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The effects of economic transformation upon selected high school vocational education programs in Southern California

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THE EFFECTS OF ECONOMIC TRANSFORMATION UPON SELECTED HIGH SCHOOL VOCATIONAL EDUCATION PROGRAMS IN SOUTHERN CALIFORNIA

A Project

Presented to the

Faculty of

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In Partial Fulfillment

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ABSTRACT

The purpose of this study was to review the benefits of vocational education, and the progress that has been made in local education institutions to support the hypothesis. The goal was to identify those vocational programs attracting students and training young men and women to enter the workforce and provide the skills needed by business and industry. For this reason, vocational education is becoming one of the mot important economic development programs in the nation. At the same time, they are raising high school student's awareness of the opportunities in the workplace and preparing them to enter it.

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CHAPTER I

INTRODUCTION

For more than a century there has been the fear that new technologies which result in economic transformation would eliminate many jobs and diminish the need for prior skills needed to perform the remaining ones, reducing workers to maintenance mechanics or robots. Such fears deserve being proven. New technologies have made many people more productive, and has generated an array of new goods and services. At the same time, the number of jobs has increased even though the nature of the jobs has changed.

The United States' demand for highly skilled people has increased, correspondingly, driving earnings for the unskilled down. It is therefore concluded that there is a national need for vocational education to transition people from of the unskilled labor force and thereby help meet the rapidly growing need for a skilled labor force (Swanson, 1991). However, sources reveal an increasing lack of interest in students attending such programs, resulting in education's lack of interest in providing them.

There has always been controversy around the subject of vocational education. It has been viewed by many as a way to train young people to prepare for work , enabling them to earn a modest living without obtaining additional education. The establishment and conduct of vocational, or occupational programs, "has never really been totally accepted." Negative attitudes toward vocational education can be traced to the program's origins, and

understanding its source provides useful insight into the present decline in enrollment (Gray, 1991).

NATURE OF THE PROBLEM

The nature of the problem has a direct relationship to education and the workplace, recognizing that for a nation to grow economically, business and industry require people who have skills needed to produce products and services. Silberman (1991), clarified some of the problems. He stated that access to vocational education in many states has declined. Some states have provided course substitutions or cross-credits for vocational or applied academic courses, or have protected student access by extending the school day and reducing class time to one hour periods. In states that made serious effort to improve the quality of their vocational programs and vigorously promoted them, vocational enrollment levels have increased.

In the 1900s, free education for all young people from grades K-12 was put into effect However, even at that time, there was an obvious need for alternatives to the programs designed to prepare young people to enter college, because many students, for various reasons, would not be attending college, yet they needed to be prepared for work (Silberman, 1991).

Business and industry look to the education system to prepare workers to enter the workplace. When the education is not available to prepare young people, business and industry are at a disadvantage because they cannot be

competitive in the marketplace without skilled workers. Hoyt (1991) stated that the education system and the private sector must work together.

Today, the need continues to exist as vocational education is viewed as the only means of providing rigorous advance technology programs to prepare young men and women to meet the nation's demand for a highly skilled workforce. In 1989, the National Assessment of Vocational Education (NAVE) was emphatic about the need to revise and rebuild the high school vocational curriculum. It called for upgrading the levels of all skills to provide students the mix of occupationally specific and transferable skills they need to get good jobs or to pursue training and education at postsecondary levels; integrating high school academic and vocational curricula; and accelerating the vocational education of at-risk students by providing them the extra assistance they need to succeed in jobs (Hoyt, 1991).

SIGNIFICANCE OF THE PROBLEM

Industries rely on technology which in turn requires fewer people to produce more sophisticated products. Most of these industries are human capital intensive. While they employ highly educated people, they also employ people to perform tasks that do not require a college education. Universities prepare less than one fifth of those workers filling skilled jobs (Vaughan, 1991).

Vaughan (1991) stated that the U.S. faces a drain that is proving more difficult to overcome than the depletion of natural resources. He was referring to

the lack of skilled people to perform the tasks that need to be done. According to Vaughan, what is needed is better and more vocational education to help people move out of the increasingly devalued unskilled labor force and to meet the rapidly growing need for skilled labor.

Gray (1991) indicated that for the United States to remain economically competitive in the next century, the nation's businesses will have to be successful. If business is to succeed, it will be because of the contribution vocational education has made to the workforce.

In spite of the fact that the quality of America's work force needs to improve, vocational education continues to be ignored as a source for meeting these needs. The decline in vocational education enrollments have not gone unnoticed. Faced with empty vocational education classrooms and skyrocketing per pupil costs, school officials speak of the need for new directions. Vocational educators, desperate to reverse the enrollment declines, are mounting sophisticated public relations campaigns deigned to attract students. If not publicly then privately, many worry that vocational educators may be wagering a losing battle. They wonder whether high school vocational education will ever rise again (Gray, 1991).

Vocational education programs in some schools are demonstrating that they can aid the development of many different skills to support business and industry, large and small. At the same time, they are raising high school

students' awareness of the opportunities in the workplace, and preparing them to enter it. Because vocational programs are closely linked to labor markets, they can quickly and economically train displaced workers in skills that are in demand, thus drawing poor people into the economic mainstream. As a consequence, "vocational education is becoming one of the most important economic development programs in the nation" (Vaughan, 1991).

STATEMENT OF THE PROBLEM

Thousands, perhaps millions, of people are unemployed today because they lack the skills that are needed in the workplace. There are a number of reasons why people are not employable. Most can be traced to a lack of a meaningful education that should have prepared them to obtain employment. A major cause for young people to drop out of secondary schools is because it does not motivate them to prepare for work. Any work that they may be able to obtain is low paying, and work is never steady. Because employers concentrate on advanced training and are not equipped to provide remedial education, uneducated people are less able to reach even the first rung of the employment ladder (Vaughan, 1991). As a result, increasing numbers are looking to the social welfare system for survival.

According to Pepple (1989) vocational education has been perceived as one answer in helping reduce the dropout rate for students who have not had success in the traditional academic settings. Those entering college often never

complete their education because they have to work, have personal problems, or other events that occur in their lives that make it impossible to complete a degree. For these reasons, large numbers of young people are not prepared to enter the workforce. Vocational education can provide an alternative delivery method for teaching basic skills which every student needs to possess by the time they complete their high school education.

If enrollments are any indication, high school vocational education faces an uncertain future. Enrollment in vocational education is now suffering widespread decline (Gray, 1991).

PURPOSE OF THE STUDY

There is apparent agreement that the introduction of technology into the workplace has resulted in the need for workers to have specialized skills. For business and industry to be competitive in the marketplace, workers with these skills are needed. Since business and industry rarely have the facilities, and trainers to train employees with these special skills, they look to the public education system for such preparation.

Vocational education can play a very important role in preparing young people to meet the needs of the workplace. It can also play an important role in meeting the needs of young people to prepare them for work. It is assumed that effective vocational education programs can reduce high school dropouts, and encourage young people to remain in school until they have achieved marketable vocational skills.

The purpose of this study is to review the benefits of vocational education, and the progress that has been made in local education institutions to support the hypotheses that vocational programs are attracting students, and training young men and women to enter the workforce and therefore providing the skills needed by modern business and industry.

HYPOTHESES

The following hypotheses have been designed for testing

Vocational education is of growing importance to everyone in high school.

Vocational education is no longer an alternative but an integral partner with academic skills. This is vital for everyone's preparation and transition to a career.

Vocational education should begin in high school.

Vocational education that is well designed will attract students and enable them to find employment following graduation.

METHODOLOGY

The research method selected for this study is descriptive analysis. The purpose of the descriptive method is to describe a situation of interest and report on it factually and accurately. The methodology includes primary and secondary research. Primary research consists of a survey conducted, using a \ questionnaire, with high school students in five high schools located in Southern California for the purpose of identifying their course of study to prepare them to enter the work force and interest in vocational education.

The five schools selected include: La Puente High School, La Puente, CA; Los Altos High School, Hacienda Heights, CA; Nogales High School, La Puente, CA; Rowland High School, Rowland Heights, CA; and Walnut High School, Walnut, CA.

The responses will be measured using the Likert type or summated rating scales. A scale ranging between extremes such as agree-disagree, will be summed and averaged to yield the respondent's attitude score.

Secondary research will be used for a review of literature on the subject of vocational training. Articles from magazines and journals and books on the subject of vocational training will be selected that identifies the importance of vocational schools, their successes and failures.

LIMITATIONS

The study is limited to a review of vocational programs in the five schools indicated above and the programs offered as primary data. It is further limited in the materials reviewed as secondary data to further support the hypotheses.

DEFINITIONS

Career education: Career education is an organized, comprehensive, educational, instructional program designed to make high school students aware of job opportunities following graduation (Finch, 1991).

Vocational education: Vocational education can be defined as including in the education system the teaching of skills to qualify young people to enter

the workforce upon completion of high school. Other terms such as "occupational education," and "career education" have also been used in relation to the intent of vocational education in the preparation of young people to meet the needs of business and industry today and in the future.

CHAPTER II.

REVIEW OF LITERATURE

ECONOMICS

The United States is facing a drain that is proving more difficult to overcome than the depletion of natural resources according to Vaughan (1991). The nation is running out of skilled people. This situation is driving up the earnings of such people. More ominously, it is driving down the earnings of people who lack the education, skills, talent, and inspiration that can improve productivity. Better and more career planning and vocational education is needed to help people move out of the increasingly devalued unskilled labor force and to meet the rapidly growing need for skilled labor.

The expansion (import and export) of trade has increased the demand for skilled workers. As trade expands, it reshapes the economy because its growth requires specialization. The U.S. tends to export goods and services whose production and performance require highly skilled employees, and imports those goods which are made in capital intensive factories staffed by semiskilled people overseas. To maintain the present wealth and leadership in productivity, there is a growing demand for skilled or educated employees (Vaughan, 1991).

Employers recognize that education can teach the skills needed in the workplace if students are made aware of opportunities through career awareness. However, instead of preparing young people for a vocation, education has promoted meritocracy in which education and training are viewed

as the only paths to economic success. Because employers concentrate on advanced training and are ill-equipped to provide remedial education, uneducated people are less and less able to reach even the first rung of the employment ladder. Since universities prepare less than one fifth of those workers filling skilled jobs, vocational education is becoming one of the most important economic development programs in the nation (Hoyt, February 1991).

Carnevale (1991) supports this view saying we are in a new economic order. The future of the order is perceived only dimly. We can only be assured that it is in a state of constant change, many of which are unknown at the present time. The changes currently taking place are bringing alterations to the workplace. Young people need to be made aware of these changes as this will be the world they will be working in within a short time. The new economy is affecting jobs in three ways, states Carnevale. First, it is altering the overall quantity of jobs created. Second, it is influencing the distribution of jobs among industries, occupations, geographic areas, and organizations of different sizes. Third, it is affecting the quality of jobs, wages being paid, job security, and opportunity for career and personal development.

The most noticeable trend in the kinds of jobs typical of the new economy will be a continuation in the shift toward service work. During the 1990s, manufacturing employment is expected to decline by an estimated 300,000 jobs, and extractive jobs in agriculture and mining will decline by a similar number. In contrast, service jobs are expected to increase by almost seventeen million.

There are many reasons for the increasing number of service jobs. One is that people satisfy their material wants early as they climb the income ladder. Another reason is the fact that many of the jobs held by workers in manufacturing are now being done by technology, requiring fewer, but more specialized, workers (Carnevale, 1991).

Small Business

For the United States to remain economically competitive in the next century, the nation's small businesses will have to be successful, according to Gray (1991). If small businesses succeed, he states, it will be because of the contribution vocational education makes. Small firms, those with fewer than 100 employees, are critical to economic growth. Global economic competition has made small businesses more important than ever for the U.S. because they traditionally have the flexibility required to adapt to the changing market conditions. International markets now favor companies that can rapidly create customized products and services. Small firms are noted for innovation and experimentation, and take less time to develop new products than large companies.

THE STATUS OF EDUCATION

The changing trends in the workplace support the need for a different look to be taken regarding education programs to prepare young people to enter the workforce upon graduation from high school. When they are not informed as to the opportunities available to them, following graduation they can become like a

fish out of water, not knowing what to do with their lives. Since only a small percentage of high school graduates enter a four year university, it is important that they are made aware of the work that can provide a good standard of living by leaning skills that are needed in the workplace. Vocational training can contribute significantly to reducing high school dropouts and the level of illiteracy in the nation. Vocational training not only provides skills that are specific to chosen occupations, but also provides skills that help people adapt to the workplace changes (Vaughan, 1991).

Gray (1993) stated that for years U.S. employers have been saying that more and more aspiring workers lack the know how to get the most basic jobs done. A 150 page survey, titled, "Adult Literacy in America," conducted by Princeton's Educational Testing Service, and released by the Department of Education, reported that roughly 90 million Americans over the age of 16, almost half that category's total population, are basically unfit for employment. The majority, or 71 percent, thought they were. If the results of the survey are accurate, and we can assume they are, the U.S. is not only significantly populated by people unprepared for current and advancing technologies, but most are not aware that they are not prepared.

Bottoms (1992) supports the view expressed by Gray. He states:

> How would you characterize a high school curriculum of lower track academic classes that present unrelated facts and low level knowledge through rote instructional methods and vocational classes that focus on

low level skills with little relation to today's workplace? (p. 26).

According to Bottoms, students in such courses think they are ready for the real world, but they are not. The conclusion, the American high school is not working well for today's work bound graduate.

The fault lies in the fact that students have not been made aware of that which exists in the real world of work through a career awareness program in their high schools.

Duttweiler and Shirley (1993) stated that despite a doubling of the money spent on elementary and secondary students between 1980 and 1990, the educational system has not managed to increase student performance. Employers complain that there are not enough qualified workers, and they spend immeasurable time on remedial training of those they do hire. Statistics report that the dropout rate for the 16 - 24 year olds is 12.5 percent. In 1991, there were 3.9 million people between these ages that neither enrolled in school or completed high school.

Duttweiler continued saying that the National Assessment of Educational Progress, after testing 100,000 students, found only 4.8 percent of 17 year olds were able to perform at the advanced level required in professional and technical workplaces, compared to seven percent in 1971. The results of these findings support the findings of a survey of senior executives of Fortune 500 companies that indicated a total of 36 percent of the companies surveyed had to provide remedial courses to their employees to improve reading and math skills. These

statistics also support the need for career planning including vocational training, that which not only prepares students for the workplace, but at the same time, increases their reading and mathematics skills.

Schultz (1994) places responsibility for young people on the high schools. The high schools viewed as the only education structure that can help young people live more productive adult lives, and prepare them for the world in which they are likely to be juggling work and family responsibilities. The high school experience should help young people develop employability, self responsibility, human relationships, parenting, wellness and leadership skills. This could have been achieved through a program of career planning.

CAREER PREPARATION AND VOCATIONAL TRAINING

It is believed by many that a number of these problems would be eliminated if career awareness and planning were made part of the high school curriculum. These programs would enlighten high school students as to their opportunities once they graduate. These can include entering the workforce with skills acquired in high school vocational training, entering a local community college, or prepare to enter a four year (or more) university. Career planning can assist students in making decisions as to how they will enter the workplace and the skills needed, as well as having a better understanding of the field in which they may have selected to work or explore.

Career Education

Finch and Sheppard (1991) assert that career education is not a totally new concept. The basic concept has permeated education for years. Career education means different things to different people. It has about as many definitions as there are definers. The following are some examples:

- Career education is an organized, comprehensive, educational, instructional program designed to facilitate the self and career development of students (State of Georgia).
- Career education is a concept, not a program, which provides students with a coordinated educational experience consisting of career awareness, career exploration, career guidance, and career preparation to the end that all students are prepared for employment immediately upon graduation from high school, or to go on to further formal education.

In general, career education must be defined as that part of the total school curriculum which provides the student with the knowledge, exploratory experiences, and skills required for successful job entry, job adjustment, and job advancement. The program should be part of the curriculum from grades K-12.

Vocational Education

Vocational education differs from career education, but can be said to be made a part of it so that students will be apprised of all their alternatives in life. Vocational education has been defined as an education deigned to develop skills, abilities, understandings, attitudes, work habits, and appreciations needed

by workers to enter and make progress in employment on a useful and productive basis (American Vocational Association) (Finch, 1991).

The concept of vocational education is not new. It has been part of America's educational system for many decades. However, the concept is gaining in importance with the changing nature of the workplace, the high illiteracy rate in the nation, and increasing numbers of high school graduates that are not prepared to enter the workforce. It is obvious that the traditional course of study offered in high schools is not meeting the needs of many students today. As a result, more emphasis is being given to increasing career preparation at the high school level.

Vocational education is part of career education. However, career education goes beyond vocational education since it links learning activities with jobs along the entire range of skills, from the subtechnical to the professional career (requiring a baccalaureate degree). In addition, career education emphasizes self awareness, career awareness, and decision making skills to improve individual choices concerning work and education or training. Career education embraces vocational education and general education in a way that has much potential for improving society (Finch, 1991).

Career awareness should provide information to students, particularly minorities and disadvantaged students, with the knowledge of vocations they can aspire to which does not require a college degree, and for which their high school curriculum can be designed to provide them with the skills needed to find

employment once they graduate. This, according to research studies would allow the student to identify that which he or she is learning to the work they may be doing once they enter the workforce. Studies have shown that career planning in areas of vocational training have significantly reduced the number of students dropping out before they complete their high school because education has become more meaningful to them.

The original National Vocational Education (Smith Hughes) Act in 1917 made vocational education a major component of public secondary and post secondary school systems for almost 80 years. Almost 95 percent of all middle and secondary students have taken some form of vocational education. During these 80 years, vocational education has been closely associated with the economic welfare of the nation's citizenry and productivity of the workforce. Also, vocational education has enjoined the active support of business and industry, as it has been seen as a means of developing future employees (Pepple, 1989).

Today, vocational education is modernizing and upgrading its programs and curricula. This change is in response to our nations' economic demands for a very different work force than was needed just a few years ago. In past years, students could find good paying manufacturing jobs which did not depend much on basic education skills as they depended on good hands on mechanical skills for occupational success. These jobs generally required workers to do the same tasks day after day. The job market today is vastly different (Pepple, 1989).

Huang and Gray (1992) published results of a study titled "Sub-Baccalaureate Post Secondary Education: Does It pay Off for Vocational Education Graduates?" The purpose of the study was to examine the long term (14 years) labor market effects of postsecondary education below the baccalaureate level for graduates of high school level vocational education programs. Data for the study was drawn from the tapes of the National Longitudinal Study of the High School Class of 1972. The occupational experiences of the former students in relation to Tech Prep programs they had taken during their high school years. The results suggested that unless high school graduates earn a baccalaureate degree and find work in high paying fields, they would be better off taking a vocational education program in high school.

The study, the first of its kind, taking 14 years into consideration, supported the view that vocational education is the only curriculum to have a statistically significant positive effect on earnings. The findings suggested that proposals to eliminate high school vocational education were misguided and that the national decline in secondary school vocational education enrollments should be a source of concern to the nation as a whole (Huang and Gray, 1992).

Vocational education as been perceived as one answer in helping reduce the dropout rate for students who have not had success in traditional academic settings. This can be used to everyone's advantage given proper planning and implementation. Vocational education can provide an alternative delivery

method for teaching the basic skills which every student needs to possess by the time they complete high school. Vaughan adds that vocational education also prepares students for further training by employers (Pepple, 1989).

According to Pepple (1989) each state is now in the process of working with local school agencies to develop methods and materials to use to implement the teaching of basic skills through partnerships and teamwork between academic and vocational programs. The early results are showing a great level of acceptance and understanding among students as to why they need to know how to read, write, speak, and compute. These are the tools used in the workplace and are just as important for successful employment as training in modern equipment technology and physical job skills.

Gray (1991) supports this view as well, saying that vocational education programs must:

. broaden the type and scope of the skills they teach,

. help prevent labor shortages by preparing disadvantaged people for jobs in small firms,

. be prepared to help small businesses determine their training and development needs.

This is important as to the economy of the nation to avoid labor shortages. It is vocational education that can provide the under represented classes of women, minorities, and people with special needs. According to

the Hudson Institute, "Workforce-2000," of the 21 million new workers entering the workforce by 2000, 56 percent will be Hispanics, African Americans, and Asians. Since small firms create so many jobs, they will be in the forefront of efforts to increase work participation of these groups. They can contribute to the workforce only if they are given vocational training as most companies, especially small businesses, do not have money or facilities to establish training programs (Gray, 1993).

VOCATIONAL STUDENT ORGANIZATIONS

For 65 years vocational student organizations (VSOs) have been important partners to vocational education programs, reports Hannah (1993). Since the 1920s, when federal legislation first recognized VSOs, they have provided students with leadership training and quality competitive events to showcase their skills. However, most VSOs have declined in membership over the past years, mainly due to a reduction of federal and state funds, with states cutting back on vocational programs. Another reason is the decline in birth rates that have significantly reduced the number of 14 - 17 year old students. Teachers are questioning the co-curricular aspect that is central to the VSOs, using class time to work on VSO activities. Teachers say that students must meet curricula objectives which means less time for students getting involved in vocational training activities.

Hannah (1993) suggests that VSOs must make some changes if they are to be relevant for the 21st century. The first step, obviously, is for educators

from the state down through the local level to rethink the importance of vocational education as the majority of students would benefit more from learning technical skills compared to "book learning" as required by the curriculum.

EDUCATION AND THE PRIVATE SECTOR

The relationship between education and work must grow closer in the years ahead, remarked Hoyt (1991). This is evidenced by the fact that increasing numbers of jobs are requiring specific training at the postsecondary level. This has gained in importance since American industries have shifted their focus from competing on a national scale to competing in the international marketplace. While there is nothing new about the private sector joining forces with education to better prepare young people from the labor force, the conditions that exit in today's workplace have changed dramatically since the early 1900s. The kinds of relationships that were appropriate in the past cannot be expected to work well today. Unfortunately, too many communities are using old education models, and ignoring the fact that we are living in a time of dramatic change.

According to Hoyt (1991) other nations with which America currently competes in the world marketplace have education systems that already produce higher levels of measured achievement. If this nation continues on the present course, the situation will get worse, which means that there is immediate need for education reform. The reform must include a closer working relationship of

education and business and industry. Education leaders can no longer ignore the need to bring about change that will prepare young people to meet the needs of business and industry, which will in turn, meet the needs of young people to earn a living (Hoyt, 1991).

Perry (1990) reports that some states are finding answers to the education problem. Unable to find enough skilled entry level workers, the Arizona Business Coalition, a group of top managers from Arizona's biggest companies, launched a drive to make a high school diploma worth something. It persuaded legislators to pass a bill that adds four business representatives to the state's Board of Vocational and Technological Education and that boosts spending on vocational education by $2 million. The coalition proposed raising business taxes by $40 million over the next five years for money needed to be spent on restructuring vocational education.

The Business Coalition formed task forces in electronics, hospitality, machining, and other key state industries. They reshaped curriculums and provided teacher training, as well as donated employees, technology, and money. The program began with the seventh and eight graders being given exploratory courses in careers such as lasers, robotics, and desktop publishing. By the 12th grade, students could work as apprentices in local companies. The results, according to Arizona's Department of Vocational Education, "not a single dropout among the 2,000 students in the 36 pilot programs, compared with the

state average of 37 percent" (Perry, 1990, p. 143). In addition, businesses report that graduates hired from the pilot sites were far superior to past.

SUCCESSFUL PROGRAMS

Olson (1994) reported on the case of Greg Panossian, a freshman that cared little about school. He was enrolled in the Finance Academy at John Muir high School in Pasadena, California. At the time, his main interest was in sports and getting through high school so he could go to work. The Academy gave him a totally new perspective. Today he is totally involved in school and earning A's and B's. He plans to be the first in his family to go to college, where he wants to major in accounting or business administration.

Students can enter programs majoring in finance, heath care, geospace, high technology, graphic arts, visual arts, and design, and computers. The programs function in cooperation with the private sector. As an example, the Printing Industries Association of Southern California, donated all of the equipment. Career themes are infused into their daily lessons (Olson, 1994).

Coleman (1993) reports on a successful program at Buchholz High School in Alachua County, Florida. Students were attracted to the drafting program when an award program was implemented. Those in the program have won several honored awards over the years in the form of ribbons, scholarships, cash, drafting equipment and software. Students enjoy the challenges that the program offers, both in the classroom, and participation in regional contests.

Martinez and Badeaux (1994) reported on the success of the program at the Crossland High School in Temple Hills, Maryland. The project led to positive results in the students' math and English leaning and grade point averages. It was decided to integrate physics and chemistry principles of welding fabrication in some metal experiments. The goal was to show students that there was very little difference between science and technology. Students in welding need to understand the science behind metallurgy. On the other hand, students of physics and chemistry need to see the applications of theory. Welding students were expected to follow the proper scientific steps and record their observations. The program, after extensive experimentation and the development of different strategies, was significantly successful.

Perry (1989) reported that one of the hottest vocational courses is Principles of Technology, taught in 1,200 schools in 47 states. It was developed by the nonprofit Center for Occupational Research and Development in Waco, Texas, in partnership with state vocational educational agencies. The course teaches basic physics concepts, as they are applied to the field in which they are working. Dugger, an associate professor of industrial education and technology at Iowa State University stated, "If we could take the methods of vocational education and combine them with the content of academics, we could really make progress in education. Principles of Technology is doing some of that" (pp. 135-136).

Career academies, according to Perry (1989) sometimes described as "schools within school" have spread throughout California: 18 academies in 16 cities offer similar programs. On the average, according to Perry, academy students have higher attendance rates and grade point averages than their nonacademy peers. They also drop out less. For the first group of students to complete three years in an academy program, the statewide dropout rate was 7.3 vs 14.16 percent for a control group of nonacademy students.

Lee (1992) reports on a successful venture in a four year public vocational technical high school that serves six Pennsylvania school districts. It has a reputation for having a flexible approach to education. In fact, the school, in existence for 22 years, has been cited as a national model by the U.S. Department of Education, the U.S. House of Representatives' Committee on Education and Labor, and the national Association of State Directors of Vocational Education, among others. It is an example of combining career planning and vocational training. Since 1985, the program has integrated academics with its 21 vocational programs. Students in grades 10-12 choose from among four cluster of career studies. They attend classes on a weekly schedule, spending one in academic studies and the next in vocational classes.

Recently the program has been extended to the ninth grade, giving them exposure to career choices. During the year, the students visited with 73 area employers, or mentors. Students were permitted to give their opinions about real work problems, and ask any questions they desired. Attendance was 100

percent. The program greatly enriched the students knowledge about career planning and work potential (Lee, 1992).

A program implemented at Crossland High School in Temple hills, Maryland, as reported by Martinez (1992), was successful in integrating academic learning along with vocational learning. Ten juniors and seniors, all with a grade point average below 2.0, participated in a welding class where they thought they would learn how to weld. While they learned the art of welding, they also were able to see how English and mathematics fit into that which they were doing. As a result, grades in these academic subjects greatly improved. Academic assignments were coordinated with welding assignments so that one supported the other. The results of the experiment were gratifying as 90 percent of the students improved or held their GPA averages in welding.

EDUCATION REFORM

Long a recognized leader in the education reform movement, President Clinton reinforced his support for vocational education by introducing the School-to-Work Opportunities Act in 1993. This far reaching piece of federal legislation promises up to $300 million in funding for education programs that give all students better access to postsecondary education and to good jobs after high school. The Act evolved from Clinton's campaign promise to create a national youth apprenticeship system. After inauguration, a task force formed by the Department of Labor Secretary Robert Reich and Department of Education

Secretary Richard Riley, recommended that the youth apprenticeship concept be expanded to school to work opportunities (Hudelson, 1994).

Most writers agree that education reform is long past due. Changes are taking place but new models have not been made universal, differing in every state. Senator Jeff Bingman (D-N.M.) called for a comprehensive, not a patchwork approach to education reform. He introduced two new technology amendments to the Educate America Act, the national school reform act. He said the two amendments were the key technology provisions from S 1040, the Technology for education Act of 1993, which called for a sweeping commitment to technology on the part of the federal government. The amendments appropriate $5 million for state technology planning grants in 1994 and $500,000 for a new Office of Educational Technology within the Department of Education (TEA, 1994). This shows that the federal government recognizes the changes taking place in the workplace today and the need for young people to be trained in technology to meet the labor demands of business and industry.

CONCLUSION

Silberman (1991) indicates that access to vocational education has worsened in many states because new graduation requirements reduced enrollments in elective vocational courses, especially in area vocational-technical schools. Other states have provided course substitutions or cross credits for vocational or applied academic courses, or have protected student access by extending the school day and reducing class time to one hour periods. Added to

this is the changes being made in curriculums. Vocational teachers are adding academic content and asking their students to do more reading, writing, math and science. New technology programs are replacing the industrial arts, electric and metal shops in some middle schools. Career magnet and vocational academy programs have been established. Tech Prep agreements have been developed to link high school and community college programs.

However, in many states, these changes are slow in coming. They are not being implemented fast enough to prepare young men and women for the changing work environment. Silberman (1991) is of the opinion that the current education dilemma will not change much during the rest of the decade because of economic factors. He sees the lack of skilled labor as increasing while the demand continues to grow.

Futurist Alvin Toffler predicted that nations with the fastest changing economies will become more powerful. The key to such change is a smart labor force. Economic development, he stated, depends more on the human mind than on the natural resources of raw material and human muscle (Silberman, 1991).

Unfortunately, as Silberman (1991) states, there is little evidence of eliminating society's schizoid view of vocational education as both safety net for at risk students and a superior system for the advancement of the nation's technology. It is his hope that the problems existing in education, and the lack of vocational training, will be resolved by the year 2000. If not, high school science

departments probably will inherit the responsibility for applied technology education and vocational education will continue to be viewed as low status social program for at risk youth. That which will bring about change in this situation will be the private sector joining forces with education and supporting it. Changes can be made a shown by the state of Arizona.

Greater emphasis can be placed on vocational education for the many students that are not college bound. This can only be done with an effective career planning program that will help students to become aware of the many opportunities that do exist for them if they apply themselves. A career awareness program is vital not only to the students but also to business and industry.

CHAPTER III

RESEARCH DESIGN AND PROCEDURES

INTRODUCTION

Studies have reported that a major cause for young people dropping out of secondary schools is because it does not motivate them to prepare for work. As a result, young people are not prepared to enter the job market except in those cases where a high school diploma and certain skills are not required. These jobs are among the lowest paid, usually earning nothing more than minimum wage. Without an education and marketable skills, opportunities for advancement are rare, meaning that many of these young people will marry and have to support families at the poverty level. The purpose of this study is to review vocational programs that are currently being offered in high schools, and the degree of success they are achieving.

The following hypotheses have been designed for testing:

- Vocational education is of growing importance to everyone in high school.
- Vocational education is no longer an alternative but an integral part of an academic education. This union is vital for everyone's preparation for work and later in life, transition to a different career.
- Vocational education should begin in high school.

Vocational education that is well designed will attract students and enable them to find employment following graduation.

The methodology selected for this study is descriptive analysis, using both primary and secondary data. Five high schools were selected for a survey of local high schools. Twenty five questionnaires were mailed to each school. Twenty five responses were received from each of the following schools:

La Puente High School,

Los Altos High School,

Nogalas High School,

Rowland Heights High School, and

Walnut High School

A total of 125 responses were received, all of which have been used in this analysis. A copy of the questionnaire is shown in Appendix I.

LA PUENTE HIGH SCHOOL

Personal:

The respondents were in the following grades:

10th	16
11th	5
12th	4

Education plans following high school were as follows:

Attend university	9	Go to work	3
Community College	8	Electrical Repair	2
Nurses Aid	5	Computer technician	2
Vocational training	5	Other	5

Opinion:

Responses to the questions regarding their opinion on vocational education were as follows:

TABLE 1: LA PUENTE HIGH SCHOOL

Questions:		SA	A	N/O	DA	SDA
1.	Vocational courses should be offered in high school.	12	6	7	0	0
2.	Vocational classes should be designed to prepare students for workforce	5	9	8	3	0
3,	Vocational courses at community college should be extension of high school learned skills	6	10	8	1	0
4.	Vocational education should provide students skills for higher paying jobs	8	11	6	0	0
5.	Vocational programs should meet needs of business and industry	11	8	6	0	0
6.	High schools should work closely with business and industry	8	7	10	0	0
7.	Career preparation should be a four year high school program	4	6	15	0	0
8.	Career preparation should include academic training	5	10	10	0	0

LOS ALTOS HIGH SCHOOL

Personal:

The year in school of respondents were as follows:

9th grade	1
10th	3
11th	9
12th	12

Education Goals:

Complete high school	4
Community college	5
Go to university	11
Go to work	5

Opinion:

Responses to the questions regarding their opinion on vocational education were as follows:

TABLE 2: LOS ALTOS HIGH SCHOOL

Questions:	SA	A	N/O	DA	SDA
1. Vocational courses should be offered in high school.	5	12	8	0	0
2. Vocational classes should be designed to prepare student for workforce	5	12	9	0	0
3, Vocational courses at community college should be extension of high school learned skills	7	10	8	0	0
4. Vocational education should provide students skills for higher paying jobs	6	11	7	1	0
5. Vocational programs should meet needs of business and industry	4	10	9	2	0
6. High schools should work closely with business and industry	5	10	10	0	0
7. Career preparation should be a four year high school program	3	12	9	1	0
8. Career preparation should include academic training	2	10	13	0	0

A total of 14 different vocational programs were listed for students to indicate which they preferred. There was no consistency in responses. Some were not ranked according to interest while some did not indicate preference. The following reflect major interests, receiving more than one response:

Computer technician training - 6

Chefs - 2

Nurses Aids - 5

NOGALAS HIGH SCHOOL

Personal:

The respondents were in the following grades:

1Oth	3	12th	13
11TH	9		

Education plans following high school were as follows:

Complete High School	9
Community College	5
Attend university	8
Vocational training	3

Opinion:

Responses to the questions regarding their opinion about vocational education were as follows:

TABLE 3: NOGALAS HIGH SCHO0L

Questions:		SA	A	N/O	DA	SDA
1.	Vocational courses should be offered in high school.	9	10	6	0	0
2.	Vocational classes should be designed to prepare student for workforce	8	7	10	0	0
3,	Vocational courses at community college should be extension of high school learned skills	5	10	10	0	0
4.	Vocational education should provide students skills for higher paying jobs	9	6	8	2	0
5.	Vocational programs should meet needs of business and industry	8	8	8	1	0
6.	High schools should work closely with business and industry	8	7	9	1	0
7.	Career preparation should be a four year high school program	3	3	15	4	0
8.	Career preparation should include academic training	6	8	11	0	0

A total of 14 different vocational programs were listed for students to indicate which they preferred. The following are those responses which received the highest number of responses:

Automobile Repair	3
Nurses Aid	3
Computers	10

ROWLAND HEIGHTS HIGH SCHOOL

Personal:

The respondents were in the following grades:

9th	3	11th	12
10th	6	12th	4

Education plans following high school were as follows:

Complete High School	8
Community College	6
Attend university	5
Vocational training	6

Opinion:

Responses to the questions regarding their opinion as to vocational education were as follows:

TABLE 4: ROWLAND HEIGHTS HIGH SCHOOL

Questions:	SA	A	N/O	DA	SDA
1. Vocational courses should be offered in high school.	11	9	5	0	0
2. Vocational classes should be designed to prepare student for workforce	10	6	9	0	0
3, Vocational courses at community college should be extension of high school learned skills	4	8	13	0	0
4. Vocational education should provide students skills for higher paying jobs	9	5	9	2	0
5. Vocational programs should meet needs of business and industry	7	9	8	1	0
6. High schools should work closely with business and industry	6	8	10	1	0
7. Career preparation should be a four year high school program	6	8	10	1	0
8. Career preparation should include academic training	4	9	11	0	1

A total of 14 different vocational programs were listed for students to indicate which they preferred. The following indicate those programs which received the large number of responses:

Computer technician training	5
Electronic Repair	3
Nurses Aid	3
Other	8

WALNUT HIGH SCHOOL

Personal

The twenty five students responding to the questionnaire indicated the following:

Year in school:

10th	2
11th	8
12th	15

Education goals:

Complete high school	11
Community College	6
University	6
Vocational training	2

Some respondents indicated more than one education goals with completing high school followed by additional education and/or going to work.

Opinion:

Responses to the questions regarding their opinion as to vocational education were as follows:

TABLE 5: WALNUT HIGH SCHOOL

Questions:		SA	A	N/O	DA	SDA
1.	Vocational courses should be offered in high school.	9	12	4	0	0
2.	Vocational classes should be designed to prepare student for workforce	10	11	4	0	0
3,	Vocational courses at community college should be extension of high school learned skills	9	15	1	0	0
4.	Vocational education should provide students skills for higher paying jobs	5	15	5	0	0
5.	Vocational programs should meet needs of business and industry	3	12	4	3	3
6.	High schools should work closely with business and industry	3	12	4	3	3
7.	Career preparation should be a four year high school program	5	7	5	6	2
8.	Career preparation should include academic training	5	12	6	2	0

A number of respondents did not indicate vocational preference. A significant number indicated the following:

Computer technician training	8
Nurses aid	5
Electronic Repair	2
Automobile Repair	2

SUMMARY

Combining the responses from the high schools provides the following totals:

Personal:

Respondents:

9th grade	4
10th	30
11th	43
12th	48
Total	125

Education Goals:

Complete high school	32
Community college	30
Go to university	39
Go to work	8
Vocational Training	16

The majority of responses to the eight opinion questions were strongly agree and agree. That which is of major concern are the significant numbers reported in "no opinion". It can be assumed that high school students have not given consideration to what they are learning and how it will affect their future careers, or they have not given much thought concerning their careers. The students indicating disagreement with career preparation may not have been exposed to such training and therefore are not aware of its importance.

Interest in vocational programs:

As indicated above, not all respondents completed this question. Some did respond but used checks instead of rankings. A summary of the vocational interest indicates the following as being of major interest as could be derived from the responses:

1. Computer technician training
2. Nurses Aids
3. Chefs
4. Electrical repair
5. Automobile repair

Opinion:

Responses to the questions regarding their opinion as to vocational education were as follows:

TABLE 6: SUMMARY

Questions:		SA	A	N/O	DA	SDA
1.	Vocational courses should be offered in high school.	46	49	30	0	0
2.	Vocational classes should be designed to prepare student for workforce	38	45	40	3	0
3,	Vocational courses at community college should be extension of high school learned skills	31	53	40	1	0
4.	Vocational education should provide students skills for higher paying jobs	37	48	35	5	0
5.	Vocational programs should meet needs of business and industry	33	47	35	7	3
6.	High schools should work closely with business and industry	30	44	43	5	3
7.	Career preparation should be a four year high school program	21	36	54	12	2
8.	Career preparation should include academic training	22	49	51	2	1

CHAPTER IV.

FINDINGS AND DISCUSSION

INTRODUCTION

Chapter Three reported the results of the responses from the five selected high schools to the questionnaire. The following is an analysis of these findings, similarities and differences, and proposed reasons therefore.

DEMOGRAPHICS

Respondents to the study were limited to high school students, grades nine through 12. As indicated in the following graph, the majority of students were in the 11th and 12th grades.

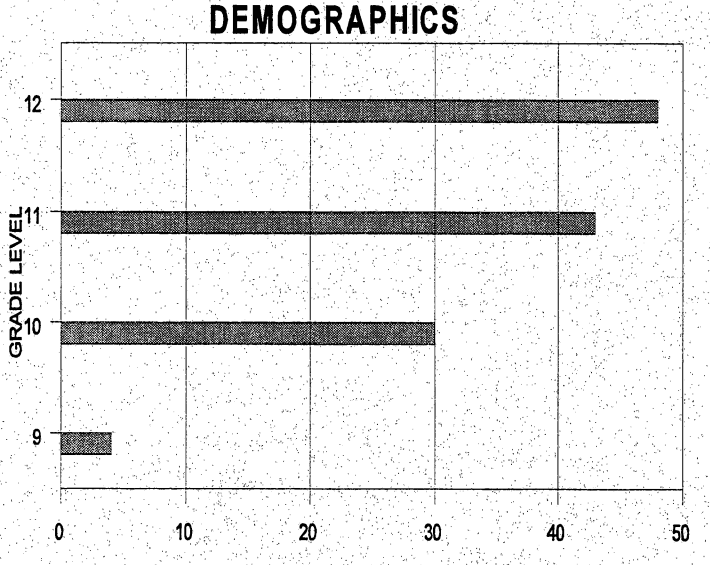

FIGURE 1

The data indicates that those in the higher grades may have had a better understanding of the questions proposed, or were more familiar with the subject being investigated. The older students apparently were more aware of the need to think about their future. Therefore, age perhaps played an important role in the responses of students.

LIMITATIONS

The study focused more on vocational training in contrast to preparation for a professional career which requires a bachelor's degree or higher education. The research did not differentiate between males and females in the study. The five selected high schools are representative of multicultural schools in Southern California. The study did not request students to identify their race or ethnic background due to the fact that all respondents were viewed as students of the high school without the need to identify personal characteristics. Neither was the income, education level, or other factors concerning the student's families.

It was also assumed that the high school students would be familiar with the subject of vocations and those fields of work which fall into this category.

In like manner, it was believed that students in high school would have knowledge about community colleges and what they have to offer. From the responses, it is believed that the majority of students had some understanding of vocations and the availability of the community colleges. It was further assumed that the students, at these grade levels, had an understanding of minimum wages, and the different opportunities that were available to them in the workplace.

Another factor that may also be viewed as a limitation is the fact that it is not known how the students responding were selected. It is assumed they were selected at random. It is also not known whether the teachers explained the study, or its objectives, to the students before asking them to respond to the questions. It was also assumed that students at these grade levels had a sufficient command of the English language that they were able to comprehend the questions.

ANALYSIS

LaPuente High School,

The majority of respondents responding were in the 10th grade. It was interesting that the majority indicated that they would either attend a community or a four year college. Only five indicated they would go into vocational training and three would go to work. The responses may have reflected the economic status of the family and their ability to send their student to college.

Although a high percentage of students indicated they had no opinion relative to the questions regarding vocational training and career preparation, the majority responded by strongly agreeing and agreeing. It is the view of the researcher that the high percentage of responses indicating "no opinion" may have a direct relationship to the fact that the majority of respondents were in the 10th grade and perhaps had not had the opportunity to form opinions regarding the subject, or give consideration to what they would be doing following high school. There is also the assumption that within the high school curriculum little emphasis has been placed on the student's need to think about the future.

This was further reflected in the fact that only 14 students responded to the question regarding their plans to enter a vocational field. Only five students said they wanted to be nurses aids, two wanted to become a computer technician and two indicated electrical repair.

A number of conclusions can be made from these results. First, the students attending the high school in LaPuente area may have families that are capable of sending their children to college, or the high school has not placed enough stress on developing the student's abilities at the high school level so that they have been able to think about their future role in the workplace.

Vaughan (1991) indicated that high schools must better prepare young people to enter the workforce upon graduation form high school. When they are hot informed as to the opportunities available to them, then can become like a fish out of water, not knowing what to do with their lives. Since only a small

percentage of students actually enter a two or four year college, many will depend on what they have learned in high school to support themselves. Those who are not prepared will gain significant direction by attending a community college if they are made aware of its benefits at low costs.

Los Altos High School

At the Los Altos High School, almost fifty percent of the respondents were from the 12th grade, nine were in the 11th, three in the 10th, and only one in the 9th. Education goals indicated that 11 planned to go to a university, five to a community college, and five would go to work. Four indicated their only plans ere to compete high school. The responses reflected the fact that many of the respondents had not made decisions as to which field they would enter. Only six indicated they were interested in computer technician training, two indicated they wanted to be chefs, and five were interested in becoming a nurses aids. There is some question as to whether the respondents had full knowledge of what a community college has to offer. However, the majority of respondents indicated that they believed vocational course should be offered in high school, and that a community college should be an extension of what they learned in high school.

The results of the questionnaires indicated strongly that many students had not formed any opinion about vocations or had knowledge of the importance of being prepared to enter the workforce following graduation from high school or community college.

Gray (1993) stated that U.S. employers have been saying for years that more and more aspiring workers lack the know-how to get the most basic jobs done. In a survey conducted with roughly 90 million Americans over the age of 16, almost half were unfit for employment. However, some 71 percent believed that they were prepared for work. The conclusion was that the American high school is not working well for today's work bound graduate.

The study supports the view of many authorities in the field of education that high schools are not preparing young people for work, nor are they providing them with information about the need for them to enter a community college in order to achieve skills that are saleable in the labor market. If they are not made aware of the need to have skills needed in the workplace, they will not be able to earn more than minimum wage in low or non-skilled jobs.

Nogalas High School

The respondents consisted of 13 in the 12th grade, nine in the 11th, and three in the 10th. None were in the 9th grade. The majority of respondents indicated that they would attend a community college or a university. Three indicted their plans were to get vocational training. Nine of the respondents indicated that their goal was to complete high school which either indicates their goals, or they did not understand that the question was concerned with preparation for the workplace.

This possibility was also reflected in the fact that a high percentage of students offered no opinion relative to the questions concerning vocations and

career preparation. As an example, question number seven, "Career preparation should be a four year high school program," 15 had no opinion. Ten students, however, did indicate an interest in computers, three wanted to become a nurses aid, and three wanted to become an automobile mechanic.

Schultz (1994) places responsibility for the future of young people directly on the high school. These schools are the only education structure that can help young people live more productive adult lives and prepare them for the world in which they are likely to be juggling work and family responsibilities. If it can be said that the 25 respondents from this high school are representative of the entire student body, it is the belief that students are not being prepared to enter the workforce upon graduation. The problem is, if the high school does not prepare the young person for adult life, from where is he or she expected to receive such preparationt?

Rowland Heights High School

The respondents included three in the ninth grade, six in the 10th, 12 in the 11th, and four in the 12th. However, the responses were similar to the Nogalas High School, in that a large percentage of responses relative to vocational training and career preparation were answered with no opinion.

Those indicating their plans following high school, eight indicated their plans were to complete high school while six would attend a community college, five a university, and six would enter vocational training. Since the majority of respondents were in the 11th and 12 grade, it would be assumed that they would

be giving more thought to their future work. From the responses it can be concluded that many students have given little or no thought to what they will do with their lives following high school. It is apparent that little attention is given to preparing students for a career once they leave the school.

Finch and Sheppard (1991) proposed that career education must be defined as part of the total curriculum which provides the student with the knowledge, exploratory experiences, and skills required for successful job entry, job adjustment, and job advancement. When the educational program does not include preparing a student to enter the workplace, the education the young person has received cannot be viewed as being adequate. While vocational education differs from career education, students need to be apprised of the opportunities available to them if they are to be successful in adult life.

Walnut High School

The students responding to the questionnaire include: 15 in the 12th grade, eight in the 11th, and only two in the 10th. Of these, the goal of 11 was to complete high school apparently with no plans to enter college, six responded they would attend community college, six a university, and two would enter into vocational training. Because some respondents indicated more than one education goals after high school, followed by additional education, or going to work, there is the possibility that perhaps the question was not interpreted correctly.

Responses to the questions relative to vocational courses and career preparation also differed from the other high schools. While the majority of students strongly agreed or agreed, a small percentage recorded "no opinion." That which differed significantly from the respondents from this high school was the fact that a higher number of students indicated disagree and strongly disagree to questions concerning the importance of vocational programs to meet the needs of business and industry, and that high schools should work closely with business and industry. As to career preparation, ten students responded negatively to the questions concerning career preparation in high school.

It can be assumed that either the respondents did not understand the questions, or that they have not been given sufficient information in their high school curriculum as to the relevance of being prepared to enter the workforce upon completion of their education. It is believed that the respondents should have, because of their grade levels, been better informed as to the importance of thinking and planning for a career at this time in their lives.

Hoyt (1991) maintained that today, too many communities are using old education models, and ignoring the fact that we are living in a time of dramatic change. There needs to be a closer relationship between business and industry and education if the students are to be trained to meet the needs of the workplace. As pointed out by Hoyt (1991), other nations demand a closer working relationship between education and the workplace. Education leaders

can no longer ignore the need to bring about change to meet the needs of young people today, and prepare them to meet the needs of business and industry.

HYPOTHESES

The hypotheses as stated in Chapter 1 have been partially supported by the review of literature, and by the majority of students in the various high schools. It is believed that the majority of students are aware of the growing importance of vocational education, and that having some skills is necessary to enter the workplace. The statement that vocational education should begin in high school is also supported by both the review of literature and the respondents. It is believed that vocational education that is well designed will attract students and enable them to find employment following graduation, but such was not supported by the study. The questions were not specifically designed to test this hypothesis. From the responses it cannot be determined whether vocational education would be attractive to all students since many indicated that they only wanted to complete high school while others indicated their preference for entering a community college or a university.

The following, Chapter 5, is a summary of this study, and recommendations for further research.

CHAPTER V.

SUMMARY AND RECOMMENDATIONS

Thousands, perhaps millions, of people are unemployed today because they lack the skills needed in the workplace. At the same time, there is a need for those with specialized skills by business and industry. It is, therefore, believed that vocational education, the majority of which can be found in community colleges, can benefit young people to prepare them for the labor market. However, enrollment in vocational education is now suffering widespread decline (Gray, 1991). At a time when business and industry are trying to compete in the global marketplace, such education is vital to the economic growth of the nation.

The review of literature supported the need for vocational education and the important role that community colleges can play in education. The primary research revealed that students in high school today do not have an understanding of the need for vocational training, or the advantages that a community college can offer.

As in many research studies, the expected results are not always achieved. In some cases the problem is in the study itself and the researcher not recognizing all the variables involved in the subject matter. A total of 125 questionnaires were distributed equally to five selected high schools for the purpose of obtaining primary data to test four hypotheses relating to the role that vocational education should play in the education system at the high school

level. The results of the study indicated that many of the respondents, ranging in grades nine through 12, did not have a good understanding of vocational education or career preparation. The questionnaire did not identify the students' sex, ethnic background, or the economic level of their parents, which may have provided a better understanding of their responses. Further, the programs being offered at the five selected high schools were not investigated to determine what, if any, vocational programs or career preparation was being given to the students.

Research studies in the future could contribute significantly to an understanding of where the weaknesses lie within the high school system in this country. The study did support the view that vocational training is needed in the high school as many students will not go to college following graduation. However, it was also not determined if the students were specifically familiar with what the community college offered. A study of the programs currently being offered in the high schools can help to identify what kind of education students are not getting to prepare them for the workplace.

In addition, a research study to identify the type of skills needed by business and industry was not conducted. While the review of literature supports the view that there is a need for business and industry to work closely with schools, there is little understanding as to how this could be achieved for the benefit of both.

The study has contributed to an understanding why so many young people are not prepared to enter the work force when they graduate from college. It also supported the view that the community college, because it offers vocational programs, can play a vital role in preparing young people to enter the work force. At the same time, it can also help a student planning to attend a four year college to better prepare him or herself for such studies.

The importance of vocational training, whether in high school or in a community college, can no longer be ignored by educators. The training that a young person can receive is vital to his or her ability to enter the workplace and earn a reasonable standard of living. The training is also vital to the nation's economic growth and the ability of business and industry to be competitive in a marketplace that is increasing in competition every day of the year.

Additional studies are necessary for a better understanding of the present high school system to assist educators to bring about change for the benefit of the school, the student, business and industry, and the nation.

In conclusion, the study identifies the problem in preparing young men and women for the workplace today. It also shows what can be done by education, and what should be done. If young people are not prepared for the workplace by the education system, increasing numbers will become a number among the unemployed. This presents a serious problem as only those who are trained can make a contribution to society. Those who are not become a burden

to society. The loss to society and the individual is significant because his or her potential is never realized.

APPENDIX

LETTER OF TRANSMITTAL

17815 E. Contra Costa Dr.
Rowland Heights, CA 91748

(818) 913-5715

November 1, 1994

Dr. King Genn
Walnut High School
2000 Otterbein Avenue
Walnut, CA 91789

Dear Dr. Genn:

As a graduate student at California State University, San Bernardino, I have selected "The effects of economic transformation upon selected high school vocational education programs in California, as the subject for my thesis.

To obtain primary information I have chosen to select 25 students from local high schools to contribute to the study. Your assistance is being requested to select students currently in vocational classes for the purpose of identifying their plans to enter the work force and their interest in vocational education in response to the enclosed questionnaire. These responses will contribute to the validity of the study. All questionnaires will be kept confidential. When the questionnaires are completed, please return them in the enclosed envelope provided for your convenience. Due to time limits for the thesis, I will appreciate their return as soon as possible.

Your assistance is greatly valued as the responses will make a valuable contribution to the study. If you would like to receive a copy of the results of this study, I will be pleased to forward you a copy when it is completed.

Thank you.

Sincerely,

Yental C. T. Liang

Encl.

QUESTIONNAIRE

This questionnaire is part of a research study in vocational education as partial fulfillment of a Master's Degree at California State University, San Bernardino. The study focuses on the need for young people to have an opportunity for vocational training so that they can be prepared to enter the workforce when they complete high school, or community college.

Your input to this study will help support the hypotheses that vocational education is needed to prepare young people to enter the work force, and to prepare workers to fill the many jobs that are currently not filled in the workplace today.

Thank you for your assistance.

Personal:

Year in school: ___9th, ___ 10th, ___ 11th, ___ 12th.

Education goals: (indicate one or all that apply)

___ complete high school
___ go to community college
___ go to a university
___ go to work
___ enter vocational training

Opinion:

The following questions are designed to solicit your opinion regarding vocational education. Please respond by indicating your opinion based from strongly agree to strongly disagree.

1. Vocational classes should be designed so that they will prepare a student to enter the workforce upon graduation from high school.

Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
1	2	3	4	5

2. More students would finish high school if they were given the opportunity to learn some skills they could use in the workplace.

Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
1	2	3	4	5

3. Vocational education in community colleges should be an extension of skills learned in high school to qualify students for higher paying jobs.

Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
1	2	3	4	5

4. Vocational education should prepare students to obtain jobs in the work force that pays more than minimum wage.

Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
1	2	3	4	5

5. Vocational education programs should meet the needs of business and industry in the local area so graduating students can remain with their families.

Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
1	2	3	4	5

6. High schools should work closely with business and industry to identify the skills they need for their work force.

Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
1	2	3	4	5

7. Career preparation in high school should be a four year program.

Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
1	2	3	4	5

8. Career preparation should include academic training in doing the work.

Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
1	2	3	4	5

If you plan to obtain a vocational education, which type of training would you like to have made available: (Indicate all preferences with one through ten, with one being first.)

___ Computer technician training
___ Electronic Repair
___ Electrician
___ Plumbing
___ Building Construction
___ Automobile mechanic
___ Drafting
___ Painting and House Repair
___ Landscape and lawn maintenance
___ Park Maintenance
___ Restaurant worker
___ Chef
___ Nurses Aid
___ Hospital orderly
___ Other _____

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