AN INVESTIGATION OF
POSTSECONDARY EMPLOYMENT DATA
OF
THE MILDLY HANDICAPPED

MASTER'S PROJECT

Submitted to the School of Education
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of the Requirements for the Degree
Master of Science in Education

by

Sharon Marie England
School of Education
University of Dayton
Dayton, OH
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Approved by:
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CHAPTER I

INTRODUCTION

Parents and educators have become increasingly concerned about the future of handicapped students once they graduate or leave school programs. Many of these students leave school environments hoping to find employment and are often frustrated by their inability to do so. The United States Commission on Civil Rights reported in 1983 that unemployment rates among handicapped individuals are much higher than among the nonhandicapped and that approximately 50 percent to 75 percent of adult handicapped workers are unemployed (Wehman, Kregel and Barcus, 1985). Concern for the obstacles young people with disabilities face as they try to make a successful conversion from secondary school to adulthood has focused a spotlight on transition issues.

The Vocational Education Legislation (PL 94-482) passed in 1976 and the Education for All Handicapped Children Act (PL 94-142) passed in 1975 emphasized mainstreaming handicapped students into regular school classrooms. Vocational education programs across the country responded to the mandate by developing, funding, and implementing special services and programs at the federal, state and local levels to serve the handicapped student. Although vocational courses are available, many parents of handicapped students in various school districts continue to stress academics with post-secondary education as a goal for their children. This goal, however, may not be realistic. With the recent emphasis on transition, an effort to gather data regarding the
accomplishments and performances of special education graduates as they progress into adulthood is essential.

The purpose of this study is to obtain and analyze post-secondary employment data for specific learning disabled and developmentally handicapped students in order to identify areas of success and failure related to the secondary curriculum they experienced. This writer believes that a vocational curriculum for the handicapped individual may better prepare exceptional students to be independent, productive members of society. Job placement statistics are often cited as a measure of a vocational program's success. Support for vocational programs is evident by the enactment of Public Law 98-199 Section 618(e)(1) the Education for All Handicapped Children Act. This act stipulates that state education agencies carry out studies to examine occupational, educational and independent living status of handicapped students who have graduated or left special education (Missouri LINC, 1989).

Assumptions/Limitations: This writer assumes that graduates and their parents are concerned with post-secondary employment success. Although completion of questionnaires may be somewhat time consuming, the writer assumes that valid information will be provided. Only responses from students identified as specific learning disabled (SLD) and developmentally handicapped (DH) was targeted. Due to the small percentage of specific learning disabled and developmentally handicapped individuals in the study, the findings may be limited. A distinct difference was recognized in the sample by type of disability and gender. Students identified as specific learning disabled encompassed 76 percent (n=57) of the study as compared to the developmentally
handicapped at 24 percent (n=18). Males over-represented the study by 64 percent (n=48) in comparison to females at 36 percent (n=27). At the conclusion of the study it was determined that the high school under examination did not provide a complete roster. All students who left special education programs or who dropped out of school during 1990-1993 may not have been provided to the surveyor. Also, follow-up questions to the respondents accessing additional information was not possible due to the limited time period of the study. The writer believes that when educators and parents are armed with current employment data, they may become more supportive of vocational programs.

Definitions: In order for the writer to continue, specific terms should be defined:

**Special education** is a specifically designed instruction, at no cost to the parent, to meet the unique needs of a handicapped child. This educational program includes classroom instruction, instruction in physical education, home instruction, instruction in the hospital or in an institution. Special education provides exceptional students with services not available to them in the regular education curriculum.

**Specific learning disabled** is a disorder in one or more of the basic psychological processes. Seven areas were identified as specific learning disabilities by the Bureau of Education for the Handicapped. These areas are: listening comprehension, oral expression, written expression, basic reading skills, reading comprehension, mathematics calculation, and mathematics reasoning (Kirk & Gallagher, 1986). A specific learning disability includes at least one of the following: perceptual handicaps, brain injury, minimal brain disfunction, dyslexia or developmental
aphasia. Children with learning problems as a result of visual, hearing or motor handicaps, mental retardation, or environmentally, culturally or economically disadvantaged are not classified as specific learning disabled.

**Developmentally handicapped** is a condition where an individual has a significantly subaverage general intelligence. This means that developmentally handicapped individuals tests lower than 97 to 98 percent of persons the same age on a standard intelligence test. The individual also has deficits in adaptive behaviors that manifested during their developmental period. Deficits in this area demonstrate a failure to meet standards of independence and social responsibility expected from a given age group. Another term used to define developmentally handicapped is mental retardation.

**Vocational education** is an organized educational program directly related to the preparation of individuals for paid or unpaid employment, or providing additional preparation for a career.

A **transition plan** describes the path a special education student follows through school into adulthood. At the preschool/elementary level career awareness is incorporated into a basic academic/skills education. A basic work personality is established. At the middle school/junior high level students are given an opportunity to explore a variety of careers while continuing to develop academic skills. Students should become aware of their potential and future. They should experience hands on daily living, personal/social, and occupational skills. In some cases, students will begin some type of part time employment—babysitting, cutting grass, etc. At the high school level students are given an
opportunity to enter vocational programs while continuing to attend academic classes to prepare for a career. Programs provide support to students in job placement, follow up, and continuing education.
CHAPTER II

REVIEW OF LITERATURE

Post-Secondary Employment Data

The intention of this study is to accumulate and analyze post-secondary employment data of specific learning disabled and developmentally handicapped graduates to provide support for a continued need of vocational curriculums. Review of the literature attests to the fact that many studies have been reported on post-secondary employment of handicapped students but employment data is relatively out-of-date (Kirk & Gallagher, 1986).

J. McQuire and Others (1987) conducted a follow-up survey of Connecticut special education graduates from 1981-1984. The questionnaire focused on employment, living status and adjustment. A 57 percent response rate reported that 93 percent were single, and 10 percent pursued post-secondary education. Eighty-five percent of the respondents were employed with 50 percent working full time. Seventy-nine percent lived with their family, 75 percent had a driver's license and 35 percent owned their own car. Madeleine Will, Director of the United States Office of Special Education and Rehabilitation Services (1984), reported similar findings relating to employment data. She stated that 50 percent to 80 percent of disabled working age adults were jobless (Brolin, 1984). These findings were not, however, broken down according to disability. A Longitudinal Study of Graduates of Special Education prepared by E. Edgar and P. Levine (1987) reported that approximately 60
percent of the graduates who were enrolled in special education programs secured employment within the first year of leaving school (Hasazi, Gordon, & Roe, 1985; Mithaug, Horiuchi, & Fanning, 1985). However, the percentage varied widely by gender and type of disability. Persons with learning disabilities were more successful than severely handicapped persons. Males were more successful than females. Obtained jobs tended to be low status and low paying. Most of the jobs were obtained through the family-friend network. This study also indicated that most graduates lived with their family and few special education graduates were successful in completing post-secondary education programs. Edgar & Levine (1987) further reported that their 15-school district study indicated that the employment rate varied from 38 percent for the severely handicapped students to 68 percent for the specific learning disabled and behavior disordered students. They found 50 percent of the severely handicapped and mildly retarded graduates not employed and not attending post-secondary education programs.

Wagner and Others (1991) reported that while the specific learning disabled sample had a 57.2 percent employment rate, only 37.9 percent were employed full time. For the developmentally handicapped individuals in his sample, he found a 31.4 percent employment but only 19.8 percent worked full time. The Department of Education in Missouri funded a five-year post-secondary study that showed that vocational graduates fared better than nonvocational graduates in the workplace. Data from this program indicated that the rate of vocational graduates who found work rose from 65 percent to 79 percent in a four-year period.
The employment rate for nonvocational graduates rose from 47 percent to 74 percent over the same period. Also noted was that vocational students received 15 to 20 percent higher salaries over the nonvocational students for both full time and part time jobs. The study revealed that vocational graduates reported more favorable job stability than nonvocational graduates. Vocational graduates also reported feeling more confident in competing for jobs than nonvocational graduates. This study revealed that students who worked while in high school earned more after graduation than those who did not work during high school. Nonvocational graduates were more likely to continue their education (Brandt & Ferguson, 1988).

In 1990, the Ohio State Department of Education performed job placement studies on handicapped post-secondary individuals. The results denoted that 68 percent of handicapped students who had matriculated through a vocational program while in high school were placed in positions relating to their vocational training. In comparison to the general population, 73 to 78 percent of total vocational students found employment in a related field.

A consensus exists which indicates that specific learning disabled and developmentally handicapped individuals will have greater difficulty obtaining a full time position after their high school graduation. Studies have reported that between 30 and 60 percent of these individuals will be working full time. Post high school comparisons were evaluated and learning disabled graduates were found to be more successful in obtaining full time employment than developmentally handicapped graduates.
Males also appeared to succeed more often than females. Positions obtained tended to offer low pay and be classified as unskilled labor. With a low income, these graduates would have a difficult time living independently. Those wishing to be independent could only look forward to surviving at the poverty level. Over 50 percent of graduates continued to live with their family. Special education students enrolled in vocational curriculums fared better in the job market than special education individuals enrolled in nonvocational programs.

The Need for Vocational Education

Brolin (1984) states that students need vocational skills to understand and recognize opportunities for becoming independent, satisfied and productive adults. The United States is in an economic-industrial transition with technology changing the nature of the workplace (Smith-Davis, 1983). All students especially the handicapped need to develop practical skills and knowledge so they can compete for and acquire jobs. In the *Colorado Statewide Follow-up Survey of Special Education Students*, Mithaug and Horiuchi (1983) found that most mildly handicapped graduates earned poor wages and were underemployed. They also believed that vocational education was needed for the handicapped to become competitive in the workplace. Wehman, Kregel and Barcus (1985) stated that vocational education programs prepared individuals for entry level positions in the work force. Mainstreaming students who are mildly retarded has created a difficult conflict. These students received a secondary school curriculum that may not prepare them for obtaining positions in the workplace. Kirk and Gallagher (1986)
emphasized that practical and vocational skills were needed for independent living. Also they noted that learning disabled students dropped out of school, not because they lack intelligence, but because they failed academically. These students need vocational education to avoid frustration and discouragement as they grow older and have difficulty adapting to life situations. Brolin (1987) states that many individuals work in frustrating and often rejecting environments. Students must develop a healthy work personality and experience success as they become self-sufficient and productive citizens. McQuire et al. (1987) reported that learning disabled adults held jobs with lower social status and were less involved in recreational activities and social organizations. Vocational education is needed to prepare individuals for all facets of society.

Advocates for vocational education, Zetlin and Hosseini (1989), reported that mildly handicapped young adults enrolled only in special education classes, received minimal vocational skills. They felt that these students were inadequately prepared for life after high school. Fourqurean and LaCourt (1990) reported that food service and custodial assignments continue to be the most stereotypical vocations of the handicapped. They believe that when the school programs are rich in quality and diversity, many developmentally handicapped persons will be able to work in a wider variety of fields. Vocational education is needed to allow students to take advantage of additional areas of interest.

A follow-up study conducted by Schwarz and Taymans (1991) consistently revealed that the handicapped individual had higher unemployment rates than nonhandicapped individuals. For those employed handicapped individuals, their yearly rate did not allow them an
opportunity to live independently. Extended underemployment was also a factor that needs to be considered when preparing these students for the workplace. Respondents in this study resorted to the family-friend network to obtain employment. Difficulties in obtaining a job consisted primarily of filling out the application form and being qualified for the job.

Goldbach (1991) surveyed developmentally handicapped students in the Pittsburgh, Pennsylvania area and reported that the oldest members of the sample demonstrated the most significant increase and stability in employment. He stated barriers to employment as chronic health problems, physical handicaps and extreme emotional behavior. He further explains that some handicapped individuals will never work due to lack of transportation or parental/individual dissatisfaction with available job placements. Goldbach found food service to be the single largest source of employment.

Statistics show that for every dollar spent on vocational education the vocational student can expect a return of approximately ten more dollars in life-time earnings. The National Advisory Council on Vocational Education (1983) points out that vocational education is needed to prepare handicapped individuals for employment. Also noted was that assistance, although well intentioned, leads to dependency.

Numerous articles have documented the need for a vocational education curriculum. Specific learning disabled and developmentally handicapped students tended to have higher unemployment rates than nonhandicapped individuals, and held jobs paying minimal wage thus
restricting financial independence. Obtained jobs had low status. Stereotypically, students are directed into the food service or custodial areas of the job market. Students need to develop a work personality, be introduced to and acquire a variety of job skills, and be provided an opportunity to concentrate on improving or building strategies to deal with their deficit areas. Vocational education targets all areas of need for a student. Socializing and interpersonal relations with co-workers are important factors in maintaining a job. The job placement component of many vocational education programs allows many students to feel success where they may feel academics too frustrating, thus avoiding dropping out of school. Vocational education is needed to provide handicapped students with the opportunity to become constructive members of our society.

Benefits of Vocational Education

Vocational education work programs provide students with knowledge of specific skills, employer expectations and rigors of the working world. Benefits to the student include increased self confidence and an opportunity to demonstrate abilities to the employer.

Seventy-five percent of the students in a California study, Project Workability, who entered employment positions were hired (California State Department of Education, 1983). Brolin (1984) felt that students benefited from a work study program by attaining a better overall degree of vocational adjustment than those who did not participate. Follow-up studies of former special education students (Hasazi, Gordon and Roe, 1985; Mithaug, Horiuchi, and Fanning, 1985) reported that participants of
vocational education are faring better in competitive employment than those who did not participate in vocational education.

In 1981 a Vocational Education Training Program benefited McDonald's and the handicapped students. Brickley and Campbell (1981) reported that mentally retarded young adults handled assigned tasks at McDonald's. Turnover rate was only 40 percent compared to a 175 percent rate for regular employees and 300 percent to 400 percent rate for regular education students. Not only did educators feel that vocational education is important but Fourquarean and LaCourt (1990) reported that vocational education courses were of benefit and held in high regard by parents of handicapped students when asked what was helpful about high school.

A follow-up study conducted by Schwarz and Taymans (1991) attributed the attendance in a vocational education program with successful completion of high school.

Benefits of a vocational education curriculum are many. Not only do students gain knowledge of specific skills, they learn to recognize contributing factors to obtaining and maintaining employment. Students experience an increase in self confidence and self esteem. Besides instruction in completing application forms and preparing resumes, employability skills such as following directions, prioritizing tasks, increasing quality and quantity of work, staying on-task, and demonstrating initiative are areas to be practiced for mastery. The students can relate to and justify that coursework or the job site is a stepping block to securing employment. Vocational education programs
have been a deterrent to students dropping out before graduating. Studies have indicated that graduates who majored in a vocational program fare better in the job market than graduates following a general high school program.

Legislation in Vocational and Special Education

Between 1976 and 1981 total student enrollments in secondary vocational education programs increased by 10 percent. In 1976 the number of handicapped students participating in vocational education was 203,647. By 1981 the number of handicapped students in vocational education reached 437,397—an increase of 115 percent (Albright, 1986). The National Commission on Excellence in Education in 1983 recommended increased career preparation and vocational training to enable handicapped children and young adults to become self-supporting, taxpaying citizens (Brolin, 1984).

Congress has enacted laws in the past thirty years to aid individuals with handicapping conditions. In 1963 The Vocational Education Act (PL 88-210) stated persons with academic, socioeconomic or other handicaps were to be served. Special funds were not set aside and services were randomly provided. In 1968 The Vocational Education Act (PL 90-576) identified two special needs categories of individuals—the handicapped and the disadvantaged—and this group of students would receive 15 and 10 percent, respectively, of all vocational education funding (Tilson and Others, 1984). This stressed the importance of providing wider vocational training options. The Educational Amendments of 1972 (PL 92-318)
provided funding and grants to post-secondary programs offering occupational education programs to the handicapped (Tilson et al., 1984).

Under the Rehabilitation Act of 1973, funds were provided to federal, state, and local agencies for educational and vocational programs (Kirk and Gallagher, 1986). Section 504 of the Rehabilitation Act of 1973 (PL 93-112) states civil rights laws for all individuals with disabilities including accessibility of federally funded buildings, free appropriate and nondiscriminatory public education, and nondiscriminatory employment (Missouri LINC, 1989).

The Education for All Handicapped Children Act of 1975 (PL 94-142) states that public agencies will ensure equal access to and availability of vocational education for handicapped students. Vocational education is to be a part of the free, appropriate education for the handicapped. A written Individualized Education Program (IEP) was mandated for each handicapped student (Kirk and Gallagher, 1986).

Public Law 98-199 Section 618(e)(l) the Education for All Handicapped Children Act has stipulated that state education agencies carry out studies to examine occupational, educational and independent living status of handicapped students who have graduated or left special education (Missouri LINC, 1989). Along this same line, Public Law 94-482 Vocational Education Legislation passed in 1976 strengthened requirements for accountability and for the evaluation of program effectiveness for all formally organized programs supported by federal, state and local funds. Also, this law placed emphasis on mainstreaming (Tilson et al., 1984).
The Carl D. Perkins Vocational Education Act of 1984 (PL 98-524) communicated program options to the handicapped, conducted vocational assessments and facilitated student transition from school to work (Albright, 1986). In Phi Delta Kappan (1986), public opinion polls indicated that 83 percent of respondents stated that vocational education should be required for non-college bound students. In 1990 The Carl D. Perkins Vocational and Applied Technology Education Act was enacted stating educational agencies will serve all who can benefit from vocational educational courses and provides special services for individuals with handicaps, mandates career assessment, guidance counseling, and career development for special needs students (Schwarz & Taymans, 1991).

In 1963 Congress recognized the need for vocational education for all handicapped individuals. Public Law 88-210 was enacted disclosing this information, but appropriate funds were not allocated for its usage. Not until five years later did Congress pass another Vocational Education Act. This time monies were stipulated for the handicapped and disadvantaged. As handicapped individuals attempted to enter the work force with little experience and little success, a need for further education was acknowledged. The Educational Amendments of 1972 provided funds to post-secondary programs offering handicapped individuals education in job and life skills. A year later legislation was passed securing civil rights for the handicapped. These included accessibility to federally funded buildings, a free, appropriate public education and nondiscrimination in employment. Passage of the Education for All Handicapped Children Act in 1975 provided vocational education as an option to all handicapped individuals. Also, this act mandated that an
Individualized Education Program be written for each student. To update and demonstrate accountability of the present programs, Public Law 98-199 and Public Law 94-482 were passed. Not only are funds essential to provide programs for the handicapped, but an indication of the individual's strengths, weaknesses, and interests is necessary to guide the student through their available options. *The Carl D. Perkins Vocational Act* of 1984 and *The Carl D. Perkins Vocational and Applied Technology Education Act* of 1990 mandated career assessment and career counseling.

**Need for Post-Secondary Follow-up Studies**

It is essential and required for school systems to provide follow-up on special education graduates to assess the effectiveness of school instruction. Monitoring of success/failure should be completed every three years. Data should be collected on employment status, satisfaction with the present job and type of job held (Wehman, Kregel & Barcus, 1985). Schalock (1986) agrees that follow-up studies are needed to provide missing details that are necessary in making program improvements and documenting special education outcomes.

Numerous articles stressed the need for a systematic follow-up of former students to evaluate the adequacy and appropriateness of high school programs (Benz & Halpern, 1987) as well as aid the handicapped student to secure and maintain jobs that are suitable for their abilities and interests (Minugh & Morse, 1981).

Student Employment Experiences, *Project SEE*, carried out a three-year follow-up study in California of post-secondary employment success and surveyed 3,529 students. It was recommended that follow-up
studies be conducted every three to five years. A one year follow-up was seen as premature since the graduates were not given the opportunity to settle down or continue with their education. Inquiries should be concerned with employment status, wage rates, duration of employment, and high school program—vocational or nonvocational (Kim & Wright, 1984).

In Texas a study of special education students reported that 19 percent of individuals were full time students; 3 percent were homemakers; 72 percent were employed with 24 percent identified as mentally retarded and 82 percent identified as specific learning disabled. This study further indicated that 65 percent of all special education graduates were still living at home. Employment rates for this group ranged from 24 percent to 82 percent. Job classifications of the individuals working were sales clerks, food/beverage preparation, mechanics and hairdressers. Many of the students exhibited low self esteem and self confidence. The stigma of being part of a special education class may have added to their decreased self esteem. Eighty-four percent of the graduates found employment through the family-friend network. Problems noted on the job included getting along with others, effective communication, ability to do the job, work habits, productivity, prioritizing, following directions, and punctuality. (Fourqurean and LaCourt, 1990).

The necessity for follow-up studies has also been acknowledged by Congress. Public Law 98-199 Section 618 (e)(l) the Education for All Handicapped Children Act imposed that state education agencies support studies to examine occupational, educational, and independent living
status of handicapped graduates or individuals who have left special education (Missouri LINC, 1989). Also, *Vocational Education Legislation* (Public Law 94-482) passed in 1976 strengthened requirements for accountability and for the evaluation of program effectiveness for all formally organized programs supported by federal, state and local funds (Tilson et al, 1984).

A variety of reasons have been provided which appear to confirm the need for follow-up studies on handicapped students enrolled in vocational programs. Many researchers point out that current employment status and place of residence are essential in aiding educators to assess the effectiveness and appropriateness of vocational programs. These studies document student success/failures related to obtaining and maintaining a job, and tracks ability to live independently. Support by legislatures of this endeavor has been evident with the passage of Public Law 98-199 and Public Law 94-482.

In summarizing Chapter II, research has been presented in order to exhibit support for vocational education programs. Statistics on post-secondary employment and residential living status of handicapped individuals was presented. The statistics provided have dealt only with two handicapping conditions—specific learning disabilities and developmentally handicapped. This writer currently works with specific learning disabled and developmentally handicapped students and acknowledged only these areas due to personal interest. Why vocational education programs are needed and the benefit of these programs was also addressed. Legislation has been enacted over the last 30 years to provide funding at the federal, state and local levels and mandate civil rights.
specific to handicapped individuals. The last section of this chapter describes the necessity for follow-up studies. This writer formulated a follow-up survey based upon specific details discussed in Chapter II. Key questions focused on residence; current employment—full/part time, skilled/unskilled, and wages; high school program; social activities; post-secondary education and did your high school program prepare you for the workplace. To meet the needs of the individuals, program information—whether academic or skill building—must be relevant to independent living and the job market. Only by documenting the outcome of our students will we be able to keep our programs appropriate and effective.
CHAPTER III

PROCEDURE

Sample

This study examined former secondary students who had been identified as specific learning disabled and developmentally handicapped. All specific learning disabled and developmentally handicapped students who have graduated or left special education programs since 1990 were surveyed. After professional guidance, the decision was made to survey only one suburban high school. This was due to the availability of pertinent information. Seventy-five graduates encompassed the study. Chart I depicts the makeup of the total sample by graduation year, sex and exceptionality.

Chart I: Total Sample by Graduation Year, Sex and Exceptionality

<table>
<thead>
<tr>
<th>Graduation Year</th>
<th>Specific Learning Disabled Male</th>
<th>Female</th>
<th>Developmentally Hand. Male</th>
<th>Female</th>
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<td>1990-91</td>
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<td>1991-92</td>
<td>11</td>
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<td>5</td>
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<tr>
<td>1992-93</td>
<td>16</td>
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The surveyed individuals reside in a southwestern Ohio area comprised of a mixture of white and blue collar workforce. The students resided primarily in residential communities with limited light industry. A
key element in conducting the survey was the willingness of the survey recipients and/or their parents to provide the needed information.

Construction of the Data Collecting Instrument

Two methods were used in collecting employment data for this study. The first was to interview selected school personnel knowledgeable regarding the handicapping condition, high school program, employment and residential status of the graduates in the sample. The interview questions were formulated by using examples in the reviewed literature, professional textbooks, elements on previously used school questionnaires, and other questions deemed appropriate.

This study was conducted by using a mailed questionnaire to be completed by former students and/or their parents. Several factors were considered in formatting the survey instrument. Given the makeup of the sample, directions had to be clear with simple vocabulary and sentence structure. The number of items had to be limited to insure attention and interest. Questions were developed in relation to literature reviewed, examples from professional textbooks, and previously administered questionnaires.

Based upon all these factors, variables such as employment status, types of jobs held, wages earned, job history, high school preparations for the workplace, and job benefits were included to gather data about respondents' past and current employment. Information about community living and adjustment was obtained through items such as current living arrangements, did their high school program prepare them for adult living, post-secondary and vocational training activities and leisure time
activities. To assist in the adequacy of the questionnaire, professionals including supervisors of special education services, university faculty and teachers of specific learning disabled and developmentally handicapped individuals reviewed the instrument for readability, clarity, length and format. Also, all questions were pre-tested orally to high school students in their final year of a special education vocational program. These students are identified as specific learning disabled and developmentally handicapped. A copy of the questionnaire is available in Appendix A.

**Administration of the Data Collecting Instrument**

A list of former specific learning disabled and developmentally handicapped students graduating or dropping out of special education programs between 1990 and 1993 was compiled. A cover letter and questionnaire were sent to each individual on the list. A self-addressed stamped envelope was provided with each questionnaire. A period of two weeks was stated in the cover letter. Letters and questionnaires were sent out immediately if address changes were provided by the postal service. After a four-week period, each nonrespondent received a telephone call requesting their participation in the survey. Following the telephone contact another cover letter and questionnaire were sent, including a self-addressed stamped envelope. At that time a decision was made by the writer to wait two additional weeks before analyzing the results. Extending the survey time an extra two weeks produced only minimal results.
CHAPTER IV

RESULTS

Presentation of the Results

A total of 25 of the 75 learning disabled and developmentally handicapped individuals (33 percent) responded to the survey. Four percent (n=3) of the questionnaires were returned due to no forwarding address.

Type of Handicap. To assess the representativeness of this sample, the actual proportions of students by type of handicap were determined. As you can see by Table I, the sample was highly over representative of specific learning disabled students. Table II indicates survey respondents by exceptionality.

Table I: Number and Percent of Total Students Surveyed According to Exceptionality

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<tr>
<td>Specific Learning Disabled</td>
<td>76 (n=57)</td>
</tr>
<tr>
<td>Developmentally Handicapped</td>
<td>24 (n=18)</td>
</tr>
</tbody>
</table>

Table II: Number and Percent of Survey Respondents by Exceptionality

<table>
<thead>
<tr>
<th>Exceptionality</th>
<th>Percent of Survey Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific Learning Disabled</td>
<td>72 (n=18)</td>
</tr>
<tr>
<td>Developmentally Handicapped</td>
<td>28 (n=7)</td>
</tr>
</tbody>
</table>
Background Information. Table III describes the total sample in terms of year of high school graduation and sex of those sampled by exceptionality. Table IV reports data on year of graduation and sex of only the survey respondents by exceptionality.

Table III: Graduation Year and Sex of Total Sample by Exceptionality

<table>
<thead>
<tr>
<th>Graduation Year</th>
<th>Specific Learning Disabled Male</th>
<th>Female</th>
<th>Developmentally Hand. Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990-91</td>
<td>12</td>
<td>5</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>1991-92</td>
<td>11</td>
<td>6</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>1992-93</td>
<td>16</td>
<td>7</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Table IV: Graduation Year and Sex of Survey Respondents by Exceptionality

<table>
<thead>
<tr>
<th>Graduation Year</th>
<th>Specific Learning Disabled Male</th>
<th>Female</th>
<th>Developmentally Hand. Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990-91</td>
<td>2</td>
<td>2</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>1991-92</td>
<td>4</td>
<td>2</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>1992-93</td>
<td>9</td>
<td>1</td>
<td>-</td>
<td>2</td>
</tr>
</tbody>
</table>

Employment. Seventy-two percent (n=18) of the respondents reported they were currently employed. Employment was further
defined as full time or part time. Among the 72 percent (n=18) who were employed, 28 percent (n=5) worked full time and 72 percent (n=13) worked part time. The remainders were either attending school or not able to work. Table V exhibits employment data for former students and percent of students pursuing continuing education.

Survey recipients were asked to record their hourly wages. Little disparity was noted between full time and part time wages. Respondents earned from $4.25 to $6.09 per hour. Only 40 percent (n=10) of respondents indicated a wage rate on their questionnaire. Eight percent (n=2) of the respondents indicated that wage income was a personal issue and not an appropriate question.

Job title and job category (skilled or unskilled) was asked on the questionnaire. Table VI describes the percent of skilled and unskilled positions by exceptionality. One percent (n=2) of the employed respondents felt that a dishwasher was a skilled position.

Table V: Employment Status/Continuing Education by Date of Graduation and Exceptionality

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1990-91</td>
<td>-</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>1991-92</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1992-93</td>
<td>2</td>
<td>5</td>
<td>9</td>
<td>-</td>
<td>2</td>
<td>-</td>
</tr>
</tbody>
</table>
Table VI: **Number and Percent of Skilled/Unskilled Positions held by Exceptionality**

<table>
<thead>
<tr>
<th>Specific Learning Disabled</th>
<th>Developmentally Hand.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skilled</td>
<td>Unskilled</td>
</tr>
<tr>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>(n=3)</td>
<td>(n=9)</td>
</tr>
<tr>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>(n=3)</td>
<td>(n=3)</td>
</tr>
</tbody>
</table>

**Community Living.** Results of the survey denoted that the majority of former students (68 percent, n=17) lived with their parents. Table VII designates statistics of living arrangements for all respondents.

Table VII: **Residential Living Status**

<table>
<thead>
<tr>
<th>Graduation Year</th>
<th>Specific Learning Disabled</th>
<th>Developmentally Hand.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Parent</td>
<td>Friend/Dorm</td>
</tr>
<tr>
<td>1990-91</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1991-92</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>1992-93</td>
<td>7</td>
<td>3</td>
</tr>
</tbody>
</table>

**Prepared for the Workplace.** Although 72 percent (n=18) of the respondents noted that learning took place during their time in high school and was pleased with the assistance they received, 60 percent
(n=15) felt that they were adequately prepared for the workplace.

Table VIII compares types of school programs enrolled in with preparation for the workplace.

Table VIII: Comparison of School Program to Attitude of Work Preparation

<table>
<thead>
<tr>
<th>School Program/Total Students</th>
<th>Favorable Attitude Prepared for the Workplace</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Prep (SLD Tutoring) - 6</td>
<td>50% (n=3)</td>
</tr>
<tr>
<td>General/College Prep (SLD Resource Room) - 6</td>
<td>50% (n=3)</td>
</tr>
<tr>
<td>Vocational (2-year program) - 5</td>
<td>80% (n=4)</td>
</tr>
<tr>
<td>Work Study (IEP required) - 4</td>
<td>100% (n=4)</td>
</tr>
<tr>
<td>Developmentally Handicapped Program - 4</td>
<td>25% (n=1)</td>
</tr>
</tbody>
</table>

Extracurricular Activities. Comparing participation in extracurricular high school activities to job success was of interest to the surveyor. Of the 32 percent (n=8) of respondents perceived as being active in high school, 100 percent (n=8) maintained a job or attended school.

Discussion of the Results

Prior to drawing any conclusions from this survey, it is important to point out concerns that are characteristic of follow-up
studies. Generalizing from the sample described in this study to the general population of handicapped students must be guarded. Due to sampling all special education graduates, there was an over-representation of specific learning disabled students. Additionally, response rate is a factor to be considered. Thirty-three percent (n=25) response is a low rate according to other documented studies but demonstrates a 16 percent increase over the most recent survey involving the same high school completed in 1991. No attempt was made to compare the 1991 survey results with this study due to unavailability of 1991 results.

Twice as many surveys were returned by the 1993 graduates as the 1992 and 1991 graduates. Most of the respondents were males identified as specific learning disabled who graduated or left special education programs in 1993. It should be addressed that males identified as specific learning disabled constitute the majority of students in the special education program at the high school under examination.

Seventy-two percent (n=18) of the respondents disclosed they were currently employed. This figure is encouraging. Only eight
percent (n=2) were not able or elected not to find employment. There is a substantial difference, though, between those employed full time (28%, n=5) versus part time (72%, n=13). Part of this disparity is due to graduates involved in post-secondary programs. Fifty-six percent (n=14) of total respondents are pursuing further education.

Former students reported employment primarily in the unskilled sector of the workplace. It should be noted that many part time positions are classified as unskilled. Subsequently, it is not atypical for recent graduates to invest time in unskilled areas of employment. The most pressing issue is self-sufficiency. The hourly income reported by former students will not allow them financial independence. As indicated by Table VII, 68 percent (n=17) of the respondents continue to live with their parent. One hundred percent (n=7) of the developmentally handicapped individuals lived with a parent.

Table VIII describes the favorable attitude former students expressed in being adequately prepared for employment. Former students enrolled in work study programs and students enrolled in
two-year vocational programs felt the most prepared for employment. The work study program provides students identified as exceptional an opportunity to gain work experience on a part time basis while attending high school. A Work Study coordinator evaluates the students' work abilities and attitudes, and aids the student whenever difficulties arise. Students enrolled in vocational programs orient themselves to a specific job category and develop skills in preparation of entry level positions. Vocational educators monitor student progress in the classroom as well as community job site. Former students enrolled in the developmentally handicapped program without a work component felt the least qualified to seek employment.

The last area for review is a comparison between athletic/social participation in high school and post-secondary employment. It was established that former students who participated in extra-curricular activities in high school tended to secure jobs successfully or attended a post-secondary education program.

The results of this study demonstrate that vocational training is needed for many students to be successful in locating and maintaining a job. Only 24 percent (n=6) of the respondents had enrolled in a two-
year vocational program. Vocational education provides students with knowledge of specific skills, employer expectations, and an opportunity to investigate areas of interest.
CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The intent of this study was to obtain and analyze employment data of former students identified as specific learning disabled and developmentally handicapped to determine success and failure as it relates to their secondary course of study. A large suburban high school in southwestern Ohio was the targeted location. A roster of 75 names was compiled by the high school's vocational coordinator for special education. Each individual graduated or left the special education program between 1990 and 1993. A mailed questionnaire including self-addressed envelope was forwarded to each individual.

Questions were developed for the questionnaire after consulting special education and vocational faculty members, professional articles and textbooks, and previously administered questionnaires. Seniors in a special education vocational program pretested each item. The recipients were given a two-week return deadline. After four weeks, telephone contact was established with each nonrespondent. Another questionnaire and self-addressed stamped envelope was forwarded for their convenience. Results were gathered and analyzed following a six-week waiting period.

Thirty-three percent (n=25) of the questionnaires were returned. The majority of respondents were males identified as specific learning disabled who graduated or left special education programs during the 1992-93 school term.
Seventy-two percent (n=18) of the former students reported they were currently employed. Only 8 percent (n=2) were not able or elected not to seek employment. The majority (72%, n=13) worked part time. Ninety-two percent (n=12) of the part time laborers held unskilled positions. The writer feels this is due to the 56 percent (n=14) of total workers continuing to pursue post-secondary education. Jobs obtained were low paying. Former students (68%, n=17) resided with their family.

Results have indicated that former students enrolled in 2-year vocational programs and students who participated in the work study program have demonstrated a favorable attitude towards their school placement in relation to their feeling of being prepared for the workplace.

A comparison was drawn between participation in extra-curricular activities in high school and success in employment after leaving high school. Students who actively participated in extra-curricular functions while in high school were equally active in the job market or were not available for work due to enrollment in a post-secondary education program.

Conclusion

Have outcomes improved for special education graduates as the attention shifts to transition issues? J. McQuire et al. (1987) reported an 85 percent employment rate for special education graduates with 50 percent of this group working full time. Edgar and Levine (1987) reported in their 3-year study that the employment rate varied with type
of disability--38 percent for the severely handicapped graduate to 68 percent for the specific learning disabled/behavior disordered graduate. They further stated that 50 percent of the severely handicapped and mildly retarded graduates were unengaged. Wagner et al. (1991) found that 57.2 percent of specific learning disabled (37.9 percent full time) and 31.4 percent of developmentally handicapped (19.8 percent full time) graduates were employed. In comparison, the present study documents an increase in employment with each subsequent year. Seventy-two percent (n=18) of the former special education students reported employment. This steady increase can be attributed to the current focus on transition planning. Only 28 percent of this group worked full time. This low percent is due to the number of graduates pursuing post-secondary education programs. The more recent graduates have a higher rate of attending post-secondary programs than the earlier students. One can only recommend that follow-up of these students be continued to rate success or failures after their post-secondary experiences.

Mithaug and Horiuchi (1983) reported that most mildly handicapped graduates earned poor wages and were underemployed. McQuire et al. (1987) stated that specific learning disabled adults held jobs with lower social status and that 79 percent of the study's respondents lived with their families. Fourquean and LaCourt (1990) reported that food service and custodial assignments are stereotypical vocations for the mildly handicapped. Schwarz and Taymans (1991) revealed in their follow-up study that the salary rate of handicapped
individuals did not allow for independent living and most employment was obtained through the family-friend network. Edgar and Levine (1987) also reported that most special education graduates obtained jobs through the family-friend network and lived with their families. In comparison, the findings in the present study partially supports the above research. Sixty-eight percent of the former special education students continue to live with their parents. One hundred percent of the developmentally handicapped individuals lived at home. Former students reported employment primarily in unskilled positions. The hourly income reported would not allow them financial independence. It should be noted that 56 percent of respondents have pursued further education which may explain the high percent of unskilled labor.

Brolin (1984) reported that developing vocational skills were needed to understand and recognize opportunities in transitioning to adulthood. He further suggests that students must develop a healthy work personality and experience success. A California study, Project Workability, reported that 75 percent of the students employed in the study were hired. Follow-up studies of former special education students enrolled in vocational programs fared better in competitive employment than nonvocational students (Hasazi, Gordon & Roe, 1985; Mithaug, Horiuchi & Fanning, 1985). In comparing school programs to preparation for the workplace, the literature reviewed demonstrates a favorable attitude toward a vocational curriculum. This study is consistent with the opinions and conclusions presented in the reviewed literature regarding the perceived effectiveness of vocational
programs. Table VIII of this study conveys that former special education students enrolled in 2-year vocational programs and the vocational work study program believed that they had been adequately prepared for the workplace.

The research previously examined (Schalock, 1986; Wehman, Kregel & Barcus, 1985) and legislative action are consistent in their support of the need for follow-up studies. This study supports this need. The writer believes that tracking students' success/failures over an extended period of time will help in effectively evaluating the merits of vocational programs.

There is no question that employment is an important aspect in the quality of life of former special education students. Education must attend to jobs and earning potential. Basic academic skills—mathematics, communication, interpersonal relations, and reasoning—are needed to be successful in the workplace. These skills need to be fine-tuned in the classroom and on the job site. Surveys are important in discovering why some students are not currently employed and to reveal areas in which school programs can be strengthened.

**Serendipitous Findings.** At the conclusion of this study, the writer recognizes a need for further examination of the post-secondary outcome of female special education individuals. Studies reviewed tend to note males are more successful in competitive employment than females (Edgar & Levine, 1987). Are females not enrolled in appropriate programs providing job opportunities? Are they unengaged due to child rearing? Are former female special education
students enrolled in post-secondary education programs more so than males? Are vocational programs not available that focus on areas of interest for females? What has contributed to this imbalance of success is an item of interest worthy of further investigation.

Recommendation

In order for future special education students to enjoy employment success, live independently, and feel self confident, more vocational training and job oriented instruction is essential for mildly handicapped students. The passage of PL 94-142, PL 93-112, and PL 94-482 describes our society's commitment to quality programs for handicapped students, including special attention to career and vocational development.

Both handicapped and nonhandicapped students must be exposed to as many career options as possible. Special educators must search out disabled adults who are successfully employed in various occupations to use as role models. Special education teachers, vocational teachers, and school counselors must work with the community to eliminate job stereotyping, identify potential sources of employment and follow-up on placement of students working in the community.

The writer suggests another survey be attempted in 3 to 5 years. After meeting with other vocational teachers, it was ascertained that telephone contact is more effective than a mailed questionnaire. When students graduate or leave special education programs a telephone number or contact name should be obtained to locate and track the
students' employment progress.

It should be remembered that skill acquisition is not enough, an effort to locate a job that pays a reasonable salary, secures the position and maintain the job is of utmost importance. A commitment should be made by educators to upgrade secondary special education programs to produce job-ready individuals. With a 56 percent rate of students enrolled in post-secondary education programs, curriculum options should be available for vocational students to continue to participate in academic coursework. With the goal of continuing education in the minds of many students and their parents, the development of vocational or apprenticeship programs for post-secondary school youth should also be investigated. Quality of life is not limited to acquisition of a job. Other needs such as food, shelter, health care, self esteem, and friendships are issues that require intervention.
HIGH SCHOOL GRADUATE FOLLOW-UP SURVEY

NAME ___________________________ TELEPHONE ____________

ADDRESS ___________________________ YEAR OF GRADUATION ____

_________________________ MILITARY ___ Yes ___ No

RESIDENCE: Live with _____ Parent _____ Friends _____ Alone

1. Are you currently employed? __________

   Employer's Name ___________________________________________

   Check one: _______ Part time _______ Full time

   Job Description: ___________________________________________

   Check one: _______ Skilled position _______ Unskilled position

   State types of benefits provided: _____________________________

   Wages: _______ per hour _______ per year

2. If you are not employed, check the following:

   _____ presently looking for a job       _____ not interested in working

   _____ unemployed - lack of transportation _____ not looking for a job due to

   _____ unemployed - raising a child post-secondary program (trade

   _____ unemployed - receives Social Security school, college, etc.)

3. Employment History:

   Jobs Worked After Graduation   Length of Employment   Reasons for Leaving

   ___________________________ ___________________________ ___________________________

   ___________________________ ___________________________ ___________________________
4. Check type of program enrolled in high school:
   _____ college prep    _____ general classes    _____ work study
   _____ vocational: name of program ______________________

5. Did the above training properly prepare you for the workplace? ______

6. State ways your high school program could better prepare you for employment after high school.
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

7. State all high school recreational/social activities.
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

8. Does your parent/guardian feel that you were adequately prepared for getting and maintaining a job? ______ If no, why? ________________________________
   __________________________________________________________
   __________________________________________________________

9. After graduation did you continue your education? ______
   Area of study ____________________________________________

__________________________________________________________
Signature of individual responding to the survey
REFERENCES


