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THE DEVELOPMENT, TESTING AND ASSESSMENT
OF A MODEL FOR ESTABLISHING PERCEIVED
COMMUNITY NEEDS FOR CAREER EDUCATION ALTERNATIVES

by

Robert A. Schiff

A Dissertation Submitted to the Graduate School
of the University of Massachusetts in partial
fulfillment of the requirements for
the degree of

DOCTOR OF EDUCATION

School of Education
Amherst, Massachusetts

March, 1974


THE DEVELOPMENT, TESTING AND ASSESSMENT
OF A MODEL FOR ESTABLISHING PERCEIVED
COMMUNITY NEEDS FOR CAREER EDUCATION ALTERNATIVES

A Dissertation

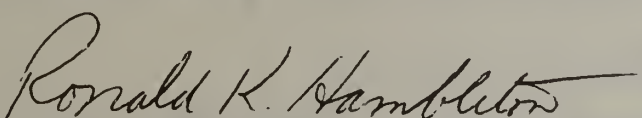
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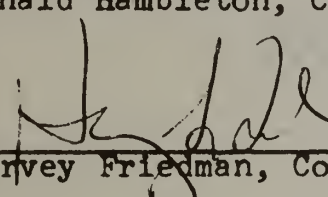
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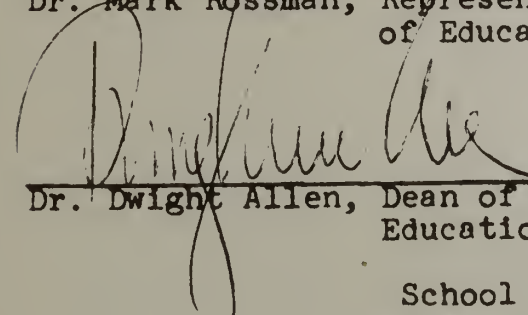
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School of Education
Amherst, Massachusetts

March, 1974

Dedicated to
Jeanne
for her patience,
her understanding,
her affection,
and for the sacrifices she
made during this study

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ABSTRACT

This dissertation describes the development, field testing and evaluation of the process and the product of a study of current status and perceived needs for career education in a diverse geographic region with limited school and industrial resources. Recommendations for modifications in the design, data collection, and reporting processes are recommended in order to make available a tested process readily adopted by other researchers for use in operationalizing a local needs assessment for career education.

The dissertation is organized into six chapters plus several appendices. Chapter one describes the background, rationale, purposes, limitations, scope and depth of the study. Chapter two presents a review of literature for career education and needs assessment surveys. Chapter three describes the design or methodology of the study. Chapter four relates findings organized around interest groups from whom data was received. The material in chapter five provides a summary with conclusions and recommendations from the field study. Chapter six contains an assessment of the model. It analyzes the worth of various processes and offers procedures for modifying the methodology in order to increase the potential for leaders in education to adopt the design.

C H A P T E R I

BACKGROUND

This dissertation describes the development, field testing and evaluation of the process and product of a study of the current status and perceived needs for career education in a diverse geographic region with limited school and industrial resources. Recommendations for modifications in the design, data collection, and reporting processes are recommended in order to make available a tested process readily adopted by other researchers for use in operationalizing a local needs assessment for career education. In order to do this, a study was done of the perceived needs and current status of career education in the Southern Berkshire Region.

That research was undertaken to obtain data needed to assist the Massachusetts Division of Occupational Education to make informed and viable decisions about future allocation of occupational education resources in the Southern Berkshire Region. It is evidence of the Division's major concern to promote leadership which will enhance the career/occupational/vocational education opportunities for youth in all areas of the Commonwealth. Citizens advisory committee perceptions of the total Commonwealth program suggested that current programs in the secondary schools of the Southern Berkshire Region were not adequately providing the needed career

education opportunities. Therefore, University of Massachusetts personnel organized to conduct selected components of a current status report.

Rationale

Inherent in this project was the need to obtain data on Career Education in the Southern Berkshire Region essential to design curricula for non-college bound youth which were consistent with current and near future occupational requirements. Each year increasingly larger percentages of existing occupational competencies become obsolete. Employment and promotion require capabilities consistent with changing job patterns and requirements. Educators urgently need to identify types and combinations of knowledge most likely to make youth employable in these changing situations.

The philosophic premise of this research was that occupational freedom involves both informed choice of alternatives and competence to work effectively. The economy needs constantly larger numbers of workers possessing new capabilities. But youth can evaluate only those occupational opportunities which they perceive. They are free to perform only those kinds of work for which they can acquire competence. Choice and acquisition of competence may be needlessly impaired by limited outlooks and motivation. For these reasons studies of career education perceptions and aspirations were a part of this research.

A further rationale for this research was rooted in the right and responsibility of local communities to ultimately determine the types and quality of education available. It recognized the ultimate local responsibility for financial support of programs offered. Therefore, effort has been made to determine the perceptions and aspirations of opinion leaders, public officials, parents, and concerned citizens, as well as those of school related persons.

Statement of Purpose

The purpose of this dissertation was to develop a model for doing a current status and needs assessment survey, to implement that model, and finally to report the results and modify the model.

An additional purpose of this study was to gather information to enable both local Southern Berkshire leaders as well as those at the Massachusetts State Department of Education to make appropriate decisions concerning the further direction of occupational education in the Southern Berkshire area. Information concerning the current status and needs of the area must be known before rational decisions can be made. The major goal of this research had been to provide data which could be used to determine what the occupational education needs of this geographic area were and how occupational education resources could be used to meet those needs.

Concomitant with that major goal was the need to have recommendations available for decision makers prior to planning for the coming school year. School superintendents needed the information by November of 1973 in order to make recommendations to be considered for the next budget period. The Commission for Occupational Education needed the data by mid-November for use in recommending goals and priorities for program development to the Division for Occupational Education. Concerned educators and citizen groups needed the data in time to make proposals for program support prior to normal February 1974 deadlines for proposals for funding support. Therefore, a methodology was developed which allowed data to be gathered between the period May 21, 1973 through June 30, 1973. However, it should be noted that the restrictive time limits placed constraints on the kinds of data that it was possible to collect.

Specific purposes of this research as described in the initial proposal are the following:

1. To develop a model for an instrumentation for completing a study of current status and needs assessment for career education,
2. To determine the present status of career education in the Southern Berkshire Region,
3. To determine the present needs for career education in the Southern Berkshire Region,

4. To examine exemplary career education projects elsewhere in the nation that show potential for success in the Southern Berkshire Region.
5. To compile the data from the four points above and present findings and recommendations in the final report and distribute this document to the appropriate people.

Definition of Terms

Career Education is the total effort of public education and the community aimed at helping all individuals to become familiar with the values of a work-oriented society, to integrate these values into their personal value systems, and to implement these values into their lives in such a way that work becomes possible, meaningful, and satisfying to each individual.¹

Occupational Education, in Massachusetts, is a division of the State Department of Education and includes the following specialties: Adult Education, Apprentice Training, Consumer and Homemaking Education, Cooperative Ed. and Work Study, Programs for the Disadvantaged, Programs for the Handicapped, Industrial Arts Education, Manpower Development

¹Kenneth B. Hoyt, Career Education, What It Is And How To Do It, (Salt Lake City, Utah: Olympus Publishing Company, 1972), p. 1.

Training Act, Office Occupations, Technical Education, Trade and Industrial Education and various projects of limited duration related to these specialties.²

Assumptions of the Study

Current reports of public perceptions of the world of work³ and recent studies of the sociological and psychological dimensions of work and its relationship to life style⁴ suggested an urgent need for review of the goals and associated curriculum for career education/occupational education. Emerging modifications in perceptions of the roles and status of women and minorities in the world of work, coupled with affirmative action toward achieving equity in jobs and education for them, created immediate demand for review of the curriculum, and the goals of the institutions preparing for occupational education. The total system and nature of our schools are challenged by these trends.

²Massachusetts State Plan for Vocational Education, (Massachusetts State Board of Education, State Department of Education, July 1972), pp. 22-23.

³Worker Alienation - Hearings Before the Senate Subcommittee on Employment, Manpower and Poverty. Senate Committee on Labor and Public Welfare, Government Printing Office, Senate Bill 3916, Washington, D.C., 1973.

⁴Work in America - Report to a Special Task Force to the Secretary of H.E.W., MIT Press, Cambridge, Massachusetts, 1973.

Reaffirmation, in the form of voting records on school bond issues, of the inherent right and responsibility of local citizens to make decisions about the nature and quality of schools has intensified the need for informed citizens advisory input to the process of setting state-wide priorities for public resource allocation.

Career education is expanding in schools in many subtle forms which are difficult to categorize, number and count. It is possible that components of career education have been implemented into a given course by an innovative teacher without coordination with a total curriculum plan.

Other communities throughout the nation are concerned with developing career education programs appropriate with future employment opportunities in the communities. It is assumed that school administrators in many communities will have to initiate, interpret and communicate an analysis of the public's needs for career education in their districts.

It is for these reasons, that the researcher supports the philosophy that a school district should periodically conduct a current study and needs assessment.

Limitations of the Study

This study attempted to make available selected information as part of an overall review of the needs in the Southern Berkshire Region. It focused on the current perceptions of students, teachers, school administrators, and

concerned citizens in the region, the status and needs for career/occupational education and reports descriptive demographic data as a means of characterizing the Southern Berkshire Region. It does not purport to do a manpower/labor needs analysis or industry-related projections of future employment trends for the region. Those data are available to the Massachusetts Commission for Occupational Education through other sources.

In addition, it was not practical for all industries to be interviewed for their perceptions of manpower needs, so the major twenty business establishments were used to determine industries feelings concerning manpower needs. Various local businessmen felt these business establishments were representative of those in the area. Anyone wishing to implement this model should be advised that certain factors in a specific locale may warrant additional input from various information sources. This should be expanded upon at a later time.

The Researcher's Role in the Study

The researcher participated in the development of the proposal which was funded by the Massachusetts Commission on Occupational Education.

The researcher was also a member of the research team which designed the study and developed the instrumentation for the current status and needs assessment data for the

Southern Berkshire Region. The researcher operationalized the field work, scheduling, data collection and community relations aspects of the project. Further, the researcher supervised the library field research of two other graduate students. In addition, it was his duty to design and complete the assessment of the field study in the Southern Berkshire region.

(Educational Significance of the Study

The significance of this dissertation is to establish guidelines to be followed for doing a current status study and needs assessment to identify local Career Educational needs.

Secondly, this study will equip the decision makers in the Massachusetts State Department of Education as well as education planners in the Southern Berkshire Region with the data to allow them to better meet the needs of a specific region.

The present study was significant in its attempt to fill the gap left by earlier models; in its building upon the framework provided by recent models, and its potential for curriculum improvement via a needs assessment survey.

Organization of the Dissertation

The dissertation is organized into six chapters plus several appendices. Chapter I described the rationale,

purposes and background for the study. It also established the limitations and scope and depth of the study.

Chapter II will present a review of literature for career education and needs assessment surveys. Chapter III will describe the design or methodology of the study. Chapter IV will discuss findings organized around the interest groups from whom data was received. This chapter will be a report of the data in tabular form received from computer printouts of student and teacher questionnaires. Further, it will report statements of perceived consensus and divergence on issues and questions derived from personal interviews. The material in Chapter V will provide a summary with conclusions and recommendations from the field study. Chapter VI will contain an assessment of the model. It will analyze the worth of various processes and will offer procedures modifying the methodology in order to increase the potential for leaders in education to adopt the design.

C H A P T E R I I

R E V I E W O F R E L A T E D L I T E R A T U R E

This chapter contains two distinct reviews of related literature. The first review deals with exemplary career education programs in rural school districts. The second review investigates the design of various needs assessment surveys in education recently completed. These reviews are intended to give the reader insight into the relevant research of each of these two specialties.

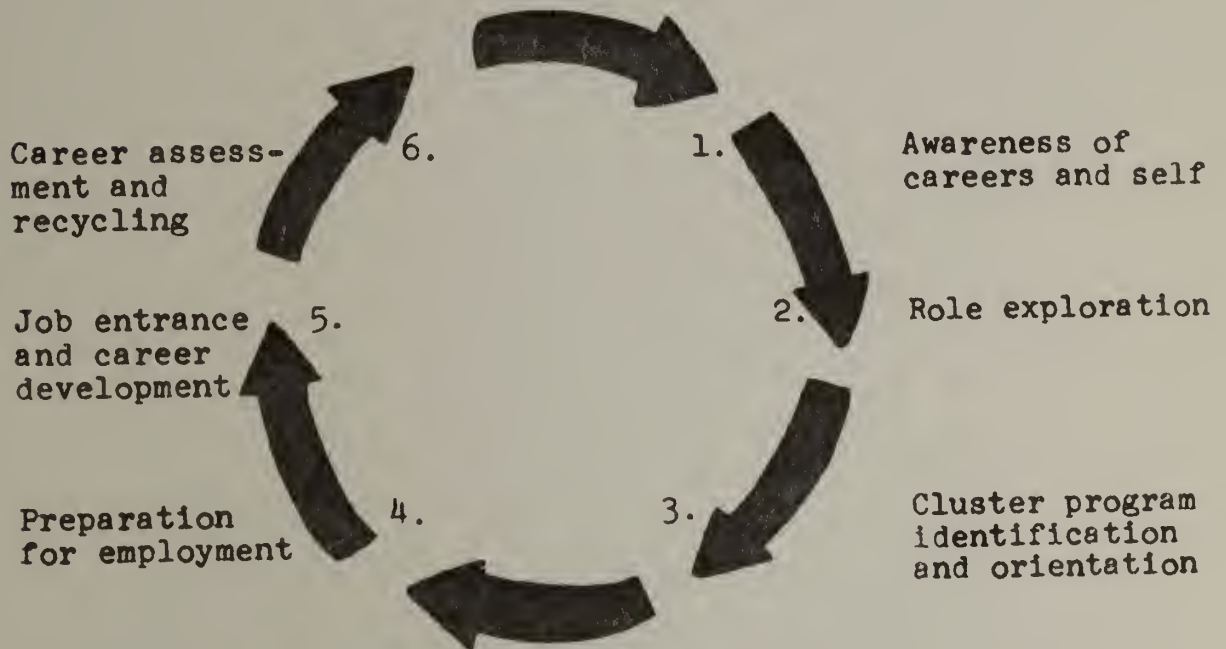
Exemplary Career Educational Programs in Rural Districts

It is interesting that the ERIC SEARCH ordered specifically for this review identified only six "Career Projects" in rural areas. A further SEARCH which specified "Vocational" and "Occupational" rural projects, turned up over eighty abstracts many of which related to career education. Two inferences may be drawn here; (1) the movement toward total career programs in rural areas is slow, and/or (2) project directors feel no obligation to have their projects reports included in the ERIC file. In addition, the main thrust for change is coming from the vocational educators. Though heartening to vocational educators, this seems to illustrate the familiar dichotomy between "academic" and "vocational" education. Total integration of program into career concepts appears rare, and those rural schools taking this route may

be considered innovative.

While there is no intention here of defining at length what career education is or should be prior to a review of the various projects, the following section outlines briefly the expected characteristics of career education. These are a composite view from the various authorities on the subject, and provide a conceptual and comparative frame for the later review of projects.

Louise J. Keller's¹ cyclic stages, appearing to encapsule the vital trends of career education, are detailed below:



¹Louise J. Keller, "Preservice Preparation of Teachers for Career Education," in 6th Annual National Voc. Tech. Teacher Education Seminar Report, (Ohio State Univ., 1972), p. 117.

As Keller comments, the six stages have been detailed by numerous models for career education and are currently influencing curricula across the nation. The spiral or cyclic view is intended not only for school years but a life-time concept.

Keith Goldhammer² and others have pointed out that career education should prepare persons for the various life careers he defines as follows:

1. producer of goods or a renderer of service
2. member of a family group
3. participant in the social and political life of society
4. participant in avocational pursuits and/or
5. participant in the regulatory functions involved in aesthetic, moral and religious concerns.

A. Miller³ takes a more pragmatic view. While he reiterates the above, he feels the main focus is toward the "economic man", an area which he considers is done least well by the schools.

²K. Goldhammer and R. Taylor, Career Education, Perspectives and Promise, (Columbus, Charles Merrill Publishing Co., 1972).

³A. Miller, "Career Education Tenets", in 6th Annual National Voc. Tech. Teacher Education Seminar Report, (Ohio State Univ., 1972), p. 29.

Tenets for defining career education. Miller proposes seven basic tenets which further define career education, but he cautions that no clear programmatic definition has yet been widely accepted.

Tenet 1. Career education is a comprehensive educational program focused on careers. It begins with the entry of the child and continues into the adult years.

Tenet 2. Career education involves all students, regardless of their post secondary plans.

Tenet 3. Career education involves the entire school program and unites the schools, communities and employers in a co-operative educational venture.

Tenet 4. Career education infuses the school program, rather than providing a program of discrete career education curriculum "blocks".

Tenet 5. Career education provides the student with information and experiences representing the entire world of work.

Tenet 6. Career education supports the student from initial career awareness to career exploration, direction setting, career preparation, and placement. It provides for placement and follow-up, including re-education if desired.

Other writers have stressed the importance of improved guidance facilities and the need for teacher in-service training; no program will succeed if the teachers do not understand the concepts involved.

In these days of "accountability", it seems necessary to be able to identify the learning techniques utilized. Goldhammer and Taylor⁴ have further noted the need for "process" education which, by definition employs the full range of the taxonomies. Theoretically, this will lead to better all-round development and decision-making ability, which would indicate an improvement on the traditional "content" or purely cognitive oriented curricula.

As has been stated, exemplary programs in rural districts are something of a rarity, if the ERIC file is any guide. After examination of career programs excluding rural districts, another fact becomes apparent. Many exemplary programs exist in various states of development, but very little research has, at this time, been disseminated or documented. On reflection, this may not be too surprising. Funding for exemplary career programs is of fairly recent origin, and the expedition of radically new concepts takes time. Because of the paucity of available and related research, this review is intended to highlight the apparent general trends of career

⁴Goldhammer and Taylor.

education. Subjective opinions from program participants will be used from time to time, and will largely substitute for facts and figures not presently available.

Robert Taylor⁵ described an exemplary project currently under way in school districts across the nation, specifically in Mesa, Arizona; Los Angeles, California; Jefferson County, Colorado; Atlanta, Georgia; and Pontiac, Michigan. It will be readily seen that these are not rural projects. However, as the model is so well formulated, it is considered relevant to this review. While differences will exist in rural programs, (if the rural programs detailed in the ERIC file are indicators) the differences are only in degree. Many common concepts are apparent.

A vital feature of Taylor's program was a massive in-service training program implemented prior to the initiation of the project. At the risk of stating the obvious, this procedure seems mandatory to the future efficacy of new and innovative programs. Other studies that failed to emphasize staff training ran into immediate difficulties which were manifest in staff hostility and general problems in developing career concepts and curricula integration.⁶ In addition both

⁵Ibid.

⁶R. E. Taylor, Implications for Increased Educational Relevancy, (Center for Vocational and Technical Education, Ohio State University, 1972), ERIC Ed. 068 700.

Jenkins and Evans⁷ have stated the need for faculty participation in decision-making and planning during the formation of new curricula.

Prior to staff training, Taylor described the "needs analysis" procedures utilized. A modified Delphi technique was used to develop the matrix which consisted of eight major elements of career education extended vertically through the grades. The questionnaires were distributed to students, parents and faculty. Results overwhelmingly supported career education implementation from grades 4 through 12. Correlations between the six cities were so high that it was considered that components could be virtually identical. Further, it suggested that concepts "invented" and used successfully in one school would probably work in all six schools. This co-operative aspect may be highly significant and suggests the possibility of group ventures in rural districts.

The programs as described by Taylor were absolutely congruent to the "expected characteristics" as stated by experts at the beginning of this section and will not be reiterated here. Within these characteristics were the following:

⁷J. D. Jenkins, "A Universal Model of Occupational Education for Pikeville Model Cities Program," Interim Report, (Washington, Bureau of Adult, Vocational and Technical Ed., Oct. 30, 1971), ERIC Ed. 061 419.

1. Employer Based Model,
2. Home Community Based Model,
3. School Based Model.

The Employer Based Model is an alternative for the school setting and is an attempt to integrate academic, general and vocational curricula into comprehensive career education. It is aimed at increasing the relevance of education to work and broaden community participation. Business consortiums and other organizations are involved-- Research For Better Schools (RBS), Farwest Laboratory for Educational Research and Development, the Northwest Regional Education Laboratory, and the Appalachia Education Laboratory. Although the original concept was that academic training could be offered in the work environment, this has proved unrealistic and now takes place in the conventional school. Taylor hopes that ultimate integration will take place.

The Home Community Based Model's target population is out-of-school youth and adults. Educational means are via mass media and Career Development Centers which emphasize individualized learning.

The School Based Model, as has been stated, is very much on the order of the Cyclic Model referred to in earlier stages.

Herbert Holstein⁸ described an exemplary rural program which covered a year's activities in a depressed area of West Virginia. This was a report which dealt only briefly with report findings. Specific features of the program included the introduction of (1) career awareness in grades 1-6, (2) career orientation activities in grades 7-8, (3) career exploration in grades 9-10, (4) intensified occupational guidance, counseling and job placement activities, and (5) intensified skill development activities for students terminating their formal education. The interim evaluation indicated that some teachers were having problems correlating existing disciplines with occupation study. This has led to the recommendation that teachers use career education materials to supplement existing texts. Little is said in the report about in-service training and may well account for the problem enumerated.

Paul Sweany⁹ reported a project which examined the problem of small schools in rural areas which have not

⁸H. B. Holstein, "Improving a Rural School Program with Expanded Vocational Education Services by Utilizing Comprehensive Career Orientation and Exemplary Activities," Interim Report, (Washington, D.C., Bureau of Adult Vocational and Technical Education, Dec. 31, 1971), ERIC Ed. 028 387.

⁹H. Paul Sweany, The Development and Demonstration of Unified Vocational - Technical Education Programs in Small Rural Area High Schools, (Michigan State Univ., East Lansing, March 1969), ERIC Ed. 028 874.

offered broad, comprehensive programs of vocational education, with the assumption that the skills are not needed in the local community. Sweany challenged this view and took the position that many rural youths will ultimately seek employment in urban areas. The whole area of deciding "what to teach" is of increasing interest to career educators. John Teeple¹⁰ and others have noted that very few school districts develop demographic and manpower information before implementing new programs. Teeple felt that this shortcoming can be traced to the lack of a state requirement to pursue systematic annual and long range planning at the local level and to the lack of detailed job market and population projections.

Sweany's study examined changes in occupational patterns in the local community, and the types of work which out-migrating youth might obtain. These were important considerations in program development.

In-service training was an important feature as the nature of the project was to develop and improve instructional systems (target population of grade nine boys). Apparently the workshops helped unify the staff members and resulted in

¹⁰J. Teeple, "An Analysis of Manpower, Requirements, Information and the Availability of Vocational Education in Selected Urban and Rural Areas," Final Report, (Washington, D.C.: National Planning Assoc., Washington, D.C. Center for Priority Analysis, Sept. 1971), ERIC Ed. 058 419.

notable co-operation between guidance and vocational personnel.

The project resulted in extensive curriculum revision and improvement of the vocational phase of guidance. Recommendations for future development included (1) providing in-service education for teachers to aid them in the development of simulated work stations which will improve students' competencies with the essential skills needed for successful job entry, (2) offering a "survey of occupations" course at the eighth grade, (3) continuing to up-date occupational information, (4) utilizing community resources to augment instructional staff, (5) continually up-dating and evaluating curriculum, (6) preparing teachers in the skills required for analysis of student occupational competencies, and (7) utilizing a variable class scheduling technique to optimize student learning and instructional requirements.

John Jenkins¹¹ described a project which attempted to:

1. establish a system for collecting information from students, out-of-school youth, and adults, which would be pertinent to placing students in part-time and full-time jobs,
2. develop a clearinghouse for the job opportunities and educational opportunities,
3. assist students in securing both part-time and full-time employment,

¹¹Jenkins.

4. develop procedures for a follow-up program, and
5. conduct guidance programs (both group and individual) regarding employment problems.

This was a narrow program if one evaluates it by means of the criteria explicated at the beginning of this section. It appears to cater for job placement only, even though the target population was for grades 7 through 12. Further evidence that the program was ill-prepared is illustrated by the evaluation by Dr. Rupert Evans. He felt that the teachers, counselors, supervisors, and administrators were not prepared for the problems of diffusing career education. Further there appeared a need for massive in-service training. He considered that the program was not student centered and lacked adequate materials. This program appears a warning to those schools which convert too rapidly to innovations not fully understood by the personnel involved.

L. Selland¹² described a project in North Dakota which aimed at giving access to adequate vocational information on which to base vocational and education information. Selland felt that a large proportion of North Dakota youth do not currently have this access. Specific objectives of this comprehensive vocational guidance and preparation project in-

¹²L. Selland, A Statewide Program in Developing Vocational Guidance (K-12) and Occup. Prep. for the Changing World of Work, (North Dakota State Board for Vocational Education, 1971).

cluded (1) providing students with experiences designed to assist them in evaluating their interests, aptitudes, values and needs, (2) assisting students in recognizing the range of occupations that exist which would allow them to express themselves and live the type of life they desire, (3) helping students explore some occupations in detail, and (4) providing job entry skills through intensive training programs and co-operative education. Although little information is forthcoming in the study as to "ways and means" a major conclusion offered by Selland is that career development activities from K-12 will enrich the curriculum and make learning more relevant. The description of the study seems to show a career information and preparation model. From the details of the report there is no indication of any attempt to cluster or integrate curriculum.

The "cluster" concept is probably a vital feature of integrated career education but appears largely lacking in rural projects. The state of Oregon¹³ has succeeded in widespread adoption of the system. Clusters there provide generalized occupational training as derived from competencies common to key occupations. These have similar competency requirements and are grouped together to form a career

¹³M. E. Multanen, "Occupational Career Clusters the Oregon Way" (a presentation at the 6th Annual National Voc. Tech. Teacher Education Seminar, Ohio State Univ., 1972).

cluster. Implicit to this organization is a recognition of the cognitive, psychomotor and affective aspects of tasks performed.

The projects selected for review are fairly typical of the eighty or so that are described in the literature. Thus, it is clear that the total number of career programs in rural areas are few. One gets the strong impression that the vocational teachers are the most innovative here but are not receiving the support needed. This seems particularly so in light of Howard Dawson's¹⁴ findings. As long ago as 1964 he noted the lack of reading ability is perhaps the major cause of educational retardation and drop-out at all levels. He believed that large segments of the rural population are functionally illiterate making further technical education all but impossible. If career education is to fulfill its promise, it seems that an integrated effort must come from all faculty. As has been reported, few of the programs discussed have been thoroughly researched. Findings as yet are largely intuitive. Although most educators would agree to the need for careful curricula development, it is noteworthy that only one of the projects reviewed, the Oregon project, referred to the developmental objective approach, which

¹⁴H. A. Dawson, Education in Rural America for Vocational Competence, (National Educ. Assoc., Washington, D.C., Dept. of Rural Education, Sept. 1964), ERIC Ed. 020 059.

utilizes a system beginning with highly specific tasks and leading ultimately to increasingly complex and higher order objectives which call for abstract modes of thought, and combinatory rules. It will be unfortunate if this element of education is neglected.

Major conclusions based on a review of exemplary career educational programs appear to be the following:

1. Career education is worthwhile.
2. Implementation of career programs must be a co-operative venture between administrators, faculty, and community.
3. In-service training is essential to successful implementation.
4. The community can be a rich resource for education.
5. There is an on-going need for better manpower and demographic information.
6. At this time few rural programs are utilizing a total model for career education.
7. Major funding agencies should encourage the development of exemplary career programs in rural districts.

Models of Needs Assessment Surveys

A recent E.R.I.C. search entitled Research Methods and Evaluation for Vocational Education produced twelve abstracts for review. A second search entitled Future Trends, Directions

and Needs in Occupational Education yielded an additional 644 abridgements. Formal needs assessment surveys in education yield final reports to convey the findings of the study. Each document contains the background, design, results and other pertinent information about the task of each survey. Through the use of these abstracts, final reports from selected surveys, and attendance at public hearings by the Connecticut State Advisory Council on Vocational and Career Education, this review of the literature has been compiled.

This review is organized into three areas: (1) background, introduction, and overviews of noteworthy surveys, (2) criteria for evaluation of needs assessment surveys, and (3) areas of consensus, trends and conclusions.

For purposes of this dissertation a needs assessment survey can be thought of as a comprehensive study of the educational experiences that should be available to students in a given locale. The data is usually compiled from various sources including students, professional educators, concerned citizen groups and published projections concerning employment trends. Since industry and technology are constantly making new advances, employers often seek unique competencies from new employees. It is the responsibility of occupational educators to project what these competencies may be and prepare students for gainful employment.

The problem statement is largely the deciding factor in the choice of which target groups are sought for their respective input. A researcher may list target groups according to their priority, since resources often do not permit researchers to exhaust this list. Within the priority list, the researcher may wish to label the first one(s) as "input group(s)" while assigning the groups with less priority the task of confirming or verifying the feedback from the initial target groups.

An alternate plan for dealing with various interest groups separates school related groups from community related groups as follows:

1. School related; this group includes students, recent graduates, teachers, guidance personnel, administrators, and board of education members.
2. Community related; this group may include industrial leaders, labor union representatives, elected officials, appointed officials, businessmen, concerned citizens, governmental agencies and parents.

Each source has a distinct vantage point. The merit of each piece of input must be taken into consideration.

(After the primary target groups are chosen, the size of each group must be determined. In many cases, it is not practical to seek input from every person in an interest group, so a smaller number of persons may be selected at random. Bearing in mind the total size of each interest

group, the sample populations selected are examined with the following thought in mind, "Is this sample group representative of the entire group?" The answer to this question may invalidate the findings of an otherwise valid survey.

There exist subtle constraints connected with data collection due to the method used to collect data. The three most popular methods include the use of (1) questionnaires, (2) interviews, and (3) telephone surveys. Each approach has its advantages and disadvantages. A structured questionnaire with multiple choice answers facilitates the comparison and contrast of responses. A disadvantage of the structured questionnaire involves the fact that often any input beyond the scope of the questionnaire is not provided for. This would not permit the researchers to see beyond their own horizons. It is possible that additional input from those completing the questionnaires may have a significant effect on the resulting findings.

An open minded and valid assessment should allow for needs to be expressed above and beyond those of which the researchers are aware. A vehicle for this may be an interview with flexible structure in which the person being interviewed may, unintentionally, allow unexpected areas of great need to surface. There are disadvantages to this procedure as well. Open ended questions often used in interviews, cause great difficulty for researchers in the areas of extracting consen-

sus or divergence statements. There is a greater likelihood for researchers to misinterpret data from interviews as opposed to data from multiple choice questions.

Telephone surveys can be great savers of time and financial resources. The primary disadvantage of telephone surveys involves hardship on the part of the interviewer to credentialize himself. Often people answering the telephone and informed of a survey, immediately become suspicious and sceptical. The scepticism not only effects the number of responses but the sincerity of each response as well. Therefore, it is recommended that if a telephone survey is to be conducted, credibility should be established beforehand through the use of mass media, either a local radio station program or a newspaper article in a local newspaper.)

The following overviews contain vital information concerning target groups utilized, methods of sampling, and techniques used in various surveys as reported in each final report document. No findings will be reported for these studies. They are listed in alphabetical order; no rating is inferred in the succession.

Occupational Education for Massachusetts.¹⁵ Carl J. Schaefer and Jacob J. Kaufman in conjunction with the

¹⁵Carl J. Schaefer and Jacob J. Kaufman, "Occupational Education for Massachusetts," A Report Prepared for the Massachusetts Advisory Council on Education, (Commonwealth of Massachusetts Department of Education, 1968). ERIC Ed. 029 107.

Massachusetts Advisory Council on Education, conducted a study of vocational and technical education in Massachusetts in a limited time period using the following approaches:

- (1) Consultation with interested groups and individuals,
- (2) a two-day conference with invited guests,
- (3) special studies involving vocational students versus general students versus college preparatory students,
- (4) questionnaires directed to employers, teachers, parents and union officials.

Consultation with interested groups involved, in part, many meetings with the Massachusetts Advisory Council on Education. Visitations to a number of schools with appropriate consultation was also a part of this approach.

The two-day conference was designed to allow behavioral and social scientists to present prepared papers. These presentations reflected the importance of broadening vocational education.

The special studies comparing vocational graduates with non-vocational graduates involved a random sample of graduates from the classes of 1965, 1966 and 1967. Two hundred and forty-eight schools were identified, and 32 representative schools were selected for the study. Approximately 6,320 graduate information cards were supplied by the schools out of a request for 8,667 cards. Each of the 6,320 questionnaires were sent to the recent graduates and approximately 1,800 were returned shortly. After a second mailing, the total number of returned questionnaires reached 1,962. This figure, the

final response, was 31% of the number mailed.

The next approach involved mailing 500 questionnaires to parents, 250 to union officials, 500 to teachers and 2,500 to industry. Only industry received a follow-up for those who were delinquent. The responses are reported as follows: parents, 30 percent; teachers, 62 percent; labor representatives, 21 percent; and industry, 31 percent.

This survey received input from a number of sources. The design and sample selection seems to be acceptable. The population is sufficient. The findings of this study may be considered to have merit.

A Planning Document for Expanded Occupational Education within Selected North Shore Communities.¹⁶ The purpose of this survey was to provide an information source for planning committees of several communities on the North Shore area of Massachusetts currently studying the need for expanding occupational education opportunities for students.

The study seeks to provide an information base such that planning committees and citizens can examine the potential impact of a regional-technical school in relation to the perceived needs of the various communities.

¹⁶William G. Conroy, Jr. and Katharine F. Lindow, A Planning Document for Expanded Occupational Education within Selected North Shore Communities, (Research Coordinating Unit, Division of Occupational Education, Woburn, Massachusetts, Oct. 1971).

A mobility survey was conducted to determine what the mobility rate was. A random sample of citizens completed questionnaires. The returns approached 400 in number and were considered significant.

An instrument was not designed for local employers. Rather, the Occupation Outlook Handbook, a government publication, and publications of the Bureau of Labor Statistics were used to project employment trends.

An additional source of information came from a random sample of citizens concerning their attitudes toward vocational education. A Likert type Scale was used. Details concerning the methods of sample selection were not disclosed.

Perceptions of students and recent graduates toward vocational education were also surveyed. The study included a random sample of ten percent of all students who had graduated in both 1968 and 1969, and a five percent sample of those students still in school. The sampling group consisted of 165 graduates and 560 students in the ninth through twelfth grades.

In this survey, the student, graduate, and citizen surveys appear to be in order, but one may question the validity of projections based on governmental publications for the country. There has not been strong evidence presented to indicate that this geographic region is characteristic of the country. One can then assume that a national trend may not have an effect on selected north shore communities.

The Process and Product of Technical and Industrial High School Level Vocational Education in the United States.¹⁷

Max Eninger's survey dealt with three primary objectives:

(1) to describe the products of vocational education; i.e., the occupational, educational, and other experiences of vocational graduates; (2) to describe the process of vocational education; i.e., relevant characteristics of schools offering vocational programs; and (3) to establish the relationship between process and product variables.

While this survey was not designed to assess needs, the methodology is noteworthy. The design is important in that it is highly respected and has definite potential for needs assessment surveys.

Data is organized in relation to three major issues:

(1) general versus vocational education, (2) vocational versus comprehensive schools, and (3) small versus large enrollment schools. In each case, there exists an independent variable as well as a dependent variable. One hundred schools were selected using stratified random sampling. Each was selected among 667 schools offering three or more trade and industrial courses. About 10,000 male graduates were randomly selected from 1953, 1958 and 1962 graduating classes

¹⁷Max U. Eninger, The Process and Product of T & I High School Level Vocational Education in the United States, (American Institutes for Research, Pittsburgh, Pennsylvania, Sept. 1965), ERIC Ed. 024 797.

for follow-up study. Every Nth graduate was selected. Only males were chosen since at that time, more men were likely to be gainfully employed than women. Two four-page follow-up questionnaires were developed, one for vocational graduates and one for academic graduates. The questionnaires were revised twice and given to a pilot group.

A seven-contact mailing schedule was adopted in which all initial questionnaires for graduates were mailed at one time. Contacts included letters and postcards signed by school personnel.

The returns for 1953, 1958 and 1962 vocational graduates were 40.2, 46.4, and 60.8 percent respectively, for a combined return of 50.5 percent. A substantial percent of the non-returns were graduates with questionable addresses. The rate of return by school varied from less than ten percent to more than ninety percent. Although the procedure described here appears to be fairly complete and unbiased, one must bear in mind that the only input in this study was from recent graduates, whose perspectives may be different from that of industry or professional educators.

A Research Study of the Handicapped and Disadvantaged in Northern Worcester County Leading to a Pilot Program in

Occupational Education and Career Development.¹⁸ Barkley and Dexter Laboratories conducted this survey primarily concentrating on local employment possibilities for the disadvantaged and handicapped. All students in fourteen area high schools were asked to complete a student interest survey. Each of the 7,418 students was asked to indicate his first, second and third career choices from a list of eighty presented. One hundred percent of the students in attendance participated in this activity.

A second instrument was designed for employers to complete. It was found that sixty companies, covering 203 different occupations, were sufficient to establish future employment trends and requirements. For each job description, data was requested concerning turnover rate, on-the-job training, requirements and projections. Data cards were used which permitted information to be reduced for computer input on the standard IBM punched cards suitable for an IBM 82 sorter.

Other sources of employment data listed include trade organizations, labor organizations, Chambers of Commerce, members of the banking profession, educators, insurance and

¹⁸Barkley and Dexter Laboratories, A Research Study of the Handicapped and Disadvantaged in Northern Worcester County Leading to a Pilot Program in Occupational Education and Career Development, (Fitchburg State College, Fitchburg, Massachusetts, 1972).

real estate operators, transportation officials, and various members of governmental bodies and agencies. These sources were interviewed concerning projected job openings in a rather open-ended style.

In this model, the researchers gathered input from fair representation of target groups. It seems obvious that the sample selection chosen is adequate. It seems ironical to review this survey of employment projection as the nation is becoming aware of an energy crisis. One should question the validity of findings in light of fuel cutbacks.

Survey of Needs - Turner Falls High School.¹⁹ Robert Avery conducted a needs assessment survey by administering instruments to two graduating classes and local representatives from industry.

Questionnaires were sent to 116 local companies. Approximately 49 responded, or 42.2 percent. As in many other final reports, the method used to select the 116 companies is not discussed. The questionnaire was designed for hand scoring. The questions were designed to evaluate the projected employment market related to the firm in question, and its willingness to participate in a work-study or cooperative education venture.

¹⁹Robert Avery, Survey of Needs - Turner Falls High School, (Turner Falls School Committee, Turner Falls, Massachusetts, Sept., 1973).

In a survey of the class of 1974, 120 students responded or 85% of the 140 students. The students were given time to complete the instrument during a scheduled assembly in the cafeteria. One factor during the administration of the questionnaire disturbed the researcher; the noise level in the cafeteria was described as being very high. This may have effected the results. This questionnaire included multiple choice questions with comments invited following each question. The instrument, generally speaking, was designed to assess the curriculum offered at that time.

One must bear in mind that the survey of the class of 1970 involved mailing questionnaires to the entire graduating class of 149 persons. The response rate was 35% or 52 responses. No second attempt was made at gathering additional data. This instrument largely measured attitude and was predominantly open-ended. Since thirty-five of the fifty-two respondents were identified as college preparatory, the impact of the findings on occupation education curriculum was questionable.

When assessing the survey, one must bear in mind the small population of the geographic area in question. The samples of industry and student/graduate personnel appears to be complete. The findings of this study seem to be noteworthy.

Criteria for evaluation of needs assessment models.

The findings of a research study can be no more valid than the design employed to gather the data. Before a reader blindly accepts the findings, a checklist of questions should be posed. Lehmann and Mehrens²⁰ have compiled a series of questions which merit consideration.

1. Is the problem clearly stated?
2. Does the problem have a theoretical rationale?
3. How significant is the problem?
4. Is there a review of the literature? If so, is it relevant?
5. How clearly are the hypotheses stated?
6. Are operational definitions provided?
7. Is the procedure (or method) used to attack and answer the problem fully and completely described? Was a sample used? If so, how was it selected?
8. Are there any probable sources of error that might influence the results of the study? If so, have they been controlled?
9. Were statistical techniques used to analyze the data? If so, were they appropriate?
10. How clearly are the results presented?
11. Are the conclusions presented clearly? Do the data support the conclusions? Does the researcher over-generalize his findings?
12. What are the limitations of the study? Are they stated?

Some of the above questions need no further explanation. Other questions above should be further queried according to the two authors.

Regarding the problem, is it adequately delimited yet practical enough to merit investigation? Does the problem have a theoretical rationale? Has the problem previously been

²⁰Lehman and W. Mehrens, Educational Research, Readings in Focus, (New York: Holt, Rinehart and Winston, Inc., 1971).

under investigation? If so, does it warrant reinvestigation? If the answers to each of these questions do not support a strong problem, the research may be sitting on a weak foundation.

Concerning the review of literature, has it been sufficiently reviewed? Is the subject matter appropriate? Does the review verify the purpose for investigating the subject? The review of the literature requires close examination as well. A knowledge of the state of the art can often relate significant background perceptions permitting more appropriate research to be undertaken.

Cohen²¹ has some strong feelings concerning the hypothesis; "Without some guiding idea, we do not know what facts to gather. Without something to prove, we cannot determine what is relevant and what is irrelevant." Upon reading a hypothesis, the researcher emphasizes one should question whether the hypothesis can be tested.

Lehman and Mehrens²² outline additional criteria for evaluating the merit of the data and corresponding procedures used to collect that data:

²¹Morris A. Cohen, A Preface to Logic, (New York: Meridian, 1956).

²²Lehman and Mehrens.

Data and Procedures

1. Are the procedures, design, and instruments employed to gather the data described with sufficient clarity so as to permit another researcher to replicate the study?
2. Is the population fully described? Did the researcher use the total population or did he sample from it? If a sample is used, is it representative of the population from which it was selected?
Note: The manner and the size of sampling are very important.
3. If locally prepared instruments were used, is evidence presented to attest to their validity and reliability?
4. Were the "best" (most economical, most feasible, most valid and reliable) instruments or techniques used?
5. Was a pretest used? Was there a pilot study? If so, why? What were the results? Was the problem or original hypothesis or procedure changed as a result of the pretest or pilot study, and if so, was this modification justifiable and/or desirable?
6. Are there any obvious weaknesses in the over-all "design" of the study?

The responses to this checklist will have great bearing on the credibility of a study and therefore must be carefully analyzed.

Conclusions and generalizations must meet standards as well. Can the conclusions be reasonably deduced from the findings? Are the conclusions over simplified? Can conflicting conclusions be deduced from the same data? If the answers to these questions cause doubt in the mind of the reader, the worth of the study may be questionable. In the preceding pages, the researcher has outlined appropriate criteria for evaluating research. It is doubtful that any one study can meet all criteria at the highest degree. It is

reasonable however, that a reader investigate the merit of the methodology behind a research study before the reader accepts the findings as valid.

Areas of Consensus, Trends, and Conclusions. It is evident that the more valid surveys use a representative sample within a target group, a larger number of target groups, and most likely have adequate financial and time allocations. Perhaps it is unwise to do a survey without the time and money available to get the most valid results possible. Specific criteria for evaluating research is presented in Chapter 6 of this dissertation.

William D. Frazier²³ has done a cost analysis of two types of follow-up studies of the postgraduate activities of former vocational students. He compares the sampling of graduates with the sampling of teachers. Using chi square tests, he concludes that both methods produce equivalent inaccuracies, but because of speed and cost considerations, the teacher follow-up is preferable.

In most of the surveys reviewed, the return rates varied considerably depending on the interest group. Students seem to return more questionnaires per capita than other groups. This no doubt, is due to the fact that students usually complete questionnaires under supervision and during school time.

²³William D. Frazier and James L. Harris, A Comparison of Two Follow-Up Methods Used to Survey Occupational Training Graduates, (Oklahoma Research Coordinating Unit, Stillwater, June 1970). ERIC Ed. 051 433, VT011 905.

These questionnaires were collected immediately upon completion. Teachers are usually second highest in rate of return per capita, whether the questionnaires be administered in the school or mailed to their homes. Previous graduates and other interest groups have not averaged rates-of-return which equal those of students and teachers. Jacobsen²⁴ sent out 11,000 questionnaires to industry to assess manpower needs and received returns calculated at approximately ten percent of those sent out. This can be contrasted with the results of Fifield²⁵ in Idaho. The researcher located addresses for 70% or 6,000 of the 8,500 high school graduates from two towns during a ten year period. Three thousand, six hundred sixty of the 6,000 questionnaires were returned, or 61.5%.

The Florida State Department of Education²⁶ believes return rates can be increased by having the local superinten-

²⁴Eckhart A. Jacobsen and Merlyn Swanson, A Survey of the Technical Needs of Industry and Implications for Curriculum Development in Higher Education, (Northern Illinois University, DeKalb, 1966). ERIC Ed. 010 257.

²⁵Marvin Fifield and Larry E. Watson, A Follow-up Study of Pocatello and Idaho Falls High School Graduates, 1954 - 1963. (Idaho Occupational Research Unit, Moscow, 1967). ERIC Ed. 012 784.

²⁶Fact-Finding in Vocational Education, A Handbook for Conducting Vocational Surveys. (Tallahassee: Florida State Dept. of Education, 1970). ERIC Ed. 017 638.

dent keep the community informed of the progress being made during a research study.

Questionnaires appear to be the major vehicle for gathering the survey data. The data from the questionnaires is usually fed into a computer in the more sophisticated surveys, while the less sophisticated studies are often surveyed by researchers engaging in much hand scoring.

Interviews, telephone surveys and large meetings were quite rare in the abstracts studied, in the final reports discussed earlier, and in other final reports reviewed.

One exception to this concerns a needs assessment completed in New Mexico.²⁷ The statewide occupational needs study was accomplished through personal interviews of 10,096 businesses and industries in thirty-two towns and cities in that state. Tabular data was presented for each population center with a summary of present and projected occupational needs. This data came from 3,600 in-state business firms. At the time of this writing, the Connecticut State Advisory Council on Vocational and Career Education is in the midst of conducting eight public hearings within a two month period, each in a different part of the state. The purpose of these

²⁷James D. Moomas and Darrell S. Willey, Occupational Needs for Vocational and Technical Education for New Mexico, (New Mexico State Department of Education, Santa Fe, March 1966). ERIC Ed. 012 311.

widely publicized hearings is to encourage all concerned citizens to voice the occupational education needs they are aware of. This does not appear to be happening in other states, including Massachusetts.

The idea of not surveying student perception initially, is a concept supported by Jackson C. Salisbury²⁸ in the discipline of distributive education. He has gathered data from selected government officials, educators and owners and managers of businesses. Salisbury feels these people are best qualified to provide the data required in needs assessment surveys.

Unfortunately, some needs assessments are conducted using data from only one target group. These surveys are less than perfect. The sampling process used within a target group, diversification of target groups and procedures followed must all be analyzed before the results of a study can be deemed valid. In addition, a purpose for the research should be presented, to allow the reader to gain insight into the problem at hand. The methodology or research design should also be defined and substantiated. Documentation of the findings can be a controversial topic. The same data may

²⁸Jackson C. Salisbury and others, Post High School Distributive Education in Bucks County, Pennsylvania, A Feasibility Study, Temple University, Philadelphia, Pennsylvania, Educational Service Bureau, Jan. 1966). ERIC Ed. 012 312, VT000 421.

be interpreted differently by different people. Researchers have reached different conclusions from the same data presented by Max Eninger's survey.²⁹ Only after all of these factors have been studied, can the criterion for validity be tested. It appears as if validity is rarely an absolute but one must beware if it ever becomes a totally relative thing.

²⁹Eninger.

C H A P T E R I I I

DESIGN OF THE FIELD STUDY

The dissertation serves as an assessment of a model used during a field study, whose purpose it was to establish the needs for career education alternatives in the Southern Berkshire Region. The assessment including the recommended modifications for the design, will equip local school officials with a design they may adopt for their own use in determining local education needs. Chapters III, IV, and V respectively, relate the design, findings and recommendations from that field study.

Chapter III serves three purposes. First, it relates the methodology of the field study including the target groups surveyed and the techniques applied to each. Secondly, it serves to document the process for generating a needs assessment survey. Third, it describes the methodology for assessing and modifying the design used.

This chapter is organized according to the various groups of people whose input was sought by the research team. It includes students, teachers, administrators, and selected citizen groups in the Southern Berkshire Region. Information from the groups was sought on the current status of and the perceptions of the needs for career education.

Input was collected using several approaches. (1) Questionnaires were used for large groups such as students and

teachers. (2) Smaller groups were personally interviewed by a member of the research team. (3) Selected demographic data was abstracted from published material by the Massachusetts State Department of Commerce and Development. This chapter is organized around the two major approaches to data collection, questionnaires and interviews. For each approach the details on the methods used to collect data from each interest group were provided.

Questionnaires

Student questionnaire. Eleven hundred and eighty questionnaires designed for computer processing and analysis were administered to tenth, eleventh, and twelfth grade students in each high school in the Southern Berkshire Region. (See Appendix A for copies of the questionnaire and test administration instruction.)

A total of 1,599 students were enrolled in the tenth, eleventh, and twelfth grades of the four high schools in May of 1973. The research team chose to administer the instrument to all students who were in attendance on the day that the questionnaire was administered in the school. All schools were administered the student questionnaire during the third week of May 1973. The number of students enrolled in each school district is shown in Figure I below:

Figure 1

Southern Berkshire Student Enrollments
1972-1973

School											
Monument Mountain			Mount Everett			Lenox Memorial			Lee		
Grade			Grade			Grade			Grade		
10	11	12	10	11	12	10	11	12	10	11	12
223	173	230	96	79	89	106	86	74	157	135	151

The student questionnaire was designed to cover personal background questions, questions on current status of career education, and questions pertaining to perceived needs for career education.

In the development of the questionnaire, the research team chose to use the brainstorm approach. This initial step produced a large number of ideas which were carefully reviewed. Participating in this phase of the work were a large number of educators with industrial experience and extensive background in career education. Several meetings took place after this to define major areas of concern and to construct questions. Among the kinds of questions considered were:

1. What are the students' perceptions of the status of occupational education in the Southern Berkshire

Region?

2. What are the students' perceptions of their needs in relation to occupational education?
3. Should occupational education offerings be expanded in each existing comprehensive school?
4. Should occupational education be available in one location for the students from all four area high schools?
5. Should occupational education opportunities be available in the areas' community colleges?

After field testing and revision, these questionnaires were administered during the same week, in the four area high schools under the supervision of the school principal, a research team from the University of Massachusetts, Amherst, and Mr. James Shiminski from the Pittsfield Regional Office of the State Department of Education.

In two of the area high schools (Monument Mountain Regional High School and Mount Everett Regional School) the questionnaires were administered in the homerooms during an extended homeroom period. The other two schools (Lee High School and Lenox High School) had the students report to the cafeteria and gymnasium respectively, at which time the instrument was distributed, completed, and collected. In all four cases, the principal of the school gave directions, either over the public address system or in person. The process resulted in strong cooperation from all elements in the schools.

The results from these questionnaires were analyzed and reported in Chapter IV. There existed an infinite number of ways to examine the data. It was decided to divide the data according to school and grade and later by major field of study. This breakdown simplifies local examination, as seen in the appropriate chapter.

The potential power of this instrument is greater than one might think. The resulting tables permit many theories on career education and career development to be examined as they relate to the students who completed the questionnaire. There also exists the option of dividing the responses into two groups based on the response to one question with two possible answers. This permitted a level of cross-tabulations comparing responses from college bound students with non college bound students. A second level of cross-tabulation exists between interest-group questionnaires. Many questions on the teacher questionnaire were extracted from the student questionnaire, the responses of which were programmed on the computer in a similar fashion, thus allowing this cross-tabulation if desired.

Teacher questionnaire. Questionnaires were administered to the total teacher population of 135 in ninth, tenth, eleventh, and twelfth grades of the four schools. Although ninth grade students were not administered the student questionnaire, ninth grade teachers were asked to participate since all teachers teach more than one grade level.

The questionnaires administered to the teachers were designed to assess the teachers' perceptions of the current status of and perceived needs for career education. The questionnaire, which is reproduced in Appendix B, covered many of the same areas as the student questionnaire to facilitate making comparisons between teacher and student responses.

In all cases, the school principal had explained the purpose of the questionnaire to the teachers prior to administration and the principals supported the effort and asked for teacher cooperation.

This questionnaire was administered to teachers during the week of June 4th - 8th, 1973.

Parent questionnaire. Since it seemed unnecessary to collect data from parents of all the students in the study, a sampling procedure was used to select parents for participation in the study. A strategy involved the random selection of one parent from every ten on the student class roster. This amounted to a selection of 145 parents in the four school districts. No follow-up mailings were carried out because of the time restraints on data collection. This limitation is recognized and considered in later reports of the data. The questionnaire covered the same topics as the community planners questionnaire and interview, which shall be discussed later. A copy of each instrument is reproduced in Appendices C and D.

Interviews

Selected teachers. A group of five teachers were interviewed at each of the four area schools. Each of the teachers selected represented a unique discipline within the school.

The reasons for interviewing teachers were to expand potential for full response to the concepts expressed on the questionnaire and to elicit comments and recommendations that went beyond the scope of the questionnaire.

Separate interviews were recorded on audio tape in each of the four schools. The interviews, initiated with structured questions to stimulate discussion, were designed to elicit teacher perceptions of the current status of career education. They provided opportunities for teachers to expand their descriptions of career education experiences developed in schools. They brought out opinions of strengths and weaknesses of the program and of suggestions for expansion of career education.

This phase of data collection was conducted during the first two weeks of June 1973. The plan was to transcribe the audio tapes and have them reviewed by the researchers. Statements representing major areas of consensus or divergence were prepared from the tapes.

feasible, reported in Chapter IV.

Area school administrators. During late May and June 1973, the research team held structured interviews with the administrators. The administrators also were involved in numerous interactions of a less formal nature, such as working together to administer the student questionnaire, and, later, the teacher questionnaire.

In each of the four area high schools, the principal was interviewed. In two of the school districts, Lenox School District and Southern Berkshire Regional School District, the former superintendent had recently left, and the new replacements had not yet arrived. The superintendent input was limited to two people.

In each of the interviews with the administrators, the research team sought the perceptions of each superintendent and principal as to the current status and projected needs relating to occupational education.

Berkshire Community College chairpersons. The three principal people chosen to be interviewed were the Coordinator of Occupational Education, the Director of Occupational Placement, and the Chairperson of the Technology and Engineering Department. These people were chosen by the research team as being the "link" between occupational education in high school and its counterpart in the community college. The purposes of the interviews were (1) to gain their opinions on the current status and perceived needs for career education

in the area high schools and (2) to identify the potential for career education in the community college.

Local labor union presidents. The research team consulted Dr. Harvey Friedman, Professor of Labor Relations at the University of Massachusetts, Amherst, concerning sample selection in this field. Dr. Friedman was presented with a list of all recognized labor unions in Berkshire County and was asked to indicate the more influential unions that he would recommend we contact during the limited time available. Of those indicated, two union presidents could not be contacted within our time restraints. Three union presidents were interviewed in order to gain perceptions from local labor presidents about the current status and projected needs of occupational education in the region.

Local industrial leaders. The presidents and general managers of eight local business firms who are among the larger employers in the area were visited by the surveying team and asked what their recommendations would be toward occupational education programs in the schools. A set of structured questions were used to elicit responses to specific issues of concern raised in this study.

At this stage, one must be aware of existing political implications. The perceptions of local labor union presidents will be compared and contrasted to those of local industrial leaders concerning employment projections and necessary skills sought after among prospective employees. There may

be underlying political motivations causing a divergence of opinion between the two groups. The researcher is cautioned to be aware of supplemental concerns related to this matter. Findings are reported in Chapter IV.

Division of Employment Security. An official from D.E.S. in Pittsfield was interviewed and questioned concerning whether she, or the department in general, had any strong feelings about the course offerings and emphases in the local high schools.

The interview also established other related concerns the Department of Employment Security felt regarding the employability of young people graduating from high schools in the area. Further, it pointed out employment and labor market trends for the region.

Office of Manpower Affairs. This office was contacted, and the research team discussed present and projected labor requirements with their representatives. A follow-up topic was how the schools can prepare youths for these requirements. Projected employment forecasts were discussed which will be presented in a later chapter.

Community planners. In each of the towns comprising the four school districts, each town selectperson, town finance committee member, town personnel board member, school board member, and school building committee member was sent a questionnaire along with a self-addressed, stamped envelope for reply purposes. One hundred and ten questionnaires were

mailed out and fifty-three responses were received. The questionnaire asked for opinions concerning the previous research questions and the specific questions used in the previous interviews (see Appendix C).

A meeting was called in each of the four school districts by Mr. James Shiminski and the University of Massachusetts research team. The following groups from that district were invited: town selectperson, members of the town planning board, and members from the finance committee, school board, and school building committee. This meeting served as a follow-up to the previously received questionnaire and permitted in-depth discussion of various spin-offs.

The assessment of the design used in the field test is available in Chapter VI of this dissertation.

C H A P T E R I V
THE STATUS OF AND NEED FOR CAREER EDUCATION
IN THE SOUTHERN BERKSHIRE REGION

This chapter is organized into two major sections. The first includes data derived from the questionnaires and interviews organized around four topics: (1) Background data on the region and the respondents, (2) Current status of career education and (3) Needs in career education. Within each topic is a report of the relevant data available from each of the interest groups: (1) Students, (2) Teachers, (3) School administrators, and (4) Concerned community groups and citizens.

The second section of this chapter provides an overview of career education activities in the region. Examples of career education activities not normally reported on formal school district reports to the Division of Occupational Education are reported.

In Table 1 the percentage of students in each grade of each of the four schools responding to the various options provided for the 39-item questionnaire is reported. In addition the number of students omitting each of the items is indicated. There are of course many ways of discussing this large quantity of data. It was decided to summarize specific findings in point form under the four topics listed above and where there were school, student, program or grade differences so indicate.

Table 1
 Percentage of Students in each Grade and School Giving
 each Response to Career Planning Questionnaire Items

Question	School												Total Student Sample (N=1180)
	Monument Mountain Grade			Mount Everett Grade			Lenox Memorial Grade			Lee Grade			
	10 (N=184)	11 (N=145)	12 (N=127)	10 (N=79)	11 (N=64)	12 (N=62)	10 (N=90)	11 (N=76)	12 (N=53)	10 (N=113)	11 (N=94)	12 (N=93)	
1. Sex?													
(1) Male	47	48	44	49	53	45	43	46	51	50	35	55	47
(2) Female	53	52	55	51	47	55	57	54	49	50	64	45	53
Omits	0	0	1	0	0	0	0	0	0	0	1	0	0
4. How long have you lived in the South- ern Berkshire Region?													
(1) Less than one year	4	1	2	3	3	0	0	4	2	1	4	1	2
(2) One year or more but less than three years	5	4	5	5	9	3	4	5	4	5	6	11	6
(3) Three years or more but less than six years	8	8	4	6	11	11	13	12	13	6	3	9	8
(4) Six years or more	82	87	89	85	77	86	82	79	81	87	86	79	84
Omit	1	0	0	1	0	0	1	0	0	1	1	0	0

Table 1

Percentage of Students in each Grade and School Giving each Response to Career Planning Questionnaire Items

Question	School					Total Student Sample (N=1180)
	Monument Mountain Grade	Mount Everett Grade	Lenox Memorial Grade	Lee Grade		
10 (N=184)	11 (N=145)	10 (N=79)	10 (N=90)	10 (N=113)	12 (N=93)	(N=1180)
12	12	12	12	12	12	
15	18	6	10	23	19	15
(1) Business/Commercial	17	13	16	15	9	13
(2) College Preparatory	49	70	65	53	63	58
(3) General	9	2	0	11	9	8
(4) Vocational/Technical	13	15	15	7	5	9
(5) A combination of the above	11	2	2	18	3	8
Omits	3	0	2	1	1	2
6. What is the highest level of schooling your father completed?						
(1) Between K and 8th grade	5	9	11	7	11	9
(2) Between 9th and 12th grade	45	48	37	38	43	42
(3) 0-2 years of college or technical school	24	11	21	9	22	17
(4) 3-4 years of college	17	17	16	20	13	15
(5) Graduate school	17	13	10	19	9	13
Omits	8	4	5	7	2	4

Table 1
Percentage of Students in each Grade and School Giving
each Response to Career Planning Questionnaire Items

Question	School							Total Student Sample (N=1180)					
	Monument Mountain Grade		Mount Everett Grade		Lenox Memorial Grade		Lee Grade						
	10 (N=184)	11 (N=145)	12 (N=127)	10 (N=79)	11 (N=64)	12 (N=62)	10 (N=90)		11 (N=76)	12 (N=53)	10 (N=113)	11 (N=94)	12 (N=93)
7. What is the highest level of schooling your mother completed?													
(1) Between K and 8th grade	3	6	4	3	3	3	6	3	9	5	7	5	5
(2) Between 9th and 12th grade	46	52	46	54	42	53	39	54	42	41	49	66	49
(3) 0-2 years of college or technical school	13	21	24	17	22	24	21	19	25	17	22	17	19
(4) 3-4 years of college	18	10	13	9	16	10	14	17	17	18	11	4	13
(5) Graduate school	14	8	13	14	17	7	13	7	6	17	7	7	11
Omits	6	3	0	3	0	3	7	0	1	0	1	1	2
8. Do you feel your parents want you to go on to some form of additional education after you graduate from high school?													
(1) Yes	65	66	73	62	61	70	75	75	83	73	79	77	71
(2) No	17	13	17	15	13	15	6	7	4	13	7	13	13
(3) Unsure	16	21	9	23	25	15	19	17	9	13	13	10	16
Omits	2	0	1	0	1	0	0	1	4	1	1	0	0

Table 1

Percentage of Students in each Grade and School Giving each Response to Career Planning Questionnaire Items

Question	School								Total Student Sample (N=1180)										
	Monument Mountain Grade		Mount Everett Grade		Lenox Memorial Grade		Lee Grade												
	10 (N=184)	11 (N=145)	12 (N=127)	10 (N=79)	11 (N=64)	12 (N=62)	10 (N=90)	11 (N=76)		12 (N=53)	10 (N=113)	11 (N=94)	12 (N=93)						
11. Do you feel you could get an interesting and rewarding job without a high school diploma?																			
(1) Yes	22	27	23	24	19	27	18	21	36	25	18	17	23	61	67	65	61	16	0
(2) No	59	59	62	58	61	50	58	72	51	61	67	65	61	13	15	18	16	16	0
(3) Unsure	19	12	13	18	20	23	23	5	11	13	15	18	16	1	0	0	0	0	0
Omits	0	2	2	0	0	0	1	2	2	1	0	0	0	1	0	0	0	0	0
12. Has the school provided you with information on the results of ability and interest tests you have taken relative to future job interest or training?																			
(1) Yes	50	40	14	34	39	48	63	32	36	12	37	47	38	23	15	15	20	20	0
(2) No	18	17	31	17	25	11	14	33	17	23	15	15	20	18	15	14	12	12	0
(3) Unsure	10	10	6	13	13	7	16	9	15	18	15	14	12	1	0	0	0	0	0
(4) I have not taken any of these tests	19	30	47	35	22	32	7	24	32	46	33	24	29	1	0	0	1	1	0
Omits	3	3	0	1	1	2	0	2	0	1	0	0	1	1	0	0	0	0	0

Table 1

Percentage of Students in each Grade and School Giving each Response to Career Planning Questionnaire Items

Question	School					Total Student Sample (N=1180)
	McMurtain Mountain Grade	Mount Everett Grade	Lenox Memorial Grade	Lee Grade		
15. How did you become aware that you need to prepare for a career? (Circle all which apply.)	10 (N=184)	10 (N=79)	10 (N=90)	10 (N=113)	10 (N=93)	
(1) Counselors	30	28	32	37	27	28
(2) Parents	43	43	42	48	37	41
(3) Teachers	19	19	19	19	12	17
(4) Self	66	56	57	57	61	57
(5) Resource center	1	1	3	5	5	3
(6) School friends	13	18	13	17	13	14
(7) Other (Please specify)	7	8	6	4	9	7

Table 1

Percentage of Students in each Grade and School Giving each Response to Career Planning Questionnaire Items

Question	School						Total Student Sample (N=1180)					
	Monument Mountain Grade		Mount Everett Grade		Lenox Memorial Grade							
	10 (N=184)	11 (N=145)	12 (N=127)	10 (N=79)	11 (N=64)	12 (N=62)		10 (N=113)	11 (N=94)	12 (N=93)		
16. Do you feel that vocational and technical skills learned in high school courses are as important as the things learned in college preparatory courses?												
(1) They are <u>more</u> important	9	10	13	10	14	7	4	13	9	10	19	11
(2) They are <u>just as</u> important	67	72	69	63	54	76	53	70	68	64	65	67
(3) They are <u>less</u> important	3	6	5	14	13	7	6	4	8	9	4	6
(4) I am <u>not</u> sure	20	10	13	13	19	8	27	12	15	17	12	15
Omits	1	2	0	0	0	2	0	1	0	0	0	1
17. If you continue on in the same way in your school program, do you feel there will be several job alternatives available to you when you finish high school?												
(1) Yes	50	48	53	47	42	38	36	30	32	61	34	45
(2) No	24	23	28	17	33	36	26	45	51	23	40	29
(3) Unsure	26	27	17	35	25	26	38	24	17	16	26	25
Omits	0	2	2	1	0	0	0	1	0	0	0	1

Table 1

Percentage of Students in each Grade and School Giving each Response to Career Planning Questionnaire Items

Question	School						Total Student Sample (N=1180)						
	McMurtain Mountain Grade		Mount Everett Grade		Lenox Memorial Grade			Lee Grade					
	10 (N=184)	11 (N=145)	12 (N=127)	10 (N=79)	11 (N=64)	12 (N=62)		10 (N=113)	11 (N=94)	12 (N=93)			
18. Which of your course areas do you feel are most important in helping you select a career? (Please circle all which apply.)													
(1) Sciences and mathematics	55	41	42	61	36	45	49	49	43	53	45	42	47
(2) Vocational courses	23	28	35	25	28	32	21	40	26	28	35	32	29
(3) Social studies	18	12	13	9	14	16	16	17	25	7	12	11	14
(4) Art/music	11	17	13	11	6	15	9	9	13	13	19	14	13
(5) English	33	28	35	27	39	42	33	25	36	26	33	18	31
(6) Other	15	23	17	14	17	16	24	13	25	18	20	18	18

Table 1

Percentage of Students in each Grade and School Giving each Response to Career Planning Questionnaire Items

Question	School						Total Student Sample (N=1180)						
	Monument Mountain Grade		Mount Everett Grade		Lenox Memorial Grade								
	10 (N=184)	11 (N=145)	12 (N=127)	10 (N=79)	11 (N=64)	12 (N=62)		10 (N=113)	11 (N=94)	12 (N=93)			
19. Which students in your school do you think would be most aware of job opportunities?													
(1) The <u>business/commercial</u> students	32	37	36	15	39	36	26	25	30	28	27	38	31
(2) The <u>college preparatory</u> students	24	12	18	28	13	10	24	18	9	38	28	23	21
(3) The <u>general</u> students	16	16	13	18	3	3	17	11	19	10	6	5	12
(4) The <u>vocational/technical</u> students	22	21	22	32	27	34	24	34	30	15	19	26	24
Omits	6	14	12	7	19	17	9	12	12	7	20	8	12
20. Do you feel the students planning to go to college are treated better than other students in your school?													
(1) Yes	28	33	43	28	33	29	38	62	64	33	33	41	37
(2) No	57	58	48	48	55	53	43	33	26	54	60	48	51
(3) Unsure	14	9	9	24	11	15	19	3	9	13	6	11	12
Omits	1	0	0	0	1	3	0	2	1	0	1	0	0

Table 1
 Percentage of Students in each Grade and School Giving
 each Response to Career Planning Questionnaire Items

Question	School						Total Student Sample (N=1180)					
	Monument Mountain		Mount Everett		Lenox Memorial			Lee				
	Grade 10 (N=184)	Grade 11 (N=145)	Grade 12 (N=127)	Grade 10 (N=79)	Grade 11 (N=64)	Grade 12 (N=62)		Grade 10 (N=90)	Grade 11 (N=76)	Grade 12 (N=53)	Grade 10 (N=113)	Grade 11 (N=94)
23. Do you feel the staff in your school informs students of the different career choices available? (1) Yes (2) No (3) Unsure Omit	63 24 13 0	59 28 12 1	60 23 17 0	42 29 28 1	48 33 17 2	48 36 16 0	42 39 19 0	20 67 11 2	28 53 19 0	57 33 10 0	52 30 18 0	62 23 15 0
24. Do you feel your school program has a proper balance between time spent in the academic areas and "hands on" experience in the shops, labs, etc.? (1) Yes (2) No (3) Unsure Omits	51 28 21 0	53 30 17 0	57 30 13 0	38 48 14 0	33 45 20 2	44 45 10 1	14 70 16 0	20 67 12 1	9 83 8 0	39 39 22 0	34 38 28 0	32 43 24 1

Table 1
 Percentage of Students in each Grade and School Giving
 each Response to Career Planning Questionnaire Items

Question	School												Total Student Sample (N=1180)
	Monument Mountain Grade			Mount Everett Grade			Lenox Memorial Grade			Lee Grade			
	10 (N=184)	11 (N=145)	12 (N=127)	10 (N=79)	11 (N=64)	12 (N=62)	10 (N=90)	11 (N=76)	12 (N=53)	10 (N=113)	11 (N=94)	12 (N=93)	
30. Which activities below have you participated in regarding future possibilities for jobs? (Circle all which apply.)													
(1) Job orientation in math, English, social studies, or sciences	26	22	13	17	11	15	19	11	15	28	18	14	19
(2) Acting out job type activities	11	10	13	8	13	21	8	5	8	8	14	10	11
(3) Guidance	21	21	17	10	5	11	9	11	17	13	22	19	16
(4) Work experience	19	36	41	39	45	50	29	30	38	23	35	37	33
(5) Career days	2	1	2	6	3	2	2	4	0	4	3	2	3
(6) Shop programs	11	12	21	8	14	13	12	5	8	18	13	8	12
(7) Future Teachers of America	3	1	2	0	2	0	2	0	6	4	3	2	2
(8) Future Farmers of America	1	3	7	4	2	0	1	0	0	1	3	0	2
(9) 4-H	7	3	2	17	11	19	11	4	0	9	9	4	7
(10) World of Construction, World of Manufacturing, World of Work courses	3	2	2	9	3	3	7	7	0	6	2	7	4
(11) Field trips	25	23	22	15	17	19	11	21	9	22	15	9	19
(12) Other (Please specify)	11	15	9	19	14	15	14	9	17	14	16	3	13

Table 1
 Percentage of Students in each Grade and School Giving
 each Response to Career Planning Questionnaire Items

Question	School						Total Student Sample (N=1180)							
	Monument Mountain		Mount Everett		Lenox Memorial									
	Grade 10 (N=184)	Grade 11 (N=145)	Grade 12 (N=127)	Grade 10 (N=79)	Grade 11 (N=64)	Grade 12 (N=62)		Grade 10 (N=113)	Grade 11 (N=94)	Grade 12 (N=93)				
31. Do you participate in work experience programs?														
(1) Yes	13	17	25	25	33	37	9	12	11	12	18	18	28	20
(2) No	85	77	73	72	63	60	90	85	83	83	81	77	67	77
Omits	2	6	2	3	4	3	1	3	6	6	1	5	5	3
32. Would you participate in a work experience program if it were available?														
(1) Yes	51	51	55	51	51	57	51	62	51	51	62	67	50	55
(2) No	17	20	17	6	14	11	13	15	19	19	15	19	22	16
(3) Unsure	31	27	24	43	30	27	36	22	30	30	23	14	23	27
Omits	1	2	4	0	5	5	0	1	0	0	0	0	5	2
33. Do you feel there are enough skill areas offered in your high school so that a student could find some area that he/she would want to study?														
(1) Yes	54	47	44	22	17	29	17	5	6	6	35	31	32	33
(2) No	32	39	39	58	59	58	71	88	85	85	47	63	50	52
(3) Unsure	14	12	14	19	22	11	12	7	9	9	17	5	13	13
Omits	0	2	3	1	2	2	0	0	0	0	1	1	5	2

Table 1

Percentage of Students in each Grade and School Giving each Response to Career Planning Questionnaire Items

Question	School					Total Student Sample (N=1180)
	Monument Mountain Grade	Mount Everett Grade	Lenox Memorial Grade	Lee Grade		
36. If they were available, which activities below would you like to participate in? (Circle all which apply.)	10 (N=184)	10 (N=79)	10 (N=90)	10 (N=113)	10 (N=93)	
(1) Job orientation in math, English, social studies, science	23	22	18	18	15	20
(2) Acting out job type activities	12	15	7	17	12	15
(3) Guidance	8	13	2	8	15	9
(4) Work experience	32	46	41	32	49	39
(5) Career days	14	14	13	16	17	16
(6) Shop programs	14	18	11	19	18	14
(7) Future Teachers of America	11	5	6	6	13	7
(8) Future Farmers of America	1	3	3	4	7	3
(9) 4-H	6	4	7	6	6	4
(10) World of Construction; World of Manufacturing, World of Work courses	11	17	11	12	9	11

Table 1

Percentage of Students in each Grade and School Giving each Response to Career Planning Questionnaire Items

Question	School										Total Student Sample (N=1180)	
	Monument Mountain Grade		Mount Everett Grade		Lenox Memorial Grade		Lee Grade					
	10	11	10	11	10	11	10	11	10	11		
37. What do you expect to do after finishing high school?	(N=184)	(N=145)	(N=127)	(N=79)	(N=64)	(N=62)	(N=90)	(N=76)	(N=53)	(N=113)	(N=94)	(N=93)
(1) Go to work	22	23	23	24	19	16	13	22	13	14	17	19
(2) Go to Vocational/technical college	3	0	5	4	6	3	8	9	2	8	6	9
(3) Go to a junior college	3	10	17	6	5	15	8	7	19	10	9	16
(4) Go to a four year college	34	28	31	29	22	19	28	33	42	33	36	36
(5) Go to another school (please specify)	12	9	3	5	5	10	13	1	4	6	9	5
(6) Go into the military service	3	3	2	6	9	13	1	7	4	2	0	0
(7) Unsure	11	12	3	14	16	7	19	11	4	15	9	2
(8) Other (please specify)	5	6	6	3	9	15	2	3	2	6	4	4
Omits	7	9	10	9	9	2	8	7	10	6	10	9

Table 1

Percentage of Students in each Grade and School Giving each Response to Career Planning Questionnaire Items

Question	School						Total Student Sample (N=1180)
	Monument Mountain Grade		Mount Everett Grade		Lenox Memorial Grade		
	10	11	10	11	10	11	
38. If the following courses were offered in your high school, which ones would you be interested in taking. (Circle all which apply.)							
Mechanical							
___ Auto Body	9	10	28	19	29	17	18
___ Auto Mechanics	13	10	33	25	33	20	22
___ Electronics	8	7	23	17	20	21	23
___ Machine Shop	6	6	18	3	6	13	16
___ Metal Fabrication	3	3	4	2	2	5	10
___ Plastics	8	6	5	3	3	7	9
___ Printing and Graphic Arts	10	8	17	11	10	11	5
___ Woodworking	29	21	32	22	17	20	28
___ Other (please specify)	5	8	6	2	4	3	3
___ None	33	35	20	19	34	33	22
Services							
___ Child Care	28	26	29	23	32	24	28
___ Clothing, Garment related jobs	9	7	14	6	9	13	11
___ Commercial Art	14	12	15	6	10	12	12
___ Cosmetology	9	10	3	3	9	5	8
___ Food Services and related jobs	8	5	10	6	4	7	8

Table 1

Percentage of Students in each Grade and School Giving each Response to Career Planning Questionnaire Items

Question	School												Total Student Sample (N=1180)
	Monument Mountain Grade			Mount Everett Grade			Lenox Memorial Grade			Lee Grade			
	10	11	12	10	11	12	10	11	12	10	11	12	
Photography	20	17	24	23	23	24	23	21	28	40	31	31	25
Plant Maintenance	8	5	9	14	5	10	3	9	0	5	6	7	7
Recreational Fields	10	7	15	14	8	16	11	12	21	21	14	16	13
Tourism (Motel/Hotel)	10	8	6	6	9	11	10	13	9	11	14	7	9
Other (please specify)	5	3	2	3	3	7	4	3	0	3	5	3	4
None	20	19	20	17	11	7	23	25	11	13	11	20	17
Business													
Business and Office Fields	15	12	21	10	14	19	26	18	19	11	16	12	16
Data Processing	10	10	13	8	13	24	7	13	9	14	10	11	12
Distribution, Marketing and Sales	7	9	13	3	5	8	4	9	9	7	9	13	8
Accounting and Finance	12	14	14	9	17	18	9	20	26	11	13	20	14
Other (please specify)	2	4	3	1	2	0	4	7	9	4	2	0	3
None	38	39	24	47	27	16	50	38	26	38	35	32	35
Construction													
Building Trades	15	16	21	23	17	21	20	20	23	17	23	19	19
Furniture Construction	11	9	16	13	8	8	12	15	8	20	18	14	13
Plumbing	9	8	15	14	6	8	8	11	19	14	13	9	11
Other (please specify)	1	3	2	0	0	2	6	4	8	5	3	1	3

Table 1
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 each Response to Career Planning Questionnaire Items

Question	School						Total Student Sample (N=1180)						
	McNument Mountain Grade		Mount Everett Grade		Lenox Memorial Grade								
	10 (N=184)	11 (N=145)	12 (N=127)	10 (N=79)	11 (N=64)	12 (N=62)		10 (N=113)	11 (N=94)	12 (N=93)			
None	40	36	33	42	28	36	52	40	21	38	34	30	37
Agriculture and related jobs	4	3	6	17	14	18	11	9	9	17	16	8	10
Environmental Controls and related jobs	9	11	17	11	8	23	20	18	28	20	18	16	15
Forestry	25	18	26	29	14	32	34	32	36	31	31	28	27
Other (please specify)	2	4	3	4	3	2	2	7	2	5	1	0	3
Health related fields	24	21	21	28	17	23	26	22	30	28	38	34	26
Other (please specify)	6	3	6	3	5	2	10	5	4	3	7	1	5
None	42	41	44	41	34	34	58	42	34	43	38	30	41

Table 1
 Percentage of Students in each Grade and School Giving
 each Response to Career Planning Questionnaire Items

Question	School						Total Student Sample (N=1180)
	Monument Mountain Grade	Mount Everett Grade	Lenox Memorial Grade	Lee Grade			
	10 (N=184)	10 (N=79)	10 (N=90)	10 (N=113)	10 (N=94)	10 (N=93)	
	11	11 (N=64)	11 (N=76)	11	11	11	
	12 (N=127)	12 (N=62)	12 (N=53)	12	12	12	
39. If the courses listed in Question #38 were available at a community college, would you consider taking those that interested you?							
(1) Yes	61	60	63	66	63	67	65
(2) No	18	17	10	12	17	10	13
(3) Unsure	20	20	24	19	15	16	18
Omits	1	3	3	3	5	7	4

In Table 2 is reported the percentage of teachers (classified as either occupational or non-occupational) in each of the schools giving each of the available options provided on the 22-item questionnaire. Since there were surprisingly few differences between the occupational and non-occupational teachers in terms of their responses to the questions nor were there many differences among teachers in the four schools, major results are discussed for the total teacher population. The differences between occupational and non-occupational teachers and differences among teachers in the four schools have been highlighted.

Table 2

Percentage of Teachers in each School and Teaching Area¹ Giving each Response to Career Planning Questionnaire Items

Question	School										Total Teacher Population (N=135)	
	Monument Mountain (N=13)		Mount Everett (N=7)		Lenox Memorial (N=5)		Lee (N=4)		Teaching Area (N=29)			
	OT	NOT	OT	NOT	OT	NOT	OT	NOT	OT	NOT		
1. Sex?												
(1) Male	77	53	71	68	40	64	100	44	72	57	60	
(2) Female	15	46	29	26	60	36	0	56	24	41	38	
Omit	8	1	0	6	0	0	0	0	4	2	2	
3. How long have you been teaching?												
(1) Less than three years	30	32	29	0	0	24	25	17	24	22	22	
(2) Three years or more but less than six years	31	14	0	26	20	20	25	17	21	18	19	
(3) Six or more years	39	54	71	74	80	52	50	66	55	60	59	
Omit	0	0	0	0	0	4	0	0	0	0	0	
4. How long have you been teaching in the Southern Berkshire Region?												
(1) Less than three years	31	36	43	10	0	28	50	22	31	27	28	
(2) Three years or more but less than six years	31	13	0	37	20	28	0	17	17	22	21	
(3) Six or more years	38	48	57	53	80	44	50	61	52	50	50	
Omit	0	3	0	0	0	0	0	0	0	1	1	

¹OT = Occupational Teachers, NOT = Non-Occupational Teachers

Table 2

Percentage of Teachers in each School and Teaching Area¹
Giving each Response to Career Planning Questionnaire Items

Question	School										Total Teacher Population (N=135)	
	Monument Mountain (N=13)		Mount Everett (N=7)		Lenox Memorial (N=5)		Lee (N=4)		Teaching Area (N=29)			
	OT (N=44)	NOT	OT (N=19)	NOT	OT (N=25)	NOT	OT (N=18)	NOT	OT (N=106)	NOT		
5. How long have you lived in the Southern Berkshire Region?												
(1) Less than three years	31	25	43	0	0	20	25	22	28	19	21	
(2) Three to six years	23	9	0	37	0	8	0	11	10	14	13	
(3) Six years or more	31	34	43	53	60	44	0	56	34	43	42	
(4) Native	15	27	14	10	40	16	75	11	28	19	21	
Omit	0	5	0	0	0	12	0	0	0	5	3	
7. Within the last two years, have you been involved in any "in-service teacher training"?												
(1) Yes	69	52	0	10	40	44	25	56	41	43	43	
(2) No	31	48	100	90	60	56	75	44	59	57	57	
Omit	0	0	0	0	0	0	0	0	0	0	0	
8. Do you feel your high school program has opened a choice for students of either getting a job or going on for advanced training?												
(1) Yes	85	91	100	90	60	44	75	94	83	80	81	
(2) No	15	7	0	5	40	48	25	6	17	16	16	
Omit	0	2	0	5	0	8	0	0	0	4	3	

¹OT = Occupational Teachers, NOT = Non-Occupational Teachers

Table 2

Percentage of Teachers in each School and Teaching Area¹
Giving each Response to Career Planning Questionnaire Items

Question	School										Total Teacher Population (N=135)
	Monument Mountain		Mount Everett		Lenox Memorial		Lee		Teaching Area		
	OT (N=13)	NOT (N=44)	OT (N=7)	NOT (N=19)	OT (N=5)	NOT (N=25)	OT (N=4)	NOT (N=18)	OT (N=29)	NOT (N=106)	
9. Does the school provide students with information on the results of standardized ability tests and interest inventories? (1) Yes (2) No (3) Unsure	54	48	86	58	20	64	50	67	55	57	56
	8	11	0	5	0	0	0	0	3	6	5
	38	41	14	37	80	36	50	33	42	37	39
10. Does the school staff help graduating students find a job? (1) Yes (2) No (3) Unsure Omit	77	70	100	74	40	28	75	72	76	61	64
	8	9	0	5	0	32	0	11	3	14	12
	8	21	0	21	60	32	25	17	17	23	22
	7	0	0	0	0	8	0	0	4	2	2
11. Do you feel that vocational and technical skills learned in high school courses are as important as the things learned in college preparatory courses? (1) They are <u>more</u> important (2) They are <u>just</u> as important (3) They are <u>less</u> important (4) I am <u>not</u> sure Omit	38	11	14	0	20	12	50	0	31	8	13
	54	80	86	79	80	68	50	94	66	70	76
	8	5	0	5	0	8	0	6	3	6	5
	0	2	0	5	0	12	0	0	0	5	4
	0	2	0	11	0	0	0	0	0	1	2

¹OT = Occupational Teachers, NOT = Non-Occupational Teachers

Table 2
 Percentage of Teachers in each School and Teaching Area¹
 Giving each Response to Career Planning Questionnaire Items

Question	School										Total Teacher Population (N=135)
	Monument Mountain (N=13)		Mount Everett (N=7)		Lenox Memorial (N=5)		Lee (N=4)		Teaching Area (N=29)		
	OT	NOT	OT	NOT	OT	NOT	OT	NOT	OT	NOT	
12. Which of the course areas do you feel are <u>most</u> important in helping students select a career? (Please circle all which apply.) (1) Sciences and mathematics (2) Vocational courses (3) Social studies (4) Art/Music (5) English (6) Other _____	31	75	57	47	80	52	75	78	52	65	62
	92	89	71	47	80	60	75	78	83	73	75
	0	61	14	26	60	32	0	50	14	46	39
	15	57	14	32	40	28	0	50	17	44	39
	15	64	43	42	60	44	25	67	31	56	50
	15	21	29	21	20	8	25	44	21	22	22
13. Do you feel the students planning to go to college are treated better than other students in your school? (1) Yes (2) No (3) Unsure Omit	77	43	0	16	100	72	50	44	59	45	48
	23	46	86	79	0	20	25	56	35	47	44
	0	7	14	5	0	8	25	0	6	6	6
	0	4	0	0	0	0	0	0	0	2	2

¹OT = Occupational Teachers, NOT = Non-Occupational Teachers

Table 2

Percentage of Teachers in each School and Teaching Area¹
Giving each Response to Career Planning Questionnaire Items

Question	School										Total Teacher Population (N=135)
	Monument Mountain		Mount Everett		Lenox Memorial		Lee		Teaching Area		
	OT (N=13)	NOT (N=44)	OT (N=7)	NOT (N=19)	OT (N=5)	NOT (N=25)	OT (N=4)	NOT (N=18)	OT (N=29)	NOT (N=106)	
14. Do you feel there is a good relationship between the school and the community about careers and jobs? (1) Yes (2) No (3) Unsure Omit	62	56	71	42	20	36	75	83	59	54	55
	23	14	0	21	40	28	0	0	17	16	16
	15	30	29	37	40	32	25	17	24	29	28
	0	0	0	0	0	4	0	0	0	1	1
15. Do you feel your school teaches students what is needed to help them get the type of job they want? (1) Yes (2) No (3) Unsure Omit	61	43	43	42	20	12	25	56	44	38	40
	31	18	0	26	40	56	50	11	28	27	27
	8	32	57	32	40	32	25	33	28	32	31
	0	7	0	0	0	0	0	0	0	3	2
16. Do you feel the school staff informs students of the different career choices available? (1) Yes (2) No (3) Unsure Omit	84	55	71	68	0	44	50	72	62	58	59
	8	16	0	16	20	28	0	11	7	18	16
	8	27	29	16	80	28	50	17	31	24	25
	0	2	0	0	0	0	0	0	0	0	0

¹OT = Occupational Teachers, NOT = Non-Occupational Teachers

Table 2

Percentage of Teachers in each School and Teaching Area¹
Giving each Response to Career Planning Questionnaire Items

Question	School										Total Teacher Population (N=135)	
	Monument Mountain		Mount Everett		Lenox Memorial		Lee		Teaching Area			
	OT (N=13)	NOT (N=44)	OT (N=7)	NOT (N=19)	OT (N=5)	NOT (N=25)	OT (N=4)	NOT (N=18)	OT (N=29)	NOT (N=106)		
17. Do you feel your school program has a proper balance between time spent in the academic areas and "hands-on" experience in the shops, labs, etc.?	(1) Yes	39	55	86	42	0	4	25	39	41	38	39
	(2) No	46	27	14	47	80	76	75	33	48	43	44
	(3) Unsure	15	18	0	11	20	20	0	28	10	19	17
	Omit	0	0	0	0	0	0	0	0	1	0	0
19. Do you feel a person can get an interesting and rewarding job without a post high school education?	(1) Yes	85	72	57	84	60	60	50	71	69	71	71
	(2) No	15	18	43	11	20	32	50	6	28	18	20
	(3) Unsure	0	5	0	5	20	4	0	17	3	7	6
	Omit	0	5	0	0	0	4	0	6	0	4	3
20. Do you feel there are enough skill courses offered in your high school so that a student could find some area that he/she would want to study?	(1) Yes	61	56	29	29	0	12	0	39	35	38	37
	(2) No	39	30	29	66	100	76	75	44	51	50	50
	(3) Unsure	0	14	42	5	0	12	25	11	14	11	12
	Omit	0	0	0	0	0	0	0	6	0	1	1

¹OT = Occupational Teachers, NOT = Non-Occupational Teachers

Table 2

Percentage of Teachers in each School and Teaching Area¹
Giving each Response to Career Planning Questionnaire Items

Question	School										Total Teacher Population (N=135)
	Monument Mountain		Mount Everett		Lenox Memorial		Lee		Teaching Area		
	OT (N=13)	NOT (N=44)	OT (N=7)	NOT (N=19)	OT (N=5)	NOT (N=25)	OT (N=4)	NOT (N=18)	OT (N=29)	NOT (N=106)	
21. Do you feel there are enough skill courses in particular occupational fields so that a student could get "in-depth" information about a particular area? (1) Yes (2) No (3) Unsure Omit	54	36	57	37	20	8	0	22	41	27	30
	46	43	14	47	80	76	100	39	52	51	51
	0	18	29	16	0	16	0	33	7	20	17
	0	3	0	0	0	0	0	6	0	2	2
22. We are seeking your perception about future career education needs of your students. Given your experience of living and teaching here, which of the following occupational educational experiences should be available to Southern Berkshire Region Students? Mechanical Auto Body Auto Mechanics Electronics Machine Shop Metal Fabrication	85	89	71	84	100	80	75	61	83	81	82
	77	91	71	95	80	80	100	67	79	85	84
	62	84	71	47	80	68	100	56	72	69	70
	62	75	57	53	80	64	100	44	69	63	64
	39	55	57	32	60	56	75	44	52	49	50

¹OT = Occupational Teachers, NOT = Non-Occupational Teachers

Table 2
 Percentage of Teachers in each School and Teaching Area¹
 Giving each Response to Career Planning Questionnaire Items

Question	School										Total Teacher Population (N=135)	
	Monument Mountain (N=13)		Mount Everett (N=7)		Lenox Memorial (N=5)		Lee (N=4)		Teaching Area (N=29)			NOT (N=106)
	OT	NOT	OT	NOT	OT	NOT	OT	NOT	OT	NOT		
Plastics	62	71	86	79	60	48	50	33	66	60	62	
Printing and Graphic Arts	62	75	43	47	80	52	100	33	66	58	59	
Woodworking	62	84	71	79	80	76	75	56	69	76	75	
Other (please specify)	23	5	0	11	0	4	25	6	14	6	7	
None	0	0	0	0	0	0	0	0	0	0	0	
Services	77	84	86	90	60	64	75	61	76	76	76	
Child Care	31	39	14	26	60	36	25	6	31	30	30	
Clothing, Garment Industry and related jobs	54	59	43	37	80	44	50	17	55	44	47	
Commercial Art	23	50	57	42	80	52	50	28	45	45	45	
Cosmology	69	84	71	84	60	80	75	44	69	76	75	
Food Services and related jobs	23	61	29	37	60	56	75	28	38	50	47	
Photography	54	68	57	74	60	48	50	50	55	61	60	
Plant Maintenance	60	66	71	53	80	56	50	44	69	58	60	
Recreational Fields	62	89	71	74	100	84	50	67	69	81	79	
Tourism (Motel/Hotel)	0	5	14	0	0	8	0	11	3	6	5	
Other (please specify)	0	0	0	0	0	0	0	0	0	0	0	
None	0	0	0	0	0	0	0	0	0	0	0	
Business	62	80	71	84	100	64	75	44	72	71	71	
Business and Office Fields	62	71	43	53	80	72	50	44	59	63	62	
Data Processing	62	71	57	63	60	56	75	28	62	59	59	
Distribution, Marketing and Sales	69	75	71	42	80	52	50	28	69	56	59	
Accounting and Finance	8	5	29	5	0	4	0	0	10	4	5	
Other (please specify)	0	2	14	0	0	0	0	0	3	1	2	
None	0	0	0	0	0	0	0	0	0	0	0	

¹OT = Occupational Teachers, NOT = Non-Occupational Teachers

Table 2

Percentage of Teachers in each School and Teaching Area¹
Giving each Response to Career Planning Questionnaire Items

Question	School										Total Teacher Population (N=135)	
	Monument Mountain		Mount Everett		Lenox Memorial		Lee		Teaching Area			
	OT (N=13)	NOT (N=44)	OT (N=7)	NOT (N=19)	OT (N=5)	NOT (N=25)	OT (N=4)	NOT (N=18)	OT (N=29)	NOT (N=106)		
Construction												
Building Trades	85	84	86	95	100	80	100	56	90	80	82	
Furniture Construction	23	68	57	58	40	56	25	39	35	59	53	
Plumbing	92	89	86	84	80	84	100	67	90	83	84	
Other (please specify)	15	16	14	16	0	12	0	11	10	14	13	
Agriculture												
Agriculture and related jobs	77	80	71	74	60	60	75	50	72	69	70	
Environmental Controls and related jobs	69	82	57	79	60	44	75	44	66	66	66	
Forestry	85	80	57	63	80	72	50	33	72	67	68	
Other (please specify)	8	2	14	5	0	0	0	6	7	3	4	
None	0	2	0	0	0	4	0	6	0	3	3	
Health												
Health related fields	85	84	57	74	80	96	50	72	72	83	81	
Other (please specify)	15	11	14	5	20	0	0	0	14	6	7	
None	15	2	0	0	20	0	0	6	10	2	4	

¹OT = Occupational Teachers, NOT = Non-Occupational Teachers

Responses From Questionnaires and Interviews

Report of the background data.

Student data. The first eight questions on the student questionnaire were designed to provide some background information. The results indicated that there were approximately equal numbers of males and females in each grade and school; about 84% of the sample had been living in the Southern Berkshires at least six years, 58% of the sample were in college preparatory programs, 15% in business-commercial, 91% of fathers of the students had at least some high school education, 45% had some college training, 95% of mothers of the students had at least some high school education, 43% had some college training, and at least 71% of the students felt that their parents wanted them to go on with some form of education beyond high school.

Teacher data. The first five questions on the teacher questionnaire were designed to provide background information. The results indicated that 60% of the teachers in the sample were males and this figure was slightly higher among occupational education teachers; about 60% of the teachers had been teaching at least six years and over 50% of these teachers had taught only in the Southern Berkshire Region, and over 60% of the teachers were natives or had lived in the region at least six years.

Report of the current status of career education.

Student data. Among the specific findings of the investigation to study the status of career education in the Southern Berkshire Region were the following:

1. About 55% of students felt that their high school program had opened a choice for obtaining a job or receiving advanced training. The percentage was substantially lower in the Lenox Memorial High School.
2. About 60% of students felt that work had to be done whether or not they liked it. The same percentage felt that an education was necessary to obtain an interesting and rewarding job.
3. The amount of guidance via interpretation of results from aptitude and interest tests varied from grade to grade, and school to school. Apparently, this information did not come to Lee students until after grade ten and in all cases students were not sure the information had been given to them.
4. On the matter of schools helping graduating students find jobs, about 60% of the 12th graders felt they did (excluding Lenox Memorial). In Lenox Memorial it was only nine percent.
5. Perhaps surprising was the fact that 57% of students realized for themselves that they needed to prepare for a career; 41% became aware through parents, another 28% from counselors (multiple answers were

- possible).
6. Again surprising was the fact that 78% of students perceived the vocational and technical skills learned in high school to be as important or more important than skills developed in college preparatory courses.
 7. Only about 45% of students felt there would be several job alternatives available to them when they completed high school. Twenty-five percent of the students were unsure.
 8. In terms of courses that students found important in helping them select careers, sciences and mathematics (47%), English (31%) and vocational courses (29%) were judged highest.
 9. On the matter of awareness of job opportunities, there was little consensus on which groups of students were the most informed. Guidance people were found to be doing their job here by over 50% of students (somewhat less at Lenox Memorial).
 10. Concerning relationships between school and the community about careers and jobs, about 50% of students in Monument Mountain and Lee felt they were good. This percentage dropped to about 36% at Mount Everett and around 15% at Lenox Memorial.
 11. Perhaps disappointing to note was that less than half the students felt that the schools were teaching what students needed to know to help them obtain the kinds

of jobs they were looking for.

12. About half (52%) felt the school staff made them aware of career choices.
13. On the matter of balance between academic areas and "hand-on" experience there were major differences across schools. About 54% of students at Monument Mountain, around 35% at Mount Everett and Lee, and only 15% at Lenox Memorial, thought a balance existed.
14. Concerning specific knowledge of getting and holding a job about 73% felt that they knew the factors.
15. While 34% of the students had not taken shop courses, of those who had, 60% felt that these related courses helped them.
16. On the matter of job expectations, over 50% of the students judged interest, salary and pride to be important to themselves.
17. About 49% of the students had made a career choice. The figures ran from about 40% for 10th graders to about 53% for 12th graders.
18. On the question of participation in activities related to future job possibilities, it appeared that there was little student involvement. Top activities were guidance (33%) and field trips (19%).
19. Disappointing was that 77% of the students had not participated in work experience programs while 55% of the students said they would if it were available.

20. Among the career education activities indicated, work experience was the most popular (39%).
21. Only 33% of the students felt that there were enough skill areas offered in their schools. However, on this item there were school differences. The following percentages were obtained: Monument Mountain, 48%, Lee, 33%, Mount Everett, 23%, and Lenox Memorial, nine percent. More than 50% of the students felt that there was a shortage of courses to obtain "in-depth" information.

When the data reported in Table 1 was analyzed for students classified by area of study (College Preparatory or Business/Commercial, General, Vocational/Technical) few differences were observed in response mode. The following are important findings which show significant differences in responses for college and non-college bound students:

1. Eighty-eight percent of the college preparatory and 44% of the non-college preparatory respondents felt their parents wanted them to go on to post-secondary education.
2. Eighteen percent of the college preparatory and 29% of the non-college preparatory respondents felt they could get an interesting and rewarding job without a high school diploma.

3. Forty-two percent of the college preparatory and 31% of the non-college preparatory respondents felt the school had provided them with information on the results of ability and interest tests they had taken relative to future job interest or training.
4. Sixty-two percent of the college preparatory and 26% of the non-college preparatory respondents felt "science and mathematics" were most important in helping them select a career.
5. Eleven percent of the college preparatory and 35% of the non-college preparatory respondents participated in work experience programs.

Teacher data. Among the specific findings of the assessment of the current status of career education in the Southern Berkshire Region were that:

1. About 80% of the teachers felt that the school program created alternatives for students upon graduation. This figure was closer to 50% among the Lenox Memorial teachers.
2. Surprisingly, 39% of the teachers did not know the kind of test score information students received from the guidance department.
3. While over 70% of the teachers in three schools felt the staff helped students find jobs, in Lenox Memorial this figure was closer to 40%. The figure was somewhat higher for occupational teachers than non-

occupational teachers (76% to 61%).

4. When asked to pick what they considered to be important courses for selecting a career, 83% of the occupational teachers picked vocational courses. From the same group, 52% of them picked sciences and mathematics and between 10% and 30% picked art, music, and English. The non-occupational teachers judged courses in about the same way. One exception was that they judged art, music and English to be more important. The percentages varied from 40 - 50%.
5. About 55% of teachers felt that there was a good relationship between school and community about career and jobs. This percentage was highest at Lee (about 81%) and lowest at Lenox Memorial (34%).
6. Only about 40% of teachers felt that they were teaching their students what was needed to help them secure the type of employment they desired.
7. Relative to the matter of the school informing students of available career choices, about 60% of the teachers felt this was being done. On this question there were school differences and some differences between the responses of occupational and non-occupational teachers.
8. Teachers were divided on the question of whether or not they were providing an appropriate balance between course work and experiences. Only 39% felt there was

a proper balance. (An exception was the Mount Everett occupational teachers where the figure was 86%). Almost no one in the Lenox Memorial School felt there was proper balance.

9. On the matter of available skill courses, 50% did not feel enough were offered so that a student could find some area that he/she would want to study. (37% felt these were available and 12% were unsure.)
10. On the matter of sufficient skill courses in particular occupational fields for "in-depth" study, 30% of the teachers felt that there were, 51% felt that there were not and the remaining 17% were unsure.

Interviews were used to expand and confirm the results of the questionnaire just described. A consensus of opinion was found among teachers within schools as well as between schools. Twenty-two teachers were interviewed in order to gain these perceptions.

In all schools, teachers emphasized the need for more supervised work experience programs, for structured career oriented learning experiences and for more use of community resources. All these alternatives were available in each district in limited amounts.

Work experience programs were described most commonly as the best career education alternative, yet it was noted especially in Lee and Lenox that participation in that program was accidental and was a function of the open campus

type system. The work experiences were not formalized, supervised or correlated with other curricular experience.

All teachers agreed there were inadequate career education alternatives for girls, that perceptions of women's roles in work were unnecessarily stifled and that career exploration and awareness programs were needed.

In Monument Mountain Regional High School teachers highlighted in a positive way the use of the community resources bank. They did, however, express concern that it was oriented to the professions and tradesmen were not often used as resources.

Universally, teachers said there was little awareness by either college bound or non-college bound youth of career alternatives and of the personal work-oriented commitments necessary for success on a job.

All teachers stressed a need for more school emphasis on curricula for non-college bound youth.

Teachers generally felt there was an attitude change extent which would stimulate school and community commitment to career education curricula.

Guidance counselor responses. This section is a summarization of interviews with guidance personnel from Monument Mountain, Mount Everett, Lenox, and Lee High Schools.

While collecting local data, one often heard Berkshire County referred to as an "academically minded" region. The graduate follow-up conducted seems to bear this out. With

the exception of one graduating class in one of the four local high schools, each of the 20 graduating classes during the past five years had sent over 50% of its graduates to a two or four year college.

The Director of Pupil Personnel Services and the guidance staff of each school expressed the following perceptions during the interviews:

Monument Mountain Regional High School: Roughly speaking, 20% of the graduating class go to a two year college and 40% go to a four year college. About 55% of the students in high school are identified as college-preparatory each year.

Mount Everett Regional School: About 67% of the students each year are identified as college preparatory. About 20% go on to a two year school and about 30% go on to a four year college. The girls have been very dissatisfied with the curriculum as they have had a choice of only college preparatory or business curriculum.

Lenox Memorial High School: About 40% of the graduates each year go to a four year college, 20% go to Berkshire Community College and about five percent go to other community colleges. The school in general leans toward students being college bound.

Lee High School: Each year, about 25% of the high school graduates go on to a four year college, 25% go on to Berkshire Community College and about seven percent go to other community colleges. About 10% go on for technical training and the

rest get married, work, or go in the service.

School administrator responses. This section represents opinions of school administrators as expressed in interviews during the spring of 1973.

The current status of career education in the Southern Berkshire Region appeared to be somewhat different in each district. The consensus of opinion seemed to be that the two southern school districts, Berkshire Hills Regional School District and Southern Berkshire Regional School District had active but limited career education programs. Lee and Lenox had concentrated on college preparatory curricula and exhibited few career education alternatives. (The latter two schools had been sending 70% of their graduates on to college.)

Berkshire Community College chairperson's responses. According to the department chairman of technology and engineering, 60% of the students in that department only, had taken occupational curricula in high school. It should be kept in mind that 90% of the total student body at Berkshire Community College were identified as college preparatory in high school. Many of the administrators at Berkshire Community College who were interviewed felt that the area was academically minded, and therefore, Berkshire Community College had a higher transfer rate of students going on to four year colleges than most two year colleges had.

Community related groups. Community groups were interviewed to gain their perceptions of the current status and perceived needs for career education in the Southern Berkshire Region. Some respondents avoided answering the specific questions and chose to discuss related topics.

Labor union presidents. The respondents unanimously felt the occupational offerings were very poor. The opportunity to learn a technical skill was not available as it should have been. The respondents mentioned an acute shortage of plumbers, electricians, millwrights, oil burner servicemen, industrial engineers and heavy equipment operators while many college graduates could not get jobs in their field. It was their opinion that college preparation had been strongly overemphasized.

Local industrial leaders. Employers in this region felt the local occupational education offerings were not sufficient in both diversification or depth. While some industrial leaders admitted the area was largely service-oriented, they all felt a student should have the option of getting a technical education if this seemed appropriate for him.

General Electric Company officials felt too many high school graduates were unprepared for the world of work in the following ways: (1) they were not used to the 40 hour work week, (2) they did not sell themselves at interviews, (3) they wanted to start on a higher plateau than they were

skilled for. Many young employees lacked some of the basic skills such as reading, writing, interpretation of rules, basic mathematics and working with fractions and decimals. Several employers questioned whether today's youth were familiar with work ethics, specifically, "A day's pay for a day's work".

Division of Employment Security. During a discussion with the head of the placement division, the following major concerns of the D. E. S. about high school graduates and career education curriculum were discussed:

1. There is too much emphasis placed on college preparatory areas.
2. The work oriented attitudes of young people leave much to be desired. The feeling is that they want to start at the top immediately.
3. Young adults have unrealistic ideas concerning the world of work. They dress inappropriately, expect more money than they are worth, and feel the expected performance levels are too high.

Office of Manpower Affairs. The trend in Berkshire County now, 1973, and in the near future is toward replacement of existing workers with little industrial growth or few new positions expected. More openings exist in service-oriented jobs including retailing and repair-type services than in any other enterprises. The representative of the

Office of Manpower Affairs, who was interviewed, felt that current status of technical education was adequate since no major industry anticipated moving to this region. Schools were training enough personnel in service-related fields. He did not anticipate expansion or modification of the job market or of needed job-oriented skills. Thus, he assumed no major expansion of skill-oriented career education was needed. It was added, students needed education to develop better work habits and better attitudes toward work.

Community Planners. Community planners were contacted in two forms to gain their perceptions of the current status and perceived needs for career education.

Fifty-three responses were received from the 110 questionnaires to community planners. Table 3 reports the responses to a six item questionnaire.

Table 3
 Frequency of Responses to Community Planners
 Questionnaire for Career Planning

Question	School				Total Sample (N=53)
	Monument Mountain (N=8)	Mount Everett (N=18)	Lenox (N=13)	Lee (N=14)	
1. Which of the following best describes you as a resident of Southern Berkshire County?*					
a) Selectman	1	4	2	0	7
b) Finance Committee Member	1	7	3	2	13
c) School Committoeman	5	5	6	5	21
d) Other town official	1	1	2	1	5
e) Service club member	1	0	1	2	4
f) Parent	2	7	2	4	15
g) Businessman/community leader	0	3	0	2	5
h) Average taxpayer	1	4	1	2	8
i) Other _____	0	0	0	5	5
2. Do you feel your area high school offers enough occupational education opportunities for the students it serves?					
a) Yes	3	5	0	0	8
b) No	2	11	10	14	37
c) Unsure	3	1	2	0	6
3. Do you feel that the emphasis placed on college preparation by your area high school is:					
a) Overemphasized	4	7	6	4	21
b) Underemphasized	2	5	0	0	7
c) Well balanced	2	5	6	10	23

*Circle all that apply.

Table 3 (continued)
 Frequency of Responses to Community Planners
 Questionnaire for Career Planning

Question	School				Total Sample (N=53)
	Monument Mount (N=8)	Mount Everett (N=18)	Lenox (N=13)	Lee (N=14)	
4. Do you feel that taxpayers would support needed expanded offerings in occupational education? a) Yes b) No	6 2	9 6	10 2	12 2	37 12
5. Do you feel that the Southern Berkshire area should develop plans for cooperative programs between school systems? a) Yes b) No	8 0	15 1	12 0	13 0	48 1
6. Which of the following do you feel would best suit the Southern Berkshire area? a) A Regional Vocational-Technical High School b) A skill development center to supplement regular high school (transportation of students to center for skill development only) c) Provide increased occupational offerings in the existing high schools and implement a student exchange program d) A Vocational-Technical Junior College e) No need for any of the above	0 2 4 2 0	7 4 4 3 2	5 5 0 2 0	10 4 0 2 0	22 15 8 9 2

A public meeting was held in each of the four school districts. The following are consensus statements from each meeting:

Berkshire Hills Regional School District: At this meeting a strong series of statements came from the local community planners against any more or new regionalization. The district had a new school with adequate occupational educational offerings and did not want to segregate some students and send them to another school. Those who attended the meeting also felt other schools in a region could not contribute as much as their school could, so the feeling was not to re-regionalize. Many people felt a comprehensive high school, as presently exists, would be satisfactory when supplemented with the offerings of a technical junior college. This community group was definitely against a regional vocational-technical school.

Southern Berkshire Regional School District: The attendance at this meeting was light due to another meeting the same evening. The feelings of those present were that a regional vocational-technical school would not be supported by the community and would be economically unfeasible. A plausible solution which was discussed concerned collaboration between local school districts. The response was favorable.

Lenox School District: The community members present felt the number of interested students could not economically justify support for a vocational-technical school. Even if that were not the case, students were reportedly reluctant to leave their "regular" high schools. Feelings were expressed that the vocational guidance available should be improved and a supplemental area skill center on a half day basis might be worth considering.

Lee School District: Feelings were quite evident that regionalization could not be feasible due to the attitudes of parents as well as students. The town of Lee wants to remain independent of Lenox and other surrounding towns. The people in the town did support the career education philosophy but came more closely to agreeing to an area skill center than a vocational school. Regionalization in Lee and Lenox had been attempted before and was described as an exercise in futility.

Parent Questionnaire. The parents of one out of every ten students in the 10th, 11th, and 12th grade in all four school districts were sent a questionnaire.

Table 4 summarizes the responses. (Five of those questions were designed to allow cross checking the responses with the community planners questionnaires.) One hundred forty-five parent questionnaires were distributed, forty-nine were returned. Time restraints did not permit any follow-up of those who failed to return the questionnaire.

The specific results of the analysis were as follows:

1. Seventy-three percent of those responding felt that their high school does not offer enough occupational education experiences.
2. Eighty-six percent of the respondents felt the area schools should develop plans for collaborative effort.
3. Eighty-two percent of the respondents would allow their child to participate in a work-study program.

Two questions on the cross tabulation showed especially high responses. Table 5 shows comparison of those responses in percentage form by school district.

Table 4

Frequency of Responses by Parents to Career Planning Questionnaire in Each School District

Question	School					Total Sample (N=49)
	Monument Mountain (N=19)	Mount Everett (N=6)	Lenox (N=8)	Lee (N=16)		
2. Do you feel your area high school offers enough occupational education opportunities for the students it serves?						
a) Yes	5	0	2	1	9	
b) No	12	3	6	15	36	
c) Unsure	2	3	0	0	4	
3. Do you feel that the emphasis placed on college preparation by your area high school is:						
a) Overemphasized	5	3	0	11	19	
b) Underemphasized	1	1	1	0	3	
c) Well balanced	13	2	6	5	26	
4. Do you feel that taxpayers would support needed expanded offerings in occupational education?						
a) Yes	9	3	4	10	26	
b) No	7	3	4	3	17	
5. Do you feel that the Southern Berkshire area should develop plans for cooperative programs between school systems?						
a) Yes	17	4	6	5	42	
b) No	2	2	3	1	8	

Table 4 (continued)

Frequency of Responses by Parents to Career Planning
Questionnaire in Each School District

Question	School				Total Sample (N=49)
	Monument Mountain (N=19)	Mount Everett (N=6)	Lenox (N=8)	Lee (N=16)	
6. Which of the following do you feel would best suit the Southern Berkshire area?					
a) A Regional Vocational-Technical High School	4	2	4	10	20
b) A skill development center to supplement regular high school (transportation of students to center for skill development only)	5	2	0	1	8
c) Provide increased occupational offerings in the existing high schools and implement a student exchange program	6	1	1	3	11
d) A Vocational-Technical Junior College	4	1	3	2	10
e) No need for any of the above	0	0	0	2	2
7. Which do you think is more important?					
a) Positive work habits and attitude	14	5	3	8	30
b) Specialized skills	5	1	4	8	18
8. Do you feel your guidance department familiarizes students with information about career opportunities?					
a) Yes	6	2	1	4	14
b) No	8	1	3	6	20
c) Unsure	5	1	2	5	13
9. Would you allow your child to participate in a work study program?					
a) Yes	16	3	7	14	40
b) No	2	2	1	0	5
c) Unsure	1	1	0	1	3

Comparison of Community Planners and Parents. Both community planners and parents felt the area high school did not offer enough opportunity for occupational education. Seventy percent of community planners and 73% of the parents responded "no" to the question. Fourteen and nine percent respectively, were unsure in their responses.

A remarkably strong positive response was given to the concept of collaborative effort between districts. Ninety-one percent of planners and 86% of parents indicated they would support collaborative effort between school districts.

Table 5

A Comparison of the Percentages of Planners and Parents Giving Each Option to Selected Questions

Question	School					Total Plan. Par. (N=53) (N=49)
	Monument Mountain Plan. Par. (N=8) (N=19)	Mount Everett Plan. Par. (N=16) (N=6)	Lenox Plan. Par. (N=13) (N=8)	Lee Plan. Par. (N=14) (N=16)		
Do you feel your area high school offers enough occupational education opportunities for the students it serves?	a) Yes	28	0	0	0	16
	b) No	61	50	77	100	70
	c) Unsure	6	50	15	0	14
Do you feel that the Southern Berkshire area should develop plans for cooperative programs between school systems?	a) Yes	83	67	92	93	91
	b) No	5	33	0	0	2
						86
	100					14
	0					

Report of career education needs.

This section deals with the perceived needs for career education among the various interest groups. Where possible, consensus statements are provided.

Student data. Among the specific findings of the investigation to study the students' perceptions of career education needs, the following responses should be noted:

1. Fifty-five percent of the total respondents would participate in work study if it were available. Upon further investigation, it was revealed that 46% of the college preparatory would participate and 70% of the non-college preparatory would participate.
2. Fifty-two percent of the total respondents felt that there were not enough skill areas offered in their high school. There was no significant difference between college preparatory respondents and non-college bound respondents.
3. Fifty-two percent of the total respondents felt that there were not enough skill courses in particular areas so the students could get "in depth" information about a particular area. There was no significant difference between the replies of college preparatory students and non-college bound students.
4. Thirty percent of the total respondents indicated they would be interested in a career education program if one were available, while 27% would be

interested in a career education program after school. There was no significant difference between the replies of college preparatory and non-college preparatory students.

5. Twenty percent of the total respondents indicated they would like to participate in "job orientation in math, English, social studies, and science." There was a difference here between college preparatory (29%) and non-college preparatory (8%).
6. Only 14% of the total respondents indicated they would like to participate in "shop programs." Eight percent of the college preparatory and 24% of the non-college bound respondents indicated "shop programs."
7. Sixty-five percent of the respondents indicated they would be interested in taking Vocational/Technical courses at a community college.

Teacher data. The entire teacher questionnaire response grid was presented earlier in chapter four with current status material. Concerning perceived needs for career education, teachers made the following responses:

1. Seventy-one percent of the responding teachers felt a person can get an interesting and rewarding job without a post-high school education.
2. Fifty percent of the responding teachers felt there were not enough different skill courses offered in

the high school.

3. Fifty-one percent of the responding teachers felt there were not enough skill courses offered to allow students to get "in depth" information about a particular field.
4. Question #22 was designed to assess teacher perceptions about future career education needs for their students. Perhaps not surprising was that most teachers felt that nearly all of the occupational education experiences on our list (see Table 2) should be available to students. Those judged by more than 70% of the teachers to be important were: auto mechanics, electronics, woodworking, child care, food services, tourism, business, building trades, plumbing, and health related services. Somewhat less popular (50 to 70%) were machine shop, metal fabrication, plastics, printing and graphic arts, plant maintenance, recreational fields, data processing, distribution marketing and sales, accounting and finance, furniture construction, environmental controls, and forestry. Among the lowest rated areas (less than 50%) were clothing, garment industry and related jobs, commercial art, cosmetology, and photography.

There was a consensus of opinion expressed among teachers interviewed concerning the needs they perceived for career

education in the Southern Berkshire Region. A strong feeling was indicated that a course designed solely to acquaint students with career opportunities was needed. Those interviewed indicated that the present guidance situation (with the student ratio prohibitive) prevented counselors from teaching such a course or courses. Those interviewed perceived a particular absence of satisfactory course offerings for girls and a definite need for curriculum course offerings such as cosmetology, childcare, pre-nursing (possibly Licensed Practical Nursing), and home economics. Overall, the unanimous view of those interviewed indicated that the time was long overdue to eliminate the term and curriculum delineation of "college preparatory."

At least one person interviewed indicated that both the college and non-college bound students were treated rather poorly in terms of career awareness with the feeling that a graduate of a local high school could have easily, and too often perhaps did, complete four years of college only to be in the same position, job, or career as many seniors graduating from high school. Adult education programs seemed to be perceived as good.

Guidance counselors responses. The percentage of students not going to college had been increasing yearly in the Southern Berkshire Region. This fact along with the opinion of guidance personnel that the occupational offerings had been inadequate for some time led the guidance people to

the opinion that this region was seriously in need of increased offerings to non-college bound youth. Some increase was appropriate in the secondary schools, while a certain proportion was more appropriate in a junior college that did not concentrate on having its graduates transfer to a four year school.

School administrators responses. The perceived needs in this region for occupational educational offerings differed among local administrators. For this reason, a consensus of opinion is not practical and these perceptions shall be discussed individually.

A. Berkshire Hills Regional School District. The administrators felt that a regional vocational-technical school is inappropriate. They suggested a computer assisted employer based work experience program with performance objective contracts between the school and the employer on an individual basis. They also suggested a collaborative regional area skill center to teach basic skills and provide opportunities for on the job training. A third plan called for a flexible program allowing former college preparatory students to obtain occupational experiences through either secondary evening school or post-secondary day or evening schools.

B. Southern Berkshire Regional School District. The acting superintendent and principal felt it would be

good to have a regional vocational-technical school but suggested it is not economically feasible. He also felt that limited resources prevent further program expansion at this time.

- C. Lenox School District. The administrators in this district wanted to implement a community based work experience program. They felt this was needed and would have helped alleviate an overcrowded condition.
- D. Lee School District. The administrators favored the regional vocational-technical school but were aware of its economic problems. They did not feel their overcrowded high school was the place to offer the vocational courses they would like to have offered.

Berkshire Community College chairpersons responses.

According to the department chairperson of technology and engineering, the offerings in occupational education should have been increased. He felt the community college should offer the post-secondary technology programs but both the secondary education component and the community college should meet the needs of the residents for vocational offerings.

Community related groups.

1. Local Labor Union presidents. The perceptions of the labor union presidents who were interviewed were consistent. They expressed the need for a regional vocational-technical school and cited acute shortages in many technical fields.

2. Local industrial leaders. The consensus of opinion among the large employers was that a vocational school would be a tremendous asset to the community. Each employer described the difficulty in hiring competent and experienced help.

3. Division of Employment Security. The representative from the Department of Employment Security was very enlightening in describing perceived occupational needs for students in the region. She felt the greatest needs were in developing better work habits and attitudes on the part of the students. It was her opinion that the expectations of most young people were unrealistic (too high). Her recommendations supported work experience, work simulation, and "telling it like it is."

4. Office of Manpower Affairs. The representative of the Manpower Affairs Office felt that a significant increase in the vocational offerings was not appropriate. This feeling was based on that department's predictions that no large major industrial concern was contemplating relocation to the Berkshires. If the employment trends remained steady as forecasted, service related industries could offer employment opportunities with moderate growth.

5. Community planners. The returns from a questionnaire to community planners, when analyzed, yielded the computation that over 70% of the respondents felt the existing occupational education offerings were insufficient. Further, over

90% of the respondents felt the Southern Berkshire area should have developed collaborative efforts between school districts for career education planning. Forty-two percent favored a regional vocational school while 28% favored a skill development center to supplement the regular high school.

6. Parents. The results of the questionnaire to parents supported the perceptions of the community planners. Seventy-four percent of the respondents believed the existing occupational education offerings were insufficient. Eighty-six percent favored collaborative effort between school systems. Forty percent favored regional vocational school and 16% favored a skill development center to supplement the regular high school.

Current career education examples in the Southern Berkshire region.

Career education is expanding in schools in many subtle forms which are difficult to categorize, number, and count.

Components of career education have been implemented into a given course by an innovative teacher without coordination with a total curriculum plan. Expansion of career education has been generated through the Department of Education, Occupational Education Division, and in many ways development of programs has out-stripped the potential for reporting growth. Formal reporting procedures are not available currently to record enrollment in many innovative career education

experiences.

Information in this section describes each unique career education activity reported as of August, 1973. School and community respondents in the Southern Berkshire Region have described these experiences as examples of the current status of career education. Many unique student-community career education interactions as well as in-school activities have been highlighted. Most conform to a school-based model for career education. Some community and employer based experiences have been found. Each school reflects a different pattern of examples.

Business education. Business education is offered in all four local high schools. Fifteen percent of the students submitting completed questionnaires identify business education as their major area of study. The percentage of girls in business education is 20% to 30% in various schools or approximately one in four.

The Community Resource Program. The Community Resource Program is a program operating in Berkshire Hills Regional School District. It includes a large notebook cataloging topic-interest areas. Within any interest area, there exists a list of local residents who have offered their time and expertise to enlighten student (and staff) concerning the subject. It was an assumption of this program that the community constitutes an under-utilized pool of teaching resources which may well prove crucial in efforts to revital-

ize American education. This comprehensive community resource program spells out in detail ways in which previously untapped learning resources in the community may be actively involved, on a regular, on-going basis, in the education of its youth. The Program has further implications including stabilizing the financing of education, greater citizen understanding of the educational process and utilization of the school as a central and on-going resource of learning for the entire community.

Increased community resources have been used by various school districts to bring the "real world" into the school, or to bring the school into the surrounding world, the community. This is being done presently in Berkshire Hills Regional School District. Most people consider it a compliment when invited to a school to share their expertise.

Conservation. Conservation experiences are available in both Mount Everett Regional School and Monument Mountain Regional High School. Each school has a natural area set aside for these purposes. The Conservation Study Center at Mount Everett was built by the students. Both districts offer live experiences and faculty expertise that is most meaningful to students.

Cooperative education. The cooperative education program is a work experience type program which has the added description of offering on the job experience directly related to the area(s) of study in the high school. This program is

on-going in the Southern Berkshire Regional School District. A faculty member coordinates the program and acts as a liaison between the school and the employers.

Distributive education. Distributive education provides students with on the job learning experiences in retailing, sales, and services. This program includes both in-school training and field work experiences. The school component is a two hour, two period block of time during the morning hours followed by related field work experiences during the afternoon on school time. The distributive education coordinator's position is a full time one with additional teaching responsibilities in general business subjects.

Green house. Green house activities are among the offerings at Lee High School. The green house, located on a nearby estate, originally served students identified as special education recipients but later was expanded to serve other students as well. During the spring, tomato plants, marigolds and other plants and flowers are offered for sale to the community.

House construction. House construction programs exist in the Southern Berkshire Regional School District and beginning September 1973, in Lee School District. In the Southern Berkshire Regional School District, this is the eleventh year this project has been in operation. It is widely supported by the community. The building foundations are subcontracted and usually completed by early September.

This allows the students to at least frame and sheath the house before the severe weather arrives permitting the students to work inside the shell during most of the winter.

Industrial arts. Industrial arts programs are being conducted in all four districts.

Berkshire Hills Regional School District has four industrial arts shops; woodworking, mechanical drawing, metal working, and electricity.

Southern Berkshire Regional School District has a comprehensive general shop including woodworking, metal working and mechanical drawing.

Lenox School District offers woodworking and mechanical drawing.

Lee School District offers woodworking, mechanical drawing and metal working.

Plant maintenance. Plant maintenance is one of the occupational offerings at Mount Everett Regional School in Southern Berkshire Regional School District. The students use the school physical plant for their learning environment. The activity is well supervised and operations which require inspection by a licensed tradesman are firmly adhered to. These first hand experiences have proved valuable for part-time and later full-time employment for students.

Project A.I.M. Project A.I.M. stands for Academic Interest Modules. This is a program at Mount Everett Regional School which offers related courses for vocational identified

students. These courses are designed to show the practical application of academic knowledge in the world of work.

Teacher as counselor. The teacher as counselor program in the Berkshire Hills Regional School District has increased manyfold the counselor-student interaction ratio. This program serves to increase the understanding of guidance and improve the relationship between teachers, students, and counselors. The guidance counselor acts as a consultant to the teacher. This form of a system, supported by an in-service training program, has served to unify the total guidance effort.

Vocational courses. Vocational agriculture, vocational automotive and vocational electronics are three distinct programs conducted by the Berkshire Hills Regional School District. These are offered in the comprehensive high school. An agreement with Southern Berkshire Regional School District allows Southern Berkshire Regional students to enroll in these vocational courses in the Berkshire Hills District. However, the popularity of these courses and overcrowded conditions does not usually permit "outsiders" to enroll.

Work experience program. A work experience program is available to students in all four area high schools. Approximately one student in three has participated in it. These experiences are not designed to be allied with topics studied in school. Various sources have reported that one of the reasons for the students' enthusiasm for this program

is due to release time from the school. Sources also feel work experiences are better use of time than study halls.

C H A P T E R V

CONCLUSIONS AND RECOMMENDATIONS FROM FIELD STUDY

Present Status of Career Education

The Southern Berkshire Region, in total, exhibits many examples of a school based career education program. Yet these components are scattered among the four schools in such a way that few students have access to each type of experience. Further, there is presently no operating structure or model which makes it possible for resources of one school to be available to students of another school. Present community attitudes toward regionalization, pressures of enrollments, limited facilities, transportation difficulties, and unequal resource availability make spontaneous creation of a region wide career education program unlikely. Yet, despite these inhibiting factors, there presently exists among school personnel and in the community a growing positive attitude change leading toward expanded commitment to career education goals and curricula.

Operating within the region are at least twelve examples of career education experiences. They are listed below:

- Business Education
- Community Resource Program
- Conservation Experiences
- Cooperative Education Program
- Distributive Education
- Green House Activities
- House Construction Program
- Industrial Arts
- Plant Maintenance

Project AIM
Teacher as Counselor
Vocational Agriculture, Automotive Mechanics, Electronics.

Presently, there is no obvious general coordination of the overall program. One school, Monument Mountain Regional High School, has eight of the above career education alternatives in operation. They have an apparent willingness to coordinate these various activities across districts, yet limited resources and inter-school restraints on cooperation needlessly restrict the availability of many of these alternatives to that one school.

Expansion of independent school action and joint effort between schools and communities could, if preceded by appropriate attitude changes toward the values of career oriented education, readily transform the Southern Berkshire Regional schools into a national exemplary model of school based career education.

Recommendations

A basic assumption underlying the development of this study was that the data would primarily be used by local school administrators and school committees. That assumption affected the schedule and process for data collection as well as the nature of the information sought.

It also affects the form in which information and recommendations are presented. In order that school leaders in Southern Berkshire Region may make more effective use of the data, recommendations for change or improvement are made

as a series of steps. Each level represents a progressively more complex form of inter-district relationships. Each level suggests a longer time lag necessary for implementation. Further, each level implies a different pattern of responsibility for development and operation of the suggested change. Those levels are the following:

1. immediate independent activities within each school
2. cooperative action between two or more schools
3. collaborative effort which requires pooling of resources
4. regionalization requiring voter participation in the decision making.

Immediate independent activities within each school.

Some improvements in career education can take place immediately in each school studied and can be done independently without necessary interaction with other schools. Responsibility for the implementation or improvement of the programs falls directly to the local school policy makers, administration, and teachers. As a way of building on the personnel resources, and career education opportunities presently available to the schools studied, the following actions are recommended:

1. Data has been reported in Chapter IV which can further help school administrators understand the perceptions of students and teachers about selected aspects of their programs. Questionnaires were designed and computer programs

run which allow cross tabulations among items within each questionnaire or between the student and teacher questionnaires. In depth analysis by school, by grade level, and between students and teachers should be performed for or by each school administration.

2. Each school should strengthen the career development and guidance components in its program. Further, we urge that they expand and improve the dissemination of career guidance information. Examples of functioning Occupational Education Resource Centers are available in nearby high schools such as Huntington and Amherst.

3. In order to enhance students' understanding of their own potential, we recommend that guidance departments modify the way in which results of interest and aptitude tests are communicated to students (only 38% of the students indicated they have received results of tests, 56% of the teachers indicated students have received results of tests, yet all counselors said that all students have received reports of their tests). The communications process was not clear, and for many students, the message did not come through.

4. The schools in the Southern Berkshire Region have an unusually strong focus on preparation for continued education in college. Yet information received during this study suggests anxiety about over emphasis of college preparatory work. Further, there was genuine concern that a college

education was not necessarily an appropriate goal for many students. There was also concern that the curricular alternatives for non-college bound youth were needlessly limited. Therefore it is recommended that each school analyze its goals with special concern for the relative focus on college preparation and on occupational education.

5. In the same vein, it is recommended that schools provide career education alternatives for all students, whether they plan a college program or not.

6. Whatever the career education alternatives chosen, the schools in Southern Berkshire Region must consider curriculum reform in order to provide career education alternatives for women. All school and community respondents indicated concern that a paucity of career education opportunity for girls exists. New curricula, new career guidance approaches, and modified perceptions of the purposes of education for women are necessary. Further, perceptions about the career alternatives for women seem needlessly limited by stereotypes of their roles. These stereotypes are reflected in the present curricula of each school.

7. Each school should make some form of a structured career education learning experience or course available to all students. The primary purposes are to expand student perceptions of career opportunities, career development ladders, employment requirements, and work ethics.

8. The work experience program was perceived by all respondents to be the most popular career education alternative. Yet 77% of the students had not participated in the program, and 55% said they would if it were available. Further, teachers generally indicated that work experience was not related to any in-school activity, was not supervised, and was often simply a way to take advantage of the open-campus program. Therefore, it is recommended that work experience programs be improved and expanded in each school.

9. It seems clear from the data that some teachers are unclear about the nature of available career education alternatives. The data suggests that heightened teacher awareness through in-service programs to improve teachers understanding of career education would immediately increase the efficacy of the career education already available in the Southern Berkshire Region.

It is recommended that each district establish in-service teacher improvement programs with a special focus on career education.

10. Each school should initiate or expand a community resource program with special concern to focus its impact on preparation for jobs and for understanding career alternatives. The community resource center operating at Monument Mountain High School was highlighted in several interviews as a means of improving the curriculum with little added cost. It also was credited with generating positive community

attitudes toward the school, its goals, and its product.

A community resource center in each school would be a catalytic agent with potential to generate great community-wide enthusiasm for and acceptance of career education. It would provide immediate expansion of relevant career-oriented learning experiences.

11. Finally, personnel within each school should seek ways to generate additional resources to support special components of career education. It seems apparent that innovative teachers must go beyond the local school administration and school committees for additional funds. Limited resources available in the region are already stretched thin. (The alternative would be to attempt to immediately change goals for education and thus change the local allocation of resources, an unlikely process.) It is believed that the operation of successful career education programs is a necessary first step in modifying those community held education goals. Thus, immediate effort to see additional funding for career education from outside district sources is urged.

Cooperative programming.

The basic structure supporting career education could be enhanced quickly if schools begin to work together to improve programs. Cooperative effort would strengthen both the individual school and all cooperating schools. It will make possible immediate sharing of expertise and some

resources without significant additional cost.

Primary responsibility for generating the cooperative efforts would be on teachers, school administrators, and local school committees. Some inter-district cooperative efforts already exist which can serve as examples. To support the construct that improvements in career education must generate within local schools, the following cooperative actions are suggested:

1. Implementation of activities 1 through 11 which have been suggested above for immediate independent school action. These could be accelerated through joint action between two or more school districts. A leadership team might be organized immediately representing all the schools to identify those items which can be done best by cooperative action. Further, the team could establish priorities, organize methods to complete the activities and establish schedules.

2. Development of an in-service school personnel improvement program oriented toward career education. It should serve teachers and counselors from all middle and secondary schools in the region. Many examples of such coordinated in-service improvement programs exist. Most focus on the development of continuing education or university extension credit programs. Some operate in-house under direction from the curriculum specialist in the district. All are feasible, quickly organized, and designed to serve unique local needs.

3. Organization of a planning committee to consider alternative proposals for funded projects to support development of career education in the region. Cooperative joint proposals for projects designed to serve the whole region will have better prospects for funding than individual district proposals. Since many components of a school based career education model already exist in the schools, many viable proposal alternatives for development, improvement, and expansion could be created. With creative planning, this region can become a national exemplary program for career education in schools with limited resources.

4. Expansion through cooperative planning of the concept and operation of the Teacher as Counselor program now operating in Monument Mountain Regional School. Modification of its in-service training component, its orientation and its content would put more emphasis on career-oriented guidance. This is an operating program designed for ready adoption by other districts which will quickly increase the student-counselor interaction about jobs and careers in all schools.

5. Development of means to share and improve the community resources program currently operating at Monument Mountain Regional High School. It is an effective yet inexpensive career education alternative. It serves as a model that could easily be adapted to each of the schools. It also has potential to serve as a focal point for region-

wide collaboration where all schools jointly support and use a community resource center. Further, it could become the core program of a collaborative effort toward developing a regional career education resource center.

6. Establishment of cooperative arrangements for organizing, supervising, and coordinating activities of the work experience program. Seen as the region's most viable career education alternative, this program has great potential for expansion and improvement. Again, this cooperative effort might be directed toward later collaborative inter-district pooling of resources and personnel. Inconsistency in perception of its purposes and of operating practices clearly indicate that region-wide collaboration and programming would be appropriate. Further, some structured related instruction needs to be developed and scheduled to insure that the on-the-job experience is a valuable learning experience. Related to this program should be the development of formal learning experiences.

7. Southern Berkshire area high schools have the potential to serve together as a national exemplary model for a school based career education program which emphasizes career exploration, career development, acquisition of skills in common competencies across broad ranges of occupations, and enlightenment about work ethics and job success. Supported by the conceptual development and products of Project CAREER, a coordinated collaborative use of programs

and resources within the Southern Berkshire Region could quickly transform that program into a career education model for other semi-rural districts with limited resources.

The emerging concept of a competency-based comprehensive high school curriculum for career education has been enhanced by the performance objectives base and learning alternatives generated by Project CAREER. That project may well be modified to serve the career education needs in the Southern Berkshire Region.

Collaborative programs.

The concept of collaborative effort implies that school districts pool resources and personnel costs in order to improve career education. It is assumed at least a semester of lag time would be required to develop plans for pooled use of facilities and personnel. Further, it is assumed that those activities recommended within levels one and two would be well under way before collaborative inter-district programming is appropriate.

The following are suggested as viable regional activities where collaborative efforts are reasonable:

1. Coordination of career education with assigned responsibility for providing leadership in program development.
2. Supervision and coordination of the community resource program.
3. Supervision of the work experience and cooperative

education programs.

4. Supervision of the work experience and cooperative education programs.

5. A central facility or location designed to provide a locus for the occupational education activities in the region.

Regionalization.

Regionalization implies commitment of resources, facilities, and personnel which require both voter and state approval. A lag time of three years is assumed before any activity requiring regionalization could be in operation. It was further assumed that the activities suggested under levels one, two, and three must be firmly developed, operating successfully, and accepted wholeheartedly by the communities before voter approval of regionalization in any form can be expected.

Three distinct forms of regionalization were suggested by various inputs during the study. They are (1) the regional skill center, (2) regional support for vocational-technical education curricula at Berkshire Community College, and (3) the regional vocational-technical school.

1. A Regional Skill Center with a curriculum oriented toward programs in the tourism, business and distribution, health care, and service industries seems the most appropriate first level of regionalization. The skill center takes a reasonably small facilities development and is readily adapted

to changing employment needs.

Selected components of the California model for a regional skill center should be considered. In general, students would take pre-vocational career development programs in their home high school. They would retain affiliation with that school and would transport to the regional skill center for specialized vocational training probably during grade 12. Such career education activities as work experience, cooperative education, the community resource center, and specialized skill development programs would operate in the regional skill center.

2. The second level of recommendation concerning regionalization is that the Commonwealth, Berkshire Community College and the four school districts of the Southern Berkshire Region explore the potential of a regional career education/occupational education program that operates on a continuum from grades 12 through 14 in the Berkshire Community College. Recognizing current restraints on the use of vocational education funds for program support in a community college does not detract from the expressed community interest in developing vocational education in that institution.

Berkshire Community College with its present base of technical and semi-professional programs would have potential to expand with state support to provide technical and vocational programs for grades 12, 13, and 14 students.

3. One must inquire, of course, what all this information suggests about the prospects for a Regional Vocational School. Such factors as negative community attitude toward the concept of regionalization, declining school enrollments overall, negative student attitude toward leaving their home school, and low outward mobility coupled with limited employment for technically skilled personnel must be considered in opposition to the concept. Other negative factors are the low economic and employment base and the limited student enrollments. Typical enrollment patterns suggest a maximum Southern Berkshire Regional vocational school enrollment of about 250 secondary school level students.

On the other hand, the most frequently selected alternative chosen on the parent (44%) and community planner (41%) questionnaire was the regional vocational technical school. The second most frequently chosen alternative was the regional skill development center. Further, 70% of parents and 73% of community planners felt the schools did not offer enough occupational education opportunities. Both groups exhibited a strong preference for some type of collaborative effort with 91% of community planners and 86% of parents supporting a cooperative effort for more occupational education.

The prevalent attitude of parents which strongly influences students to go on to college is a somewhat contrary factor (as much as 75% of Southern Berkshire Regional graduates in one school begin a post-high school education, 41%

of the students say they wish to go to college, and 71% of the parents say they want their children to continue in a post-high school education). It is obvious that parental influence is a dominant factor in the decision to continue in a post-high school education. The anomaly perhaps generates from a lack of parental and community understanding of alternative forms of education.

It is probable that a regional vocational school with curricula focused toward tourism and related service fields could succeed in the Southern Berkshire Region. It is also obvious it would require massive continuing state support to insure survival.

C H A P T E R VI

ASSESSMENT OF THE MODEL

The purpose of this chapter is threefold: (1) to review the basic criteria for evaluation of needs assessment models, (2) to evaluate the product resulting from the design described in chapter three of this dissertation, and (3) to present modifications to the design and report recommendations emerging from the evaluation.

Criteria for Evaluation of Needs Assessment Models

As discussed earlier in chapter two, some criteria must exist to evaluate a research design. Below is a restatement of the criteria used by Lehmann and Mehrens.¹

1. Is the problem clearly stated?
2. Does the problem have a theoretical rationale?
3. How significant is the problem?
4. Is there a review of the literature? If so, is it relevant?
5. How clearly are the hypotheses stated?
6. Are operational definitions provided?
7. Is the procedure (or method) used to attack and answer the problem fully and completely described? Was a sample used? If so, how was it selected?
8. Are there any probable sources of error that might influence the results of the study? If so, have they been controlled?
9. Were statistical techniques used to analyze the data? If so, were they appropriate?
10. How clearly are the results presented?
11. Are the conclusions presented clearly? Do the data support the conclusions? Does the researcher over-generalize his findings?

¹I. Lehmann and W. Mehrens, Educational Research, Readings in Focus, (New York: Holt, Rinehart and Winston, Inc., 1971).

12. What are the limitations of the study? Are they stated?

The above questions were discussed at length in chapter two.

Evaluation of the Design

The model which was field tested is described in detail in chapter three of this dissertation. Based on the criteria for evaluation outlined above and expanded upon in chapter two, this model has been evaluated by the researcher.

A problem statement is present in chapter one. It is clearly stated, contains a theoretical rationale, and is judged to have significance. The problem has constraints, yet is broad enough to warrant study. The problem has previously been under investigation, but on a smaller, more personal and less objective scale. To the best of the researcher's knowledge, never before has an outside research team spent five months in the Southern Berkshire Region collecting data from as many people representing so many different interest groups.

A review of the literature is presented in chapter two. The material reviewed is relevant to the problem. The review does offer insights into varied procedures and techniques with their respective methodologies. The review also reflects the status quo and points out deficiencies in existing research.

A hypothesis is not stated as such in this dissertation. In chapter one, it is mentioned that no data is available to

confirm that career education alternatives are sufficient to meet the needs in the Southern Berkshire Region. Since that data is not available, a study to obtain that data may be warranted.

Definitions of technical terms used are defined in chapter one under the designated heading. A common understanding facilitates good communication.

In chapter three, the procedures used and methods of sample selection are explained in detail. When a sample was used, it was representative of the population.

All of the superintendents, principals, and directors of pupil personnel services were interviewed in all four school districts. The student questionnaire and teacher questionnaire were administered to each of the respective members of those groups who were in attendance the day the questionnaires were administered. The parent questionnaire was mailed to the home of 10% of the students in grades nine through twelve in all four high schools. In three schools, an alphabetical listing of students' last names was used to secure the names and addresses of the parent(s) of every tenth student. In the fourth school, approximately 520 students were registered in grades nine through twelve, thereby mandating the parents of 52 students to receive questionnaires. The method of sample selection used in this school was somewhat unorthodox. Within each group of names beginning with the same letter of the alphabet, two students were chosen at

random whose parents were asked to complete the parent questionnaire. With twenty-six letters in the alphabet, this novel method of sampling produced the desired 10% sample.

The community planners questionnaire was sent to every town selectperson, town finance committee member, school board member, school building committee member, and town personnel board member in each of the four school districts.

The reliability of the instruments used was not determined. Neither test-retest reliability nor alternate-form reliability procedures were conducted. This is viewed by the researcher as not being a serious shortcoming since data received from a large group of people takes randomness into account. Validity can be determined by either face validity or content validity procedures. The researcher believes that each instrument measures what it was intended to measure. The purpose of the instruments was to measure the need for career education alternatives. This data was readily available upon analyzing the questionnaire responses. Fox² argues that the bases to the selection of the actual content of the instrument(s) be rational and ideally, empirical. The researcher believes that the contents of each instrument was

²David J. Fox, The Research Process in Education, (New York: Holt, Rinehart and Winston, Inc., 1969).

selected on such a basis.

A pretest was used which resulted in altering the terminology used in the student questionnaire. The results were analyzed by discussing the questionnaire with those students who were involved in the pretest. The pretest was conducted with ninth through twelfth grade students from an outside town, each student identified as being "average" by his parents. It was discovered that the students could not easily comprehend some of the words and they were changed.

Techniques used to analyze the data included a sophisticated level of computer programming to permit cross tabulation between similar questions appearing on different questionnaires which were completed by various interest groups. Other techniques were used to analyze data due to different procedures which were used to collect data. Analyzing data obtained through open-ended interviews required researchers to transcribe the significant data from magnetic tapes. Transcripts of the data were then analyzed in order to compare the concerns from various interest groups.

The conclusions presented can be reasonably deduced from the findings. Conflicting conclusions can not rationally be deduced from the same findings. The resulting recommendations have been presented on various levels of involvement and are stated in precise terms. There is a

systematic progression in the recommendations.

Limitations are stated in chapter one in succinct terms. This was necessary in order to reduce the scope of the research to include only what was feasible.

From this evaluation the strength of the design used in the survey has been established. On an item by item analysis, the lack of a definite hypothesis and no reliability testing procedures have surfaced as definite weaknesses in the design. With these two exceptions, the design meets the recognized criteria outlined by researchers such as Lehmann and Mehrens.³

Recommendations and Modifications to the Design

As a result of both the field test and the evaluation, a number of recommendations and modifications are in order. Some of the recommendations were actually used in the design, but their importance warrants the restatement. A few modifications may appear to be trivial, but with those improvements, the design will possess more strength.

(1) A hypothesis could be included in the design and should be stated as such. Without a hypothesis, it is possible that the research may be undirected, fortuitous and unplanned.

(2) When similar questionnaires are designed for and

³Lehmann and Mehrens.

distributed to different interest groups, the task of comparing and contrasting data from the diverse groups is greatly reduced as compared to analyzing data from different questionnaires. Also, the chances of misinterpretation are reduced. Therefore it is recommended that questionnaires contain similar questions.

(3) The manner in which a computer is programmed to accept data from questionnaires completed by various interest groups can greatly facilitate the cross tabulation of data. (This process was previously explained in more detail in chapter three.) It is recommended that the computer be programmed to perform cross tabulation.

(4) Unstructured interviews with people who have not completed a questionnaire may serve to verify the appropriateness of the questions on an instrument. Additional interviews may serve to show the reliability of the data from the instruments. (The researcher expected some new concerns to surface during interviews, but no new data or discrepancies were uncovered.) Therefore, it is recommended that interviews be used to verify findings from instruments.

(5) Of the many interest groups that were interviewed, none offered input not covered in the questionnaire. It is recommended interviews be conducted with the purpose of the interview in mind. If the purpose of the interview is to confirm previous findings, the same questions should be asked. If the purpose is exploratory, the interview should be

open ended.

(6) It is recommended that each student completes his questionnaire in his homeroom or another small group situation, under the supervision of the homeroom teacher in the morning homeroom period. The potential for increased noise levels from students in a cafeteria is greater than if students were in their homeroom. Often the availability of additional pencils is greater in the homeroom than in the cafeteria as is close supervision on the part of the teacher.

(7) The instruments designed for the students as well as that designed for the teachers, plus the chapter containing findings, have each separated current status information from needs assessment data. Often, the researcher found statements that pertained equally to both categories. Any statement in either category has strong implications and overtones into the other category. The researcher recommends not attempting to separate all data into these two overlapping categories.

(8) The researcher administered the student questionnaire to every tenth, eleventh, and twelfth grade student in attendance on the day the administration was to take place. In retrospect, the researcher now recommends a random sample should be used in such a case. The results of the survey could have remained valid with a smaller population.

(9) It is recommended that a pretest be conducted for the purpose of assuring that the vocabulary utilized as well

as the phrasiology of questions does not reduce the participant's ability to comprehend what he is reading.

(10) The student questionnaire as it appears in appendix A of this dissertation, contains many questions for which the respective responses were not discussed among the findings. Some of the questions were beyond the scope of this needs assessment survey for career education. The questionnaire offers great potential for other research studies dealing with related factors. Since completing a lengthy questionnaire is viewed by many people as a dehumanizing experience, and of greater significance, the sincerity of responses declines as an instrument increases in length, it appears to be in the best interest of validity to curtail non-essential questions. The superfluous questions appearing in appendix A are numbered as follows: 1, 4, 6 through 11, 13 through 21, 23, 24, 27 through 30, 32, 37 through 39.

It is therefore recommended that the student questionnaire in appendix A be replaced by the following questionnaire which utilizes only the most appropriate questions from the original instrument.

A Student Questionnaire
on Career Planning

1. What grade of school have you been in this year?
(1) 10th grade (2) 11th grade (3) 12th grade
2. What is the name of your high school?
(1) Monument Mountain Regional High School
(2) Mount Everett Regional School
(3) Lenox Memorial High School
(4) Lee High School
3. What is your major area of study?
(1) Business/Commercial
(2) College Preparatory
(3) General
(4) Vocational/Technical
(5) A combination of the above
4. Has the school provided you with information on the results of ability and interest tests you have taken relative to future job interest or training?
(1) Yes (2) No (3) Unsure (4) I have not taken any of these tests
5. Do you feel your school teaches students what is needed to help them get the type of job they want?
(1) Yes (2) No (3) Unsure
6. Has your guidance counselor familiarized you with the type of career opportunities that are available?
(1) Yes (2) No (3) Unsure
7. Do you feel you know what is involved in getting and keeping a job?
(1) Yes (2) No (3) Unsure
8. Would you participate in a work experience program if it were available?
(1) Yes (2) No (3) Unsure

9. Do you feel there are enough skill areas offered in your high school so that a student could find some area that he/she would want to study?
- (1) Yes (2) No (3) Unsure
10. Do you feel there are enough skill courses in particular areas so that a student could get "in depth" information about a particular area?
- (1) Yes (2) No (3) Unsure
11. Would you be interested in a career education program if one were available? (Circle all which apply.)
- (1) Yes - summers
(2) Yes - after school
(3) No - I work during the summer
(4) No - I work after school
(5) No - I am not interested
(6) No - it conflicts with other things
12. If they were available, which activities below would you like to participate in? (Circle all which apply.)
- (1) Job orientation in math, English, social studies, science
(2) Acting out job type activities
(3) Guidance
(4) Work experience
(5) Career days
(6) Shop programs
(7) Future Teachers of America
(8) Future Farmers of America
(9) 4-H
(10) World of Construction, World of Manufacturing, World of Work courses

The first three questions are recommended for the purposes of reporting findings on a table as follows. A researcher can "split" the responses according to either grade, school or major area of study as seen in chapter four of this document. The responses from the remaining nine questions would produce data referring to the present status and perceived needs of career education from the student's vantage point.

(11) The same basic questions directed to the students can be utilized to gain teachers' perceptions by minor revisions in the direction of each question. This would yield input from two target groups with distinct possibilities for comparisons and contrasts of responses.

It is recommended that the teacher questionnaire in appendix B be replaced by the following questionnaire.

A Teacher Questionnaire
on Career Planning

1. What is the name of your high school?
 - (1) Monument Mountain Regional High School
 - (2) Mount Everett Regional School
 - (3) Lenox Memorial High School
 - (4) Lee High School

2. What is your major area of teaching?
 - (1) Business/Commercial
 - (2) College Preparatory
 - (3) General
 - (4) Vocational/Technical
 - (5) A combination of the above

3. Has the school provided students with information on the results of ability and interest tests they have taken relative to future job interest or training?
 - (1) Yes
 - (2) No
 - (3) Unsure
 - (4) They have not taken any of these tests

4. Do you feel your school teaches students what is needed to help them get the type of job they want?
 - (1) Yes
 - (2) No
 - (3) Unsure

5. Have the guidance counselor(s) familiarized students with the type of career opportunities that are available?
 - (1) Yes
 - (2) No
 - (3) Unsure

6. Do you feel students know what is involved in getting and keeping a job?
 - (1) Yes
 - (2) No
 - (3) Unsure

7. Would students participate in a work experience program if it were available?
 - (1) Yes
 - (2) No
 - (3) Unsure

8. Do you feel there are enough skill areas offered in your high school so that a student could find some area that he/she would want to study?
 - (1) Yes
 - (2) No
 - (3) Unsure

9. Do you feel there are enough skill courses in particular areas so that a student could get "in depth" information about a particular area?

(1) Yes (2) No (3) Unsure

10. Would students be interested in a career education program if one were available? (Circle all which apply.)

- (1) Yes - summers
- (2) Yes - after school
- (3) No - they work during the summer
- (4) No - they work after school
- (5) No - they would not be interested
- (6) No - it conflicts with other things

11. If each activity were available, which activities below would students like to participate in? (Circle all which apply.)

- (1) Job orientation in math, English, social studies, science
- (2) Acting out job type activities
- (3) Guidance
- (4) Work experience
- (5) Career days
- (6) Shop programs
- (7) Future Teachers of America
- (8) Future Farmers of America
- (9) 4-H
- (10) World of Construction, World of Manufacturing, World of Work courses

The parent questionnaire and the community planners questionnaire may be used in their present state. They appear in appendices C and D respectively.

A needs assessment model should have a specific and well expressed statement of purpose. It should utilize input from many varied target groups with a rather significant sample population for each. More than one method of data collection should be utilized for obtaining data. The design should be systematic, thus yielding an overall methodology which has merit. It is the researcher's belief that the model described in this dissertation with the recommended modifications meets the above criteria. It is most likely that a large majority of survey designs can be improved upon by the original designers after the design has been field tested as this one has. Therefore an applied and proven design may have more merit than a newly conceived design. Regardless, it can not be overemphasized that a reader should evaluate the methodology of a study before accepting the findings as valid. Data can be no more valid than the design utilized to gather that data.

APPENDIX

APPENDIX A

A Student Questionnaire on Career Planning

In an attempt to determine the extent to which high school students in Southern Berkshire Regional High Schools are aware of different career possibilities available to them after high school, a group of interested people from the University of Massachusetts was asked to develop a questionnaire to obtain this information.

We expect that this information will be used by your school to develop better career education programs. We therefore encourage you to answer questions completely and honestly. It is not necessary for you to indicate your name at any place on the questionnaire.

Please indicate your answer to each question by circling the number beside your choice. For some questions you will be asked to provide short written answers. Remember, there are no correct answers, you should indicate your true feelings.

Center for Occupational Education University of Massachusetts Amherst, Massachusetts 01002
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Section I
Background Questions

1. Sex? (1) Male (2) Female
2. What grade of school have you been in this year?
(1) 10th grade (2) 11th grade (3) 12th grade
3. What is the name of your high school?
(1) Monument Mountain Regional High School
(2) Mount Everett Regional School
(3) Lenox Memorial High School
(4) Lee High School
4. How long have you lived in the Southern Berkshire Region?
(1) Less than one year
(2) One year or more but less than three years
(3) Three years or more but less than six years
(4) Six or more years
5. What is your major area of study?
(1) Business/Commercial
(2) College Preparatory
(3) General
(4) Vocational/Technical
(5) A combination of the above
6. What is the highest level of schooling your father completed?
(1) Between K and 8th grade
(2) Between 9th and 12th grade
(3) 0-2 years of college or technical school
(4) 3-4 years of college
(5) Graduate school
7. What is the highest level of schooling your mother completed?
(1) Between K and 8th grade
(2) Between 9th and 12th grade
(3) 0-2 years of college or technical school
(4) 3-4 years of college
(5) Graduate school
8. Do you feel your parents want you to go on to some form of additional education after you graduate from high school?
(1) Yes (2) No (3) Unsure

9. Do you feel your high school program has opened a choice for getting a job or going on for advanced training?
(1) Yes (2) No (3) Unsure
10. Do you feel work is something you have to do whether you like it or not?
(1) Yes (2) No (3) Unsure
11. Do you feel you could get an interesting and rewarding job without a high school diploma?
(1) Yes (2) No (3) Unsure

Section II
Questions on Current Status
of Career Planning

12. Has the school provided you with information on the results of ability and interest tests you have taken relative to future job interest or training?
(1) Yes (2) No (3) Unsure (4) I have not taken any of these tests
13. Does the school staff help graduating students find a job?
(1) Yes (2) No (3) Unsure
14. While in high school, do you feel a need to prepare for a job?
(1) Yes (2) No (3) Unsure

If you answered "No" or "Unsure" to Question 14 skip Question 15.

15. How did you become aware that you need to prepare for a career?
(Circle all which apply.)
- (1) Counselors
 - (2) Parents
 - (3) Teachers
 - (4) Self
 - (5) Resource center
 - (6) School friends
 - (7) Other (Please specify) _____

16. Do you feel that vocational and technical skills learned in high school courses are as important as the things learned in college preparatory courses?
- (1) They are more important
 - (2) They are just as important
 - (3) They are less important
 - (4) I am not sure
17. If you continue on in the same way in your school program, do you feel there will be several job alternatives available to you when you finish high school?
- (1) Yes (2) No (3) Unsure
18. Which of your course areas do you feel are most important in helping you select a career? (Please circle all which apply.)
- (1) Sciences and mathematics
 - (2) Vocational courses
 - (3) Social studies
 - (4) Art/music
 - (5) English
 - (6) Other _____
19. Which students in your school do you think would be most aware of job opportunities?
- (1) The business/commercial students
 - (2) The college preparatory students
 - (3) The general students
 - (4) The vocational/technical students
20. Do you feel the students planning to go to college are treated better than other students in your school?
- (1) Yes (2) No (3) Unsure
21. Do you feel there is a good relationship between the school and the community about careers and jobs?
- (1) Yes (2) No (3) Unsure
22. Do you feel your school teaches students what is needed to help them get the type of job they want?
- (1) Yes (2) No (3) Unsure
23. Do you feel the staff in your school informs students of the different career choices available?
- (1) Yes (2) No (3) Unsure
24. Do you feel your school program has a proper balance between time spent in the academic areas and "hands on" experience in the shops, labs, etc.?
- (1) Yes (2) No (3) Unsure

25. Has your guidance counselor familiarized you with the type of career opportunities that are available?
(1) Yes (2) No (3) Unsure
26. Do you feel you know what is involved in getting and keeping a job?
(1) Yes (2) No (3) Unsure
27. To what extent do your related courses help you in your shop or lab courses?
(1) Very much
(2) Somewhat
(3) Little
(4) Not at all
(5) I am not taking any occupational shops or labs
28. What do you hope to get out of a job once you have completed your schooling? (Circle all which apply.)
(1) A good salary
(2) More knowledge
(3) Respect from fellow workers
(4) Respect from people I do not work with
(5) A sense of pride in what I do
(6) Free time for myself
(7) Prestige
(8) An interest in the work I am doing
29. Have you made a career choice yet?
(1) Yes (2) No (3) Unsure
30. Which activities below have you participated in regarding future possibilities for jobs? (Circle all which apply.)
(1) Job orientation in math, English, social studies, or sciences
(2) Acting out job type activities
(3) Guidance
(4) Work experience
(5) Career days
(6) Shop programs
(7) Future Teachers of America
(8) Future Farmers of America
(9) 4-H
(10) World of Construction, World of Manufacturing, World of Work courses
(11) Field trips
(12) Other (Please specify) _____
31. Do you participate in work experience programs?
(1) Yes (2) No

Section III
Questions on Career
Education Needs

32. Would you participate in a work experience program if it were available?
(1) Yes (2) No (3) Unsure
33. Do you feel there are enough skill areas offered in your high school so that a student could find some area that he/she would want to study?
(1) Yes (2) No (3) Unsure
34. Do you feel there are enough skill courses in particular areas so that a student could get "in depth" information about a particular area?
(1) Yes (2) No (3) Unsure
35. Would you be interested in a career education program if one were available? (Circle all which apply.)
(1) Yes - summers
(2) Yes - after school
(3) No - I work during the summer
(4) No - I work after school
(5) No - I am not interested
(6) No - it conflicts with other things
36. If they were available, which activities below would you like to participate in? (Circle all which apply.)
(1) Job orientation in math, English, social studies, science
(2) Acting out job type activities
(3) Guidance
(4) Work experience
(5) Career days
(6) Shop programs
(7) Future Teachers of America
(8) Future Farmers of America
(9) 4-H
(10) World of Construction, World of Manufacturing, World of Work courses
37. What do you expect to do after finishing high school?
(1) Go to work
(2) Go to a vocational/technical college
(3) Go to a junior college
(4) Go to a four-year college
(5) Go to another type of school (please specify) _____
(6) Go into the military service
(7) Unsure
(8) Other (please specify) _____

38. If the following courses were offered in your high school, which ones would you be interested in taking. (Circle all which apply.)

Mechanical

- Auto Body
- Auto Mechanics
- Electronics
- Machine Shop
- Metal Fabrication
- Plastics
- Printing and Graphic Arts
- Woodworking
- Other (please specify) _____
- None

Services

- Child Care
- Clothing, Garment Industry, and related jobs
- Commercial Art
- Cosmetology
- Food Services and related jobs
- Photography
- Plant Maintenance
- Recreational Fields
- Tourism (Motel/Hotel)
- Other (please specify) _____
- None

Business

- Business and Office Fields
- Data Processing
- Distribution, Marketing and Sales
- Accounting and Finance
- Other (please specify) _____
- None

Construction

- Building Trades
- Furniture Construction
- Plumbing
- Other (please specify) _____
- None

Agriculture

- Agriculture and related jobs
- Environmental Controls and related jobs
- Forestry
- Other (please specify) _____
- None

Health

- Health related fields
- Other (please specify) _____
- None

39. If the courses listed in Question #38 were available at a community college, would you consider taking those that interested you?

(1) Yes (2) No (3) Unsure

APPENDIX BA Teacher Questionnaire
on Career Planning

The University of Massachusetts was asked by the Massachusetts Advisory Commission for Occupational Education to develop a teacher questionnaire to determine the current status of Career Education Programs as well as future needs in the Southern Berkshire Regional High Schools.

Career education activities are expanding in schools in many subtle forms which are difficult to categorize, measure and report. You may have implemented components of career education into your courses in ways which are not generally recognized and reported. We hope to identify and give exposure to those career oriented activities. Further, we want your perception of the students' career education program needs.

We expect that the information collected from your responses to the items in this questionnaire will be used by the schools to develop better career education programs. We, therefore, encourage you to answer questions completely and honestly. It is not necessary for you to indicate your name at any place on the questionnaire.

Please indicate your answer to each question by circling the number beside your choice. For some questions you will be asked to provide short written answers.

Center for Occupational Education
University of Massachusetts
Amherst, Massachusetts 01002

Section I
Background Questions

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1. Sex? (1) Male (2) Female
2. What is the name of your high school?
 - (1) Monument Mountain Regional High School
 - (2) Mount Everett Regional School
 - (3) Lenox Memorial High School
 - (4) Lee High School
3. How long have you been teaching?
 - (1) Less than three years
 - (2) Three years or more but less than six years
 - (3) Six or more years
4. How long have you been teaching in the Southern Berkshire Region?
 - (1) Less than three years
 - (2) Three years or more but less than six years
 - (3) Six or more years
5. How long have you lived in the Southern Berkshire region?
 - (1) Less than three years
 - (2) Three to six years
 - (3) Six years or more
 - (4) Native
6. What is your major area of teaching?
 - (1) Business/Commercial
 - (2) College Preparatory
 - (3) General
 - (4) Vocational/Technical
7. Within the last two years, have you been involved in any "in-service teacher training"?
 - (1) Yes (2) No

Section II
Questions on Current Status of Career Education

8. Do you feel your high school program has opened a choice for students of either getting a job or going on for advanced training?
 - (1) Yes (2) No
9. Does the school provide students with information on the results of standardized ability tests and interest inventories?
 - (1) Yes (2) No (3) Unsure

10. Does the school staff help graduating students find a job?

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- (1) Yes (2) No (3) Unsure

11. Do you feel that vocational and technical skills learned in high school courses are as important as the things learned in college preparatory courses?

- (1) They are more important.
(2) They are just as important.
(3) They are less important.
(4) I am not sure.

12. Which of the course areas do you feel are most important in helping students select a career? (Please circle all which apply.)

- (1) Sciences and mathematics
(2) Vocational courses
(3) Social studies
(4) Art/Music
(5) English
(6) Other _____

13. Do you feel the students planning to go to college are treated better than other students in your school?

- (1) Yes (2) No (3) Unsure

14. Do you feel there is a good relationship between the school and the community about careers and jobs?

- (1) Yes (2) No (3) Unsure

15. Do you feel your school teaches students what is needed to help them get the type of job they want?

- (1) Yes (2) No (3) Unsure

16. Do you feel the school staff informs students of the different career choices available?

- (1) Yes (2) No (3) Unsure

17. Do you feel your school program has a proper balance between time spent in the academic areas and "hands-on" experience in the shops, labs, etc.?

- (1) Yes (2) No (3) Unsure

19. Do you feel a person can get an interesting and rewarding job without a post high-school education?
(1) Yes (2) No (3) Unsure
20. Do you feel there are enough skill courses offered in your high school so that a student could find some area that he/she would want to study?
(1) Yes (2) No (3) Unsure
21. Do you feel there are enough skill courses in particular occupational fields so that a student could get "in-depth" information about a particular area?
(1) Yes (2) No (3) Unsure
22. We are seeking your perceptions about future career education needs of your students. Given your experience of living and teaching here, which of the following occupational education experiences should be available to Southern Berkshire Region students?

Mechanical

- Auto Body
 Auto Mechanics
 Electronics
 Machine Shop
 Metal Fabrication
 Plastics
 Printing and Graphic Arts
 Woodworking
 Other (please specify) _____
 None

Services

- Child Care
 Clothing, Garment Industry, and related jobs
 Commercial Art
 Cosmetology
 Food Services and related jobs
 Photography
 Plant Maintenance
 Recreational Fields
 Tourism (Motel/Hotel)
 Other (please specify) _____
 None

Business

- Business and Office Fields
 Data Processing
 Distribution, Marketing and Sales
 Accounting and Finance
 Other (please specify)
 None

Construction

- Building Trades
 Furniture Construction
 Plumbing
 Other (please specify) _____

Agriculture

- Agriculture and related jobs
 Environmental controls and related jobs
 Forestry
 Other (please specify) _____
 None

Health

- Health related fields
 Other (please specify) _____
 None

Community Perceptions
On Occupational Education in Southern Berkshire Area

The University of Massachusetts was asked by the Massachusetts Advisory Commission for Occupational Education to develop a questionnaire to determine the current status of Occupational Education Programs as well as future needs in the Southern Berkshire Regional High Schools.

We expect that the information collected from your responses to the items in this questionnaire will be used by the schools to develop better occupational education programs. We therefore encourage you to answer questions completely and honestly. It is not necessary for you to indicate your name at any place on the questionnaire.

Please indicate your answer to each question by circling the number beside your choice. For some questions you will be asked to provide short written answers.

Center for Occupational Education
University of Massachusetts
Amherst, Massachusetts 01002

1. What area high school serves your particular school district?
 - a.) Monument Mountain Regional High School
 - b.) Mt. Everett Regional High School
 - c.) Lenox Memorial High School
 - d.) Lee High School

2. Which of the following best describes you as a resident of Southern Berkshire County?
 - a.) Selectman
 - b.) Finance Committee Member
 - c.) School Committeeman
 - d.) Other town official
 - e.) Service club member
 - f.) parent
 - g.) businessman/community leader
 - h.) average taxpayer
 - i.) other _____

3. Do you feel your area high school offers enough occupational education opportunities for the students it serves?
 - a.) Yes
 - b.) No
 - c.) Unsure

4. Do you feel that the emphasis placed on college preparation by your area high school is:
 - a.) overemphasized
 - b.) underemphasized
 - c.) well balanced

5. Do you feel that taxpayers would support needed expanded offerings in occupational education?
 - a.) Yes
 - b.) No

6. Do you feel that the Southern Berkshire area should develop plans for cooperative programs between school systems?
 - a.) Yes
 - b.) No

7. Which of the following do you feel would best suit the Southern Berkshire area?
 - a.) a Regional Vocational-Technical High School
 - b.) a regional skill development center to supplement regular high school (transportation of students to center for skill development only).
 - c.) provide increased occupational offerings in the existing high schools
 - d.) a Vocational-Technical Junior College
 - e.) no need for any of the above

8. Which of the following occupational education experiences should be available to the Southern Berkshire area students?

Mechanical

- Auto Body
 Auto Mechanics
 Electronics
 Machine Shop
 Metal Fabrication
 Plastics
 Printing and Graphic Arts
 Woodworking
 Other (please specify) _____
 None

Services

- Child Care
 Clothing, Garment Industry, and related jobs
 Commercial Art
 Cosmetology
 Food Services and related jobs
 Photography
 Plant Maintenance
 Recreational Fields
 Tourism (Motel/Hotel)
 Other (please specify) _____
 None

Business

- Business and Office Fields
 Data Processing
 Distribution, Marketing and Sales
 Accounting and Finance
 Other (please specify) _____
 None

Construction

- Building Trades
 Furniture Construction
 Plumbing
 Other (please specify) _____
 None

Agriculture

- Agriculture and related jobs
- Environmental Controls and related jobs
- Forestry
- Other (please specify) _____

Health

- Health related fields
- Other (please specify) _____
- None



The Commonwealth of Massachusetts
Department of Education

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188 South Street, Pittsfield 01201

REGIONAL OFFICE

August 6, 1973

Dear Parents:

The Massachusetts Department of Education has commissioned a research team from the University of Massachusetts to conduct a needs assessment for occupational education (vocational ed, career ed, etc.) in the southern Berkshire area. More specifically, this includes the towns of Lee, Lenox and those included in the Berkshire Hills and Southern Berkshire Regional School Districts.

As a parent you have been selected as part of a random sampling of all parents in the area to participate in our data collection process. The enclosed questionnaire is provided for you to express your feelings. I might also point out that since your reply will represent many other parents it is extremely important that you complete and return the questionnaire in the self-addressed return envelope.

Thank you for your cooperation.

Sincerely,

JAMES A. SHIMINSKI
 Senior Supervisor
 Occupational Education

JAS:jb

2 Enclosures
 a/s

1. What area high school serves your particular school district?
 - a) Monument Mountain Regional High School
 - b) Mt. Everett Regional High School
 - c) Lenox Memorial High School
 - d) Lee High School

2. Do you feel your area high school offers enough occupational education opportunities for the students it serves?
 - a) Yes
 - b) No
 - c) Unsure

3. Do you feel that the emphasis placed on college preparation by your area high school is:
 - a) overemphasized
 - b) underemphasized
 - c) well-balanced

4. Do you feel that taxpayers would support needed expanded offerings in occupational education?
 - a) Yes
 - b) No

5. Do you feel that the Southern Berkshire area should develop plans for cooperative programs between school systems?
 - a) Yes
 - b) No

6. Which of the following do you feel would best suit the Southern Berkshire area?
 - a) a Regional Vocational-Technical High School
 - b) a skill development center to supplement regular high school (transportation of students to center for skill development only)
 - c) provide increased occupational offerings in the existing high schools and implement a student exchange program
 - d) a Vocational-Technical Junior College
 - e) no need for any of the above

7. Which do you think is more important?
 - a) positive work habits and attitude
 - b) specialized skills

8. Do you feel your guidance department familiarizes students with information about career opportunities?
 - a) Yes
 - b) No
 - c) Unsure

9. Would you allow your child to participate in a work-study program?
 - a) Yes
 - b) No
 - c) Unsure

10. Which of the following occupational education experiences should be available to the Southern Berkshire area students?

Mechanical

- Auto Body
- Auto Mechanics
- Electronics
- Machine Shop
- Metal Fabrication
- Plastics
- Printing and Graphic Arts
- Woodworking
- Other (please specify) _____
- None

Services

- Child Care
- Clothing, Garment Industry, and related jobs
- Commercial Art
- Cosmetology
- Food Services and related jobs
- Photography
- Plant Maintenance
- Recreational Fields
- Tourism (Motel/Hotel)
- Other (please specify) _____
- None

Business

- Business and Office Fields
- Data Processing
- Distribution, Marketing and Sales
- Accounting and Finance
- Other (please specify) _____
- None

Construction

- Building Trades
- Furniture Construction
- Plumbing
- Other (please specify) _____
- None

Agriculture

- Agriculture and related jobs
- Environmental Controls and related jobs
- Forestry
- Other (please specify) _____

Health

- Health related fields
- Other (please specify) _____
- None

