AGING: KNOWLEDGE AND ATTITUDES OF VOCATIONAL HOME ECONOMICS TEACHERS

By

GAIL M. MCMILLON

Bachelor of Science
Northeast Louisiana University
Monroe, Louisiana
1975

Master of Education
Northeast Louisiana University
Monroe, Louisiana
1983

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
DOCTOR OF EDUCATION
July, 1993

THE PERCEPTIONS OF AREA VOCATIONAL-TECHNICAL CENTERS BY SELECTED CHIEF EXECUTIVE OFFICERS OF LARGE COMPANIES WITH OFFICES IN OKLAHOMA

Thesis Approved:

Robert E. Nolan
Thesis Adviser

Robert Terry

John A. Beard

Lewis W. Dugger

Francis Tuttle

Thomas C. Collins
Dean of the Graduate College

ACKNOWLEDGMENTS

Sincere appreciation goes to Dr. Bob Nolan for his encouragement and advice throughout my graduate program as well as to Dr. John Baird, Dr. Cecil Dugger, Dr. Bob Terry, and Dr. Francis Tuttle for serving on my doctoral committee. Their advice and support were very helpful and insightful throughout the study.

Additionally, without the input of the respondent companies, both in the target population and sample group, the study would have not been possible. Their time and effort is greatly appreciated.

Mr. Steve Little, who received and assimilated the data received into usable form, was immeasurable help, along with Mr. Dwight Atkins who advised regarding the statistical treatment of the study. Special thanks also go to the members of the jury who reviewed the survey instrument and provided feedback toward its improvement.

During the course of the study, special friends have been faithful in their encouragement, helping me to keep the final goal continually in sight--heartfelt thanks go to Pat, Louise, Anita, and countless others for their constant and loyal support.

And most of all, to my parents, whose never-ending love, devotion, and confidence have been steady influences throughout my life--for giving me the desire to dream and the willingness to work to achieve those dreams, I want to thank them.

"No man is an island," and this degree and the lessons I have learned in its pursuit are dedicated to my family and friends.

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CHAPTER I

INTRODUCTION

A state's economic development is crucial to its financial strength, and one of the most critical factors to economic development is a well-trained workforce. In Oklahoma, a primary provider of this educated, skilled labor market is the area vocational-technical center which prepares entry-level employees as well as provides continued training of existing workers at all levels. However, in order for such a system to be effective, the manner in which it is perceived by potential users as a source of training for individuals as well as for business and industry is important. It is that perception which this study addresses.

As a result of the 1968 Vocational Education Amendments, Oklahoma began developing a system of area vocational-technical centers which has grown to 29 school districts operating from 48 campuses across the state. Since the time of inception, the primary audiences for vocational education through the area school system have been high school students "in grades 11, 12, . . . adults; and people with special needs . . . [with programs also] designed to meet the needs of industry in its locality and the State" (A New Program Concept for Oklahoma, circa 1965, p. 1). Initially, area school enrollments were predominantly comprised of juniors and seniors in high school. However, since that time, general adult enrollments on full-time and part-time bases have risen, with specific increases in the training being done for business and industry. As the Twenty-First Century approaches, this figure is anticipated to continue growing because of the numbers of workers who must return for additional schooling as a result of the fast-changing technology of the workplace. ". . . occupations, which

require the most education, will have faster rates of growth than occupations with the lowest educational requirements" (U. S. Department of Labor, 1989, p. 39). Brodhead indicates that,

> By the turn of the century, only 10 to 15 percent of all jobs will be unskilled. . . . All the rest of the jobs--85 to 90 percent--will require skilled, managerial or professional people. Most of these jobs will call for a vocational education background *and* additional postsecondary education (Brodhead, 1991, p. 25).

A major delivery system in Oklahoma for this additional training is the area vocational-technical center. While secondary students will continue to be served, adults and business and industry clients are receiving greater attention and emphasis than in the past. Therein lies the problem. Since Oklahoma area vocational-technical centers initially served a primary audience of high school students, the public's perception of these institutions is not generally as a provider of advanced-level, technologically specific training. For this delivery system to be successful, then, it is imperative that the public view area vocational-technical centers as an option when seeking additional skills--whether those skills be in the areas of technical, managerial, clerical, supervisory, support or other classifications. One specific group for which this perception is critical is the Chief Executive Officers (CEOs) of business and industry. Area vocational-technical centers now have the capability, as well as the desire, to meet these varied needs; but they can only be successful if the CEOs perceive these centers as a delivery system for their companies' training requirements.

A 1971 study by Shultz considered the question, "What is the image of vocational education in our state [Oklahoma]?" (Shultz, 1971, p. 2). This question is just as valid today because of the constantly changing needs of the public and the fast-growing adult population which requires continuous upgrading and advanced training. Therefore, the perception of area vocational-technical centers must be defined--or perhaps redefined--in order to determine if this new audience will perceive area vocational-technical centers as viable training providers. This current study, although similar in a few respects to the Shultz study, moves the

notion of perception to a much wider service group, considering a different problem and focusing on the particular delivery system of area vocational-technical centers.

The Shultz study surveyed 5 categories of respondents which were selected at random from 6 cities in North Central Oklahoma. These categories included professional, technical, skilled, semi-skilled, and unskilled workers. At that time, individuals who chose additional vocational training probably did so on their own initiative because industry-sponsored classes, which are available today, were virtually non-existent. However, since the early 1970s when the Shultz survey was conducted, Oklahoma area vocational-technical centers have expanded their institutional missions and programming to include specialized industry classes for individuals currently employed. These services, offered to an extended client base, provide a new background and market through which to conduct the present inquiry.

This study, therefore, will question CEOs, or their designated representatives, to determine if **they** view area vocational-technical centers as a credible provider of services when seeking initial or upgrade training for their employees. Since they are the decision makers, it is **their** perception that will govern whether their respective companies take advantage of the training offered by area vocational-technical centers.

Results of the study will facilitate the ultimate goal which is assisting vocational educators nationwide in refining their training and services to meet the needs of industries in a more effective and efficient manner. By utilizing the information resulting from the study to enhance the positive aspects of vocational education's offerings as identified by the target audience and to improve those features which were described as inhibitors to selection, vocational educators can enrich the programs and services being provided.

During the past decade, training and services offered to Oklahoma-based industry by the state's area vocational-technical centers have

increased. Such training in the late seventies was negligible; in fact, no records were kept because providing services to business and industry had not yet become a significant part of vocational education's emphasis. Yet in just over a decade (1991), Oklahoma area vocational-technical centers had expanded their attention to this audience and provided over 80,000 clock hours of training and services to companies statewide. Examples of training offered are computer usage, quality control, business management, pre-employment/job readiness, team building and management development, strategic planning, and an array of courses in the technical and skill areas (Oklahoma Department of Vocational and Technical Education, 1992). Even with such large numbers being served, the need will continue because of changing technology, changing demographics of the workforce, the general turnover of workers, and the addition of new industries which may locate in Oklahoma in the coming years. They, too, will need start-up training as well as recurring educational offerings as their plants and workforce mature. Therefore, it is crucial to identify the perception of area vocational-technical centers as defined by company CEOs to determine if they view these centers as delivery systems for their training needs.

Problem Statement

Business and industry require training for their workforce because of changing technology, employee turnover, and expanding markets and trade options. Carnevale states that:

> Technological and process innovations are driving skill requirements upward as workers struggle to adapt to changing times. Complicating this picture is a shifting demographic landscape that has America's workforce aging and its entry-level labor pool shrinking, creating a whole new set of challenges around basic skills deficiencies and learning styles (Carnevale, 1990, p. 1).

His research provides a perspective on just how critical such training has become--"American employers spend about $30 billion, or 1 to 2 percent of their payrolls annually on formalized training for their workers. [Approximately] 31 percent or $9 billion is expended on

training that is purchased from outsider providers" (Carnevale, 1990, p. 1). However, he noted that only about $760 million, or 7 percent of this training, is provided by vocational and other schools. Carnevale strongly suggests that education and industry could both benefit from partnerships--linkages--through which joint ventures for training could exist. He noted that:

> Providing training to companies is big business. And it's growing. The massive job of preparing workers to fine-tune their existing skills and acquire new ones is often too big for an in-house training department to handle alone. So, increasingly, employers are turning to outside training providers for assistance (Carnevale, 1990, p. 1).

Area vocational-technical centers in Oklahoma are experienced and prepared to be an outside training provider for business and industry. However, one requirement of being able to meet these needs is the companies' realization that such services and programs can be delivered effectively and efficiently. The extent to which this realization exists in Oklahoma is not known. Although Oklahoma area vocational-technical centers have been providing business and industry with training and services for a number of years, the centers have had little **formal** feedback from the companies on the value they place on these programs and services. If area vocational-technical centers are to be successful, it is necessary that such information be obtained in order to intensify and enhance their offerings. The significance and value placed on the training by the user companies and their perception of the area vocational-technical centers' ability to provide their required training and services are great determinants of the future success of these centers in meeting the needs of business and industry clients.

Rationale for the Study

The Vocational Act of 1963 was established so that:

> . . . those who have completed or discontinued their formal education and are preparing to enter the labor market, those who already entered the labor market but need to upgrade their skills or learn new ones . . . will have ready access to vocational training or retraining which is of high quality, which is realistic in the light of actual or anticipated opportunities for gainful employment, and which is suited to

> their needs, interests, and ability to benefit from such training (Vocational Education Act of 1963).

Subsequent legislation such as the Vocational Education Amendments of 1968 and the Carl D. Perkins Vocational Education Act of 1984 and the Carl D. Perkins Vocational and Applied Technology Education Act Amendments of 1990 re-emphasized the importance of vocational education throughout an individual's lifetime. The purpose of the new Carl Perkins Act reads as follows:

> It is the purpose of this Act to make the United States more competitive in the world economy by developing more fully the academic and occupational skill of all segments of the population. This purpose will principally be achieved through concentrating resources on improving educational programs leading to academic, occupational, training, and re-training skill competencies needed to work in a technologically advanced society (Carl D. Perkins Vocational and Applied Technology Education Act, 1990, Sec. 2).

Although this purpose suggests that Congress views vocational education as a provider of lifelong learning, many of the public do not share this view because vocational education has traditionally been perceived as training for high school students only. However, the mission and "users" of area vocational-technical centers have changed from secondary students to also include adults on a full-time or part-time basis, as well as business and industry who request company-sponsored training. Carnevale indicated that:

> The role of vocational-technical schools in providing customized employer training is very similar to the role of community colleges. And, not surprisingly, they specialize in customizing technical training for local employers. Others offer skills training and clerical training (Carnevale, 1990, p. 23).

In his discussion of education-industry linkages mentioned previously, Carnevale cited the example of Fred Jones Ford and Francis Tuttle Area Vocational-Technical Center in Oklahoma City, Oklahoma where the area vocational-technical center provided the company with training in statistical process control (SPC) and gauge control systems. Carnevale stated that:

> "Most employers are well aware of Oklahoma's strong vocational education system before or as they enter the state because Oklahoma uses its vocational education system as an economic

development tool to attract and maintain employers" (Carnevale, 1990, p. 24).

Carnevale, to an extent, is correct is his appraisal of the Oklahoma area vocational-technical centers but only lists skills and clerical training as options for training. And, while many employers are aware of Oklahoma's strong vocational system as he mentioned, they too often share his narrow view of the training and service capabilities available through these centers. Because business and industry have become primary users and target populations of the wide spectrum of programs and services offered by area vocational-technical centers, it is important to determine the exact perception of those centers in the minds of these CEOs.

Since there are no formal data available that give a clear picture of how Oklahoma business and industry view area vocational-technical centers as potential trainers of their existing workforce, the study is needed to assess this group's perception of these institutions within the state of Oklahoma. A key group in this endeavor is the CEOs of companies that would be using area vocational-technical centers as trainers for their workforce. If these centers are to be successful in serving this population in the coming years, it is necessary to understand the CEOs' perceptions of the area vocational-technical centers as deliverers of training and services and their opinions of the quality of these offerings.

Purpose of the Study

The purpose of the study is to ascertain the perceptions among CEOs of large companies with offices in the state regarding area vocational-technical centers as a training option for their employees. The results of this study, then, will lead to the ultimate goal of assisting vocational educators in Oklahoma, as well as nationwide, in refining their training and services to meet the needs of industries in a more effective and efficient manner. Because Oklahoma vocational education is similar to vocational education in many of the states (which is

described more fully in Chapter 3), the results of this study may have national implications for those involved in training for business and industry.

Implications of the Study

While there is some evidence that business and industry view vocational education as a training provider and a partner in economic development, there remains a widespread opinion that vocational education is for lower-ability high school students who cannot succeed in other types of educational settings. Johnston addressed this challenge when he stated:

> Compounding this problem is the belief that not all kids have the ability to go to college. We need something for the rest. . . . What . . . in effect [was being said] was that students who aren't very smart and aren't bound for professional careers need some place to be in school. And that place is vocational education.
>
> Wrong! So weak a reason for existence could spell the end of vocational education as an important part of a comprehensive school program. . . . Vocational education needs a 'turn-around' (Johnston, 1989, p. 36).

In an effort to determine and update the perception issue, numerous studies have been conducted in a variety of states as well as nationwide and will be discussed more fully in Chapter 2. These surveys included large and small business, manufacturers, and companies on a general scale. The current study will increase the body of knowledge that currently exists, providing yet another piece of information to guide vocational educators in their efforts to serve business and industry. This identification and analysis becomes even more critical in view of the vast array of changes which will be occurring in the workforce in the coming years.

> "The new jobs . . . will demand much higher skill levels than the jobs of today. . . . Put simply, students must go to school longer, study more, and pass more difficult tests covering more advanced subject matters" (Workforce 2000 Executive Summary, 1987, p. xiii and xxvii).

While historically workers have remained in the same jobs from initial employment until retirement with little or no retraining required, such days have long passed and

> 'A person entering the workforce today can expect to be retrained five times in his work life,' declares John Young, president of Hewlett-Packard Co. 'For its part, the company is spending $250 million, or 5% of revenue, to train its 87,000 workers this year' (*Wall Street Journal*, 1988, p. A1).

This retraining will necessitate additional education and, therefore, a new attitude toward lifelong learning. Burstyn, 1986, visualizes learning not "as a straight line [or] a hierarchy of development, but as continuous loops, each dealing with the same issues but in different ways" (Burstyn, 1986, p. 186). This would allow students to learn various skills throughout their youth realizing that they would need--and be expected--to upgrade these skills late in their careers.

Calhoun, 1982, realized that one of the strengths of vocational education is its ability to be shaped by the changing needs of people and the marketplace. He stated that:

> Vocational education as we know it in the U.S. grew out of a social need for an educated work force. As a function and responsibility of our educational system, vocational education has been responsive and adaptive to societal changes. . . . The problem of retraining and lifelong learning is a foundation element in the structure of vocational education (Calhoun, 1982, p. 1, 65).

It is obvious that with the approach of the year 2000, the world of work is, indeed, becoming more complex and, therefore, in greater need of non-traditional methods of and approaches to education. Perhaps when **all** people are expected to upgrade skills throughout their careers and the concept of lifelong learning becomes more pervasive, the perception of vocational education will enjoy more acceptance not only in the workplace but in all segments of society. This changing focus in vocational education toward lifelong learning and as a constant adaptor to societal changes and demands will allow vocational education to keep pace with the needs of the workplace.

Objectives of the Study

In order to achieve the purpose of this study, the following objectives have been developed:

1. To determine if CEOs of large Oklahoma companies perceive programs and services provided by area vocational-technical centers to be for high school students and/or various personnel within business and industry.

2. To determine how recently companies provided training for their employees (currency of training) and how recently (if at all) they have used an Oklahoma area vocational-technical school as their training provider.

3. To determine the reasons for the CEOs' decision to sponsor training for their employees.

4. To determine factors influencing companies' decisions to train and their selection of a training provider.

5. To determine training providers other than area vocational-technical centers which may have been used by CEOs of large companies for training their employees.

6. To determine satisfaction ratings for those companies who had used an Oklahoma area vocational-technical school as their provider of employee training.

Assumptions

For the purpose of this study, the following assumptions were made:

1. Perceptions of CEOs in Oklahoma, despite differences in labor laws, investment climate, etc., will be of some value to a national constituency.

2. People respond honestly to the survey and do not answer with socially or politically acceptable answers.

3. Responses actually reflect the perceptions of the CEOs of the companies and not those of the individuals to whom the questionnaires are delegated.

Scope of the Study

1. The perceptions of the Oklahoma CEOs may not be indicative of the perceptions of their counterparts in other states.

2. The study was limited to CEOs.

3. The study was limited to manufacturers and processors employing more than 250 people.

4. The study was limited to the perceptions of programs in area vocational-technical centers and did not consider those in comprehensive high schools.

Definition of Terms

1. Area vocational-technical school--synonymous with area vo-tech school, area vocational-technical center, area vo-tech center, and vo-tech. In Oklahoma, these institutions are served by an independent board of education and are autonomous from any high school, college, or other educational institution; their supervisory and reporting affiliation is the Oklahoma Department of Vocational and Technical Education.

2. CEOs--decision-makers in the Oklahoma branch of the selected companies. Many of the companies targeted were not the corporate headquarters but the branch of the corporation located in Oklahoma. Therefore, the individual responding to the questionnaire may not have been the "true" CEO of the company but instead the decision-maker at the Oklahoma site. Other titles which refer to these individuals include, but are not limited to, plant manager, manager, or vice president. The term CEO was selected as a generic term for all these individuals.

3. Large company--companies involved in a manufacturing or processing activity who employ more than 250 employees.

4. Oklahoma Department of Vocational and Technical Education--the governmental entity whose responsibility includes (but is not limited to) supervisory, reporting, and partial channeling of funds for the state's area vocational-technical schools.

5. Perception--the subjective opinion, attitude, or feeling as in the "general image of."

6. Respondent(s)--individual(s) who completed and returned survey instrument.

7. Vocational Education--organized educational programs which are directly related to the preparation of individuals for paid or unpaid employment, or from additional preparation for a career requiring other than a baccalaureate or advanced degree (U. S. Congress, House of Representatives, Educational Amendments of 1976, Public Law 24-482, Washington, D.C. Government Printing Office, 1976).

CHAPTER II

REVIEW OF LITERATURE

The Review of Literature identified varying factors relating the perception of vocational-technical education as indicated by the general public as well as by specific groups. While certainly not to be considered an exhaustive list, these studies assist the reader in placing the present inquiry into perspective and context.

The historical development segment of the Review addresses the evolution of vocational education from its early stages to the present. Following the history, consideration was given to the topic of "Business and Industry's Perception of Vocational Education as seen in the Literature." This sub-division provides an overview of a variety of studies conducted throughout the U. S. on the topic of the perception of vocational education. Because the target population for this current study was Oklahoma manufacturers and processors, responses from similar audiences across the country were relevant and applicable, providing the opportunity for the researcher and the reader to relate other studies' findings to those of the present inquiry.

The topic of "The Changing Focus of Vocational Education Toward Skill Requirements for Workplace 2000" was also investigated since this is at the very heart of the current study. The perception of vocational education cannot be addressed without considering from whence it came and the manner in which it has, and is, evolving. This topic builds on the historical perspective and the development of vocational education by providing the reader with a "then-and-now" view of its continuing evolution. It then expands the changing focus of vocational education to include the challenges it will face if it is to be an active participant in the educational arena for the coming century.

The purpose, then, of this review of literature is to take the reader from the beginnings of vocational education and its initial perception to the present-day opinions as expressed by business and industry; to enhance that development with the on-going changes and evolution that are being experienced by vocational education; and to provide the reader with a view of what will be expected of vocational education to meet the training needs of Workplace 2000.

Historical Perspective

As a result of the 1963 Vocational Education Act, the enhancements of the 1968 Amendments, and the Carl Perkins Act of 1984 and its amendments in 1990, vocational education has benefitted nationally from a more positive perception because of the support of Congress, and subsequently, state legislatures. As recently as 1990 Congress reauthorized the Carl Perkins Act, and "it is important . . . to note that the Congress is cognizant of the central role vocational education can play in improving the quality of the American workforce" (National Center for Research in Vocational Education, 1990, p. 1).

Following this national lead and emphasis, Oklahoma began as early as the initial 1963 Act to strengthen and to expand its vocational offerings. One of the first steps in this endeavor was the establishment of the Area School Division within the Oklahoma Department of Vocational-Technical Education. As reported by Tyson,

> This move presaged a trend which would in the future become the basis for vocational education. The idea behind the area school concept was simple. To adequately provide instruction for many occupational areas, expensive and complex equipment was needed, and proper facilities were often hard to obtain in each district. Thus, it was determined that it would be easier--and more economical--to establish magnet schools or area schools which would be equipped to serve large numbers of students. Then the students would be brought to the school, rather than attempting to bring all the needed equipment to the students.
>
> The first area school was opened in 1965 at Tulsa. . . . During 1965 four more area schools at Oklahoma City, Ardmore, Duncan, and Enid, were approved (Tyson, [no date on publication], p. 47).

These five schools were not "true" area schools (having their own boards of education); rather, they each were a part of the public school system in their respective cities, operating under the same board of education as the public schools.

Then with the passage by Congress of the Vocational Education Amendments of 1968, which were especially beneficial to Oklahoma, states received assistance

> . . . to maintain, extend, and improve existing programs of vocational education, to develop new programs of vocational education, and to provide part-time employment for youths who need the earnings from such employment to continue the vocational training on a full-time basis, so that persons of all ages in all communities of the States--those in high school, those who have completed or discontinued their formal education and are preparing to enter the labor market, those who have already entered the labor market but need to upgrade their skills or learn new ones, those with special educational handicaps, and those in postsecondary schools--will have ready access to vocational training or retraining which is of high quality, which is realistic in the light of actual or anticipated opportunities for gainful employment, and which is suited to their needs, interests, and ability to benefit from such training (Vocational Education Amendments, 1968).

By the time the 1968 amendments were passed, vocational education in Oklahoma was growing in size and importance, with much of this expansion and prominence being reached through the area vocational-technical schools. Thus, the state capitalized on the 1968 Amendments' extension of existing vocational programs and the development of new ones. The popularity and progress

> . . . of vocational education in Oklahoma demanded in 1968 a more efficient and streamlined administration. Therefore, on July 1, 1968, vocational education was separated from the Department of Education, and the State Department of Vocational and Technical Education was created. Also, the State Board of Vocational and Technical Education was authorized. Vocational and Technical Education had become an autonomous entity [in Oklahoma] (Tyson, p. 53).

Oklahoma voters also endorsed the importance of vocational education through their passage of State Question 434 in 1966 which amended the Oklahoma Constitution. Section 9B, Article X, of the Oklahoma Constitution, then, became the legal basis for the establishment of "area school districts and the government thereof" (*School Laws of Oklahoma*, 1990, p. 472). Specifically, the Constitution

states, "Area school districts for vocational and technical schools may be established. . . ." (Constitution of Oklahoma, Article X, Section 9B).

During the formative years of the Oklahoma area vocational-technical schools in the mid-1960s and through the 1970s, much of their thrust was toward the daytime operation which targeted high school students and adults who were enrolled in these courses (State [Oklahoma] Board of Vocational-Technical Education, [no year stated], p. 1). However, in the early 1980s when oil and agriculture became less productive in the Oklahoma economy, a new emphasis was placed on attracting and retaining business and industry and on positioning vocational-technical education as a vital tool in the economic development of the state.

One obstacle, however, to area vocational-technical centers' taking an active role in economic development was, and is, that vocational education traditionally has not been viewed by business and industry as a training source for their employees. And why has this been true? Why has the perception of vocational education historically been perceived as a "lesser" option? At least a portion of the answer to these questions can be traced to the early philosophers and "architects" of present-day opinions.

Philosophically, vocational education has its roots in Pragmatism, first professed by Dewey and others in the early part of the Twentieth Century, and has been considered "a form of practical education for the masses" (Calhoun, 1982, p. 63). Liberal education, on the other hand, was considered the education for the aristocratic elite, therefore, creating the perception that vocational education was for those of lower class or lesser status. Barlow addressed this issue, stating:

> That two of the essential elements of a person's education--general and vocational--should suggest an apparent dichotomy is indeed a tragedy. Yet throughout most of this century, and part of the last, that notion has arisen from time to time, and the problem of relative values must be dealt with. It is hoped that the time will soon come when the topic can be quietly laid to rest and we can get on with the perennial

business of the total education for the total population (Barlow, 1982, p. 26).

As a new century approaches, perhaps the pendulum will begin to swing in the direction of "total education for the total population" espoused by Barlow. Support of such efforts may be evidenced through the renewed emphasis by Congress with its reauthorization of the Carl Perkins Act in 1990. Occurrences, although unmethodical and occasional, are being experienced in various areas throughout the country.

A small but rapidly growing number of high schools and community colleges are beginning to adopt curriculum changes which more and more blur the distinction between academic and vocational education. Such changes reflect a growing realization that the historic distinction between the two is dysfunctional. Strengthening the academic content of vocational courses makes sense, given the increasing complexity of the world of work (National Center for Research in Vocational Education, 1990, p. 1).

These efforts to lessen the distinction between academic and vocational education are to be commended. However, the negative perception of vocational education by the U.S. public is an obvious impediments to being successful in this effort. This viewpoint has been prolonged through many years of preconceived ideas regarding vocational education, its nature, its mission, and its place in society. The challenge of its joining forces with academia or of its being an economic development tool through it training capabilities for business and industry must be overcome if vocational education is to be an active participant in preparing the world's workforce to enter the next century.

Business and Industry's Perception of Vocational Education As Seen in the Literature

Because the current study is involved with how vocational education is perceived by Oklahoma business and industry, it is beneficial to

place these companies' opinions into context by investigating the perceptions of their counterparts throughout the nation.

It is also important to realize that the question of perception is neither a narrow nor a localized issue, nor is it always discernible through the **direct** approach. Rather, perception can be the hidden catalyst that stimulates individuals' choices. For example, when individuals or organizations make the decision that training is the answer to their needs, their **perception** of the various training providers will affect which of these providers they select. Thus, if a company chose vocational education as a trainer--but did not speak specifically to the question of perception--it may be deduced that they perceived vocational education to be a training provider since they selected it for such a purpose. These two terms and ideas--perception and selection--are so intertwined that it is essential to consider one topic when investigating the other. Accordingly, this section deals with the subject of perception directly, as well as indirectly, and its influence on the choice of training options.

Studies regarding the public's perception of vocational education have been conducted in a variety of states including Michigan, New York, Ohio, Pennsylvania, North Dakota, Arizona, Illinois, Georgia, Texas, North Carolina, South Carolina, Washington, California, and Mississippi (South Carolina Study, 1986, p. 14). In a Florida report, Pelletier, Chairman of the Board of Directors of Mack Trucks, Inc., stated that:

> The first step in improving the quality of vocational training is, of course, improving the image. And the only solution to this challenge is the continuation of our efforts to set positive examples, demonstrate our role in the future of this economy and this country, and present a consistent and powerful message whenever the opportunity arises (Florida State Council on Vocational Education, 1987, p. iii).

Those words are especially compelling when stated by a business person rather than an educator. It is certainly a validation that vocational educators are not alone in viewing perception as one of the greatest challenges facing the profession, especially in times of such technological advances and ever-changing needs in the workplace.

Pelletier's suggestion of setting positive examples and presenting a powerful message can certainly help promote the idea that lifelong learning and vocational education are realistic partners. One such example of success is the cooperative effort between two Stillwater, Oklahoma organizations--the Indian Meridian Area Vocational-Technical Center and the MerCruiser Plant (a division of Brunswick Corporation). About that relationship, Mr. Ralph (Bud) Agner, Mercury Marine's Director of Operations, commented:

> [Education] is our future, our tomorrow. Education that we get today is going to pay us in the long run just like product design we do today will put us in a competitive position tomorrow. . . . To survive we must be competitive. . . we have to utilize our people more efficiently. I feel that together we [industry and education] can keep our human element in step with the high technology of today's workforce (Agner, 1983).

Reinforcing the advantages of such a partnership is John Loulan, Goodyear Corporation, who stated that "Continuous learning is the key to success. Employees [must have the] ability to think, learn, and communicate." He continued by saying that,

> Earlier work forces could use people in just the cognitive and psychomotor areas. Now, we need them in the attitudinal and perceptual areas. Skills necessary for tomorrow's workforce include employee involvement, interfacing with computers, self-directed work groups, processes controlled by SPC [statistical process control], individual business plans, work simplification, business economic outlook, ownership, management. At school, we must teach them that learning is a lifelong process. Key skills for which our people are trained may well be gone in five years, so students must be conditioned early for change. It must be a major responsibility of the school to do this (Loulan, 1989).

Loulan credited the Great Plains Vo-Tech School in Lawton, Oklahoma, with assisting Goodyear in securing and retaining a highly trained workforce. The Goodyear Corporation and Great Plains operate an education-industry partnership to help ensure that the new hires and existing employees receive the types of training required in today's--and tomorrow's--workplace.

An interesting comparison to these two industries' perceptions of vocational education in Oklahoma is a 1986 South Carolina Study. The South Carolina State Council for Vocational Education conducted a survey

to determine business and industry's perception of their state's vocational education system and its role in training for industry. Utilizing a one-page (11" x 17") survey which contained 13 fixed-choice and 4 open-ended items, the questionnaire inquired into a number of areas including employer demographics, knowledge about and involvement with local vocational programs, and employer experiences with and suggestions for vocational programs. Using a stratified random sampling technique, the survey was mailed to 7,528 companies, with 1,245 (16.53%) responding. The study entitled, *A Study of Vocational Education: What Employers Say About Vocational Education in South Carolina*, reported that there was disagreement regarding the appropriate role of occupational training programs in responding to the changing demographic and economic changes which were affecting the nature and content of many jobs. The study continued that:

> Some educators and employers believe the current social and economic changes will increase work specialization and the demand for more highly specialized job skills. In their view, vocational education should move quickly to develop training and re-training [sic] programs that are closely tied to local industry needs.
>
> On the other hand, a growing number of people claim that the current economic conditions and technological changes will require higher levels of basic academic skills (reading, writing, math, science), an improved work ethic, and greater worker adaptability. These employers and educators argue that the appropriate role of vocational education is to develop a sound academic base, transferable occupational skills, 'employability' skills, and positive attitudes toward work and lifelong learning (South Carolina Study, 1986, p. 9).

Obvious from this study are the varying opinions regarding the appropriate function of vocational education whether toward basic skills or higher level skills, thus clouding the perception issue even more. To gain additional insight into this question, the National Center for Research in Vocational Education conducted a study in 1987 of "Employer Perceptions of Vocational Education in South Dakota." The Center's research procedures consisted of a questionnaire which addressed demographic characteristics of the companies surveyed, their attitudes toward secondary vocational education (using a Likert-type scale), their attitudes toward postsecondary vocational education, information about

specific individuals hired by the company within the past 6 months, and an open-ended question asking for any general comments about vocational education. This questionnaire was mailed to the targeted sample, along with a cover letter from the project director and a cover letter from the governor. After providing sufficient time for the respondents to receive the questionnaire, a group of formally trained interviewers telephoned the members of the targeted sample and asked them the questions from the survey. The sample examined totaled 1,452, with 720 responding (49.59%). Included in the findings of that research were:

> . . . that vocational education programs and graduates have solid employer support in South Dakota. When they hire high school graduates for entry-level positions, most employers reported that they would prefer individuals who have completed a vocational education program. . . . [and] they encourage employees who want more schooling to attend vocational-technical schools or colleges. . . . [However] employer support was not unanimous. A significant number of employers were critical of the system or its graduates. . . . Across the sample of employers, small business respondents tended to be more positive toward vocational education than large businesses (Hollenbeck, 1987, p. 83).

A similar study was conducted by Wade in 1984 regarding employers' views toward vocational education from a random sample of employers in the Pittsburgh, Reading, Northeast and Allentown-Bethlehem-Easton SMSA's (Standard Metropolitan Statistical Area). One hundred and eleven employers were invited to participate, and recommendations to vocational educators were constructed on the bases of employer opinions. The respondents suggested that vocational educators review their programs in an effort to improve their offerings; that there should be an assessment of the roles of various groups impacting vocational programs; and that "more deliberate collaboration be developed between educators and business and industry representatives" (Wade, 1984, p. v-vi).

Two other inquiries were conducted in 1984 by University of Missouri and the University of North Florida to expand the knowledge base of employers' perception of vocational education and their preference toward hiring vocational graduates. The study from the University of Missouri entitled, "Perceptions of Vocational-Technical Education in Missouri by Employers, Educators, and Students" surveyed

these three sectors to determine their perception of vocational education. The employers' survey was delivered to 1,471 employers throughout Missouri who were randomly selected and represented a cross-section of different types and sizes of firms, with approximately 71% responding. All area vocational-technical centers in Missouri were included in the mail survey of the educators and 54 of the 58 schools completed and returned the instrument. The students' survey consisted of a random sample of seniors and other students in Missouri's area vocational-technical centers who were expected to complete their vocational programs in the spring of 1984. These seniors represented 23 of Missouri's vo-techs which were randomly selected from the population of 58. General findings of the study were:

> Vocational education, on the basis of high performance of its graduates, is favorably perceived by the business community in Missouri. . . . A considerable number of them indicate, however, that the image of vocational education is not as they believe it should be, and that this is acting as an 'inhibitor' for the development and improvement of vocational education. . . . The business community . . . expect[s] vocational educators to assist students in the development of mature social relations capabilities, communications skills, and basic academic skills needed as young people join the workforce (University of Missouri, 1984, p. 85-86).

In considering the question of hiring preference, the Florida investigation determined that Florida employers preferred hiring vocationally and cooperatively trained high school alumni for entry-level jobs by an overwhelming majority. To reiterate the assertion that selection is an indicator of perception, it would follow, then, that Florida educators have a positive perception of vocational education as a provider of well-trained employees.

A more extensive survey was conducted in 1982 by the Gallup organization and Ohio State University which chose a national audience of employers from which to determine attitudes regarding the adequacy of vocational training throughout the United States. The results of this study reflected that employers reported new hires with relevant, school-provided vocational training significantly more productive than employees who lacked such training.

In May, 1990, a conference held in Washington, D.C., entitled, "Quality Connection: Linking Education and Work," featured two keynote speakers--U. S. Labor Secretary Elizabeth Dole and U. S. Education Secretary Lauro F. Cavazos. Both speakers' messages included the premise that the gap between school and the workplace is too great and that this gap must be bridged--and quickly--if America's education and economy are to compete in the world market (*AVA Update*, 1990, p. 5).

> The American transition from school to work 'is the worst in the civilized world,' according to the leader of a major comparative study of other national education systems. Marc S. Tucker, President of the National Center on Education and the Economy, explained that in all the countries studied (Europe, Japan, Singapore), youths graduate from secondary school with a good basic education and specific skills (*AVA Update*, 1990, p. 5).

Underscoring this concern are comments from Ray Wachniak, Director of Corporate Quality Assurance for Bridgestone/Firestone, Inc., who stated that Germany's vocational system is the "benchmark" for the world. "America's vocational system is no comparison to theirs--we are light years behind them. In Germany, vocations are prestigious; and the vo-tech curricula are geared at a higher level than in the U.S." (Wachniak, 1990).

Vocational education has the opportunity to be a major component in re-establishing America as a world leader in economic development and growth. However, those seeking such education and training must perceive vocational education as a vital ingredient in this re-claiming effort if there are to be successful education-industry linkages toward this goal.

The Changing Focus of Vocational Education
Toward Skills Requirements for Workplace 2000

As stated previously, vocational education is no longer only woodworking, auto mechanics, and machine shop. It now offers as a portion of its curriculum and services assisting companies who wish to bid on governmental contracts, organizational development training, statistical process control, business incubators, and total quality

management. However, segments of the population have not realized that this metamorphosis has occurred. Speaking to this issue of the challenges facing vocational education in the coming years, Snyder stated in *The Futurist* magazine that:

> Education and training is the second biggest industry in the U.S. after medicine and health care; with the fastest growing white collar job being training consultants. In 1965, the total number of pages in an auto mechanics training manual was 5,000. In 1987, there were 465,000--a 9,300% increase (Snyder, 1989).

This explosion of knowledge underscores the concept of lifelong learning and vocational education's role in that continual process. To help meet these challenges, Snyder feels that education should not be kept in the classroom but rather built into the job, believing the internship to be the Number One tool for developing people. He referenced a major study by the U. S. Department of Labor in which it recommended the revitalization of internship and apprenticeship programs because they are the fastest, most efficient systems for learning (Snyder, 1989). Vocational education is intrinsically structured to incorporate these types of programs into its instructional approach. However, the public's uncertainty regarding voc-ed's abilities to play such a role hinders its success. Often society views vo-tech training as do the employers who participated in a 1986 South Carolina study which stated that:

> Many employers cite the inability of vocational programs to attract the brighter, more capable students as a major area needing attention. The negative image of vocational education held by many parents, students, and educators is perceived to be a barrier to participation by many students who could benefit from vocational education. Employers are concerned that vocational education is not considered by many as having equal status to college preparation, and that vocational programs are often a 'dumping ground' for less able students. Many feel that the lack of clarity regarding the purposes and benefits of vocational education can cloud student decisions to enroll (South Carolina Study, 1986, p. 17-18).

Again--perception--the perception that only those students who can achieve nowhere else become participants in vocational education. As stated previously, vocational education now encompasses computer-aided drafting and machining as well as industrial technology which all

require an indepth knowledge of higher mathematics; the highly sophisticated principles of statistical processes; and the abilities to think critically and make decisions. This evolution of vocational education must be communicated to employers and participants alike.

Chance (1989) has stated that America is entering the second wave of school reform which talks about holistic learning or bringing segments back together. Educators need to be concerned about competency standards instead of Carnegie units, with students completing school when they achieved the competencies. He believes students should start vocational education at age 17 or 18 which would then take them to the journeyman status and that all education should be in one system rather than K-12, vocational education, and higher education. The concept of competency-based learning is supported by Al Shanker, President of the American Federation of Teachers, who is:

> against the predominant pattern of 'discipline-based learning' which he said has failed so many students. One alternative, he argued, was 'problem-based learning' where students are faced with realistic practical problems and then disciplinary knowledge is made available to help them solve the problem.
>
> Shanker compared the similarity of such an approach to the apprenticeship system. . . . (*AVA Update*, 1990, p. 5).

The very structure and foundation of vocational education lends itself to problem-based learning and competency standards. However, if the perception of vocational education is that of a static, discipline-based approach for less capable students, individuals and companies will not view it as a credible provider for their training needs.

Because the focus of vocational education and the requirements of the workplace are changing simultaneously and because they are forever linked and unseverable, they must be considered as parts of the same question or problem. For example, the needs of the marketplace drive the training emphasis of vocational education. Likewise, the participants in vocational education who become employed have an impact on productivity, economic development, and ultimately the success of the company and nation as a major world economy; which, in turn, redefine the offerings of vocational education. Thus, if America is to compete

in the international marketplace, acquiring skills for Workplace 2000 is a necessity. "In order to pursue recovery of its market position, American business and industry must be staffed by employees who can think critically, plan strategically, and adapt to change quickly" (*The Lipman Report*, 1990, p. 3). Cole reinforced this conviction when he stated, "The preparation of a world-class workforce is a fundamental goal of American education" (*Personnel*, 1991, p.13). Vocational education is ideally positioned to actively participate in economic development and must continually strive to re-emphasize this perception to business and industry seeking such training.

Employer expectations of this new workforce were also discussed by *Fortune* magazine which identified that "Dow is looking for entry-level workers who can communicate, solve problems, work with technology, and learn quickly." The article continued that:

> According to the Bureau of Labor Statistics, jobs for technicians will grow 38% by the year 2000--faster than any other major occupational group. As automation spreads, companies need smarter, more flexible employees who can perform a variety of tasks, from installing and monitoring welding robots to programming them if production rates drop. Professor Ernest Lynton at the University of Massachusetts dubs this new breed 'blue-and-white-striped-collar workers'--production employees who are paid to think (Perry, 1981, p. 127).

Advancing technology and emphasis on highly skilled, well-rounded graduates are quickly changing not only the types of training offered but also the methods by which it is delivered and the audiences to whom it is provided. Vocational education has transcended woodworking, auto mechanics, and vocational agriculture; it has become a highly sophisticated, technologically sound educational system producing quality graduates for the world of work.

> Says John Furman, a training coordinator for General Motors: 'I recently spoke to some vocational students who were using computers to simulate rocket launchings. It's not like in the Fifties, when they'd just be given a piece of wood to saw' . . . . For industry, vocational education could be a godsend (Perry, 1981, p. 127).

As vocational educators increasingly recognize the mandates being made by business and industry, they can move decisively and deliberately

to ensure that vocational education is meeting these new and changing needs. They must also realize that:

> As the restructuring of industry continues to take place in this country, changes will also occur in the composition of occupational demand. The direction of industry employment growth has an important effect on the demand for occupational employment growth, since different industries have different staffing patterns. Although we will continue to have a need for some unskilled workers, the occupations that will grow the fastest will be those requiring substantial education and special skills. The occupations of the future will require more education, training and cognitive skills than in the past.
>
> . . . Our workers now and in the future need not only the technical skills to perform their jobs but the well-rounded educational backgrounds required for full participation in our democratic society" (Norwood, 1989, p. 7-9).

In considering these new employer demands, from where will the workers come who meet the criteria identified by business and industry as critical to their success? In an effort to gain employees who have the required skills, many companies themselves are entering the training arena. In fact, "most [companies] spend about 2 1/2 percent of their total payroll on training" (Wachniak, 1990). However, in a 1989 issue of *Fortune* magazine, Perry presented this opinion regarding the feasibility of companies' becoming their own trainers:

> Companies cannot train them all. Says Jack Bowsher, a retired director of IBM external education: 'When someone comes to work here, we double the cost of training, because we have to pay salaries too. More and more, industry is asking: 'How do we get people trained <u>before</u> we hire them?' Vocational schools do this (Perry, 1989, p. 127-128).

This significant expense and commitment demonstrate an even greater need for companies to use vocational education as a trainer. And, as Bowsher stated, vocational education can meet these demands; but the challenge remains to change the perception within the minds of those seeking such training to ensure their selection of vocational education as a provider of training.

The elements affecting future workplace competencies, which will be different from any period in the history of civilization, have been addressed by Leach and Chakiris.

> Some of the factors that are redefining the fundamental nature of jobs, work, and careers [are] . . . global competition,

> technology, productivity and the manufacturing economy, the baby boomers, labor force participation of women, immigration patterns, functional illiteracy (Leach and Chakiris, 1988, p. 48 and 50).

This redefinition of jobs will result in employees who must be able to think critically, communicate effectively, work in teams, make decisions, and solve problems. These new demands for specialized training both in the affective and cognitive domains will encompass the spectrum of workers in all phases of business and industry. Therefore, the perception of vocational education by companies desiring such training will have a direct impact on their decision to use--or not to use--vocational education as a provider of programs and services. The education-industry linkages become even more important as these trends continue to emerge. Perry addressed this situation in *Fortune* magazine:

> American corporations have an important reason to help make vocational education better--self-interest. By working with local institutions on curriculum, by lobbying state education departments and local school boards for funding, by donating up-to-date equipment, by loaning employees to serve as teachers and mentors, companies can help guarantee themselves a better-trained work force.
>
> The U.S. can no longer afford to squander its human resources. To better mine its talent, the country must adopt an education policy that acknowledges the vast diversity of its students and offers options suited to their individual needs and learning styles. Vocational education is one option--Toyota, IBM, and Lockheed are among the corporations that consider it a vitally important one (Perry, 1989, p. 130, 138).

While Perry's comments indicate a positive perception of vocational education, it is essential to determine how widespread this opinion is and to capitalize on these affirmations in order to strengthen vocational education's role in as a training provider for business and industry.

Vocational education is a primary factor in economic development because of its ability to attract and retain industry, and it is vital that it be viewed as such by companies requiring such programs and services. In *Education for Tomorrow's Jobs*, Sherman stated that:

> If a local vocational education program has the capacity to provide the training required by particular employers considering an area for relocation, the vocational education program itself can be a strong force in attracting them. It is the capacity of the program to meet or adapt to specific

> needs of employers, not the number of students trained or the pool created, that has the potential to attract jobs (Sherman, 1983, p. 66).

This premise is further substantiated through Gordon's research regarding education and employment in which she indicated that:

> Employers consider vocational education a significant factor in choosing new employees. Over 3,800 employers surveyed reported that school- provided vocational training was required for 9.5 percent of the jobs studied and 'important but not required' for another 37.9 percent (Gordon, 1985, p. 9).

A well-trained workforce will become even more imperative as the year 2000 approaches with its new and unprecedented demands for workers' training and skills. The global marketplace is already a reality, and America's ability to compete in this new arena is based upon the quality of the education of its citizens. Vocational education is a major factor in preparing Americans to become competitive and successful, and the perception of vocational-technical education becomes even important when viewed in this context.

The present inquiry, a survey of processors and manufacturers in Oklahoma employing more than 250 workers, is similar to an investigation by Nunez and Russell in 1982. Their study was conducted jointly by the National Association of Manufacturers (NAM) and the National Center for Research in Vocational Education . . . to elicit the view of NAM members about vocational education. Two thousand NAM members were randomly selected and mailed the survey. Almost 40 percent of the sample responded.

On the basis of the findings of the survey, there are some general conclusions and inferences that could be drawn.

1. Vocational education is generally perceived as doing well and as being beneficial to employers. Post-secondary vocational education, particularly, is seen as meeting the needs of manufacturers.

2. Vocational education graduates appear to have an advantage in obtaining employment for jobs requiring less than a four-year college degree.

3. In general, manufacturers are quite amenable to helping vocational education be more effective, and they would like to be more involved in evaluating vocational education. Indeed, the positive relationship between manufacturers' perceived

> benefits and their involvement with vocational education suggests that both manufacturers and vocational educators might profit from greater involvement of business executives in the planning, conduct, or evaluation of vocational education (Nunez and Russell, 1982, p. x-xi).

Additionally, a survey conducted by Mary Ann Donovan in 1986 regarding employers' use of vocational education:

> The Center for Vocational Education in Business Cooperation recently completed a nationwide survey of private sector employers designed to elicit information on the level of business interest in various vocational education services and programs as well as to gain insight into how business can and does contribute to vocational education.
>
> The data indicates [sic] when employers do not avail themselves of vocational education services, it is most frequently due to the company's lack of need for the services or general lack of knowledge about the program rather than the firm's reservations about the quality of training provided to participants in vocational education programs (Donovan, 1986, p. 1, 6).

To increase this knowledge base regarding employer opinions of vocational education, the current study also addresses manufacturers and processors (in Oklahoma) to determine whether they use the services of vocational education and the reasons why they do--or do not--utilize area vocational-technical centers as training providers.

The results of the Oklahoma survey will provide information in a number of areas including:

1. the representative companies' perceptions of vocational education and its level of training

2. whether the representative companies have used vocational-technical for company-sponsored training and if so, their degree of satisfaction; if not, the reasons for non-selection.

This information can assist vocational educators across the nation in re-evaluating their marketing emphases to this segment of corporate America with a two-fold purpose: (a) enhancing the factors these companies indicated as positive influences on their selection of area vocational-technical centers as training providers and (b) revising the factors which were listed as inhibitors in the companies' choice of area vocational-technical centers as a training source. It is the intent of the researcher that these results be applicable to the nationwide

network of vocational educators and provide essential data to them for consideration and application.

Summary

Time has long passed when vocational education offered only woodworking and automotive repair. Changes have occurred in virtually every facet of vocational-technical including expanding and diversifying the audiences to which it directs its training and services, the methods by which the offerings are delivered, the melange of courses, and the sophisticated and highly technical equipment and content that must be mastered. However, until and unless the perception of vocational education must be updated and revitalized in the minds of those seeking such training, these changes may not be acknowledged, by the potential users. This revitalization has been attained, in Oklahoma specifically, to a certain degree as indicated by Pat Choate, in *The High-Flex Society*:

> By 1985, seventeen years after Oklahoma began providing such customized training assistance, the service had been used by more than 500 firms. Some have been large international companies such as General Motors and Weyerhaeuser, while many have been smaller companies. . . . (Choate, 1986, p. 214).

The market continues to grow, and vocational education must keep pace with these demands. In *Image 2000: A Vision for Vocational Education*, Charles Brodhead stated:

> Vocational education must seize the moment now and position itself to meet the critical educational and workforce needs of our country. If we don't, then business and industry will turn to other educational sources or begin to do it themselves. The choices seem clear--either thrive or wither.
>
> By the year 2000, our image will indeed accurately reflect who we are (Brodhead, 1991, p. 25).

Vocational education has no option but to heed these words and to meet this challenge if it is to remain alive and well. The importance of perception cannot be minimized in this challenge.

CHAPTER III

METHOD AND PROCEDURE

Introduction

Business and industry require training for their workforce because of changes in technology, employee turnover, and expanding markets and trade options. In a variety of states, vocational education provides such training to business and industry but has had limited formal feedback from the companies on the effectiveness of these programs and services. The significance placed on such training by these users and the perception they have of vocational education's ability to meet their needs are great determinants of the future success of area vocational-technical centers.

From state to state, vocational education has many commonalities as well as variances which include, but are not limited to, the following:

- some states use community colleges as their vocational education delivery systems while others utilize area vocational-technical centers or junior colleges;
- some states provide vocational education predominantly as a post-secondary offering while others incorporate both high school and adults in their programs and services;
- some states give college credit for vocational courses completed while others do not provide advanced vocational degrees; and
- some states view vocational education as an economic development tool through its training of potential and existing employees of the workforce while others do not consider this as a role of vocational education.

This current study analyzes the vocational education network in Oklahoma, specifically the area vocational-technical centers. The decision to select Oklahoma was based on the fact that it may be similar to many of the states' systems and corresponds to the descriptors previously listed in the following ways:

- Oklahoma's primary delivery system of vocational education for manufacturers and processors is the area vocational-technical centers;
- Oklahoma provides vocational education to high school students and adults;
- Oklahoma area vocational-technical centers, in some instances, have cooperative agreements with two-year colleges which give college credit for courses taken at the area vocational-technical centers; and
- Oklahoma vocational education is extremely active in economic development.

Because the Oklahoma vocational education system is similar to many other states in a variety of ways, the results of the current investigation may have implications for vocational education nationwide.

As addressed in earlier chapters of this study, Oklahoma's primary audience in the formative years of the area vocational-technical centers was the secondary student. However, as the centers grew and matured, their mission and users have changed to include adults on a full-time or part-time basis, many of whom are participants in industry-sponsored training. Because of this significant modification, it is desirable to identify the perception of the area vocational-technical centers in their present status.

The target audience selected for this current investigation was one of the populations that benefits most from vocational education--the CEOs of the companies who are users, or potential users, of Oklahoma's area vocational-technical centers. There are no formal statewide data that give a distinct picture of how Oklahoma business and industry view

area vocational-technical centers as potential trainers of their existing workforce. Therefore, this study is needed to assess this group's perception of these centers within the state of Oklahoma.

The purpose of the study, then, is to ascertain the perception of area vocational-technical centers in Oklahoma among CEOs of large companies with offices in the state to determine if the CEOs regard area vocational-technical centers training options for their employees. As stressed by Long and others in 1988, this study has both theoretical and practical significance, thus providing new knowledge to the field of vocational education as well as information which is applicable to educators in area vocational-technical centers in a number of specific situations.

Population of Interest

The population for the current investigation included manufacturers and processors in Oklahoma which employ at least 250 employees as identified from the *Oklahoma Directory of Manufacturers & Processors--1990 Edition* published by the Oklahoma Department of Commerce. There were a variety of reasons for selecting this target population and the state of Oklahoma:

- the universality of these types of companies--virtually every state has companies which fall into the categories of manufacturers and processors; therefore, their responses could be applicable to a nationwide constituency;
- the target group could be clearly and thoroughly identified through information compiled by the Oklahoma Department of Commerce;
- as previously stated, Oklahoma vocational education is similar to other states; the results of the study, therefore, may have wide-ranging applicability;

- cooperation and relationship existed already between Oklahoma area vocational-technical centers and companies within the state;
- manufacturers and processors have a diversity of classifications of employees who are users, or potential users, of area vocational-technical centers' programs and services ranging across a wide spectrum;
- the companies were located in a majority of area vocational-technical districts in the state--22 of the 29;
- the population of 126 was manageable, which allowed the entire population to be surveyed rather than a sample only; and
- they represented companies which have headquarters in other states or nations with branches in Oklahoma as well as companies with their entire operation in the state.

Procedure for Test Sampling and Surveying

Following the preliminary design of the survey instrument by the researcher, the instrument was reviewed by a jury of a number vocational educators to determine if the questions asked would provide the information desired. Additionally, the questionnaire was critiqued by a CEO of a manufacturer which employs fewer than 250 to evaluate its readability, clarity, and ease of response. Specific input from the CEO included the revision of employee groups to include skilled and unskilled manufacturing and processing personnel and the addition of technical personnel encompassing engineers, computer programmers, technicians, etc. Other suggestions involved streamlining the questionnaire for fewer questions, combining some of the elements, and adding specific options on the response list. By utilizing the knowledge of educators and of industry personnel who were similar to the actual respondents, the validity of the instrument was confirmed. A list of jury participants is included in Appendix A of this study.

Subsequent to the jury recommendations, refinements were made in the questionnaire. Then, a "screening" of the instrument was conducted by mailing it to 30 randomly selected manufacturers/processors having 101-250 employees from a population which consisted of 236 companies. This group was chosen because of its similarities to the actual target population of the study. Selection of the smaller companies was accomplished by first identifying employers of this size as listed in the *Oklahoma Directory of Manufacturers & Processors--1990 Edition*. These companies were then arranged in alphabetic order according to the name of the firm and assigned numbers from 1 through 236. Individual slips of paper with numbers 1 through 236 were placed in a hopper and drawn at random for the selection of the 30 to be targeted to receive the first mailing. This random selection was conducted with replacement.

Once the sample of 30 was defined, the instruments were prepared for mailing using the same procedure that was ultimately used for the actual target population. This procedure included:

- mailing the instrument, accompanied by an introductory letter from the researcher, to each of the 30 companies;
- making any necessary revisions in the instrument following its return from the sample audience; and
- mailing the instrument to the actual targeted population of the study.

As in the mailing to the sample group, each questionnaire sent to the target population was accompanied by an introductory letter from the researcher indicating the purpose of the study and the manner in which the results would be utilized. (A copy of the researcher's cover letter is included in Appendix B of this study.)

Following receipt of the initial returns from a portion of the targeted population, a subsequent mailing of the questionnaire and new cover letter was made to non-respondents requesting that they complete and return the instrument. (A copy of the researcher's second cover

letter is included in the Appendix C of this study.) Upon receipt of the completed questionnaires from the second mailing to the target population, the data were compiled and studied for implications and application. A total of 66 questionnaires (52%) were returned to the researcher.

In addition to questions designed to gather information regarding the perception of area vocational-technical centers, the survey instrument included demographic characteristics to allow the researcher to compare data (if so desired) as well as to provide general information regarding the population selected. (See instrument in Appendix D).

Questions relating directly to the perception of area vocational-technical centers were developed to elicit responses from the participants as to the criteria they use when selecting training providers for their employees.

The instrument was structured to determine:

1. demographic information regarding the respondents;

2. the companies' general perception of an Oklahoma area vocational-technical center;

3. the companies' reasons for training in general;

4. which companies had been users of the programs and services of Oklahoma area vocational-technical centers;

5. factors which influenced companies' reasons for selecting training providers;

6. other service providers which had been considered or used by the companies;

7. the users' satisfaction rating with the programs and services of Oklahoma area vocational-technical centers.

The demographic section of the instrument was provided to determine general information regarding the individual company as well as the specific person completing the form. Those items included the title of the individual responding to the survey, the title of the individual to

whom he or she reports, how long he or she had been employed with the company totally and at its present location, and the number of years the plant that been located in Oklahoma. These responses also allowed the researcher to compare information received if such comparisons were wanted.

The instrument then asked the respondents if their companies had been involved in training within the last 3 years and within the last year. A subsequent question: "Has your company used an Oklahoma Area Vocational-Technical School for its training within the last 3 years? within the last year?" allowed the researcher to identify those companies who had trained and then determine if they had, in fact, chosen an area vo-tech center for that training.

Additionally, the following items were asked:

- Using a Likert-type scale of Strongly Agree, Agree, Disagree, Strongly Disagree, Don't Know, the survey asked to what extent the respondents agreed with the following statements regarding an area vocational-technical center:
  - A provider of training for ***high school students***
  - A provider of training for ***adults who wish to pursue a new career***
  - A provider of training for ***clerical personnel*** **in business and industry**
  - A provider of training for ***management personnel*** **in business and industry**
  - A provider of training for ***skilled manufacturing and/or processing personnel*** **in business and industry**
  - A provider of training for ***unskilled manufacturing and/or processing personnel*** **in business and industry**
  - A provider of training for ***sales and distribution personnel*** **in business and industry**

- A provider of training for ***technical personnel*** **such as engineers, technicians, computer programmers, etc. in business and industry**
- A provider of services such as ***bid assistance centers*** **for business and industry**
- A provider of assistance to clients such as ***small businesses***
- A provider of assistance through ***counseling, placement, and assessment***
- Please describe other forms of education, training and/or services which you feel are indicative of area vocational-technical school offerings

- Respondents were further asked the factors that influenced their decision to provide training for their employees using the worker categories of clerical, management, sales and distribution, skilled and unskilled manufacturing/processing, and technicians. Options provided to them, along with the opportunity to offer any other responses desired, were:
  - To increase worker productivity
  - To promote growth in employees being considered for advancement
  - To help employees function in a team environment
  - To provide rewards for workers
  - For safety purposes
  - For employee assistance programs
  - For employee retention
  - For orientation and upgrading
  - To increase worker satisfaction
  - To introduce new procedure, process, or equipment
  - Please indicate any other reasons why you elected to provide training for your employees

- To determine the factors that affected the companies' selections of training providers, the respondents were requested top rate the criteria which influenced their decisions. The selection was rated on a scale of Much Influence, Moderate Influence, Little Influence, No Influence, No Opinion for each of the job classifications of clerical, management, manufacturing (skilled and unskilled), sales and distribution, and technical. In addition to rating the items given in the following enumeration, the respondents were also asked to indicate the reason for marking each item and were given an opportunity to supply any other information they wished. Factors provided included:
  - funding for start-up training is provided by the training agency
  - training is offered at a low cost
  - training is conducted on-site at our company
  - training is customized to meet company needs
  - training times are scheduled to meet company needs such as shift work
  - training is designed and delivered within the time frame needed by your company (such as within days and/or weeks)
  - training agency has been recommended by others who had used it and who were satisfied with its programs and services
  - appearance and design of the training agency's facilities and equipment
  - staff of the training agency provides expert capable training
  - agency personnel are friendly and helpful
- For each of the employment classifications of clerical, management, manufacturing (skilled and unskilled), sales and distribution, and technical, respondents were asked to identify the training provider they approached **first** when considering

company-sponsored training and to indicate the reason for their selection. Choices of training providers included:

- college/university
- area vo-tech center
- in-house training department
- outside consultant
- private technical institutions
- vendor-supplied training
- correspondence courses
- other (please specify)

- Users of Oklahoma area vocational-technical schools only were asked to complete the final section of the questionnaire. For each of the classifications of clerical, management, manufacturing (skilled and unskilled), sales and distribution, and technical for which they had received training from an area vocational-technical center, respondents were asked to rate their satisfaction with the training using a Likert-type scale of greatly satisfied, moderately satisfied, somewhat satisfied, dissatisfied, or no opinion and to explain their degree of satisfaction or dissatisfaction.

Data Analysis

Because the major purpose of this study is exploratory in nature and the results illustrate a current state of affairs, a variety of descriptive statistical methods, such as frequency distributions, graphs, and percentages, were used to analyze and present the data received. Upon further scrutiny of the results, any extraordinary or unusual findings were subsequently analyzed through the use of Chi-square (X^2). These procedures are discussed in detail in the following narrative.

Each of the 6 specific objectives listed in Chapter 1 was converted into a corresponding item on the survey to facilitate interpretation.

The non-demographic questions on the survey were designed using the Likert response scale as described in this chapter's sub-topic, "Procedure for Test Sampling and Surveying."

The first non-demographic question on the instrument asked a general question regarding perception of area vocational-technical schools as providers of education and training for various segments of society which were enumerated on the questionnaire.

The second and third items addressed the currency of training both in general and through the Oklahoma area vocational-technical schools which could provide the researcher insight into the importance the companies placed on keeping their workforce up to date on recent technologies and procedures.

Question 4 asked the respondents to indicate their reasons for training with options classified by worker category.

Question 5 considered the question of factors which influenced the companies' decision to train and their selection of a training provider.

The sixth item on the questionnaire asked the respondents which training provider they would **first** approach when considering company-sponsored training for the various worker categories. Respondents were to rank the selection options with a 1, 2, or 3 (1 being the highest). This information was subsequently evaluated by the researcher and presented in table form showing only the number of No. 1 options chosen by the respondents.

Only those respondents who had used an Oklahoma area vocational-technical school for training its employees were asked to respond to the final item on the questionnaire. This section was designed to evaluate their level satisfaction with such training.

Specific analysis of each of the items will be provided in Chapter 4, with interpretation, conclusions, and recommendations forthcoming in Chapter 5 of this study.

CHAPTER IV

PRESENTATION OF THE DATA

Introduction

The purpose of this study was to ascertain the perceptions among CEOs of large companies with offices in Oklahoma of the suitability of area vocational-technical centers as a training option for their employees. To determine the perceptions of this group, questionnaires were mailed to the target population of 126 CEOs of processors and manufacturers in Oklahoma whose companies employed more than 250 for the purpose of ascertaining demographic as well as specific information regarding perceptions of vocational-technical education in Oklahoma. Specifically, those items identified for study were:

1. demographic information regarding the respondents;
2. the companies' general perception of an Oklahoma area vocational-technical center;
3. the companies' reasons for training in general;
4. which companies had been users of the programs and services of Oklahoma area vocational-technical centers;
5. factors that influenced companies' selection of training providers;
6. other service providers which had been considered or used by the companies;
7. the users' satisfaction rating with the programs and services of Oklahoma area vocational-technical centers.

The demographic section of the instrument was provided to determine general information regarding the individual company as well as the specific person completing the form. Those items included the title of

the individual responding to the survey, the title of the individual to whom he or she reports, how long he or she had been employed with the company totally and at its present location, and the number of years the plant that been located in Oklahoma.

Responses were obtained from 66 companies representing a return of 52 percent. These results were tabulated and analyzed which will be discussed in the following narrative.

Results of the study will facilitate the ultimate goal of assisting vocational educators nationwide in refining their training and services to meet the needs of industries in a more effective and efficient manner. By utilizing the information resulting from the study to enhance the positive aspects of vocational education's offerings as identified by the target audience and to improve those features which were described as inhibitors to selection, vocational educators can enrich the programs and services being provided.

Findings

Description of Respondents

Of the 66 returned questionnaires, 63 responded to Question 1 in the Demographic Section which asked the title of the individual completing the survey. The researcher requested that the CEO complete the questionnaire rather than delegating it to another person for completion. Therefore, the introductory letter which accompanied the instrument asked the CEO, if he or she was unable to respond, to select someone knowledgeable about his or her views as well as about the training history of the company. As a result, the titles of the individuals completing the survey varied from President/Chairman to Maintenance Manager to Operations [Supervisor]. A breakdown of the responses for Question 1 is shown in Table 1.

TABLE 1

DEMOGRAPHIC DATA INDICATING TITLE OF PERSON COMPLETING SURVEY INSTRUMENT

Title of Person Completing Form	Number	Percentage
Chief Executive Officer (CEO)	16	25.40%
Human Resources [Director]	35	55.56%
Manufacturing [Officers]	3	4.76%
Operations [Officers]	3	4.76%
Other	6	9.53%
Totals	63	100.00%

The majority of the responses--80.96% were from CEOs or individuals involved in the Human Resources Development (HRD) arena. It would seem a natural delegation from the CEO to the training and development area for response to such a questionnaire since the entire instrument addressed the attitudes and history of training in the company. Both the CEO and those in HRD should be knowledgeable of the philosophy, perceptions, and experience of the company in the area of employee training.

Question 2 in the Demographic Section asked the title of the individual to whom the respondent reported. Of the 63 who responded to this section, 58 answered this query. The results of Question 2 are indicated in Table 2. A total of 77.59% of the respondents (indicated in Table 2, Page 47) directly report to boards of directors, CEOs, human resource directors, or vice presidents--all of whom are in the upper echelon of management.

Question 3 of the Demographic Section asked the respondent how long he or she had been employed with the company, and 63 chose to answer this question. The responses, which ranged from 6 months to 50 years, are described in Table 3 (Page 47). Of the 63 respondents, 69.84% represented over 10 years with the company.

TABLE 2

DEMOGRAPHIC DATA INDICATING TITLE OF PERSON TO WHOM SURVEY RESPONDENT REPORTS

Title of Person To Whom Respondent Reports	Number	Percentage
Board of Directors	4	6.90%
Chief Executive Officer (CEO)	12	20.69%
Human Resources [Director]	11	18.97%
Vice President	18	31.03%
Plant Manager	8	13.79%
Other	5	8.62%
Totals	58	100.00%

TABLE 3

DEMOGRAPHIC DATA INDICATING TOTAL NUMBER OF YEARS SURVEY RESPONDENT HAS BEEN EMPLOYED WITH COMPANY

Number of Years Respondent Has Been Employed with Company	Number	Percentage
6 months - 10 years	19	30.16%
11 years - 20 years	22	34.93%
21 years - 30 years	15	23.81%
31 years - 40 years	6	9.52%
41 years - 50 years	1	1.58%
Totals	63	100.00%

Respondents were asked in Question 4 how long they had been with the company in its present location. Of the 61 respondents to Question 4 (presented in Table 4, Page 48), 57.38% had been with the company in its present location for more than 10 years.

Question 5 asked how long the company had been in Oklahoma. The breakdown of the 62 responses to this query are indicated in Table 5 (Page 48).

The range of company operations within the state was interesting as it represented a span of 6 months to more than 80 years, indicating that respondent companies were of all ages and in all stages of growth.

TABLE 4

DEMOGRAPHIC DATA INDICATING NUMBER OF YEARS SURVEY RESPONDENT HAS BEEN EMPLOYED WITH COMPANY IN ITS PRESENT LOCATION

Number of Years Respondent Has Been Employed with Company at Its Present Location	Number	Percentage
6 months - 10 years	26	42.63%
11 years - 20 years	19	31.15%
21 years - 30 years	11	18.03%
31 years - 40 years	4	6.56%
41 years - 50 years	1	1.64%
Totals	61	100.00%

TABLE 5

DEMOGRAPHIC DATA INDICATING NUMBER OF YEARS COMPANY HAS BEEN LOCATED IN OKLAHOMA

Number of Years Company Has Been Located in Oklahoma	Number	Percentage
6 months - 10 years	3	4.84%
11 years - 20 years	11	17.74%
21 years - 30 years	15	24.19%
31 years - 40 years	5	8.06%
41 years - 50 years	11	17.74%
51+ years	17	27.43%
Totals	62	100.00%

In summary, the demographic results indicated that the majority of respondents were CEOs or individuals involved in the Human Resources Development area who reported directly to boards of directors, CEOs, human resource directors, or vice presidents. Over 50% of the respondents had been employed with the company for more than 10 years; and the companies surveyed have been operating in Oklahoma for a span of 6 months to more than 80 years. The responses, therefore, represent individuals who have had long tenure with the corporations and who would be most knowledgeable about their training history as well as representing companies who have a wide variety of experience in the state. It is with this background and understanding of the companies surveyed that the following data can be reviewed and analyzed.

Perceptions of Area Vocational-Technical Schools As Providers of Training

Section 1 of the survey was designed to determine the scope of the respondents' knowledge of the programs and services provided by area vocational-technical schools in Oklahoma. Using a Likert-type scale of Strongly Agree, Agree, Strongly Disagree, Disagree, Don't Know by which to register responses, the respondents were asked to what extent they agreed with various statements regarding area vocational-technical centers. Percentages of responses were computed and are presented in Figures 1 through 11 (the quantities on each figure indicate the percentages of respondents to that specific questionnaire item). A contingency table was constructed to compute Chi-square (X^2) to test the relationship between the perceptions of the respondents according to the various area vocational-technical schools programs or services, using the null hypothesis (H_o), "There is no significant difference in the respondents' perception of area vocational-technical schools with regard to the schools' varying programs and services." The critical value of X^2 at .05 with 40 d.f. equaled 55.76. The X^2 resulting from the contingency table calculations equalled 173.85. This large contrast

results in the rejection of the null hypothesis, thus inferring that there is a difference in the respondents' perception of area vocational-technical schools with regard to the schools' varying programs and services. The implications and conclusions regarding this difference in perception will be discussed in Chapter 5.

Figure 1 records the responses of the 66 respondents regarding their perceptions of area vocational-technical schools as providers of training for high school students. A total of 93.94% of the respondents expressed a Strongly Agree or Agree response to the query asking if they perceived area vocational-technical schools as institutions for educating high school students, with 1.52% marking Disagree or Strongly Disagree, and 4.55% Don't Know/No Answer.

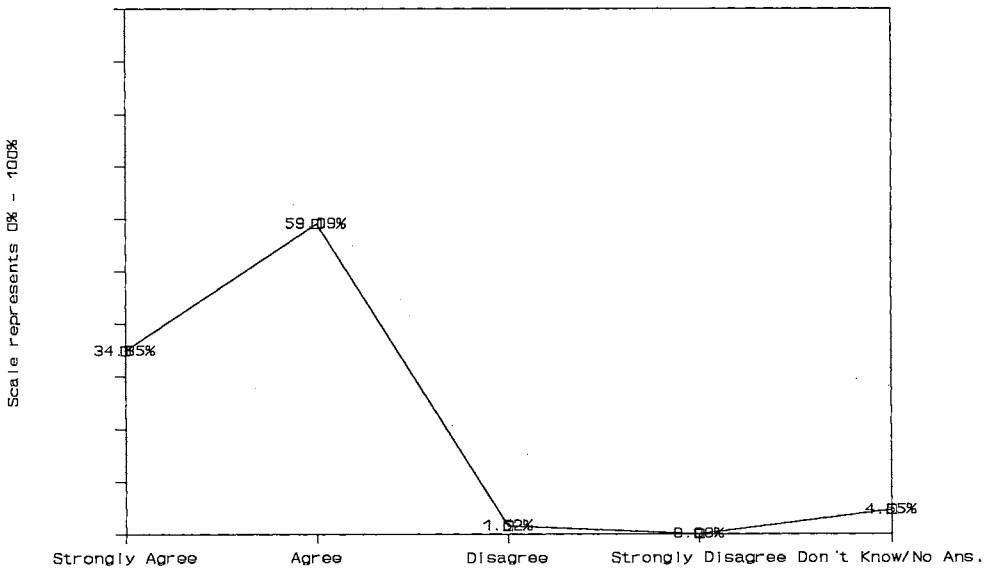

Figure 1. Level of agreement that area vocational-technical schools serve high school students.

Question 1.2 asked respondents their perception of area vocational-technical centers as providers of training for adults who wish to pursue a new career. Figure 2 describes their responses to this query.

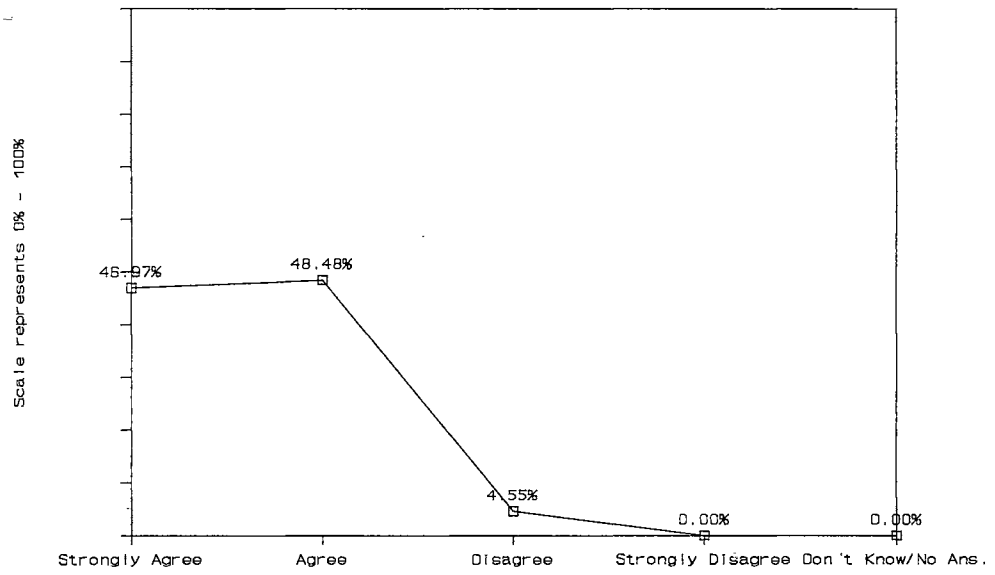

Figure 2. Level of agreement that area vocational-technical schools serve adults who wish to pursue a new career.

Those who chose Strongly Agree or Agree totalled 95.45%; those indicating Disagree or Strongly Disagree were 4.55%, and 0.00% responses were recorded in the Don't Know/No Answer category.

Question 1.3 asked to what extent the respondents perceived area vocational-technical centers as providers of training for clerical personnel in business and industry. Their thoughts on this question are recorded in Figure 3 (Page 52). A total of 93.94% of the individuals responding to the questionnaire marked the Strongly Agree or Agree category; 3.03% expressed either a Disagree or Strongly Disagree

response; and 3.03% recorded responses in the Don't Know/No Answer category.

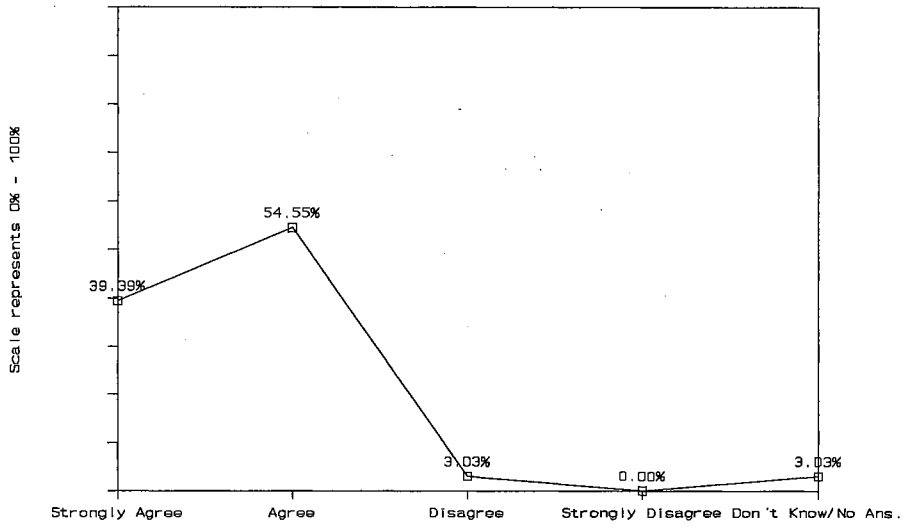

Figure 3. Level of agreement that area vocational-technical schools provide training for clerical personnel in business and industry.

When asked if they perceived area vo-tech schools as trainers of management personnel in business and industry, 56.06% of the respondents expressed either a Strongly Agree or Agree response to the statement; 30.31% indicated Disagree or Strongly Disagree; and 13.64% marked Don't Know/No Answer. Figure 4 (Page 53) indicates the responses to Question 1.4 regarding management personnel.

The responses in the Strongly Agree and Agree categories were 93.94% when respondents were asked if they perceived area vo-tech schools as trainers of skilled manufacturing/processing personnel in business and industry (Figure 5, Page 54). Those marking Disagree and

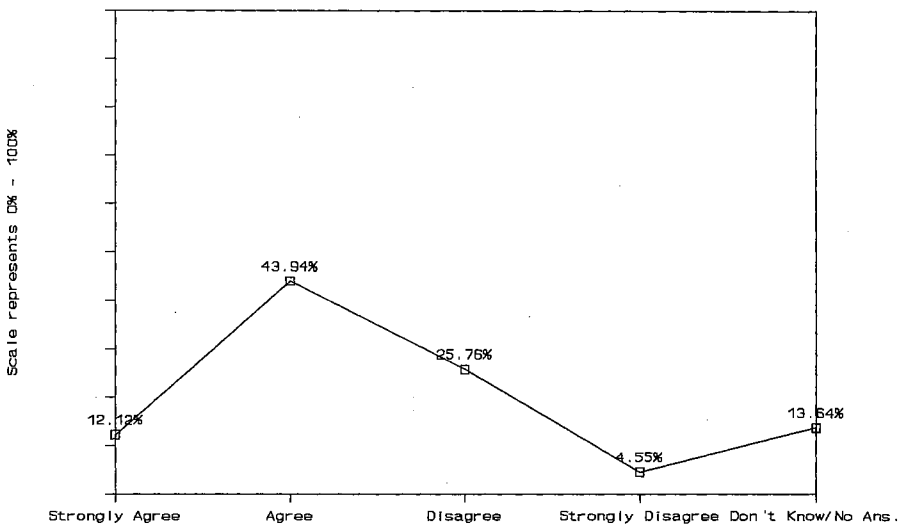

Figure 4. Level of agreement that area vocational-technical schools provide training for management personnel in business and industry.

Strongly Disagree totalled 1.52%; and 4.55% registered in the Don't Know/No Answer category.

The percentage was somewhat lower for the respondents' perception of whether area vocational-technical schools offered training for unskilled manufacturing and/or processing personnel in business and industry. Not quite three-fourths--71.21%--answered in the Strongly Agree and Agree categories; those Disagreeing or Strongly Disagreeing totalled 12.12%, with the Don't Know/No Answer category receiving 16.67% of the responses. These findings are described in Figure 6 (Page 54).

When the survey asked the respondents' perception of area vocational-technical schools as trainers of sales and distribution personnel in business and industry, 36.36% marked Strongly Agree or Agree, with 31.82% indicating Disagree and Strongly Disagree. Those

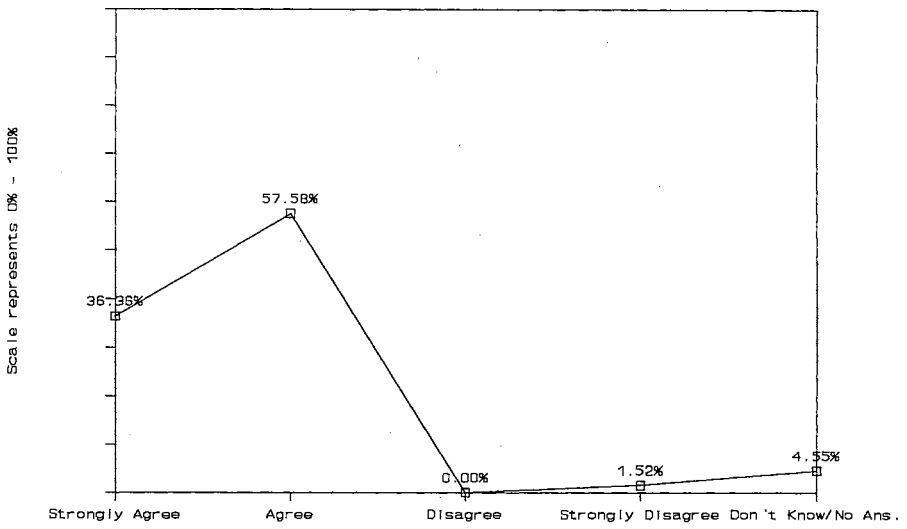

Figure 5. Level of agreement that area vocational-technical schools provide training for skilled manufacturing/processing personnel in business and industry.

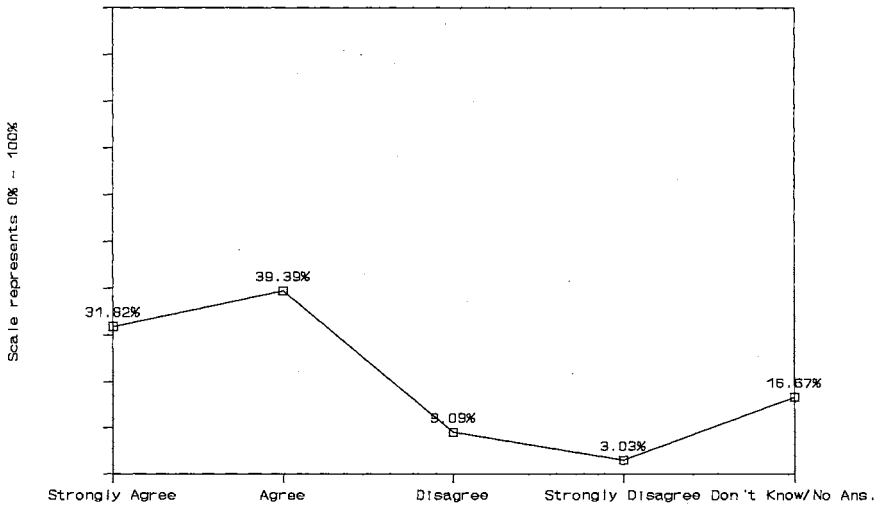

Figure 6. Level of agreement that area vocational-technical schools provide training for unskilled manufacturing/processing personnel in business and industry.

responding Don't Know/No Answer totalled 31.82%. The responses are reported in Figure 7.

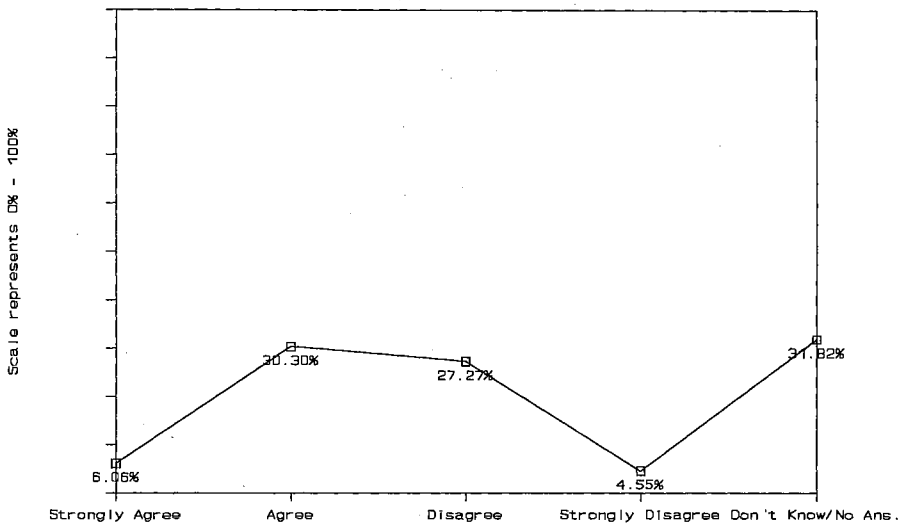

Figure 7. Level of agreement that area vocational-technical schools provide training for sales and distribution personnel in business and industry.

The question of area vo-tech schools' being perceived as trainers of technical personnel in business and industry resulted in 72.73% of the respondents expressing either a Strongly Agree or Agree response. A total of 15.16% marked Disagree or Strongly Disagree, with 12.12% indicating Don't Know/No Answer. Figure 8 (Page 56) shows these responses.

When respondents were asked if they perceived bid assistance centers, a relatively new offering in area vocational-technical schools, as a service of area vo-tech centers, 57.57% of them responded in the Strongly Agree and Agree categories. A total of 13.64% marked Disagree

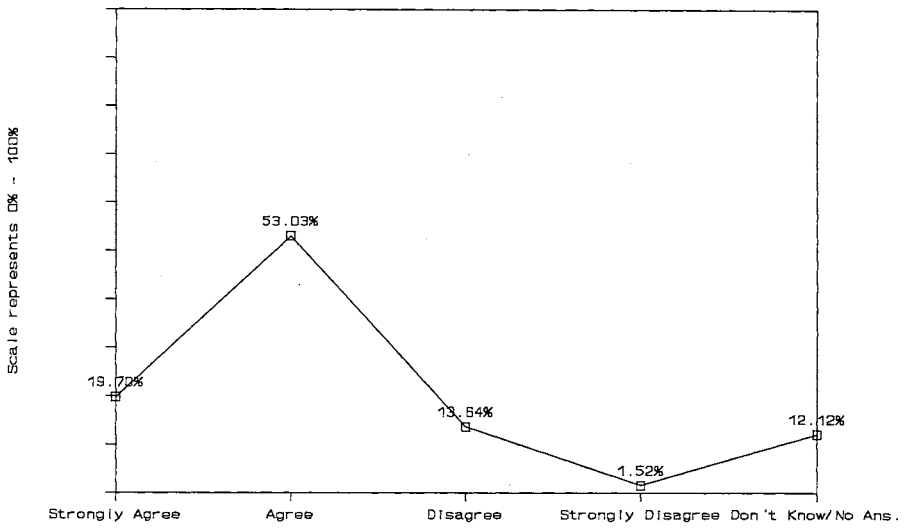

Figure 8. Level of agreement that area vocational-technical schools provide training for technical personnel in business and industry.

and Strongly Disagree, with 28.79% Don't Know/No Answer. The percentages in this category are presented in the Figure 9 (Page 57).

Regarding their perception of area vo-tech schools' assistance to small businesses, 83.34% of the respondents expressed either a Strongly Agree or Agree response, with 6.06% Disagree and Strongly Disagree, and 10.61% Don't Know/No Answer. These tallies are recorded in Figure 10 (Page 57).

The final portion of Question 1 asked if the respondents perceived area vocational-technical schools as providers of assistance through counseling, placement, and assessment. A total of 68.18% marked Strongly Agree and Agree; 9.10% indicated Disagree and Strongly Disagree, with 22.73% responding Don't Know/No Answer. Figure 11 (Page 58) indicates the responses to this portion of the question.

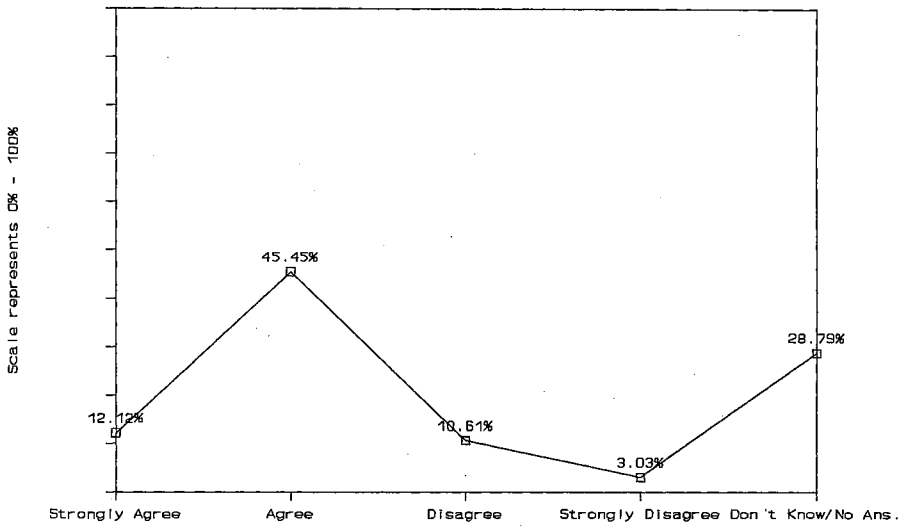

Figure 9. Level of agreement that area vocational-technical schools provide services such as bid assistance centers for business and industry.

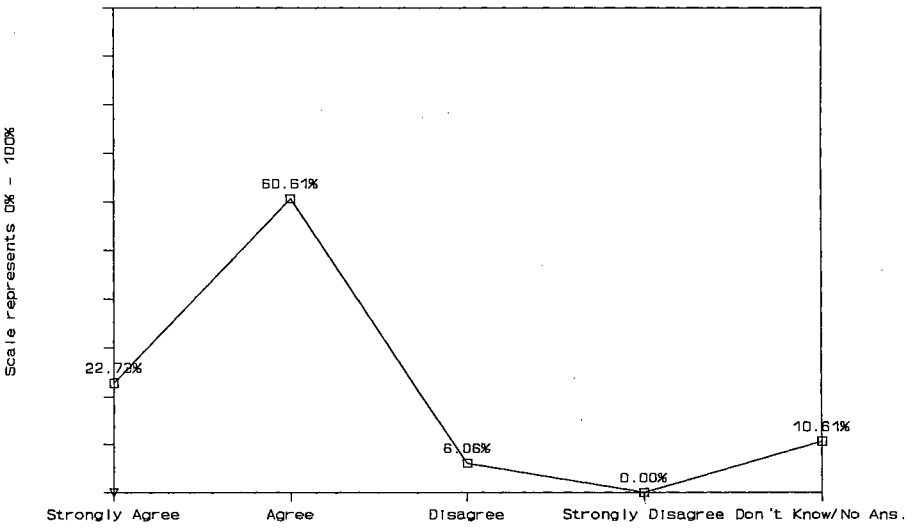

Figure 10. Level of agreement that area vocational-technical schools provide assistance to small businesses.

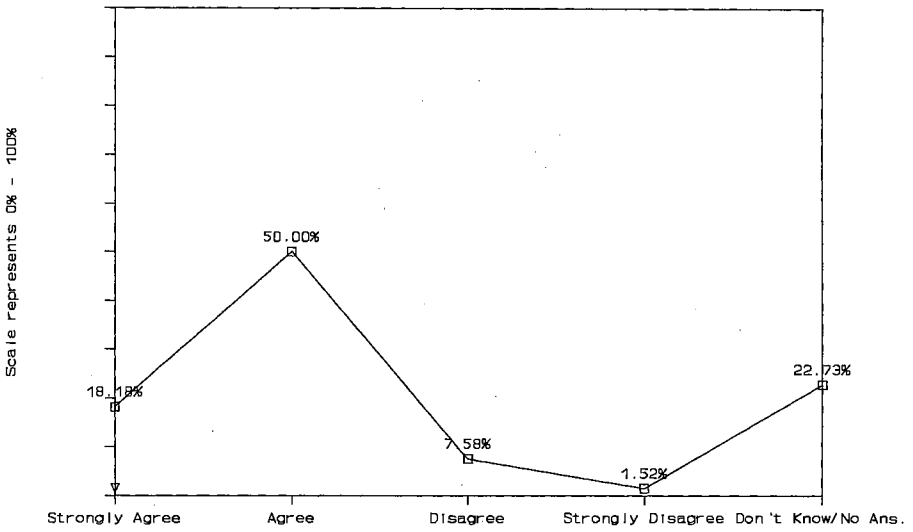

Figure 11. Level of agreement that area vocational-technical schools provide assistance through counseling, placement, and assessment.

Respondents were also asked to describe other forms of education, training, and/or services they felt were indicative of area vocational-technical school offerings. Their verbatim replies included:

- Expanded capabilities, add to current career.
- Training for health care providers and related fields.
- Adult craft "interest" training--not for a career.
  Adult "hobby" training--general interest.
- They provide an excellent seminar auditorium for plant use--free of charge--they will provide virtually any type of training we suggest and even do it on site.
- Assistance to small businesses by assisting in on-site training and evaluation of employees.
- Primarily technical training as well as young people who don't have funds or opportunity to get training from college or universities, yet can't get a job without "experience or education."

Section 1 of the questionnaire provided information regarding the general perception of area vocational-technical schools as training providers of various segments of the populace. The largest percentage--95.45%--perceived these institutions as trainers of adults who wish to pursue a new career (short-term adult classes). Similar results were seen in the categories of providing education and training for high school students, clerical personnel in business and industry, and skilled manufacturing/processing personnel in business and industry, to all of which 93.94% of the respondents expressed a Strongly Agree or Agree response. The statement, "Area vocational-technical schools serve as providers of education and training for sales and distribution personnel in business and industry," received the highest percentage of Disagree and Strongly Disagree responses. A total of 31.82% of the respondents marked one of these response options.

Other categories of training receiving large percentages of Don't Know/No Answer were sales and distribution personnel, 31.82%; bid assistance centers, 28.79%; and assistance through counseling, placement, and assessment, 22.73% Possible reasons for these large percentages in these option areas will be discussed in Chapter 5.

Currency of Training

Section 2 of the survey sought to determine how recently the organizations in the target population had participated in training their employees. The question, "Has your company been involved in training within the last 3 years? within the last year?" was asked with response options of "Yes" and "No." Of the 60 who responded to this question, 88.33% indicated their company had been involved in some type of employee training during the past 3 years and 83.33% within the last year. The results are portrayed in the Figures 12 and 13 (Pages 60 and 61 respectively).

Section 3 asked, "Has your company used an Oklahoma Area Vocational-Technical School for its training within the last 3 years?

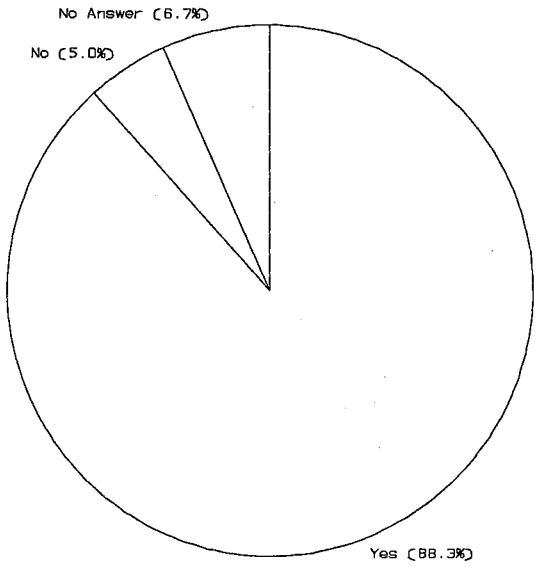

Figure 12. Percentage of respondents whose company had been involved in training within the last 3 years.

within the last year?" with the response options of "Yes" and "No." Those percentages, as compared to those in Figures 12 and 13, indicated that 78.33% had used an Oklahoma area vocational-technical school for its training within the last 3 years, and 66.67% had done so within the last year. Figures 14 and 15 (Pages 61 and 62 respectively) show the responses regarding the use of Oklahoma area vocational-technical schools within the specified periods.

Discussion about the importance of information regarding currency of training will be presented in Chapter 5.

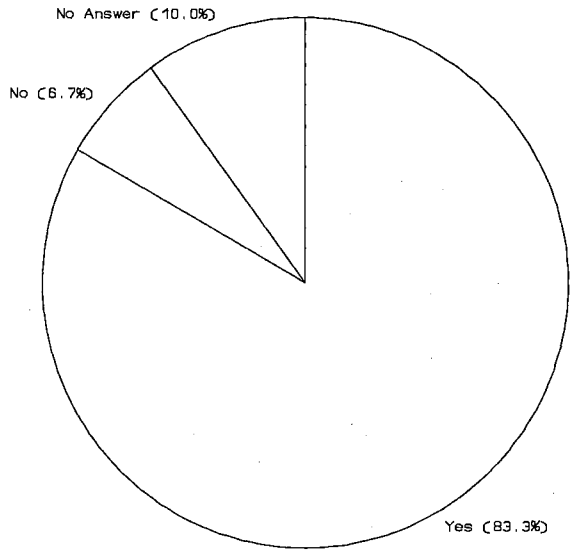

Figure 13. Percentage of respondents whose company had been involved in training within the last 12 months.

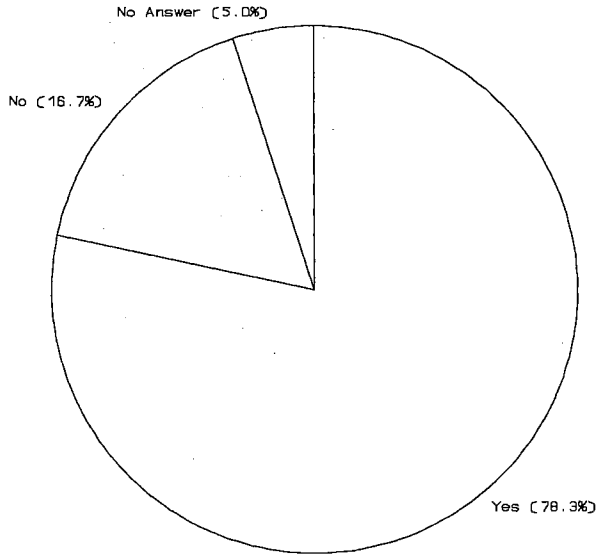

Figure 14. Percentage of respondents whose company had used an Oklahoma area vo-tech school for its training within the last 3 years.

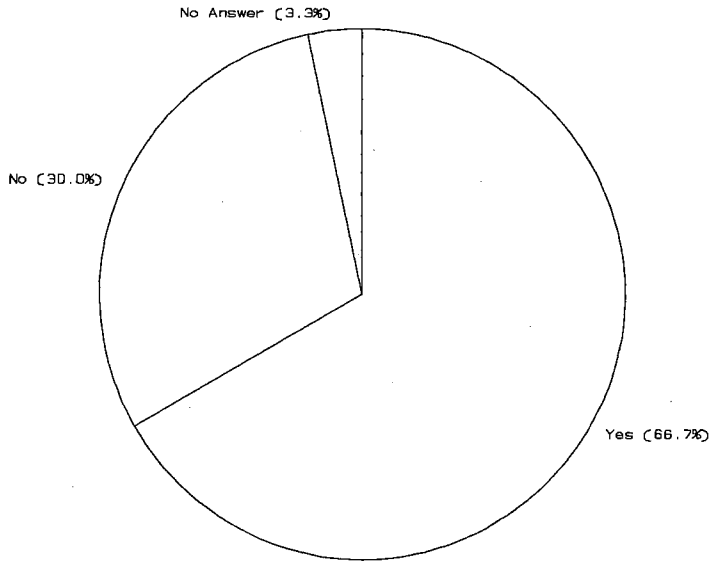

Figure 15. Percentage of respondents whose company had used an Oklahoma area vo-tech school for its training within the last 12 months.

Reasons for Employee Training

The researcher believed that the **reasons** for employee training were as important as the fact that training was obtained. Therefore, the question was posed, "When considering training for your employees, which of the factors listed below were the reasons for training?" The reasons (by worker category of clerical, management, sales and distribution, skilled and unskilled manufacturing/processing, and technical) were provided as follows:

- To increase worker productivity
- To promote growth in employees being considered for advancement
- To help employees function in a team environment
- To provide rewards for workers
- For safety purposes
- For employee assistance programs

- For employee retention
- For orientation and upgrading
- To increase worker satisfaction
- To introduce new procedure, process, or equipment

Tables 6 through 12 indicate the responses by worker category regarding respondent employers' reasons for training. This specific item on the questionnaire received large numbers of "No Response or No Answer"--in other words, the respondents selected neither the Yes nor the No option, but rather chose not to respond at all. One possible explanation for this omission would be that the respondents did not view specific training, such as management or technical training, as an appropriate role for vo-tech institutions, thus choosing not to respond to it at all.

A contingency table was also constructed for Question 4 to determine if there were any significant differences in the reasons employers chose to train their workers. The H_o tested was, "There is no significant difference in the reasons employers train employees regardless of the worker category." The critical value of X^2 was 28.87 employers at .05 with 18 d.f.; the computed X^2 equalled 75.18. Thus, the H_o was rejected confirming that there is a difference in the reasons for training employees, no matter what their worker category. Further discussion concerning this questionnaire item is presented in Chapter 5.

As indicated in Table 6 (Page 64), 53.33% of the respondents stated that their purpose for training clerical employees was "to increase productivity." More than one-third also indicated reasons of "growth for advancement, orientation and upgrading, and to introduce new procedures, processes, or equipment."

Reasons for training management personnel are given in Table 7 (Page 64). "Helping to function in a team environment" received the greatest response for this group of employees with 43.33% of the respondents indicating this as their purpose in training. Following closely at 40.00% was "productivity."

TABLE 6

DISTRIBUTION OF YES-NO RESPONSES TO POSSIBLE REASONS FOR TRAINING CLERICAL PERSONNEL

Reasons	Yes	No	No Answer
To increase productivity	53.33%	5.00%	41.67%
To promote growth for advancement	35.00%	11.67%	53.33%
To help workers function in a team environment	28.80%	16.67%	53.33%
To provide rewards for workers	3.33%	35.00%	61.67%
For safety purposes	23.33%	18.33%	58.33%
For employee assistance programs	11.67%	25.00%	63.33%
For employee retention	13.33%	20.00%	66.67%
For orientation and upgrading	36.67%	13.33%	50.00%
To increase worker satisfaction	21.67%	20.00%	58.33%
To introduce new procedure, process, or equipment	38.33%	11.67%	50.00%

(N=60 Respondents)

TABLE 7

DISTRIBUTION OF YES-NO RESPONSES TO POSSIBLE REASONS FOR TRAINING MANAGEMENT PERSONNEL

Reasons	Yes	No	No Answer
To increase worker productivity	40.00%	8.33%	51.67%
To promote growth for advancement	28.33%	18.33%	53.33%
To help workers function in a team environment	43.33%	15.00%	41.67%
To provide rewards for workers	5.00%	36.67%	58.33%
For safety purposes	28.80%	18.33%	51.67%
For employee assistance programs	11.67%	25.00%	63.33%
For employee retention	18.33%	18.33%	63.33%
For orientation and upgrading	26.67%	18.33%	55.00%
To increase worker satisfaction	21.67%	18.33%	60.00%
To introduce new procedure, process, or equipment	28.33%	18.33%	53.33%

(N=60 Respondents)

Sales and distribution personnel were also considered when the question arose as to why training was provided. Table 8 reflects the respondents' reasons for training this category of employees. "Reward" received the least marks (1.67%) as a purpose for additional education followed closely by "growth for advancement" (3.33%), and "employee assistance programs" (8.33%); the largest percentage was received in the reason category of "to introduce a new procedure, process, or equipment," which obtained a 23.33% response rate.

TABLE 8

DISTRIBUTION OF YES-NO RESPONSES TO POSSIBLE REASONS FOR TRAINING SALES AND DISTRIBUTION PERSONNEL

Reasons	Yes	No	No Answer
To increase worker productivity	16.67%	16.67%	66.67%
To promote growth for advancement	3.33%	25.00%	71.67%
To help workers function in a team environment	20.00%	16.67%	63.33%
As rewards for workers	1.67%	30.00%	68.33%
For safety purposes	16.67%	18.33%	65.00%
For employee assistance programs	8.33%	25.00%	66.67%
For employee retention	10.00%	21.67%	68.33%
For orientation and upgrading	18.33%	20.00%	61.67%
To increase worker satisfaction	18.33%	16.67%	65.00%
To introduce new procedure, process, or equipment	23.33%	16.67%	60.00%

(N=60 Respondents)

Table 9 (Page 66) reflects the responses for the skilled manufacturing and/or processing personnel. Productivity as a reason for training this group of employees was clearly the most prevalent with 76.67% However, also receiving over one-half of the responses were the options of "to help function in a team environment" (53.33%), "safety

TABLE 9

DISTRIBUTION OF YES-NO RESPONSES TO POSSIBLE REASONS FOR TRAINING SKILLED MANUFACTURING/PROCESSING PERSONNEL

Reasons	Yes	No	No Answer
To increase worker productivity	76.67%	1.67%	21.67%
To promote growth for advancement	46.67%	15.00%	38.33%
To help workers function in a team environment	53.33%	15.00%	31.67%
To provide rewards for workers	6.67%	38.33%	55.00%
For safety purposes	51.67%	11.67%	36.67%
For employee assistance programs	35.00%	8.33%	56.67%
For employee retention	30.00%	3.33%	66.67%
For orientation and upgrading	53.33%	8.33%	38.33%
To increase worker satisfaction	30.00%	21.67%	48.33%
To introduce new procedure, process, or equipment	53.33%	6.67%	40.00%

(N=60 Respondents)

purposes" (51.67%), "orientation and upgrading" (53.33%), and "to introduce new procedure, process, or equipment" (53.33%).

Table 10 (Page 67) reveals the reasons for training unskilled manufacturing/ processing personnel, with the highest ranking being for productivity which received 55.00% of the responses. Other predominant reasons were "to function in a team environment" (41.67%), "safety purposes" (43.33%), "orientation and upgrading" (40.00%), and "to introduce a new procedure, process, or equipment" (46.67%).

Technical personnel, who included engineering employees, computer programmers, technicians, etc., were also included in the question regarding reasons for training. Responses regarding this segment of workers is shown in Table 11 (Page 67).

TABLE 10

DISTRIBUTION OF YES-NO RESPONSES TO POSSIBLE REASONS FOR TRAINING UNSKILLED MANUFACTURING/PROCESSING PERSONNEL

Reasons	Yes	No	No Answer
To increase worker productivity	55.00%	3.33%	41.67%
To promote growth for advancement	31.67%	16.67%	68.33%
To help workers function in a team environment	41.67%	11.67%	46.67%
To provide rewards for workers	8.33%	35.00%	56.67%
For safety purposes	43.33%	10.00%	46.67%
For employee assistance programs	15.00%	25.00%	60.00%
For employee retention	26.67%	18.33%	53.33%
For orientation and upgrading	40.00%	11.67%	48.33%
To increase worker satisfaction	23.33%	23.33%	53.33%
To introduce new procedure, process, or equipment	46.67%	6.67%	46.67%

(N=60 Respondents)

TABLE 11

DISTRIBUTION OF YES-NO RESPONSES TO POSSIBLE REASONS FOR TRAINING TECHNICAL PERSONNEL

Reasons	Yes	No	No Answer
To increase worker productivity	53.33%	6.67%	40.00%
To promote growth for advancement	41.67%	18.33%	40.00%
To help workers function in a team environment	38.33%	16.67%	45.00%
To provide rewards for workers	10.00%	35.00%	55.00%
For safety purposes	35.00%	16.67%	48.33%
For employee assistance programs	16.67%	26.67%	56.67%
For employee retention	26.67%	16.67%	56.67%
For orientation and upgrading	35.00%	15.00%	46.67%
To increase worker satisfaction	30.00%	20.00%	50.00%
To introduce new procedure, process, or equipment	48.33%	11.67%	40.00%

(N=60 Respondents)

Receiving the highest percentage in this group was "productivity" with 53.33%. "To introduce a new procedure, process, or equipment" received almost one-half of the responses with 48.33%.

To examine the data obtained in this section of the questionnaire from a different viewpoint, the responses were also group by reasons rather than personnel category. Figures 16 through 25 present the information from this perspective.

The first reason considered was "productivity" as a purpose for training. This is indicated in Figure 16.

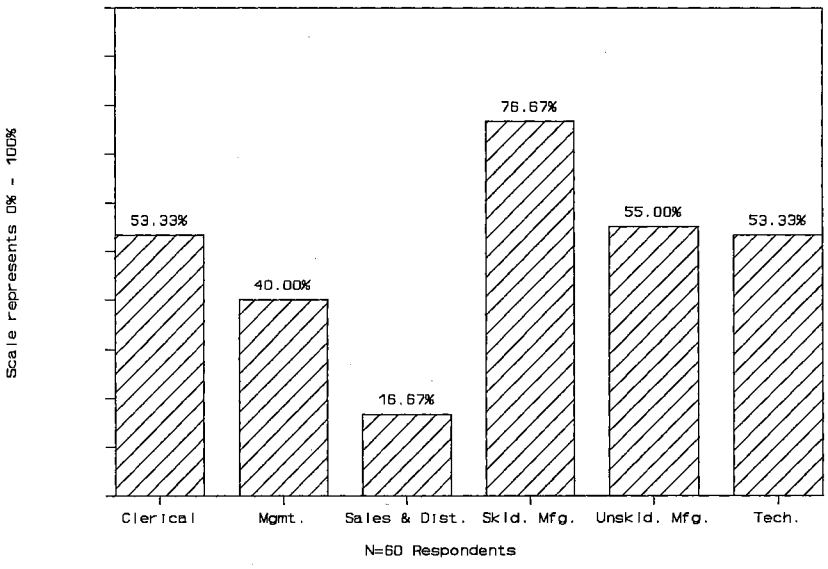

Figure 16. Percentage of respondents answering "yes" to worker productivity as a reason for training.

The categories of workers who received training in order to increase productivity included clerical staff, skilled and unskilled manufacturing/processing personnel, and technical employees, with the percentages ranging from a high of 76.67% for skilled manufacturing/ processing personnel to 53.33% for both clerical and technical staffs.

The second listing on the questionnaire as a possible reason for training was "to promote growth in employees being considered for advancement." The responses to that query are indicated in Figure 17.

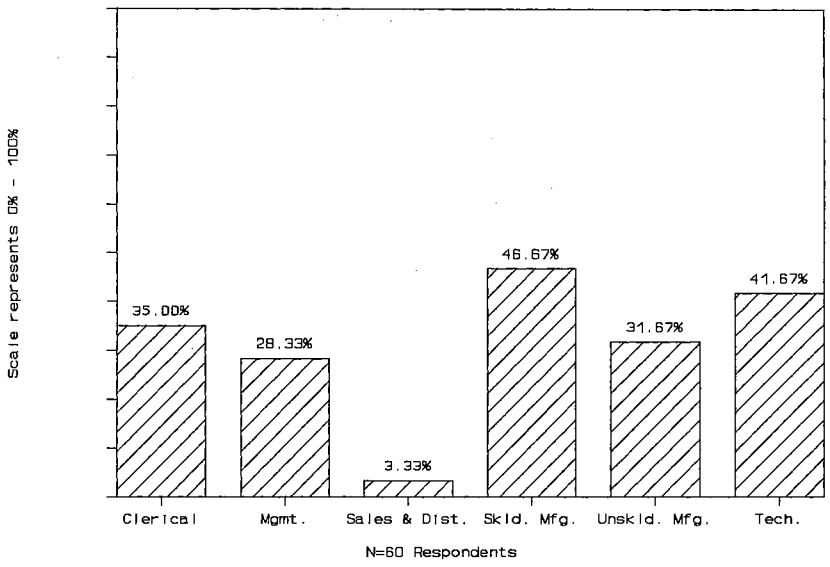

Figure 17. Percentage of respondents answering "yes" to promoting growth in employees as a reason for training.

Those individuals receiving the most attention for training for advancement were the skilled manufacturing/processing personnel (46.67%) and the technical personnel (41.67%). A percentage of 3.33% was given to the sales and distribution personnel.

"Functioning in a team environment" was the third option for the respondents to select as a reason for training. Figure 18 (Page 70) illustrates the percentages for this choice.

Ranked highest in this area were skilled manufacturing/processing (53.33%), management (43.33%), unskilled manufacturing (41.67%), and technical personnel (38.33%).

Receiving the least rating in all worker categories was "reward for workers." Those responses are indicated in Figure 19 (Page 70).

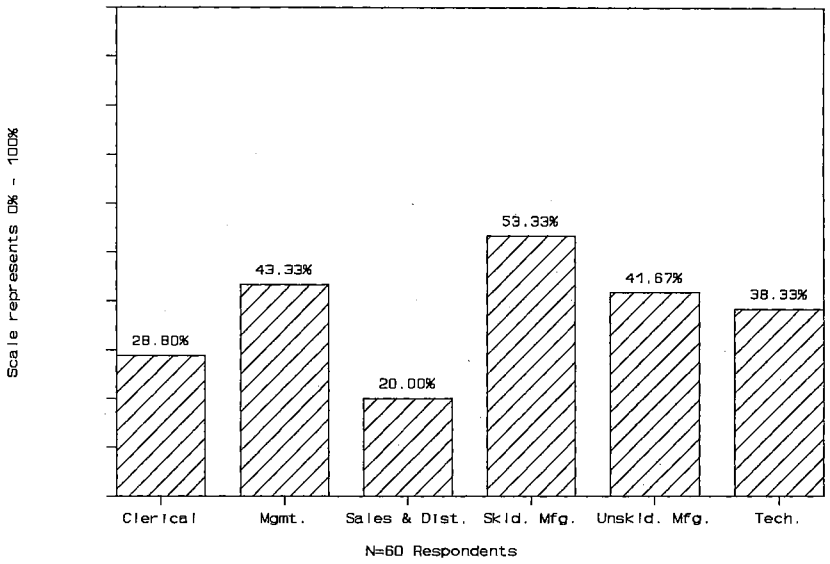

Figure 18. Percentage of respondents answering "yes" to helping workers function in a team environment as a reason for training.

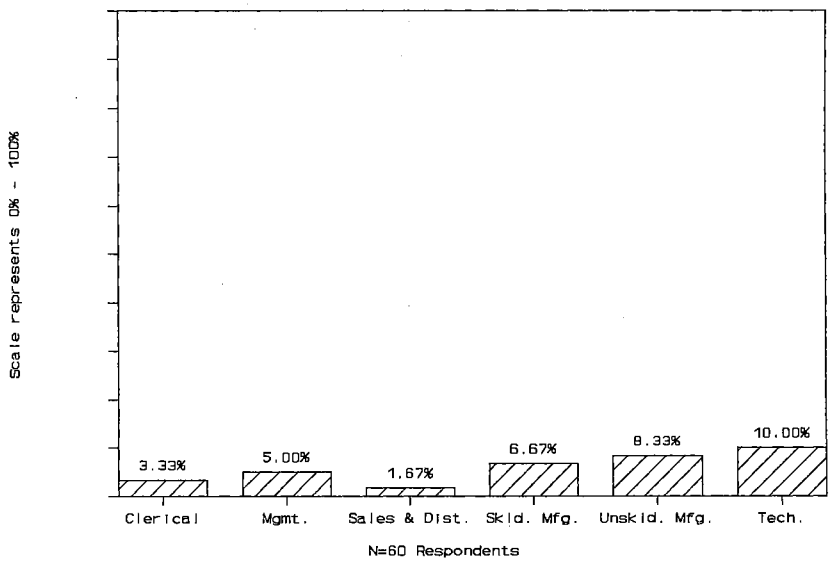

Figure 19. Percentage of respondents answering "yes" to providing rewards for workers as a reason for training.

Safety as a reason for training received the highest ratings for workers in the categories of skilled and unskilled manufacturing/ processing personnel with 51.67% and 43.33% respectively. The percentages for this training reason are indicated in Figure 20.

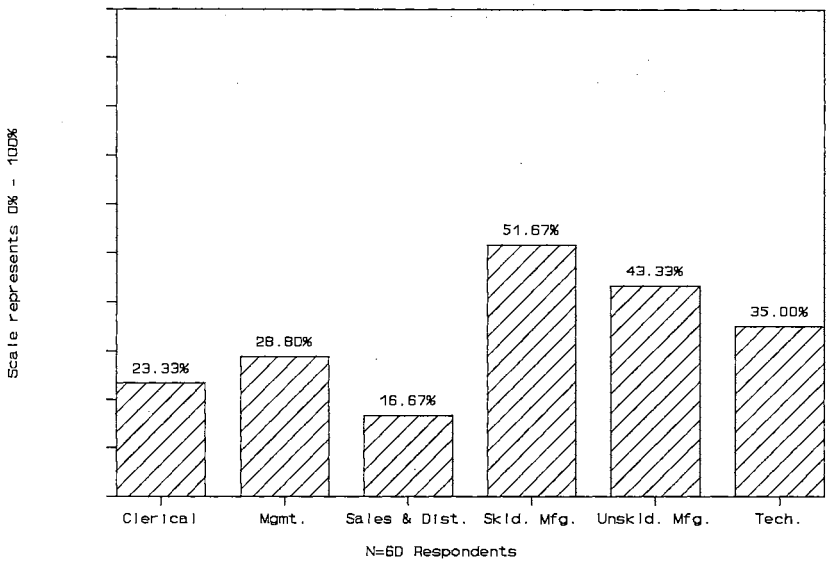

Figure 20. Percentage of respondents answering "yes" to safety as a reason for training.

The largest percentage of responses (35.00%) for "employee assistance programs" was received in the worker category of skilled manufacturing/processing personnel. These responses are reflected in Figure 21 (Page 72).

"Employee retention" as a reason for training did not appear to be a predominant reason for training, since no worker category scored even one-third of the responses. Those ratings are listed in Figure 22 (Page 72).

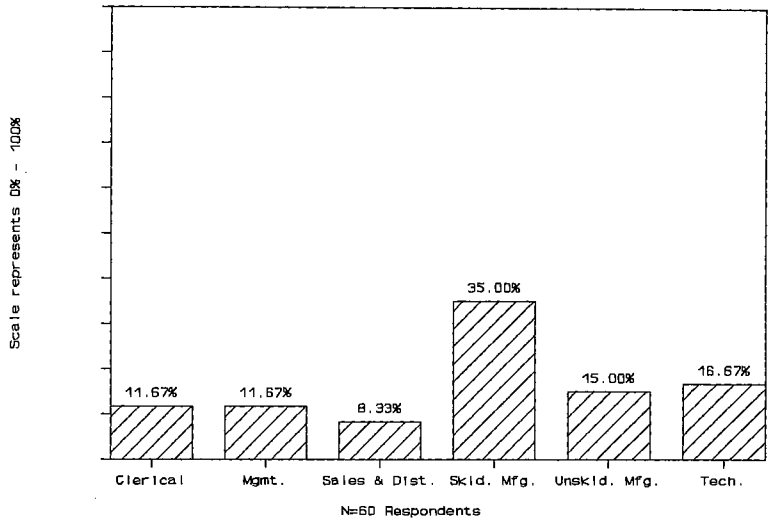

Figure 21. Percentage of respondents answering "yes" to employee assistance as a reason for training.

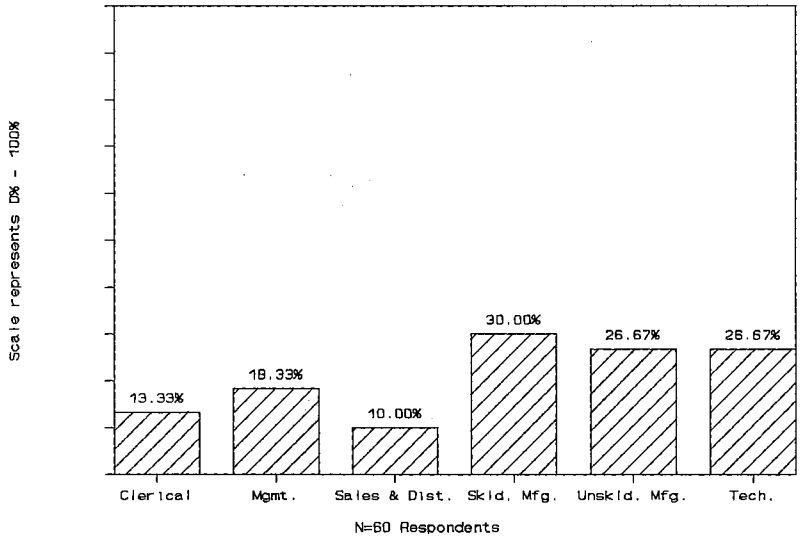

Figure 22. Percentage of respondents answering "yes" to employee retention as a reason for training.

In contrast, however, "orientation and upgrading" received significantly higher ratings for the worker categories of skilled manufacturing/processing personnel (53.00%), unskilled manufacturing/ processing personnel (40.00%), clerical employees (36.67%), and technical personnel (35.00%). The responses for this training reason are given in Figure 23.

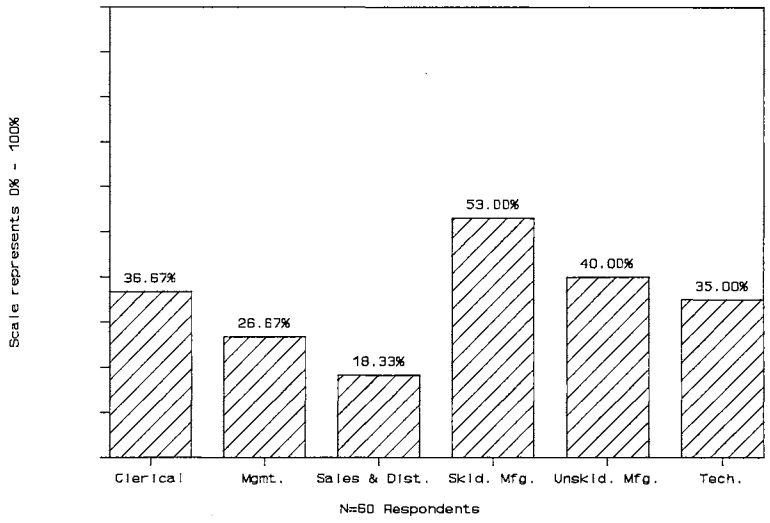

Figure 23. Percentage of respondents answering "yes" to employee orientation and upgrading as a reason for training.

Figure 24 (Page 74) reflects the training reason "to increase worker satisfaction." As in "employee retention," this purpose for training did not receive any significantly high ratings.

The final figure (Figure 25, Page 74) discussing companies' reasons for training indicates the responses to the option "to introduce a new procedure, process, or equipment." The worker categories receiving the highest response rate were skilled manufacturing/ processing personnel (53.33%), technical (48.33%), unskilled manufacturing/processing personnel (46.67%), and clerical (38.33%). Figure 25 reflects these percentages.

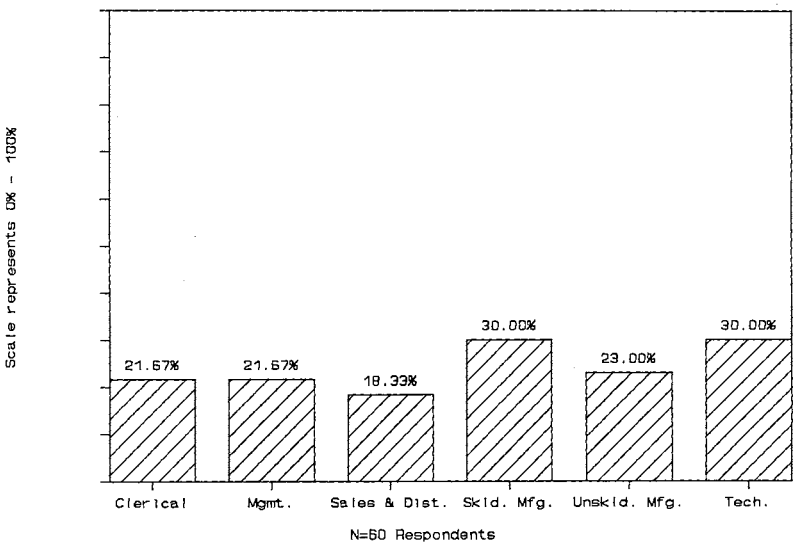

Figure 24. Percentage of respondents answering "yes" to increasing worker satisfaction as a reason for training.

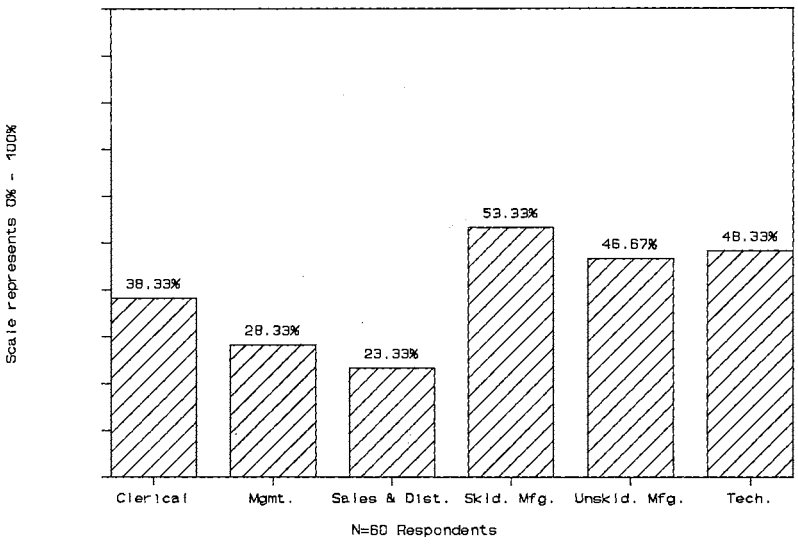

Figure 25. Percentage of respondents answering "yes" to introducing new procedure/process/equipment as a reason for training.

Question 4, as the other questions, asked for additional information from the respondents--"Please indicate any other reasons why you elected to provide training for your employees." These verbatim responses included:

- Level of technology changes too fast for vo-tech' to keep up. Distributors are on leading edge [referring to manufacturing and/or processing--skilled].
- To meet federal compliance guidelines.
- Quality improvement.
- Job enrichment, improve job skills.
- Upward mobility/EEO.
- These questions could hardly justify a "no" [quotes added for clarity] answer; these are all reasons to train regardless of position.
- New knowledge of a new position: equipment in the engineering/power plant areas as well as welding.

Factors Influencing Companies' Decision To Train and Selection of a Training Provider

Section 5 of the questionnaire addressed the factors influencing companies' decision to train and the selection of a training provider and offered the respondents 10 decision criteria with Likert-type response options of Much Influence, Moderate Influence, Little Influence, No Influence, and No Opinion. It is believed by the researcher that by determining such factors, training providers can more adequately offer enhancements to companies whose training dollars they wish to attract.

A contingency table for Chi-square was developed for this survey item to test the null hypothesis, "There is no significant difference in the factors which influencing a company's decision to train and/or its selection of a training provider." With 40 d.f. at .05, the critical value was 55.76; the computed value was 216.39, causing the rejection of

the null hypothesis. Therefore, there is a difference between the factors causing companies to train and their choice of an agency to provide needed programs and services.

Specific percentages of responses from the 66 respondents are presented in Figures 26 through 35.

As reflected in Figure 26, response options to the decision criterion, "funding for start-up training is provided by the training agency" show that 51.51% believed that this factor had much or moderate influence on their decision to train or on their selection of a training provider.

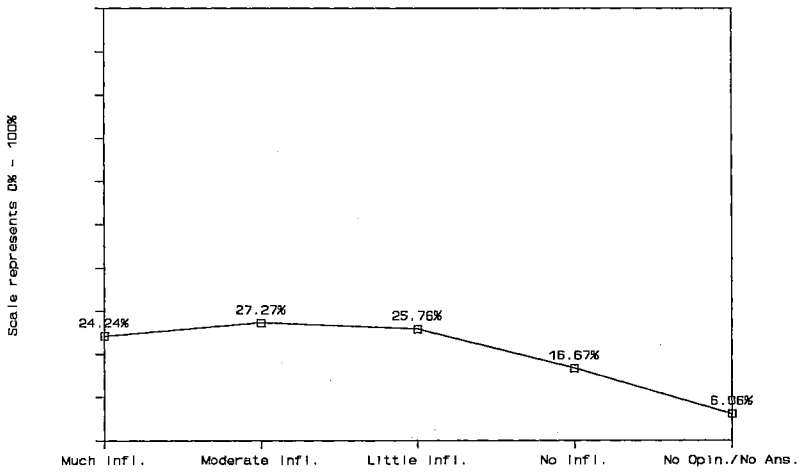

Figure 26. Funding as a factor influencing choice of training provider.

Figure 27 (Page 77) reflects the responses to the criterion, "training is offered at low cost." As easily seen, this factor is of greater importance to companies--83.33% consider this element when deciding if and by whom training should be conducted.

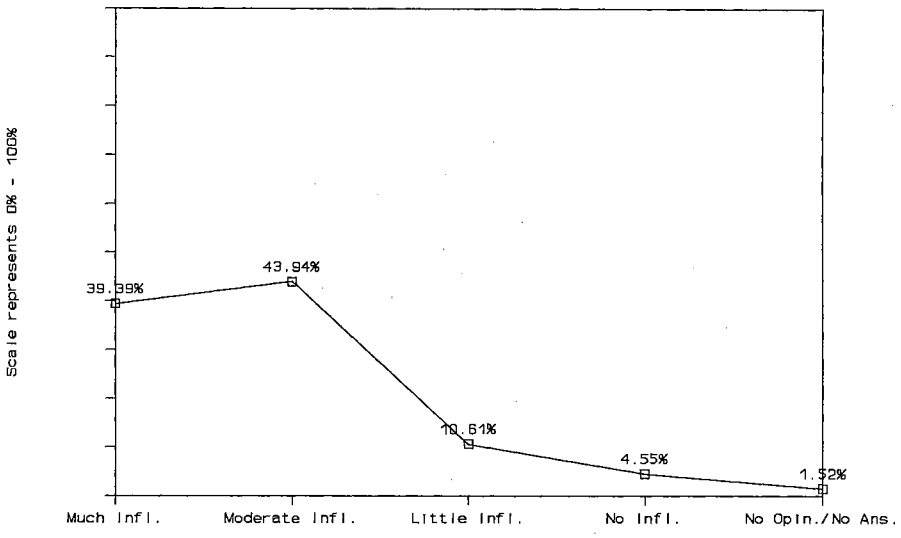

Figure 27. Low-cost training as a factor influencing selection of training provider.

"Training is conducted on-site at our company" also received high ratings as a factor influencing the training decision. Figure 28 (Page 78) indicates the breakdown of the responses which indicate 87.88% believed this factor to be of much or moderate influence.

When asked about "training is customized to meet company needs," respondents believed that it had greatly influenced their training decisions--98.49% of them responded in the much or moderate influence categories. Figure 29 (Page 78) reflects these choices.

Not only do companies desire courses offered on-site and customized, they also wish them to be at times least disruptive to the work day and to accommodate shift work and flexible working schedules. Therefore, when asked if "training times are scheduled to meet company needs such as shift work" would be a deciding factor in the question of training, their response was favorable. Much to moderate influence choices rated 92.42% (indicated in Figure 30 Page 79).

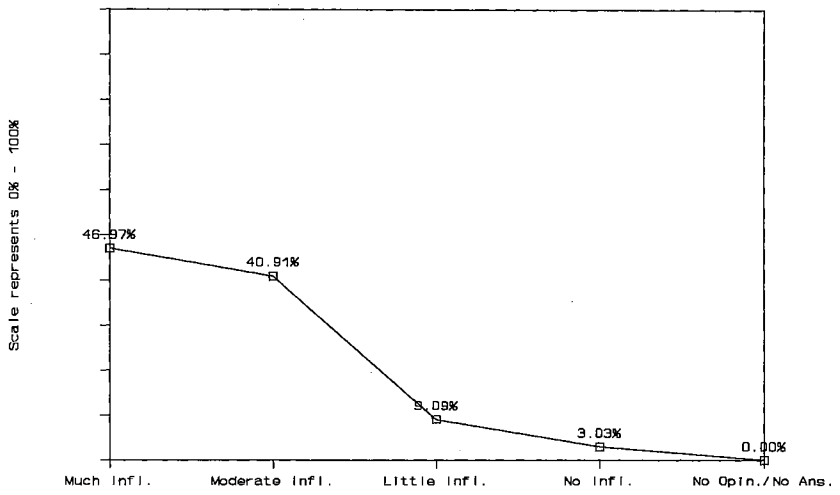

Figure 28. On-site training at company as a factor influencing selection of training provider.

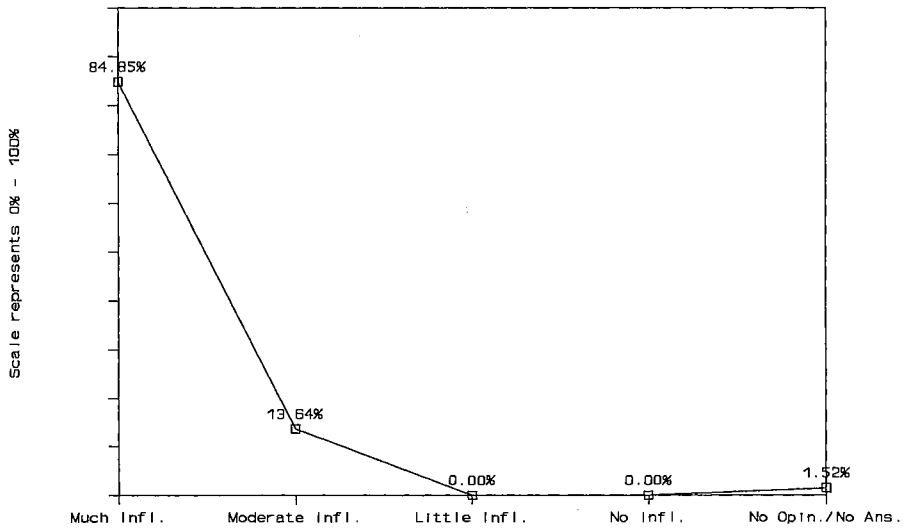

Figure 29. Customized training as a factor influencing selection of training provider.

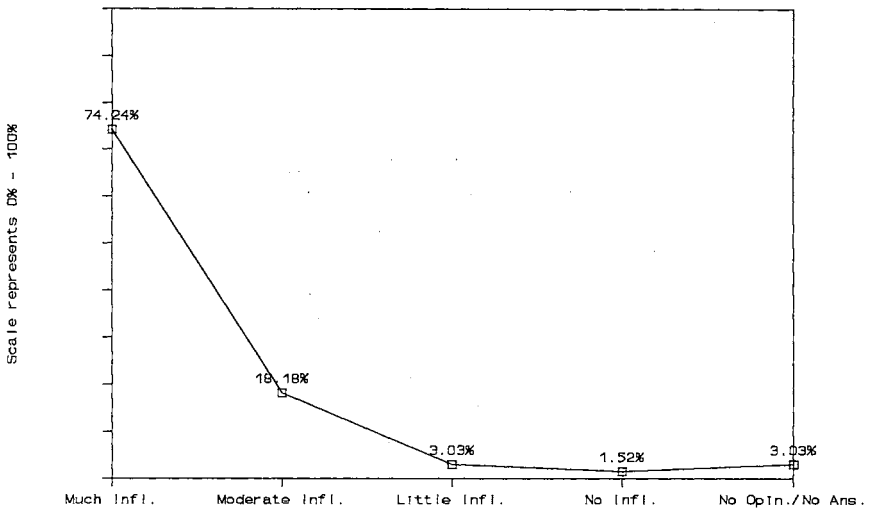

Figure 30. Convenient training times as a factor influencing selection of training provider.

Figure 31 (Page 80) reflects the responses to the option, "training is designed and delivered within the time frame needed by our company (such as within days and/or weeks)." The much to moderate influence response rate to this choice was 96.97%.

"Training agency has been recommended by others who had used it and who were satisfied with its programs and services," was also a large influencing factor in the companies' judgment. Much to moderate influence ratings received 86.36% of the responses. Figure 32 (Page 80) shows the response rates to this option.

The factor, "appearance and design of the training agency's facilities and equipment," received 72.73% of the responses in the much to moderate influence categories as indicated in Figure 33 (Page 81).

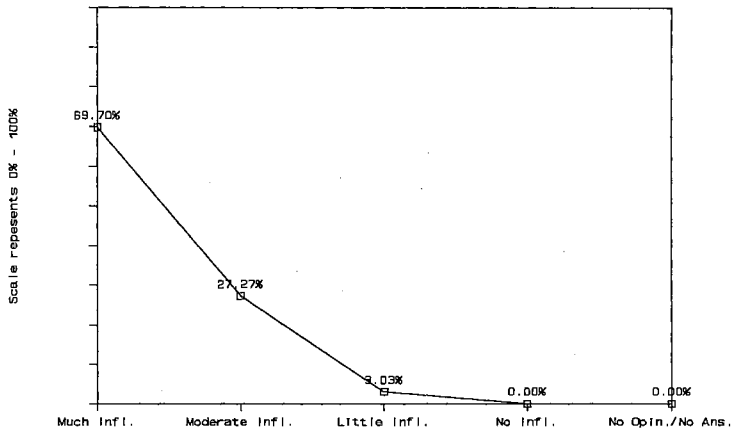

Figure 31. Timeliness of training as a factor influencing selection of training provider.

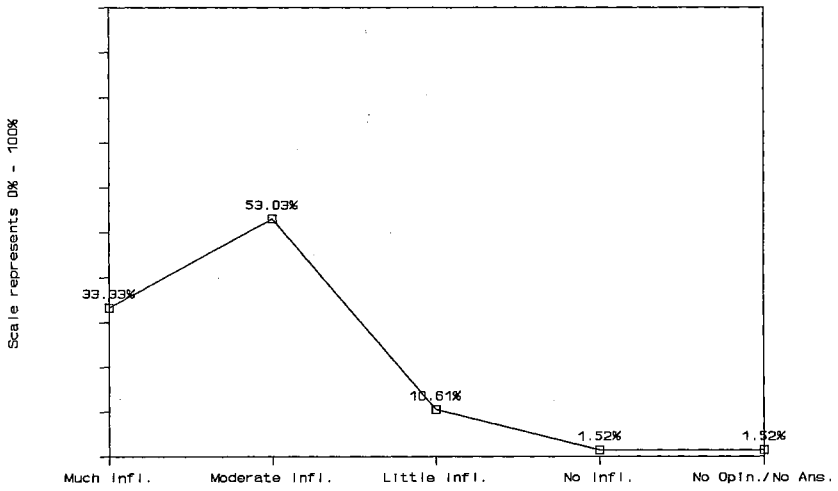

Figure 32. Recommendations by other users as a factor influencing selection of training provider.

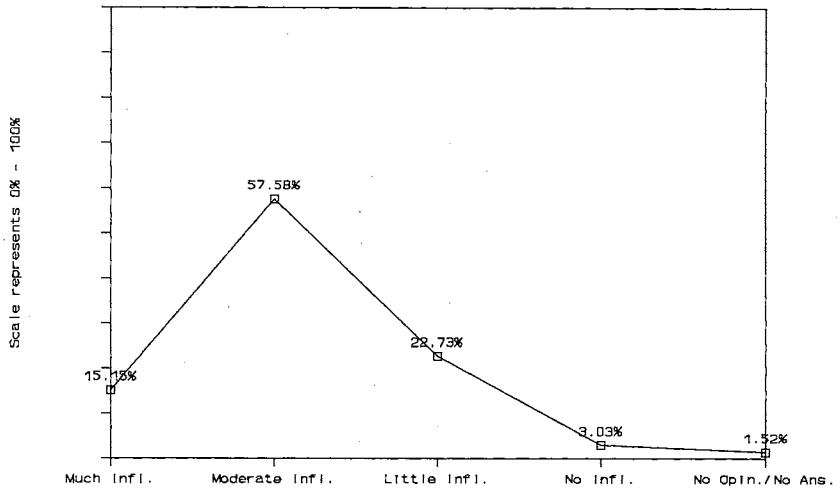

Figure 33. Quality of training facilities as a factor influencing selection of training provider.

"Staff of the training agency provides expert, capable training," received a 100% favorable rating in the much to moderate influence categories. Figure 34 (Page 82) describes the results of this element.

The last option provided to the respondents as a possible decision criterion was "agency personnel are friendly and helpful." In the much to moderate influence categories, 92.42% of the responses were recorded as reflected in Figure 35 (Page 82).

A summary table (Table 12, Page 83) shows the responses when the "Much Influence" and "Moderate Influence" responses were considered together. These replies, presented in a hierarchical manner, rank from the most influential to the least influential, thus affording another method by which the results can be viewed.

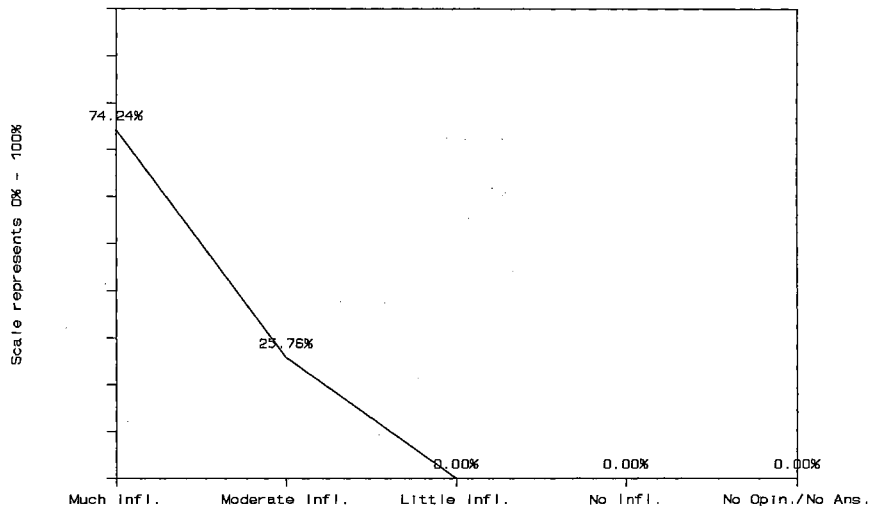

Figure 34. Expertise of training agency as a factor influencing selection of training provider.

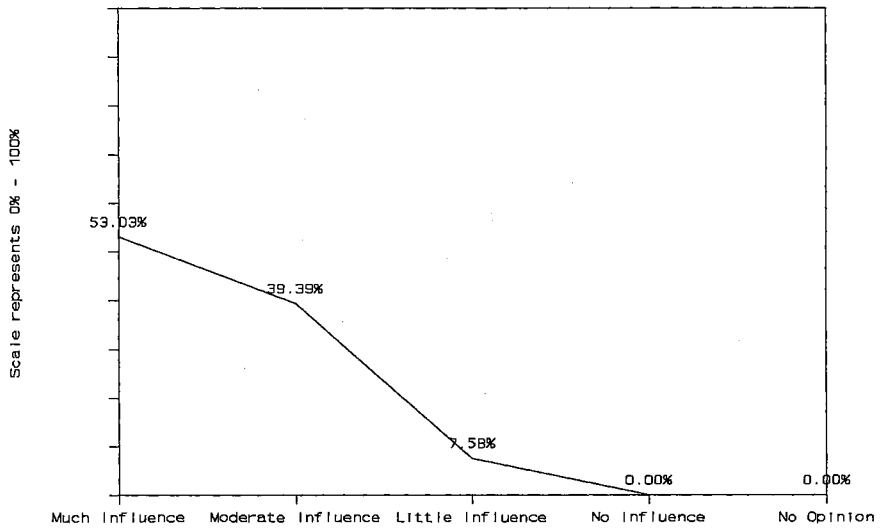

Figure 35. Friendliness of personnel as a factor influencing selection of training provider.

TABLE 12

RANK ORDER OF MUCH-TO-MODERATE INFLUENCE ON COMPANIES' DECISION TO TRAIN AND SELECTION OF TRAINING PROVIDER BY DECISION CRITERION

Decision Criteria Presented in Hierarchial Order	% of Responses--"Much-Moderate Influence"
Staff of training agency provides expert, capable training	100.00%
Training customized to meet company needs	98.49%
Training designed and delivered in time frame needed by company (such as days or weeks)	96.97%
Training times such as shift work scheduled to meet company needs	92.92%
Agency personnel friendly and helpful	92.92%
Training conducted on-site at our company	87.88%
Training agency recommended by others who had used it and who were satisfied with its programs and services	86.36%
Training offered at low cost	83.33%
Appearance/design of training agency's facilities and equipment	72.73%
Funding for start-up training provided by training agency	51.51%

When considering the percentage of responses in the "Much Influence" category alone, the results vary somewhat and are presented in hierarchial form in Table 13 (Page 84).

The first 4 response options remain the top selections, although their hierarchical order has changed slightly. While the percentages of other elements such as "appearance and design of the training agency's facilities and equipment" and "funding for start-up training is provided by the training agency" altered drastically, their hierarchical order was not significantly different.

TABLE 13

RANK ORDER OF MUCH INFLUENCE ON COMPANIES' DECISION TO TRAIN AND SELECTION OF TRAINING PROVIDER BY DECISION CRITERION

Decision Criteria Presented in Hierarchial Order	% Responses-- "Much Influence"
Training customized to meet company needs	84.85%
Staff of training agency provides expert, capable training	74.24%
Training times such as shift work scheduled to meet company needs	74.24%
Training designed and delivered in time frame needed by company (such as days or weeks)	69.70%
Agency personnel friendly and helpful	53.03%
Training conducted on-site at our company	46.97%
Training offered at a low cost	39.39%
Training agency recommended by others who had used it and who were satisfied with its programs and services	33.33%
Funding for start-up training provided by training agency	24.24%
Appearance/design of training agency's facilities and equipment	15.15%

Respondents were also asked to provide any additional comments they wished regarding factors influencing their decision to train and their selection of a training provider. In response to "Please state any other criteria that may have influenced your selection of a training provider for your company's training needs," they offered the following replies (which are presented verbatim).

- Proven field results.
- Topics offered are relevant to current and future requirements.
- Need--informant required--i.e. hazardous waste, environment.
- Good track record.

- Great Plains Area Vo-Tech School has developed a great reputation with my company for outstanding service, quality, and delivery of whatever customized training we have needed.
- Cost. We attempt to train as many as possible at lowest cost. Trainers must be reputable.
- Does the company have the trained instructors with real experience in the area we want training in.

Discussion regarding possible reasons for specific responses are given in Chapter 5.

Selection of Training Providers by Employee Category

Section 6 of the questionnaire further explored the selection of training providers by the target companies by asking them to rank-order their choices of trainers by worker category. The query was stated, "When considering training for your employees, which of the training providers listed below would you choose for each category listed? (Please indicate 1-2-3 order--with 1 being the highest rating)." The same worker categories were used as previously presented in the study--clerical, management, sales and distribution, skilled and unskilled manufacturing/processing personnel, and technical employees. The choices of training providers included college/university, area vocational-technical schools, in-house training department, outside consultant, private technical institute, vendor supplied training, correspondence courses, other--please specify.

In the Table 14 (Page 86), the results of the query in Section 6 are presented regarding the rankings of the training providers in each category.

TABLE 14

CEOs Choice of Training Provider by Worker Category

Worker Category	College/Univ.			Area Vo-Tech School			In-House Trng. Dept.			Outside Cnsltnt.			Private Tech. Inst.			Vendor Trng.			Corres. Courses			Other		
	Rank			Rank			Rank			Rank			Rank			Rank			Rank			Rank		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Clerical	6	8	7	26	11	8	15	11	9	0	6	10	0	3	4	3	26	3	0	0	3	0	0	0
Mgmt.	26	9	7	2	8	9	7	12	13	10	10	10	1	4	5	2	5	1	0	0	2	2	1	0
Sales & Distrib.	12	5	3	2	7	3	6	10	5	5	7	3	2	2	2	3	1	35	0	0	2	1	0	0
Skilled Mfg/Proc.	4	2	3	25	14	8	9	12	7	2	2	6	2	6	6	6	6	12	0	0	0	0	0	0
Unskilled Mfg/Proc.	0	1	1	23	13	8	18	18	4	1	3	5	1	2	6	5	4	9	0	0	1	0	0	1
Technical	26	5	2	10	15	8	6	7	10	2	7	10	1	9	5	5	6	6	0	0	2	1	0	0

*By the nature of this question, responses to each question do not equal total respondents of 66 nor would determination of percentages be valid.

Area vocational-technical schools obtained the highest sum of No. 1 rankings (26) in the worker categories of clerical and skilled and unskilled manufacturing/processing personnel. However, equally as many respondents chose as their second-ranked training provider "vendor training" for clerical workers.

The college/university was the No. 1 selection for training management personnel and technical personnel. The definition of technical personnel in this study is "engineers, computer programmers, technicians, etc."

Vendor training also received high rankings as third choice for training sales and distribution personnel.

In reviewing Table 14, the two types of educational institutions which garnered the most first-place percentages were the area vocational-technical school and the college/university with high response rates for all worker categories except sales and distribution.

As with other sections of the study, respondents were asked for comments regarding this item on the questionnaire. Because the replies to this section were so lengthy, they have been included, verbatim, in Appendix D.

Satisfaction Ratings

Section 7 of the questionnaire asked those respondents to complete the item only if they had used and Oklahoma area vocational-technical school for company training. Given the ranking categories of Greatly Satisfied, Moderately Satisfied, Somewhat Satisfied, Dissatisfied and No Opinion, respondents were asked to indicate their judgments about training received in the worker categories of clerical, management, manufacturing and/or processing personnel, unskilled manufacturing and/or processing personnel, sales and distribution personnel, and technical personnel. Upon calculation of responses, the No Opinion category incorporated those individuals who did not respond to that particular "cell" on the questionnaire.

Additionally, a contingency table was prepared for the computation of X^2 to test the H_o, "There is no significant difference in users' degree of satisfaction with Oklahoma area vocational-technical school programs/ services as classified by worker category." The critical value of X^2 was 31.41 at .05 with 2 d.f.; the computed value was 85.88, thus rejecting the null hypothesis. Therefore, the degree of user satisfaction with Oklahoma area vocational-technical school programs/ services does vary depending upon the worker category. Further explanation of this factor is presented in Chapter 5.

Figure 36 illustrates user respondents' satisfaction ratings for training in the clerical area. The breakdown includes 50.00% who were Satisfied, 2.17% Dissatisfied, and 47.83% with No Opinion/No Answer.

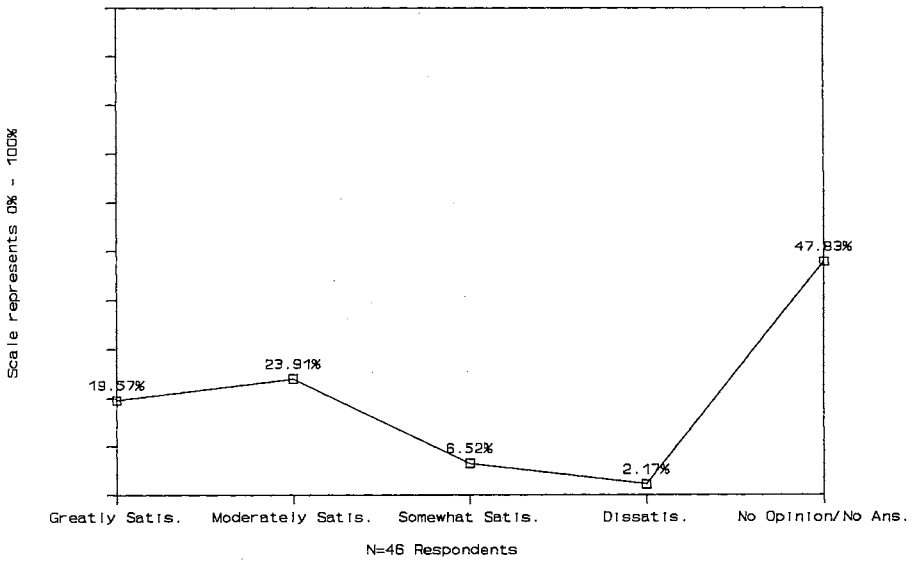

Figure 36. Satisfaction ratings for vo-tech training of clerical personnel.

Respondents were also asked for specific comments regarding this section of the questionnaire--"Please explain your degree of

satisfaction or dissatisfaction." Following are the exact remarks regarding the clerical training.

- greatly satisfied
  - Used various computer classes for these people. Excellent resource.
- moderately satisfied
  - The classes were clear and to the point.
  - Instructors could be better teachers.
  - Instructors skill level must be quite high.
- somewhat satisfied
  - Sent people over to learn Lotus and Word Perfect at night--they said instructor handed them a book and then they couldn't find her when they needed help or she acted like they were bothering her when they asked questions. They were very intelligent, strong employees and they all 3 dropped out. However, for clerical skills, I think training is very adequate.
  - Used Francis Tuttle mobile computer lab which was convenient but seated 6 people.
- no opinion
  - Training begins in May.

Figure 37 (Page 90) reflects the degree of satisfaction for the management personnel of the respondent companies. Satisfaction ratings for the management worker category were 36.96%, with 0.00% dissatisfied, and 63.04% no opinion/no answer.

Verbatim comments for this segment are listed in the following enumeration but include no remarks in the "no opinion/no answer" grouping, thereby providing no insight into the large percentage in this rating option.

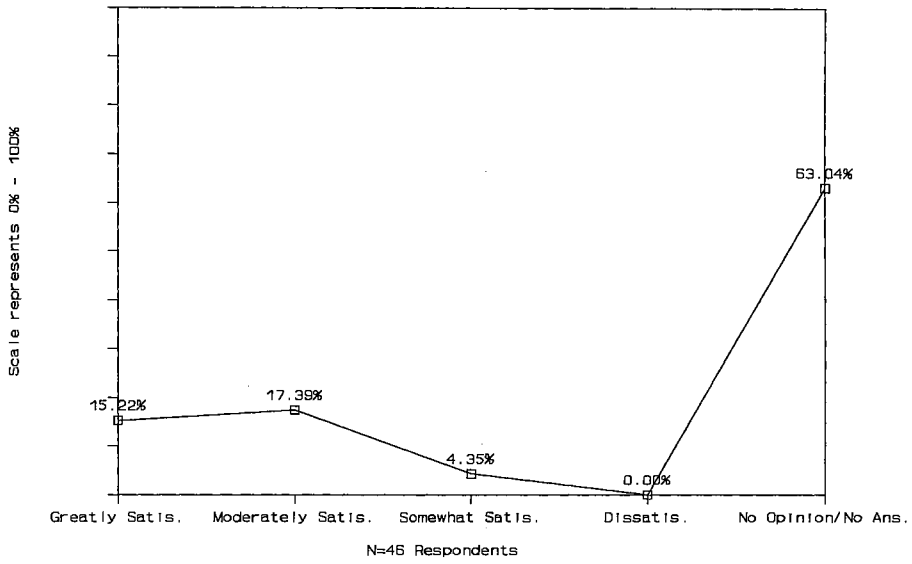

Figure 37. Satisfaction ratings for vo-tech training of management personnel.

- greatly satisfied
  - Used various computer classes for these people. Excellent resource.
- moderately satisfied
  - Professional job.
  - Very pleased with Resources Management--very good.
  - Cost-effective programs once they know what we want.
- somewhat satisfied
  - TQM--tough subject to teach to varying levels of management.

The satisfaction ratings for sales and distribution personnel are shown in Figure 38 (Page 91). Positive evaluations for this worker category were 4.34%, with an extremely high "no opinion/no answer" rating of 95.65%. Those dissatisfied in this category were 0.00%.

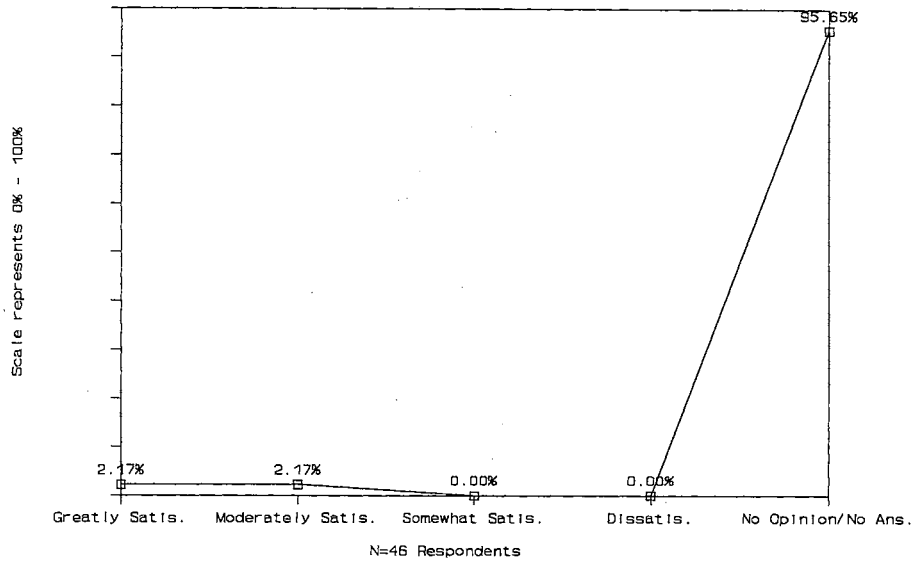

Figure 38. Satisfaction ratings for vo-tech training of sales and distribution personnel.

Only one comment was obtained from respondents regarding this area, and that quoted item is:

- greatly satisfied
  - Used various computer classes for these people. Excellent resource.

Satisfaction ratings for the skilled manufacturing/processing personnel were the highest of all the worker categories as are indicated in Figure 39 (Page 92).

A total of 86.96% satisfaction was indicated, with 0.00% dissatisfied, and 13.04% no opinion/no answer. Comments for this section included:

- greatly satisfied
  - Vo-tech did a good job training the skilled operators.
  - Used various computer classes for these people. Excellent resource.

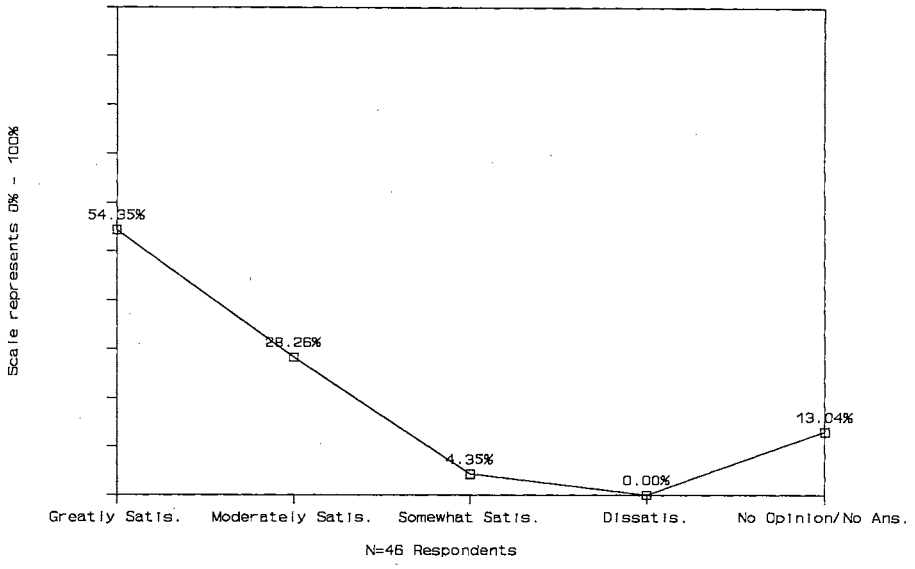

Figure 39. Satisfaction ratings for vo-tech training of skilled manufacturing/processing personnel.

- Tri-County does an excellent job and our people appreciate their efforts.
- Good job--custom taylored [sic] ed.
- Instructors' skill levels were quite high.

o moderately satisfied

- Professional job.

o dissatisfied

- Tried to update our draftsperson to latest industry practices. Vo-tech instructor was ill-prepared--didn't even have correct materials.

Unskilled manufacturing/processing personnel satisfaction ratings were the topic of Figure 40 (Page 93) and are somewhat lower than that of the skilled group, with 50.00% indicating satisfaction, 2.17% dissatisfied, and 47.83% no opinion/no answer.

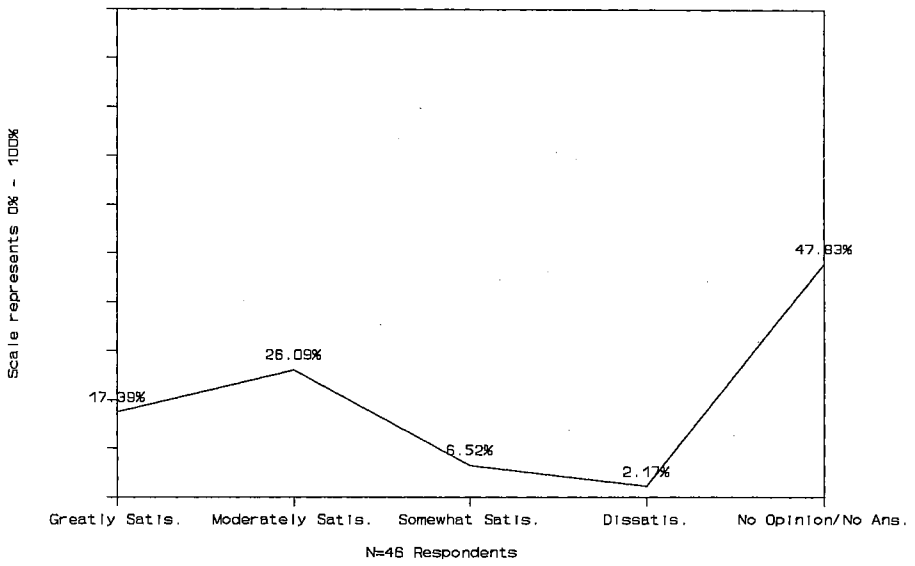

Figure 40. Satisfaction ratings for vo-tech training of unskilled manufacturing/processing personnel.

Specific verbatim comments from respondents in this section provide no insight into this response rate.

- greatly satisfied
  - Used various computer classes for these people. Excellent resource.
- moderately satisfied
  - Professional job.
  - Good programs for the masses.

The last figure in Section 7 provides responses regarding satisfaction ratings with the training for technical personnel. Figure 41 (Page 94) reflects those percentages.

The percentage of respondents indicating satisfaction with this type of training was slightly more than one-half--54.35% with 0.00% dissatisfied, and 45.66% exhibiting no opinion/no answer.

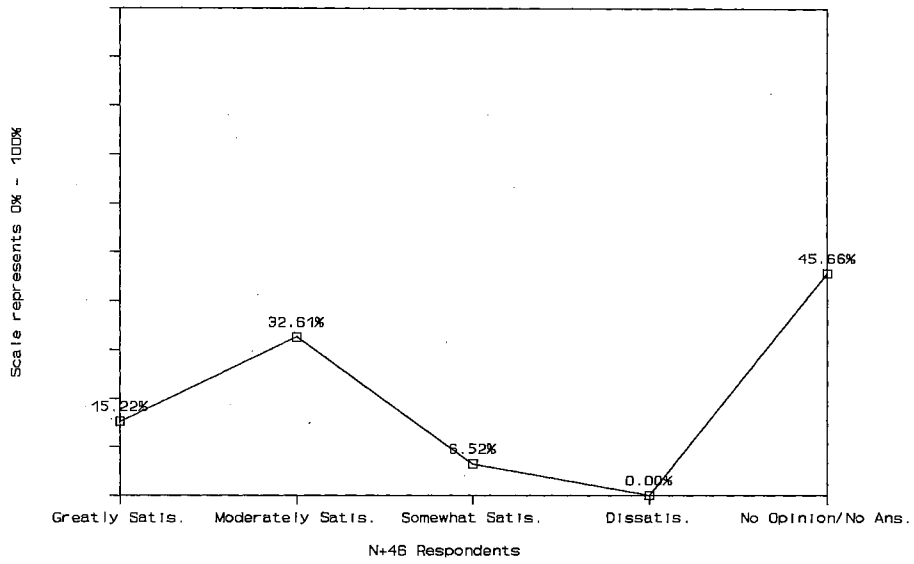

Figure 41. Satisfaction ratings for vo-tech training of technical personnel.

Specific verbatim comments included:

- greatly satisfied
  - Used various computer classes for these people. Excellent resource.
  - Vo-tech provides us with exemplary service and quality when it comes to technical training. They custom design programs to meet any technical need we have and at a tremendous cost savings over vendor training.
  - Have helped in software use.
- moderately satisfied
  - Professional job.
  - The classes were well set up and flowed very well.
  - Cost-effective way to bring "seminar type" material in house.

    - Instructors' skill level must be quite high.
- dissatisfied
    - Small group attended SPC (quality) class. Instructor was not well-prepared. Did not use full time allotted for any class--a waist [sic] of time for people who take time off work to further their skills.

The final portion of Question 7 asked the respondents to "Please provide any comments you would like--positive or negative--regarding your experience with the area vocational-technical schools." Those verbatim observations included:

- Always helpful--looking for new ways to address our needs. I appreciate their interest in industry.
- My impression of the Oklahoma vo-tech system is very favorable. Administrators and instructors want to be responsive to the needs of Oklahoma businesses and are doing a good job.
- We have a growing, advantageous relationship.
- Great Plains Area Vo-Tech School has developed a great reputation with my company for outstanding service, quality, and delivery of whatever customized training we have needed.
- Haven't used vo-tech training for anything but technician training. We have, however, used vo-tech facilities for conducting in-house training of production operators, technicians, staff, and management personnel. Outstanding partnership exists between our plant and vo-tech.
- We used vo-tech for CPR, first aid, basic math training. We were satisfied.
- Excellent service and performance from Tulsa Tech.

- Our local vo-tech always responds to our requests for specific types of training to the limit of their resources. They do not have the physical resources to address many of our needs.
- Very satisfied especially in the power plant area.
- All 3 vo-techs we have worked with (Western Area, Canadian Valley, Caddo-Kiowa) have been exceptional in working with us to identify trainers and materials. Partnerships have been excellent.

Summary

Information in Chapter 4 presents the perceptions of the target population of 126 CEOs of processors and manufacturers in Oklahoma whose companies employed more than 250 persons. Specific data included demographic information regarding the respondents such as their titles, titles of their immediate supervisors, length of time with their individual companies both in Oklahoma and totally, and the length of time the companies had been located in Oklahoma. Additional questions included:

- the companies' general perception of an Oklahoma area vocational-technical center;
- the companies' reasons for training in general;
- which companies had been users of the programs and services of Oklahoma area vocational-technical centers;
- factors which influenced companies' reasons for selecting training providers;
- other service providers which had been considered or used by the companies;
- the users' satisfaction rating with the programs and services of Oklahoma area vocational-technical centers.

Demographic results indicated the majority of respondents were CEOs or individuals involved in the Human Resources Development area who

reported directly to boards of directors, CEOs, human resource directors, or vice presidents. Over 50% of the respondents had been employed with the company for more than 10 years; and the companies surveyed have been operating in Oklahoma for a span of 6 months to more than 80 years.

Perception levels (Section 1) indicated that while the majority of respondents perceive area vocational-technical schools as providers of education and training for adults wishing to pursue a new career (95.45%), the categories of high school students, clerical personnel in business and industry, and skilled manufacturing/processing personnel in business and industry followed closely with 93.94% in each worker category.

Sections 2 and 3 revealed that 88.33% of the 60 who responded to this question had been involved in some type of employee training during the past 3 years and 90.00% within the last year. When asked if they had used an Oklahoma area vocational-technical school for such training, 95.00% responded in the affirmative for training within the last 3 years and 96.67% had done so within the last year.

Section 4 questioned the respondents about their reasons for training the various categories of workers. The predominant purpose for additional education for skilled manufacturing/processing personnel was productivity with 76.67% response level, followed by 55.00% for unskilled manufacturing/processing personnel, and 53.33% for clerical and technical staffs. Also receiving 53.33% of the responses as reasons for training were the areas of introduction of new procedures, processes, or equipment; functioning in a team environment; and orientation and upgrading all in the skilled manufacturing/processing personnel group.

In Section 5 of the questionnaire, the researcher asked the factors that influenced the companies' decisions to train and the training provider selected. The factor which received the highest rating--100%--in the much-to-moderate influence category was "staff of the agency

provides expert, capable training." Also receiving large percentages were "training is customized to meet company needs" (98.49%). Other factors receiving more than 90% affirmative votes included "training is designed and delivered within the time frame needed by our company (such as within days and/weeks)" (96.97%); "training times are scheduled to meet company needs such as shift work" and "agency personnel are friendly and helpful," both of which were given 92.42% ratings.

Section 6 asked the respondents, "When considering training for your employees, which of the training providers listed below would you choose for each category listed? (Please indicate 1-2-3 order--with 1 being highest ranking)." Area vocational-technical schools received the greatest number of No. 1 rankings in the worker categories of clerical staff and skilled and unskilled manufacturing/processing personnel, with the college/university receiving the most in the areas of management, sales and distribution, and technical employees.

Section 7 addressed the satisfaction ratings of the respondents <u>if they had used an Oklahoma area vocational-technical school</u> for their training. The worker category receiving the highest satisfaction percentage was skilled manufacturing/processing personnel with 86.96%.

Again recalling the ultimate goal of the study--to assist vocational educators nationwide in refining their training and services to meet the needs of industries in a more effective and efficient manner--these elements may help enhance their efforts toward higher quality offerings. To apply these findings toward this goal, discussion regarding each significant result is presented in Chapter 5.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Comparison of Objectives with Findings

This study was to obtain information concerning the perceptions of area vocational-technical schools by selected CEOs of large companies with offices in Oklahoma. To secure such data, a questionnaire was designed and disseminated to the target population of 126 CEOs of processors and manufacturers in Oklahoma whose companies employed more than 250 persons for the purpose of ascertaining demographic as well as specific information regarding those perceptions. Upon receipt of 66 completed surveys, which represented 52% of the study population, an examination of the data was conducted. Because this is a descriptive study and exploratory in nature, a variety of descriptive statistical methods, such as frequency distributions, graphs, percentages, and X^2 where appropriate were used to analyze and present the data received. An effort was then made to compare the objectives stated in Chapter 1 with the findings.

Objectives of the study included:

1. To determine if CEOs of large Oklahoma companies perceive programs and services provided by area vocational-technical centers to be for high school students and/or various personnel within business and industry.

2. To determine how recently companies provided training for their employees (currency of training) and how recently (if at all) they have used an Oklahoma area vocational-technical school as their training provider.

3. To determine the reasons for the CEOs' decision to sponsor training for their employees.

4. To determine factors influencing companies' decisions to train and their selection of a training provider.

5. To determine training providers other than area vocational-technical centers which may have been used by CEOs of large companies for training their employees.

6. To determine satisfaction ratings for those companies who had used an Oklahoma area vocational-technical school as their provider of employee training.

In succinct form, the conclusions can be stated:

1. The CEOs of big businesses perceive area vocational-technical schools in Oklahoma as educational institutions for high school students and adults wishing to pursue a new career.

2. Of the respondent companies, 88.33% had participated in training for their employees within the past 3 years; 83.33% within the last 12 months; 78.33% had used an Oklahoma area vocational-technical school for its training during the past 3 years and 66.67% within the past 12 months.

3. Respondents indicated the predominant reason for training their employees was to increase productivity within the worker category of skilled manufacturing/processing personnel.

4. "The staff of the training agency provides expert, capable training" was the leading factor (obtaining 100% of the much-to-moderate influence responses) influencing companies's selection of a training provider. Additional high rankings were given to "training is customized to meet company needs" (98.49%); "training is designed and delivered within the time frame needed by our company (such as within days and weeks)" (96.97%); and "training times are scheduled to meet company needs such as shift work" and "agency personnel are friendly and helpful," both of which were given 92.42% ratings.

5. Area vocational-technical schools received the greatest number of first-choice responses as training providers of clerical and skilled and unskilled manufacturing/processing personnel; colleges and universities received the greatest number of first-choice responses as training providers of management and technical personnel.

6. Respondents who had used an Oklahoma area vocational-technical school for training its employees indicated the greatest satisfaction with training received for skilled manufacturing/processing personnel (86.96%). The worker category receiving the second highest satisfaction ratings was the technical group with 54.35% of the respondent CEOs expressing favor with the training received for this worker category. Overall, the satisfaction ratings with vo-tech training were low.

Specific comparisons with each objective and in-depth discussion regarding these comparisons appear in the following narrative.

Perceptions of Area Vo-Tech Schools As Providers of Training

Objective No. 1 considered the target group's perceptions of area vocational-technical schools by category of offerings. The findings indicated that the largest percentage of respondents perceive area vocational-technical schools as providers of education and training for adults wishing to pursue a new career (95.45%), indicating a large recognition of "short-term" offerings from the area vocational-technical schools. This awareness may be a result of the respondents' personally having taken a class or knowing others who have done so or possibly because of the extensive marketing campaigns conducted for adult programs by the area vocational-technical schools. This category was the only one which received 0.00% responses in the Don't Know/No Answer option which reemphasizes the high recognition level of this program/service.

The categories of high school students, clerical personnel in business and industry, and skilled manufacturing/processing personnel in business and industry followed closely with 93.94% in each worker

category. This figure is not surprising since it relates to secondary students as area vocational-technical schools in Oklahoma historically has targeted this group and continue to provide comprehensive educational opportunities for these individuals. Additionally, respondents may have had children who attended an area vocational-technical school or perhaps employees who were graduates of a secondary vocational-technical program, thus giving them first-hand knowledge of this type of program.

The worker categories of clerical and skilled manufacturing/ processing personnel also received equal percentages of recognition with high school students (93.94%). This large proportion for clerical employees could be because a large segment of training conducted by area vocational-technical schools is in the area of computers, keyboarding, accounting, and other subjects required for enhancing clerical skills.

One explanation for this high degree of recognition for skilled manufacturing/processing personnel (93.94%) could be that the target audience consisted of manufacturers and processors, thereby having a great number of individuals in their specific organizations who may have participated in vo-tech training.

Additionally, the employee classifications of clerical and skilled manufacturing/processing personnel tend to use vocational education for initial and upgrade training in greater numbers than the other worker categories as was supported in Section 6 of the Questionnaire (Table 14), which will be discussed later in this chapter.

The lowest recognition level was in the program/service area of sales and distribution (36.36%). Perhaps one explanation for the low rating in sales and distribution is that many area vocational-technical schools offer only a few courses in this field. Another possibility could be that the numbers of employees the respondent companies had in this particular worker category might be considerably less than in others, thus their contact regarding such training would have been more limited. These reasons could also account for the high percentage of

responses in the Strongly Agree/Agree and Don't Know/No Answer options, both of which recorded 31.82% of the responses.

Large percentages of Don't Know/No Answer responses were also recorded for the classifications of Bid Assistance Centers (28.79%) and counseling, placement, and assessment services (22.73%). Bid assistance centers are a relatively new offering by area vocational-technical schools which could account for the low recognition figure. Additionally, the target population consisted of large companies which would most likely possess their own bidding departments or staffs; so they may not have sought such assistance from an area vo-tech school.

Likewise, counseling, placement, and assessment services are a recent addition to the vo-tech offerings, which perhaps could account for its high Don't Know/No Answer percentage. Just within recent years have placement and assessment centers been provided to assist not only high school students needing job-search skills but also individuals already employed in business and industry. While counseling has long been a part of the area vocational-technical school, it has been predominantly utilized by the secondary students. However, as a result of recent innovations, many vo-tech centers are providing these much-needed services of counseling, placement, and assessment for a wide segment of the general public, including business and industry.

In addition to the calculation of percentages, a contingency table was constructed to compute Chi-square (X^2) to test the relationship between the perceptions of the respondents according to the various area vocational-technical schools programs or services, using the null hypothesis (H_o), "There is no significant difference in the respondents' perception of area vocational-technical schools with regard to the schools' varying programs and services." The critical value of X^2 at .05 with 40 d.f. equaled 55.76. The X^2 resulting from the contingency table calculations equalled 173.85. This large contrast results in the rejection of the null hypothesis, thus inferring that there is a difference in the respondents' perception of area vocational-technical

schools with regard to the schools' varying programs and services. This result was not surprising considering the diversity of offerings and the relatively new additions to the curricula such as bid assistance centers and management training. These would typically receive less recognition than the traditional offerings of high school training and short-term adult programs, which showed high percentage of perception.

Currency of Training

Objective 2 concerned the currency of the companies' training in general and through the Oklahoma area vocational-technical schools. Within the past 3 years, 88.33% of the respondent companies had participated in training for their employees; and 83.33% had trained within the last year. Of the responding companies, 78.33% had used an Oklahoma area vocational-technical school for its training during the past 3 years and 66.67% within the last year.

These high percentages certainly indicate a commitment by the responding companies to workforce training and to remaining current in the ever-changing marketplace. This information is important to vocational educators by making them aware that companies are participating in and supportive of employee training, thereby being a tremendous potential market for the programs and services offered by area vocational-technical schools. That 66.67% of the responding companies had used an Oklahoma vo-tech school during the past year for their training indicates there is ample opportunity for Oklahoma vocational educators to approach these organizations about the possibility of providing their companies' training needs.

Reasons for Employee Training Segmented by Worker Category

The purpose of Objective 3 was to determine reasons the respondent companies provided training to their employees. (Detailed breakdowns of percentages by categories are presented in Chapter 4, Tables 6 through 15 and Figures 16 through 25). The results of the information gathered

from this segment of the questionnaire might be of assistance to vocational educators as they plan programs and/or services for various employee groups. As explained in the following narrative, the reason for training does, in fact, vary for worker category.

A contingency table was prepared to compute X^2 on this section of the instrument to test the hypothesis that there was no difference in the reasons that employers chose to training their staffs, with breakdowns by worker category. As described in Chapter 4, the computed X^2 figures exceeded the critical value X^2s for the worker categories of clerical, management, skilled and unskilled manufacturing/processing personnel, and technical employees. This, then, lead to the rejection of the H_o and would be interpreted that there is a difference in the reasons employers train their workers. This statistical significance confirms the premise that employee skills, duties, and functions determine to a great extent the purpose for which they receive additional training.

Sales and distribution was the only worker category in which the computed X^2 was not greater than the critical value, which would support the H_o stating that there is no significant difference in the reason for training these staff members. However, the Yes response option for this worker category was extremely small and there were comparatively more No Answers than with other employee segments. The lack of a clear response for this personnel group could be that the alternatives offered by the researcher did not meet the needs of the respondents, that there is little training done by the companies for this category of employees, or that the respondents did not know the reasons for training this group.

The highest percentage in this section was scored for the purpose of productivity in the category of skilled manufacturing/processing personnel with 76.67% response level. This large response would be anticipated since these workers are integrally involved in the efficiency of any company and are those with whom production can be most easily identified and measured. The worker category receiving the

lowest percentage for training for the reason of productivity was the sales and distribution personnel at 16.67%. Again, this would be as anticipated, since the description of their job does not include productivity as might be defined by a processor or manufacturer and also would be difficult to measure. Extensively throughout this question, regardless of worker category, there were large percentages of No Answers. Various reasons could exist for these high numbers of exclusion:

1. Respondents may not have known the specific reason for training by category, since the selection of the individuals for training may have been done on a departmental basis with little feedback to the questionnaire respondent as to the purpose of the additional schooling. The instrument did not provide a Don't Know response option, so the respondent may have omitted any portion of the question about which he or she was unsure.

2. Predominantly, the large percentages of responses occurred either in the "Yes" column; or the respondent chose not to answer at all. Perhaps he or she believed that a No Answer equated to a No, thus omitting it for expediency.

3. Perhaps the respondents did not view specific training, such as management training, as an appropriate role for vo-tech institutions, thus choosing not to respond to it at all.

As in other questions on the survey, the respondents were asked for any comments they wished to provided regarding the specific item. Question 4 asked them to "Please indicate any other reasons why you elected to provide training for your employees." The verbatim responses included:

- Level of technology changes too fast for vo-tech' to keep up. Distributors are on leading edge [referring to manufacturing and/or processing--skilled].
- To meet federal compliance guidelines.
- Quality improvement.

- Job enrichment, improve job skills.
- Upward mobility/EEO.
- These questions could hardly justify a "no" [quotes added for clarity] answer; these are all reasons to train regardless of position.
- New knowledge of a new position: equipment in the engineering/power plant areas as well as welding.

This information regarding employers' purposes for training their workers should provide vocational educators with insight into their programs and services and whether these offerings are meeting the needs of the client business or industry. For example, it would be appropriate to offer courses directed toward increasing productivity to skilled manufacturing/processing personnel or clerical staff but not for sales and distribution employees (reference Figure 16). Hopefully, this data will enable those in vocational education to target market rather than utilizing the mass marketing approach that may be currently in place.

Factors Influencing Companies' Selection of Training Provider

To determine elements influencing companies' decisions to train and their selection of training provider, the question was posed (which related to Objective 4), "When your company is considering training for its employees, which of the following factors influence your decision to train and your decision about the training providers you select?" Ten alternatives were provided, and the factor which received the highest rating--100%--in the much-to-moderate influence category--was "staff of the agency provides expert, capable training." Also receiving large percentages were "training is customized to meet company needs" (98.49%). Other factors receiving more than 90% affirmative votes included "training is designed and delivered within the time frame needed by our company (such as within days and weeks)" (96.97%); "training times are scheduled to meet company needs such as shift work"

and "agency personnel are friendly and helpful," both of which were given 92.42% ratings. These results appear to indicate that people make the difference--expert instructors and friendly staff received notable percentages, along with the convenience and timeliness of the training for the company involved. The item receiving the least selection in the "much-to-moderate influence" category was "funding for start-up training is provided by the training agency." It would seem that if the programs/services met the time and location needs of the companies desiring training and if the instructors were highly qualified, assistance with funding was of little consequence.

A contingency table was developed to compute X^2 for this specific item to test the H_o, "There is no significant difference in the influence of various factors on the decision of a company to train and the selection of the training provider." The computed X^2 was 216.39, greatly exceeding the critical value of 55.76 (with 36 d.f. at .05). This resulted in a rejection of the H_o, thus indicating that there are differences in the factors influencing a company's decision to train its workers and the selection of the agency to provide such training.

One factor of particular interest to the researcher was "funding for start-up training is provided by the training agency." Having long been used as an incentive for companies to use vocational-technical education in Oklahoma, it garnered a little over half of the responses--51.51% in the much-to-moderate influence categories. Compared to the discussion above regarding the high percentages received for factors related to staff and training times, this element seemed relatively insignificant. In fact, of all the choices provided, "funding for start-up training is provided by training agency" received the lowest percentage of response as being an influencing factor (when the much to moderate influence options were combined).

Again, the results of these findings might assist vocational educators in the enhancements offered to business and industry in an effort to become their training provider.

Qualitative information was also obtained from this specific item when the respondents were asked to provide any comments they wished regarding factors influencing their decision to train and their selection of a training provider. Those replies are included in the discussion following Table 13 in Chapter 4.

Selection of Training Provider by Employee Category

Objective 5 addressed the question of training providers other than area vocational-technical centers which may have been used by CEOs of large companies for training their employees. Respondents were asked to indicate the training agency which they would first approach for assistance, again by worker category. Area vocational-technical schools received the greatest number of No. 1 rankings in the worker categories of clerical staff and skilled and unskilled manufacturing/processing personnel, with the fewest responses in the areas of management and sales and distribution employees. This result parallels the results of the recognition levels discussed in Objective 1. Additional explanation of such rankings might be that fewer courses are offered by area vocational-technical school in the fields of management and sales and distribution. Another contributing factor mentioned by respondents is the lack of degree-granting ability by the area vocational-technical schools, which is desired by many in the management and sales arenas.

Numerous comments were received from the respondents regarding their first-choice selections. These are included in Appendix D of the study.

Satisfaction Ratings

To determine satisfaction ratings for those companies who had used an Oklahoma area vocational-technical school as their provider of employee training was Objective 6. The greatest percentage of favorable responses was obtained in the skilled manufacturing/processing personnel category with 86.96%, followed by 54.35% for the technical personnel

group. One-half (50.00%) of the respondent users indicated satisfaction with clerical and unskilled manufacturing/processing personnel training, with 36.96% expressing favor with the management training and 4.34% with sales and distribution. In light of such low satisfaction ratings, area vocational-technical school staffs involved in training may wish to examine their types of offerings, equipment, quality of instructor, as well as other factors to determine where the problems lie with these specific courses.

This item on the questionnaire had unusually high No Opinion/No Answer tallies--the sales and distribution category as high as 95.65%. In fact, the only worker category that was relatively low with No Response was skilled manufacturing/processing personnel, reflecting 13.04%. Speculation regarding reasons for such responses include:

1. there may be little feedback from these employees to those individuals responding to the questionnaire; but the CEOs could deduce that if productivity rose, the training for skilled workers must have been satisfactory.

2. perhaps this specific question was directed toward the wrong audience--rather, it should have asked the participants. Their responses might have been entirely different.

3. the location of the question on the survey instrument might have accounted for high No Opinion/No Responses. The "fatigue factor" may have been an influencing element at this point in the respondents' reply level.

As with previous questionnaire items, a contingency table was constructed for X^2 to test the null hypothesis that, "There is no significant difference in the degree of satisfaction among respondents regarding the training received from an Oklahoma area vocational-technical school classified by worker category." With 20 d.f. at .05, the critical value of X^2 for this chart was 31.41. The computed X^2 equalled 85.88, which is significantly greater than the critical value, thus rejecting the H_o. This, then, indicates that there is a difference

in the degree of satisfaction by the users of Oklahoma's vo-tech school programs and services, depending upon the worker category who was involved in the training.

Respondents were asked not only to explain their degree of satisfaction or dissatisfaction for each worker category but also to provide any comments--positive or negative--regarding their experience with the area vocational-technical schools. Specific replies are included in Chapter 4 accompanying Figures 36 though 41. However, it was interesting to note in reviewing the respondents' comments, every "greatly satisfied" option included a positive remark about the computer classes. This was true for each worker category. Area vocational-technical schools seem to have found a niche in this type of training and may want to consider taking steps to ensure that such positive perceptions and results continue. Additionally, they may wish to review other offerings to determine if they can be brought to the same high quality as the computer training or, conversely, whether some may need to be abandoned because of lack of possibility of achieving such success. These are interesting deliberations to be addressed.

Summary

As expected, the target population's perceptions of area vocational-technical schools indicated that the majority of respondents perceive these institutions as providers of education and training for adults wishing to pursue a new career, high school students, clerical employees in business and industry, and skilled manufacturing/processing personnel in business and industry. The companies seek training for their employees predominantly for the reasons of productivity, to introduce new products, procedures, or equipment; for orientation and upgrading; and to help workers assimilate into the team environment which has become so prevalent in today's workplace. When contemplating the decision to train, companies are more interested in capable staff and timeliness of training than in funding assistance for those

programs; and their selection of training providers seems to follow traditional lines of area vocational-technical schools for clerical, and skilled personnel, while management, technical, and sales and distribution staffs prefer institutes of higher education with offer degree availability.

Recommendations

Business and industry are a vital audience for area vocational-technical school programs and services. However, if the CEOs and others in the decision-making process are unaware of the offerings and capabilities of these training institutions, it will be difficult to "sell" the companies on the viability of using the schools as training providers. With this rationale, the following recommendations are made:

1. Area vocational-technical schools must make a concerted effort to target market in order to increase the depth and breadth of recognition throughout the populace as well as specifically to business and industry.

2. When planning courses, training providers may wish to examine the reasons employers train and design programs to meet those criteria.

3. Timeliness of training and on-site offerings at the companies cannot be over-emphasized. Training providers should reassess their guidelines and develop policies which enhance prompt, effective responses to training requests.

4. Area vocational-technical schools should continue to pursue cooperative agreements with junior colleges to provide transfer credit for courses taken at vo-tech. This degree availability would most likely entice employees in categories such as management, technical, and sales to pursue courses at vo-tech.

5. In view of the large percentage of the Don't Know/No Answer options, vocational educators may wish to design formal evaluation feedback instrument to provide information to CEOs regarding the success of training their employees.

6. In view of the low numbers of High Satisfaction ratings, vocational educators may want to follow up and evaluate training more consistently in an effort to strengthen any successful areas while identifying and correcting any problem areas.

7. A subsequent study may be desirable with the target population consisting of manufacturers/processors in Oklahoma employing fewer than 250 to determine how the responses compare to the current study's findings.

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APPENDIX A

JURY PARTICIPANTS FOR REVIEW OF SURVEY INSTRUMENT

Mr. Scott Dean, Industrial Coordinator, Pioneer Area Vocational-Technical School, Ponca City, Oklahoma

Mr. A. J. "Skip" DeGeorge, Plant Manager, Moore Business Forms, Stillwater, Oklahoma

Mr. Ken King, Assistant State Coordinator of Area Schools, Oklahoma Department of Vocational and Technical Education, Stillwater, Oklahoma

Mr. Kent Metcalf, Assistant Superintendent for Industry Training, Indian Meridian Vo-Tech Center, Stillwater, Oklahoma (both Dr. Shultz and Mr. Metcalf work extensively with industry to determine training needs and establish programs and services to meet those needs)

Mr. Jack Pryor, Industrial Coordinator, Canadian Valley Area Vocational-Technical School, El Reno, Oklahoma

Dr. Lon Shell, Agriculture Department, Southwest Texas State University, San Marquis, Texas

Dr. Fred Shultz, Superintendent, Indian Meridian Vo-Tech Center, Stillwater, Oklahoma

Dr. Tom Thomas, Great Plains Area Vocational-Technical School, Lawton, Oklahoma

Dr. Janice Williams, Professor of Statistics, Oklahoma State University, Stillwater, Oklahoma

Mr. Todd Zdorkowski, Technical Assistant Specialist, Oklahoma Department of Vocational and Technical Education, Stillwater, Oklahoma who has a comprehensive background in research and the development of survey instruments as well interfacing with industry on a state-wide basis to assess their needs and establish training programs if necessary

APPENDIX B

RESEARCHER'S FIRST COVER LETTER

TO SAMPLE GROUP AND

TO TARGET POPULATION

The Oklahoma Area Vo-Tech School System is vitally interested in ensuring that it provides quality programs and services to you the consumer. An essential element in meeting each customer's unique requisites, of course, is knowing your individual needs for the various offerings available. In an attempt to determine these requirements, your help is crucial.

The enclosed questionnaire is designed to help vo-tech help you. They are interested in knowing your overall perception of area vo-tech centers--and they're interested in that perception whether or not you have used these centers for your company training. If you have used the centers as trainers, your level of satisfaction is also of interest as well as your criteria for selecting training providers in general.

The enclosed confidential survey takes only minutes to complete. If time does not permit you personally to provide the information requested, please forward it to the individual in your company who is most directly involved with the planning and scheduling of training for your employees and who is knowledgeable of your opinions regarding this subject. The information obtained from you and others in the study will be shared with the vo-tech system to help evaluate its programs, services, and overall perception. The goal is to serve you better--and you can help in this endeavor by sharing your views with us.

Sincerely,

Brenda McIntosh

Enclosures: Survey
Stamped, self-addressed envelope

APPENDIX C

RESEARCHER'S SECOND COVER LETTER TO

TARGET POPULATION FOR SUBSEQUENT

MAILING OF INSTRUMENT

It's not often that we, as consumers, have the opportunity to design the ideal product or process. However, you currently have that avenue available to you through input on the enclosed questionnaire. Your confidential responses will be shared with the vo-tech system to help it evaluate programs, services, and delivery systems in order to more adequately meet your needs.

The goal of the Oklahoma Area Vocational-Technical School System has always been to provide quality programs and services to you the consumer; but fundamental to its achieving this objective is knowing your individual needs and requisites. This survey will assist in determining those requirements and your help is crucial.

Previously, you received a questionnaire identical to the one enclosed. Since we are very interested in your response but have not heard from you, we wanted to provide you another opportunity to share your opinions. Won't you please take a few minutes to complete the instrument so that your voice can be heard. If time does not permit you personally to provide the information requested, please forward the survey to the individual in your company who is most directly involved with the planning and scheduling of training for your employees and who is knowledgeable of your opinions regarding this subject.

Your assistance is this effort is greatly appreciated.

Sincerely,

Brenda McIntosh

Enclosures: Survey
Stamped, self-addressed envelope

APPENDIX D

SURVEY OF LARGE INDUSTRY IN OKLAHOMA REGARDING PERCEPTIONS OF AREA VOCATIONAL-TECHNICAL SCHOOLS

To what extent do you agree with the following statements regarding an area vocational-technical school? Please place an "X" in the appropriate box to indicate your response.

Area vocational-technical schools serve as providers of . . .	**Degree of Agreement**				
	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know
. . . education and training for ***high school students***					
. . . education and training for ***adults who wish to pursue a new career***					
. . . education and training for ***clerical personnel*** in business and industry					
. . . education and training for ***management personnel*** in business and industry					
. . . education and training for ***skilled manufacturing and/or processing personnel*** in business and industry					
. . . education and training for ***unskilled manufacturing and/or processing personnel*** in business and industry					
. . . education and training for ***sales and distribution personnel*** in business and industry					
. . . education and training for ***technical personnel*** such as engineers, technicians, computer programmers, etc. in business and industry					
. . . services such as ***bid assistance centers*** for business and industry					
. . . assistance to ***small businesses***					
. . . assistance through ***counseling, placement, and assessment***					

Please describe other forms of education, training, and/or services which you feel are indicative of area vocational-technical school offerings

Has your company been involved in training within the *last three years?* Yes No within the *last year?* Yes No

Has your company used an Oklahoma Area Vocational-Technical School for its training within the *last three years?* Yes No
within the *last year?* Yes No

When considering training for employees, which of the factors listed below were reasons for training? Please place an "X" in the appropriate boxes.

Reasons for Training	Worker Categories											
	clerical		management		sales & distribution		manufacturing/ processing--skilled		manufacturing/ processing-- unskilled		technical-- engineering, programming, technicians, etc.	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
To increase worker productivity												
To promote growth in employees being considered for advancement												
To help workers function in a team environment												
To provide rewards for workers												
For safety purposes												
For employee assistance programs												
For employee retention												
For orientation and upgrading												
To increase worker satisfaction												
To introduce a new procedure, process, or equipment												

Please indicate any other reasons why you elected to provide training for your employees

APPENDIX D

SURVEY OF LARGE INDUSTRY IN OKLAHOMA REGARDING PERCEPTIONS OF AREA VOCATIONAL-TECHNICAL SCHOOLS

To what extent do you agree with the following statements regarding an area vocational-technical school? Please place an "X" in the appropriate box to indicate your response.

Area vocational-technical schools serve as providers of . . .	Degree of Agreement				
	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know
. . . education and training for ***high school students***					
. . . education and training for ***adults who wish to pursue a new career***					
. . . education and training for ***clerical personnel*** in business and industry					
. . . education and training for ***management personnel*** in business and industry					
. . . education and training for ***skilled manufacturing and/or processing personnel*** in business and industry					
. . . education and training for ***unskilled manufacturing and/or processing personnel*** in business and industry					
. . . education and training for ***sales and distribution personnel*** in business and industry					
. . . education and training for ***technical personnel*** such as engineers, technicians, computer programmers, etc. in business and industry					
. . . services such as ***bid assistance centers*** for business and industry					
. . . assistance to ***small businesses***					
. . . assistance through ***counseling, placement, and assessment***					

Please describe other forms of education, training, and/or services which you feel are indicative of area vocational-technical school offerings

Has your company been involved in training within the *last three years?* Yes No within the *last year?* Yes No

Has your company used an Oklahoma Area Vocational-Technical School for its training within the *last three years?* Yes No
within the *last year?* Yes No

When considering training for employees, which of the factors listed below were reasons for training? Please place an "X" in the appropriate boxes.

Reasons for Training	Worker Categories											
	clerical		management		sales & distribution		manufacturing/ processing--skilled		manufacturing/ processing-- unskilled		technical-- engineering, programming, technicians, etc.	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
To increase worker productivity												
To promote growth in employees being considered for advancement												
To help workers function in a team environment												
To provide rewards for workers												
For safety purposes												
For employee assistance programs												
For employee retention												
For orientation and upgrading												
To increase worker satisfaction												
To introduce a new procedure, process, or equipment												

Please indicate any other reasons why you elected to provide training for your employees

When your company is considering training its employees, which of the following influence your decision to train and your decision about the training provider you select. (Please place an "X" in the appropriate boxes.)

Decision Criteria	Influence Rating				
	Much Influence	Moderate Influence	Little Influence	No Influence	No Opinion
funding for start-up training is provided by the training agency					
training is offered at low cost					
training is conducted on-site at our company					
training is customized to meet company needs					
training times are scheduled to meet company needs such as shift work					
training is designed and delivered within the time frame needed by our company (such as within days and/or weeks)					
training agency has been recommended by others who had used it and who were satisfied with its programs and services					
appearance and design of the training agency's facilities and equipment					
staff of the training agency provides expert, capable training					
agency personnel are friendly and helpful					
Please state any other criteria that may have influenced your selection of a training provider for your company's training needs					

When considering training for your employees, which of the training providers listed below would you choose for each category listed? (Please indicate 1-2-3 order--with 1 being highest ranking.)

Worker Categories	Training Providers								Please explain reason for first-place choice
	college/ university	area vo-tech school	in-house training dept.	outside consultant	private technical institute	vendor-supplied training	correspond-ence courses	other--please specify	
clerical									
management									
manufacturing/ processing--skilled									
manufacturing/ processing--unskilled									
sales & distribution									
technical--engineering, computer programming, technicians, etc.									
Please state any additional comments you wish regarding your choice of training providers.									

Your job title _____

Job title of person to whom you report _____

How long have you been employed with your company? _____

How long have you been employed with your company at this location? _____

How many years has your company been in Oklahoma? _____

This question should be completed **ONLY IF YOU HAVE USED** an Oklahoma area vocational-technical school for company training,--please rate your satisfaction with training you received by placing an "X" in the appropriate spaces below.

Worker Categories	Satisfaction Ratings					Please explain your degree of satisfaction or dissatisfaction
	greatly satisfied	moderately satisfied	somewhat satisfied	dissatisfied	no opinion	
clerical						
management						
manufacturing and/or processing--skilled						
manufacturing and/or processing--unskilled						
sales & distribution						
technical--engineering, computer programming, technicians, etc.						
Please provide any comments you would like--positive or negative--regarding your experience with the area vocational-technical schools						

APPENDIX E

COMMENTS REGARDING QUESTION 6 OF SURVEY INSTRUMENT

As with other sections of the study, respondents were asked for comments regarding this item on the questionnaire. They were requested to "Please explain reason for first-place choice [for training provider]." Their remarks listed below are all direct quotes grouped by category and type of training provider:

- **clerical**
  - college/university
    - easy access to college night classes at local high school.
    - location.
    - quality of education.
    - clerical skill level is quite high. Training is directed at systems (accounting, spreadsheets, etc.).
  - area vocational-technical school
    - ready-to-work skills taught.
    - cost factor/time.
    - their needs are best met through vo-tech because of the variety of clerical courses.
    - general type and cost.
    - proximity to plant and capability.
    - availability and training that is directly applicable to worker responsibilities.
    - known quality programs available at vo-tech and cost effective.
    - quick and easy.
    - cost effective.
  - in-house training department

- familiarity with corporate procedures, rules, and regulations.
- most effective knowledgeable staff to handle the training.
- most specifically fits the job requirements and actual situation.
- capability exists on staff.
- in-house staff responsive, ready, etc.
- available and set up to handle our specific needs.
- qualified to conduct "specialized" training.

o vendor-supplied training

- vendor-supplied new equipment or software.

♦ **Management**

o college/university

- would prefer college credit for studies.
- knowledge based job analytical skills.
- upper crust couldn't and wouldn't be caught dead at vo-tech.
- requires higher degree of skills most readily available at nearby colleges.
- training needs can be provided by general college course offerings.
- quality of education.
- many such programs exist at local university.
- higher level of education required.
- have an in-house management certification institute designed to cooperate with in-house faculty and external scholars.
- we would be looking to grad level work for our people.
- appropriate level.

o area vocational-technical school

- in-house or close to home.

o in-house training department

- location--time.
- prefer utilization of corporate "core" courses for management which is delivered by corporate training.
- specific type.
- corporate training department develops management training programs for use at plant. This is our primary source of management training.

o outside consultant

- gives more overview than any local or in-house teacher.
- state-of-the-art management is big business--we want to be the best.
- expertise in their arena.

o other--please specify

professional management institutes i. e. Center for Creative Leadership.

- corporate--corporate design for consistency.

♦ **Sales and Distribution**

o college/university

- accreditation and degree availability.
- knowledge based position, previous experience, personality.
- quality of education.
- higher level of education required.

o in-house training department

- best suited to develop up-to-the-minute programs; besides field sales are spread out across country.
- geared to specifics.

o outside consultant

- more overview--better rounded, knowledgeable person.
- we use office of personnel management opm (government) training in many, many cases.

- this is new area for us and most comfortable with outsiders.
- outside consultant within manufacturing provide intensive, educated assistance. Would use in-house and vo-tech to supplement as below (unskilled).

o vendor-supplied training
- knowledge of product and readily available.

o other--please specify
- corporate--corporate consistency.

♦ **Skilled Manufacturing and/or Processing**

o college/university
- accreditation and degree availability
- requires higher degree of skills most readily available at nearby colleges.

o area vocational-technical school
- ready-to-work skills available.
- area vo-tech is well equipped to do the job.
- expertise.
- vo-tech better equipped to handle skilled education.
- availability, cost, and flexibility in course structure, such as tailoring content to provide specific needs.
- good experience with technical programs.
- in-house or close to home.
- currently using.

o in-house training department
- specific type.
- operator training is conducted at each plant by the in-house training department. Each plant has developed training programs for each job in the plant.
- training can concentrate on the specific task involved.
- ammunition production training is not available outside dod.
- more knowledge available in house.

- specialized.
- in-house is generally sufficient.

o outside consultant

- outside consultant within manufacturing provide intensive, educated assistance. Would use in-house and vo-tech to supplement as below (unskilled).

o private technical institute

- quality of education.

o vendor-supplied training

- cost; training specific to our needs.
- crafts--equipment specific.

♦ **Unskilled Manufacturing and/or Processing**

o area vocational-technical school

- area vo-tech is well equipped to do the job.
- expertise.
- more general/cost.
- nearby, inexpensive, and capable.
- availability, cost, and flexibility in course structure, such as tailoring content to provide specific needs.
- good experience with programs in this area.
- currently using.
- cost.

o in-house training department

- specialized equipment must be taught on site.
- in-house training is best suited for most job specific training needs at our facility.
- in-house trainers best suited to teach job skills program.
- quality of education.
- training can concentrate on the specific task involved.
- more knowledge available in house.
- identified internal expertise for consistency and cost-effective.

- vendor-supplied training
  - vendor for "new" process or equipment.

- **Technical--Engineering, Computer Programming, Technicians, etc.**
  - college/university
    - accreditation and degree availability.
    - engineers want to be where it's happening. Want to go to T.U. if company foots the bill.
    - requires higher degree of skills most readily available at nearby colleges.
    - quality of education.
    - depends on how technical college/technical best if needed.
    - level of programs needed is at university level.
  - area vocational-technical school
    - ready-to-work skills taught, knowledge based.
    - expertise.
    - good technical programs.
    - availability, cost, and flexibility in course structure, such as tailoring content to provide specific training needs.
    - vo-tech provides us with exemplary service and quality when it comes to technical training. They custom design programs to meet any technical need we have and at a tremendous cost savings over vendor training.
  - in-house training department
    - higher level of education required.
    - custom design.
    - geared to our product line.
  - outside consultant
    - good service known to be available.
  - private technical institute
    - quality/specific.
  - vendor-supplied training

- technical info is generally supplied by vendor initially.

- other--please specify
  - corporate--corporate-developed program in place--consistency.

- Please state any additional comments you wish regarding your choice of training providers.
  - If Vo-Techs had more cooperative agreements with area colleges, they would be utilized more.
  - Our local vo-tech is good for PC's but their instructors not knowledgeable enough of a system like ours to training people to meet our needs.

VITA

Brenda G. McIntosh

Candidate for the Degree of

Doctor of Education

Dissertation: THE PERCEPTIONS OF AREA VOCATIONAL-TECHNICAL CENTERS BY SELECTED CHIEF EXECUTIVE OFFICERS OF LARGE COMPANIES WITH OFFICES IN OKLAHOMA

Major Field: Occupational and Adult Education

Biographical:

Personal data: Born in Washington, D.C., January 9, 1945, the daughter of Mr. and Mrs. Kermit T. Good.

Education: Graduated from Renan High School, Gretna, Virginia, in June, 1963; received Bachelor of Science Degree in Business Education from Radford University, Radford, Virginia, in June, 1967; received Master of Science Degree from Oklahoma State University, Stillwater, December, 1975; completed requirements for Doctor of Education degree at Oklahoma State University in December, 1993.

Professional Experience: High School Business Instructor in Virginia from 1967-1971; Secretary, Area School Division, Oklahoma Department of Vocational-Technical Education, 1971-1973; Administrator/Instructor, Indian Meridian Area Vocational-Technical School, Stillwater, Oklahoma, 1973-1992; Instructor of Business Education, Surry Community College, 1992-1993.