

THE ENTREPRENEURIAL EXECUTIVE

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LETTER FROM THE EDITORS

Welcome to the first issue of the *Entrepreneurial Executive*. As you know, the Academy of Entrepreneurship is off to a successful start. We held the first Conference for the Academy in Nassau, last October, and more than 80 people came. The papers in this issue were all award winning papers from the Conference. They represent outstanding work in the discipline and we are extremely pleased to be able to bring them to you.

THE ACADEMY OF ENTREPRENEURSHIP

The AoE is a non profit association of scholars and practitioners in entrepreneurship whose purpose is to encourage and support the advancement of knowledge, understanding and teaching in entrepreneurship throughout the world. The *AEJ* and the *EE* are the principal vehicles for achieving the objectives of the organization. The editorial mission of the *AEJ* is to publish empirical and theoretical manuscripts which advance the entrepreneurship discipline. The editorial mission of the *Entrepreneurial Executive* is to publish manuscripts which advance the practice of entrepreneurship. Both of these journals have been made possible by the Charter Members of the Academy who have generously supported the organization and by the conference participants who attended the first association meeting. We look forward to a long and successful career in publishing articles which will be of value to the many entrepreneurship scholars and practitioners around the world.

As editors of the *EE*, we intend to foster a supportive, mentoring effort on the part of the referees which will result in encouraging and supporting writers. Too often differing views are never heard because of a particular bias of the editors. We welcome different viewpoints because in differences we find learning; in differences we develop understanding; in differences we gain knowledge and in differences we develop the discipline into a more comprehensive, less esoteric, and dynamic metier.

Just as small business is the backbone of the economies of nations, the transmission of knowledge about this field is worthy of the most intensive campaigns for teaching, researching and learning. We embrace this challenge and we intend for the Academy and its journals to become proactive in making the case for the future of entrepreneurship throughout the world. Equally important to our mission is that the people involved will enjoy the process of sharing ideas with each other.

SUBMISSION OF MANUSCRIPTS

We invite direct submissions to both *Journals*. We plan to offer publication priority to members who attend the conference. However, we expect conference papers to consume one or two issues each year. Accordingly, we need direct submissions to maintain a flow of high level manuscripts. The *EE* is interested in publishing practical studies in any area of entrepreneurship, small business, or entrepreneurship education. The sole criterion for acceptance is that the manuscript is of value to entrepreneurship practitioners and educators.

There is no required format for submission. Send four copies of the manuscript to the Editors at the address indicated for the Academy inside the front cover. This is the same address for submission of papers to the conference. All authors of papers published in the *Journals* are expected to be members of the Academy.

THE 1996 CONFERENCE

We invite you to submit manuscripts and to plan to attend the 1996 Conference which is scheduled for October 9 through 12 on the island of Maui in Hawaii! The Conference will be held concurrently with the meetings of the Allied Academy which encompasses in addition to Entrepreneurship: Accounting and Financial Studies, Managerial Communications, Educational Leadership, Marketing Studies, Strategic and Organizational Leadership, and Case Studies. We look forward to receiving your work and to meeting you at the Conference.

Aloha!

JoAnn and Jim Carland

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ARTICLES

BASIC SKILLS DEFICIENCIES IN THE WORKPLACE: DIFFERENCES BETWEEN LARGE AND SMALL BUSINESSES

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Kelli J. Clawson, and Xiaodong Qin
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ABSTRACT

Many employers continue to ignore the proficiency gap in the American workforce. Other employers, however, are taking proactive approaches by investing in their human capital to combat skills deficiencies in the workforce. This article describes the results of a study comparing how large and small businesses are responding to basic skills deficiencies in the workforce.

INTRODUCTION

Numerous "eye-opening" publications have focused attention on the basic skills, or lack thereof, of the American workforce. Jonathan Kozol's *Illiterate America* (1985), the Hudson Institute's *Workforce 2000* (1987), and the United States Department of Labor's and the American Society for Training and Development's *Workplace Basics: Skills Employers Want* (Carnevale, Gainer, & Meltzer, 1989) are just a few notable publications. But why the concern with basic skills in the workplace?

The American workplace of the future will be affected significantly by a dramatic slowdown in the growth of the workforce (especially the entrance of 16-24 year olds). In addition, a majority (88 percent) of all new entrants into the workforce between 1985 and 2000 will be women, minorities, and immigrants--groups with less training, on average, than the nonminority, male population that made up 47 percent of the population in 1985 (Hudson Institute, 1987). With these demographic changes, employers will have to reach into the ranks of the less qualified to hire entry-level employees.

Workforce 2000 (Hudson Institute, 1987) also projects that the majority of new jobs will require some post-secondary education for the first time in history. Only 27 percent of new jobs will fall into low-skill categories, compared to 40 percent in the mid-1980s. Jobs in the middle of the skill distribution will be the least skilled occupations in the future.

BASIC SKILLS IN THE WORKPLACE

The American workplace is constantly changing. Accordingly, employee skills must change. Deficiencies in basic work skills are a major concern. Enhancing basic work skills is a challenge for the school system, government, and business in order to ensure that America's businesses continue to remain a source of competitive strength.

American employers are fortunate that the workforce is one of the finest in the world in terms of the literacy rate. However, there are millions of Americans who are not functionally literate (i.e., they cannot read, write, or think well enough to meet challenging job requirements). Several studies indicate that 65 percent of the American workforce currently reads below a ninth-grade level, while at least 70 percent of workplace reading materials are written for ninth-grade to college levels (Smith, 1995).

The inability of American workers to meet reading, writing, and computational (mathematical) standards required by businesses is fast becoming an economic and competitive issue. Fortunately, the Business Council for Effective Literacy (BCEL), the Coalition for Literacy, the Literacy Volunteers of America, and the United States Department of Education are shedding new light on America's "invisible epidemic"--illiteracy!

What is illiteracy? Illiteracy (or literacy) is a relative term that can only be defined in relation to specific contexts. People who are said to be literate by one standard could be considered illiterate by another. Thus, illiteracy (or literacy) is defined in many different ways, and the statistics on it vary according to the definition. Initially, the terms "functional" illiterates (or literates) and "marginal" illiterates (or literates) were utilized to explain the concept.

It is estimated that 25 million to 27 million American adults (over the age of 17) are "functional" illiterates (Hudson Institute, 1987; Zemke, 1989). Functional illiterates are unable to read, write, perform simple calculations, or solve problems at a level adequate to enable them to cope with simple and fundamental tasks (BCEL, 1987). Each year another 2.3 million functional illiterates age 16 or older join the nation's pool of unemployed. Functional illiterates are estimated to account for 30 percent of unskilled workers, 29 percent of semiskilled workers, and 11 percent of all managers, professionals, and technicians (Hudson Institute, 1987). In addition to functional illiterates, an estimated 45 million to 47 million individuals are borderline or "marginal" illiterates (i.e., being able to function, but not proficiently). Their reading and writing skills need upgrading in order to improve their job performance and everyday functioning.

As you can see from the discussion above, the term "literacy" has had a different concept and definition as society has evolved. Today's widely-accepted definition of literacy includes both functional and marginal literacy. According to the National Literacy Act of

1991, literacy is "an individual's ability to read, write, speak in English, and compute and solve problems at levels of proficiency necessary to function on the job and in society, to achieve one's goal, and develop one's knowledge and potential" (David, 1992, p. 7). Thus, illiteracy would refer to the inability to perform such activities.

Just as the definition of literacy has evolved with the times, so too, have the demands of the workplace. Employers want a new kind of employee with a broad set of skills, or at least a strong foundation in the basics, in order to expedite learning on the job (Carnevale, Gainer, & Meltzer, 1990). Exhibit 1 identifies the skills American employers need. Deficiencies in these basic skills are barriers to entry-level employees, experienced employees, and dislocated employees attempting to adapt to economic and technological change within organizations (Carnevale, Gainer, & Meltzer, 1990).

**EXHIBIT 1
THE SEVEN SKILLS GROUPS**

Learning to Learn
3 R's (Reading, Writing, and Computation)
Communication: Listening and Oral Communication
Creative Thinking/Problem Solving
Self-Esteem/Goal Setting--Motivation/Employability--Career Development
Interpersonal/Negotiation/Teamwork
Organizational Effectiveness/Leadership

Source: Carnevale, Gainer, & Meltzer, *Workplace Basics: The Essential Skills Employers Want*, San Francisco, CA: Jossey-Bass, 1990, p. 2.

CONCERNS FOR BUSINESS

The flexibility of American firms to adapt to changing competitive conditions has been severely jeopardized by the growing disparity between employee skills and job requirements. New technology creates opportunities for economic growth, but demands more sophisticated employee skills. With the addition of at least 2.3 million illiterate adults on the unemployment

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rolls each year, business, labor, and government must be more aware of the increased need for basic skills education and training.

To maintain economic competitiveness, the economy must sustain an annual three percent rate of growth. Achieving that goal will require 25 million workers to improve their skills, climbing, on average, a full point--from 2.6 to 3.6--on the Department of Labor's six-point scale that measures jobs by degree of difficulty (Hudson Institute, 1987).

Business needs to be aware that deficient work skills contribute to low productivity, workplace accidents and injuries, poor product quality, costly errors, and lost management and supervisory time (BCEL, 1987; Gorman, Cannell, & Hallanan, 1988). Illiteracy costs American businesses \$20 billion each year due to absenteeism, workplace accidents, lost profits, lowered productivity, reduced competitiveness, increased remedial training, lost customers, and reduced customer spending (Pilenzo, 1990). In addition, adult illiteracy costs American business and taxpayers \$225 billion annually in lost wages, profits, unrealized tax revenues, prisons, crime, and related social ills (Goddard, 1987; Pack, 1990).

Business must assist by curbing costs absorbed by society. Illiteracy prevents millions of employed workers, including employees at the managerial level, from attaining promotions or advancement to better jobs. Workplace illiteracy also cuts profits because adults who cannot read represent a major loss of customers for products and services.

Employers now face a proficiency gap in the workforce so immense that it threatens the well-being of businesses both large and small. The smaller the firm, the more important workplace literacy becomes, especially since one of five workers has a literacy problem (Kozol, 1985; Fields, Hull, & Sechler, 1987; Hudson Institute, 1987)

Small businesses are important job generators in the United States economy, having created 47 percent of the new jobs between 1973 and 1988 (Epstein, 1994). Further, small businesses and self-employed entrepreneurs provide 56 percent of the nation's private employment and over 47 percent of the total output (Hudson Institute, 1987). Small businesses also hire the majority of young, older, minority, and female employees, groups that will continue to expand in the future. If current trends prevail, disproportionate numbers of these workers will lack the basic work skills required to perform jobs properly, which will have a disproportionate impact on small businesses.

It appears there will be intense competition for experienced and technically-competent employees in the future. Larger firms, typically with more financial resources, will be in a position to outbid smaller firms. Offering relatively lower salaries and less extensive benefits coverage than their larger counterparts, small businesses will be scrambling to compete in a tight market where qualified labor is at a premium (Berney, 1988).

Employees hired by small businesses typically have less formal education than those employed in larger firms. In fact, small firms are more likely than large firms to hire and have to train functional illiterates (Szabo, 1990). A study by the Department of Labor concluded

that in firms with fewer than 500 employees, almost four percent of workers ages 20 to 25 had no more than an eighth-grade education. However, employees in large firms in the same bracket and with that level of education accounted for under one percent of the workforce (Szabo, 1990).

When basic work skills deficiencies influence the bottom line, employers often respond with replacement or training. But, replacement is becoming less realistic as the supply of employees decreases. Employers are often forced to utilize training to make employees more productive instead of hiring productive employees. Appropriately, a growing number of small employers have concluded that their workforces must be well trained if their organizations are to remain competitive and reach higher levels of productivity and service. However, many of these small businesses cannot afford expensive training programs. But they can, and often do, rely on on-the-job training (Szabo, 1994).

JUSTIFICATION FOR RESEARCH

Previous research on basic work skills has focused on the changing nature of the workforce and projecting the future impact of illiteracy on the workplace (Kozol, 1985; Hudson Institute, 1987; Beilinson, 1990; Askov, 1991; Sherman, 1991; Zalman, 1991; Anderson, 1993; Callahan & McCright, 1995). Notable attention has been given to basic skills education programs in large businesses (generally employing more than 500 persons) (Ross, 1986; Fields, Hull, & Sechler, 1987; Berney, 1988; Carnevale, Gainer, & Meltzer, 1989; Goddard, 1989; Zemke, 1989; Lee, 1990; May, 1990; Szabo, 1990; Lamoglia, 1991; Petrini, 1991; Cunniff, 1992; Washburn & Franklin, 1992). Relatively little attention, other than two major research projects (one cited by Carlson, 1992; Franklin, 1993) and a few individual case studies (Saddler, 1988; Szabo, 1990; Petrini, 1991; Sixel, 1991; Carlson, 1992; Washburn & Franklin, 1993), has been given to small businesses.

Research on basic skills and the effect on the workplace has been almost entirely descriptive. However, only a few studies have addressed an important issue: does the size of the organization influence perceptions of applicant/employee basic skills deficiencies, employment procedures, or training programs? The studies that have addressed the issue have dealt with small populations (Washburn & Franklin, 1993; Franklin, 1993). This study was designed to address these issues in a larger population.

RESEARCH METHODOLOGY

The population for this study was Dun & Bradstreet's Information System (D & B System). A random sample was drawn from the nearly seven million businesses listed in the

D & B System. To operationalize large versus small businesses, a cutoff point of 15 employees was utilized. When conducting business research, the upper and lower size limits may be dictated by the subject matter. Since an overwhelming majority of American businesses have fewer than 15 employees (over six million in the D & B System, compared to nearly one million with 15 or more employees), it was determined that the cutoff of 15 employees was appropriate. Thus, the sample frame reflected this fact.

The data were collected through the use of a mail questionnaire. A pilot study was conducted in a rural Texas county (Washburn & Franklin, 1993) and in Texas (Franklin, 1993). Based on the responses and review of other research efforts, the final questionnaire was developed.

The questionnaire was divided into four sections (Sections A, B, C, and D). Section A contained nine questions pertaining to basic employment procedures. Section B consisted of seven questions related to training efforts. Section C was composed of five-point, Likert-scaled statements. Finally, Section D contained organizational and individual demographic questions.

Questionnaires were mailed to the personnel/human resource director in 2,500 businesses. The overall response rate from the mailing was 19.48 percent (486 responses). Of these, 378 (77.8 percent) represented small businesses (less than 15 employees), while 108 (22.2 percent) represented large businesses (15 or more employees). These proportions closely match those of the D & B System. The responding companies represent a diversity of types of businesses (see Table 1).

RESEARCH RESULTS

The perceptions of small and large businesses to basic skills deficiency are described in the research results that follow. Emphasis is given to employment procedures (particularly screening efforts) and training programs.

TABLE 1
RESPONDENTS BY TYPE OF BUSINESS

TYPE	SMALL BUSINESSES n=378		LARGE BUSINESSES n=108	
	Number	%	Number	%
Retail/Wholesale Trade	131	34.7	26	24.3
Manufacturing	37	9.8	16	15.0
Other Services	37	16.2	19	13.8
Agriculture/Fishing/Natural Resources	32	14.0	14	10.1
Finance/Insurance/Real Estate	27	11.8	19	13.8
Utilities/Transportation/Communication	7	3.1	17	12.3
Computer/Data Processing	2	.9	3	2.2
Health Care	2	.9	2	1.4
Government	3	1.3	0	0.0
Mining	0	0.0	3	2.2
Restaurant	8	2.1	5	4.7
Construction	23	6.1	10	9.3
Energy/Gas	4	1.0	0	0.0
Miscellaneous	58	15.3	10	9.3
TOTALS	378	99.9	108	100.0

APPLICANT/EMPLOYEE BASIC SKILLS DEFICIENCIES

Small business respondents (172 or 45.52 percent) indicated that "verbal communications skills" were the number one deficiency of job applicants. On the other hand, large businesses (47 or 43.5 percent) noted that "job specific skills" were most often lacking in applicants. Significant differences existed between the responses of small and large businesses in regard to computer and word processing skills (see Table 2).

Significant differences appeared relative to current employee deficiencies, in the areas of computer, writing, work ethic and math skills. Small employers (96 or 25.4 percent) reported "verbal communication" as most lacking followed by "job specific skills" (93 or 24.6 percent each). Large employers (40 or 37 percent) noted "computer skills" as most lacking, followed by "writing skills" and "job specific skills" (30 or 27.8 each). Significantly more small businesses responded that no skills were lacking in both applicants and current employees ($p < .05$).

TABLE 2
BASIC SKILLS JOB APPLICANTS AND CURRENT EMPLOYEES LACK

Skills	Small Businesses n=378			Large Businesses n=108		
	JOB APPLICANTS	CURRENT EMPLOYEES	JOB APPLICANTS	CURRENT EMPLOYEES	JOB APPLICANTS	CURRENT EMPLOYEES
EMPLOYEES	No.	%	No.	%	No.	%
Verbal Communication	172	45.5	96	25.4	41	38.0
Computer	90	23.8+	89	23.5*	44	40.7+
Writing	126	33.3	68	18.0**	45	41.7
27.8**						30
Job Specific	158	41.8	93	24.6	47	43.5
Math	126	33.3	65	17.2**	38	35.2
26.9**						29
Word Processing	67	17.7**	61	16.1	29	26.9**
23.1						25
Reading	83	22.0	36	9.5	28	25.9
None	20	5.3	88	23.3*	5	4.6
Others:						12
Interpersonal	0	0.0	5	1.3	0	0.0
Work Ethic	2	0.5	0	0.0*	1	0.9
Cross Training	0	0.0	2	0.5	0	0.0
Safety Skills	1	0.3	0	0.0	0	0.0
Professionalism	2	0.5	0	0.0	2	1.9
Experience	1	0.3	0	0.0	0	0.0
Managerial Skills	0	0.0	2	0.5*	0	0.0
Team Skills	2	0.5	1	0.3	0	0.0
Ability to Reason	0	0.0	1	0.3	0	0.0
Other	5	1.3	1	0.3	2	1.9
					1	0.9

SCREENING MECHANISMS

Employers have long seen basic skills competency as a prerequisite for employment. Therefore, employers have focused on measuring the skills of prospective employees and screening out those unsuitable for employment.

Two hundred twenty-five (59.5 percent) of the small businesses reported using an application form for screening purposes. Yet, only 110 (48.9 percent) indicated they required applicants to complete the forms in their facility. On the other side, 100 (92.6 percent) of the large businesses responding use an application form. Fifty-two (48.1 percent) require application forms to be completed in the facility. These findings indicate that large businesses are more likely to use an application form than small businesses (Chi-square 6.56, $p < .01$).

The "ability to read and write" is the number one requirement of small (274 or 72.5 percent) and large (76 or 70.4 percent) employers. Table 3 summarizes the basic or minimal education requirements of respondents.

Requirement	Small Businesses n=378		Large Businesses n=108	
	Number	%	Number	%
Ability to Read and Write	274	72.5	76	70.4
High School Diploma/GED	164	43.4	46	42.6
Some College	40	10.6	15	13.9
College Degree	16	4.2**	9	
8.3**				
Others:				
Depends Upon Position	8	2.1*	7	6.5*
Specific Job-Related Skills	23	6.1	5	4.6
Trade/Vocational School Training	7	1.9	2	1.9
State License	9	2.4	2	1.9
No Requirements	7	1.9	1	0.9
	*	Chi-square $p < .05$	**	Chi-square $p < .10$

Respondents were also asked how they verify educational requirements (see Table 4). Both small (291 or 77.0 percent) and large (82 or 76.0 percent) businesses reported that verification was most often done "during the interview." Still, 49 small employers (13.0 percent) and 16 large employers (14.8 percent) stated they "do not verify" educational requirements. Significantly, large businesses are more likely to require testing than their smaller counterparts ($p < .05$).

TABLE 4
VERIFICATION PROCEDURES FOR EDUCATIONAL REQUIREMENTS

Procedure	Small Businesses n=378		Large Businesses n=108	
	Number	%	Number	%
Verify during Interview	291	77.0	82	76.0
Require Testing	33	8.7*	18	16.7*
Require Copy of Diploma	48	12.7*	11	10.2*
Do Not Verify	49	13.0	16	14.8
Others:				
Verify During Training	7	1.9	1	1.9
Copy of License	6	1.6	0	0.0
Checking Application Form	7	1.9**	6	5.6**
Call School/College	3	0.8	1	0.9
Check References	18	4.8	2	1.9
Sample of Past Work	1	0.3	0	0.0
Other	5	1.3	2	1.9

* Chi-square $p < .05$ ** Chi-square $p < .10$

What type of pre-employment testing is most often utilized? Reading skills testing is the most utilized pre-employment testing procedure (see Table 5). Large businesses are more likely than small ones to engage in drug/alcohol testing ($p < .05$) and in writing tests ($p < .10$).

TABLE 5
TESTING PROCEDURES

Applicants tested for	Small Businesses (378)		Large Businesses (108)	
	Number	%	Number	%
Drugs/Alcohol	37	9.8*	20	18.5*
Reading Skills	69	18.3	24	22.2
Math Skills	58	15.3	14	13.0
Writing Skills	58	15.3**	24	22.2**

* Chi-square $p < .05$ ** Chi-square $p < .10$

POSITIONS AVAILABLE FOR INDIVIDUALS WITH BASIC SKILLS DEFICIENCIES

One hundred eighty-six (49.2 percent) small businesses and 41 (38.0 percent) large businesses responded there are "no positions available in the organization for individuals who lack basic skills." Thus, 187 (49.5 percent) small employers and 66 (61.1 percent) large employers indicated that their organizations might have positions available for individuals deficient in basic skills.

Why would you employ persons who lack basic skills? Interestingly, 153 (40.5 percent) small employers and 38 (35.2 percent) large employers said they "would not employ persons who lack basic skills" (see Table 6). Therefore, it appears that 225 (59.5 percent) small employers and 70 (64.8 percent) large employers might employ persons who lack basic skills. Of these, both small (132 or 34.9 percent) and large (48 or 44.4 percent) businesses cited "to give individual an opportunity" as the primary reason for employing those who lack basic skills.

TRAINING PROGRAMS

Ninety-three small businesses (24.6 percent) offer basic skills training. On the other side, 44 (40.7 percent) of the large businesses reported they offer basic skills training. The resulting Chi-square statistic was 10.81 (p value $< .01$). Thus, large businesses appear to offer basic skills training more than small businesses (see Table 7).

TABLE 6
REASONS FOR EMPLOYING INDIVIDUALS LACKING BASIC SKILLS

Reason	Small Businesses (378)		Large Businesses (108)	
	Number	%	Number	%
Skills Not Needed for Job	99	26.2*	42	38.9*
Give Individual an Opportunity	132	34.9	48	44.4
Skilled Workers Not Available	19	5.0	8	7.4
Would Not Employ Persons Who Lack Basic Skills	153	40.5	38	35.2
Others:				
Can Train	9	2.4	2	1.9
To Cut Costs	5	1.3	0	0.0
Other	8	2.1	3	2.8

* Chi-square $p < .05$

TABLE 7
TYPES OF BASIC SKILLS TRAINING

Type	Small Businesses (93)		Large Businesses (44)	
	Number	%	Number	%
Job Specific Skills	67	72.0	35	79.5
Computer Skills	26	28.0	17	38.6
Word Processing Skills	12	12.9**	11	
25.0**				
Writing Skills	6	6.5	2	4.5
Verbal Communication Skills	20	21.5	7	15.9
Math Skills	7	7.5	2	4.5
Reading Skills	3	3.2	0	0.0
English (Second Language) Skills	3	3.2	0	0.0
Managerial Skills	3	3.2	2	4.5
Other	6	6.5	1	2.3

** Chi-square $p < .10$

The methods used for basic skills training were then addressed (refer to Table 8). Specifically, respondents were asked what sources are used to develop and implement basic skills training programs.

TABLE 8
BASIC SKILLS TRAINING METHODS

Method	Small Businesses (93)		Large Businesses (44)	
	Number	%	Number	%
In-House Staff	74	79.6	36	81.8
Outside Consultants	15	16.1	3	6.8
Community Colleges/ Universities	12	12.9	5	11.4
Partnerships	4	4.3	3	6.8
Community Education	2	2.2	0	0.0
Trade Schools	21	22.6	6	13.6
Volunteer Tutors	2	2.2	1	2.3
Computers/Videos	12	12.9+	14	31.8+
Traditional Classroom	2	2.2**	4	
9.1**				
Workshops/Seminars	4	4.3	3	6.8

** Chi-square p < .10 + Chi-square p < .01

MONETARY SUPPORT FOR TRAINING

Ninety-one (24.1 percent) small employers and 43 (39.8 percent) large employers offer tuition assistance for training purposes (Chi-square 11.77, p value < .01). Thus, large employers are more likely to offer tuition assistance for training purposes. Of the 91 small businesses offering tuition assistance, 23 (25.3 percent) cover remedial or basic skills training. On the other side, 9 (20.9 percent) of the 43 large employers cover remedial or basic skills training.

Finally, 42 (11.1 percent) of the small employers reported they work with public programs such as publicly subsidized, on-the-job training, welfare department sponsored classroom training, the Job Training Partnership Act, etc. At the same time, 21 (19.4 percent) of the large businesses indicated involvement with such programs. The Chi-square statistic

was 5.37 (p value < .10). Ultimately, large employers are more likely to work with public programs than small employers.

SIGNIFICANT FINDINGS

Small employers perceived verbal communication skills to be most lacking in job applicants, while large employers perceived job-specific skills to be the primary deficiency. In regard to current employees, small employers reported verbal communication skills most lacking. Large employers, on the other hand, cited computer skills.

Screening procedures that enable qualified applicants to be identified should be of benefit to small businesses. Yet, almost all large businesses reported using an application form for screening purposes, while only a little more than half of the small businesses reported doing so. As expected, significantly more large employers require the application form to be completed on-site.

The ability to read and write and having the equivalency of a high school diploma are the top two education requirements for small and large businesses. Both small and large employers indicate that verification of educational requirements is most often done during the interview.

Testing for reading skills is the most utilized testing procedure for both small and large employers. However, significantly more large employers test for drugs and/or alcohol.

Both small and large employers reported they would hire workers who lacked basic skills, primarily "to give the individual an opportunity." Significantly fewer small employers offer basic skills training or tuition assistance. Yet, significantly more large businesses use computers, videos, and classroom settings to train employees.

CONCLUSION

There is no way in which the United States can maintain the health of its economy, fend off the competition, improve productivity, and in general, maintain its standard of living unless we substantially increase the skills of the workforce, says Forrest Chisman, project director of the Southport Institute for Policy Analysis, in a 1989 study (Reiss, 1990). Consequently, improving basic work skills is a responsibility of the school system, government, and business, even small business, in order to ensure the competitive strength of American businesses.

Small employers can assist in maintaining the competitive strength of American businesses by improving the basic work skills of their employees. For instance, small employers can lobby to increase attention to the importance of a literate small business

workforce. Subsequently, small employers can direct basic skills concerns by becoming more involved in local school systems by encouraging business-education basic skills partnerships. In addition, small businesses should identify existing local and state adult literacy resources they can utilize. Also, successful basic skills programs in other smaller organizations should be identified and used as models if necessary. Ultimately, small employers must work to improve public education in order to prevent future basic skills deficiencies in American workers.

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TECHNOLOGY MATURATION: THE MISSING ELEMENT IN THE DEVELOPMENT OF HIGH-TECH ENTREPRENEURSHIP

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ABSTRACT

The twenty-first century is very likely to dawn with a global explosion of technology driven entrepreneurial companies. Large established organizations are attempting to emulate the behaviors of their highly adaptive and rapidly responding entrepreneurial competitors. The past decade has witnessed the transformation of organizational structures through re-engineering and advanced informational technologies.

INTRODUCTION

Information technology has served to both expand the role of organizational personnel through the capability to decentralize decision making and link together producer and consumer. While traditional concepts of business and management continue to evolve and adapt to the conception of superior technological tools, the wellspring of these changes has yet to be understood or harnessed. The ultimate economic success of a nation, corporation or institution in the next millennium will be heavily influenced by its ability to convert technological breakthroughs into commercialized products in an efficient and timely manner. Currently, there is a significant "bottle neck" in the process. Recent changes in the patent laws now strongly reinforce the need to compress the time between initial creativity and market introduction.

The suggested solutions to the present inefficient process are based on the authors' experiences in the existing process. Figure 1 represents a three phase model of the process. Phase I involves the basic generation of original ideas. The focus is on creativity and innovation that results in the achievement of a patent. Under international law the patent is a recognized form of protection for the creator of the original work. In recent years there has been a great deal of dispute regarding the degree of protection provided by the ownership of a patent, trademark or copywrite. However, the risk associated with failing to acquire legally recognizable ownership of the technology is generally considered greater than the risk of having the patent infringed upon by others. The popularity of having the product of your

creativity patented has not diminished in recent years. From 1977 to 1994, the U.S. patent office issued 851,396 patents to U.S. citizens (both individuals and corporations). The greatest concern does not lie in a lack of initial creativity, whether it be from the corporate R&D labs or the basements and garages, of individual inventors. The flow of new and original ideas has traditionally been a hallmark of our economic system. Phase I of the model depicted in Figure 1 represents activities which have been address by experts for decades. Phase III of the model, the commercialization phase, is the heart of entrepreneurship. New product introduction and the market place combat associated with these activities has also been detailed at great length.

FIGURE 1		
Phase I	Phase II	Phase III
R&D Creativity and Generation of the New/Original Idea Big "R" and Little "d"	Technology Maturation Big "D"	Commercialization Of the Technology

This paper prefers to address the technology maturation phase of the process, (Phase II). It is the author's contention that it is the lack of attention to this segment of the process that has reduced the effectiveness of the process. Patents, which we will use as an operational surrogate for innovation and creativity, are being underutilized in the United States economy. Changes in government laws and regulations have resulted in the encouragement of federally funded research laboratories to become actively involved in technology transfer. Colleges and universities, hard pressed to cope with rising cost, have become increasingly interested in the commercial value of the research output of their faculty. A question whose answer might be very revealing is how many patents produced by researchers in federally funded laboratories and universities faculty have never been pursued toward commercialization. For both groups of scientists and engineers, the patent was the culmination of the intellectual process. The academic papers presented and the research finding published, the researcher returns to the search for new knowledge. There has seldom been a reward for taking the patent through a process of maturation that would result in a potentially profitable product. To the contrary, researchers are rewarded for, and personally challenged by, the discovery of new knowledge.

Our society has excelled at the production of new knowledge and the commercialization of some technology through a growing entrepreneurial revolution. Enhanced economic growth can be accomplished if the bottleneck problem of technology maturation is solved. Figure 2 represents a suggestion for increasing the success rate for technology commercialization.

FIGURE 2

History has demonstrated that the creators of much of our best new knowledge are not motivated to invest their time and careers in the maturing and commercialization of their patents, thus supplementing the maturation process becomes necessary. What is proposed is the creation of a variety of strategic alliances that will involve participants with a vested interest in the ultimate successful commercialization of new knowledge. In phase II the patent is taken from the "proof of concept" stage through a series of investigations as to its various potential uses, as well as the economic feasibility of the commercial product. The maturation phase may result in the discovery of a wide variety of alternative uses and subsequently, the filing of additional patent applications. The complexity of today's technology manifests itself in the highly interrelated nature of science where a discovery in one discipline often produce a "chain reaction" of solutions to unsolved or frustrating problems in other scientific disciplines. Clearly, it is inappropriate to view new knowledge in the limited arena in which it is first introduced. A review of technological developments over the past two decades would highlight that new knowledge permeates multiple product improvements and is dispersed throughout the economy. If in the maturation stage an open systems environment is achieved through the introduction of numerous researchers from various disciplines, the probability of achieving economically successful commercial products will increase. Figure 3 is an attempt to visualize the transition of the technology maturation team whose composition varies throughout the process.

FIGURE 3

From the beginning of this process there is a need for individuals who represent a strong linkage with the needs of the market. At the initial transfer of the new knowledge from Stage I to the maturation stage there is likely a stronger need for individual contributors who possess a detailed knowledge of the theoretical development of the new knowledge. The role of these individuals, depending on the nature of the specific new knowledge, will be to develop a superior working model of the concept for the purpose of illustrating the "proof of concept". One primary reason for the failure to commercialize many theoretical new breakthroughs is the inability of those whose knowledge, expertise, and skills lie in commercialization to grasp the basic theoretical concept. Early in the maturation stage this activity will serve to make tangible the knowledge which is represented in the discovery of stage I. Historically, there has been little or no reward for the creator of the new knowledge to engage in these activities beyond a crude verification that his/her theory or concept was new, original, and of some value. For researchers in universities and high level government laboratories, the papers were published, recognition received, and a prompt return to the next theoretical challenge. With the exception of those researchers who did possess an entrepreneurial drive, much of the real value of their work may never have been realized in the market.

TECHNOLOGY MATURATION ORGANIZATIONAL STRUCTURE

In a period where outsourcing has become a dominant strategy as corporations attempt to concentrate their resources in areas of distinctive or core competencies, the technology maturation concept is highly compatible. Corporate investor teams would select maturation projects compatible with core technological competencies and markets which these core competencies can successfully serve.

Universities' participation will be based on either, or both, their faculties creation of the original new knowledge and their strength in the specific discipline (i.e., core technological competency). Universities are well aware of the potential for earning substantial royalties on patented technology when commercialization is successful. Few universities have established the infrastructure to support maturation to the point of commercialization, or seem to be willing to invest the funds to support the maturation process. All want the prize, but few seem to possess the stomach for the risk involved. Through the technology maturation team, the university can contribute faculty and staff in lieu of cash. In this way the university has an opportunity to leverage their intellectual properties to earn a respectable return.

Government laboratory director's rewards would come in the form of recognition of the contributions of the scientist and correspondingly increase funding. In an era of strict accountability, a series of highly successful commercialized products which result in the creation of jobs and other measurable economic value will become increasingly critical.

The most valuable aspect of the technology maturation team process is how it modifies the probability of success at each decision step in the process. Any single entrepreneur, company or university, no matter how competent, will not likely possess the total array of skilled resources that are needed at each specific decision point in the maturation process. As an example, government labs and university faculty have little experience in successful evaluation of the competitive environment in which a new product would be marketed; little knowledge of manufacturing process; and likely no existing distributor system: Correspondingly, many companies with exceptional competencies in manufacturing and distribution lack staff who are competent to evaluate or develop next generation technologies.

The technology maturation process is comprised of a series of critical decisions. Each of these decisions impact the probability of the project success. All parties to the project benefit from the specific expertise of the team's membership when such expertise increases the probability of success and correspondingly reduces the project's risk of failure. Joint ventures or strategic alliances succeed when the members enhance the probability of project success and reduce the risk of failure.

FIGURE 4**IS IT NOW TIME FOR A NATIONAL RESEARCH INVESTMENT POLICY?**

In an era of lack of trust in national government, would it be possible to gain the support of Congress and the Executive branch of government to support an investment program in the maturation of technology? Such a program would have its precedent in the growing number of corporate strategic alliances that are linking together commerce and finance across the globe. Possibly the question should be posed another way. Can we afford to allow our economic rivals to dominate major sectors of our economy, because they have been willing to invest in maturing and commercializing the knowledge that was developed and patented by U.S. citizens, corporations, and, in many instances, government laboratories? One of the deep-rooted problems has been the lack of attention drawn to the relationship between basic research, development and maturation of technology, and the multitude of commercialized products and processes which evolve from a single element of new knowledge. The linkage between the process of creativity, innovation, technology maturation, commercialization and economic growth and individual economic well-being has not made sufficiently to arouse a demand that tax revenues be invested in our economic future. In the

1950s, the U.S. government invested heavily in a highway infrastructure system because it knew such an investment would facilitate trade and generate economic growth.

It is now time for industry and academics to come together to demonstrate that the economic future of our country in the twenty-first century can be shaped by those who master the skills of technology transfer. For too long technology transfer has been viewed as the left-handed, red-headed step-child in our economic system. It has never been perceived as the critical force in the development of the next generation of products and processes. The evolution of technology oriented products and processes was assumed to be Darwinian in nature, where what survived was that for which we should be thankful. Consider the impact on our economic system if a strategic alliance of industry, academics, government scientists, and venture capitalists came together with the objective of improving the effectiveness of the technology maturation phase of the process. This, in no way, would replace the proprietary research and development efforts of corporations. This effort would be focused on the breakthroughs from government laboratories, universities and individuals who lack the resources to commercialize their new technologies. Firms with a proven core-competency of technological innovation, maturation and commercialization would be voluntarily drawn together on a project-by-project basis. This expertise would be blended with those of universities and governmental scientist and engineers. The specific staffing of a project would be determined based on the exact nature of the technology and the evolution of the maturation process.

Many practical issues would need to be addressed up-front. What would be the financial reward if commercialization is successful? Who will bear the expenses if the project is a failure? The role of each participant is critical to the success of the project. Consequently, success should result in a tangible and significant financial reward. Such financial rewards will be the lubricant for the continued flow of new projects. The exact calculation that equitably satisfies all participants can surely be negotiated among those who recognize the merit of the project. Risk/reward calculations have been negotiated in joint ventures for centuries.

For projects which involve individual researchers and not corporate or university ownership of patents, the venture capital community may play a critical role. Technology maturation projects would provide a fertile ground for venture capitalists with vision and courage. The structure of the maturation project will, in effect, serve to reduce the risk associated with early stage investments. When breakthroughs in technology are achieved by individuals and not corporate, university, or government laboratories, there is seldom a maturation infrastructure available to assist the individual researchers through the long and costly process of proving the worth of their new knowledge. Typically venture capitalists are not "early stage" investors. Venture capitalists will normally begin to invest when the technology has been identified to have strong potential in a well defined commercial setting. In effect, the earliest most venture capitalists are willing to invest is the latter stages of the

maturation process. If the maturation process could be made more attractive through a structured environment with a committed staff of professionals with adequate diversity of technical skills and housed in facilities equipped to conduct the work required, their investments may come forth earlier in the maturation process. Successful maturation and commercialization will be achieved when there is a commitment to the project manifested in a blend of people, infrastructure and investment capital.

CONCLUSION

The economic impact of our nation's undeveloped new technology is a hidden cost. An attempt at calculation of this cost might be found in the cost of imported technology based products whose original patents were filed by United States citizens and corporations. The United States has had, and continues to have, a powerful track record in basic research. If there is a recognized "Achilles heel" it is the lack of understanding of the process by which new knowledge is materialized into potential commercial products. Some global competitors have excelled at this process and, as a result, have taken many patented ideas and have successfully taken them to market. Markets that today they dominate on a global scale.

A part of the solution to increase the number and quality of commercialized products and processes, and to gain "first-mover" advantage and momentum in global markets, is to create strategic alliances among universities, government research laboratories, industry, and where needed, the venture capital community. The focus of these strategic alliances will be to evaluate new knowledge, to conduct an assessment of its possible potential commercial uses, and then to pull resources in the form of a technology maturation team. The composition of the maturation team is itself dynamic, being comprised of the specific type of talent needed during the process. Commercialization of the technology will be the source of revenue to repay the initial creator of the new knowledge, as well as the institutional members of the strategic alliance. Technology maturation will hopefully assist many high-tech entrepreneurs in making their dreams of the creation of a successful product become reality.

UNDERSTANDING THE EDUCATIONAL NEEDS OF SMALL BUSINESS OWNERS

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ABSTRACT

Recently, a growing competitive environment has heightened the importance of the relationship between the university and the small business community. However, the perceived value of that relationship to small business owners and academe has been unclear. The purpose of the present study was to explore how universities might better satisfy the educational needs of small businesses. More specifically, it examines the importance placed on various small business functions and the previous training received in these functional areas. In order to reach the aforementioned objectives, sixty small business owners participated in a telephone survey. Results indicated that small business owners place the greatest importance on the functional areas of finance and accounting, management, and marketing. Additionally, strategic and long range planning was considered to be important to the success of small businesses. Implications for initiating a client needs based small business educational program and directions for future research are discussed.

INTRODUCTION

In today's competitive market environment running a small business professionally isn't just a good idea, it's a requirement for survival (Ehrenfeld, 1995). While small businesses account for 97% of U.S. enterprises and 58% of the workforce (Keats and Bracker, 1988), many are struggling to transform themselves in the face of their larger competitors (Ehrenfeld, 1995). In an effort to strengthen themselves against growing competition, small business owners look to a variety of sources. One important source of professional training for small businesses is colleges and universities. However, in a study conducted by the National Federation of Independent Businesses, small business owners ranked college or university teachers last on a list of five potential sources of management advice, in terms of trusting their advice to be helpful (Jagemann, 1990). The purpose of the present research was to examine the reported needs of small business owners, and to use that information to help determine how a regional university in a metropolitan setting might best meet the needs of current business owners and train students who are preparing for the small business workforce and

ownership. This paper suggests that the development of a client based small business education program can enhance the perceived and real effectiveness of such programs.

SMALL BUSINESS SUCCESS AND FAILURE

In the U.S., it has been reported that 734,000 new companies were created in 1992, while 137,000 were taken over by existing businesses and more than 800,000 discontinued operations (The State of Small Business, 1993). Additionally, small business has created almost all new jobs in the U.S. from 1989 - 1990 (Kirchhoff, 1994). Because of the critical nature of small business to the U.S. economy, it is important to better understand what has led to success and failure in the small enterprise. A corresponding body of literature has emerged and examined success and failure in the small enterprise (Gaskill, Van Auken, and Manning, 1993). While the literature in this area has been diverse, the studies have revealed some strikingly similar conclusions.

The first commonality is that small businesses are not just "miniature versions of large businesses" but are unique entities and there is merit in examining performance, success, and failure in small firms separately from their larger counterparts (Keats and Bracker, 1988; Robinson and Pearce, 1984). Second, small firm performance has been linked to a number of individual and firm characteristics. Many of these characteristics are areas which are commonly part of university training programs for small business. For example, Keats and Bracker (1988) suggested that small firm performance is influenced by six constructs:

1. *Entrepreneurial intensity*: entrepreneurial characteristics and behaviors which differentiate entrepreneurs from other individuals;
2. *Task motivation*: intensity of motivation to attain goals;
3. *Perceived strength of environmental influences*: strategic choices in response to the relevant environment;
4. *Behavioral strategic sophistication*: acquisition and implementation of strategic management tools and practices;
5. *Cognitive strategic sophistication*: comprehension and integration of strategic management practices; and,
6. *Task environment factors*: structure of the relevant industry.

While a limited number of business schools offer insight and instruction geared toward the development of the entrepreneurial attributes identified in the first two of the six

characteristics, virtually all university business schools train students in the basics of strategic management and environmental monitoring (the last four of the six concepts).

Larson and Clute (1979) identified several characteristics shared by failed firms, including managerial deficiencies and lack of financial planning and analysis. Peterson, Kozmetsky, and Ridgeway (1983) found similar results when they asked existing firms why others businesses had failed. Their survey found lack of management expertise and financial-related factors to be the most cited reasons for firm failure. And, in a summary of research on small business failures, Haswell and Holmes (1989) reported managerial inadequacy, incompetence, inefficiency, and inexperience to be the consistent theme explaining small business failure. Based on the results of a study of small businesses in Alaska and Wyoming, Wichman (1983) concluded that for the small businesses he examined, "success and failure are on opposite sides of the same coin: management ability."

In light of the previously discussed findings, management education has been repeatedly cited as an effective way of providing small businesses with the management expertise they require for success and survival (Reid, 1987). Unfortunately, many small business leaders are reluctant to utilize the programs available to them at their local university and often argue that academics can not effectively offer the management help and insight they need (Krause, 1990).

SMALL BUSINESS EDUCATION

During the past decade, small business and entrepreneurship courses and/or programs have increased in higher education (Marchigiano - Monroy, 1992). Universities typically serve three audiences with their small business and entrepreneurship programs: 1) small business people, including those just starting businesses and those involved in ongoing concerns; 2) advisors, such as bankers and CPA's; and, 3) conventional students (Zeithaml and Rice, 1987). The needs of these groups are typically met through traditional (classroom) and nontraditional (telecommunication, etc.) collegiate education courses, campus programs such as a Small Business Administration sponsored Small Business Development Center (SBDC) and/or a Small Business Institute (SBI) student consulting program, and through small business and entrepreneurship scholarly research.

However, before participation in these university programs can take place, three circumstances must exist. First, potential participants must recognize a need which can be fulfilled by educational programs or courses; second, they must know that these programs or courses exist; and third, such programs must match potential users' needs in terms of content, availability, and convenience (Reid, 1987). Developing programs to meet the needs of the three user groups requires a better understanding of their perceived needs.

CLIENT NEEDS BASED MODEL FOR SMALL BUSINESS EDUCATION

In an attempt to provide insight into a descriptive national model of entrepreneurship education, Marchigiano-Monroy (1993) argued that "any attempts at structuring or restructuring the product offerings of entrepreneurship education must have, as a primary target, client need fulfillment "(p.17). The present research has taken a "client needs" approach to the question of how regional universities can best meet the needs of small business owners. However, this research does not attempt to address all users of small business education. Instead, the present study will offer initial insight into the needs of small business owners. In order to fully address the question initiated by this research, future studies will address the needs of other small business education users such as students and advisors.

METHODOLOGY

A random sample of 60 businesses was selected for the present study. Small businesses included in the sampling frame were operationally defined as having employed 50 people or fewer. One hundred and eighty phone calls were made in a large metropolitan area, yielding a 30 percent response rate.

The demographic profile of the 60 small businesses was as follows: the average number of years the businesses had been in operation was 16.93; the average number of people employed in each business was 12.78; 84.2% of the businesses reported that they provide a service to customers while 15.8% percent indicated they manufacture a product; and almost 75% percent of the businesses were family owned and operated.

The demographic profile of those individuals responding to the survey was as follows: the average number of years the respondents had been employed was 8.87 with nearly half having some college, trade school or an associates degree; 15.5% of the sample possessed a graduate degree and over half of the respondents described their position as owner and president of the small business.

The survey instrument consisted of 3 broad sections including a total of 50 items. The first section pertained to the importance of the various business functions and whether or not the respondents had received training in this area. The traditional functions measured included marketing, production, finance and accounting, management, strategic or long range planning. A section concerning family ownership issues was also included in this portion of the survey. Each section contained a series of sub-items. For example, the marketing section included the sub-items addressing promotion and advertising, marketing research, product development, pricing, distribution planning, personal selling and store planning. Respondents were asked to indicate how important training is to the success of their business for each sub-item using a 1 to 5 point scale where 1 meant "extremely unimportant" and 5 meant

"extremely important". In addition, respondents were asked whether or not they had received training in each area.

The business function section also included two items designed to assess the relative importance of the broader business functions. The first of these two questions asked respondents to rank-order the business functions where a ranking of 1 indicated the most important to the success of your business and a ranking of 2 would mean the next most important and so on. In the second question, respondents were instructed to indicate the percentage of annual budget allocated to each of the broader business functions. Again, these additional questions were meant to approximate the relative importance assigned to each business function.

The second broad section of the survey instrument contained a series of questions regarding the programs offered by the SBDC (Small Business Development Center). Respondents were asked questions concerning their awareness of the SBDC, the importance attached to the various services offered through the SBDC, and the importance of a number of workshops currently offered by the SBDC. The last section of the survey consisted of demographic information on both the organization (e.g., number of years in operation) and the individual (e.g., education level) responding to the survey.

RESULTS

Analyses of the data were conducted in several phases. In the first phase of analysis, descriptive statistics were calculated for the importance respondents place on the various business functions and the amount of training that they have received in these areas. The analysis of the data (see Table 1) revealed that respondents believe the broad functional areas of finance and accounting (grand mean of 3.76 on a scale of 1 to 5 where 1 is extremely unimportant and 5 is extremely important), management (3.69) and marketing (3.45) to be the most critical areas.

When assessing the importance of the individual sub-items of each functional area, it should be noted that working capital management, financial planning and budgeting, accounting and taxes, personal selling, pricing, and general management all received relatively high importance ratings (see Table 1). Although the broad area of strategic planning was rated fourth in importance, two sub-items, monitoring industry trends and monitoring the competition were rated as highly important. Store planning and design, product assembly activity and pension management were believed to be the least important areas for training.

In addition to investigating the perceived importance of the functional areas, respondents were asked to indicate whether or not they had received training in each area. As shown in Table 1, over half of the respondents had received training in the following areas: general management and organizational work; information technology; accounting and taxes;

and financial planning. Although respondents placed a great deal of importance on pricing and personal selling in the marketing area, only a third of them had received any formal training. Likewise only 36% of the respondents had received training in working capital management, even though it was given a high importance rating of 4.36.

Next, respondents were asked to rank-order the functional areas with respect to their importance. As with the previous findings, management (mean ranking of 2.54 where 1 is most important to the success of your business), marketing, and finance and accounting were ranked the most important. These findings are consistent with the previous items exploring the importance of training and reinforce the critical nature of these three areas. Respondents were then instructed to estimate the percentage of budget spent on the various business functions. Again management and marketing represented relatively high proportions of the annual budget (20.5% and 19.2%, respectively). Surprisingly, the respondents estimated the highest percentage to production costs (25%). This finding is somewhat difficult to interpret given the large percentage of organizations that classified themselves as services.

The next portion of the research explored the awareness and perceived importance of the services offered by the SBDC. Nearly seventy percent (67.8%) of the respondents were aware of the SBDC. When asked about the importance of the services provided by the SBDC, respondents stated that workshops, small business consulting and answering questions were all moderately important (respective means of 3.88, 3.76 and 3.76 on a scale of 1 to 5 where 1 is extremely unimportant and 5 is extremely important). In an open-ended question, government programs, where to go for information, and more financial and accounting information were among those services that respondents would like to see provided by the SBDC. Finally, and consistent with the previous findings in the present study, respondents believed workshops provided by the SBDC in accounting (mean of 4.04 on a scale of 1 to 5 where 1 is extremely unimportant and 5 is extremely important) and marketing (3.93) to be the most important to their success as a small business owner.

The second phase of data analysis examined potential differences based on several organizational and respondent demographics. Education proved to be the only demographic variable where significant differences emerged. Because of the limited sample, respondents were classified into two groups: those with some high school or college education and those with a bachelor's degree or higher. T-tests were conducted to explore differences in the perceived importance of the business functional areas. As expected, the higher educated group attached less importance to training, information on compliance with government regulations and information technology. The higher educated group presumably felt better prepared in these areas than their less formally educated counterparts.

TABLE 1		
Importance of Business Functions and Percent Who Have Received Training		
	Mean Rating*	% Trained
Marketing	3.45	
Promotion and Advertising	3.89	45.6
Marketing Research	3.43	31.6
Product Development	3.11	24.6
Pricing Planning	4.05	33.9
Distribution Planning	3.25	22.8
Personal Selling	4.18	36.2
Store Planning & Design	2.23	14.0
Production	3.09	
Production Planning & Management	3.25	39.6
Inventory Purchasing & Control	3.46	33.3
Product Assembly Activity	2.56	11.3
Finance and Accounting	3.76	
Working Capital Management	4.31	36.4
Financial Planning & Budgeting	4.34	50.0
Accounting & Taxes	4.37	57.9
Raising Funds & Banking	3.60	12.3
Capital Expenditure & Lease Analysis	3.31	10.5
Insurance & Risk Management	3.56	15.5
Pension Management	2.85	12.1
Management	3.69	
General Management & Organization Work	4.02	58.9
Training	3.75	43.6
Personnel and Employee Relations	3.72	37.5
Employee benefits	3.10	23.2
Compliance with Government Regulation	3.86	25.0

Strategic or Long Range Planning	3.38	
Monitoring the Competition	4.00	29.8
Monitoring Industry Trends	4.13	28.1
Monitoring Legal/Political Issues	3.32	21.1
Expanding into International Markets	1.89	5.4
Information Technology	3.75	57.9
Writing Strategic Plans	3.21	36.8
Family Ownership Issues	3.07	
Family Dynamics	3.16	12.0
Family Conflict	3.07	14.0
Succession and Planning	2.98	10.3
* <i>Mean importance rating based on a scale from 1 to 5 where 1 is 'extremely unimportant' and 5 is 'extremely important'</i>		

DISCUSSION

This research represents a needs assessment of small business owner's business educational experiences and needs. It was not intended for generalization beyond the geographic area from which the sample was taken. The results of the present study, while not unexpected, represent an initial attempt to gather information to develop client needs based programs that are ultimately market driven. Certainly, the services provided by the university to small business owners can be enhanced with better insight into their perceptions of business skills needed to be successful.

In addition to providing educators with a better understanding of the needs of current small business owners, the results of this research are being used in the development of a junior level course entitled New Venture Management. The course is designed to introduce students to entrepreneurship and to the management of a small enterprise. The constraints of a semester (15 weeks) time frame and the wide variety of topics important to small business start-up and management make the development of this course particularly difficult. One of the primary questions is where to place emphasis and how to get the most important topics covered within the time limitations. As such, input from small business owners on their perceived needs in major business education areas could be helpful in deciding on important topics for course instruction.

The three areas which respondents identified as most important to the success of their businesses were: 1) finance and accounting; 2) management; and, 3) marketing. These

findings were similar to those found to be most important by Hess (1987). These are also the areas Hess (1987) found most frequently covered by small business management texts.

One area not considered in the study conducted by Hess (1987) was strategic and long range planning. In a review of the literature which examined strategic planning efforts in small business, Robinson and Pearce (1984) found that strategic planning is critical to the small firm in terms of performance and survival. However, many small firms do not employ strategic planning because they lack the expertise. Perhaps this lack of expertise can be traced to the fact that many small business texts and courses do not include strategy as a topic.

As an overall business functional area, strategic and long range planning rated fourth in terms of importance. However, all of the sub-items rated above average with the exception of 'expanding into international markets' which received only a 1.89 rating on a 5 point scale. The lack of interest in global expansion could be related to sample selection bias. Only firms with 50 or less employees were chosen for the sample. The smallest of firms may be less likely to have growth goals and potential for international expansion in the near future. Therefore, the small size of these firms may have lowered the importance rating for this item. Removing 'expanding into international markets' from this category enhances the grand mean of this business functional area, making it more important to the respondents than marketing.

Interestingly, two sub-items included in the strategic and long range planning section were perceived among the most important areas. 'Monitoring industry trends' (mean of 4.13) was considered the 6th most important sub-item and 'monitoring competition' (mean of 4.00), the 9th most important. Based on these findings strategic and long range planning should be included in the course with specific attention to industry and competitive analysis.

Despite the fact that only 15% of the respondents described their businesses as manufacturing, production rated average in terms of importance. These findings may be artificially inflated because the sub-item 'inventory planning and control' could be important for both retail and manufacturing firms. Further research in this area needs to be conducted in order to decide how much attention these topics should receive in a small business management course.

Seventy-five percent of the respondents described their businesses as family owned and operated. Yet, 'family ownership issues' was considered the least important area for success. However, 'family dynamics' and 'family conflict' were considered above average in importance. One explanation for these findings is that many business owners may believe these are issues which can be dealt with on a personal level without formal training. In particular, the area of 'succession and planning', which received a low rating (mean of 2.98) is one often avoided by small business owners. Respondents also may not be aware of the availability of training and support in these areas. Additional research is needed to determine how much attention these areas deserve in a small business class.

FUTURE RESEARCH

This research represents an exploratory examination into the question of how a regional university can best meet the needs of small business education users. In order to more fully address the questions associated with designing client based small business education courses and programs at a regional university, additional research needs to be conducted. The needs of all three client groups served by these programs must to be examined. This research examined only small business owners as small business education users. Additional studies should also focus on two additional groups served by small business education: advisory persons and conventional university students.

Within each of the three user groups, this study could be replicated using a variety of sampling techniques and larger samples. Multiple methods of data collection, including qualitative techniques such as focus groups and in-depth interviews should also be utilized. Post course and workshop assessments can be used to provide feedback regarding the perceived usefulness of information covered in classes and workshops offered by the university.

Increasing numbers of colleges and universities have small business and/or entrepreneurship programs. The individuals who are designing and implementing these programs could also provide insight into the question posed by this research. Analysis of textbooks written on small business management and entrepreneurship and surveys of classroom instructors and SBDC directors could provide insight into the design of an effective small business education program.

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THE PERCEPTION OF HRM PRACTICES BY FOUNDERS AND BY NON-FOUNDERS OF SMALL FIRMS

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ABSTRACT

A questionnaire about human resource management in small firms was developed and sent to a sample of small manufacturers. The responding owners were classified as either founders or non-founders. The study found that the perceptions of HRM practices by founders and non-founders were different. Eleven of thirteen practices were rated lower by the founders, with five being significantly lower. It was concluded that small firm owners were not aware of the value of HRM practices to their firms. A number of causes could include: poor management skills, a shortage of resources, and poor planning.

INTRODUCTION

The economy of the United States contains approximately 15 million business firms. Almost 98 percent of these firms employ less than 500 workers and are considered to be small businesses (Baumback, 1988). These smaller firms provide the economy with jobs, new products, and stability. However, these small businesses also have a high failure rate. More than 50 percent fail during the first five years of business life. These failures have a variety of causes, but the primary reasons are poor management and a lack of adequate resources (Peterson, Kozmetsky, and Ridgway, 1983). Gaskill, Van Auken, and Manning (1993) determined that the critical role of managing invades the entire process of running the firm, as managerial decisions affect the planning process, finances, HRM decisions, and decisions on growth. Previous research has shown that a human resource management (HRM) program can contribute to the solution of these common problems (Foulkes, 1980; Misa and Stein, 1983). The difficulties of attracting good employees and then managing them effectively and productively are two factors that small firm owners face. These problems and the contribution of HRM in solving them are discussed in the following section of the paper.

LITERATURE REVIEW

Hess (1987) found that small firms ranked HRM management as the second most important management activity next to general management. Hornsby and Kuratko (1990) indicated in their research that recruiting, motivating and retaining employees are major problems for small firms. Labor is a primary but scarce resource needed by many small firms. Because of a reduction in population growth, the surplus of employable people has declined. It is thus becoming increasingly difficult for firms to find good job candidates for positions created by their growth (Business Week, 1987). Since good job candidates are usually not attracted to jobs paying minimum wage with no fringe benefits, larger firms with better salaries and benefits are better situated to expand and hire employees. As a result, the small firm may find only less skilled people left in the job market to fill its job openings (McEvoy, 1983). With this competition for good people, the value of HRM practices may be even greater for small firms than for large firms.

Once the employees are hired, managing them is another problem area for many small businesses. A firm must be able to find and keep good employees that are capable of contributing to the growing small business. With only a few employees on the payroll, each employee constitutes a significant portion of a firm's total labor force. It is vital that each employee is selected properly, is well integrated into the firm's activities, and is a productive member of the firm. Hornsby and Kuratko (1990) said that small business owners regardless of their size do not recognize that there are important HRM factors that must be looked at to retain a quality workforce. The use of good human resource management (HRM) practices can help the firm achieve these goals.

In order to manage employees effectively, small firms should invest time, money, and support for HRM programs and practices (Rocha and Khan, 1985). Investment in HRM has been shown to have an impact upon the profitability of organizations (Misa and Stein, 1983), and to be a key ingredient for a firm to achieve success (Foulkes, 1980). A firm's HRM policies and practices, supported by the management of the firm, create a climate of confidence and trust for the employees. This climate has been considered to be consistent with high employee productivity (Schuler, 1990). Huselid (1994) found that HRM practices contributed to firm performance, in firms with more than one hundred employees. In addition to other reasons why good HRM practices are valuable, in today's business environment a small firm must have safe and reasonable HRM practices to avoid various liabilities (Usry and Mosier, 1991).

Small firm owners who can mold their diverse and lower-skilled employees into a team and can coordinate their activities, will tend to be more successful than those unable to influence their employees to become committed to the firm (Bird and Jelinek, 1988). Can it be assumed that all small firm owners can be grouped together? Or are some owners different?

Dyke, Fischer, and Reuber (1992) found that the mode in which a firm was acquired (founded as opposed to purchased) was significant in predicting firm performance, due in part to the experience gained by the founder in starting and growing the firm. Robinson, et al (1991) noted that entrepreneurs (primarily founders) were more self-confident and self-centered than other business owners. It is possible that general attitudes may influence the success of a business. Contradictory findings from Bates (1990), indicated that firms which are purchased are more likely to succeed because the new owner may benefit from established managerial practices. Vesper (1990) also said that purchasing a firm was preferable when an individual lacked managerial experience, as the firm was more likely to succeed by building on past success.

Founders, those owners who were actively involved in the start-up of their business, are perhaps the most important of all small firm owners. A founder, as an entrepreneur, creates a new firm. By creating jobs, these founders are making valuable contributions to the economy. They must be capable of leading and directing their new employees to perform varied and unique tasks that may change as the firm grows. They must be able to mold their diverse and lower-skilled employees into a team that can work together for the success of the firm. Owners that can do these things well tend to be more successful than the owners who are unable to influence employees and obtain their commitment (Bird and Jelinek, 1988).

Can we assume that blanket solutions can be applied to small business problems? Are founders similar to other small firm owners, or should founders be treated separately because they are unique and because of their economic importance? The research questions addressed by this study were:

- 1) Are small firm owners aware of the value of HRM practices to their firms?
- 2) Is the perception of that value the same for both founders and non-founders?

METHODOLOGY

A sample of 1000 small Alabama manufacturing firms was chosen randomly from the Alabama Mining and Manufacturing Directory. Firms were chosen from only one state in order to control for external factors, such as legal environment, taxes, and proximity to markets (Gomez-Mejia, 1987). The firms were contacted by mail and asked to respond to a survey of their HRM practices. The survey contained operational statements of thirteen different HRM practices, obtained from current management textbooks listing such major necessary practices (for example, see Schuler, 1990). The thirteen practices covered discrete areas of HRM, including recruitment, selection, development, and rewards. Literature support

was found for the effects and the contribution to the firm of all thirteen HRM practices (see for example, McEvoy, 1984; Schuler, 1990).

In order to classify the owner as either a founder or a non-founder, respondents were asked if they were instrumental in the start-up of their business. 'Yes' answers were categorized as founders and 'No' answers as non-founders. The owners were then asked to rate each HRM practice as to the value of its contribution to the success of their firm. The rating scale used a set of adjectives in seven steps from 'Very Unimportant' to 'Very Important.' The owners rated each operational statement containing the HRM practice on a scale of one to seven, with four being a neutral point. The scale points can be considered to be equidistant from one another for statistical analysis purposes (Kerlinger, 1973).

RESULTS

One hundred eighty-four small business owners responded to the survey. The firms were all privately-owned manufacturers, employing less than 500 employees. The owners' ratings of each of the thirteen HRM practices were averaged as a group and then averaged separately for founders and non-founders. Then t-tests for differences between the mean ratings by the two groups were performed. The mean rating for each of the thirteen practices, arranged in ascending order of importance for the entire group, is shown in Table 1.

Both founders and non-founders rated several of the HRM practices as 'Important' to the success of small firms. Promotion from within, using realistic job previews, safety, progressive discipline, and grievance programs were all rated highly. Paying market salaries, a program of communicating to employees, and performance evaluations were rated as 'Somewhat Important.' Search, training, orientation, job descriptions, and having a separate human resource manager were all given lower ratings.

The founders' ratings of the practices ranged from 6.6 (Very Important) for the practice of promotion from within to 3.8 (Somewhat Important) for employing a human resource manager. The non-founding owners' ratings differed somewhat, ranging from 6.4 (Important) for promotion from within to 4.4 (neutral) for orientation. The two groups of owners did not agree on the relative merits of each practice. Significant differences between the means were found for five HRM practices. The greatest rating difference was in the value of having a separate HR Manager to implement the HRM practices. The rating by the non-founders for this statement was higher and was significant at the .001 level. Founders gave this statement the lowest of the thirteen ratings, with a perception that having a separate HR Manager would have relatively little value for their firms.

TABLE 1
HRM Ratings by Small Business Owners

HRM Practice	All Owners	Founders	Non-founders	P value
Promotion from within	6.5	6.6	6.4	.059*
Grievance policies	6.0	5.9	6.2	.182
Safety meetings	6.0	5.8	6.3	.023**
Realistic preview	5.9	5.9	6.0	.795
Discipline use	5.9	5.9	5.9	.926
Market salaries	5.3	5.2	5.4	.532
Communication methods	5.2	5.0	5.5	.065*
Performance evaluations	5.1	5.1	5.2	.686
Recruiting methods	4.7	4.7	4.8	.688
Job descriptions	4.6	4.5	4.8	.285
Orientation	4.2	4.1	4.4	.482
Training	4.1	3.9	4.5	.020**
HR manager	4.1	3.8	4.8	.001***
N =	184	124	60	

***Significant at the .001 level, **Significant at the .05 level, *Significant at the .1 level

Rating Scale: 1 -- Very Unimportant; 7 -- Very Important

A significant difference ($p=.02$) was found in the ratings for the perceived value of training. The average rating by the founders again was below the neutral point. Also, a difference in rating of the perceived value of having a safety program was significant ($p=.023$). The founders rated this practice much lower than the non-founders. Two other rating differences were somewhat significant, communicating with employees and promotion from within. Promotion from within was the only practice that founders rated higher than the non-founders. It was also rated higher than any other practice by both groups.

DISCUSSION

Several reasons could be suggested for low ratings of some of the HRM practices by both founders and non-founders. These owners may feel that their firms are too small for formal HRM practices. Each employee may be known personally by the owners, and such practices may be believed to be unnecessary (Baumbach, 1988). Also, if a small firm needs only unskilled employees, no special search or selection practices may be necessary. Other studies have found that small business owners have only a limited awareness of the need for HRM activities or that their HRM practices need improvement (Amba-Rao and Pendse, 1985; Misa and Stein, 1983).

The perception of the value of HRM practices by the founders in this study was different than that of the non-founders. Eleven of the thirteen practices were rated lower by the founders, with five of the differences being statistically significant. The greatest difference was in the value of a separate HR Manager, probably because founders were instrumental in the start-up of their own business and may assume themselves capable of performing all roles within the organization. It was their idea, and they may not see a need for someone to help them relate to the firm's employees. The founders' ratings of the practice of having a separate HR Manager may be, as Robinson, et al (1991) suggests, a product of the founder/entrepreneur's feeling more self-centered and self-confident than the non-founding owner.

The lower rating by founders for communication methods may also be a reflection of the same confident, self-centered attitude. The idea, the vision, and the motivation to succeed are all embodied within the creative entrepreneur. Sharing or discussing where the firm is going and why might appear to be unnecessary. Therefore, such a practice of discussing the firm's mission would be perceived as having little value by the founder. However, Hay and Ross (1989) found that the most successful small business owners sought help and information from a variety of sources, especially their own employees. Effective communication methods are vital in the exchange of information between the owners and the employees. If the owner can obtain input and ideas from the employees, this help could contribute to the firm's performance and even enhance the firm's chances for success.

Training also received a significantly lower rating. Although a firm may be growing, it may also be too new for a founder to have a perspective of the future. Training is a practice that has an immediate cost but may not have an immediate pay back. Instead, it would tend to add long term value to the future performance of the firm's employees. The founder might therefore see this practice as not currently necessary and give it a low value rating.

The rating by the two groups of the value of safety and holding safety meetings was significantly different. Safety practices and safety meetings tend to be activities that are encouraged by or required by governmental regulation (Baumbach, 1988). However, safety

practices may be viewed as government interference by the founder and would be given a low value rating.

Promotion from within was the only practice given a significantly higher rating by the founding owners. Promoting current employees has both positive and negative consequences. While current employees are familiar with the firm and the general expectations of a job, they may not be the most qualified to perform that job. They may be promoted only because they are immediately available and the cost of searching for and hiring an outsider would be avoided. They also may be willing to take the job at a lower salary than someone hired from outside the firm (Rocha and Khan, 1985). During growth periods, when faced with the need to fill a managerial position, promoting from within would appear to have value. In the long run however, having several less-qualified people in positions of authority would place a firm at a competitive disadvantage (McEvoy, 1983). Promoting from within, which may reward loyalty rather than performance, may be detrimental to the firm's long term performance.

CONCLUSIONS

The results of this study indicate that small business owners, especially founders, are unaware of the potential value of HRM practices to their firm. The lower ratings by the founders tend to show that they placed little value on the relationship between HRM practices and the performance of their respective firms. The results of this study appear to confirm the results of the 1991 study by Robinson, et al, which found that owners who started their own businesses tend to be more self-centered and self-confident. Founders may feel that they can manage all aspects of the business, where as non-founding owners may rely on the assistance of others.

This study also found that founders and non-founders did not place the same value on HRM practices. In all instances, except for promotion from within, which founders rated higher, and discipline use, which founders and non-founders rated the same, that all other practices were rated higher by non-founders than founders. All five significant rating differences found by this study tend to show founders making only short-term evaluations and ratings of HRM practices, instead of considering the positive contributions obtained from these practices in the long run. Could the founder be concentrating on the present and thus be reducing the chances for success in the long run? According to Carland, et al (1984), a true entrepreneur employs strategic management practices. This would suggest an ability to look ahead and prepare for the future. The owners who had started their own firms in this study did not demonstrate a long-term perspective, at least in the perception of the contribution of their human resource management practices.

Fifty to eighty percent of small firms fail during the first five years (Baumbach, 1988). Further research on founders is needed to determine the extent of their preoccupation with

current activities and any effect this preoccupation may have upon the failure rate. How many other management practices are underrated, especially by founders, and are not receiving the attention necessary for the long-term survival of the small firms undergirding our economy?

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ENTREPRENEURSHIP: THE CENTERPIECE IN BUSINESS EDUCATION

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ABSTRACT

Several factors in organizational environments are ushering in dramatic changes in the way business has been conducted over much of this century. Global competition, demographic shifts, technology, and deregulation are having tremendous impact on businesses and the nature of work. This paper seeks to examine these factors, and the changes they encourage, by focusing on the implications for education as to student/worker preparation for successful adaptation to these unstable work environments.

This discussion is intended to illustrate the significance of entrepreneurial education in responding to organizational requirements in the near future. It is the author's contention that current business program designs (curriculum and organizational structure) do not adequately cultivate the necessary entrepreneurial characteristics (skills and attitudes) in students. Suggestions for business education are presented.

INTRODUCTION

“Mr. Ohga [President and CEO of Sony] responded to a student's question about what characteristics are necessary to be successful in the future...[by saying] 'an entrepreneurial spirit.'” Mr. Ohga summarizes the skills and attitudes needed to successfully engage in the modern business environment; global, volatile, complex, competitive, and fast. Downsizing, reengineering, flat structures, serious and repeated financial and market difficulties have resulted in declining employment in large corporations and declining market share for many.

The skills of the worker are continually being tested, and often are found wanting. Further, this challenge is complicated by the fact that the market continues to innovate, requiring qualitatively different workers in order to sustain the innovations they create. This is evidenced by the continued move by organizations toward alternative designs which require different types of entry level people. The term that captures the spirit of the worker of tomorrow is "entrepreneurial."

Kuratko and Hodgetts (1995) offer a broader definition of entrepreneur, more appropriate for this discussion, as one who “is an innovator or developer who recognizes and seizes opportunities; converts those opportunities into workable/marketable ideas; adds value through time, effort, money, or skills; assumes the risks of the competitive marketplace to

implement these ideas; and realizes the rewards from these efforts.” While the term entrepreneur is perhaps overused these days and used in differing ways, it is argued here that what is needed are graduates that have been explicitly challenged to view the marketplace as an opportunity to contribute to market needs in exchange for a living. These people will not look for jobs so much as opportunities to apply their skills to situations. In a sense, they are vocational transients. This means they are able to function in large or small organizational environments, in team or individualistic environments, or for themselves as independent contractors or business people. They're entrepreneurial in that they possess a mindset that is always learning, looking to new situations on which to capitalize, not dependent, or organizationally bound. Is such a “product” of education desirable, even necessary, to respond to the changes taking place? If so, are we prepared to offer this kind of educational experience? How might educational institutions better respond to these changes in order to meet the need?

This paper seeks to examine these factors, and the changes they encourage, by focusing on the implications for higher education as to student/worker preparation for successful adaptation to these unstable work environments. It is the author's contention that current business program designs (curriculum, in instructional methodology and organizational structure) do not adequately cultivate the necessary entrepreneurial characteristics (skills and attitudes) in students. Further, this paper will suggest that these design inadequacies are magnified by the changing characteristics of entering students. Some direction for business education improvement is presented.

CHANGES IN THE MARKET

By now, most people are aware of the tremendous pace and magnitude of change facing companies and individuals. Speed, quality and customer responsiveness become the essential criteria to compete. Companies that once seemed indomitable have experienced crippling effects from such competitors, often global competitors. The stories of IBM, Sears, and GM are now familiar. New ones are now occurring, i.e., Kmart.

Several factors have contributed to this trend, which has gained momentum since the late 70s. Increasing global competition, the rise of the Pacific Rim as a global economic power, increasing global commitment to free-market capitalism, diffusion of technology, growing and diverse markets, are just a few of these factors of recent years.

In response to these factors, companies have taken aggressive action in order to compete. These responses have most visibly focused on restructuring the business to better respond to these new market factors. From restructuring to reengineering, the result has been one of tremendous upheaval for firms, particularly the employees. Work designs emphasizing quality, teams, and accountability, have received intense attention by practitioners and academics.

The result of these changes thus far has been a mixed blessing. While the structures of these organizations have made them potentially more competitive, the impact on the workforce has been difficult. Throughout the 1980s, employment growth in the Fortune 500 was flat or declining, even with tremendous growth and job creation throughout the decade. Layoff announcements continue to appear regularly. Job creation has largely taken place in small to medium sized firms (Byrne, 1993).

Growth in temporary workers went from 470,000 in 1980 to 1.6 million in 1993, an increase of 240% (Fierman, 1994). Larger companies are reducing fulltime payrolls with their high cost of benefits, and utilizing greater numbers of “contingent” workers to fill cyclical requirements. Research indicates that this trend will increase in the future (Fierman, 1994). Some have argued that the traditional job will disappear all together. While that is perhaps too far fetched, it is clear that the stability of career paths, and one-company workers is quickly disappearing.

Perhaps, just as important, is the changing employer expectations of workers. Emphasis is shifting away from “do-as-you-are-told” workers to “do-what-you-ought-to-do” workers, to those that can operate effectively with greater autonomy. In addition to the increasing use of contingent workers, the movement of workers outside of the organization’s physical structure has been occurring as well. Referred to as telecommuting, increasing numbers of workers now work from outside the office at least a portion of their work day. What makes many of these changes possible has been the explosive growth in technology capability.

The value of technology is that it permits organizations, big and small, to do what they had not been able to do before. This has created tremendous opportunity to increase competitiveness of firms through the strategic use of technology. Whole processes are being redesigned and others eliminated because technology allows it. Processes can be combined, performed by fewer people, eliminating whole levels of structure, permanently. This has contributed to the decline of middle management and entry level opportunities.

In sum, technology is a tool that permits the redesigned workplace to function, often with fewer people. Global competition is more immediate and pressing as the distance for conducting business is functionally reduced. A Japanese competitor can respond to a U.S. market factor nearly as quickly as the U.S. company. Information is the key, and technology levels the playing field to an increasing extent. This trend should continue, allowing more “players” to enter the global market. To restate the obvious, the market has changed; with it has come change in the employer-employee relationship. Further, this change is calling for a change in the skills and attitudes of the future worker. But what is happening with future workers?

CHANGES IN INCOMING STUDENTS

Traditional expectations as to student career paths and assumptions of student readiness and learning competencies are increasingly at odds with reality. Developed largely at a time when higher education was geared to a largely white, male, middle-to-upper class student with a solid “college prep” background who was most likely going to work for the growing corporate enterprise, the approaches to preparing the student for the workforce operated on assumptions and utilized methods which were reasonably successful to educating this student.

Evidence suggests that increasingly, the student profile of today is markedly different than the student of 25 years ago. Colleges and universities, under enrollment pressures in recent years, have lowered entrance standards for incoming students, thereby magnifying the gap between the traditional educational approaches and student needs. SAT scores suggest that increasing numbers of students enter college at a readiness level far below what was historically acceptable.

Another issue, diversity, is more than just an issue for business, presenting additional questions with regard to curriculum, instructional methodologies, and outcomes. Further, the video age, the sound bite, and the 15 second commercial has affected the incoming learner’s abilities to adequately adapt to traditional approaches to education.

Finally, increasing numbers of students will not be working for the large corporations but will find employment in small and medium sized service firms, not only because that is where employment will be, but by choice. A recent survey conducted by the Gallup Organization, indicated that 70% of high school students want to launch their own businesses. Focus groups with students in the survey revealed that there is a high distrust of government and big business (Mehta, 1994). Beyond this, based on declining SATs and the video orientation of many, the incoming student may be less inclined to learn by reading and hearing and more bent toward contextual (hands on) learning situations. This assessment seems to find some support from the Gallup study. The implications of these issues for work preparation are serious.

ENTREPRENEURSHIP AS CATALYST FOR EDUCATIONAL CHANGE

As indicated earlier, the argument to be made here is that entrepreneurship best responds to the realities discussed previously: market changes and student changes. As noted, traditional approaches to preparing students for the workplace seem increasingly inappropriate for the needs of both. By emphasizing the entrepreneurial notion throughout business school instruction (and perhaps in non-business areas), it is believed that educators

better serve the interests of students, future employers, and the broader community, and in the end, themselves. But are the entrepreneurial skills and attitudes really desired/necessary?

Kotter (1995) demonstrates that the “new rules” for success in the current and future environment are distinctly entrepreneurial in nature. In studying Harvard MBA graduates from the class of 1974 over the 20 year span of their worklife, he found that while all were trained to enter the large corporate world in 1974, specifically manufacturing, nearly 50% were either entrepreneurs or actively moving in that direction by 1994. His “new rules” are explicitly entrepreneurial in nature (See Table 1 for author’s listing of Kotter’s values/behaviors).

Champy (1994) writes that the required managerial values for the reengineered corporation are largely entrepreneurial (Table 1). In comparing these lists with a list from Kuratko and Hodgetts’ (1995) entrepreneurship text on characteristics associated with an entrepreneur, the resemblance is convincing; the new criteria for business education ought to be entrepreneurial in spirit.

TABLE 1		
Comparison of Ten Entrepreneurial and Future Managerial Characteristics		
Kuratko/Hodgetts (1995)	Kotter (1995)	Champy (1994)
1. Leader/Initiative	Leadership	Initiative/Leadership
2. Achievement Oriented	Competitive	Competent
3. Opportunity Oriented	Opportunistic	Vision
4. Accepts Responsibility	Accepts Responsibility	Accept Responsibility
5. Problem Solving	Lifelong Learners	Lifelong Learners
6. Risk Taking	Risk Taking	Risk Taking
7. High Energy	Sense of Urgency	Enthusiastic
8. Creative/Innovative	Creative/Flexible	Adapt to
Change		
9. Self-Confidence	Self-Confidence	Self-Reliance
10. Team Building/Interpersonal	Deal maker/Negotiator	Team/Persuasive

This similarity suggests that several changes in traditional secondary education are in order. To follow are several changes and emphases which would seem to respond to the evidence presented thus far, although, they are not intended to be exhaustive.

- 1) **Business program structure (instructional methods and curriculum) must shift emphasis away from lecture-oriented, text-based formats of instruction. The students encountered in the classroom are increasingly bored and unable to learn as effectively under this format; they tend to learn best in "hands-on" settings. The approach is "action oriented" education where the concepts and tools taught are immediately applied and tested by the student. Increased use of tutorial and lab-based curriculum seem likely. Team-based instruction seems appropriate here as well.**
- 2) **Diminish the rigid 3 credit structure to shift focus away from time, courses and credits and toward competencies and outcomes. This can be accomplished, without total disruption of the credit-based system of higher education, by experimenting with 6 - 12 credit blocks or 1 credit modules for certain skills. Reinforcement of this notion through selective, intentional disregard for time or credit hours (i.e., refusing to give a grade even though semester is over).**
- 3) **Education must be integrative (holistic) throughout. Entrepreneurship has the distinct advantage over most functional education in that it must deal with the A to Z of business in order for it to fulfill its commitment to the student. Further, most entrepreneurship/small business programs already begin with novices in an integrative approach via introductory courses. Therefore, this integrative mindset is established early on.**
- 4) **The basic skills to survival as an entrepreneur in the modern age must be priority content in any business program. In this context, the skills for success, even survival, includes a battery of individual "generic" competencies: use of multiple technologies, research skills (know how to find information and package or use it), communication (oral and written, various media, desk top publishing, video, etc.), critical thinking or integrative skills (taking diverse packages of information or knowledge and putting them to specific and novel uses). With these the entrepreneur is able to adapt him/herself to existing opportunities. What I mean by this is the belief that a person can acquire basic functional knowledge (marketing, accounting, etc.) with greater ease and less incremental costs via technology, correspondence schools and community college programs. What the average person has difficulty doing is adopting the skills and mindset necessary to take advantage of market shifts as to what it needs: most of which is informationally based.**
- 5) **Greater emphasis on attitudinal development is essential to success in the current work environment. These should focus on efficacy and self-confidence in ability to succeed, in addition to others listed as essential to entrepreneurial success.**

In sum, it is insufficient for a person to have merely functional skills, there are a lot of those around, and the knowledge is becoming more readily accessible. The market will always have a place for innovative people who are not unidimensional, but can adapt knowledge to diverse applications and audiences. This is a valuable person! Are we up to the challenge?

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RECONCILING MANAGEMENT AND FINANCIAL OBJECTIVES IN FAMILY BUSINESS SUCCESSION AND ESTATE PLANNING

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ABSTRACT

The transfer of family business ownership and management from one generation to the next is a complex and dangerous endeavor. The complexity arises from the multitude of personal, business, and financial objectives which must be achieved. The danger is that the trade offs required among these objectives may have unforeseen and undesirable consequences. For example, current transfer tax laws can impose significant tax liabilities for some traditional transfer of ownership techniques.

Separating the transfer of family business to the next generation into property or "financial" issues with attendant transfer taxes and managerial issues is common practice. Not surprisingly, management literature focuses on the managerial issues. As Churchill and Hatten (1987) point out, "bad management can make the transfer of a property right irrelevant." Unfortunately, family business owners have also seen poorly planned property transfers render good management irrelevant. Ward's (1988) contention that estate planning is best left to the experts is difficult to refute given the complexity of tax laws, but planning for transfer taxes (gift and estate) cannot be ignored by the family. Key transitional personnel must be aware of the trade-offs among solutions to managerial issues and solutions to property issues as they work toward successful transfers of ownership and control. Riordan and Riordan (1993) concluded that planning and control in family businesses must simultaneously recognize family and business norms. This paper develops a framework to make these trade-offs more explicit for all concerned.

COMPONENTS OF A SUCCESSFUL TRANSITION

A successful transition involves transfer of managerial control of the business as well as ownership from one generation to the next. Both transfers may not be to the same individual or individuals. The presence of several parties with different, perhaps conflicting objectives complicates the transfer. Frequently, the owner (especially if he or she is the

founder) resists initiating the transition process or, having initiated it, sabotages it. (Landsberg, 1988). A critical need is to reduce the difficulty that the owner has in "letting go". A considerable body of wisdom exists concerning how this might be accomplished and this work generally points to a transition time of shared, mentored, or delegated managerial control (Handler and Kram, 1988). The continued participation of the founder in the business reduces anxiety levels of other family members (Rosenblatt, et al, 1985) and provides opportunity for sharing the founder or owner's technical knowledge and contacts.

The financial and property aspects of the transition are labeled "estate planning". The tax burden on the estate is an important consideration on the financial side, but of more immediate concern is the need for withdrawing members of the family business and their spouses to have an adequate stream of income for the remainder of their lives. Also, financial provision must be made for nonmanagerial family members who may have contributed little to the business but are nevertheless heirs of the founder-owner.

A successful transition is one which meets the financial and emotional needs of the family as well as the needs of the business. Family financial needs are for a stream of income for the withdrawing family members and spouses and minimization of tax burdens on the transfer of the business and on the estate. Family emotional needs are for continuing challenges and self-esteem for the founder and anxiety reduction for dependents. Dependents may be alarmed at the prospect of the loss of the expertise and judgement of the founder. The business needs are met if an orderly transition occurs which includes transfer of decision-making power and core business expertise. In addition, the business also requires a contingency plan for an unexpected transition. These needs are shown in Exhibit 1.

FAMILY TRANSFERS

There are several ways to transfer a family business from the older generation to the younger generation, but the federal income taxation impact as well as the transfer tax (both gift and estate) varies among the possible choices. Those with lower tax consequences may not meet other needs of the parties to the transaction. A review of the tax impact on transfers and the steps of various alternatives follow.

The current transfer tax essentially combines gifts and bequests over the lifetime and death of the donor. A graduated

EXHIBIT 1	
Objectives for Transition Planning	
Family Financial Needs	Stream of income for founder and spouse Minimal tax burden on estate
Family Emotional Needs	Continuing challenges and self-esteem for founder Anxiety reduction for managers and dependents
Business Requirements	Orderly transition from founder to next CEO Contingency plan for unexpected transition

or progressive tax applies to the cumulative transfer. The only possibility for tax savings on major transfers is to make them early before the assets appreciate in value since the tax is levied on fair market value (FMV) at transfer date. This issue would be of major concern in a growing and appreciating business. The first marginal transfer tax rate is 18% and applies to the first taxable gifts or transfer above \$10,000. The highest marginal rate is 55% and applies to transfers above \$3 million. There is also a 5% surtax on transfers above \$10 million but not in excess of \$21,040,000. In addition, there is a unified transfer tax credit of \$192,800 which will allow \$600,000 of wealth to be transferred tax free. There is a limited annual gift exclusion of \$10,000 per gift recipient or \$20,000 per gift recipient if given by husband and wife. This is of little consequence in transferring anything other than extremely small businesses, and even then the gifts would have to begin early. Also gifts in contemplation of death and transfers for less than adequate consideration are pulled into the estate at death and taxed at fair market value at date of death. Essentially, the transfer tax is so high that proper planning is mandatory.

Since divestiture before death is advisable for estate tax purposes and generally can't be done with gifts during life, some other transfer must be arranged. The possibilities are listed in Exhibit 2.

EXHIBIT 2

1) *Redemption:* A redemption allows the incorporated business to buy back the stock from the older generation. This generally would require the redeemed shareholders to sign a noninvolvement agreement covering a 10 year period. The IRS considers noninvolvement to preclude any association with the business other than as a debtor. A qualifying redemption would allow any gain on the sale of the stock to the corporation to be capital gain. This requires sufficient liquid assets in the corporation, some cash flow if an installment, the younger generation in possession of some stock at the time of the redemption, and a willingness by the older generation to pay income tax on the gain on the stock redemption.

2) *Bootstrap:* A bootstrap acquisition is a variation on the redemption discussed above. Here corporate debt is used to fund the redemption and then the corporation pays off the debt over time. In this redemption also, the redeeming shareholder of a closely held corporation must sign an agreement with the IRS agreeing to have no contact with the corporation other than as a debtor for ten years.

3) ***Sale:*** This is an outright sale of the stock to the younger generation. If the younger generation doesn't have any cash, an installment note could be used. One possibility here with an installment sale is for the lender to forgive \$10,000 of principle and interest each year. The lender, however, would still have to claim the interest income.

4) ***Buy-Sell Contingency:*** The buy-sell contingency is a written agreement between the senior generation and the younger generation which specifies a price (or a formula for determining price) to be paid by the younger generation to the senior generation. A life insurance policy is taken out to fund the buy-out. The life insurance proceeds are tax-exempt and the amount of the insurance establishes the amount included in the estate even if by the time the agreement might be triggered, it does not represent FVM of the business. The original agreement must have been reasonable in amount at the time it was made.

5) ***Recapitalization (Type E Reorganization):*** This is an exchange with the corporation by the senior owners of their common stock for preferred stock. This would leave the younger generation holding the common stock which would have all the future growth potential but relatively little current value. Under this arrangement, it would be possible for the senior generation to gift any remaining common stock held with less transfer tax consequences or to make it cheaper for the younger generation to buy the common stock. The senior generation would collect the preferred dividends and keep future growth in the value of the business out of the estate. Note however, in order to create value in the preferred stock, the stock must receive substantial dividends creating a cash drain on the business. The preferred stock could either be voting or non-voting depending on the needs of the senior generation.

6) ***A Failed Redemption:*** If the older generation does not sign the nonparticipation agreement, he or she will be potentially subject to slightly higher tax liability but can stay involved in the business (Internal Revenue Code Sections 302(b)3, 453, 368(a)(1)(E), 302).

ASSESSING THE TRADE OFFS

Exhibit 3 shows the ability of each of these alternatives to meet selected family and business objectives for transition. Obviously, no one technique satisfies all the objectives. Several variables are hypothesized to affect the trade-offs. They represent a planning horizon for the transition, number of family dependents, business financial structure, marginal tax rate of founder, size of estate, and psychological readiness to plan. For estate tax purposes, the

earlier the transfer the better because the transfer of the growth is to the next generation. However, the owners must be ready and willing to plan. For business purposes, the continued association of the owner with the business is important, but the continued association makes some of the planning possibilities less attractive. The planning process will be more effective if all three types of objectives (family, estate, and business) are considered together rather than separately.

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EXHIBIT 3 TRADE-OFF ASSESSMENT BETWEEN MANAGERIAL OBJECTIVES AND TAX REALITIES						
Tax Realities	Family Financial Needs		Family Emotional Needs		Business Needs	
	Stream of income for founder and spouse	Minimize tax burden on estate	Continuing challenges and self-esteem for founder	Reduce anxiety for managers and dependents	Orderly transition from founder to CEO	Contingency plan for unexpected transition
Redemption (IRC 302(b)3)	yes	yes	no	no	no	no
Boot-strap (IRC 302(b)3)	yes	yes	no	no	no	no
Sale	yes	yes	yes	yes	yes	yes
Reorganization	yes	yes	yes	yes	yes	no
Gift	no	no	yes	yes	yes	no
Redemption (not under IRC)	yes	yes	yes	yes	yes	no
Buy-sell contingency	no	maybe	no	no	yes	yes

VALUING DIVERSITY: EDUCATIONAL AWARENESS BENEFITS SMALL BUSINESS CONSULTING

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ABSTRACT

Over the past three years, students from a diverse university population have participated in the educational exercise of consulting for small businesses. Generally, students have organized themselves into heterogeneous teams and these teams have recruited their small business clients. These clients reflect the diversity in business ownership within the regional community. Thus, appreciating the interpersonal qualities of team members may have contributed to the effectiveness of the group consulting experience as well as provided an additional benefit of serving a cross-section of the business population.

This paper defines the idea of valuing diversity, then it investigates the following hypotheses: 1) in an environment where diversity is present, members of that population will value such diversity in forming teams, and 2) the end result of valuing diversity will be the benefit derived by the team and client as stakeholders. Two data sets are analyzed to evaluate the validity of the hypotheses. Finally, conclusions are made comparing results observed from the data analyses to the formulated hypotheses.

INTRODUCTION

According to numerous articles, there is a subtle difference between managing diversity and valuing diversity (Jenner 1994, Strenski 1994, Pena-Ramos 1994, McNerney 1994, Ossolinski 1992). Specifically, managing diversity *focuses on the diverse quality of employees' work-life*, while valuing diversity *centers around interpersonal qualities* (Jenner 1994). These qualities are not limited to gender, race, and ethnicity, but also can include other factors such as age, religion, political affiliation, marital status, sexual orientation, disabilities, or even smoker status.

For a university or workplace, the recruitment focus is primarily on ensuring a diverse population with respect to gender, race and ethnicity. Some of these recruitment efforts are in response to affirmative action guidelines (Calvasina, Calvasina & Calvasina 1994). Yet, Coleman (1994) believes it's a misconception that managing diversity is a disguise for affirmative action. Instead, the process of managing diversity should be the creation and maintenance of an environment in which each person is respected because of his or her

differences (Coleman 1994). This viewpoint suggests that an environment of diversity will foster the valuing of diversity, assuming, however, that this environment can be created.

While structuring the environment to satisfy affirmative action should not be the focus of managing diversity, neither should it be an effort to mirror our customers or client base (Coleman 1994). Forming teams who are the same makeup as the potential client may not ensure the company's success with respect to client diversity. Still, businesses must find the means to attract a multicultural consumer market (Solomon 1994). This suggests that if mirroring the customer or client base in the creation and maintenance of the environment is not necessarily successful in attracting and serving a multicultural segment of the population, then valuing diversity may be the solution.

The relationship between managing and valuing diversity is particularly relevant to any organization that relies on teams. Heterogeneous teams have been observed to develop solutions to problems that are more innovative and effective than those developed by homogeneous groups. In addition, the solutions presented by heterogeneous teams score higher in originality and practicality than those of homogeneous teams. However, these diversely composed teams have a higher potential for misunderstanding and confusion (Jenner 1994).

Therefore, heterogeneous teams should be able to function effectively if the diversity of the team members is valued instead of perceived as contributory to misunderstanding and confusion. Also, heterogeneous teams that have been artificially constructed to mirror some guidelines for the organization's economic benefit, may be totally ineffective in developing solutions. If individuals tend to truly value diversity, not just accept it on an economic basis (Solomon 1994), then benefits should be derived from the valuation of diversity in an educational experience whereby cooperation and respect for individual differences contribute to service to a community of diverse small business clients.

ACHIEVING SMALL BUSINESS CONSULTING TEAM DIVERSITY

At the time of this study, enrollment in the College of Business (COB) at the University of Houston-Downtown was 43.1 percent (472) White, Non-Hispanic students; 23.8 percent (260) Black, Non-Hispanic students; 19.4 percent (212) Hispanic students; 9.3 percent (102) Asian/Pacific Islander students; 0.1 percent (1) American Indian/Alaskan Native students; and 4.3 percent (47) "Other" students. The number of male students averaged 6 percent higher than the number of female students, and the average age for all students was approximately 25 years.

With this general makeup of the student population of the College, students are obviously aware of diversity. The fact that they tend to value diversity should be reflected in the teams they form. There should be an appreciation of the benefits that member differences

can bring to the team's efforts, instead of a belief that significant difficulties will occur in the group's effectiveness due to gender, race/ethnicity, age, or any other interpersonal quality.

Thus, an hypothesis was formed that in an environment where diversity is present in the population, members of the population will value such diversity in forming teams. This hypothesis was investigated in two ways. First, data for fifty-two Small Business Institute projects completed in Fall 1992 through Spring 1994 were analyzed. Secondly, eighty-four students completing the educational consulting experience participated in a survey that solicited team composition information. In addition, the survey sought team members' opinions on the effects that diversity contributed to the team's formation and effective execution of the consulting project.

The data from the completed consulting projects suggests that students may be more likely to group themselves by gender than by race or ethnicity. The composition of teams for the fifty-two cases for which complete data were available for each category to be analyzed, shows the following gender distribution:

COMPOSITION OF TEAMS BY GENDER		
	Number of Teams	Percent
Male	15	28.8%
Female	13	25.0%
Male/Female	24	46.2%

Thus, it appears that males and females were almost equally likely to group themselves into gender specific teams. Still, non-gender specific teams emerged almost half of the time. In many cases, although the teams were gender-specific, they were racially and/or ethnically diverse. For the same fifty-two cases for which complete data were available, the following specificity was noted:

COMPOSITION OF TEAMS BY RACE		
	Number of Teams	Percent
Black	4	7.7%
White	13	25.0%
Hispanic	2	3.8%
Diverse (Black, White, Hispanic, Asian & Others)	33	63.5%

As the two tables show, teams of females and teams of White students were equally likely to occur. However, comparing gender specific with race and/or ethnic specific data, shows that 46.2 percent of the female teams (6) were White and 7.7 percent (1) was Black. Overall, 13.5 percent of the teams were female as well as race and/or ethnic specific. For the male teams, 13.3 percent (2) of the male teams were White and 13.3 percent (2) of the male teams were Hispanic. This shows that only 7.7 percent of the teams were male as well as race and/or ethnic specific. Thus, almost 79 percent of the time, the teams were diverse according to gender, race and ethnicity.

A survey was distributed to and returned from 84 students completing the consulting experience in Spring 1995 at the University of Houston-Downtown. These were not the same student consultants involved in the previously detailed 52 case submission results, but constituted additional data sources for analysis of this study's first hypothesis. The results of relevant survey queries is in Appendix A and the complete survey is included as Appendix B.

Of the 84 responses (see Appendix A), 38 (45.24%) were male and 46 (54.76%) were female. The largest percentage of male and female respondents was 20 to 30 years old (74.19% and 59.87%, respectively). However, overall, approximately 90 percent of the respondents (76 people) were between the ages of 20 years and 40 years. (Note that three female respondents did not answer the age query.)

Again, overwhelmingly, male and female respondents formed racially and ethnically diverse teams (76.3% and 80.4%, respectively). This is an even higher percentage than observed from the projects completed within the two years previous to the survey. Perhaps this is indicative of continuing efforts at gender, race, and ethnicity awareness within university and business environments.

However, in the survey, consideration was given to age as a factor in diversity awareness. With respect to age, considering more than five years difference in ages of team members, almost 74 percent (28) of male teams and 78 percent (36) of female teams were diversely age configured. These numbers decreased to 39.5 percent (15) for males and 52.2 percent (24) for females when age diversity was defined as greater than ten years. Thus, it appears that while race and ethnicity, and even gender may not be delineating concerns for forming teams, age may be a criterion. Still, combining gender, race, ethnicity, and age as factors resulted in over 95 percent of the respondents (80) participating in a diverse team consulting experience.

EFFECTS OF DIVERSITY

Although the data appeared to support the hypothesis that students valued diversity in forming non-gender and non-race/ethnicity specific teams, the benefits to be realized from and problems to be solved by diversely configured heterogeneous teams presented the second

issue for consideration in this study. An hypothesis was formulated that the end result of valuing diversity would be the benefit to be derived by the team and client as stakeholders in the educational consulting experience. Again, this hypothesis was evaluated through use of the two data sets.

First, the survey was used to determine if the diversity within the team composition provided any direct benefit to the team and its ability to effectively consult to the client's business. When requested by the survey to rate on a scale of 0 to 10 (10 as excellent and 0 as poor) their experience working with their team members, almost 41 percent of the respondents (34) rated this experience a 9 or 10, and almost 63 percent (52) rated it an 8, 9, or 10. Indeed, only 15.7 percent of the respondents (13) rated their experience at 5 or less, and no one considered it to be poor.

When specifically queried as to the effects of diversity, the opinion of student consultants supported that gender, race, ethnicity, and also age were generally accepted as the norm, with neither having any direct bearing on the group's output. Of those responding, 88.1 percent (77) did not believe that gender, 96.4 percent (81) did not believe that race, and 92.9 percent (78) did not believe that ethnicity contributed to their team experience. In addition, of those responding, 84.5 percent (71) did not believe that age contributed to their team experience.

Still, only 9 percent of the respondents indicated that no benefit was derived from the diverse composition of the consulting team. Respondents' impressions of the benefits that team member diversity contributed to the effectiveness of their consulting experience are given in the table below.

BENEFITS OF DIVERSITY TO CONSULTING				
	Males	Females	Total	Percent
Innovativeness	5	17	22	12.4%
Differing Viewpoints	15	27	42	23.7%
Excellent analytical skills	11	16	27	15.3%
Experience	16	27	43	24.3%
Tolerance for Others	9	18	27	15.3%
No Benefits	9	7	16	9.0%

Ironically, experience was considered to be the greatest contributor to the group's effectiveness. If experience is acquired with age, and age diversity is not valued, then members may be missing an opportunity to be more effective because of age biases or viewpoints. In fact, differing viewpoints were considered important to the effectiveness of the consulting

experience, making diversity with respect to age an issue about which team members should be aware.

While no direct contribution was believed to be a result of gender, race/ethnicity or age, some difficulties were believed to exist, especially with respect to age. Although minimal, almost twice as many respondents believed that teams composed of persons of vastly different ages are difficult to organize. Respondents considered gender diverse and racially or ethnically diverse teams to be approximately equal in difficulty of organization.

Overall, 30.3 percent of those responding believed that no problem was encountered in their teams due to the diversity of team members. However, respondent consideration of problems that their group encountered because of the diversity of team members resulted in the following table.

PROBLEMS DUE TO DIVERSITY				
Problem	Males	Females	Total	Percent
Religious belief	0	0	0	0.0%
Racial stereotyping	0	0	0	0.0%
Cultural biases	1	0	1	0.1%
Cultural ethnocentricity	0	0	0	0.0%
Different communication methods	4	13	17	15.6%
Poor language skills	3	3	6	5.5%
Physical handicaps	0	0	0	0.0%
Time-relevance issues	12	20	32	29.4%
Punctuality	9	11	20	18.4%
Smoker versus Non-smoker	0	0	0	0.0%
No problems	19	14	33	30.3%

Time-relevance, punctuality, and different communication methods were obviously the areas of greatest concern for effective team coordination. Religious beliefs, smoker or non-smoker, and physical handicaps were considered as interpersonal factors in structuring the heterogeneous team. Yet, neither of these factors was considered to be a problem for team consulting effectiveness.

Based on the preceding tables, student opinion of their group's effectiveness is apparently that diversity of team members was beneficial and not a detrimental factor. Additionally, of 58 respondents who had experience working with other diversely structured teams, 82.8 percent (48) believed that the group benefitted from the diversity.

Next, it was investigated whether valuing diversity extended beyond the perception of benefit to the team to a perception of benefit to the community. If valuing diversity was

reflected in student formation of non-gender specific and/or non-race/ethnicity specific teams, then this same attitude could impact the recruitment of the client. The sample of fifty-two cases was analyzed to determine whether there existed a significant relationship between team composition and the client population with respect to gender, race, and ethnicity. According to the ownership figures compiled for the fifty-two cases completed in Fall 1992 through Spring 1994, for which data were available, gender specificity was as follows:

COMPANY OWNERSHIP BY GENDER		
	Number of Companies	Percent
Male	30	57.7%
Female	12	23.1%
Male/Female	10	19.2%

These figures reveal no real surprises. As expected, the majority of the companies were male owned. However, it should be noted that a significant number of female ownerships and female partnerships received consulting. By race and ethnicity, the ownership figures for the fifty-two cases showed the following:

BUSINESS OWNERSHIP BY RACE		
	Number of Companies	Percent
Black	4	7.7%
White	33	63.5%
Hispanic	9	17.3%
Asian/Pacific Islander	5	9.6%
American Indian	1	1.9%

Again, as expected, the majority of the companies were owned by White, Non-Hispanic persons. In general, however, these statistics are representative of the small business ownership data for the SBI district in which our program operates where 18 percent of the businesses are Hispanic owned, 10 percent are Asian owned, 15 percent are Black, Non-Hispanic owned and 57 percent are White Non-Hispanic owned. It is interesting to note that students are over twice as likely to recruit Hispanic owned businesses for consulting as Black, Non-Hispanic owned businesses, even though the College's student percentages of these

populations are approximately equal, and the business ownerships in the district are approximately equal.

Having identified that diversity is present in the client base, the group membership was analyzed in relation to the clients served to determine if students were more likely to select a company with which to work based on their own gender, race and/or ethnic background. From the sample of fifty-two cases, nineteen companies were owned by Asian, Hispanic, Black Non-Hispanic, or American Indian persons. It was observed that 47.4 percent (9) of these minority businesses had one or more persons of the same race or ethnicity on the student team. When all team members were Black or Hispanic, the company selected was usually under the same racial or ethnic ownership.

The sample of nineteen minority owned businesses included 42.1 percent (8) female ownerships and/or partnerships. Yet only two of the four female teams chose companies owned by minority females. With respect to the twenty-two gender specific teams, female teams chose female ownerships and partnerships 27.3 percent of the time (6 companies) and male teams chose female ownerships and partnerships 31.8 percent of the time (7 companies). Interestingly, male teams were almost equally likely to choose female ownerships/partnerships as male ownerships/partnerships. In addition, teams of males and females were more likely to consult with female businesspersons than a gender specific team (40.9%; 9 companies). Interestingly, these non-gender specific teams were twice as likely as gender specific teams to recruit and effectively consult with female owned businesses.

CONCLUSIONS

The first hypothesis tested was that gender and/or race/ethnicity diversity occurs without intervention when individuals form teams from a population where diversity is present. An hypothesis test was performed to determine whether gender diversity was valued such that individuals formed non-gender specific teams.

H_0 : Gender diversity valued
 H_a : Gender diversity not valued

Then based on the 52 case projects with 46.2 percent of the teams non-gender specific or diversely configured with respect to gender (p_1) and the 84 survey responses with 63.1 percent non-gender specific (p_2), the hypotheses became:

H_0 : $p_1 = p_2$
 H_a : $p_1 \neq p_2$

The data observed in these two samples were:

GENDER DIVERSITY FOR CASES AND SURVEYS			
	Cases	Surveys	Total
Non-gender Specific	$x_1 = 24$	$x_2 = 53$	$x = 77$
Gender Specific	$n_1 - x_1 = 28$	$n_2 - x_2 = 31$	$n - x = 59$
	$n_1 = 52$	$n_2 = 84$	$n = 136$

With a proportion of non- gender specific teams expected to be, $p = 0.566$, the following was expected:

	Cases	Surveys
Non-gender Specific	29.44	47.56
Gender Specific	22.56	36.44

A χ^2_{γ} test with 1 d.f. and $\gamma = 0.05$ was used such that the hypothesis should be rejected at $\chi^2_{0.05} > 3.84$. Based on the two samples, $\chi^2 = 3.7513$ indicates that the hypothesis should not be rejected. Therefore, we can conclude that gender diversity may indeed be valued as members organize non-gender specific teams.

Next, an hypothesis test was performed to determine whether race/ethnicity diversity was valued such that individuals formed non-race/ethnicity specific teams.

$$\begin{aligned} H_0: & \text{ Race/ethnicity diversity valued} \\ H_a: & \text{ Race/ethnicity diversity not valued} \end{aligned}$$

Then based on the 52 case projects with 63.5 percent of the teams non-race/ethnicity specific or diversely configured with respect to race/ethnicity (p_1) and the 84 survey responses with 78.6 percent non-race/ethnicity specific (p_2), the hypotheses became:

$$\begin{aligned} H_0: & \quad p_1 = p_2 \\ H_a: & \quad p_1 \neq p_2 \end{aligned}$$

The data observed in these two samples were:

	Cases	Surveys	Total
Non-Race/Ethnicity Specific	$x_1 = 33$	$x_2 = 66$	$x = 99$
Specific Race/Ethnicity Specific	$n_1 - x_1 = 19$	$n_2 - x_2 = 18$	$n - x = 37$
	$n_1 = 52$	$n_2 = 84$	$n = 136$

With a proportion of non-race/ethnicity specific teams expected to be $p = 0.728$, the following was expected:

	Cases	Surveys
Non-Race/Ethnicity Specific	37.853	61.147
Race/Ethnicity Specific	14.1471	22.853

A χ^2_γ test with 1 d.f. and $\gamma = 0.05$ was used such that the hypothesis should be rejected at $\chi^2_{0.05} > 3.84$. Based on the two samples, $\chi^2 = 3.5912$ indicates that the hypothesis should not be rejected. Therefore, we can conclude that race/ethnicity diversity may indeed be valued as members organize non-race/ethnicity specific teams.

It can be concluded from this study that gender and/or race/ethnicity occurs naturally in the formation of teams as a result of diversity within the general population from which the team members are selected. No hypothesis testing results can be presented for valuing diversity in the ages of team members. However, it appears from the survey results that age diversity may not be valued as much as gender and race/ethnicity diversity. Individuals appear to be more likely to form teams in which the differences in age of the team members is no more than 10 years, and even prefer no more than 5 years difference in ages of team members. Other criteria suggested as defining diversity such as religious beliefs, smoker or non-smoker, and physical handicaps appeared not to be factors the students considered to be important in this study.

Testing the second hypothesis of this study was more difficult since its proof relied on the subjective evaluation of "benefit" to the team's experience. Still, acknowledgment was sought that while valuing diversity can impact the way individuals select team members, the actual differences of the members can affect the group's ability to function as a team and effectively complete the project.

Based on direct responses, it appears that individuals did not believe that gender, race, ethnicity, or age contributed to the team's effectiveness. However, other subjective responses indicated that individuals generally believed that their consulting project or other similar projects benefitted from diversity. However, it is inconclusive whether diversity, of itself,

actually benefitted the team or increased the effectiveness of the team. Actually, the problems cited were those that most teams encounter with respect to time relevance and communication. No significance was attached to problems of ethnocentricity, racial stereotyping, or cultural biases that could be directly related to an adverse effect caused by diversity of team members. Only different communication methods and poor language skills could be attributed to diversity, but could not directly be correlated. Innovation and experience could also be benefits of any team composition, and not specific to diversely structured teams. Yet, tolerance for others which would be fundamental to the concept of valuing each other's differences, rated third highest in student opinion of the benefits of diversity to their team experience. Perhaps these results support the conclusion that Americans tend to truly value diversity (Solomon 1994) and, therefore, see diversity as beneficial but not the only contributor to a team's ability to solve a problem or accomplish a task.

In evaluating the benefit of valuing diversity with respect to structuring non-gender and/or non-race/ethnicity specific teams that recruit and work effectively with a similarly diverse client, the data may support Coleman's (1994) view that the makeup of teams does not have to mirror the potential client. In particular, however, this statement may be more relevant to gender than to race or ethnicity considerations. Some benefit may actually be derived from structuring teams to mirror a client's race or ethnicity with at least one member of the team of the same race or ethnicity as the client. Again, it is inconclusive whether team diversity directly benefits a client. However, recruiting a minority business may be a benefit to the client community in a larger sense.

In general, it appears that people value all types of diversity, but are most aware of gender, race, and ethnicity. Diversity with respect to considerations of age seems to be less recognized and valued. Although minimal in number, in relationship to gender, race, or ethnicity as factors causing difficulty in team organization, age was significantly cited as adversely affecting the process. As the population ages, the fact that age diversity may not be valued as much as gender, race, or ethnicity may prove to be a problem for team efforts in a university setting as well as a corporate environment.

As affirmative action requirements come under scrutiny by the federal government, businesses and universities should become aware of the benefits of valuing diversity. The mindset of managing diversity in terms of merely satisfying affirmative action guidelines (Solomon 1994) may need to be replaced with valuing diversity because of its benefits to the stakeholders and customers. It appears by student response, that there is a degree of awareness of diversity that already exists in the university and business environments. There appears to be an acceptance that diversity of the team members is not a deterrent to a team's effectiveness, but may actually be beneficial to the team's success. In addition, there may be an extension beyond the educational environment. Students who learn that valuing diversity

contributes to the team's success, may extend this philosophy into their business careers as they work with diverse clients and co-workers.

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