The report, which is part of a series, provides an analysis of approximately 100 documents focusing on education, employment, and independent living outcomes across 10 handicapping conditions, including those students considered to be disadvantaged. Document summaries are organized by the 3 outcome areas and 11 conditions (learning disabled, speech impaired, mentally retarded, seriously emotionally disturbed, hard of hearing/deaf, orthopedically handicapped, other health impaired, visually impaired, multi-handicapped, deaf-blind, disadvantaged). A consistent problem noted in these studies was the lack of uniformity and conciseness of the definitions employed in the documents and articles reviewed, thus limiting comparability and generalizability. In the outcome area of education, analysis suggested a shift in focus from emphasis on actual academic achievements of handicapped individuals toward effects of specialized program placement on academic achievement and the usefulness of vocational education. In the employment area, the majority of employed subjects, across all studies, were employed in low paying service, unskilled or semi-skilled positions. In the independent living area, the limited number of studies showed great limitations in the extent of social interaction and community integration. Approximately half of this report consists of a bibliography (with abstracts) of the documents and articles analyzed. (DB)
Educational, Employment, and Independent Living Outcomes

Harnisch
The following principles guide our research related to the education and employment of youth and adults with specialized education, training, employment, and adjustment needs.

- Individuals have a basic right to be educated and to work in the environment that least restricts their right to learn and interact with other students and persons who are not handicapped.

- Individuals with varied abilities, social backgrounds, aptitudes, and learning styles must have equal access and opportunity to engage in education and work, and life-long learning.

- Educational experiences must be planned, delivered, and evaluated based upon the unique abilities, social backgrounds, and learning styles of the individual.

- Agencies, organizations, and individuals from a broad array of disciplines and professional fields must effectively and systematically coordinate their efforts to meet individual education and employment needs.

- Individuals grow and mature throughout their lives requiring varying levels and types of educational and employment support.

- The capability of an individual to obtain and hold meaningful and productive employment is important to the individual's quality of life.

- Parents, advocates, and friends form a vitally important social network that is an instrumental aspect of education, transition to employment, and continuing employment.

The Secondary Transition Intervention Effectiveness Institute is funded through the Office of Special Education Programs, Office of Special Education and Rehabilitative Services, U.S. Department of Education (contract number 300-85-0160).

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Transition Literature Review on Educational, Employment, and Independent Living Outcomes

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and
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Sigrid K. Danielson

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Frank R. Rushe"

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)"
Preface

Transition Literature Review on Educational, Employment, and Independent Living Outcomes is a publication intended for researchers, policy analysts, and practitioners. It provides a review of documents which focused on education, employment, and independent living outcomes across ten handicapping conditions, including those students considered to be disadvantaged. Both published and unpublished literature materials have been included in our examination for review. Systematic information was gathered from each of the selected documents and a data base system was developed to process all of our review notes. This review represents our first year look at approximately 100 documents. Future documents in this annual product will contain updates to this data base system with an ongoing annotated bibliography available to our user community.

The classification system developed for the documents allows the reader to examine any one of the 30 cells described in our literature review (see Table 1). The 30 cells are created from the ten rows representing the handicapping conditions (learning disabled, speech impaired, mentally retarded - classified as mild, moderate and severe/profound; seriously emotionally disturbed, hard of hearing/deaf, orthopedically handicapped, other health impaired, visually impaired, multi-handicapped, deaf-blind, ...
and those classified as disadvantaged) and by the three outcome areas of educational, employment, and independent living represented across the columns. This framework allows for specific identification of articles that have a primary focus on any one of the three outcome areas or on any one of the handicapping conditions, thus the reader has access to a wealth of information within any of these 30 possible cells.

One of our objectives has been to produce a literature review based upon a conceptual framework that would provide a clear understanding of the classification of articles focusing on transition activities. If we have succeeded, you will be able to examine the annotated bibliography for the selected articles which are of greatest interest to the reader's area of study given one of the three selected outcomes areas with one of the ten handicapping conditions. We hope that this product will be clear and helpful for those who are involved with transition programs, and that it will be appealing and informative to the interested reader. We have worked to provide you with a brief synthesis of the transition literature based on our preliminary review of selected documents. Various tables have been prepared to assist the reader in gaining a broader understanding of the articles that are presently part of our data base. The chapter relating to independent living documents also provides an historical overview of this outcome area to help
the reader achieve a better understanding of the numerous possible findings in this domain.

This report also considers the important advances in electronic data base management. Data base files are created so that a keyword structure can be utilized by any operator of the system to create a report of selected references or abstracts. Those most familiar with data base systems will appreciate the manner in which this system can assist them with their transition review and also with targeted areas of handicapping conditions. The possibilities are practically endless and provide the basis of quick recall for the policy analyst while at the same time providing the practitioner with the freedom to scan the system for the articles which focus on employment, educational, or independent living outcomes for a particular handicapping condition.

It is our plan to continue to update this review document with additional entries to the data base through continued literature searches and networking. As new studies across handicapping conditions are completed at the local, state, and national level we expect to provide additional comprehensive analyses of the transition process from high school to post secondary experiences. Overall, the continued expansion of this data base will be a valuable resource in
the examination of transition issues for handicapped youth.

August 1986

DLH
Acknowledgements

We wish to thank the following agencies/research librarians for their helpful assistance in sharing with us their documents on the most current information for our transition literature review: Center for Resource Management, Inc., Council of Exceptional Children, Employment Research and Training Rehabilitation Counseling Department of New York University, Gallaudet College Library, National Center for the Employment of the Handicapped Research and Training Institute, National Institute of Handicapped Research, Regional Resource Centers, Special NET, various State Departments of Special Education, The Network, Inc., and the Secondary Transition Intervention Effectiveness Institute. The insights that many of the librarians shared have helped to sharpen our perspective. We also wish to thank the individuals serving in these agencies for sharing their thoughts and feelings on transition.

We are also very grateful for the expert assistance of Janis Chadsey-Rusch, Lizanne DeStefano, Frank Rusch, and Richard Schutz, our colleagues from the College of Education who each have contributed in vital ways to the accomplishments of our task. The staff from the Transition Institute have been uniformly helpful and we thank them with great pleasure for their dedication to our effort in the production of this transition literature data base review.
system. We also wish to thank Naomie Zigmond of University of Pittsburgh and Phylis Levine from University of Washington for their information which assisted in our document review.
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Chapter I

Introduction

Overview of Transition Institute

The College of Education at the University of Illinois at Urbana-Champaign (UIUC) has received a federal contract for the creation of an institute that will study and evaluate services delivered to disabled youth who are entering the job market.

The Transition Institute at Illinois, which will be funded for five years by the Office of Special Education and Rehabilitative Services (OSERS), U.S. Department of Education, will be conducting research and consulting with federally funded secondary special education projects throughout the country. The Transition Institute is directed by Frank R. Rusch, Professor of Special Education, and co-directed by L. Allen Phelps, Associate Dean of Education and Professor of Vocational Education.

Recently, the U.S. Commission on Civil Rights (1983) reported that between 50% and 80% of all persons with disabilities are unemployed. These data suggest that a disproportionately large number of disabled persons do not obtain meaningful jobs. Several follow-up studies conducted in Vermont (Hasazi, Preskill, and Gordon, 1985), Virginia (Wehman, Kregel, and Zoller, 1984), Colorado (Mithaug and
Horiuchi, 1983), and Washington (Edgar and Levine, 1986) reflect similar figures. Based on these findings, it appears that—in spite of considerable recent attention on elementary and secondary special education—meaningful employment outcomes for graduating students who are disabled have not materialized. Although several million individuals with disabilities in this country are denied, for various reasons, the opportunity to engage in meaningful employment, these individuals do possess the potential to live and actively participate in the community.

Despite the fact that they have been the focus of attention by special educators, vocational educators, vocational rehabilitation personnel, adult service agencies, and many other organizations for the past three decades, individuals who are mentally retarded, physically disabled, and/or otherwise disabled, have not made a successful transition into the community. Most of them either work in sheltered settings, are underemployed, or are unemployed and live with family, relatives, or friends without much hope of participating in their community in the manner most nondisabled persons take for granted. There is additional evidence which suggests that these youth will not make gains in the world of work unless there is a concentrated effort to identify and introduce interventions that will culminate in their employment.
Introduction

The Transition Institute is designed to address both the theoretical and practical problems of transition from school to work for youth with handicaps. The Institute has grown out of a consensus among legislative, professional, and advocacy organizations that an initiative has been needed to establish a more systematic and effective delivery system to assist youth with handicaps in making the transition from school or unemployment to work. The passage of Public Law 98-199 provided the authority to address this need specifically through Section 626, entitled "Secondary Education and Transition Services for Handicapped Youth."

The mission of the Transition Institute is threefold. It will address a series of evaluation, technical assistance, and research activities.

Review of Extant Literature

One of the major tasks of the evaluation program of the Transition Institute entails the examination of educational, employment, and independent living outcomes attained by handicapped youth as they exit school and enter the work force. Federal, state, and local data sources as well as follow-up studies will be compiled and reviewed.

A data base system has been developed for collection, storage and display of information from the documents pertinent to each of the outcome measures as a function of
Introduction

the student's handicapping condition. A conceptual model has been created for processing the documents and summarizing the research findings in the literature concerning the outcome measures of education, employment, and independent living status. Information is also being added to our system from our contacts with related organizations throughout the United States.

A document modeled after the Digest of Data on Persons with Disabilities and The Condition of Education will be published annually describing the recently catalogued information on such variables as the incidence of handicapping conditions, employment and unemployment rates for both handicapped and nonhandicapped youth, minority status among handicapped youth, secondary school completion data, employment status, earnings, and residential arrangements.
Focus of the Literature Search

The search for documents focused on 3 general areas: education, employment, and independent living outcomes, and across ten handicapping conditions, including those students considered to be disadvantaged. The handicapping conditions were selected according to P. L. 94-142 guidelines (see Appendix A for complete definitions). Table 1 illustrates the matrix design used to chart the documents with regard to handicapping condition and outcome areas.

The transition from youth to adulthood for handicapped individuals has become an increasingly important topic for researchers, policy analysts, and practitioners. This study of outcomes should ultimately contribute to a greater understanding of the development of young adults and of the factors that determine individual education, career, and independent living outcomes. Such information is useful as a basis for review and reformulation of federal, state, and local policies affecting the transition of youth from school to adult life.
### Handicapping Conditions and Outcomes

<table>
<thead>
<tr>
<th>HANDICAPPING CONDITIONS</th>
<th>EDUCATIONAL OUTCOMES</th>
<th>EMPLOYMENT OUTCOMES</th>
<th>INDEPENDENT LIVING</th>
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</thead>
<tbody>
<tr>
<td>Learning Disabled</td>
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<tr>
<td>Speech Impaired</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Mentally Retarded mild</td>
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<td></td>
<td>moderate</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>severe/profound</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seriously Emotionally Disturbed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hard of Hearing and Deaf</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orthopedically Handicapped</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Health Impaired</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visually Handicapped</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multi-handicapped</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Deaf-blind</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disadvantaged</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Institute staff defined educational outcomes along such variables as achievement of education-related program goals, diploma/degree achieved, attendance, achievement of IEP goals, behavioral performance, achievement test scores, evaluation of progress by teachers, parents, aides, and status of non-completers. Employment outcomes were defined in terms of employment status, job profiles, earnings, fringe benefits, stability of employment, and job satisfaction.
2/ Conceptual Framework of Literature

benefits, stability of employment, and job satisfaction. Residential arrangements, stability and location of living situation, social adaptation, involvement with the criminal justice system, and social satisfaction numbered among the factors defining independent living outcomes at the initial stages of the review.

Procedures Used to Locate Relevant Literature

An attempt was made to locate published and unpublished studies containing information on each of the selected outcomes under examination. Documents were selected for review on the basis of the following criteria: 1) data on at least one of the outcomes must be included in the article; 2) the study must deal with one or more of the ten identified handicapping conditions (plus disadvantaged); 3) the study must have been published since the passage of the Education for All Handicapped Children Act of 1975 (P. L. 94-142); and 4) the age range of the sample should be between 16 and 24 (+ or - 2) years. The age range of the samples has been lengthened to include some appropriate studies which included adults over 26 years old.

Using these criteria and the definitions of the three outcome areas, secondary sources were reviewed to refine terms, clarify definitions, and identify keywords. A computer search of the Secondary Transition Effectiveness
Institute Library was conducted which resulted in access to the primary research literature which focused on transition.

The Education Resources Information Center (ERIC) thesaurus was used to translate the identified factors of the three outcomes into topic descriptors necessary to search the ERIC system. ERIC, operated by the National Institute of Education, not only indexes and abstracts the published literature in education, but the fugitive literature as well. An ERIC search from the University of Illinois Library generated a listing of 1,000 abstracts. Approximately 100 documents met the initial inclusion requirements and were selected from the ERIC printout.

The referenced articles were located and read by four reviewers using a review worksheet designed to code information about the documents. The information from the review worksheets was entered into a computer using the dBase III system. Computerized summaries of the data were collected and descriptively analyzed. A complete description of this process is offered in Chapter III.

Approximately 25 documents were excluded from the database due to the following reasons: 1) the subjects were younger than fourteen, and 2) the studies involved programmatic descriptions of how to attain certain outcomes rather than
descriptions of actual outcomes achieved. The latter was especially true of the research examined on independent living outcomes.

Several articles were added to the search which did not meet the inclusion guidelines. These articles included reactions to the follow-up study in Vermont, statistical reports, and articles that added to the understanding of the three outcomes as they relate to handicapped youth.

The descriptive analyses of each of the outcome areas contained in Chapters IV, V, and VI are based on 86 articles selected thus far for review and entry into the database. Table 2 displays the number of articles catalogued by handicapping condition and outcome area. These documents represent the results of both the Institute and the University of Illinois ERIC searches, the location of documents referenced in the bibliographies of key articles, and the inclusion of papers received from various researchers currently involved in follow-up and outcome studies. Concurrent with the literature search has been an attempt to contact personnel of related specialist organizations, universities, and national agencies.


<table>
<thead>
<tr>
<th>HANDICAPPING CONDITION</th>
<th>EDUCATIONAL OUTCOME</th>
<th>EMPLOYMENT OUTCOME</th>
<th>INDEPENDENT LIVING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Disabled</td>
<td>12</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>Speech Impaired</td>
<td>5</td>
<td>5</td>
<td>0</td>
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<tr>
<td>Mentally Retarded mild</td>
<td>2</td>
<td>22</td>
<td>5</td>
</tr>
<tr>
<td>moderate</td>
<td>0</td>
<td>18</td>
<td>5</td>
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<tr>
<td>severely/profound</td>
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<td>15</td>
<td>3</td>
</tr>
<tr>
<td>Seriously Emotionally Disturbed</td>
<td>3</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>Hard of Hearing and Deaf</td>
<td>5</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Orthopedically Handicapped</td>
<td>3</td>
<td>16</td>
<td>0</td>
</tr>
<tr>
<td>Other Health Impaired</td>
<td>1</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>Visually Handicapped</td>
<td>3</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Multi-handicapped</td>
<td>1</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>Deaf-blind</td>
<td>1</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Disadvantaged</td>
<td>2</td>
<td>4</td>
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<tr>
<td>TOTAL</td>
<td>38</td>
<td>149</td>
<td>24</td>
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</table>

Over the next four years, the Institute activities in this area will continue to expand the database through continued literature searches and networking. As more local, statewide, and national studies are initiated in this area across these handicapping conditions, comprehensive analysis and description of the status of graduates will
2/ Conceptual Framework of Literature

emerge. The continued and future expansion of the Institute's database will provide a resource from which to study issues concerning the desired outcomes for handicapped youth.
Chapter III

Data Base System: Transitional Literature

Introduction

Once a process for selecting and locating relevant literature had been created, it was necessary to: 1) develop a system for reviewing the literature and 2) choose a data base software package tailored to the project's needs. Maintaining consistency and accuracy across the team of reviewers as well as devising an efficient method to review documents were the critical factors influencing the design of the review worksheet. Ease of use combined with powerful capabilities for adapting to a specific task, interfacing with other systems, and generating reports were the fundamental elements directing a software choice.

Development of a Literature Review Worksheet

The review worksheet provided a method for selecting key concepts from each article for entry onto a computer data base file. The review team developed a standard instrument, tested its use, and made necessary revisions (see Appendix B for a copy of the worksheet). The format included a variety of components important to transition and specific to the task of examining outcomes for handicapped youth. The information was organized into eight categories: 1) article identification (using APA reference style), 2) handicapping conditions (see Appendix A for specific definitions),
3) level and location of the study, 4) outcome areas, 5) sample size and description, 6) the instrumentation used in the study, 7) key words or descriptors, and 8) the abstract.

The article identification contained a record number, the media type, a complete reference in APA style, and the date of entry into the data base system. This information provided quick access to each article through any one or a combination of the components of bibliographic information.

The listing of ten handicapping conditions were selected from P.L. 94-142 guidelines and also included those considered to be disadvantaged. Reviewers circled T (True) or F (False) on the worksheet to indicate which handicapping conditions were included in the article. In the level and location category, reviewers indicated whether the study was conducted at a local, state, or national level and included the state abbreviation where appropriate.

The focus and substantive study area of the article was identified in accordance with three outcome variables: employment, education, and independent living. Each article was assigned a primary focus from one of these outcomes, but many of the articles dealt with information and findings covering all of the outcome variables. A short descriptive
3/ Data Base System

memo was drafted to provide a guide and easy access to significant characteristics and findings from each study. The sample description and instrumentation used in the study provided valuable information to examine the population studied and the methodology used.

Twelve key words which defined the task were identified by the research team and reference librarians.

An abstract was prepared to summarize the salient elements of the article. As the process of reviewing the literature progressed, this intermediate step was evaluated and refined to better meet the needs of both the research team and the long-term goals of the Institute. As this project continues, the review process will be applied to all relevant articles. Systematic review and entry procedures will continue with this project in order to update and expand this document over the next four years.

Choosing a Database System

In choosing a software system for the storage of this information, many factors were considered. Versatility in adapting to task needs, ease in learning, simplicity of use, manipulation of data capabilities, and ability to interface with other systems were of utmost importance. It was these primary factors which drew the evaluation team to the dBASE
III system. Produced by Ashton-Tate, dBASE III is a revised version of dBASE II. dBASE III's advantages over its predecessor include: the ability to use several data bases at once, a larger storage capacity, and increased speed as well as new commands which facilitate its use. Currently the dBASE family is the unquestioned market leader in microcomputer data base management software (Hart, 1986).

The Variable Structure

Once the system was selected, a programmer worked closely with the review team to develop a variable structure for dBASE III that matched the information to be entered from the review worksheets. Five different fields are available for inputing information. As seen in Table 3, those fields (date, numeric, character, logical, and memo) matched the type of information in each variable of the review worksheet. For example, the logical field permitted only one of two possible letters to be entered and was used for the T or F indicators for handicapping conditions. The memo field allowed the reviewers to store large sections of text in a separate file linked to a main data file. This allowed reviewers to define each outcome area according to the individual study; a capability that would not have existed if the system only provided access to key words.
### TABLE 3 Variable Structure for Data Base

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<td>24</td>
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<td>Character</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>ACHE_ED</td>
<td>Logical</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>ED_MEMO</td>
<td>Character</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>ACHEEMPLY</td>
<td>Logical</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>EMPLY_MEMO</td>
<td>Character</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>ACHE_INDP</td>
<td>Logical</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>INDP_MEMO</td>
<td>Character</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>S_SIZE</td>
<td>Numeric</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>SIZE_MEMO</td>
<td>Character</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>ASSES_SUR</td>
<td>Character</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>KEYWORDS</td>
<td>Character</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>ABSTRACT</td>
<td>Memo</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

**Total** 2270

To more clearly picture the use of the various fields as they would appear in an entry session, see Figure 1. This figure provides a view of the screen that would appear when
inputing data from the review worksheet. The fields shown here were specific to our task, but the seemingly infinite

Record No. 85
ACHE_PRI 3
IN_DATE 06/24/86
MDN_TYPE 2
AUTHOR Sutter, P., Mayeda, T., Yanagi, G., & Yee, S.
PUB_YEAR 1980
PUB_MONTH
TITLE Comparisons of successful and unsuccessful community placed-mentally retarded person
JR_AG_PB American Journal of Mental Deficiency, 85(3),
PLACE_PUB
PAGE_NO 262-270.
LD F
SI F
MR_MI T
MR_MO T
MR_SP T
SED F
DEAF F
ORTHO F
HI F
VISU F
MULTI F
BLIND F
DIS F
LEVEL ST (HI)
ACHE_ED F
ED_MEMO
ACHE_EMPLY F
EMPLY_MEMO

Figure 1. Sample Entry Session: Screen View
3/ Data Base System

adaptability to various information needs is just one of the characteristics that makes dBASE III a powerful tool for a data organization task.

Another example of the powerful capabilities of dBASE III includes the ability to generate a wide variety of reports from the data. The majority of tables included throughout the document and all of the annotated bibliography in Chapter VII are examples of the combinations of data that can be pulled from the files. Output reports can be generated on paper as well as to disk files. Data can be exported in standard formats to Statistical Analysis Systems (SAS) on PC's and mainframes.

Future Uses

The data base activities of this first year have just begun to tap into the potential uses of dBASE III. The system will be able to supply customized reports that meet specific needs of practitioners, policy analysts, and researchers interested in the field of transition. A simple example of the manner in which a practical report generation can occur would be that of a program director in a rural setting who might specify the location, the handicapping condition(s), and an outcome area in which he/she wished to review current literature. This system could generate such reports with ease.
The tremendous range of powerful and convenient support programs currently available has not yet been examined. These support programs can expand and enhance the capabilities of dBASE III to make it an even stronger system. The future use of the system presents exciting possibilities in which we will be limited only by our abilities to creatively request information.
Chapter IV

Educational Outcomes for Handicapped Youth

Introduction

A challenge to all school-age adolescents, regardless of the presence of handicapping conditions, is how participation in school will affect their lives. As a result of concern over equal access to education in P.L. 94-142, academic achievement and success is a significant federal goal. The educational outcomes examined in the compiled literature deal with activities in which handicapped students could participate during their years in school.

Categories of Educational Outcomes

The following descriptive analysis is based on 23 of the 86 articles gathered thus far in the literature review. These 23 articles were coded as having "educational outcomes" for the primary focus. When searching the literature, the concepts that appeared to define educational achievement fell into the following five major categories:

Academic Training included information concerning graduation, coursework completed, status of non-completers or dropouts, test scores and/or achievement in mathematics, reading, language arts, civics, science, the impact of mainstreaming, I.Q. test scores, and reading comprehension.

Vocational Training described various aspects of the rehabilitation process within the school environment.
Students also dealt with issues concerning the Rating of their School, including types and usefulness of programs, value of education, indices of motivation and the physical layout of the school.

Issues or activities which took place Outside the Classroom, but dealing with educational outcomes, included homework completion, impact of television viewing and involvement in extra curricular activities.

Finally, Issues of Behavior dealt primarily with discipline and encounters with the law during the school age years. The diverse breadth of topics in these reviewed articles begins to reveal complex issues involved in obtaining educational outcomes for handicapped youth. This analysis will describe the findings on academic training and the resulting impact of vocational training.

The articles chosen for analysis meet the requirements of the educational outcome variable as stated in Chapter II. The variety of handicapping conditions appearing in the twenty-three articles dealing with educational outcomes is illustrated in Table 4. The total number of cases (37) exceeds the number of actual studies (23) due to cases in which studies involved subjects with various handicapping conditions.
<table>
<thead>
<tr>
<th>HANDICAPPING CONDITION</th>
<th>EDUCATIONAL OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Disabled</td>
<td>12</td>
</tr>
<tr>
<td>Speech Impaired</td>
<td>5</td>
</tr>
<tr>
<td>Mentally Retarded</td>
<td></td>
</tr>
<tr>
<td>mild</td>
<td>2</td>
</tr>
<tr>
<td>moderate</td>
<td>0</td>
</tr>
<tr>
<td>severe/profound</td>
<td>0</td>
</tr>
<tr>
<td>Seriously Emotionally Disturbed</td>
<td>3</td>
</tr>
<tr>
<td>Hard of Hearing and Deaf</td>
<td>5</td>
</tr>
<tr>
<td>Orthopedically Handicapped</td>
<td>3</td>
</tr>
<tr>
<td>Other Health Impaired</td>
<td>1</td>
</tr>
<tr>
<td>Visually Handicapped</td>
<td>3</td>
</tr>
<tr>
<td>Multi-handicapped</td>
<td>1</td>
</tr>
<tr>
<td>Deaf-blind</td>
<td>1</td>
</tr>
<tr>
<td>Disadvantaged</td>
<td>2</td>
</tr>
</tbody>
</table>

The majority of articles reviewed thus far have provided information and findings concerning the learning disabled. Speech-impaired and deaf handicapping conditions were discussed in five articles each, and seriously emotionally disturbed, orthopedically handicapped, as well as visually impaired were examined in three articles. A limited number of studies included disadvantaged (two), hearing impaired (one), multi-handicapped (one), and deaf-blind (one) have
### TABLE 5

<table>
<thead>
<tr>
<th>REC#</th>
<th>SAMPLE SIZE</th>
<th>SAMPLE DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>100</td>
<td>Learning disabled, white, young adults.</td>
</tr>
<tr>
<td>11</td>
<td>234</td>
<td>Special education graduates.</td>
</tr>
<tr>
<td>15</td>
<td>98</td>
<td>Mildly MR, hearing impaired, orthopedically handicapped, and visually impaired graduates from the class of 1972-1978.</td>
</tr>
<tr>
<td>20</td>
<td>18</td>
<td>Emotionally disturbed adolescents 2-4 years after leaving a facility for the behavior disordered.</td>
</tr>
<tr>
<td>32</td>
<td>43</td>
<td>LD students.</td>
</tr>
<tr>
<td>36</td>
<td>142</td>
<td>Hearing-impaired students, nation-wide.</td>
</tr>
<tr>
<td>37</td>
<td>52</td>
<td>LD adolescents in a special education program.</td>
</tr>
<tr>
<td>38</td>
<td>40</td>
<td>Dyslexic adult males.</td>
</tr>
<tr>
<td>49</td>
<td>36</td>
<td>Language-impaired and articulation-impaired children.</td>
</tr>
<tr>
<td>50</td>
<td>24</td>
<td>Follow-up studies of learning-disabled persons.</td>
</tr>
<tr>
<td>54</td>
<td>439</td>
<td>Sample taken from the 26,147 twelfth graders responding to survey of High School and Beyond study. The sample is composed of those answering affirmatively to the presence of a specific learning disability.</td>
</tr>
<tr>
<td>55</td>
<td>192</td>
<td>Visually impaired high school students.</td>
</tr>
<tr>
<td>56</td>
<td>37</td>
<td>15 from a study of 49 deaf-blind children done in the early 1970's. 22 from regional centers for the Deaf-Blind. Ages 14-20 yrs, primarily white (79%) and living in residential schools (47%).</td>
</tr>
</tbody>
</table>
### Sample Sizes and Descriptions for Educational Outcomes

<table>
<thead>
<tr>
<th>REC#</th>
<th>SIZE</th>
<th>SAMPLE DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>59</td>
<td>50</td>
<td>36 males/14 females aged 13-20 years, diagnosed as having a communication problem.</td>
</tr>
<tr>
<td>64</td>
<td>686</td>
<td>Sample of 686 sophomores from 27,104 for whom data from H.S.B. was complete, identified themselves as either deaf or hard of hearing. Two categories combined and comparison between normal hearing and hearing impaired basis of study.</td>
</tr>
<tr>
<td>65</td>
<td>810</td>
<td>Sample taken from the 30,030 sophomores responding to the survey of High School and Beyond study. The sample is composed of those answering affirmatively to any questions concerning a specific learning disability. Sex and SE status were controlled.</td>
</tr>
<tr>
<td>66</td>
<td>278</td>
<td>Sample taken from the 26,000 twelfth graders responding to the survey of High School and Beyond study. The sample is composed of those answering affirmatively to the presence of speech disabilities.</td>
</tr>
<tr>
<td>67</td>
<td>514</td>
<td>Sample taken from the 26,146 twelfth graders responding to the survey of High School and Beyond study. The sample is composed of students indicating that they were deaf or hard of hearing, two categories were merged under hearing impaired.</td>
</tr>
<tr>
<td>68</td>
<td>489</td>
<td>Sample taken from 30,030 sophomores responding to survey of High School and Beyond study who indicated that they had a speech disability.</td>
</tr>
<tr>
<td>73</td>
<td>0</td>
<td>Survey of handicapped, disadvantaged and limited English proficiency graduates as compared to their non-specific needs peers.</td>
</tr>
</tbody>
</table>
Table 5 cont'd.

<table>
<thead>
<tr>
<th>REC#</th>
<th>SIZE</th>
<th>SAMPLE DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>77</td>
<td>61</td>
<td>Description of pop. at Mark Twain, which serves emotionally disturbed students in grades 5 through 12, based on review records of 333 and assess. of success of former students in regular schools based on 61 students leaving Mark Twain in Jun 80 or 81.</td>
</tr>
<tr>
<td>81</td>
<td>1966</td>
<td>Students labeled as learning disabled receiving educational services in 24 different schools in 22 states, aged 6.0-17.9 years.</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

also been reviewed. The sample sizes on the studies ranged from twenty-four to 1,966. The ages of the subjects ranged from 11 to 25 years. Complete sample descriptions for the articles dealing with educational outcomes are represented in Table 5. Efforts to locate and review additional studies across all handicapping conditions are in effect for year two.

Of the 23 articles focusing on educational outcomes, 8 were at the local level and 10 at the national level. The various levels and the location in which the studies were done are represented in Table 6.
Literature on Educational Outcomes

Academic achievement for handicapped youth has been found to be significantly lower than for non-handicapped youth. The use of standardized assessment instruments in measuring achievement levels may be a contributing factor to this finding. Wolk and Allen (1984) in their national study of hearing impaired students comment on the current lack of
longitudinal achievement studies which use tests specifically adapted for handicapped students. In the Gregory, Shanahan, and Walberg (1985) analysis of High School and Beyond, hearing impaired youth, pupils with speech problems, as well as learning disabled students scored significantly lower in all subjects tested including reading, writing, vocabulary, civics, science, and mathematics. Recognizing the limitation that the High School and Beyond study dealt only with self reported handicapping conditions, it is worthwhile to note that many other studies support the idea that students with handicapping conditions do not achieve academic success as easily as their non-handicapped peers (Levin, Zigmond, and Birch, 1985; Gottsmann, 1979; Curhs and Donlon, 1984; Leone, 1984; Hall and Tomblin, 1978; Norman and Zigmond, 1980).

Another factor frequently examined within this group of studies was the effect that specialized program placement has had on academic achievement and school completion for handicapped youth. Gross (1984) examined educational outcomes for emotionally disturbed students in a local study in Maryland. The findings of this study revealed improved grades, increased attendance, and improved eligibility for graduation by those students who had been mainstreamed after placement in a specialized program.
A further indication that specialized program placement can accompany academic success was reported by Levin, Zigmond, and Birch (1985) in dealing with learning disabled adolescents. The program was designed for students at the ninth grade level who have had a long history of difficulties in school, including severe reading and mathematics retardation, grade delay, as well as low intelligence quotient scores. After completing the first year of this specialized placement program, student advancement was three times the amount of progress in reading and double the amount of progress in mathematics. In the follow-up studies done four years later, this experimental group continued to show academic gains, though at a more gradual rate. This study did indicate a large dropout rate of original students (51 percent). This is consistent with additional studies and gives both researchers and educators cause to evaluate the "holding power" of school environments for special populations.

Several studies deal with the positive effects of vocational training to prepare students for the work force. Boyce and Elzey (1978) designed a survey to evaluate the impact of a high school training program for students with a variety of handicaps that included mental retardation, learning disabilities, and visual impairment as well as physical handicaps. They discovered that students
participating in vocational training were employed at a higher level after graduation, and required less training and supervision. Those surveyed also experienced a greater degree of job satisfaction than did those students who did not participate in a vocational program. In evaluating the program, student participants suggested several improvements for the program. These included increased technical instruction, counseling, discipline and more individualized attention. Despite the identified shortfalls, both students and parents expressed enthusiasm for the training program and the acquired skills which have enhanced students' post-graduate lives.

The outcome of the Boyce and Elzey study is supported by statements expressed by Fardig, Algozzine, Schwartz, Hansel, and Westing (1985) concerning the need for vocational education for handicapped youth. In their studies of postsecondary vocational adjustment of mildly handicapped students, they have suggested the need for teachers to provide a variety of vocationally relevant activities such as the development of career skills, evaluation and assessment of abilities, IEP development, and the eventual placement in an appropriate vocational program. The implementation of such activities requires the development of much needed educational systems to aid practitioners in the preparation of special needs populations for real-life experiences.
Educational outcomes have traditionally dealt with academic achievement. At present, however, researchers have begun to examine the impacts of vocational training upon the student. Additional research is needed to examine this shift in focus, and to determine the critical components of adequate educational preparation for handicapped individuals.
Chapter V

Employment Outcomes for Handicapped Youth

Introduction
Throughout the nation all young adults, regardless of handicapping conditions, continue to face significant problems in making a successful transition from school or unemployment to work. The United States Commission on Civil Rights (1983) reported that between 50% and 80% of all persons with disabilities are unemployed. Competitive employment of handicapped individuals is a major federal priority. Current information about the postschool employment status of handicapped youth is critical for planning, allocation of resources, and evaluation of school programs and adult service systems. In an attempt to gather this information, the literature search has focused on locating studies that examined the nature and extent of the employment outcomes achieved by youth with handicaps since the passage of the Education for All Handicapped Children Act of 1975.

The Literature on Employment Outcomes

The following descriptive analysis is based on 49 of the 86 articles gathered thus far in the literature review. These 49 articles have been coded as having "employment outcomes" as their primary focus. When searching the literature, the variables used to define employment outcome
were status, job profiles, earnings, fringe benefits, stability of employment, and job satisfaction. The most frequently included variables in the reviewed literature have included employment status, income, nature of job, unemployment rates, retention rates, job satisfaction, work history, number of hours employed, and methods of job attainment (see Table 7). This analysis will describe employment status, wages, and nature of job.

Table 7

<table>
<thead>
<tr>
<th>Employment Outcome Variable</th>
<th>Number of Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment Status</td>
<td>39</td>
</tr>
<tr>
<td>Income</td>
<td>28</td>
</tr>
<tr>
<td>Nature of Job</td>
<td>20</td>
</tr>
<tr>
<td>Unemployment Rates</td>
<td>11</td>
</tr>
<tr>
<td>Retention Rates</td>
<td>10</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>9</td>
</tr>
<tr>
<td>Work History</td>
<td>9</td>
</tr>
<tr>
<td>Number of Hours Employed</td>
<td>7</td>
</tr>
<tr>
<td>Method of Job Attainment</td>
<td>7</td>
</tr>
</tbody>
</table>

In addition to the list of variables shown in Table 7, 27 other variables related to employment outcomes are mentioned throughout the articles. Some of these variables (e.g., job
5/ Employment Outcomes

termination, fringe benefits, transportation, union participation) are mentioned in four or fewer articles. The existence and diversity of these variables demonstrates not only the lack of consistency across studies, but also the difficulties and complexity involved in achieving employment outcomes for handicapped youth.

Sample Descriptions

An attempt was made to review articles which examined variables of employment outcomes for ten handicapping conditions (see Appendix A for list and definitions). The distribution of handicapping conditions represented in the 49 articles which focused on employment is illustrated in Table 8. The total number of special populations noted (151) exceeds the number of actual studies reviewed (49) due to specific studies which include subjects with various handicapping conditions.

The largest concentration of articles reviewed thus far has dealt with the mentally retarded (57 with mild, moderate, and severe/profound combined). A limited number of studies which include speech impaired (five), the deaf-blind (four), and disadvantaged youth (four) have been reviewed. Efforts to locate and review studies across all handicapping conditions will be emphasized in the activities for Year Two.
<table>
<thead>
<tr>
<th>HANDICAPPING CONDITION</th>
<th>NUMBER OF STUDIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Disabled</td>
<td>13</td>
</tr>
<tr>
<td>Speech Impaired</td>
<td>5</td>
</tr>
<tr>
<td>Mentally Retarded mild</td>
<td>24</td>
</tr>
<tr>
<td>moderate</td>
<td>18</td>
</tr>
<tr>
<td>severe/profound</td>
<td>15</td>
</tr>
<tr>
<td>Seriously Emotionally Disturbed</td>
<td>15</td>
</tr>
<tr>
<td>Hard of Hearing and Deaf</td>
<td>10</td>
</tr>
<tr>
<td>Orthopedically Handicapped</td>
<td>16</td>
</tr>
<tr>
<td>Other Health Impaired</td>
<td>10</td>
</tr>
<tr>
<td>Visually Handicapped</td>
<td>7</td>
</tr>
<tr>
<td>Multi-Handicapped</td>
<td>10</td>
</tr>
<tr>
<td>Deaf-blind</td>
<td>4</td>
</tr>
<tr>
<td>Disadvantaged</td>
<td>4</td>
</tr>
</tbody>
</table>

With the exception of one, all studies describing the gender of the sample included more male than female subjects.
### TABLE 9: SAMPLE SIZES AND DESCRIPTIONS ON EMPLOYMENT OUTCOME STUDIES

<table>
<thead>
<tr>
<th>REC#</th>
<th>SIZE</th>
<th>SAMPLE DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>50</td>
<td>27 mildly and moderately handicapped special education graduates from a special school: 23 from a mainstream school.</td>
</tr>
<tr>
<td>3</td>
<td>113</td>
<td>Mildly handicapped students living in rural FL.</td>
</tr>
<tr>
<td>4</td>
<td>194</td>
<td>Former special education students who had left school during 1981-84.</td>
</tr>
<tr>
<td>5</td>
<td>462</td>
<td>Mildly handicapped youth who exited high school between 1979 and 1983.</td>
</tr>
<tr>
<td>6</td>
<td>234</td>
<td>Handicapped youths who completed special education services in 1978.</td>
</tr>
<tr>
<td>7</td>
<td>63</td>
<td>Moderately and severely handicapped individuals placed in employment positions.</td>
</tr>
<tr>
<td>8</td>
<td>117</td>
<td>Transition age young adults, 17-24 years old.</td>
</tr>
<tr>
<td>9</td>
<td>167</td>
<td>18-66 years old, mean age of 30, mean IQ=50, median IQ=49.</td>
</tr>
<tr>
<td>10</td>
<td>100</td>
<td>62 males and 38 females who were graduates from the work/study program from 1966 to 1980.</td>
</tr>
<tr>
<td>14</td>
<td>243</td>
<td>Mentally retarded individuals who left school, graduated, or dropped out between 1980 and 1983.</td>
</tr>
<tr>
<td>16</td>
<td>32</td>
<td>TMR and SP retarded high school graduates.</td>
</tr>
<tr>
<td>17</td>
<td>54</td>
<td>EMR, LD and health impaired students.</td>
</tr>
<tr>
<td>18</td>
<td>160</td>
<td>Adults who were identified as EMR in the 1920's and 30's compared to their non-special needs contemporaries.</td>
</tr>
<tr>
<td>REC#</td>
<td>SIZE</td>
<td>SAMPLE DESCRIPTION</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>--------------------</td>
</tr>
<tr>
<td>21</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>300</td>
<td>Parents of MR students who had left special education programs between 1979 and 1983.</td>
</tr>
<tr>
<td>23</td>
<td>1176</td>
<td>Sample was made up of LD, MR, emotionally disturbed, hearing impaired, orthopedically impaired, visually handicapped, multihandicapped and deaf-blind high school students and graduates.</td>
</tr>
<tr>
<td>24</td>
<td>155</td>
<td>MR clients of a special job placement program over a six year period.</td>
</tr>
<tr>
<td>25</td>
<td>98</td>
<td>The base survey consisted of visually impaired who had used special services and were now out of school for a period of 3 to 13 years.</td>
</tr>
<tr>
<td>26</td>
<td>0</td>
<td>Attempted evaluation of work study programs for MR students.</td>
</tr>
<tr>
<td>27</td>
<td>155</td>
<td>MR participants were placed in competitive employment, mean IQ=50 with a range of 27 to 78.</td>
</tr>
<tr>
<td>29</td>
<td>225</td>
<td>Primary criteria for inclusion was discharge from HSRC between January, 1966 and June, 1968. Clients had a variety of handicapping conditions.</td>
</tr>
<tr>
<td>30</td>
<td>79</td>
<td>Graduates of a public school for orthopedically handicapped children.</td>
</tr>
<tr>
<td>31</td>
<td>58</td>
<td>Severely disabled epileptic people placed in competitive employment.</td>
</tr>
<tr>
<td>33</td>
<td>48</td>
<td>Cerebral-palsy residential students.</td>
</tr>
<tr>
<td>34</td>
<td>229</td>
<td>Physically disabled adult clients.</td>
</tr>
<tr>
<td>REC#</td>
<td>SIZE</td>
<td>SAMPLE DESCRIPTION</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>--------------------</td>
</tr>
<tr>
<td>39</td>
<td>50</td>
<td>Vocational placement programs.</td>
</tr>
<tr>
<td>35</td>
<td>164</td>
<td>Physically-handicapped residential students.</td>
</tr>
<tr>
<td>40</td>
<td>21</td>
<td>Learning-disabled young adults.</td>
</tr>
<tr>
<td>41</td>
<td>122</td>
<td>Handicapped clients seeking employment.</td>
</tr>
<tr>
<td>42</td>
<td>92</td>
<td>Handicapped clients placed in industrial jobs.</td>
</tr>
<tr>
<td>43</td>
<td>242000</td>
<td>Blind and low vision adults.</td>
</tr>
<tr>
<td>44</td>
<td>42</td>
<td>Adolescents with epilepsy.</td>
</tr>
<tr>
<td>45</td>
<td>53</td>
<td>Psychiatrically handicapped persons in psychosocial rehabilitation program.</td>
</tr>
<tr>
<td>46</td>
<td>75</td>
<td>Former residents of a public residential facility.</td>
</tr>
<tr>
<td>48</td>
<td>1139</td>
<td>Handicapped adult clients receiving rehabilitation.</td>
</tr>
<tr>
<td>52</td>
<td>0</td>
<td>Review of various studies, including information from U.S. Bureau of the Census. Focused on the U.S. deaf population aged 16-64.</td>
</tr>
<tr>
<td>53</td>
<td>1700</td>
<td>Cerebral-palsy patients.</td>
</tr>
<tr>
<td>57</td>
<td>0</td>
<td>Describes a study by Voc. Rehab Center in PA to follow 500 recent LD graduates and a comparable group of non-disabled graduates for three years.</td>
</tr>
<tr>
<td>REC#</td>
<td>SIZE</td>
<td>SAMPLE DESCRIPTION</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>--------------------</td>
</tr>
<tr>
<td>58</td>
<td>108</td>
<td>Two samples one=49, two=59 interviewed during summer of '69 from 14 school districts. Each sample was one year out of school. Data also collected from 43 federally funded work/study programs.</td>
</tr>
<tr>
<td>60</td>
<td>53</td>
<td>21 women, 32 men, mean age at placement=27.9, range of handicapping conditions, all considered developmentally disabled, workshop employees, mean IQ=56.1.</td>
</tr>
<tr>
<td>61</td>
<td>108</td>
<td>47 subjects diagnosed as LD during elementary or secondary school, 59 young adults not labeled as LD and therefore not receiving special services.</td>
</tr>
<tr>
<td>63</td>
<td>80</td>
<td>Former special ed. students randomly selected from a list of last 400 attending 10 Minneapolis high schools between 1966-1972. 49-males, 31-females, aged 19-21+, 73% had graduated from high school.</td>
</tr>
<tr>
<td>70</td>
<td>57</td>
<td>Former rehabilitation clients with a variety of handicaps: physical or medical, intellectual, and emotional disabilities. 38 of their employers also completed the Minnesota Satisfactoriness Scales for the study.</td>
</tr>
<tr>
<td>71</td>
<td>38</td>
<td>Contributors ranged in age from 15-60+ and had various handicaps: physical, emotional, mental retardation and alcohol dependence.</td>
</tr>
<tr>
<td>72</td>
<td>176</td>
<td>92 graduates, 48 parents and 36 employers participated in the survey. Those surveyed had a variety of disabilities: MR, multi-handicapped, emotionally impaired, LD as well as orthopedic disabilities.</td>
</tr>
</tbody>
</table>
### TABLE 9 Cont'd

<table>
<thead>
<tr>
<th>REC#</th>
<th>SIZE</th>
<th>SAMPLE DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>75</td>
<td>71</td>
<td>Target population of 117 hearing impaired students who completed education at Harper between 1977-1980 with 71 completed surveys returned after March 1981 mailing.</td>
</tr>
<tr>
<td>76</td>
<td>0</td>
<td>Case study illustrating NITD intentions to offer educational programs that are responsible to labor needs of U.S. economy by using DOT.</td>
</tr>
<tr>
<td>78</td>
<td>0</td>
<td>Disabled population between ages of 20 and 64 who have not been institutionalized.</td>
</tr>
<tr>
<td>79</td>
<td>44</td>
<td>Participants ranged in age from 17 to 25+ and had a visual handicap combined with other disabilities which made them ineligible for other rehabilitation programs.</td>
</tr>
</tbody>
</table>

Most samples were made up of black and white groups, however, one article included a small (13%) percentage of Hispanics. The sample sizes on the studies ranged from 21 to 242,000. As shown in Table 9, the subjects ranged in age from 15 to 64 years old. While attempts have been made to focus on youth in transition, too many valuable studies which included adults through age 64 would have had to be eliminated if the transition age range were to be strictly followed.
### TABLE 10

#### Level and Location of Studies on Employment Outcomes

<table>
<thead>
<tr>
<th>Record #</th>
<th>Level</th>
<th>Record #</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>LO (WA)</td>
<td>31</td>
<td>LO (MI)</td>
</tr>
<tr>
<td>3</td>
<td>LO (FL)</td>
<td>33</td>
<td>ST (MN)</td>
</tr>
<tr>
<td>4</td>
<td>LO (WA)</td>
<td>34</td>
<td>LO (MA)</td>
</tr>
<tr>
<td>5</td>
<td>ST (VT)</td>
<td>35</td>
<td>ST (SD)</td>
</tr>
<tr>
<td>6</td>
<td>ST (CO)</td>
<td>39</td>
<td>ST (WA)</td>
</tr>
<tr>
<td>7</td>
<td>ST (VA)</td>
<td>40</td>
<td>LO (WI)</td>
</tr>
<tr>
<td>8</td>
<td>ST (VA)</td>
<td>41</td>
<td>LO (DC)</td>
</tr>
<tr>
<td>9</td>
<td>ST (VA)</td>
<td>42</td>
<td>LO (CT)</td>
</tr>
<tr>
<td>10</td>
<td>LO (MO)</td>
<td>43</td>
<td>NA</td>
</tr>
<tr>
<td>14</td>
<td>ST (VT)</td>
<td>44</td>
<td>LO (LA)</td>
</tr>
<tr>
<td>16</td>
<td>ST (PA)</td>
<td>45</td>
<td>LO (FL)</td>
</tr>
<tr>
<td>17</td>
<td>NA</td>
<td>46</td>
<td>ST (WI)</td>
</tr>
<tr>
<td>18</td>
<td>LO (CA)</td>
<td>48</td>
<td>LO (PA)</td>
</tr>
<tr>
<td>21</td>
<td>NA</td>
<td>52</td>
<td>NA</td>
</tr>
<tr>
<td>22</td>
<td>ST (VA)</td>
<td>53</td>
<td>ST (MO)</td>
</tr>
<tr>
<td>23</td>
<td>ST (WA)</td>
<td>57</td>
<td>ST (PA)</td>
</tr>
<tr>
<td>24</td>
<td>ST (VA)</td>
<td>58</td>
<td>ST (OR)</td>
</tr>
<tr>
<td>25</td>
<td>ST (WI)</td>
<td>60</td>
<td>LO (OH)</td>
</tr>
<tr>
<td>26</td>
<td>NA</td>
<td>61</td>
<td>LO (KS)</td>
</tr>
<tr>
<td>27</td>
<td>LO (VA)</td>
<td>63</td>
<td>LO (MN)</td>
</tr>
<tr>
<td>29</td>
<td>LO (AR)</td>
<td>70</td>
<td>ST (AR)</td>
</tr>
<tr>
<td>30</td>
<td>LO (PA)</td>
<td>71</td>
<td>LO (CT)</td>
</tr>
<tr>
<td>72</td>
<td>LO (MD)</td>
<td>78</td>
<td>ST (WI)</td>
</tr>
<tr>
<td>75</td>
<td>LO (IL)</td>
<td>79</td>
<td>ST (NY)</td>
</tr>
<tr>
<td>76</td>
<td>NA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### KEY:
- LO....Local Study
- ST....State Study
- NA....National Study
- (...)...State Abbreviations
- (APA Format)

Of the 49 articles focusing on employment outcomes, 21 were done at the local level, 21 at the state level and 6 at
5/ Employment Outcomes

the national level. The various levels and locations in which the studies were done are represented in Table 10.

Summary of Employment Outcomes

The majority of the studies (39) dealt with the employment status of handicapped youth and adults. Table 11 presents a summary of the most recent studies and the resulting employment status rates. The employment status rates range from 12% to 89% for these selected articles. While the average results are similar to those found in the 1983 U. S. Commission on Civil Rights (50% - 80% unemployment), the figures should be viewed with caution. The results of these and other studies reviewed thus far are somewhat ambiguous in presenting a clear picture of how many handicapped individuals are working.

The first factor affecting a clear notion of employment status rates is the very definition of "working". Wehman (1985) defines competitive employment as working for at least minimum wage, with nonhandicapped workers, and with no subsidized wages of any kind. The studies represent a range of interpretations about employment levels, some include only competitive levels of employment, others include sheltered and subsidized employment. It is also important to note whether researchers have included part-time or seasonal work as part of their final results. Whenever such a separation
## TABLE 11  Employment Status

<table>
<thead>
<tr>
<th>Study</th>
<th>Level and Location</th>
<th>Handicapping Condition</th>
<th>Sample Size and Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fardig, et al. (1985)</td>
<td>Local (FL)</td>
<td>mildly handicapped, mi MR, LD or SED</td>
<td>N=113 former public school students 35% Female 65% Male 58% Black 43% White Age: median=19.1 X Rural X Urban Metropolitan Suburban</td>
</tr>
<tr>
<td>Record #3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMPLOYMENT STATUS = 43%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Hasazi, et al. (1985) | State (VT)         | mildly handicapped LD, SED, mi MR | N=426 former special education students who left school between 1979-1983 37% Female 63% Male Black White Age: 14-23 X Rural X Urban X Metropolitan Suburban |
| Record #5              |                    |                        |                            |
| EMPLOYMENT STATUS = 55%|                    |                        | (37% full time)            |

| Mithaug, et al. (1985) | State(CO)          | cross cat.             | N=243 special ed. graduates (1978-1979) 35% Female 63% Male Black White Age: median=22.4 43% Rural 57% Urban Metropolitan Suburban |
| Record #6              |                    |                        |                            |
| EMPLOYMENT STATUS = 69%|                    |                        | (37% full time)            |

Key:
cross cat.....study surveyed across all handicapping conditions
LD............Learning Disabled
mi MR........Mildly Mentally Retarded
mo MR........Moderately Mentally Retarded
s/p MR........Severe and Profound Mentally Retarded
SED...........Seriously Emotionally Disturbed
### Table 11 cont'd

<table>
<thead>
<tr>
<th>Study</th>
<th>Level and Location</th>
<th>Handicapping Condition</th>
<th>Sample Size and Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wehman, et al. (1982)</td>
<td>Local (VA)</td>
<td>mo MR or mult. handicapped</td>
<td>N=63 subjects drawn from adult day programs for MR</td>
</tr>
<tr>
<td></td>
<td>Record # 7</td>
<td></td>
<td>Female</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Male</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Black</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>White</td>
</tr>
<tr>
<td>EMPLOYMENT STATUS = 67%</td>
<td></td>
<td></td>
<td>Age: average=30</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Rural</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>X Urban</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Metropolitan</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Suburban</td>
</tr>
<tr>
<td>Wehman, et al. (1985)</td>
<td>State (VA)</td>
<td>mo, s/p MR</td>
<td>N=117 subjects from public schools for MR</td>
</tr>
<tr>
<td></td>
<td>Record # 8</td>
<td></td>
<td>47% Female</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>53% Male</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>46% Black</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>54% White</td>
</tr>
<tr>
<td>EMPLOYMENT STATUS = 12%</td>
<td></td>
<td></td>
<td>Age: 17-24</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>X Rural</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>X Urban</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>X Metropolitan</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>X Suburban</td>
</tr>
<tr>
<td>Wehman, et al. (1985)</td>
<td>State (VA)</td>
<td>mi, mo, s/p MR with secondary disabilities</td>
<td>N=167</td>
</tr>
<tr>
<td></td>
<td>Record # 9</td>
<td></td>
<td>34% Female</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>66% Male</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Black</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>White</td>
</tr>
<tr>
<td>EMPLOYMENT STATUS = 43%</td>
<td></td>
<td></td>
<td>Age: 18-66</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Rural</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Urban</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Metropolitan</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Suburban</td>
</tr>
</tbody>
</table>
Table 11 cont'd

<table>
<thead>
<tr>
<th>Study</th>
<th>Level and Location</th>
<th>Handicapping Condition</th>
<th>Sample Size and Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coonley, et al.</td>
<td>Local (MO)</td>
<td>miMR</td>
<td>N=100 graduates of public school work/study programs</td>
</tr>
<tr>
<td>(1980)</td>
<td>Record #10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMPLOYMENT STATUS = 89%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hasazi, et al.</td>
<td>State (VT)</td>
<td>mi, mo MR</td>
<td>N=243 school leavers from regional special ed. classes</td>
</tr>
<tr>
<td>(1985)</td>
<td>Record #14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMPLOYMENT STATUS = 43%</td>
<td></td>
<td>(21% full time)</td>
<td></td>
</tr>
<tr>
<td>Mertens and Seitz</td>
<td>National</td>
<td>LD, mi MR, other health impaired</td>
<td>N=54 from Nat'l Longitudinal Surveys (NLS Youth)</td>
</tr>
<tr>
<td>(1982)</td>
<td>Record #17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMPLOYMENT STATUS = 54%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5/ Employment Outcomes

Table 11 cont'd

<table>
<thead>
<tr>
<th>Study</th>
<th>Level and Location</th>
<th>Handicapping Condition</th>
<th>Sample Size and Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wehman et al. (1985) Record #22</td>
<td>State (VA) mi, mo, s/p MR</td>
<td>N=300 school leavers between 1979 and 1983 42.7% Females 57.3% Male 49% Black 49% White Age: 17-21 X Rural X Urban Metropolitan Suburban</td>
<td></td>
</tr>
<tr>
<td>Edgar, et al. (1986) Record #23</td>
<td>State (WA) cross cat.</td>
<td>N=1292 former special ed. students 34% Female 66% Male Black White Age: 19-21 Rural Urban Metropolitan Suburban</td>
<td></td>
</tr>
<tr>
<td>Brickey, et al. (1985) Record #60</td>
<td>Local (OH) cross cat.</td>
<td>N=53 employees from sheltered workshops 40% Female 60% Male Black White Age: 19-57 Rural Urban Metropolitan Suburban</td>
<td></td>
</tr>
</tbody>
</table>

was noted within the study, it has been included (in parentheses) in Table 11 under the employment status heading.
Mithaug et al. (1985) reported that 69% of the respondents in the statewide follow-up study in Colorado were working. When part-time work was excluded, the figure dropped to 37%. Hasazi et al. (1985) reported similar results in a statewide study in Vermont. Employment status of the sample was 55%, but when the full-time status was reported alone, it was 37%. Edgar and Levine (1986) in their statewide follow-up study in Washington included sheltered workshop placements in their definition of employment for an overall employment status rate of 58%. It is critical to view these results within the context of the definition of employment used in each study.

The sample composition of each study must also be considered when viewing these employment status rates. Ill-defined, cross-categorical handicapped samples and a concentration on the mentally retarded leave information gaps about the employment status of youth with other handicapping conditions. The need for further follow-up studies which focus on more narrowly defined handicapping conditions has been expressed by both Bellamy (1985) and Edgar (1985). There is also a need to examine the employment status of nonhandicapped cohorts. Several studies have referenced, as a comparison point, the employment figures of nonhandicapped youth at the local level. The Washington state follow-up study (1986) and Mertens and Seitz (1982) study are two
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examples which include the employment status of the parallel nonhandicapped cohorts.

The second most frequently examined factor in the studies was income. The highest income level was reported in a local study in Tacoma, Washington by Gill (1984). A small percentage (7%) of the sample with cross categorical handicapping conditions earned in excess of $1,200 a month. This study was the exception. Overall, the studies reviewed thus far have reported earnings at marginal levels.

In addition to poor income levels, subjects received fewer if any raises and fewer if any fringe benefits. Wehman et al. (1985) in his study of 300 mentally retarded adults in Virginia reported that 70% of the subjects received no sick benefits, 66% no vacation benefits, 70% no insurance benefits, and 97% no profit sharing. Wehman reported that 16% did get free meals, a fringe benefit that was often mentioned in other studies.

While no firm conclusions can be drawn from the data as to the effect that vocational education programming has on earnings, both Hasazi et al. (1985) and Mertens and Seitz (1982) indicate positive relationships between high school vocational classes and higher wages. Hasazi and her colleagues also reported that holding a part-time outside job
during high school related positively to earnings. It should be noted that in the Vermont study this relationship was true for urban locations only and was more significant for males than females. Further research needs to replicate these findings in more detail using a variety of settings represented in the design. Additionally, research needs to be conducted on specific programs and teaching strategies which lead to employment and advancement within the job setting for handicapped youth.

Income levels varied consistently across the studies with regards to gender. When this factor was examined, the female subjects consistently earned less than the males. An example of this differentiation was contained in the Washington statewide study (1986) where 60% of the males earned $135.00 a week whereas only 32% of the females were at this income level.

The third most frequently studied variable was the nature of jobs held by handicapped individuals. The majority of studies reported that handicapped workers are most likely to be employed in service, unskilled, or semi-skilled occupations. The exception to this was found in the Wisconsin statewide study of visually impaired done by Cook (1976). Twenty-one percent of the visually impaired subjects included in this study represent the only handicapped workers
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in the articles catalogued thus far to break into the professional, technical, managerial, or official fields.

The initial findings of Edgar and Levine (1986) indicate a concentration of severely/profoundly mentally retarded in sheltered and service occupations. A wider variety of job types for the learning disabled and behavior disordered was also reported. Additional research is needed to examine how job types are distributed across handicapping conditions.

In a statewide follow-up of the mentally retarded, Hasazi et al. (1985) provided evidence of the effect location has on type of job. Clerical occupations were held by 18.2% of the sample in metropolitan areas while none were held in rural areas. Likewise, 37.5% of those respondents living in rural areas worked in structural occupations while no respondents from metropolitan areas held those types of jobs. More research on contextual factors associated with employment patterns for handicapped youth is needed to better understand these findings.

The Transition Institute has assumed responsibility for collecting data and follow-up studies related to employment, independent living, and educational outcomes for handicapped youth. The information from this database will provide a long-term examination of the multiple factors that result in
employment success for handicapped youth. Using this information to support the direction of programs will be a step toward reducing the current low rates of participation in the labor force, the concentration in the secondary labor market, the lack of full-time employment, and the low level of wages received by handicapped youth.
Chapter VI

INDEPENDENT LIVING

Introduction

The conceptualization and operationalization of independent living varies greatly in the literature on the handicapped. Variations occur across the realms of severity and type of handicap as well as with the types of interventions which are invoked. This may be seen partially as a function of the interaction of the handicapping condition with the person's external environment (Clowers & Belcher, 1979) which acts to increase the severity of the physical disability, as well as with the philosophies of intervention which are utilized.

In operationalizing independent living, there are a number of areas of the person's life in which specific skills are required and deficits in performance of these skills may be found. Where deficits are found, intervention is undertaken to remedy these and to facilitate the entry of the person into the wider community. Types of intervention range from behavior modification procedures (e.g., Schalock, Harper, & Carver, 1981) to multidisciplinary educational programs (e.g., Lessard, 1982). A number of tests of independent living behaviors for the mentally retarded (Rusch, Chadsey-Rusch, White and Gifford, 1985) identify nine behavior areas for assessment: 1. personal hygiene, 2. self care skills,
3. food management, 4. social behavior, 5. communications, 6. home living skills, 7. functional academics (time and money), 8. recreation and leisure, and 9. community awareness and utilization.

These areas, delineated by Rusch et al. (1985), are very common across types and severity of handicapping conditions, but there are a number of others which also receive attention with different disability groups. For those with visual impairments there are often great concerns about transportation (Bikson & Bikson, 1981). For many, the availability of suitable housing is of great importance in their ability to gain competitive employment (Lessard, 1982), and for some it is the design of buildings and streets which will prevent them from interacting with their wider community (Clowers & Belcher, 1979).

Apart from the search and remediation of skill and behavior deficits, the area of independent living can have much broader implications for those concerned. It takes a point of view that removes the essential notion of skills and behaviors that a person has, and the opportunities which they have to exercise these skills in some broader context. Taken in this way independent living refers much more to a philosophy of life and autonomy for the handicapped person. To this end, one may see the extent to which history and the
Independent Living Outcomes

development of independent living approaches has played a great part.

Historical Antecedents

The roots of independent living can be seen as extending back into the 1950's and 1960's. This was a period of great social change and re-adjustment following World War II, and extending into the Kennedy-Johnson era of the Great Society. DeJong (1983) believes that independent living is a direct result of this consciousness raising, and of the accompanying civil rights movements. Civil rights which would later be formally extended to those with various types of handicaps.

The 1950's saw two major steps towards the eventual independent living movement. Rusch et al. (1985) consider the importance of Congressional policy and the availability of Federal funding for the establishment of vocational training for the severely mentally retarded - usually in sheltered workshops - as a means by which people were able to move towards a self-supporting position in life. The second step was the establishing, in 1954, of the Joint Commission on Mental Health and Illness by the National Institute of Mental Health, and other groups (Rappaport, 1977).

The Joint Commission's report, Action for Mental Health, was published in 1961, and would have a major impact on the
delivery of mental health services, and other health and welfare services for many years to come. Primary among the recommendations was the establishing of community-based, and controlled, mental health centers. The establishment of these mental health centers was reflective of a philosophy which espouses that the most efficient, and cost-effective method of treating those with mental health problems, and many other health problems, is in the person's local community surroundings (Rappaport, 1977).

Another major impetus for the changes in treatment of the handicapped came from John Kennedy's, President's Committee on Mental Retardation. Combined with the Joint Commission, the President's Commission helped to greatly change the ways in which many handicapped individuals were to receive services. Perhaps the most important of the resulting steps was the deinstitutionalization of inpatients, and their placement into various alternative community-based settings — whether these be with their natural or foster families, group homes, or some type of accommodations with limited supervision.

With this movement of clients out of residential institutions there was a need for assessment and training of social and behavioral skills which the individual would need to function in the broader community setting. Many of these
skill areas have been referred to previously. Together with these basic living skills, one must also consider the changes in funding arrangements for the handicapped person, their transitions into the competitive workforce, and the other ways in which they would be able to integrate into the wider, outside community. Part of the employment situation was resolved by the ongoing civil rights movements. DeJong (1983) indicates that another major milestone was the passing by Congress of the Rehabilitation Act in 1973. This Act prohibited the discrimination against qualified handicapped persons in Federally funded programs.

It is with this historical perspective that one must consider the development and current state of independent living. From its very diverse roots in vocational education, community mental health, deinstitutionalization and civil rights there have developed equally diverse understandings of independent living. How independent living is operationalized and defined often represents the types of handicapped population with whom the writers are dealing. However, it is important that an attempt be made to provide a general definition to serve as a framework against which to judge and compare independent living research and interventions.
Definitions

As previously stated, the definitions given for independent living will often reflect the types of clients with whom the writers are dealing, and the severity of the handicaps encountered. This can lead to a very narrow view of what constitutes necessary independent living skills, whereas others will provide a much broader interpretation of the necessary skills. But, most often, the authors do not refer to any definition of independent living at all, instead referring only to those particular skills with which their group of clients has the most trouble. Indeed, at times it may seem as though independent living skills are restricted to the clients' ability to take care of personal hygiene needs and make their own beds.

Rusch et al. (1985) provide one of the most basic definitions of independent living. They consider it to be a transfer from dependence on publicly supported programs to a reliance on integrated community services and products. Such a definition, however, in which the clients still have a reliance on the provision of services for them, and ignores many other aspects of their lives. This may well be reflective of the severely mentally retarded population who are often transferred from residential institutional settings to parental or foster homes, or other types of supervised and controlled living arrangements.
Kregel, Wehman, and Seyfarth (1985) provide a much broader definition by indicating that independent living refers to skills and activities which help to reduce the dependence of the handicapped individual on others. For this they give such examples as: grooming, cooking, and home management. But they go further by putting forward the idea that independent living must also consider how the person uses, or the extent to which they are able to use, generic community services (mobility and shopping skills) and whether they have the skills which are necessary for successful integration into the wider community. Skills in the areas of basic self-care, home management, independent mobility, and use of community facilities are deemed necessary for autonomous functioning (Kregel et al., 1985).

Clowers and Belcher (1979) provide an even wider conceptualization of independent living. They propose that it should be considered the ultimate goal of all rehabilitation programs, replacing the closure criteria of competitive employment or in education preparing for employment. These they see as unnecessarily restrictive, and not fully representing the range of domains across which independent living is exhibited. They propose that independent living be judged over four subcategories:

1. independent in community mobility;
2. independence in residence;
3. independence in self-advocacy and self-management;
4. independent in social-leisure activity (1979:13).
By examining each of these definitions, it is possible to see that each are concerned with the person's ability to function within the framework of a community placement. However, there is a great range of underlying thought about the amount of supervision that the person will have once in that community setting, and the extent to which the person will be able to cope in this environment. It would therefore be appropriate to construct a definition of independent living which looks at the ultimate goals of community placement, and the extent to which the person will be able to operate in this situation with minimum reliance on others and maximum freedom in personal decision-making.

**Independent Living Redefined**

In this section, therefore, independent living will be considered to be the active ability to:

1. undertake self-advocacy, self-care and personal maintenance behaviors;
2. live in accommodation with no, or limited, supervision by outsiders;
3. seek and undertake competitive employment, training, or education;
4. travel within the community using public or private means;
5. use community services and facilities as any other member of the community;
6/ Independent Living Outcomes

6. participate in community recreation and leisure activities;
7. interact with other members of the community on an equal basis.

The aspects of this definition serve to indicate that the handicapped person can be regarded as living independently when there is free choice in accommodation settings, a reduction in the supervision by others, and an integration into the normal life and activities in which any other member of a community would be engaged. It favors a free choice in activities, and removes the isolation and lack of control which are typical of the lives of many handicapped persons who are living in a community setting, but for whom there is no integration into the life of that community.

Review of the Literature

The present data base has identified 11 articles with a primary focus on various aspects of independent living and has sampled a variety of handicapping conditions and levels of severity. Table 12 presents information about the samples and data gathered for each of these articles. From a review of these articles, it is possible to demonstrate the focus which has been placed on the description of the types of skills which handicapped people are required to utilize in their community placements. It will also indicate a number of limitations in the ways in which the research has been
**Table 12**

Sample sizes and descriptions for independent living outcome studies.

<table>
<thead>
<tr>
<th>REC#</th>
<th>SIZE</th>
<th>SAMPLE DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>28</td>
<td>300</td>
<td>MR students who had left school between 1979 and 1983.</td>
</tr>
<tr>
<td>47</td>
<td>66</td>
<td>Severely disabled adult clients.</td>
</tr>
<tr>
<td>51</td>
<td>18</td>
<td>Mentally retarded adults leaving residential institution.</td>
</tr>
<tr>
<td>62</td>
<td>503</td>
<td>Individuals discharged from 10 state schools for the retarded during 1968-1972, majority were ages 16-34, mean IQ=43 for low ability group, 67 for high ability group.</td>
</tr>
<tr>
<td>69</td>
<td>251</td>
<td>Severely visually impaired adults (high school age and older).</td>
</tr>
<tr>
<td>74</td>
<td>66</td>
<td>Adolescent, blind, deaf-blind, blind-MR, and blind orthopedically impaired individuals.</td>
</tr>
<tr>
<td>80</td>
<td>66</td>
<td>Aggressive and disturbed adolescents the majority of whom came from minority groups.</td>
</tr>
<tr>
<td>83</td>
<td>557</td>
<td>Sample consisted of mainstreamed hearing impaired individuals attending public school.</td>
</tr>
<tr>
<td>84</td>
<td>153</td>
<td>The subjects ranged in age from 18 to 55+, comparisons were made between the adjustment of older and younger deinstitutionalized MR persons to community life.</td>
</tr>
<tr>
<td>85</td>
<td>69</td>
<td>MR clients who were placed into independent housing.</td>
</tr>
<tr>
<td>86</td>
<td>77</td>
<td>MR adults ranging in age from 18 to 57+, each had been placed in community homes after being deinstitutionalized a portion of the participants were &quot;unsuccessful&quot; and returned to the institution.</td>
</tr>
</tbody>
</table>
Independent Living Outcomes conducted, and some of the questions which need to be addressed in further studies.

As previously indicated, the primary focus of many of the studies in independent living are descriptive studies relating subject behavior to specific skill domains identified as necessary for independent living. Some studies examine the areas where success is found, and others compare successful and unsuccessful clients in non-institutional living arrangements. Six of the 11 articles deal with mentally retarded subjects, and the remainder with a variety of other handicapping conditions. Two of the articles (Clowers & Belcher, 1979; Lessard, 1982) provide frameworks for extending the amount of autonomy that clients could achieve through education and community redesign.

A number of the studies seem to indicate equation of the terms deinstitutionalization and independent living - especially for the mentally retarded population. These studies used questionnaires and interviews to examine the adjustments that the subjects had made to their independent status since leaving residential institutions. Seltzer, Seltzer and Sherwood (1982) looked at the differences in adjustment for older and younger groups. Their data were collected in structured interviews with social workers, parents, house managers, or some significant other. Sutter,
Mayeda et al. (1980) had a survey completed for each subject by staff members or care-givers. Bell (1976) was attempting to examine the influence of intelligence on independent living. She sent questionnaires directly to the subjects whose IQ's measured above 55, and to the guardians of those whose IQ fell below 55. Finally, Kregel, Wehman, and Seyfarth report that of their questionnaires, 67% were completed by the subjects' mothers, 12% by their fathers, and only 7% by the subjects themselves.

The studies cited above illustrate a major problem in the understanding and interpretation of independent living outcomes. The subjects were deinstitutionalized from formal residential settings, but one must query their level of autonomy. If it is considered that these mentally retarded subjects may have problems in reading and responding to questionnaires, other methods of data gathering could be employed. However, we are given the example of Seltzer et al. (1982) who used interviews, but did not interview the subjects. The data collection seems to indicate both that the subjects are not living on their own in autonomous accommodations, and that they must rely on advocates for many of their interactions with the wider community.

In a discussion of deinstitutionalized accommodation, Lessard (1982) indicates a number of levels of housing
arrangements for the handicapped - with varying levels of supervision and staff control. At the first level is community residence training with strong supervision, e.g. half-way houses. Next is the less supervised community residences such as group homes and boarding houses. More freedom is provided by supervised training apartments, and even more by staffed apartments where the supervision and intervention is usually only when problems arise. At the most independent levels are living with roommates and living independently in an apartment or house on one's own.

The studies, in general, have shown that there are a great many limitations on the handicapped subjects' interaction, and especially integration with, their communities. Most of these studies present data on leisure and recreational activities as well as social interaction. From what they portray, the life of a handicapped person is likely to be isolated and lonely. McDevitt et al. (1978) report that few of their respondents took part in community events - but all watched many hours of television alone. Schalock et al.'s (1981) subjects reported that they had some amount of community involvement, but primarily with other former members of their training programs. Many reported that they would like to have more friends. Bell's (1976) subjects reported that they had problems in developing an active and rewarding social life.
In looking at subjects other than the mentally retarded, there were some differences in social interaction. Libby and Pronovost (1980) reported that their hearing impaired subjects, most of whom were mainstreamed in high schools, spent at least half their spare time in social activities with their non-deaf friends. They did report, however, that in some cases communication was a problem. Similarly, Bikson and Bikson (1981) indicate that their visually impaired subjects also participated in social and recreational activities - although the lower the level of their visual acuity, the greater the problems they encountered in social interaction.

The series of profiles across a number of handicapping conditions by Gregory, Shanahan, and Walberg (1985), reported in the educational outcomes section, provide an interesting picture of the ways in which these high school students use their free time. Across the different handicapping conditions a pattern emerged of a much greater amount of television viewing compared to nonhandicapped students. But there was also a greater amount of time spent by the handicapped students in extra-curricular activities. The authors, however, question whether this extra-curricular time was in the form of positive social interaction, or represented a form of escapist behavior by which the
handicapped students refused to make attempts at the achievement in school.

A number of the studies have looked at why some persons succeed in community placements, and others do not. Indeed, Sutter et al. (1980) report that the recidivism rate for deinstitutionalized mentally retarded ranges from 36 to 50%, often for unacceptable client behaviors. Sutter and her colleagues produced some counterintuitive results for the failures, but attempted no causal statements. They found that significantly more males than females were unsuccessful, that the unsuccessful group was significantly less retarded, and that they scored higher on measures of community self-sufficiency and social responsibility. Unfortunately, they also exhibited significantly more maladaptive behaviors—physical violence, rebelliousness, untrustworthiness, and running away.

Faretra (1981) examined transition in an 18-year follow-up study of subjects who as adolescents had been admitted to psychiatric wards with histories of aggression and other problems. From hospital records, statewide data, and police arrest records, she was able to ascertain the numbers who were still in contact with various social agencies. Of the subjects still in contact, 20% had continued contact with mental hygiene services, 36% with courts and correctional
services, and 33% with both of these. The remainder had contact with more general social services. Faretra does not present any data to show how or why some stayed in contact with these agencies and others were able to live more normal lives. However, she does indicate that as the subjects grew older they had fewer contacts with any of these agencies: that is fewer arrests, hospitalizations etc.

One area which has received little attention in the studies, but which can have great impact on the independent functioning of the handicapped, is transportation. Bell (1976) reports that 10% of the group with IQ's greater than 55, and 2% of those below this figure ever drove a car (but a number of the higher IQ group had been arrested for drinking and driving offenses). McDevitt et al. (1978) indicate that all their subjects were able to use public transportation and taxis, and that some even owned their own cars. For the visually impaired subjects (Bikson & Bikson, 1981), general mobility and bus travel were of great concern, and Clowers and Belcher (1979) identify transportation as one of the potential trouble areas as the severity of handicap increases.

**Future Research Directions**

From the review of the literature contained so far in the data base, there appears to be a number of areas which need
continued research. This future research should be geared to provide descriptive information about the present functioning of handicapped persons within a community setting, as well as ways in which this functioning can be facilitated to provide autonomy and social integration. An added focus of research must be towards the redesign of many aspects of the physical environment as well as the revision of social policies which will remove obstacles to the physical and social integration of the handicapped.

The studies cited have indicated one major problem in the discussion of independent living: the clear distinction in living arrangements which indicate deinstitutionalized community placement do not necessarily represent the same as independent living.

The studies cited have indicated one major problem in the understanding and interpretation of independent living outcomes. For the study of current independent living, it would be most accurate to utilize the last two of Lessard's (1982) living arrangements. In these two, the person has functional independence, and actual responsibility for the management of their own homes - just as any other member of the society would. The other arrangements, while representing possible transitional steps towards autonomy, still evidence the control over the person's accommodation.
and a concomitant control over many other aspects of the ways in which the person can and will function.

Specific topics which need to be addressed in future research are many. The literature review indicates a major social isolation problem faced by many handicapped persons living independently in their communities. Potential areas of research could consider the ways in which the handicapped try to make inroads into the social life of their communities, or whether they accept rejection as some type of self-fulfilling prophecy. The evidence cited by a number of authors (e.g. Gregory, Shanahan, and Walberg, 1985; McDevitt et al., 1981) indicate a withdrawal to lone television watching, and a possible maladaptive approach to other social interaction. A possible consideration would be the level of social skills, and other skill which are required to function independently, that the handicapped have or their underestimation of their own skills. As an adjunct to this is a consideration of the ways in which the nonhandicapped population accept those who are trying to become a part of the social life of the community. As one must also consider the change over time of the skills which are most salient to the person's continued adaptation to independent living (Schalock, et al., 1981).
Transportation is another area which has been identified as a concern for many of the handicapped groups considered. Bikson and Bikson (1981) found that bus usage and general mobility as two of the components resulting from their factor analysis of the independent living concerns of visually impaired persons, and Clowers and Belcher (1979) identify it as a potential problem as the severity of the handicap increases. Patterns of transportation use, or exclusion from public transportation could provide valuable information in the adjustment to autonomous life. Indeed, for many the availability of, and ability to use, public transportation is a critical factor in the ability to gain and maintain competitive employment.

The area of independent living is an important one to many in transition from school to work and from institutions to community living settings. Independent living is based on a philosophy of reducing the dependence that a handicapped person has on others and of placing people into the community as active and vital members. This is indicated as the most effective and cost-efficient method of service delivery (Rappaport, 1977) and builds on the physical and psychological benefits that a person derives from having a real sense of control over their lives and the environments in which they live (Langer & Rodin, 1976).
Chapter VII

SUMMARY

The Transition Institute Review on Educational, Employment, and Independent Living Outcomes is a comprehensive evaluation of literature concerned with handicapped youth in transition. The review group has selected ten standard definitions for handicapping conditions which correspond with P.L. 94-142 guidelines (learning disabled, speech impaired, mentally retarded - classified as mild, moderate, and severely/profound, hard of hearing/deaf, orthopedically handicapped, other health impaired, visually impaired, multi-handicapped, deaf-blind, and those classified as disadvantaged). These ten categories were "superimposed" against three outcome areas (education, employment, and independent living), resulting in a matrix of 30 "cells." Ideally, reviewed articles can be catalogued or placed into one of these cells. This has been done with the intention that a more comprehensive understanding of the studies will be achieved, as well as facilitating the identification of areas which appear to lack research emphasis.

A formalized process for reviewing the articles has been developed by the research team. A review worksheet consisting of: complete bibliographic information, the primary focus of the study (whether it is education, employment, or independent living), brief memos about each of
the outcome areas, description of the sample size and the population that was studied, a note as to the method in which the information was obtained, and space for an abstract is reserved. As each article is read, these worksheets are filled out and filed for entry into the computer data base.

The computer software system selected by the task members is dBASE III. Its versatility and relative ease in use made it ideal for storing information from the review worksheets. The data base program has been written to allow for the entry of the information recorded on the worksheets in a duplicated form on the computer. This allows ease of handling, with no need for the conversion of the handwritten information into any other style. This particular system also allows for the manipulation and combination of pieces of entered information for printing and analysis. The annotated bibliography in Chapter VIII was generated from the data base, and only slight modification was required to format the output to match the remainder of this report.

In this first year of analysis, the sample study has been limited to 86 articles. The distribution of reviewed articles is uneven across the three outcome areas with employment having the highest number of sources with 49, education second with 23, and finally independent living with only 11 studies. In succeeding years, it is intended to
expand the data base by searching out further articles, reports and unpublished works which will assist with the completion of a broader and, hopefully, an even more representative sampling of the research on the transition of handicapped youth beyond the school system. Indeed, one of the reviewers of this report has already provided further sources of information in the proceedings of the Special Education Programs and Rehabilitation Services Administration conferences on transition of handicapped youth, and in the Harold Russell Study.

A serious problem consistent in the studies across each of the three outcome areas is the lack of uniformity and conciseness of the definitions employed in the articles for the three outcome areas. While much good work is done, the comparison and generalizability of the results of these studies is severely limited by incompatible, or even conflicting, definitions of what is being studied. In each of the review chapters, an attempt has been made to provide a useful working definition for the outcome area being considered.

Education

Several concepts have been found to be used by the educational outcome researchers to define the area: academic
training, vocational training, rating of their school, activities outside the classroom, and finally issues of behavior. These variables were discussed to varying degrees in the 23 articles dealing with educational outcomes for the handicapped students.

The studies reviewed found academic achievement levels among handicapped individuals to be significantly lower than those of their nonhandicapped cohorts. However, these differences could be moderated in those studies which examined the effects of specialized program placement on academic achievement and school completion. Findings from several studies indicate that success in many areas for students who had been mainstreamed after placement in a specialized program. The positive effects of vocational education on job preparedness was also examined and found to be successful in the few studies that examined this issue.

Collectively, the articles seem to indicate a shift in focus away from the more traditional approach dealing with the actual academic achievements of handicapped individuals towards the newer school of thought which investigates the effects of specialized program placement on academic achievement, as well as the usefulness of vocational education. The articles serve to challenge the educational
approaches of separation of the handicapped in favor of a more integrated approach with nonhandicapped cohorts.

The 23 articles dealing with education varied greatly in focus and scope. Eight were conducted at the local level, 6 at the state level, and ten at the national level. The vast majority of articles provided information about the learning disabled. The handicapping conditions which received the least attention include: the disadvantaged, hearing impaired, multihandicapped, and deaf-blind. Sample sizes ranged from 24 to 1,966 subjects.

Employment

The concepts most commonly used in this area are: employment status, job profiles, earnings, fringe benefits (or lack of them), stability of employment, and job satisfaction. Unfortunately, there is also a lack of standardized definitions in the articles of what actually constitutes "employed." Different studies use different standards for their employment rates, thus the reported numbers working or unemployed vary radically from one study to another on this definitional ground.

Income and job profiles have frequently been examined in the employment studies. Only one study was able to show that its subjects were earning more than $1,200 a month, and then
only a very small proportion of them (7%). The majority employed subjects, across all studies, reported that they were employed in low paying service, unskilled or semi-skilled positions. Only the visually-impaired subjects in a Wisconsin statewide study were reported as having had any opportunity of moving into the managerial, professional, technical or official employment fields.

While employment has been the most fertile ground for the finding of studies on the handicapped, there are also a number of drawbacks to these studies. The definitional problem has been mentioned previously, but is not the only one. The largest concentration of subjects are from the mentally retarded population, with other groups receiving little attention, it is intended to remedy this in the future literature searches and data base presentations. Thirty-nine of the 49 employment outcome studies reviewed take employment status as the focus, and pay little attention to other employment concerns, especially any comparisons with the nonhandicapped cohorts on any similar variables. Finally, there are far more male subjects in these studies than females.

Independent Living

Independent living outcomes, although being the smallest study group with only 11 sources may also be the hardest area
from which to draw conclusions. This apparently small number of articles focusing on independent living outcomes may be due to two factors: 1. a limited number of studies which focus mainly on independent living outcomes are conducted and are available, or 2. many of the studies which are available are plans for program implementation or theoretical proposals rather than studies dealing with the specific outcomes of selected programs.

It is in this area the lack of uniform definitions is most obvious, and the most troublesome. How independent must a person be to be considered independent? Many studies appear to equate independent living with deinstitutionalization, while others require competitive, full-time employment or educational pursuits as the criteria. The concepts most often utilized in these studies are: remediation of basic skill deficits, transition to the competitive workforce, community involvement, and behavior modification.

The studies, in general, have shown great limitations in the extent of social interaction and community integration outside of the placement supervisors and others in their managed living situations. Social contacts are few, and social contacts are very limited. The exceptions were the hearing-impaired and visually-impaired students who had been mainstreamed. They seemed to participate in a greater number
of social and recreational activities with members of the nonhandicapped community. For most of the subjects, however, the amount of social interaction was minimal, and most leisure time was spent in isolation watching television.

A number of the studies have dealt with the success, or failure, of the subjects in community placements. These were all mentally retarded subjects. One such study found that females were much more successful in the community settings than were the males. But this study reported the counterintuitive results of the characteristics of the unsuccessful subjects. They were significantly less retarded, and they scored higher on measures of community self-sufficiency and social responsibility. But they were also more violent and less likely to heed the instructions of those supervising their placements.

Several of the studies have dealt with the transition into the community and the workforce, and factors which may serve to inhibit such a transition. Public transportation is one of the factors which has received some of the attention. Without it many of the handicapped will be even more restricted in their endeavors. Another is housing, both in suitable design for handicapped persons, and availability, and also as a manner in defining what one means by independence.
Summary

Conclusion

This year's Transition Literature Review on Education, Employment, and Independent Living Outcomes serves more as a reference guide than a manual of conclusions about handicapped populations. Much of the year's mission has been in the construction of a system in which a data base can be constructed and made available to those interested in the transitions of the handicapped beyond the schooling system. This, we believe, we have achieved.

A second purpose of this year's report comes from our actual construction of the literature reviewing system. By defining a matrix of handicapping conditions and outcome areas, we provide a resource for those seeking articles and reports in their areas of interest. But it also allows for the identification of questions which need to be asked, areas which need to be studied.

The final purpose of this report is an unintended consequence of the literature review procedure which we undertook. Originally it was intended as an overview of the literature that we had gathered. It has become more. Firstly, it is an identification of other questions to address, of shortcomings in the research. But it also serves to raise issues of definition and direction, to serve as a challenge to those working in handicapped transition to think
carefully and to compare, to synthesize the past research, and to look to the broader picture in research and results.

The second year of our project will be dedicated to the expansion of the data base with more articles to be reviewed and included. It will be a dedicated search to try to fill some of the gaps that we are aware of in types of studies considered, and handicapped groups which are currently not well represented in our data base. It is hoped that next year our report will be far more comprehensive, but still challenging and facilitating the conduct of sound research into the transitions of handicapped youth.
Chapter VIII

Annotated Bibliography

This Chapter presents the articles which have been reviewed in Chapters IV, V, and VI. In this bibliography, the reader will be able to see the document arrangement that has been used throughout the construction of the data base by the way in which the articles are presented. This chapter was generated directly from the dBASE III data base, and then modified for printing using WordPerfect, a common word processing program.

The articles in this chapter are organized in sections according to the primary focus which each article was judged to hold. Within these sections the articles are arranged in alphabetical order. The summary sections for each article will allow the reader to quickly identify the handicapping conditions examined, size of the sample, and the foci of the research reported in the article.

HANDICAPPPING CONDITION:
MR MI DEAF ORTHO VISU

PRIMARY FOCUS: EDUCATIONAL OUTCOME
Effects of high school training with regard to employment.

ABSTRACT:
A study was made of the effectiveness of the San Francisco Unified School District's special and Vocational Educational Programs in preparing handicapped students for the work world. Ninety-eight high school graduates were divided into two groups - those who had received vocational training (T) and those who hadn't (NT) - and were interviewed along with their parents, employers, and former teachers. Among the findings were that more T then NT graduates had held a job since graduation and that their jobs tended to be of a higher level; that a greater percentage of the NT group were very dissatisfied with their jobs; and that T group workers needed less supervision and on-the-job training than did NT workers. Among the recommendations resulting from the survey were that there be provisions made for earlier detection of handicapping conditions in students at the elementary and junior high levels, and that continual and intensive counseling be provided for handicapped students during high school.

HANDICAPPING CONDITION:
LD DIS

PRIMARY FOCUS: EDUCATIONAL OUTCOME
Status as graduates or dropouts, vocational & academic training received since high school, perceived competency in meeting societal and vocational reading demands, value of high school.

ABSTRACT:
The study examined the postschool status of 100 young adults identified as learning disabled white students. Achievement scores ranged from 55% to 66% of expected grade placement. Ss placed in LD classes seemed to evidence poorer school coping skills than did LD Ss identified but not placed. Discriminant analysis indicated that the number of retentions and the presence of others in the family with learning problems determined the discriminant function which maximally differentiated the placed and nonplaced Ss. Current status indicators showed the sample to be functioning quite well as adults, with Ss reporting moderate happiness with their employment. The great majority of Ss reported no longer experiencing a significant problem in reading, although some did. Highly positive ratings were ascribed to vocational education and LD classes by those who participated in them. Multiple regression techniques suggested that the best predictors of grades completed were presence of dropouts among peers, number of absences prior to referral, and grade-point average prior to
referral. The best predictive combination with reference to current income range included group membership (placed or nonplaced) and grade-point average prior to referral.

**HANDICAPPING CONDITION:**
LD

**PRIMARY FOCUS: EDUCATIONAL OUTCOME**
Proposed articles detailing information about existing college programs in future *Journal of Learning Disabilities*.

**ABSTRACT:**
*Journal of Learning Disabilities* proposes to solve the major problem, lack of support systems, of college bound learning disability students by providing: 1) a listing of colleges and universities that offer LD-related services in the November 1982 issue and 2) subsequent articles containing information about college programs that include specialized testing, access to taped books, components of the program and entrance requirements. Federal legislation established guidelines and rights for the LD population to receive an appropriate education but few move on to institutions of higher learning because of entrance criteria. Colleges that do provide services suffer under the cost involved and the lack of research data to guide and direct. Services are expensive and thus preventative. Personnel to supervise, develop programs and integrate services and tutoring is difficult to fund. The author indicates what is lacking to improve existing services is a clearer understanding of learning disabilities. The consciousness-raising activities will begin to improve and broaden instructional methodology with LD students.

HANDICAPPING CONDITION:
BLIND

PRIMARY FOCUS: EDUCATIONAL OUTCOME
Supplemental programs, vocational preparation, type of educational programming, summer educational programs.

ABSTRACT:
In the early 1970's, 49 deaf-blind children were evaluated for educational adjustment and communication level through a structured observational procedure. Ten years later, the examiners have used the national registry for the deaf-blind to relocate these children. A comparison of the children's general level of functioning then and now is reported in those instances where the two reporting tools are compatible.

**HANDICAPPING CONDITION:**
LD

**PRIMARY FOCUS:** EDUCATIONAL OUTCOME
Skill attainment in reading, spelling, arithmetic.

**ABSTRACT:**
This article reports the skill attainment in reading, spelling, and arithmetic for a group of 40 adult males who were diagnosed as dyslexic in childhood. The results of the follow-up assessment indicate that severe residual learning problems are present despite the fact that much special educational attention was provided during school-age years. Test performance and reports from subjects further demonstrate that current learning difficulties are essentially identical to those evidenced at the time of diagnosis.

HANDICAPPING CONDITION:
LD

PRIMARY FOCUS: EDUCATIONAL OUTCOME
Longitudinal data (5-7 yrs), reading achievement of children with learning problems.

ABSTRACT:
Limited longitudinal data on learner characteristics and performance are available in the learning disability field. This study, however, follows the course of reading achievement over a five- to seven-year period of a group of children with learning problems. These students' characteristics are described in detail along with their relationship to reading achievement over time. The data support the premise that academically related deficits persist over time in LD populations.

HANDICAPPING CONDITION: SI

PRIMARY FOCUS: EDUCATIONAL OUTCOME
Academic achievement: mathematics, vocabulary, reading, pattern recognition; rating of school: discipline, facilities, quality; relationship to school.

ABSTRACT:
Of over 26,000 high school seniors for whom survey data from the recent High School and Beyond study were complete, 278 identified themselves as having speech disabilities. The data on these latter students were compared to those on their non-impaired peers vis-a-vis demographic variables and measures of achievement, personal characteristics, and relationship to school and work. These orally handicapped students tended to be older, to be more often from linguistic minority groups, and to report more additional handicapping conditions. The data also showed the impaired group at a disadvantage regarding achievement, self-image, motivation and aspirations. Some areas for possible amelioration are suggested.

HANDICAPPING CONDITION :
LD MULTI

PRIMARY FOCUS : EDUCATIONAL OUTCOME
Academic achievement: math, reading, vocabulary; ratings of school, quality of instruction, homework, discipline problems, academic courses completed, extracurricular activities.

ABSTRACT :
Of the 26,147 twelfth-graders on whom survey data from the national High School and Beyond study were complete, 439 (1.7%) identified themselves as having specific learning disabilities. Comparisons between the data on these students and those on their nonimpaired peers showed that the learning disabled group (a) was older, (b) included a disproportionately high number of minority members, and (c) reported significantly more other handicapping conditions. Likewise, the learning disabled students scored significantly lower on all measures of academic achievement tested and on most indices of self-esteem and motivation. They also reported more serious trouble with the law. Parity was only uncovered on such variables as amount of television viewing and school-based extracurricular activities. Implications of the findings are discussed.
What were they like in high school? Profile of speech
disabled sophomores from a 1980 national study. American
Rehabilitation, 11, 9-15, 32.

HANDICAPPING CONDITION :
SI

PRIMARY FOCUS : EDUCATIONAL OUTCOME
Academic achievement: mathematics, science, civics, 
vocabulary, reading, writing; school rated factors: 
discipline, quality, rating of school, homework, coursework, grades, extra curricular activities.

ABSTRACT :
Of the 30,030 tenth graders on whom survey
data from the national High School and Beyond study were complete 489 (1.6%) identified themselves as having a speech disability. Comparisons between the data on these students and those on their non-impaired peers showed that the speech disabled group, a) was older, b) included a disproportionate number of minority members, and c) reported other handicapping conditions. Likewise, the speech disabled students scored significantly lower on all measures of academic achievement tested and on most indices of self esteem and motivation. Implications of the findings are discussed.

**Handicapping Condition:**
*Deaf*

**Primary Focus:** Educational Outcome

Academic achievement: reading, vocabulary, writing, mathematics, science, and civics; indices of motivation: courses taken, out of class effort like TV viewing and homework, plans for future, racial and ethnic distinctions.

**Abstract:**
Data on 686 mainstreamed hearing impaired high school sophomores were compared to those on 26,418 of their normally hearing peers on demographic characteristics, academic achievement, and indices of motivation. The auditorily impaired group tended to be older and to have a higher incidence of students of Hispanic background than did the normally hearing group. In all areas of academic achievement tested (reading, writing, vocabulary, civics, science and mathematics) the pupils with hearing disabilities fared more poorly than did those with normal hearing. The results of the comparisons of motivation were somewhat mixed. While the deaf and hard-of-hearing subjects reported taking the same number of general academic and honors courses and watching television to the same degree as did their hearing classmates, these auditorily handicapped students also reported doing less homework and failing to complete homework assignments more often, and they evidenced less ambitious plans for the future.

HANDICAPPING CONDITION: DEAF

PRIMARY FOCUS: EDUCATIONAL OUTCOME
Academic achievement: reading vocabulary, mathematics; motivation; quality of academic coursework; homework.

ABSTRACT:
Of the 26,146 high school seniors surveyed in the recent High School and Beyond study, 514 identified themselves as having hearing problems. The data on these respondents were compared to those on their normally hearing peers regarding demographic characteristics, academic achievement, and motivation. Black students were underrepresented among mainstreamed hearing-impaired seniors. Furthermore, the hearing-impaired subgroup's scores on indices of academic achievement and motivation were significantly lower than those of the hearing group. These findings highlight a need for more extensive academic and guidance support services for this population if its potential is to be realized.
Gregory, J.F., Shanahan, T., & Walberg, H.J. (0).

HANDICAPPING CONDITION:
LD

PRIMARY FOCUS: EDUCATIONAL OUTCOME
Academic achievement: mathematics, science, civics, vocabulary, reading and writing; LD group manifesting universal and pronounced academic deficit, ratings of schools, quality of instruction, discipline.

ABSTRACT:
Of the 30,000 sophomores for whom survey data from the national High School and Beyond study were complete, 810 (2.7%) identified themselves as having specific learning disabilities. Various comparisons between these learning disabled (LD) 10th graders and their non-learning-disabled (NLD) peers were made. The LD group was older, had a disproportionately high representation of blacks and Hispanics and an underrepresentation of whites, and reported more secondary handicapping conditions than did the NLD cohort. In all areas of academic achievement tested, the LD pupils showed significant deficits. The LD adolescents also had lower incidences of motivation, adjustment, locus of control, independence, self-perception of attractiveness and popularity, and of scholastic orientation of close friends. Furthermore, the LD contingent evidenced more legal and school related problems. The two groups, however, acknowledged spending equal amounts of time in out-of-school activities. Speculations regarding the findings are offered.

HANDICAPPING CONDITION:
SED

PRIMARY FOCUS: EDUCATIONAL OUTCOME
Academic success in regular schools after Mark Twain program; Mark Twain programs; evaluation issues, decrease of problems, absenteeism; discipline, mainstreaming.

ABSTRACT:
The Mark Twain School in Rockville, Maryland serves emotionally disturbed students in grades 5 through 12 whose severity of emotional problems seriously impairs their successful functioning in regular classes. The Department of Educational Accountability has conducted a study of characteristics of students served in the Mark Twain School and the degree of their academic success in regular school after completing the Mark Twain program. This study was designed to describe the student population at Mark Twain in recent years; monitor the progress of former students who have been returned to regular schools; and determine which variables best predict the eventual success of these students. This report describes the current instrumentation used in the study. Detailed findings of this study are presented graphically. The predictor variables of success determined by the study were discussed. A five page executive summary is included.

HANDICAPPING CONDITION:
LD SI

PRIMARY FOCUS: EDUCATIONAL OUTCOME
Communication skills and educational performance.

ABSTRACT:
Thirty-six subjects, 18 language-impaired and 18 articulation-impaired children, were followed up with respect to communication skills and educational performance 13 to 20 years after their initial contact with the Speech and Hearing Clinic. According to their parents, nine language-impaired subjects continued to exhibit communication problems as adults, compared to only one of the articulation-impaired subjects. Standardized educational testing conducted while the subjects were in elementary and secondary schools indicated that the language-impaired group consistently achieved at a lower level than the articulation-impaired group, particularly in reading. Differences between the groups were also exhibited in the types of postsecondary education attempted by the subjects. Clinical, educational, and research implications of these results are discussed.

HANDICAPPING CONDITION: LD

PRIMARY FOCUS: EDUCATIONAL OUTCOME
Education outcomes: reported in interviews and/or results of testing.

ABSTRACT:

From several different perspectives, the question of long-term outcomes for learning-disabled children is an important one. Answers to scientific questions about the nature and developmental course of learning disabilities, as well as the resolution of policy issues concerning the allocation of resources for intervention, may depend on results from follow-up studies of learning-disabled persons. Unfortunately, different follow-up studies have produced a variety of conflicting results. Through a careful analysis of the methodologies employed in existing studies, this month's Topical Review not only shows why the research has produced inconsistent results, but also shows how some of these inconsistencies can be resolved. A final contribution of this article is to point out the need for specific methodologies on future follow-up research with learning disabled children.

HANDICAPPING CONDITION: DIS

PRIMARY FOCUS: EDUCATIONAL OUTCOME
Attitudes about vocational preparation, information on post-secondary education.

ABSTRACT:
Project SEE (Student Employment Experiences) was initiated to provide information on the long-term employment experiences of former vocational education students, especially special needs students, and on the long-range effects of their training. In spring of 1983 a three-year follow-up survey was sent to members of the first annual sample of FUSE (Follow-up of Students and Employers) system participants. Of the 3,529 students in the first annual sample, 1,900 returned the three-year follow-up questionnaire. The three-year follow-up results differed from the one-year results on the variables of unemployment rate and employment in a field related to their high school training. These differences did not necessarily mean the one-year follow-up results were premature. The results seemed to complement each other in revealing the true impact of high school vocational programs over time. Over the two years following the one-year follow-up, the number working in a field related to high school training had decreased significantly. No significant differences were indicated in salary for special needs and non-special needs students. The special needs group had less favorable employment experiences in terms of rate of employment and number of months employed. (Instruments, newsletters, and selected data are appended.)

HANDICAPPING CONDITION: SI

PRIMARY FOCUS: EDUCATIONAL OUTCOME
Aspects of educational functioning: delay of school admission, academic areas of difficulty, tutoring needed and given, grade level (at time of study) and grades received.

ABSTRACT:
A 15-year follow-up of 50 children initially diagnosed as communicatively impaired is reported. The survey describes subjects in terms of the educational levels they have attained, their motor skills, their social skills as perceived by their families, and any communication problems that may exist.

**HANDICAPPING CONDITION:** SED

**PRIMARY FOCUS:** EDUCATIONAL OUTCOME

**ABSTRACT:**

Teachers, program developers, and administrators of programs for behaviorally disordered adolescents are often interested in identifying characteristics of students their programs successfully serve. For many programs, students successfully served are defined as those adolescents moved from the specialized treatment setting to a less restrictive environment. Follow-up studies can identify characteristics of students successfully served and help educators examine their goals and objectives for those students. The present study is a descriptive follow-up of adolescents 2 to 4 years after successfully leaving a facility for the behaviorally disordered. The results, including descriptions of demographic, academic, residential, and occupational status of the former students, are presented in the context of an ongoing investigation.
A follow-up study of 52 learning disabled adolescents.  

HANDICAPPING CONDITION:  
LD

PRIMARY FOCUS: EDUCATIONAL OUTCOME  
Progress of LD students 4 years later.

ABSTRACT:  
This study was designed to document, four years later, the progress of 52 LD adolescents who entered a special education program in the ninth grade. The sample were "typical" LD adolescents: old for their grade placement, with severe reading retardation and moderate math retardation. Theoretically, these students should have been in 12th grade at the time of follow-up. In fact, 16 were still enrolled in a special education high school program: seven were still in high school but in regular classes full-time; twenty-four had stopped attending high school; and five could not be located. Thirty-four students (all those still in school and 11 of the dropouts) were retested on academic skills. Results indicated impressive gains for all students although approximately half the achievement growth had taken place in the first year of the LD program. The 11 dropouts were also interviewed about the circumstances of their school leaving. A majority reported that they had been encouraged to leave school before graduation because of persistent academic, behavior and attendance problems. Data available to the school district at the time of placement into the ninth grade special education program were utilized in a step-wise discriminant analysis, for predicting status at follow-up. The discriminant analysis was quite poor at identifying students who would leave school.

HANDICAPPING CONDITION:
LD SI MR_MI SED DEAF ORTHO VISU

PRIMARY FOCUS: EDUCATIONAL OUTCOME
Graduation, usefulness of program.

ABSTRACT:
The report discusses a statewide follow-up survey of 234 special education graduates in Colorado. An initial section, which reviews and summarizes follow-up research, notes the limitations of past studies and describes the sequence of the Colorado study, from initial efforts (appointment of panel of experts, development of personal interview questionnaire) to pilot testing and conduction interviews and collecting data. Results are summarized in terms of information, school information, post school information, and cross tabulations (correlates in high school preparation, regular education, training needs, sex, age, urban/rural, special education program, and handicapping condition). Among findings were that Ss who were happy with their high school preparation were better adjusted on their jobs after graduation; younger Ss appeared to have been better prepared for post high school adjustments than older Ss; and Ss from resource classrooms exhibited greater occupational successes than respondents from self-contained classrooms or work study programs. Implications are noted, including the need to secure parental cooperation and contribution in the vocational adjustment process. Priorities stressed by respondents for specific vocational skills, as well as social and independent living skills, are noted. Extensive appended materials include a sample survey and detailed survey results.

Blind students: Transition from high school to college.

Visual Impairment and Blindness, 72, 85-87.

HANDICAPPING CONDITION:
VISU

PRIMARY FOCUS: EDUCATIONAL OUTCOME
Accuracy of counseling center's prediction of college success.

ABSTRACT:
An evaluation of selected visually impaired high school students, conducted by The Florida State University Counseling Center over a 10-year period, indicated that 75 percent had good potential for successful college work. A follow-up study of available students revealed that only 25 percent had been successful in completing their degrees, and that there was a 32-percent dropout rate. In an attempt to reduce the dropout rate, a "College Orientation Program for the Visually-Handicapped" was established to help students to make the difficult transition from high school to college. Peer counseling, integration into the sighted college community, and better mobility training are recommended, as well as suggestions for investigation of other variables involved in successful pursuit of college work.

**HANDICAPPING CONDITION:**
LD

**PRIMARY FOCUS:** EDUCATIONAL OUTCOME
Intelligence quotient data; academic achievement: reading, math.

**ABSTRACT:**
Intake placement data were collected from the files of 1,966 students labeled and served as learning disabled in Child Service Demonstration Centers (CSDC) in 22 states. The information included achievement and IQ data, age and grade. The mean age was 11.83 years and the mean IQ was 92.5. There appeared to be a lack of consistency in the characteristics of students labeled as learning disabled. Younger students were much less severely underachieving than were older students. Significant differences were found among CSDCs in mean IQ and in the percentage of students meeting an arbitrary criterion of severe discrepancy. In addition, 54% of the CSDCs included students whose IQs were at or below 69. The results seem to indicate that a heterogeneous, ill-defined population of students is being labeled as learning disabled.

HANDICAPPING CONDITION:
LD DEAF ORTHO HI

PRIMARY FOCUS: EDUCATIONAL OUTCOME
Growth in reading comprehension over a 5-year period.

ABSTRACT:
Reading comprehension was assessed in 1974 and again in 1979 for 1,664 hearing-impaired students enrolled in special education programs across the United States. The Special Edition for Hearing Impaired Students of the 1973 Stanford Achievement Test, an adaptation of the regular edition of the Stanford but with identical items and subtest structure, was used to assess students' achievement both years. The major research question concerned the relative importance for achievement growth of the most salient handicapping characteristics of the population (specifically, the degree of hearing loss and the presence of any additional, educationally significant handicaps) compared with basic student demographic characteristics, such as race, age, and sex. A repeated-measures statistical analysis of the data indicated that the growth in reading achievement of the typical hearing-impaired student over a 5-year period was approximately one-third that of the average hearing student. In addition, degree of hearing loss, age, and racial background had significant effects on reading-comprehension growth.

HANDICAPPING CONDITION:
LD SI MR MI MR_MO MR_SP SED DEAF ORTHO HI VISU MULTI BLIND DIS

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Data on comparisons of employment for men and women with and without work disability: employment status, percent in labor force, unemployment rates, income.

ABSTRACT:
This article presents data about the nation's handicapped people, shows how social-psychological theories explain these circumstances, and proposes new directions for psychological research and service in light of the changing situation of handicapped people in today's society.

**HANDICAPPING CONDITION:**
- LD SI MR MI MR_MO MR_SP SED DEAF ORTHO HI VISU MULTI BLIND DIS

**PRIMARY FOCUS:** EMPLOYMENT OUTCOME
Employment retention and status, income, job satisfaction, job obtainment, unemployment rates

**ABSTRACT:**

A 12-year follow-up survey was conducted to assess the vocational and psychosocial adjustment of 225 former clients of the Hot Springs Rehabilitation Center (HSRC). Data collected at admission to and discharge from HSRC suggested that the clients were generally the more difficult rehabilitation cases and that most were only marginally successful in achieving their rehabilitation goals. Among the major findings of the follow-up survey were: (a) 56% of the ex-clients were working as follow-up and 73% had held some employment since leaving HSRC, (b) 49% of the ex-clients who were working at follow-up had been employed on the same job for five years or longer, (c) 60% of the working ex-clients believed that VR services were helpful in getting their jobs, (d) 73% of the former clients were not employed in occupations directly related to the vocational training that they had received at HSRC, (e) 47% of the unemployed ex-clients, and (g) counselors' ratings of psychosocial and vocational goal attainment and overall adjustment of HSRC were significant predictors of work status at follow-up and 12-year employment history. The article concludes with 10 brief case vignettes and a list of 35 significant findings.

**HANDICAPPPING CONDITION:**
MR_MI MR_MO MR_SP DEAF ORTHO HI

**PRIMARY FOCUS:** EMPLOYMENT OUTCOME
Employment status, wages, type of job, fringe benefits, reason for termination, hours per week, attitudes about work.

**ABSTRACT:**
Personal interviews conducted in January, 1983 and agency records were used to examine month-by-month vocational histories of 53 sheltered workshop employees placed in competitive jobs in calendar year 1978. Most participants who were still employed after 4-5 years had parents who wanted them to work competitively and have a great deal of influence over them, while those who returned to the workshop or were unemployed did not have such parental support. The study also examined attitudes toward work, friends, advocates, use of community resources, and fiscal considerations.

**HANDICAPPING CONDITION:**
MR_MI

**PRIMARY FOCUS: EMPLOYMENT OUTCOME**
Vocational adjustment, types of jobs, earnings and hours per week, % of employment since high school, reasons for leaving jobs, barriers to employment, job satisfaction.

**ABSTRACT:**
A follow-up study of former educable retarded students revealed considerable vocational adjustment problems. One major finding was the relatively better adjustment made by those students who had received more of a work/study orientation. A recommendation for implementing Career Education programs at the secondary level is made.
Annotated Bibliography

RECORD #: 44


HANDICAPPING CONDITION:
HI

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Vocational outcome, income and its source.

ABSTRACT:
In the fall of 1982, 42 adolescents with epilepsy referred for neuro-psychological testing were followed 6.44 years after testing (4.55 years after high school) with respect to vocational outcome. Forty-three percent of the sample were either employed or involved in continuing education (N=18); 57% reported no competitive employment (N=24). Thirty-one percent were receiving federal living subsidies. Thirty-six percent (N=15) had received state vocational rehabilitation (VR) services, with a placement rate of 13% (N=2). The low VR placement is consistent with recent literature. The sample demonstrated lowered performance on an expanded Halstead-Reitan Battery. Significant t-test differences (p. 01) were observed between working and non-working portions of the sample on the Weschler Adult Intelligence Scale and on percentage of neuropsychological tests outside normal limits. Similar results have been reported with adult epileptics seen at this Center. A discussion of priorities in rehabilitation planning and of the use of neuro-psychological testing to aid in identifying vocationally "at risk" youth is presented.

HANDICAPPING CONDITION:
MR_MI

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Employment status, income, unemployment percentage.

ABSTRACT:
Attempted was an evaluation of work study programs for mentally retarded (MR) students through a follow-up of work study graduates, survey of state departments of education, and review of the literature. Inadequate return of a graduate rating scale, difficulty in obtaining student records, and a few and inadequate answers to the state survey resulted in aborting a study. Past studies were surveyed with such findings as a higher success rate for MR graduates of work study programs than MR graduates of other secondary programs. Appended are the list of items used to rate graduates, a chart of minimum wage rates from 1967 to 1978 (projected), a summary of studies reporting wages earned, a summary of the success percentage of MR graduates, and a chart of the percentage of employment from closure to follow-up.

**HANDICAPPING CONDITION:**
MR_MO

**PRIMARY FOCUS:** EMPLOYMENT OUTCOME
Employment skill levels, unemployment rates, job satisfaction.

**ABSTRACT:**
Twenty-seven mildly and moderately mentally handicapped special education graduates from a special school and 23 mildly and moderately mentally handicapped special education graduates from a mainstream school were interviewed to determine long range benefits of each program. Interviews 1 and 2 years after graduation were designed to measure differences in employment skill levels, unemployment rates, job satisfaction, arrests and convictions, welfare assistance, financial independence, income level, and other variables. Data suggested that there was little difference in long range characteristics for either group, although the small sample size precluded drawing firm conclusions on either side of the question.

**HANDICAPPING CONDITION:**

VISU

**PRIMARY FOCUS:** EMPLOYMENT OUTCOME

Job obtainment, attitude toward work experiences, extent of underemployment, types of jobs, income, comparisons with total state population as to types of jobs.

**ABSTRACT:**

To provide feedback on program for the visually impaired in the state of Wisconsin, a follow-up study was done on 98 persons who had been enrolled in such programs and who had been out of school for a period of 3 to 13 years. The study focused on adaption, and was concerned with many facets of everyday living, including such things as academic achievement, types of occupations, physical mobility, difficulties in obtaining employment or promotions, use of vocational rehabilitation and other social services, attitudes toward educational and work experiences, and social and community participation. Among the findings were that 57.1% of the students were single, 41.8% married, and 1.0% divorced; that 76 students did not have additional handicaps; and that some of the older students depended upon wages and spouse as a source of income, while significantly more of the younger students were dependent on their parents. Frequent comments by students emphasized such things as the inadequacies in curriculum offerings; the desire for more opportunity to interact socially and academically with sighted persons; the desire for less emphasis on music, particularly for those lacking talent in this area; and the desire for more vocational counseling and training with respect to job opportunities and strategies of job seeking.

HANDICAPPING CONDITION:
MR_MI

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Job retention, types of jobs, employment rates, income, job satisfaction.

ABSTRACT:
This excerpt contains a brief overview of the work/study program for the mildly mentally retarded at the North Kansas City Public Schools. A summary of the data collected on 62 males and 38 females who graduated from the work/study program is included as well as charts containing data on independent living and employment variables.

HANDICAPPING CONDITION:
MR_MI MR_MO MR_SP SED ORTHO

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Employment outcome statistics.

ABSTRACT:
The authors discuss the need for developing management information systems to organize the client data generated by comprehensive rehabilitation centers in order to permit outcome research. Reviews of current rehabilitation literature indicate that more attention is paid to technique and prediction studies than to studies of how comprehensive rehabilitation services affect clients. One way that rehabilitation centers can organize their data is to establish baseline statistics. This paper outlines the results of one such program conducted at the Pennsylvania Rehabilitation Center. Their baseline statistics (established for 1,395 clients discharged during 1973, 1974, and 1975) cover the following areas:
1. the number of clients placed in competitive employment (75%)
2. the most frequently served disabilities placed in employment
3. the relationship between severity of disability and placement (no significant relationship found)
4. training-related job placement (42%)
5. rate of completion of training program (63%)
They conclude that the results of this study correspond closely with results obtained by other investigators. The study design does not permit cause and effect conclusions, but the authors believe the experience has provided insight into the kinds of data needed to conduct outcome studies in the areas of vocational training, vocational evaluation, and physical restoration.

HANDICAPPING CONDITION:
LD MR_MI MR_MO MR_SP SED DEAF ORTHO HI VISU MULTI BLIND

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Current employment status, type of jobs, number of hours employed, income, how obtained first post school job, parent satisfaction with child's current employment.

ABSTRACT:
The Five Year Follow-up Study is a cross-sectional study of all students who have graduated from or left special education in a given school district over a period of five years. A broad data base on postschool status is obtained via one-time-only parent telephone interview supplemented by a school records review. The Three Year Follow Along Study is a longitudinal study all students who have graduated from the most recent graduating class. Through telephone interviews, parents are contacted on a six-month schedule for three years culminating in six data points for each student. School record reviews supplement data. A cohort of non-handicapped graduates from the same class is included in this study.

The 7th Grade Follow Along Study consists of collecting ongoing information on the school status on an entire group of special education students currently in the seventh grade. A student list of 7th graders is compared to the 8th grade list the following September. A parent telephone interview is conducted for any student
who is unaccounted for on the second list. This process continues through the 12th grade.

All three studies provide a data base for examining the outcomes of Special Education in order to evaluate program effectiveness, facilitate curriculum modification, and develop procedures for transition from school to employment. Documentation illustrates progress in employment, independent living and postschool adjustment.

**HANDICAPPING CONDITION:**
LD

**PRIMARY FOCUS:** EMPLOYMENT OUTCOME
Vocational adjustment: Part-time or full-time, type of job.

**ABSTRACT:**
Twenty-one young adults who had received educational services for learning disabilities as young children were interviewed in regard to their adjustment as adults. An interview technique was used to obtain: (a) demographic information, (b) school adjustment information, (c) vocational adjustment information, and (d) social adjustment information. Analysis of the results indicated that the majority of subjects 1) had required additional supportive educational service throughout their schooling; 2) needed vocational assistance; and 3) were often dependent on family support for social activities. The findings are discussed in terms of future investigation with learning disabled adolescents.

**HANDICAPPING CONDITION:**
LD MR_MO SED

**PRIMARY FOCUS:** EMPLOYMENT OUTCOME
Current status, overall employment history since high school.

**ABSTRACT:**
Few studies have focused on the postsecondary adjustment of mildly handicapped students living in rural areas. This article examines a study of the background of 113 formerly labeled mildly handicapped students to determine what educational variables were predictive of their current occupational status. Data were collected on the demographic and academic backgrounds of the students as well as on current and previous employment status. These variables were reviewed and statistical measures were used to describe and evaluate the relationship between the former students' employment status and their education and training. Analysis of the results indicated that former students were employed an average of 50 percent of the time after termination of their secondary education and that former special education students received little specific vocational training. Correlational analyses reflected a positive relationship between years of school completed and employment status. Additionally, a significant relationship between certain academic variables (e.g., mathematics level and reading level) and employment status was indicated. Results are discussed relative to implications or improved training of students served in classes for the mildly handicapped.

HANDICAPPING CONDITION:
MR_MI MR_MO MR_SP

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Competitive employment, feedback and reinforcement on the job, long-term supervision, maintaining vocational skills.

ABSTRACT:
Long term job maintenance problems among the graduates of a vocational placement program over a six year period were examined. Most problems fell into three categories (a) decline in vocational performance due to the scarcity of performance feedback; (b) deficits in social and/or life skills which interfered with the job; and (c) emergence of job threatening problems long after typical agency intervention had been completed. The findings suggest a need to provide a follow-up services over an extended period in order to maintain employment. The costs of providing such services are reported.

HANDICAPPING CONDITION:
LD MR MI SED DEAF ORTHO MULTI

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Type of job, previous employment, wages, unemployment rate given for nonhandicapped.

ABSTRACT:
The booklet reports on a study of 194 former special education students in Pierce County, Washington, who had left school during 1981-84. Questionnaires were completed by parents or guardians to collect eight items of information: (1) the student's handicapping condition while in school, (2) current employment status and job title, (3) current monthly salary range, (4) previous employment status during the past 3 years, (5) previous monthly salary range, (6) current involvement in postsecondary education programs, (7) type of postsecondary program (academic or vocational) and (8) name and location of program. Among conclusions drawn were that handicapped learners have about a 50/50 chance of being employed upon graduating or leaving secondary schools in this county; that 28% of the sample gross less than $4,800 annually and an additional 40% will earn an average wage of $7,200 per year; that 23% of the former students do not work at the present time and have not worked for the past 3 years; and that over 80% reported no involvement with postsecondary education.

HANDICAPPING CONDITION: VISU MULTI

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Income, numbers employed and unemployed, work evaluation, competitive or sheltered workplace.

ABSTRACT:
Describes an evaluation of an Intensive Training Program for multiply handicapped adults who could not use other rehabilitation programs. Among findings from data collected at entry, exit and follow-up, are that almost all clients expressed satisfaction with the Program and most retained independent living, mobility, and employment skills for years after exit.

HANDICAPPING CONDITION:
LD

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Research questions on employment patterns.

ABSTRACT:
The article describes a 3-year longitudinal study to examine postsecondary vocational pursuits of learning disabled high school seniors. Seven major research questions for the study are posed, including employment patterns, job-seeking techniques, and effects on transition of school performance, socioeconomic status, self-concept, and intellectual ability.

HANDICAPPING CONDITION:
MR_MI

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Employment status, unemployment rate.

ABSTRACT:
The employment success and employment levels of both graduates and early terminators from high school work/study programs for educable mentally handicapped young adults (16 to 21 years old) were examined. Data sources included the vocational placement results of students in work/study programs in 14 Oregon school districts and 43 federally funded work/study programs. It was found that mentally handicapped persons who finished their work/study programs had substantially higher employment levels than did similar persons not completing or only partially served by their programs.

HANDICAPPING CONDITION:
MR_MO MR_SP

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Current employment, job characteristics, relationship of location of school attended, gender, & high school program to current employment status, means of finding employment, wages, types of jobs.

ABSTRACT:
This study investigated the employment and residential status of 243 mentally retarded youths who had exited high school in Vermont between 1981 and 1983. Information was solicited from school records and through telephone interviews and included vocational training history, employment history, social service utilization, and residential and marital status. The results indicated that certain vocational and educational experiences during high school were related to employment status and salary level following high school, that employment rates remained stable across rural, urban and metropolitan areas, and that the majority of employed youths found their jobs through their self-family-friend network. The findings were compared with those of an earlier study of a cross-categorical sample of handicapped youths.

HANDICAPPING CONDITION:
LD MR MI SED DIS

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Employment status, wages, % of time employed since high school, type of jobs.

ABSTRACT:
Factors associated with the employment status of handicapped youth were investigated in a sample of 462 youths from nine Vermont school districts. All students from these districts who exited high school between 1979 and 1983, and who had been receiving special education services, were identified. Interviews were conducted with 301 youths to solicit current employment status, employment and training history, and use of social services. Additional information regarding educational history, age, and community demographics was obtained through individual student records. Employment outcomes were related to secondary vocational and training experiences, controlling for geographic location, gender, and level of functioning. Results indicated that over half the sample were employed; that most of the youths found jobs through the "self-family-friend network"; that part-time or summer work during high school were predictors of percentage of time employed since high school and current wages. These findings were discussed in terms of their implications for researchers, service providers, and policy makers.

**HANDICAPPING CONDITION:**
- LD
- MR_MO
- MR_SP
- SED
- DEAF
- ORTHO
- MULTI

**PRIMARY FOCUS:** EMPLOYMENT OUTCOME
How many employed and unemployed; part-time, full-time, types of jobs, employers attitudes.

**ABSTRACT:**
The Montgomery County Public Schools, (MCPS), Maryland, annually surveys its graduating classes to help determine whether MCPS adequately prepares its graduates. This is the first follow-up study of MCPS's 10 special education schools' graduates (class of 1983). It investigates: 1) postsecondary education and employment activities; 2) students' and/or parents' perceptions of program quality; 3) the effectiveness of these programs; and 4) current living arrangements for graduates. Telephone surveys were conducted with 92 (of 179) MCPS graduates, 48 parents, and 36 employers. Findings show that most graduates are either working in relatively low-skilled job categories or attending training institutions. However both parents and graduates at some schools felt MCPS could improve its job training programs. Employers are satisfied with the work of the graduates and rate their job performance very highly. The Appendix contains descriptions of the MCPS special education programs for mental retardation (Concord, Longview, and Stephen Knolls Schools), multiple handicaps (Rock Terrance High School), emotional impairment (the regional Institute for Children and Adolescents in Rockville, Bridge School, and Mark Twain School), hearing impaired (Rockville High School), orthopedically and other health impaired (Kennedy High School), and specific learning disability (Walter Johnson, Gaithersburg, and Kennedy High Schools).

HANDICAPPING CONDITION:
SI MR MI MR MO MR SP MULTI

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Job retention rates, work histories, income, under-representation of handicapped females in the labor market.

ABSTRACT:
Detailed client demographics are given from a longitudinal examination of a special job placement program (the supported work model) for mentally retarded persons over a six year study period. This investigation also examines the demographic differences in individuals who are maintained in competitive employment over six months versus those individuals who did not achieve a six month work history. Chi square analysis showed significant differences in over-six months and under-six months retention rates in the following variables: reading skill development (higher retention rates found for persons with more limited reading); differences in types of previous adult programs attended (higher rates for persons from community work crew-oriented programs); differences in guardian identities (higher rates for those who did not have a natural parent listed as a primary guardian); and sex differences which approached significant levels (higher retention rates for males). The implications of the fundings on the improvement of vocational habilitation efforts are discussed.

HANDICAPPING CONDITION:
MR_MI MR_MO MR_SP

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Job retention, income, fringe benefits, taxes paid.

ABSTRACT:
Monetary and nonmonetary outcomes in a systems approach to program evaluation of the supported work model of competitive employment for disabled persons are given. Three replicable levels of program evaluation are presented: at the systems level (benefit cost analysis), at the service delivery level (a Program Efficiency Index), and at the participant level (time employed first year in labor market). Group outcomes on each level of evaluation are given from the longitudinal data of a six year transitional and supported employment program in the state of Virginia.

**HANDICAPPI NG CONDITION:** VISU

**PRIMARY FOCUS:** EMPLOYMENT OUTCOME

Employment rate: compared to population at large, differences by sex; occupational status.

**ABSTRACT:** Employment of blind and low vision individuals was reported in terms of labor force participation, employment status, and occupational status using primarily the 1976 Survey of Income and Education (SIE) and secondarily special tabulations from the National Center for Health Statistics 1977 Health Interview Survey (NCHS-HIS). Less than one-third of working-age visually disabled persons were in the labor force compared to almost three-quarters of U.S. population. Only 20% of visually disabled women were in the labor force, compared to 43% of visually disabled men. Visually disabled persons appear to be disadvantaged in attaining higher prestige (generally higher income occupations). Implications on labor force participation of working-age persons with visual loss are discussed.

HANDICAPPING CONDITION:
SED ORTHO

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Job search skills: Training programs, job placements, job contacts, job readiness posture.

ABSTRACT:
A follow-up study assessed the relationship between selected counseling process variables and job-seeking activities. Processes related minimally to outcome measures. Only client demographics related consistently to job seeking. Findings also suggest that outcomes are multidimensional. Counseling strategies and outcome measures should be planned to address individual client concerns.

HANDICAPPING CONDITION: ORTHO

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Occupational status: 1) nonproductive 2) students 3) employed income.

ABSTRACT: A follow-up study of 78 former cerebral palsied students from a residential treatment center was undertaken to examine their occupational, educational, physical and social status after having left the center. Data from 48 returned questionnaires indicated that the subjects could be categorized into 3 groups: the non-productive, students, and the employed. Tabulation of percentages revealed that those employed were most likely to have a high school diploma, most mobile, most capable of traveling alone, most likely to marry, and most likely to attend church regularly. Salary for the employed was found to be minimal. Mean IQ scores for the three groups was not found to be appreciably different.

HANDICAPPING CONDITION:
LD MR MI HI

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Employment/unemployment rates, earnings.

ABSTRACT:
This report describes the collection of the Individualized Education Plans (IEPs) for NLS youth respondents and also presents an initial analysis of the IEP data. The focus of the report is on the employment and wage effects of secondary vocational education for the handicapped. Evidence suggests that handicapped vocational graduates had a higher rate of labor force participation and higher employment rate than their handicapped non-vocational peers. However, insufficient data and wide variability of responses prevent firm conclusions. Chapter III compares labor market experiences of handicapped with non-handicapped along dimensions of employment earnings. NLS data base appear to be less than ideal for studying this issue, but it does provide data to examine labor market and educational activities of handicapped youth in a limited way. New and creative methods to use NLS youth surveys and IEP data to their maximum potential need to be developed.

HANDICAPPING CONDITION:
LD SI MR MI SED DEAF ORTHO VISU

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Rates, income, job satisfaction.

ABSTRACT:
In April of 1982, the Colorado Department of Education authorized a follow-up survey of students completing special education services in 1978. A total of 234 graduates from programs in 26 administrative units responded. The results of the survey suggested that special education programs have been influential in preparing handicapped students for post-high-school adjustments in the community. Although most graduates were employed, their earnings were at minimal level. Furthermore, most of the respondents lived at home with their parents, suggesting a pattern of financial instability and family dependence. Respondents indicated a need for more training in specific areas such as social participation and job search and selection. They also reported that special education teachers have been more helpful in finding jobs for them than their parents.

HANDICAPPING CONDITION:
HI MULTI

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Employment statistics.

ABSTRACT:
A follow-up study of 1700 cerebral-palsy patients programatically evaluated at the Cerebral Palsy Clinic of the Cardinal Glennon Memorial Hospital for Children in St. Louis, Missouri since 1947 was conducted to examine the following relationships: Among the school age population, self-care and mentality as well as educational status. Among the adult population, mentality, self-care, education, occupation, and employment were examined. The conclusion based on the above findings was that there had been almost no increase in employment for the cerebral-palsy adult in 25 years. However, children with cerebral palsy who appear to be of normal mentality as well as independent in self-care have a much better chance of attending regular school and going on to gainful employment. Implications for the future of the more severely-impaired cerebral-palsy patients were also discussed.

**Handicapping Condition:** ORTHO

**Primary Focus:** Employment Outcome

Employment status, work history, additional financial support.

**Abstract:**
A follow-up study of 229 physically disabled clients was undertaken to determine how successful a community workshop had been in helping the physically disabled achieve employment. Data from telephone inquiries were tabulated as percentages and revealed the following: Those more likely to be employed were the younger worker, the high school graduate, the person who did well in the community workshop and stayed longer in the program. The congenitally disabled also did better than those acquiring the disability after 20. It was also found that half of the employed had previously been on either public welfare or social security. Those who had been separated, divorced or widowed did rather poorly in finding work. Factors were not identified as to why some were willing to give up public welfare and enter the job market, often at a low level while others were not.

**Handicapping Condition:**
SI DEAF

**Primary Focus:** EMPLOYMENT OUTCOME
Employment statistics - underemployment, income.

**Abstract:**
Labor statistics reveal that the hearing impaired population is usually underemployed and earns less than the general population. Furthermore, the earlier a person has become deaf and the more severe the effects of deafness on communication abilities, the lower the deaf person's income. Their educational attainment also lags behind that of hearing persons. The vocational consequences of deafness suggest that career education is needed. It is still too early to determine whether recent legislation has a positive effect. However, an example of positive success is the technical training at the National Technical Institute for the Deaf (NTID). Over 1,000 students per year attend their training. Graduates are 90% employed.

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**HANDICAPPING CONDITION:**
DEAF

**PRIMARY FOCUS: EMPLOYMENT OUTCOME**
Occupational classifications: "Dictionary of Occupational Titles" (DOT); kind and level of work, classifying applicants, job openings.

**ABSTRACT:**
Studying the employment outcomes expected from educational programs at the National Technical Institute for the Deaf (NTID) can aid planners of other occupational programs. The main barriers to planning education for work are the inaccessibility or unavailability of information, the arbitrary nature of occupational classification, and the insensitivity to planning problems. To overcome these barriers, NTID specified expected employment outcomes of their programs in terms of the "Dictionary of Occupational Titles" (DOT) occupational names and codes. NTID program managers met to revise these names and codes and to match DOTs to U.S. Census occupational classifications. A total of 211 DOTs were identified for NTID's 14 programs. The list has a number of implications for practice. For instance, the NITD catalog could be updated without reference to worker age or sex, and the public internal and external to NTID would find it easier to use the catalog. This use of DOT classifications has also facilitated research and development efforts in the areas of data collection, data analysis, and comparative analysis. Although this procedure for specifying employment outcomes could be adopted in planning other occupational programs, caution is suggested due to the vagueness of the occupational classifications system applied.

HANDICAPPING CONDITION:
HI MULTI

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Success rates of employability.

ABSTRACT:

This paper reviews the experience of an attempt to place severely disabled people in competitive employment. Three phases of programming were involved, including comprehensive diagnostic evaluation (medical and clinical), workshop evaluation, and adjustment and work exposure in open competitive employment.

Fifty-eight persons participated in the project, with 44 moving into the workshop phase of the program. Of those who completed the workshop, 76 percent were employed. Follow-up studies over a two-year period (longer than in most employment studies) indicate that the success rate has a significant drop.

Another aspect of this paper is to compare the characteristics of the population with those found in an earlier study with a larger client population. Although there is a difference in sample size, there are a number of similarities in the populations particularly in areas that might interfere with employment.

HANDICAPPING CONDITION:
MR_MI MR_MO SED ORTHO HI

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Employment success, length.

ABSTRACT:
A follow-up study of 92 clients placed in jobs in varied industrial settings was conducted to assess the employment success as measured by employment status at the time of the interview and percent time employed since first job placement over a two year period. A summary of the findings indicates that 83% lived in private homes, with 63% employed at the time of the first follow-up, and 43% employed at the time of the second follow-up. Decrease in employment status was not found to be statistically significant. No change in adjustment to their handicaps was reported between follow-ups. Mode of transportation, home helpfulness, reports of postplacement contact with agencies were also reported. Increase in self-esteem and benefit/cost ratio were also included in their results.

HANDICAPPING CONDITION:
MR_MI SED ORTHO

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Percentage of time employed, employment status, type of work, length of stay at present job site, number of jobs held.

ABSTRACT:
A follow-up survey about vocational success was given to 38 participants in the Easter Seal-Goodwill Industries Rehabilitation Center, located in New Haven, Connecticut. The study asked questions about employment status, type of work, income, as well as several questions dealing with home environment. The vast majority (82%) of the participants were employed. Thirty-two percent had found their jobs through the center, the rest had gone out on their own initiative or used friends and relatives. Although 61% stated that they used some form of public aid, 100% stated that they would much rather work than use assistance. The success of this project has caused it to expand to other areas of the state and increase its involvement with the business community.

HANDICAPPING CONDITION:
LD SED ORTHO HI

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Weekly income, hours per week, types of work, number employed, employer evaluation.

ABSTRACT:
A follow-up interview was conducted for 57 former rehabilitation (VR) clients in Arkansas regarding factors bearing on their perceptions of rehabilitation services, work-related problems, employer-hiring attitudes, and support of family and friends suggested 12 recommendations for enhancing the employment prospects of handicapped persons. Selected recommendations for practice included more (a) job seeking skills training and job club programs for clients, (b) training of parents and families to assist in and support clients in the job seeking process, (c) vocational counseling with a career development focus, (d) long term counselor follow-up of client employment status, and (e) counselor efforts in job development.

HANDICAPPING CONDITION:
ORTHO

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Employment status, types of job, degree of financial independence.

ABSTRACT:

The relationship of levels and types of education to employment and financial independence was examined on the basis of the experience of 79 graduates of a public school for orthopedically handicapped children. The data suggest that the positive relationship of college education and occupation established for normal adults is ambiguous for this population. Those with the best chance for full-time employment and an adequate level of income were the graduates with vocational education after high school.

It is suggested that further classification of the relationship of types of education to economic functioning is needed to provide an information base for planning educational and counseling program for handicapped students.

HANDICAPPING CONDITION :
MR_MI

PRIMARY FOCUS : EMPLOYMENT OUTCOME
Occupational status and history, income, job obtainment, education-work relationship, job satisfaction work difficulties, participation in unions, types of jobs, employment rates.

ABSTRACT :
This book reports on the adult success of 160 San Francisco school children who had been identified as "educable mentally retarded" in the 1920's & 1930's and placed in segregated special classes. The book examines their families, spouses, and siblings and the comparative adult success of a matched group of nonsegregated age peers. The excerpts focus on education, work, marriage and family, social milieu, and theoretical and practical implications of the study. The subjects' performance in school was inferior to that of the sibling and control groups. They had also aspired to jobs of lower socioeconomic status, had less postsecondary training and predicted a lower level of educational attainment if they were to start school over again. The male subjects had an employment rate of 80% in jobs with the lowest socioeconomic status, earning the lowest family income. The proportion of subjects who were married was below the national average. The school performance of those with children paralleled that of the subjects themselves. Residence patterns, overall social competence and participation in terms of finances and ability to support themselves are examined. Data on the health, religious, leisure, and political activities, compliance with the law, and military service is given.

**HANDICAPPING CONDITION:**
MR_MI MR_MO

**PRIMARY FOCUS:** EMPLOYMENT OUTCOME
Employment opportunities.

**ABSTRACT:**
Seventy-five former residents of a public residential facility were personally interviewed to determine their attitudes toward and impressions of living in the community as well as the degree to which their foster, group, or adult home conformed to the principle of normalization. Supplemental information concerning normalization among the community living facilities were provided by 15 trained interviewers.
In March 1981, a follow-up study of hearing-impaired former students was conducted at William Rainey Harper College (WRHC) to gather employment and educational information and to evaluate the educational experience of these students at WRHC. The target population consisted of 117 hearing-impaired students who completed their education at WRHC between 1977 and 1980. Study findings, based on a 61% response rate, included the following: 1) 64% of the former students were employed full time, 13% were enrolled full time at another college, and 18.5% were unemployed; 2) about 37% of the respondents had continued their education at some time after leaving WRHC; 3) some 60% of those working were in skilled, paraprofessional, or professional jobs; 4) over 39% of the former students were in jobs or educational programs related to their major field at WRHC; 5) respondents felt that the college was more successful in helping students to communicate better and get along with people than in teaching specific job skills or knowledge; 6) respondents stated their goals at WRHC were to communicate, gain social confidence, improve their skills, and become better students; 7) the majority of baccalaureate-oriented students rated WRHC highly in helping them prepare for transfer. The survey report provides detailed data tables and includes students' comments. The survey instrument is appended.

HANDICAPPING CONDITION:
ORTHO

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Occupational status of former student-patients: 1) nonproductive 2) students 3) employed.

ABSTRACT:
A follow-up study of 252 former physically-handicapped students from a state residential treatment center was undertaken to examine their occupational, educational, physical and social status after having left the center. Data from 164 returned questionnaires indicated that subjects could be categorized into three groups: non-productive, student, employed. Tabulation of percentages revealed that the non-productive group was more likely to be cerebral palsied and living at home with parents. They were less mobile and less likely to be able to perform certain personal care tasks. They were less intelligent and had achieved a lower level of education. They participated less in social activities and less likely to marry.

**HANDICAPPING CONDITION:**
MR_MO MR_SP MULTI

**PRIMARY FOCUS:** EMPLOYMENT OUTCOME
Placement rates, retention rates, wages, absenteeism, nature of jobs.

**ABSTRACT:**
This paper describes the results of a three-year job placement project for moderately and severely handicapped individuals in Virginia. This project developed a training and advocacy approach to placement that involved client training by staff at the job site. Staff advocacy also took place with co-workers and employers. All clients were paid by employers as part of the regular work force. Although the project is still ongoing as it seeks to replicate training and placement procedures throughout Virginia, at the three-year point, 63 clients have been placed, with 42 currently working, for a retention rate of 67%. These individuals have collectively earned $265,000 and paid well over $26,000 in state and federal taxes. Moreover, most of these clients had long records of exclusion from nonsheltered and even sheltered work, since they were viewed by professionals and parents as "realistically unemployable." This report highlights the major characteristics and conclusions drawn from staff efforts to this point.

HANDICAPPING CONDITION:
MR_MI MR_MO MR_SP

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Job placement, job retention, income, includes mean length of time nonhandicapped workers stay in similar or identical industries.

ABSTRACT:
This paper describes the job placement and retention of individuals with mental retardation who have been working competitively over a six-year period. A total of 167 clients with a median level measured intelligence of 49 have been placed into unsubsidized competitive employment. A supported work model of competitive employment was utilized which featured structured placement, job site training by staff, and on-going follow along through the full period of the client's employment. Over one million dollars has been earned through the six-year period by participating clients. The average length of time on the job for all clients has been 19 months; for most clients this was their first real job. A series of policy recommendations are proposed to make community services more responsive to the potential of people with retardation to work competitively. It is clear more longitudinal studies of this nature need to be undertaken.

HANDICAPPING CONDITION:
MR_MI MR_MO MR_SP

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Employment status, method of job obtainment, income, unemployment rates, type of job, reason for job separation.

ABSTRACT:
A total of 300 parents of mentally retarded young adults were interviewed in Virginia. These young adults had left special education school programs between 1979 and 1983. Of these young adults, 60% were labeled educable mentally retarded, and 40% were considered trainable or severely mentally retarded. The intent of this study was to assess the employment status of these persons. The results indicated that the total unemployment rate was 58%, almost three fourths of those who were employed earned less than $500 per month, most individuals had never used professional job placement services, and those who were employed had obtained their jobs through family members or friends. It was concluded that school and adult programs need to emphasize much more work in community-based instruction and job placement. Formal transition planning is essential.

HANDICAPPING CONDITION:
MR_MO MR_SP

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Level of employ, type of employ transportation to job site, length of employ wages, fringe benefits, assistance in obtaining job, reasons for lack of employ & job termination, & level of service received from voc. rehab. & local mental retardation services.

ABSTRACT:
This study assessed the employment status of 117 transition age young adults with moderate, severe or profound mental retardation in Virginia. Data was collected by trained interviewers on variables related to employment level, wages earned, types of jobs, assistance available in job identification, and so forth. The findings indicated high unemployment rates of almost 88% with only 14 of the 117 persons holding competitive jobs in non-sheltered work environments. Wage accumulation was very limited. Implications of these results and other similar studies for future programming are then discussed.

HANDICAPPING CONDITION: LD

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Employment status, job status, job satisfaction.

ABSTRACT:
This study was designed to address the adult adjustment of both learning disabled and non-learning disabled young adults. 108 subjects, mean age=20, were questioned about their vocational adjustment, social-personal adjustment, community adjustment, medical status, and education. Though LD young adults are comparable to NLD persons in a number of important areas, it can be concluded that they seem to be much less satisfied with some areas of their lives. A recommendation for the schools to provide LD students with training for adult adjustment is made.

**HANDICAPPING CONDITION:**

SED

**PRIMARY FOCUS:** EMPLOYMENT OUTCOME

Job maintenance in competitive employment, job aptitude.

**ABSTRACT:**

This study investigated the relationship of job maintenance to select characteristics of competitive jobs held by 53 psychiatrically handicapped individuals who had participated in a psychosocial rehabilitation program. The results indicated that placements maintained the longest generally involved more significant relationships with things (sixth digit of the Dictionary of Occupational Titles code). Specific vocational preparation requirements of placements were also somewhat higher in longer maintained jobs. It was found that strength requirements, general educational development and average aptitude requirements were not strongly related to job maintenance.

HANDICAPPPING CONDITION:
DIS

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Work limitations, income, labor force participation, wage rates, poverty status, transfer payments.

ABSTRACT:
Using data from the 1977 Current Population Survey, this paper examines the impacts of disability on wages, labor force participation, education, and marital status. Taken into consideration are the definitions applied to the disabled, characteristics shared by the disabled, and the participation of this group in public and private transfer payment programs. Also considered are race, age, and sex variables and the implications of regional differences. Findings indicate that the disabled are likely to have less education, lower wages, work fewer hours, less likely to have employment, less likely to be married, and more likely to be below the poverty line, even when receiving payments in transfer programs, than the non-disabled. Findings also indicate that those who are nonwhite and/or female are even further disadvantaged. It is concluded that better transfer payment programs and/or education and training programs may be needed to alleviate the conditions of the disabled and reduce the poverty population.

HANDICAPPING CONDITION:
MR_SP SED BLIND

PRIMARY FOCUS: EMPLOYMENT OUTCOME
Current status, satisfaction with placement, adult service system.

ABSTRACT:
This paper explores the adult service system "crisis" for graduates with disabilities as they leave school. The roles of the school and the family are described. The Pennsylvania Transition Study's purpose is to determine exactly what happens once the students have "aged out" of eligibility for free education. Interviews were conducted with the graduates and their families. Questions on employment status, independent living status, satisfaction with school preparation, and general questions on the transition experience were covered. Findings confirmed three problem areas: 1) inadequate school preparation, 2) inappropriate and inadequate post school services and 3) little attention to transition of disabled students from school to work. Recommendations for state and federal policy are included.

HANDICAPPPING CONDITION:
MR_MI MP_MO

PRIMARY FOCUS: INDEPENDENT LIVING STATUS
Marital status, residential situation, community activities, perceived problems in community living, contact with law, driving a car, agency assistance.

ABSTRACT:
Many investigators studying community adjustment have included IQ as a variable. Only about half of these have found any relationship between their criteria and IQ, and in some instances the relationship was negative. These general findings may be due in part to a restricted sampling of the IQ range, or to the use of a gross success-failure criterion of adjustment. The following report, based upon mail questionnaire data from former state school residents, reveals many differences in community lifestyle related to IQ. Additional factors which may be largely responsible for these differences are discussed.

**HANDICAPPING CONDITION:**
VISU

**PRIMARY FOCUS:** INDEPENDENT LIVING STATUS
General orientation, mobility evaluation, social perception.

**ABSTRACT:**
Capabilities and limitations of 251 severely impaired persons (senior high school age and older) were assessed on a range of visual environmental adaption problems to learn how they are organized and influenced. Factor analyses indicated that problems can be grouped on the basis of eight functional domains, among which an independent living skills factor accounted for most response variance. Major influences on outcomes in these domains were acuity, age, sex, education, and perceived impact of impairment on quality of life. Results suggested the usefulness of rehabilitation programs geared to activity domains rather than vision parameters.

**HANDICAPPING CONDITION:**
MULTI

**PRIMARY FOCUS:** INDEPENDENT LIVING STATUS
Assessment of independent living skills in functional terms.

**ABSTRACT:**
This article presents suggestions for severity of disability criteria and closure criteria for severely disabled clients being served by an independent living rehabilitation center. The suggestions are founded on experience from a three-year-old project on independent living rehabilitation. Clowers and Belcher outline measurement of physical, psychosocial, and environmental factors for inclusion in the two sets of criteria.

HANDICAPPING CONDITION:
SED

PRIMARY FOCUS: INDEPENDENT LIVING STATUS
Information about reinstitutionalization and correctional contacts, length of hospitalization, criminal activity.

ABSTRACT:
An 18-year follow-up of 66 aggressive and disturbed adolescents admitted to the children's unit of a large mental hospital in 1960 reveals a high degree of antisocial and criminal behavior persisting into adulthood, with lessening psychiatric involvement as the subjects matured. Factors contributing to this pattern of continuing antisocial behavior are identified, and implications for treatment are considered.

HANDICAPPING CONDITION:
MR_MI MR_MO MR_SP

PRIMARY FOCUS: INDEPENDENT LIVING STATUS
Self care tasks, home management, mobility, usage of community facilities, social integration, personal satisfaction with present situation, money usage.

ABSTRACT:

The present study assessed the degree of community integration of 300 young adults in Virginia who have participated in special education programs for students labeled mentally retarded. Surveys were administered by trained interviewers on variables related to basic self-care, home management, community usage, use of free time, recreational/leisure activities, and self-satisfaction. Results indicated that the individuals surveyed were generally satisfied with their present situation, and most displayed some degree of competence in the area of independent living skills. Implications of the results and the necessity for future research are briefly discussed.

HANDICAPPING CONDITION: VISU MULTI BLIND

PRIMARY FOCUS: INDEPENDENT LIVING STATUS
Living options: heavily supervised to living independently; housekeeping, cooking, community experience, time concepts.

ABSTRACT:
The paper describes the community residence and independent living services offered by Perkins School for the Blind which serves multi-impaired, blind, visually impaired, and deaf-blind individuals. The first part reviews existing community living options and emphasizes the need for thorough diagnosis, extensive training in daily living skills and community experience curricula, inservice training for all staff, and cooperation between educators and rehabilitation personnel. The development of the Perkins' program is traced and its current status, which includes an apartment project and houses used for residential programming for 57 clients, is described. The author suggests that educators must become familiar with real estate concepts and principles and with aspects of estate and trust planning.
RECORD #: 83


HANDICAPPING CONDITION: DEAF

PRIMARY FOCUS: INDEPENDENT LIVING STATUS
Extent of interpretation, telephone use, ability to communicate in home, school and social environments.

ABSTRACT:
The communication practices and attitudes toward communication of 556 mainstreamed, hearing-impaired adolescents were investigated. Data on communication practices with differing persons, use of telephones and hearing aids, self perception of communication skills, communication problems, and services being received and desired are based on the self-reports of the hearing-impaired adolescents involved. Data on age, hearing loss and extent of mainstreaming were supplied by their teachers. The data indicates that these adolescents appear to adapt their communication modes and styles to fit the person with whom they are communicating, that they feel reasonably successful communicating with hearing people, but that the communication was not without its problems. Although the data were analyzed for group trends, variability in needs and programming is evident in the ranges of responses of the adolescents.

HANDICAPPING CONDITION:
MR_MI

PRIMARY FOCUS: INDEPENDENT LIVING STATUS
Community functioning: social adjustment, personal adjustment.

ABSTRACT:
This paper describes an intensive analysis of the adjustment of 18 persons leaving a residential institution for the mentally retarded for independent status after completing rehabilitation programs. These ex-students had been discharged from the institution between 1963 and 1974 with most leaving in the late 1960's. The majority were of mild to borderline intelligence with an average full scale IQ at time of discharge of 73, as measured by the Wechsler Adult Intelligence Scale (IQ range 53-92). These interviews were conducted in the subjects' homes using an evaluation instrument which encompassed areas of vocational and economic adjustment, as well as personality, emotional and social functioning. The analysis was organized into four general areas of community functioning: vocational adjustment; economic adjustment; social adjustment; and personal adjustment.

**HANDICAPPING CONDITION:**
MR_MI MR_MO

**PRIMARY FOCUS:** INDEPENDENT LIVING STATUS
Living costs, community access, friendship patterns, leisure time, personal maintenance, food preparation, behavioral skills.

**ABSTRACT:**
The placement success and quality of life of 69 mentally retarded persons placed into independent housing 5 years previously was evaluated. Eighty percent (n=55) were still in their original independent housing placement. On the basis of multiple regression analysis, the most significant predictor variables were the behavior skills areas of personal maintenance, communication, community integration, clothing care and use, and food preparation. Unsuccessful placements were related to bizarre behavior, nutritional problems and inadequate home maintenance. Quality of life variables analyzed included employment, finances, community utilization, leisure-time usage, and friendship patterns. Analysis of the quality of life variables presented a mixed picture: Part of the data reflected low income and possible loneliness; on the other hand, community utilization occurred frequently and involved normal activities. Clients reported that they were proud of their apartments and felt good about "doing their own thing." In light of the results, an extended assistance-training model was presented.

**HANDICAPPING CONDITION:**
MR_MG MR_SP

**PRIMARY FOCUS:** INDEPENDENT LIVING STATUS
Types of residences, community living skills, use of support services.

**ABSTRACT:**
The relationship between age and community adjustment was studied in a sample of 153 deinstitutionalized mentally retarded adults. Those aged 18 to 54 were compared with those aged 55 and older with respect to IQ, rate of recidivism, community adjustment, and residential environment. Results showed that although the two groups were comparable in IQ and recidivism rate, the older subjects lived in less autonomous residences in the community and functioned at a lower level. Alternative explanations for these results were offered, and policy implications were presented.

HANDICAPPING CONDITION:
MR_MI MR_MO MR_SP

PRIMARY FOCUS: INDEPENDENT LIVING STATUS
Rates of success and failure compared with demographic variables.

ABSTRACT:
Differences in the characteristics of unsuccessful and successful community-placed clients were examined. Discriminant function analysis identified a maladaptive behavior factor and sex to be significant discriminators between the two groups. Unsuccessful clients manifested a significantly higher frequency of every maladaptive behavior assessed by the maladaptive variable. More males than females failed in community placement.
References


Definitions of Handicapping Conditions

From P.L. 94-142:

(a) As used in this part, the term "handicapped children" means those children evaluated in accordance with 121a.530-121a.534 as being mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, orthopedically impaired, other health impaired, deaf-blind, multihandicapped, or as having specific learning disabilities, who because of those impairments need special education and related services.

(b) The terms used in this definition are defined as follows:

1. "Deaf" means a hearing impairment which is so severe that the child is impaired in processing linguistic information through hearing, with or without amplification, which adversely affects educational performance.

2. "Deaf-blind" means concomitant hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational problems that they cannot be accommodated in special education programs solely for deaf or blind children.

3. "Hard of hearing" means a hearing impairment, whether permanent or fluctuating, which adversely affects a child's educational performance but which is not included under the definition of "deaf" in this section.

4. "Mentally retarded" means significantly subaverage general intellectual functioning existing concurrently with deficits in adaptive behavior and manifested during the developmental period, which adversely affects a child's educational performance.

5. "Multihandicapped" means concomitant impairments (such as mentally retarded-blind, mentally retarded-orthopedically impaired, etc.), the combination of which causes such severe educational problems that they cannot be accommodated in special educational programs solely for one of the impairments. The term does not include deaf-blind children.

6. "Orthopedically impaired" means a severe orthopedic impairment which adversely affects a child's educational performance. The term includes impairments caused by congenital anomaly (e.g., clubfoot, absence of some member, etc.), impairments caused by disease (e.g., poliomyelitis, bone tuberculosis, etc.), and impairments from other causes (e.g., cerebral palsy, amputations, and fractures or burns which cause contractures).

7. "Other health impaired" means limited strength, vitality or alertness, due to a chronic or acute health problems such as a heart condition, tuberculosis, rheumatic fever, nephritis, asthma, sickle cell anemia, hemophilia, epilepsy, lead poisoning, leukemia, or diabetes, which adversely affects a child's educational performance.
(8) "Seriously emotionally disturbed" is defined as follows:
   (i) The term means a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree, which adversely affects educational performance:
      (A) An inability to learn which cannot be explained by intellectual, sensory, or health factors;
      (B) An inability to build or maintain satisfactory interpersonal relationships with peers and teachers;
      (C) Inappropriate types of behavior or feelings under normal circumstances;
      (D) A general pervasive mood of unhappiness or depression;
      (E) A tendency to develop physical symptoms or fears associated with personal or school problems.
   (ii) The term includes children who are schizophrenic or autistic. The term does not include children who are socially maladjusted, unless it is determined that they are seriously emotionally disturbed.
(9) "Specific learning disability" means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations. The term includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not include children who have learning problems which are primarily the result of visual, hearing, or motor handicaps, of mental retardation, or of environmental, cultural, or economic disadvantage.
(10) "Speech impaired" means a communication disorder, such as stuttering, impaired articulation, a language impairment, or a voice impairment, which adversely affects a child's educational performance.
(11) "Visually handicapped" means a visual impairment, which, even with correction, adversely affects a child's educational performance. The term includes both partially seeing and blind children.

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<th>Handicapping Conditions</th>
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<td>HH/Deaf</td>
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### Research Faculty at the University of Illinois

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
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<tbody>
<tr>
<td>Janis Chadsey-Rusch</td>
<td>Visiting Assistant Professor of Special Education</td>
</tr>
<tr>
<td>Lizanne DeStefano</td>
<td>Visiting Assistant Professor of Educational Psychology</td>
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<tr>
<td>Jane Dowling</td>
<td>Visiting Assistant Professor of Special Education</td>
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<td>Professor of Educational Psychology</td>
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<td>L. Allen Phelps</td>
<td>Professor of Vocational Education</td>
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<td>Associate Professor of Special Education</td>
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<tr>
<td>Frank R. Rusch</td>
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<tr>
<td>Richard P. Schutz</td>
<td>Visiting Assistant Professor of Special Education</td>
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<tr>
<td>Robert E. Stake</td>
<td>Professor of Educational Psychology</td>
</tr>
</tbody>
</table>
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