — more than one-half with graduate degrees. The following graphs display the **demographics** of the survey respondents.

Note: Percentages may not add to 100 due to rounding and/or non-responses. Numbers may not add to 75 due to non-responses and not applicable questions.





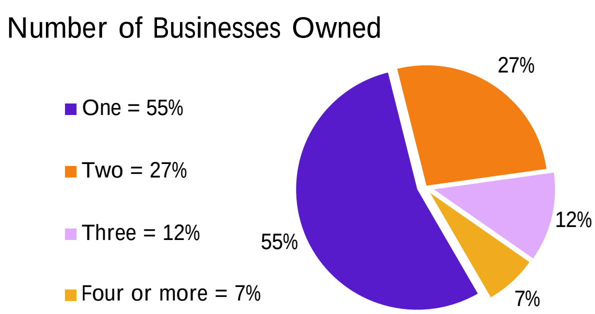


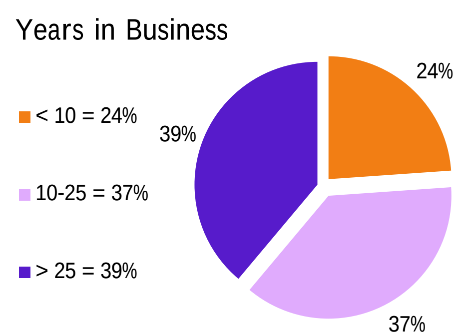


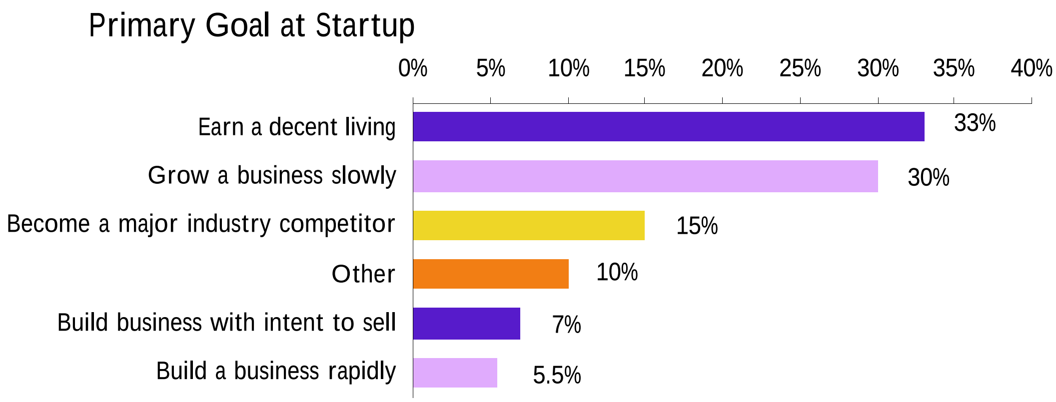
Almost one-half of the respondents (46 percent) report they own more than one business. About one-quarter has been in business less than ten years, while more than one-third (39 percent) have been in business more than 25 years. The following charts display **number of businesses owned** and **years in business**.

As with non-technology company owners, the goal in the beginning varies widely — from a desire to earn a decent living to growing a business with the intent to sell. Compared to findings from a study of small business owners and entrepreneurs conducted in 2002, fewer technology entrepreneurs have a **primary goal** to earn a decent living (53 percent vs. 33 percent); however, almost twice as many (30 percent vs. 19 percent) technology entrepreneurs want to grow a business slowly. The following chart displays the percent respondents for each of these categories.

In the "Other" category, several respondents indicate they wanted to "Grow or Build a business." A few others noted their desire to "Make a difference," "Fill needs of manufacturers not currently filled" and "Provide a needed service."



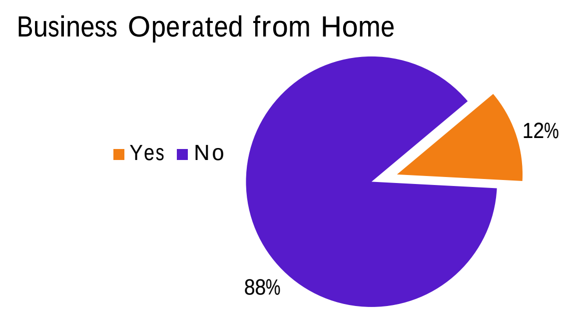


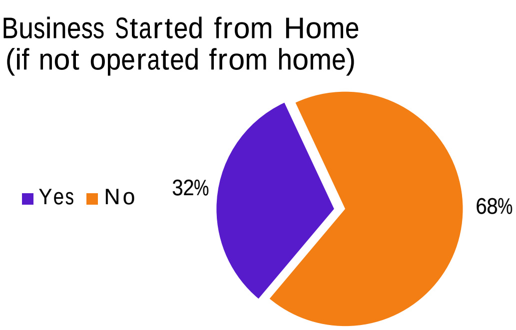


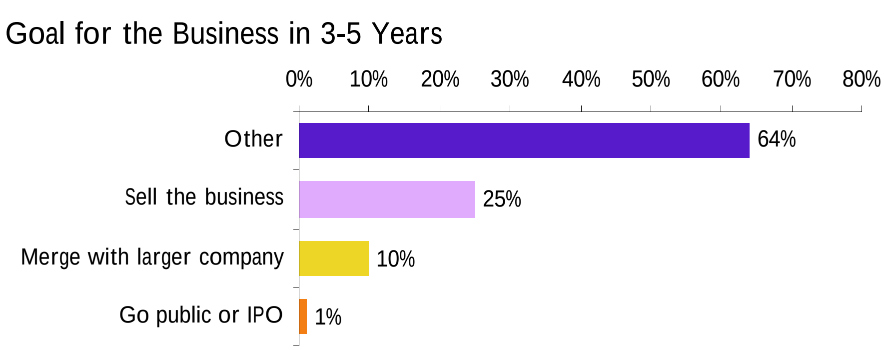
Almost two-thirds of the respondents indicated that they planned to continue in the business in the next 3-5 years. About one-quarter plan to sell the business, one in ten plan to merge with a larger company, and only one percent plan to go public. See the **Business Goals in 3-5 Years** chart.

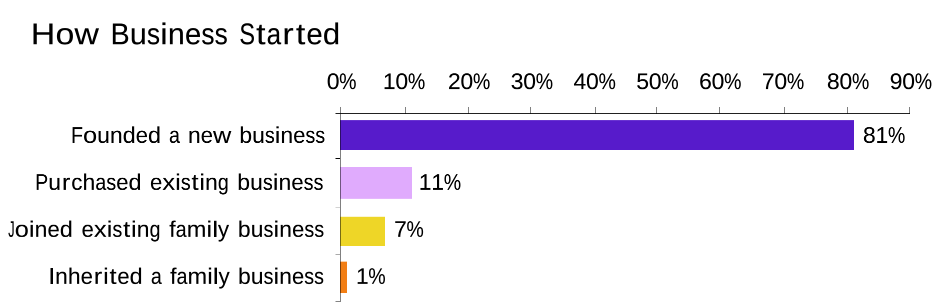
Most of the technology companies were founded (81 percent). Eleven percent of the respondents purchased a business and about eight percent became involved with a family-owned business. See the **How Business Started** chart.

While only twelve percent of the technology businesses are currently **operated out of the home**, almost one-third **started in the home**. See the following charts.



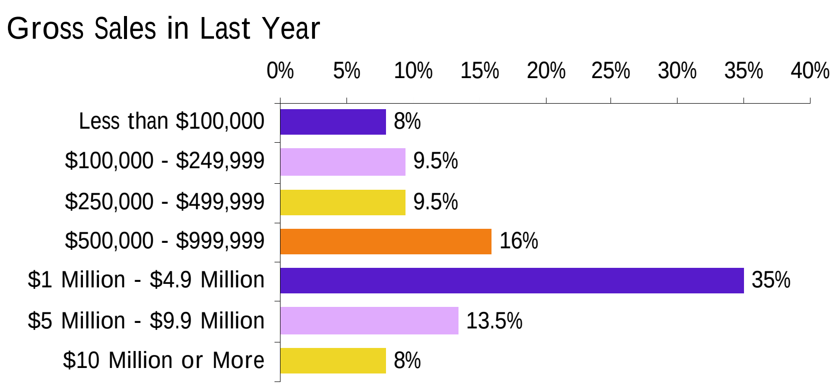


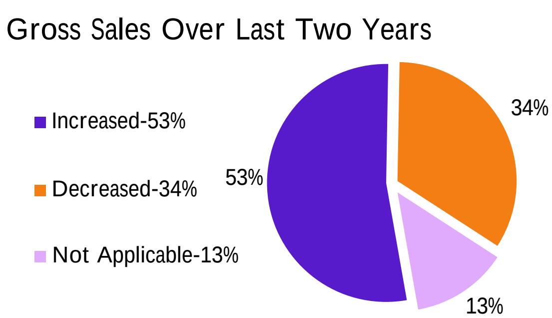


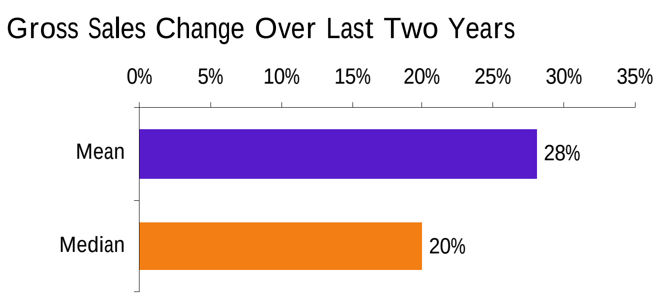


The respondents' company revenues varied widely — eight percent grossing less than $100,000 in the last year to 21.5 percent at $5 million or more. The following graph breaks out **annual gross revenues**.

Most (53 percent) enjoyed increases in their gross revenues the **last two years** at an average rate of 28 percent.

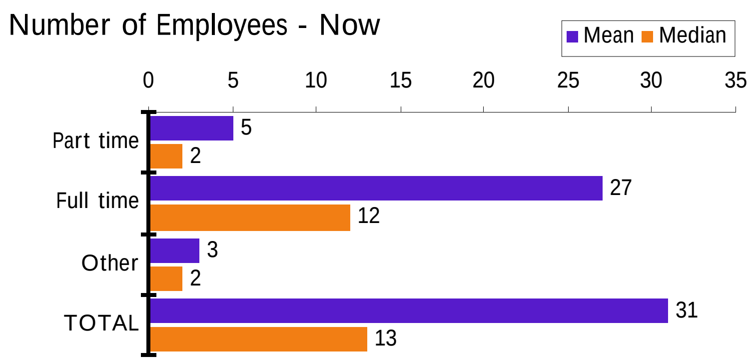


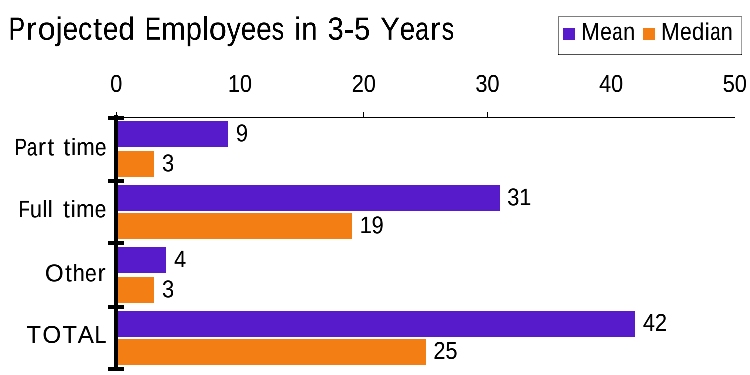


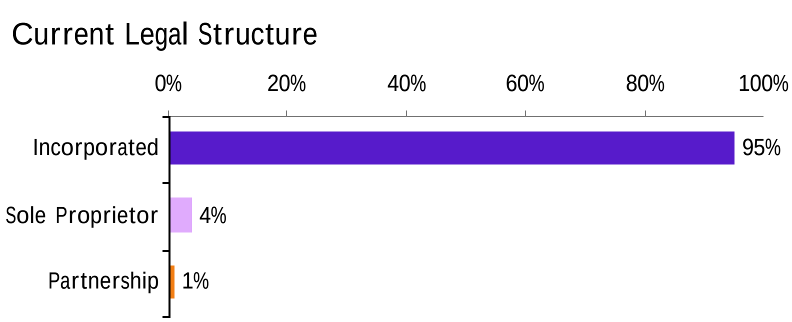


These technology entrepreneurs employ an average of 31 full-time and part-time employees currently and are projecting an increase of 11 total jobs on average in the next 3-5 years. Please see the following graphs for break-outs by part-time, full-time, and total **number of employees**.

Respondents overwhelmingly report their companies are **legally structured** as corporations.



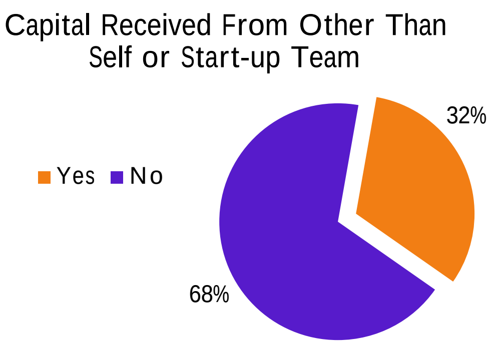


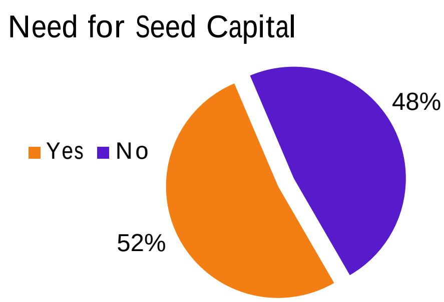


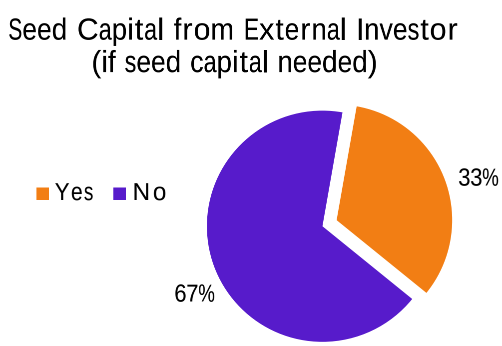
Capitalization

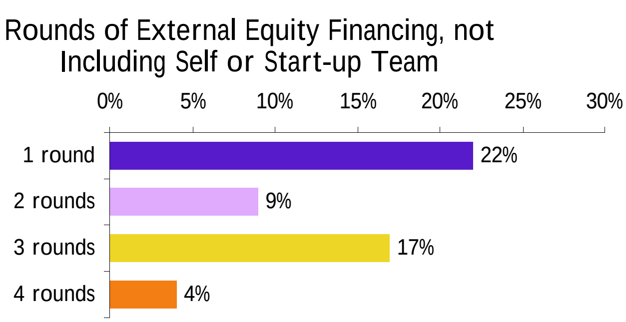
About two-thirds of the respondents did not receive any **external capital** when they started the business. However, more than one-half (52 percent) indicate they had a need for **seed capital**, and one-third indicated they received it from external sources. Of that one-third who received capital, almost one-quarter have received one round and almost one-quarter have received 3 or more rounds.

Note: Percentages may not add to 100 due to rounding and/or non-responses. Numbers may not add to 75 due to non-responses and not applicable questions.





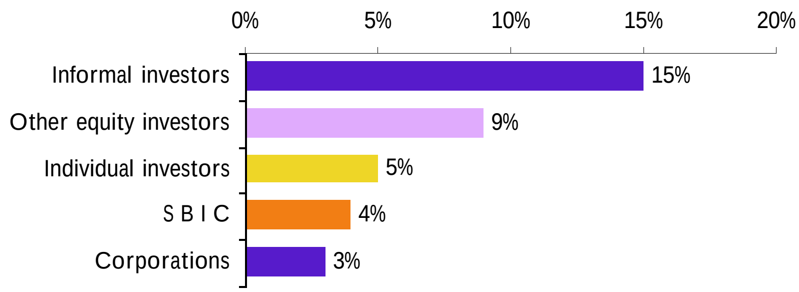




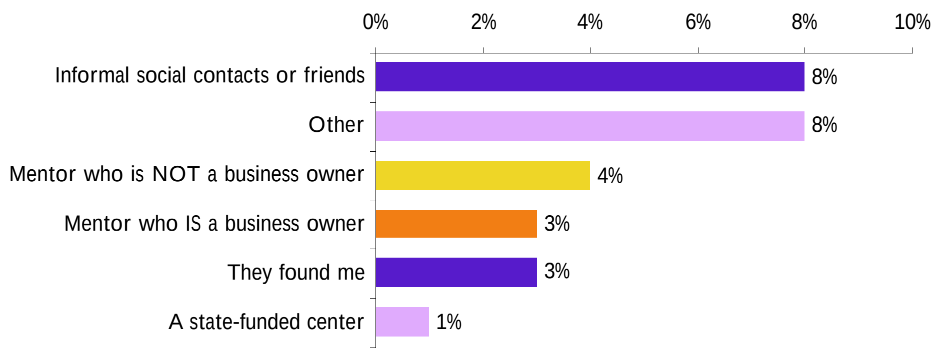
Informal investors provided 15 percent of the equity capital; other investors provided 14 percent, and SBIC and corporations provided less than 5 percent each.

A total of about 16 percent of the respondents indicated that they accessed their equity needs through informal sources, or other. The other sources included friends, hard work, accountant, registered nurse. One respondent indicated SBIR, STTR as the source within the other category. See the **finding equity sources** graph for breakout of equity access sources.

Sources for Equity Financing

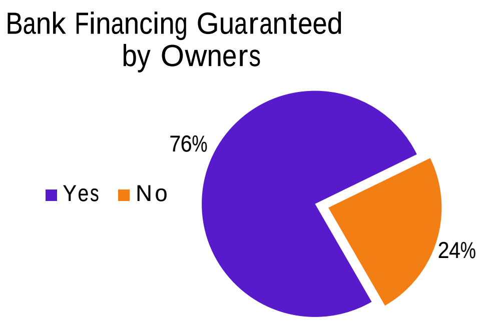


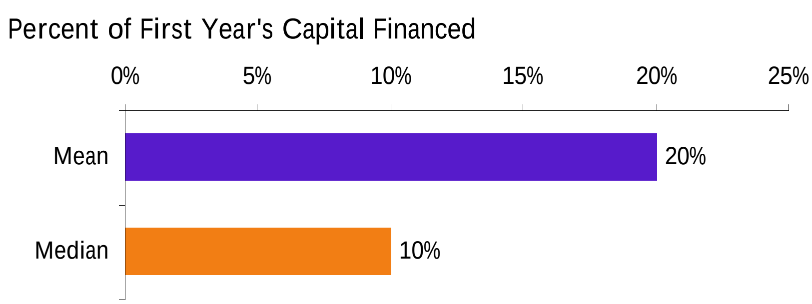
Finding Equity Sources

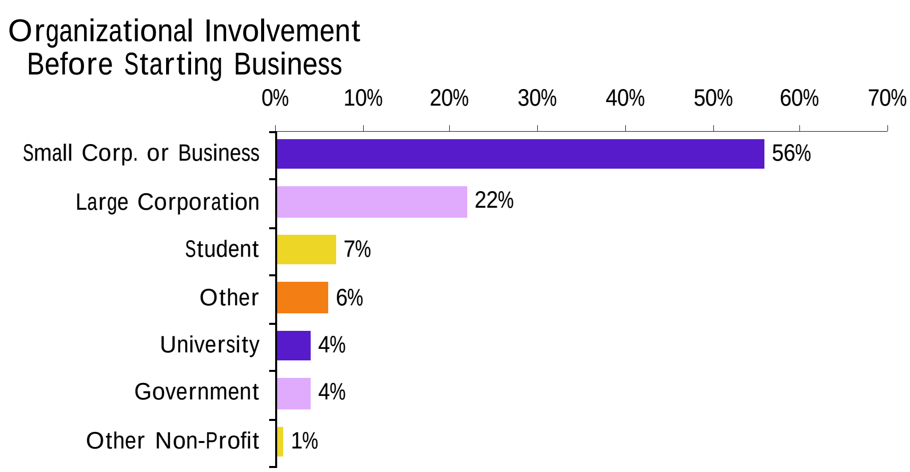


Three-quarters of the technology entrepreneurs secured bank **financing in their own names** for the company. Approximately one-fifth of the **first year's capital** was financed through debt.

Most of the technology entrepreneurs come from the private sector; more than one-half from small corporations or businesses; almost one-quarter from large corporations. Only four percent move from academe into business ownership, however, about seven percent of the respondents were previously students. See graph on **organizational involvement**.

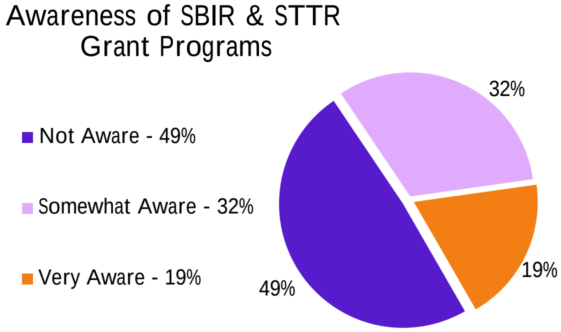


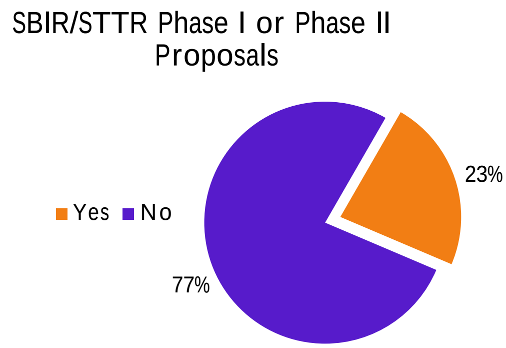




When asked whether they are **aware of SBIR and STTR grants**, almost one-half (49 percent) of the respondents are not at all aware of these opportunities. About one-third are somewhat aware and about one-fifth (19 percent) are very aware.

About one-fourth of the respondents (23 percent) have **submitted Phase I or II proposals**. Most of the submissions have gone to the Department of Health and Human Services and the Department of Defense. See the following graph and charts for details.

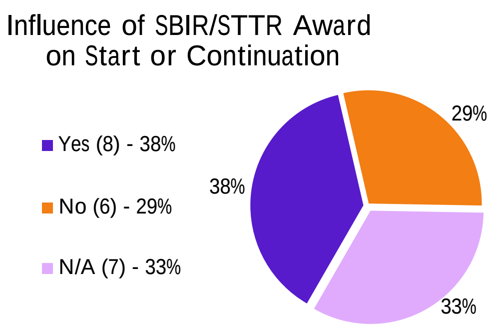




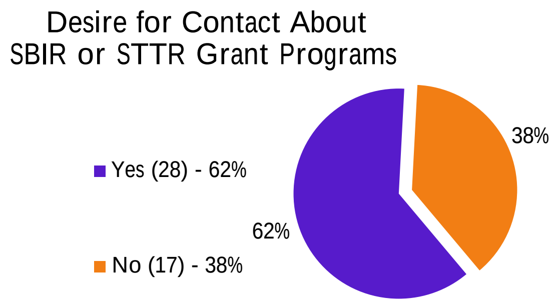
SBIR/STTR Submissions and Awards

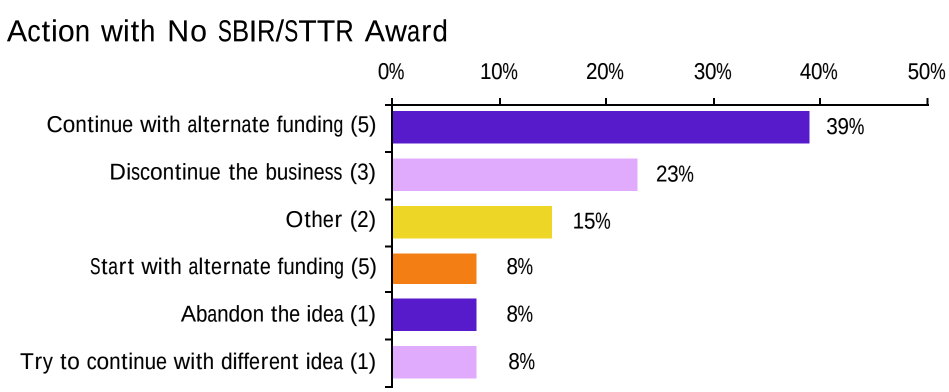
SUBMITTED TO:	NUMBER SUBMITTED	NUMBER AWARDED PHASE I	PHASE II
Department of Agriculture	3	0	0
Department of Education	0	0	0
Department of Commerce	1	1	0
Department of Energy	3	2	1
Department of Defense	6	8	3
Department of Transportation	1	1	0
Department of Health & Human Services	9	9	4
Environmental Protection Agency	3	4	1
National Science Foundation	3	3	0
NASA	0	0	0

For those who submitted proposals, 38 percent indicated that the **award influenced their decision** to start or continue the business. Almost one-third (29 percent) indicated that the award did not influence their decisions. Approximately one-half (47 percent) would have sought alternate funding for starting or continuing. And, about one-third would have discontinued their business or abandoned their idea without the award. Please see the following graphs for details.



Nearly two-thirds of the respondents **wished to be contacted directly** about SBIR/ STTR grant programs. Contact information was assembled and sent to Dr. Michael Nichols with MOFAST.



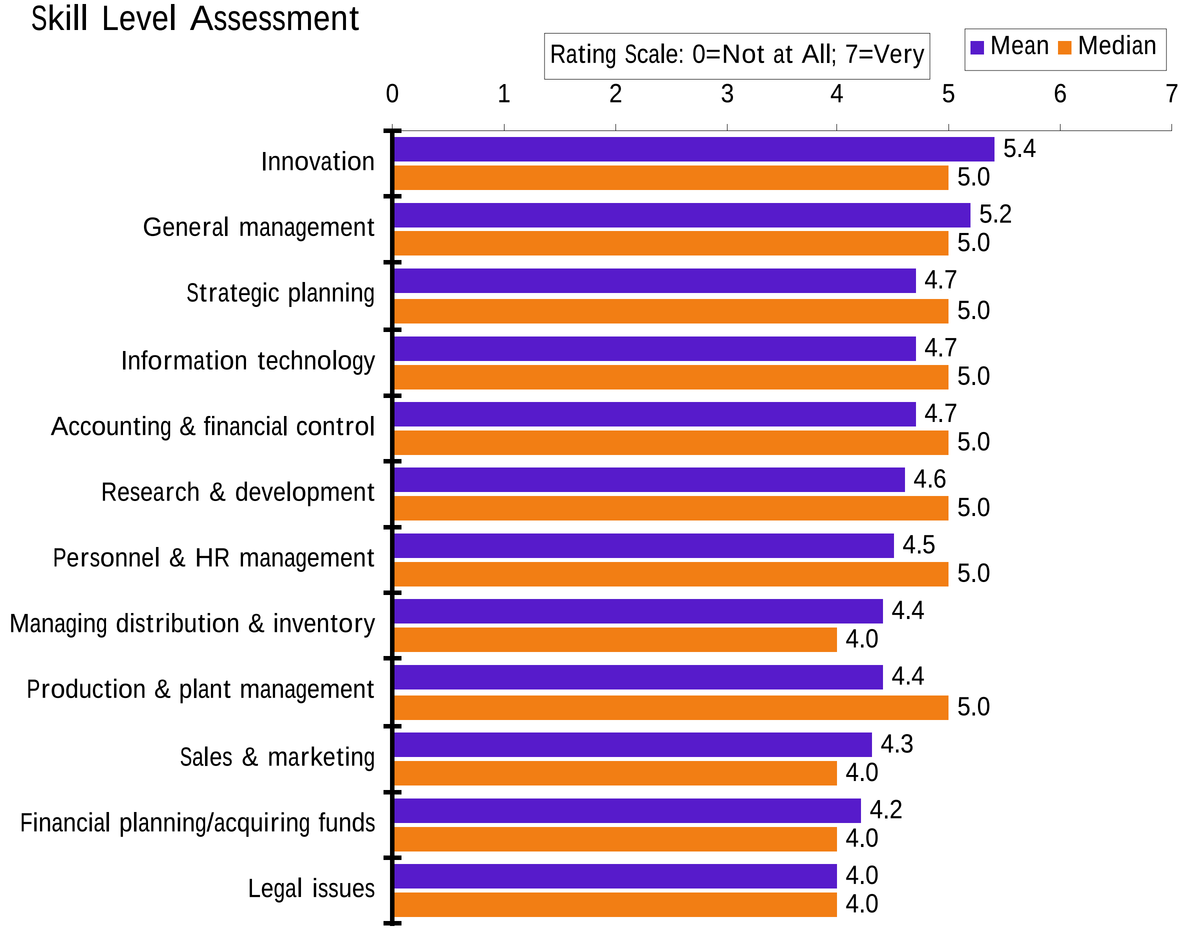


Individual Company Needs

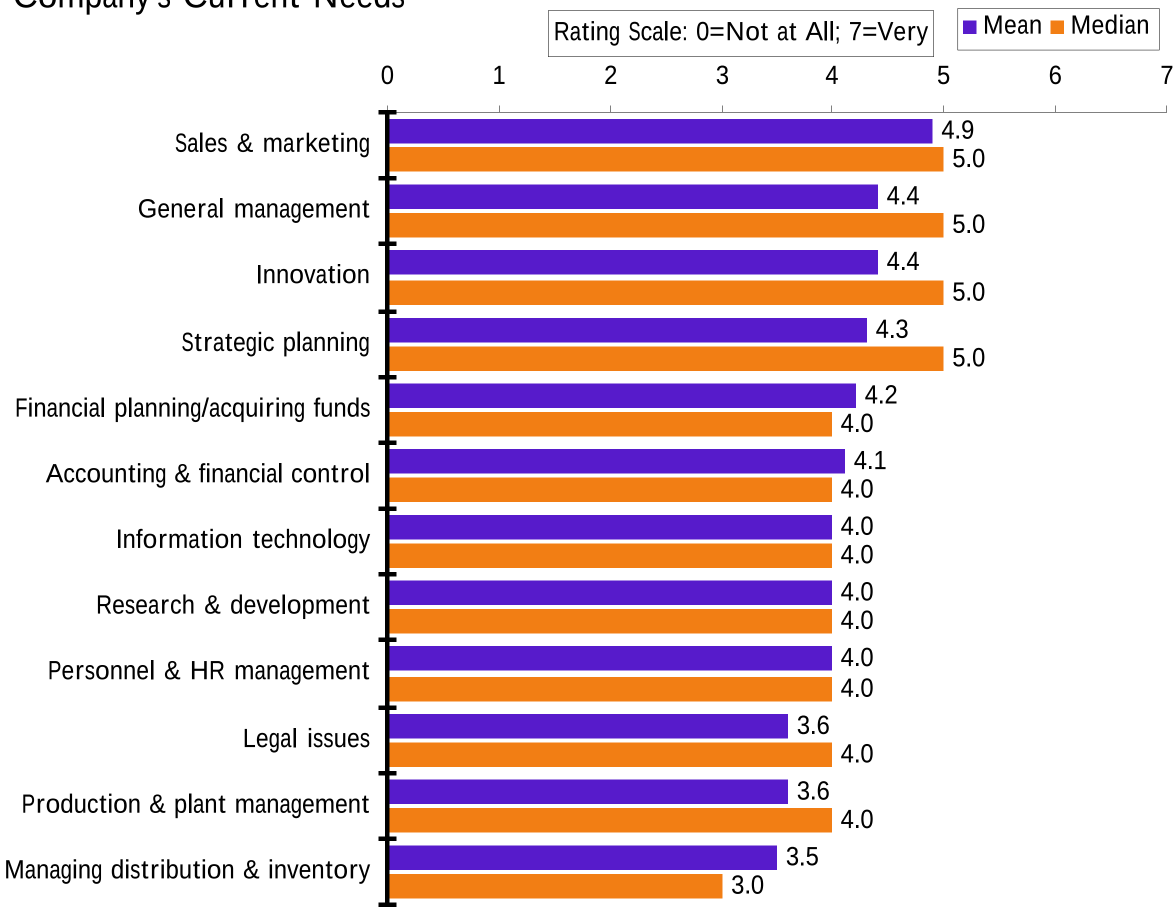
Respondents ranked their **skill level** and the company's current needs using a seven-point scale of 1 = not at all and 7 = very. The areas of highest skill level are innovation, general management, strategic planning, information technology, and accounting/financial control. Weakest areas are legal issues, financial planning and/or acquisition of funding, and sales and marketing. The highest ranking current needs include sales and marketing, general management, innovation, and strategic planning. The following graphs display the mean and median scores for each category by skill level and current need.

Note: Percentages may not add to 100 due to rounding and/or non-responses. Numbers may not add to 75 due to non-responses and not applicable questions.

Skill Level Assessment

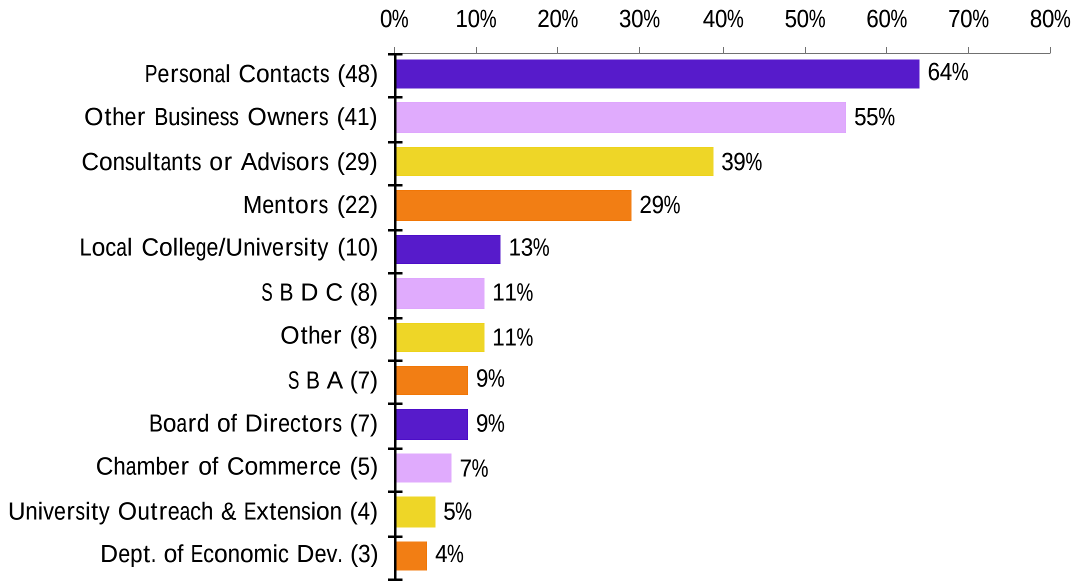


Company's Current Needs



When seeking **business information**, technology entrepreneurs most often turn to personal contacts (64 percent) and other business owners (55 percent). Combining colleges/universities, SBDC, and UO/E reveals that almost one-third (29 percent) avail themselves of this type of service. The following graph provides percentages by source category.

Sources for Business Information



Learning Experiences

Similar to other entrepreneurs, respondents prefer a **learning experience** that is no longer than one day or a one-on-one arrangement. Classes consisting of several weeks were the least preferred delivery method.

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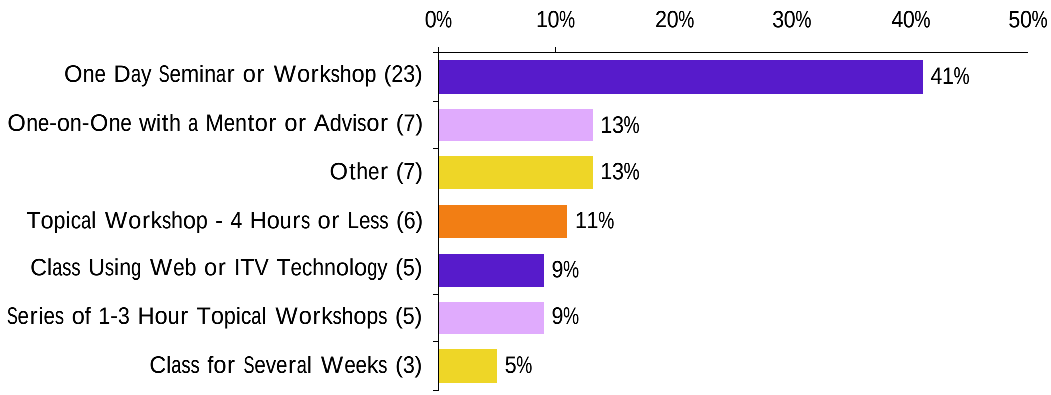
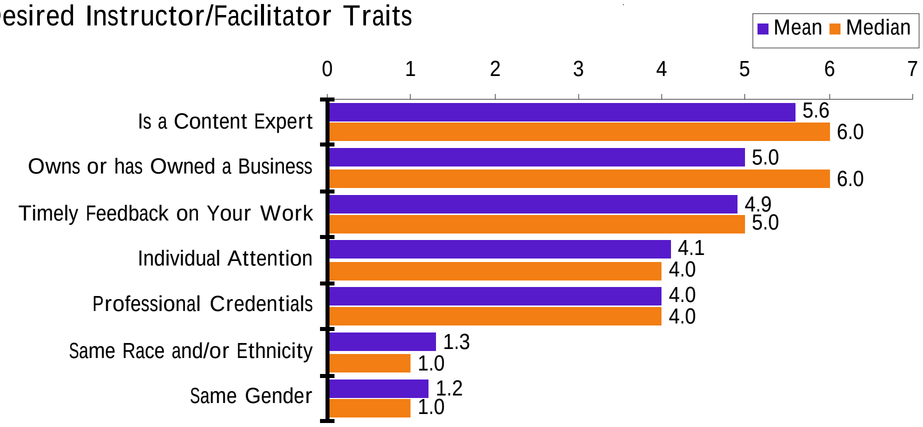
Preferred Learning Format

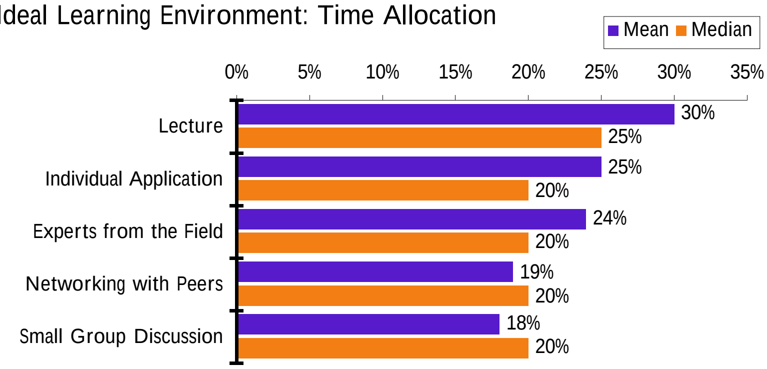


Respondents want instructors (or facilitators) who are Content Experts, Own or has owned a business, and someone who provides timely feedback. In addition, they want a learning experience that provides them with lecture, application, experts, discussion time with peers, and networking opportunities. Ideally, most of the time will be spent face-to-face, however, respondents want a blended learning experience that includes technology. The following graphs depict the results (means, medians) for **facilitator characteristics** and **time allocations** for the ideal, **preferred learning experience**.

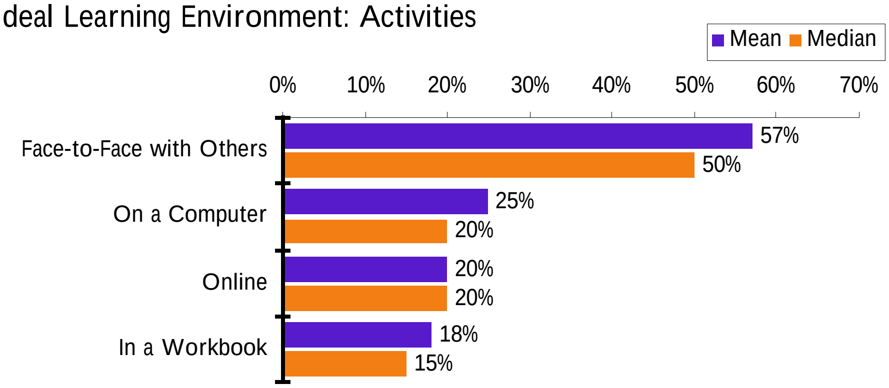
Desired Instructor/Facilitator Traits



Ideal Learning Environment: Time Allocation



Ideal Learning Environment: Activities



Discussion

This study of technology entrepreneurs in Missouri yielded about an 11 percent response rate which is acceptable given that we had no prior experience using the particular database from which the sample was developed, and we do not have a relationship with these specific companies. Therefore, the survey was cold as they say in the advertising business. Just for informational purposes, the expected rate in the social sciences for a cold survey study is ten percent. As such, we have no reason to believe that the findings from this study would vary dramatically using other samples of technology companies.

Some of the most interesting findings include the multiple entrepreneur status of many of the respondents — almost one-half (46 percent) own more than one company. The size (as measured by number of employees) shows that these are small, but growing concerns — an average of 31 employees currently and an expected rate of growth in the next 3-5 years to an average of 42 employees. The size (as measured by annual gross revenues) is also quite interesting. Respondent companies included as many on the low end (less than $100,000) as on the high end ($10 million or greater). Most (56.5 percent) grossed more than $1 million per year.

There appear to be tangible opportunities for the Business Development Program to provide services not only with regard to SBIR/STTR grants but in the areas of management, marketing, and finance. Approximately two-thirds of the respondents wanted to be contacted directly regarding SBIR/STTR.

Similar to other small business owners and entrepreneurs that we have studied this past year, technology entrepreneurs prefer to learn via a blended learning experience that includes face-to-face as well as use of technology. They also want their instructors/facilitators to be content experts and have experience as a business owner.

About Us

BRIDG, a University of Missouri Outreach & Extension group, focuses solely on researching small business and entrepreneurship. Its research lays the foundation for the creation and delivery of quality programming, products, services, and organizational processes specifically developed for small business owners and entrepreneurs to start, operate, and grow their businesses.

For further information or detail, please direct your questions to Dr. Gwen Richtermeyer, Director, BRIDG-UMKC, 4747 Troost, #217, Kansas City, MO 64110, 816-235-6343, richtermeyerg@umkc.edu.

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