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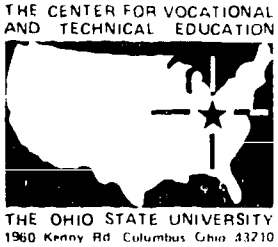
ABSTRACT

This document reports on the first of a 3-phase plan to adapt and install a state vocational-technical education comprehensive data system for occupational training in Kentucky. The objective of the system described is to provide more comprehensive analysis of data essential to education decision-makers. Primary users of the system are expected to be state directors of vocational education and their staffs. Data collection and analysis elements were integrated to provide two subsystems with the functions of evaluation and planning. Analyses desired included manpower requirements, program effectiveness, cost analyses, student characteristics and program preferences, and post-schooling mobility patterns. Employer questionnaires provided employment forecasting. Follow-up questionnaires from high school students, dropouts, and graduates described their vocational experiences in relation to their schooling. It was found that working on a job was the most important post-school experience and that a desire for additional training in various occupations was expressed by all respondents. Detailed analyses of the data collected are presented, with the instruments used and the procedures developed for conducting regular and systematic follow-ups. No effort was made to evaluate vocational programs, which should be done only when appropriate criteria are available. (MF)



ECONOMIC DEVELOPMENT ADMINISTRATION
TECHNICAL ASSISTANCE PROJECT
U.S. DEPARTMENT OF COMMERCE

Final Report on Establishment of a Comprehensive Data System for Occupational Training in Kentucky

Phase I

MISSION OF THE CENTER

The Center for Vocational and Technical Education is an independent unit on The Ohio State University campus. It serves a catalytic role in establishing consortia to focus on relevant problems in vocational and technical education. The Center is comprehensive in its commitment and responsibility, multidisciplinary in its approach, and interinstitutional in its program.

The Center's mission is to strengthen the capacity of state educational systems to provide effective occupational education programs consistent with individual needs and manpower requirements by:

- Conducting research and development to fill voids in existing knowledge and to develop methods for applying knowledge
- Programmatic focus on state leadership development, vocational teacher education, curriculum, and vocational choice and adjustment
- Stimulating and strengthening the capacity of other agencies and institutions to create durable solutions to significant problems
- Providing a national information storage, retrieval, and dissemination system for vocational and technical education through the affiliated ERIC Clearinghouse

FINAL REPORT
ON
ESTABLISHMENT OF A COMPREHENSIVE DATA SYSTEM FOR OCCUPATIONAL TRAINING IN KENTUCKY
PHASE I

Submitted to:
Economic Development Administration
Southeastern Regional Office
1401 Peachtree Street, N.E.
Atlanta, Georgia

December 1972

By:
The Center for Vocational and Technical Education
The Ohio State University
Columbus, Ohio

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FOREWORD

In June 1971, the Economic Development Administration approved a technical assistance grant to The Ohio State University under Title III of the Public Works and Economic Development Act of 1965. The grant was made in response to a proposal by The Center for Vocational and Technical Education at The Ohio State University to adapt and install a comprehensive data system for occupational training in the states of Kentucky and West Virginia. The proposal involved a three-phase development effort, the first phase of which was to be covered by the grant. This is the final report on that phase.

The contributions of many persons were necessary to the accomplishments reported herein. The Center is grateful for the cooperation of various members of the Kentucky Bureau of Vocational Education. Without the active participation and interest of Carl Lamar, director, and members of his staff, including Janie Jones, Floyd McKinney, Charles Neel, and Billy Vice, the accomplishments reported here would not have been possible.

Those at The Center who have been substantially involved in the work covered in this report include Cecil H. Johnson, MISVE project director; Paul V. Braden, former project director and now at EDA; Krishan K. Paul, who developed the follow-up design and analysis; Robert Schult; Allen A. Wiant; and Robert C. Young, who conceptualized the manpower demand component.

Robert E. Taylor
Director
The Center for Vocational
and Technical Education

CONTENTS

TABLES

FINAL REPORT
ON
ESTABLISHMENT OF A
COMPREHENSIVE DATA SYSTEM FOR
OCCUPATIONAL TRAINING IN KENTUCKY
PHASE I

Chapter I

INTRODUCTION

There is an accelerating awareness among manpower planners in general, and leaders in state divisions of vocational-technical education in particular, that greater alignment is needed between occupational education and the changing requirements of students, industry, and society. Congress, the Economic Development Administration of the U.S. Department of Commerce, the U.S. Department of Health, Education and Welfare, the U.S. Department of Labor, the national and state advisory councils on vocational education, and others have made clear the critical importance of increasing the relevance of occupational education to the needs of students and society. Unfortunately, effective tools for increasing the desired alignment have not been available to most state divisions, and linkages with other agencies involved in manpower planning have been lacking. Efficient and adaptive information systems are needed by most state vocational and technical education departments in order to provide a better data base for encouraging necessary changes in the patterns of occupational offerings and enrollments.

The Center for Vocational and Technical Education (CVTE) has been engaged for some time in the development of a management information system for state divisions of vocational and technical education. This activity is consistent with one of The Center's program objectives, which is to develop more effective tools for the management of vocational-technical education. The system is intended to provide state and local decision-makers with information and alternative resource allocation strategies to enable them to utilize their resources more knowledgeably, responsibly, and effectively. As a major step in the development of the management information system, a System for Statewide Evaluation of Vocational Education (SES) was initially developed and is presently in use, or being adopted for use, by a number of state divisions of vocational education.

Because of the widely felt need for improved information for planning and evaluation and for systematic means of obtaining it, others have also been working to alleviate these deficiencies. Concurrently with CVTE's development of SES, an Occupational Training Information System (OTIS) was being developed at Oklahoma State University, aided and encouraged by a number of persons and agencies, including Pat Choate, then Head of the Research Division of the Oklahoma Industrial Development and Park Department. Interest and experience derived from the above two efforts were brought together in June 1971, when OTIS developers Paul Braden and Krishan Paul joined the staff of CVTE and a grant was made by the Economic

Development Administration (EDA) to the CVTE for a cooperative development effort. This grant was made through the EDA Mideastern Region, directed by Choate, in support of the first of a three-phase plan to adapt and install a state vocational-technical education comprehensive data system for occupational training in the states of Kentucky and West Virginia. After initiation of the project, terms of the grant were modified in two respects. One was the loss of the West Virginia Division of Vocational Education as a participant. The other was an extension of the period of the grant from eight to sixteen months, terminating October 31, 1972.

The system to be developed and adapted was first called CDS (Comprehensive Data System), became CIS (Comprehensive Information System), and is now designated MISVE (Management Information System for Vocational Education). It was envisioned as a system that would involve a synthesis of elements obtained from SES and OTIS, with additional elements as needed to meet the information needs of managers and other decision-makers within state divisions of vocational and technical education.

Chapter II

SYSTEM CONCEPT

Objectives

The primary objective of the Management Information System for Vocational Education (MISVE)[1] is to provide more comprehensive analysis of data essential to education decision-makers for more effective allocation of resources for vocational programs. The analyses will be designed to: (1) assist in identifying those who might benefit from vocational education, (2) identify programs/training best suited to prepare students for a changing labor market, (3) provide an information base for developing a more cost-effective training program mix, and (4) provide a central source of data for encouraging interagency-based manpower planning efforts. Secondary objectives are to: (1) assist in facilitating the accountability of vocational-technical education to its clientele, advisory groups, and administration boards, and (2) provide data required for U.S. Office of Education (USOE) reporting and for state plans for vocational and technical education.

Conceptual Design

The overall thrust of the MISVE project is to integrate a number of data collection and analysis elements to meet the above objectives. Primary users of the system are expected to be state directors of vocational education and their planning and evaluation staffs. Analyses desired include manpower requirements, program effectiveness, cost analyses, student characteristics, student program preferences, and post-schooling mobility patterns. It is intended that these analyses be packaged into separate feedback reports to students, teachers, counselors, schools, school districts, state agencies, employers, and human resource data

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[1]The conceptual system under development by CVTE is designated MISVE throughout this report. Its components and organization are briefly described in this section, with emphasis on those components that have been under development in Kentucky during this reporting period. Some modifications have been made in adapting the system concepts to user needs in Kentucky. Specific characteristics of the Kentucky system elements developed under this grant are described in Chapter III of this report under the heading "System Definition and Development in Kentucky."

banks. Conceptually, the system divides into two subsystems (see Figure 1) with the following functions:

> The Evaluation Subsyste[illegible] ect/process and analyze data useful to p[illegible] strators, clients, and potential clients[illegible] nitially categorized and collected within [illegible] elements, analysis of the data goes beyond the mere aggregation of data within elements to include inter-element analyses.
>
> The Planning Subsystem will provide mechanisms for utilization of information from the Evaluation Subsystem in the identification of goals and objectives of vocational education and in identification and analysis of alternative strategies for achievement of these objectives.

Data collected for the Evaluation Subsystem is initially categorized into seven information elements: Manpower Supply, Manpower Demand, Student Follow-up, Program Cost, Resources Inventory, Program Characteristics, and Underdeveloped Human Resources. The information aggregated and/or analyzed in the Evaluation Subsystem, while useful in itself for reporting and accountability purposes, is utilized further in the form of essential inputs to the Planning Subsystem. The total system provides mechanisms for utilizing the evaluative information for setting goals and objectives and for determining alternative resource allocation strategies. Goals and Objectives and Resource Allocation Strategies are the two elements of the Planning Subsystem.

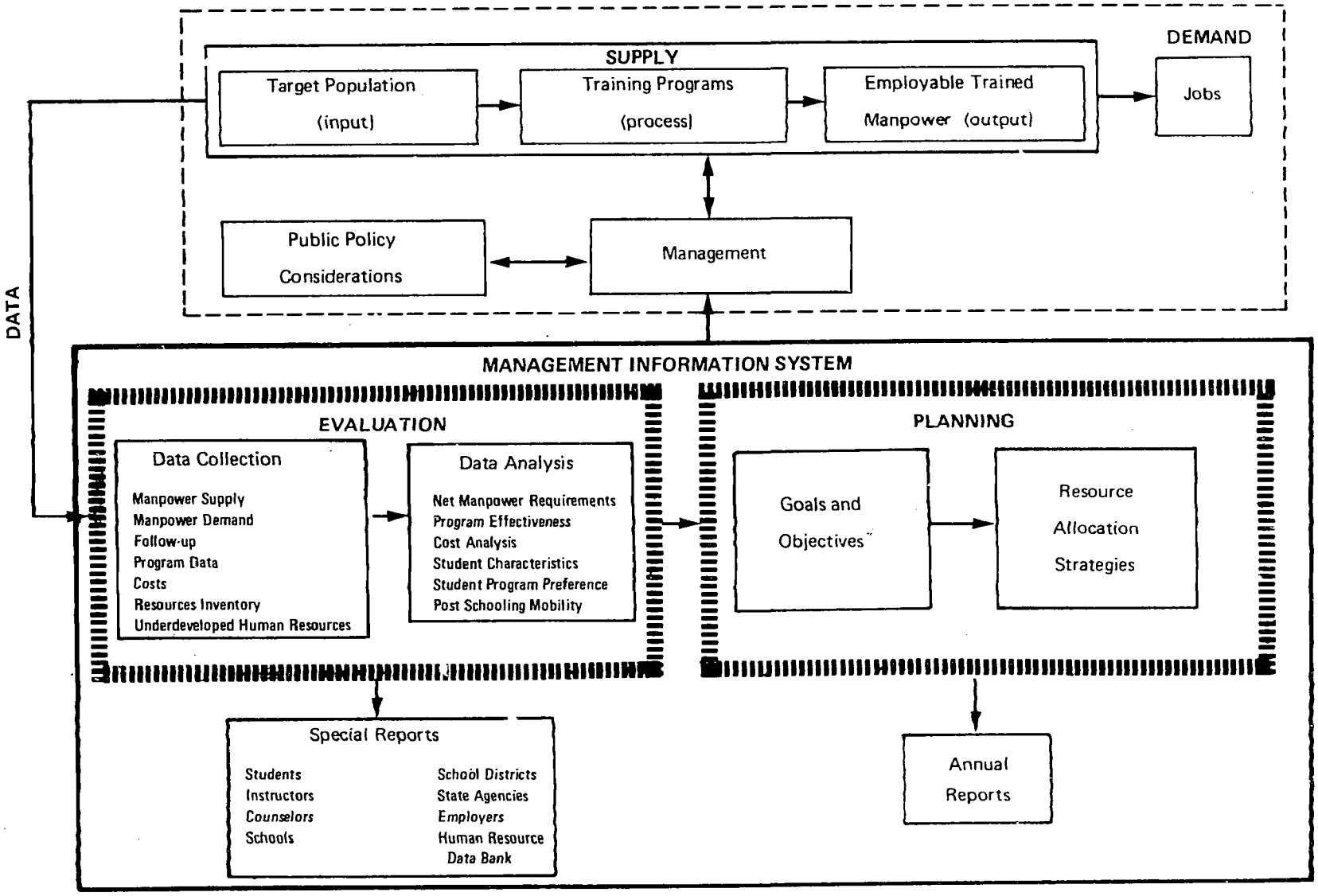
Development Design

The focus of development is upon analysis and use of information for decision-making. It is assumed that the majority of potential users presently possess and utilize means for the collection of certain data. Hence, the data inputs required for analysis will be specified. However, instruments compatible to the system will be developed for those users who need or desire tested and validated means for data collection. For several of the data elements, existing nationally funded data sources will be drawn upon.

The system will be developed progressively over a period of several phases or cycles. (A cycle of one year's duration permits pilot testing during the period of a school year.) During the first phase, the system was conceptualized, and analysis that utilized existing data acquisition modes was employed. Prototype development of several data-gathering instruments was begun. Refinement of existing and development of additional system components will be undertaken during succeeding cycles. Prototype components will be pilot-tested and evaluated as they are developed, and the system will finally be field-tested as a whole in each of several participating states.

FIG. 1

Conceptual Diagram of Management Information System for Vocational Education



Management Components

Goals and Objectives

The Goals and Objectives Component will provide a mechanism by which management and advisory group personnel can identify goals and objectives and weight them as to their relative importance. Goals are considered to reflect the underlying philosophy of the occupational education system, while objectives represent specific measurable benchmarks against which achievement can be appraised. Goals and objectives are critical to the analysis of program effectiveness and, as weighted, are also critical to the selection done from among alternative resource allocation strategies.

Resource Allocation Strategies

The Resource Allocation Strategies Component will provide a set of alternatives consisting of program enrollment and financial outlay structures, each designed to satisfy an alternative set of priorities. The strategies will be designed to implement the objectives, and, hence, will be developed for procedural compatibility. Information required to formulate strategies (e.g., relative efficiencies of alternative vocational education programs, program cost, labor market requirements, and student interest) will be supplied by the Evaluation Subsystem.

Information Components

Manpower Supply

The Manpower Supply Component will collect/analyze and report data pertaining to the projected output and labor market behavior of students from the vocational education system (including proprietary schools), classified by the U.S. Office of Education (USOE) program codes. Other contributions to manpower supply (e.g., apprenticeships) will also be included in the data insofar as feasible.

Manpower supply[2] is defined as the total number of persons projected to be available to fill specific job openings in a

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[2]The basic concept of manpower supply as used here was developed by the research team headed by Paul V. Braden at Oklahoma State University. For further explanation of this concept see: Paul V. Braden, James L. Harris, and Krishan K. Paul, *Occupational Training Information System* (OTIS) (Stillwater, Oklahoma: Research Foundation, Oklahoma State University, June, 1970), pp. 18-39.

specific geographic region, in specific time periods, at prevailing salaries and wages. This system will exclude consideration of those jobs for which either no formal training is essential or for which the entrance requirement is a baccalaureate or a higher degree (e.g., laborers and electrical engineers, respectively). Also excluded from the definition are those jobs for which considerable experience on a lower-level job is an essential requirement[3] (e.g., executive secretaries, foremen, or tool and die makers). Manpower supply thus defined includes all persons who will be available within a given time period for "entry-level" jobs other than unskilled or professional.

The overall objectives of this system element are as follows:

1. To provide enrollment information for USOE reporting
2. To compile information on graduates and dropouts by socioeconomic background and by type of handicap, if any
3. To compile enrollment data for state plans
4. To compile enrollment information by program in order to make more realistic projections for interface with demand
5. To compile a name and address file for use in the follow-up element
6. To develop procedures for the extension of student accounting to the career education concept

Manpower Demand

The Manpower Demand Component will collect/analyze and report on current and projected occupational employment. It will basically rely upon three sources of information: the U.S. Department of Labor's New Occupational Employment Statistics (OES) program combined with techniques in *Tomorrow's Manpower Needs*, existing employment security information, and follow-up surveys of graduates and dropouts. It is designed for states that are participating in the OES program, envisioned to eventually include all states.

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[3]It may, however, be pointed out that for the purpose of arriving at demand for these jobs, the demand for all jobs in that hierarchy should be taken into consideration. For example, a composite demand for machine operators, machinists, and tool and die makers should be considered as demand for graduates of "machine trades" programs.

The primary technique for development of data for this component involves close interagency cooperation between state divisions of vocational education (SDVE) and state employment security agencies (ES). The latter will be (or are now) participating in a nationwide survey of occupational employment that began in 1971 and for which new data collection is planned annually. This OES survey, developed and conducted by the U.S. Department of Labor's Bureau of Labor Statistics (BLS), will provide information on occupational employment characterized by far greater detail than that previously available. Employment estimates for two thousand occupations are expected to be available when the system is fully operational. In the manufacturing sector alone, data on one thousand occupations are provided. Data obtained in the OES surveys will be used in conjunction with the forecasting methodology described in *Tomorrow's Manpower Needs* (i.e., the BLS industry-occupation matrix approach) to yield forecasts of growth and attrition openings based on the OES occupational taxonomy. According to present design, however, the OES survey-based forecasts will not have sufficient geographic specificity for program planning purposes, being limited to the state as a whole and to the largest SMSA (Standard Metropolitan Statistical Area) within the state. Improved geographic specificity may be obtained by means of an agreement between the SDVE and ES agency in each state using this system, by which personnel from the SDVE will obtain supplementary data under the guidance and direction of the state ES agency. In this manner, not only will more relevant data be provided for program planning, but the rapport established between industry, government, and educators will facilitate placement efforts and help make counseling more realistic. Additional benefits expected include improved data returns resulting from interview vs. mail-out techniques, improved understanding in the use of manpower data on the part of educators, and increased relevance of vocational programs.

The forecasting techniques referred to above are planned to be operational in 1974. In the interim, therefore, less detailed and probably less reliable means of estimating must be resorted to. One such means is to use statistics on average annual openings per one hundred employees, by occupation. Such information may be derived from *Occupational Manpower and Training Needs* (USDL BLS, 1971), which supplies forecasts for 232 occupations and average annual openings (by occupational groupings) due to attrition and growth.

In summary, the Manpower Demand Component is basing its analysis principally upon the information that will be developed through the Occupational Employment Statistics (OES) program referred to above. The basic reasons for relying on the OES are as follows:

1. OES is expected to eventually become a nationwide source of detailed current occupational employment information.

2. By 1974, OES will be integrated with the BLS occupation-by-industry matrix, which is based on the most sophisticated manpower research project in the world.

3. Using the OES taxonomy will enable the state to compare its manpower structure and needs with those of other participating states.

4. By 1974, the OES-matrix approach will provide forecasts for 425 occupations, this number eventually expected to cover the full two thousand OES categories.

5. This approach is believed to be more efficient than expecting vocational education to conduct its own manpower research program that parallels that of BLS, USTES, and the latter's state affiliates.

6. Asking employers about the number of new hires they anticipate during the forecast year and using that data for planning purposes leads to inflated estimates of annual openings as a consequence of the problem of separating openings due to turnover (mobility) within the occupation from true net openings due to growth of employment within the occupation and attrition among the incumbents.

7. Asking employees to forecast their employment for periods useful for planning purposes (as opposed to the use of employer data for current placement purposes) is believed to be relatively unreliable information upon which to base five-year planning.[4]

8. A comprehensive employer survey, as opposed to a scientific sample, is rejected due to the relatively high marginal cost and minimal assumed benefits of covering employers that would not be included in the sample.

9. OES categories are coded to the *Dictionary of Occupational Titles* so that conversions may be made to the USOE codes.

Whereas the above methodology will be used to yield annual openings by occupation, follow-up questionnaires will be the principal source of information concerning wages and other dimensions of demand (e.g., training relatedness, geographic mobility, etc.).

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[4]Robert C. Young, William V. Clive, and Benton E. Miles, *Vocational Education Planning: Manpower, Priorities, and Dollars* (Columbus, Ohio: CVTE 1972), Chapter II.

Student Follow-up

The Follow-up Component will collect/analyze and report information on the post-schooling experiences of graduates and dropouts from vocational programs, including information on occupations and their relationship to training programs, income, geographic mobility, job satisfaction, and need for retraining.

The overall objectives of the follow-up element are as follows:

1. To provide information for product evaluation of vocational and technical training programs (e.g., percent of graduates placed on jobs, level of salaries and wages earned by graduates, percent who are satisfied on the job, etc.)

2. To provide some process evaluation information on training programs (e.g., how graduates rate their training programs and other school facilities, etc.)

3. To provide comparable information on graduates from different vocational and technical training programs within a state (private school, adult education, and academic education programs) so as to set up norms for evaluation

4. To provide trend information related to placement and geographic mobility for manpower planning purposes

5. To provide placement, job requirement, job satisfaction, and wage information to guidance personnel for counseling of vocational and technical students

6. To provide relevant information for accountability and public relations work in the community

7. To provide placement and wage information on the disadvantaged for evaluation purposes

8. To provide information to fulfill placement-related USOE reporting obligations by the states

Output from the Follow-up Element will be the analyses of variables as they relate to vocational education received by students. These analyses are as follows:

1. Placement on jobs for which trained

2. Placement on jobs by training programs

3. Former students working full-time and attending school

4. Former students attending school full-time
5. Wage rates of former students working full-time
6. Wage rates of former students working part-time
7. Relevance of training programs [illegible]t activity
8. Classification of jobs in which graduates are placed
9. Reasons for dropping out of vocational programs
10. Former students available for job placement
11. Former students not available for job placement
12. Intrastate mobility of former students
13. Former students moving out of state
14. Use of public school placement services by former students
15. Length of time between program completion and initial employment
16. Former students' ratings of vocational programs
17. Comparisons of vocational education programs, private school programs, and academic education
18. Classification of programs and jobs into clusters required for USOE reports related to placement

Program Characteristics

Program Characteristics data will be collected to provide administrators a clear understanding of the general design of their education system. In addition to traditional service area descriptions, data will be collected by USOE program codes on characteristics such as day versus evening classes, institutional versus cooperative modes, and whether or not the program is modular in its format. Included in the program data to be collected, analyzed, and reported will be such indicators of program quality as staff qualifications, advisory committee involvement, degree to which planning exists, program duration, special and regular needs being served, utilization of facilities, out-of-class experience provided, and utilization of guidance services.

Program Costs

The Cost Component will collect/analyze and report the cost base for cost-effectiveness analysis (useful in designing more efficient programs) as well as the data necessary for estimating resources required for program expansions. This component will assess the feasibility of generating, on a continual basis, past and future costs of specific programs (e.g., the cost of a nurse aide program per graduate in a specific institution) rather than the average state cost for an aggregation of occupational programs (e.g., health programs).

Resources Inventory

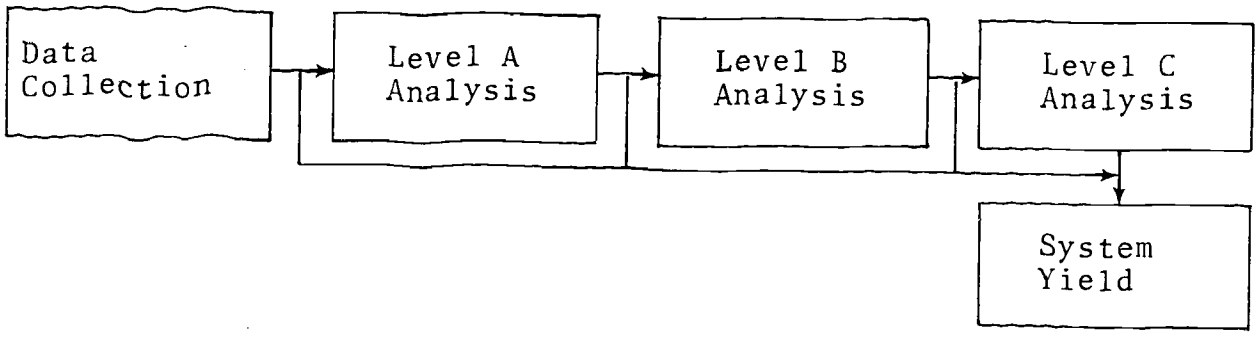
The Resources Inventory Component aims at compiling an inventory of all physical and human resources available to decision-makers at local, regional, and state levels. Included in this inventory would be the kinds of data pertaining to current and potential use of such resources as (1) staff, by age group, sex, education qualifications, work experience, program, and school, (2) buildings, (3) equipment, (4) curricular software, and (5) other non-fiscal resources.

Underdeveloped Human Resources

The Underdeveloped Human Resources Component is intended to collect/analyze or use data that will identify the training needs of persons who are unemployed or underemployed. It will also include a model for forecasting the needs for vocational training on the part of the total population within a specified region by age group, socioeconomic background, and geographic location based on census data.

Information Organization

Each component will yield certain types of data which, combined with the yield from other or several other components, will result in certain levels of data analysis. The following design indicates the anticipated types of yield from the Management Information System.



Specifically, the anticipated data collection would be:

1. Student enrollment/termination
2. Current occupational employment
3. Student follow up
4. Census
5. Information needs related to the disadvantaged
6. Program financial data
7. Resources inventory
8. Program characteristics

The level A analysis expected would include:

1. Manpower supply projections
2. Manpower demand projections
3. Student characteristics
4. Characteristics of population being served by vocational education
5. Program effectiveness
6. Program cost analysis
7. Program resource utilization

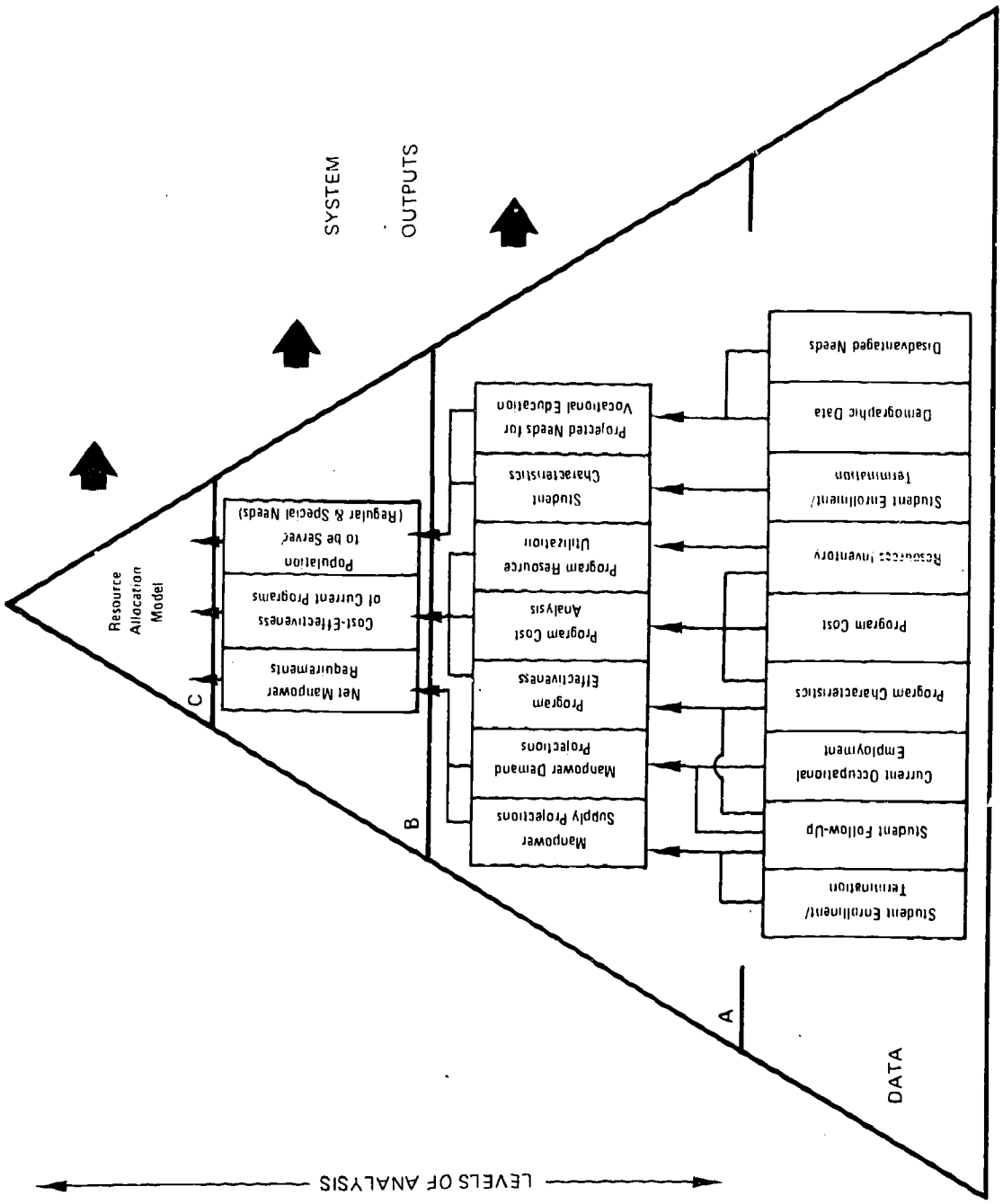
Level B analysis would include:

1. Net manpower requirements projections
2. Cost effectiveness of current programs
3. Population to be served (regular and special needs)

Level C analysis would consist of alternative resource allocation strategies utilizing level A and B analyses. Figure 2 indicates data to be collected, analyses to be made, and the hierarchy that exists between them.

FIG. 2

MISVE Data and Analysis Relationships



The completed Management Information System for Vocational Education will consist of the following products:

1. Data files

   A. Student enrollment data and subsequent employment history (follow-up)

   B. Program data on individual programs, including program location, code, characteristics such as course content, duration, etc., resources required such as personnel, equipment, etc.

2. Data Procurement and Utilization Techniques

   Other data files, required but not generated by MISVE users, include Bureau of Labor Statistics occupational employment projections, demographic data, etc. Techniques for obtaining and utilizing these data will be included as a part of the Management Information System.

3. Computer Programs

   A. Projected manpower supply by program

   B. Characteristics of student population

   C. Program effectiveness ratings and criteria

   D. Comparative cost analysis

   E. Alternate resource allocation strategies

Chapter III

DEVELOPMENT PLAN AND ACCOMPLISHMENTS

Cycles

The CVTE proposal to EDA involved a progressive development consisting of three phases, or cycles. Cycles of one year's duration were proposed to permit pilot testing during the period of the school year and to allow time for analysis and revision between school years.

Cycle I Scope of Work

This document is the final report for Technical Assistance Grant Project No. 04-06-0925, which was made to cover Cycle I of the proposal. Cycle I was thus planned to be an abbreviated cycle of eight months' duration, beginning June 30, 1971. The grant period was subsequently extended an additional eight months.

The scope of work, as defined under the Special Terms and Conditions of the grant, consisted of the following:

1. Form an advisory committee within each state with representatives of all co-sponsoring and cooperating agencies.

2. In consultation with the respective advisory committees, prepare a preliminary design and description of the system to be installed during Phase I in each state.

3. In consultation with the respective advisory committees, prepare a detailed plan for installing the Phase I system in each state.

4. Train key administrative personnel to be involved in the gathering of data, and advise and assist in the training of data-gathering staff.

5. Actively monitor and assist in the collection of data to insure expeditious solution of problems and a smooth flow of information in usable form.

6. Conduct workshop conferences with proper manpower officials in each state to determine clustering of coded data from each state.

7. Process and analyze the accumulated data from each state.

8. In consultation with state personnel, prepare and disseminate to authorized reviewers two draft documents: (1) *The Kentucky Vocational-Technical Education Data System - Cycle I: System Description, and Manpower Requirements and Occupational Programs*; (2) *The West Virginia Vocational-Technical Education Data System - Cycle I: System Description, and Manpower Requirements and Occupational Programs*. These documents are to contain: (1) comprehensive information on all enrollments in public and private vocational-technical programs, including an assessment of student interests and aspirations (supply pipeline); (2) a compilation of existing demand data for subprofessional occupations; and (3) a matching of demand and supply data for each of a set of state sub-regions and in total for both West Virginia and Kentucky. The Phase I system description for each state will include a review of implications for Cycles II and III system development.

In summary terms, the scope of work was designed to cover advisory committee organization and activity, Cycle I system definition, collection and analysis of data, training, and reporting.

Accomplishments

Scope

In this section, accomplishments relative to the various aspects of the scope of work are described briefly, with a detailed discussion of analysis in the section following. Owing to the limitations in the data that could be obtained for analysis during the grant period, the principal achievements made were with respect to organization for project implementation and system conceptualization. With the extension of the grant period, unexpended funds were reallocated to permit the continuation of data collection and analysis.

Advisory Committee

The Kentucky Manpower Planning Council (KMPC) was organized early in the project and became the advisory committee to the information system project. The system was referred to as the Comprehensive Information System for Occupational Education (CIS) in Kentucky, and the Bureau of Vocational Education was designated as the council agency with primary responsibility for its development. Other agencies represented on the council included:

Department of Economic Security

Bureau of Employment Security

Bureau of Public Assistance

Comprehensive Health Planning

Cooperative Extension Service

Bureau of Vocational Rehabilitation

State Office of Economic Opportunity

Department of Commerce

Kentucky Program Development Office

Department of Personnel

The council met with members of the CVTE project team on numerous occasions and provided definition of the manpower related data needs of a number of the member agencies, in addition to information on previous data gathering efforts, problems, opportunities, and suggestions for closer cooperation. The council was kept informed of the system conceptual design and schedule for development as these were formulated.

System Definition and Development in Kentucky

Chapter II of this report describes the MISVE (Management Information System for Vocational Education) concept and includes a definition of the system objectives, system components, and the data and analyses involved. The selection of specific components for focused development and adaptation in Kentucky during the report period will be explained in this section.

Relationships between the MISVE analyses are outlined in Chapter II and illustrated in Figure 2. As indicated, the "capstone" of the concept consists of alternative resource allocation strategies that bring all prior analyses together in an analytic framework designed to assist in resource allocation decisions. Information desired for this capstone analysis falls broadly into one of three sub-analysis categories, namely: (1) net manpower needs, (2) cost effectiveness of current programs, and (3) analysis of the population with respect to needs for occupational preparation.

Identification of Information Gaps and Focus of Effort

The basic concepts underlying the net manpower needs analysis are probably the best-developed and most readily understood of the three analyses named above. However, considerable difference of opinion exists as to the best data sources, projection techniques, cost of implementation versus validity, and spin-off benefits, as well as appropriate guidelines to be observed in the interpretation and utilization of the data. Much attention has been devoted to these questions and to the implementation of data collection efforts designed to assist in the forecasting of needs for occupationally trained manpower (e.g., OTIS). The need for effective and economical techniques to provide reliable manpower needs projections continues to be widely felt. Specifically, it was this need that, more than any other single factor, determined the priorities for system development in Kentucky during the period covered in this report.

The first task was to define the data and/or sub-analyses necessary to the formulation of estimates of future net manpower needs. Defined in MISVE terms, the data needed is that encompassed by three closely interrelated components, namely Manpower Supply, Manpower Demand, and Follow-up. Although described previously in Chapter II, summary descriptions of each of these will be given in the following paragraphs, with emphasis on their mutual dependencies.

Manpower Supply is essentially a projection of the numbers and types of occupationally trained persons who will be entering the labor market during a given time period. Its primary sources of data are enrollment records from vocational programs (both public and proprietary) and follow-up surveys. The latter provide trends as to the post-training labor market behavior of trainees, on which projections for the future may be based. In addition to data on the numbers and types of labor market entrants from training programs, data on OJT trainees, in-migration of persons with occupational skills, returnees from the armed forces, etc., are needed to obtain a comprehensive estimate of manpower supply.

Manpower Demand, as defined for MISVE, consists of estimates of future employment of occupationally trained manpower, based on current employment and expected growth in the economy. Ideally, these projections should take into account such factors as attrition in the current labor force, the emergence of new occupations, the obsolescence of others, etc. The largest single body of data required for such an analysis is an adequate accounting of current employment by industry and occupation. (This accounting system must be capable of being related to the training program taxonomy used in the Manpower Supply Component.) From such a data base on current employment, projections as to the demand for specific types of occupationally trained manpower may be made in a number of ways,

one means being that described in Chapter II. However, an important factor in assessing manpower demand is actual wages earned by individuals in specific occupations. For this data, the Manpower Demand Component depends on the Follow-up Component.

The Follow-up Component is concerned with data on the post-training experiences of former students in programs of vocational education. These data are needed to evaluate programs against an array of criteria, as well as to provide essential inputs to the Manpower Supply and Manpower Demand Components.

The next task was to identify the information gaps that have prevented a reasonably accurate assessment of net manpower requirements in Kentucky. During the first months of the grant period, data currently available, as well as additional data needed to initiate such an analysis, was identified. It was found that the Bureau of Vocational Education was in the process of extending its recently installed enrollment/termination data system to cover all students enrolled in public vocational programs, which constitute the major source of "supply" at the present time. The bureau had also expended considerable effort in moving towards the goal of a systematic follow-up of their ex-students and was receptive to assistance in the development of a follow-up component for their information system.

It was also found that some members of the KMPC had made attempts in the past to project needs for trained personnel by their various agencies on a piecemeal basis. They now indicated support for a cooperative effort to obtain information that would be more current, occupationally specific, and more comprehensive in scope.

Suitable data from the nonpublic sector on enrollments and subsequent labor market experience of proprietary school students were not obtained. Access to such data, if it exists, was hampered by the lack of a viable proprietary school association in Kentucky. The data that were obtained were not sufficiently specific to be of much use for the purpose desired.

In summary, findings related to availability of data for the net manpower requirements analysis were as follows:

Manpower Supply

Enrollment/termination files

Public	Available
Proprietary	Not available
Other	" "

Manpower Demand

Current employment, by industry and occupation	Not available
Employment projections, by industry and occupation	" "

Follow-up

Public programs	Not available*
Proprietary programs	Not available

*Estimates from teachers were available, but individual follow-up had not yet been implemented.

Based on the above findings, both as to available data and as to expected support for further information gathering endeavors, continuing effort was concentrated on alleviating information deficiencies in the Follow-up and Manpower Demand Components.

Manpower Demand Component Development

The design and rationale of the Manpower Demand Component for MISVE, discussed in Chapter II, represents one of a number of alternative strategies that were formulated for obtaining the needed data. The strategy described was selected as optimal on the basis that it capitalizes on the most recent and sophisticated technology of the USDL/BLS for categorizing and projecting occupational manpower and supplements it quantitatively to provide manpower data of a quality and quantity never before available to vocational education planners. In doing so, this strategy also seeks to observe established lines of responsibility of the participating agencies, and, very importantly, to avoid costly duplication of effort.

A temporary weakness, however, of the described strategy is that the technology on which it depends is not yet fully implemented. OES-BLS matrix generated forecasts will not be available immediately, as explained. An interim forecasting technique is therefore suggested.

However, other alternatives could be adopted. Evaluation of a number of strategies for Kentucky favored the use of an employer survey utilizing personal interviews and modified OES-BLS questionnaires for the manufacturing sector. Modifications consisted mainly of additional questions to permit employment forecasting by the employers themselves. CVTE provided technical assistance in defining the modifications to be made to the existing OES-BLS questionnaires (i.e., the manufacturing sector of industry. Questionnaires for other sectors were not yet developed and tested.).

Printing of the questionnaires, preparations for the survey, training of interviewers, etc., were tasks that were then carried out in Kentucky independently of CVTE direction or guidance.

Factors favoring the adoption of the above strategy in Kentucky were as follows:

1. There was considerable local support for a survey conducted by personal interviews.

2. Because of the interagency responsibility for manpower development and commitment to data collection, manpower necessary to conduct the survey could be made available.

3. The use of the basic structure of the BLS-OES schedules ensured future compatibility with the data from this comprehensive, national effort.

4. Addition of questions to obtain employer projections of their needs provided some indication of manpower requirements. This can serve as an interim forecasting technique until the BLS-OES based matrix methodology is implemented.

5. Rapport between industry and education is expected to be strengthened, facilitating counseling, placement, and curricular modification efforts, and improving survey response rates.

6. Increased familiarity of vocational education staff with employer data is expected to enhance their confidence and utilization of the data in their planning and development efforts.

Follow-up Component Development

The following procedures relate to the development phase of follow-up activities in Kentucky, which consisted of the following:

1. Development of the instrument

2. Data collection

3. Analysis of data collected during a pilot test in Kentucky (presented in Section IV)

Instrument. A basic follow-up instrument (questionnaire) was developed at CVTE to draw, wherever appropriate, from instruments developed in other states. This instrument was later enriched and refined after consultation with state and local vocational education administrators in Kentucky, selected experts at CVTE, and

some nationally known authorities on the subject. The final draft was sent for approval to the Office of Education, Washington, D.C., and the Committee for Protection of Human Subjects. The instrument can be seen in Appendix A.

Pretesting of the Instrument. A pretest of the draft instrument was held for comprehension and readability. A group of twenty, composed of high school students and graduates, was asked to complete the instrument without any guidance, help, or explanation. Eight of the group experienced no difficulty in understanding the questions, whereas the rest expressed some problem with five of the thirty-one questions. Those five questions were suitably amended to make them easier to understand and interpret.

Population for the Pilot Test. A pilot test of the follow-up instrument was held during April to September, 1972. The population for the test consisted of 10,806 subjects, the background data for which was supplied to CVTE by the Kentucky Bureau of Vocational Education (KBVE). This population included 7,432 secondary, 2,908 post-secondary, and 437 adult terminees who were defined as students terminating their vocational education during the school year 1970-1971. Geographically, the population represented fourteen of the fifteen planning regions in Kentucky and represented terminees from all area vocational schools and county extension centers. The division of the population by program service area was as follows:

Vocational Agriculture Education	274	(2.5)*
Distributive Education	1,633	(15.1)
Health Education	779	(7.2)
Home Economics Education	659	(6.1)
Business and Office Education	1,980	(18.3)
Technical Education	207	(1.9)
Trade and Industrial Education	4,981	(46.1)
Special Programs	285	(2.6)
Total	10,798**	

*Figures in parentheses represent percentages that may not total 100 due to rounding errors.
**Eight records had wrong or missing program codes.

The background data for this terminee population were supplied to CVTE on a computer tape from which a computer tape file was created in respect to every member of the population.

Data Collection. The tape file was used at CVTE to print address labels to mail the questionnaires. The format of the labels was as follows:

NAME OF THE PROGRAM SOCIAL SECURITY NUMBER
NAME OF THE STUDENT
ADDRESS
CITY, STATE, ZIP CODE

An alphabetic list of names and social security numbers of all terminees was also computer-printed with the format shown in Figure 3 to form a register that was used to monitor the mailing of questionnaires and subsequent reminders wherever necessary. Complete records of the dates of mailings and responses were kept by the KBVE personnel. CVTE worked closely with the Kentucky state staff to help work out record keeping procedures.

FIG. 3

Format of the Register Used for Monitoring of Follow-up Returns

NAME		Social Security Number	DATES						
Last	Initials		1st Mail	Return	2nd Mail	Return	3rd Mail	Return	Phone

A follow-up questionnaire was mailed to every terminee in the population. After a waiting period of one week, all non-respondents were mailed a reminder and a fresh questionnaire. After an additional wait of three weeks, another reminder and questionnaire were mailed to those who still had not responded. A total of 1,069 questionnaires were returned undelivered by the post office because either the name and address was incorrect or the addressee

was otherwise non-traceable. The results of this data collection effort are reported in Table 1.

TABLE 1

Response Rate to Follow-up Questionnaire

Questionnaires	Numbers	Percent
Total mailed	10,806	100.0
Returned by post office	1,069	9.9
Responses to 1st mail out	2,915	27.0
Responses to 2nd mail out	1,067	9.9
Responses to 3rd mail out	1,105	10.2
Others*	102	1.0
Total Responses (Usable)	5,189	48.0

*Responses received as a result of telephone contacts/ interviews with the respondents.
**The research design outlined in this section was suggested and initiated by KBVE research team that included Floyd McKinney, Billy Vice, and Charles O. Neel. CVTE supported the effort and provided the data analysis.

Mailing Sequence. Items were mailed to the terminee population according to the following sequence:

1. A pre-letter post card, one week prior to the mailing of follow-up questionnaire, to give advance notice (See Appendix B.)

2. The follow-up questionnaire

3. A post card expressing appreciation to those responding to the follow-up questionnaire (otherwise a reminder) mailed one week after mailing the follow-up questionnaire (See Appendix C.)

4. Another follow-up questionnaire that was printed in a different color for easy handling and recognition

In order to empirically test the relative efficacy of various alternative sequences of mailing pre-letters, questionnaires, and reminders, the population was randomly divided into twenty groups. The groups were again randomly selected for the four treatments, defined as follows:

Treatment 1: Advance notice, a questionnaire, and (if no response) another questionnaire

Treatment 2: Advance notice, a questionnaire, a reminder, and (if no response) another questionnaire

Treatment 3: A questionnaire, and (if no response) a reminder and another questionnaire

Treatment 4: A questionnaire, and (if no response) another questionnaire

The inter-group selection of groups for treatment was random and is shown in Table 2. As can be seen from the table, every member of the population received at least two questionnaires, and the groups to which nothing else was mailed (i.e., pre-letter or reminder) served as the control groups. Responses to the follow-up questionnaire were carefully monitored for every group.

TABLE 2

Nomination of Groups for Mailings

GROUP	TREATMENT BY FOUR MAILINGS			
	Card (M1)	Instrument (M2)	Card (M3)	Instrument (M4)
1	X	X		X
2	X	X	X	X
3		X	X	X
4		X		X
5	X	X		X
6	X	X	X	X
7		X	X	X
8		X		X
9	X	X		X
10	X	X	X	X
11		X	X	X
12		X		X
13	X	X		X
14	X	X	X	X
15		X	X	X
16		X		X
17	X	X		X
18	X	X	X	X
19		X	X	X
20		X		X
Total	10	20	10	20

From the results presented in Table 3, it can be seen that the response rate was highest with treatment T_3 and the lowest rate was with treatment T_4, which was the control group.

Significant difference in the rate of responses was found in the treatments. Since the sequence of pre-letter-questionnaire-reminder-questionnaire represented by the treatment T_3 brought maximum response from former students, it was recommended for use in the second and subsequent cycles of follow-up.

Bias Check Due to Non-Response. A randomly selected sample of sixty was drawn from those who did not respond to mailed questionnaires and reminders. This sample was later amended to exclude the names of persons listed residing outside the state and some others who were otherwise hard to locate. The latter included those whose name and address were incorrect on the computer tape and also those who had moved leaving no forwarding address. All of the above were excluded from the sample because of the high cost of interviewing out-of-state persons and of finding the hard-to-locate. Other randomly selected names were added to the sample to bring it to a total of sixty.

An experienced interviewer arranged to visit with every one of the persons selected in this sample. One of the persons refused to be interviewed or to give any assistance in data collection, and the parents of nine others informed the interviewer that the subjects were in military service and thus unavailable for interview.

Each remaining subject was requested to complete a follow-up questionnaire provided by the interviewer who was instructed not to offer any help or explanation to any of the questions. After the completion of this task, the interviewer asked a few simple questions directed at probing the reasons for non-response. Data from the interview schedules are reported in Table 4.

The most frequently reported reason for non-response was "Did not think it was important," which was also reflected in suggestions for improvement. A great majority (61.5 percent) of persons wanted more and better effort by those conducting follow-up to explain the purpose of the questionnaire to the subjects. The results of this survey were used to improve the next follow-up cycle by explaining the purposes of follow-up in a pre-letter to be mailed prior to the questionnaire mail-out.

Data from the follow-up questionnaires completed at the time of interviews were tabulated and compared with the responses that had been received earlier. Whereas both the sets of data followed a similar pattern of responses, on most of the questions the data from the interview-sample were inadequate for statistical analyses. Therefore, only eight important variables were selected to statistically compare data from the two sets. Result of this comparison is reported in Table 5.

TABLE 3

Effect of Mailing Treatments on the Rate of Response to the Follow-up Questionnaire

Treatment	Observed Responses* (O) Number	Percent	Expected Responses** (E)	(O-E)	$(O-E)^2$	$\frac{(O-E)^2}{E}$
T_1- Advance notice, instrument; if no response, second instrument	1230	24.46	1257	-27	729	0.578
T_2- Advance notice, instrument, reminder; if still no response, second instrument	1369	27.23	1257	112	12544	9.978
T_3- Instrument, reminder; if no response, second instrument	1273	25.32	1257	16	256	0.204
T_4- Instrument; if no response, second instrument	1156	22.99	1257	-101	10201	8.115
TOTAL***	5028	100.00	5028	0	23730	18.875

*Only usable responses were included in this analysis. Responses with missing treatment code number were also excluded

**Expected responses based on the following null hypothesis:
H_0-Mailings treatments had no significant effect on the number of respondents to the follow-up questionnaire
Chi square with 3.d.f = 12.84 at 0.005 level; H_0 therefore is rejected leaving the alternative hypothesis that there is significant difference

***Does not include 161 returns which were due to a special effort and thus biased for this analysis

TABLE 4

Aggregation of Data from Interviews of Non-Respondents to the Follow-up Questionnaire

Total number of interviews - 52

1.	Did you receive the questionnaire in the mail?	Yes	51	(98.1)*
		No	1	(1.9)
2.	If "yes," did you complete and mail it?	Yes	6	(11.5)
		No	46	(88.5)
3.	If "No," please check one or more of the following reasons for not completing the questionnaire			
	(a) Lost the questionnaire		3	(5.8)
	(b) Other family member threw it away		3	(5.8)
	(c) I did not think it was important		28	(53.9)
	(d) Away from home most of the time		10	(19.2)
	(e) Waiting to find a job		-	
	(f) Thought it was to be completed if working on a job		1	(1.9)
	(g) Questionnaire too long		-	
	(h) Did not understand the questions		1	(1.9)
	(i) Objection to some of the questions		-	
	(j) Did not like the program		2	(3.8)
	(k) Did not like vocational teacher		1	(1.9)
	(l) Did not like the school		1	(1.9)
	(m) Doubt in confidentiality		-	
	(n) Did not know the answers		-	
	(o) Did not want to give information		-	
	(p) No reason at all		7	(13.5)
	(q) Other		20	(38.5)
	Too busy, no time		11	(21.2)
	Thought it was mailed		3	(5.8)
	Did not receive		1	(1.9)
	Lazy		2	(3.8)
	Thought did not apply (still in school)		3	(5.8)
4.	What could we have done to prompt better returns?			
	(a) Pre-warning by teacher		1	(1.9)
	(b) Discussion of importance while still in school		8	(15.4)
	(c) Letter from teacher		-	
	(d) Better explanation of the purpose in the letter on the questionnaire		32	(61.5)
	(e) Slick paper		-	
	(f) Different color of paper		-	
	(g) Other		9	(17.3)
	Personal note or interviewers		5	(9.6)
	Stress more importance		3	(5.8)
	Specific time for return		1	(0.9)

*Numbers in parentheses represent percentages

TABLE 5

Comparison Analysis of Respondents and Non-Respondents to the Follow-up Questionnaire

	Non-Resp. N=50	Resp. N=3457	Chi Square significance at level
1. Variables Related to Job			
(a) Status:			
Working	35 (59.3)	2309 (60.8)	
Not working	24 (40.7)	1872 (39.2)	
			0.80
(b) Relatedness of job to program:			
Same occupation	5 (8.6)	619 (19.1)	
Highly related	5 (8.6)	416 (15.8)	
Somewhat related	7 (20.0)	689 (24.1)	
Not related	22 (62.9)	1149 (40.7)	
			0.01
(c) Wages per hour:			
less than $1.60	5 (14.3)	229 (9.0)	
$1.61 to $2.50	19 ($4.3)	1487 (58.7)	
$2.51 to $3.50	6 (17.1)	520 (20.5)	
More than $3.50	5 (14.3)	299 (11.8)	
			0.50
(d) Full/part time:			
Full time	4 (11.4)	457 (16.7)	
Part time	31 (88.6)	2364 (83.3)	
			0.30
2. Variables Related to School			
(a) Completion of programs:			
Graduates	30 (60.0)	2974 (61.6)	
Dropouts	20 (40.0)	1069 (38.4)	
			0.80
(b) Current Status:			
Enrolled in school	14 (28.0)	1031 (30.1)	
Not enrolled	36 (72.0)	2393 (69.9)	
			0.70
(c) Relatedness of present education to vocational program:			
Same field	6 (42.9)	313 (26.7)	
Highly related	2 (14.3)	118 (10.1)	
Somewhat related	3 (21.4)	218 (18.6)	
Not related	3 (21.4)	524 (44.7)	
			0.30
(d) Need more vocational education:			
Yes	32 (64.0)	2842 (59.4)	
No	18 (36.0)	1939 (40.6)	
			0.70

Figures in parentheses represent percentages that may not total 100 due to errors of rounding.

A significant difference at the 0.05 level was found only in one of the eight variables, namely, "Relatedness of Jobs to Programs"; on all other variables there was no significant difference between the two sets of responses. It can be concluded from this analysis that in the total responses, the persons placed on jobs related to training programs seem to be over represented. However, no adjustment to data was made because the difference due to this factor was slight. Except on that one factor, the responses already received did represent the responses of the total population of terminees, and results of the analyses could be generalized for the population surveyed.

Validation of Information. A randomly drawn sample of fifty persons was selected from those respondents to the follow-up questionnaire whose known residence was within the state. Financial and other resource constraints prohibited the interview of out-of-state respondents, who represented a total of about 6 percent of the total responses.

An experienced and trained interviewer visited with every person (except one who had moved out-of-state after responding to the questionnaire) who was asked to complete a follow-up questionnaire supplied by the interviewer. After the completion of this task, each person in the sample was asked a few simple questions by the interviewer to complete an interview schedule, which can be found in Appendix E. These questions were asked to find out if there was uniformity among the respondents about the interpretation of selected questions. The data resulting from this interview schedule is given in Appendix F.

A comparison of responses to the follow-up questionnaire completed at the time of interview with the responses of the same subjects furnished earlier by mail showed that 16, or 32.7 percent, of the respondents had changed their status during the time interval. Those questions that were status-specific (questions 8 through 29), therefore, changed the responses of these respondents. Questions 1 through 6, however, were independent of status change and thus were less likely to change with a change in "current status." It was therefore decided to analyze the first six questions of the follow-up questionnaires from these forty-nine subjects for a test-retest reliability check.

On any one of the questions, if a subject's response was the same in the mailed questionnaire and the questionnaire completed at the time of interview, it was termed "Similar"; if the response was different, the result was termed "Dissimilar." The results of these data are shown in Table 6.

A chi square analysis of the data presented in Table 6 revealed that for every question the similarities among responses were significantly different (at the 0.05 level) from similarities that could have been expected due to chance alone.

TABLE 6

Analysis of Test-Retest of Follow-up Questions

Question Number	Similar Responses	Dissimilar Responses	Similarities Expected Due to Chance Alone
1	33	16	12.25
2	46	3	24.5
3	39	10	24.5
4	36	13	24.5
5	33	16	24.5
6 (a)	29	20	12.25
6 (b)	34	15	12.25
6 (c)	31	18	12.25
6 (d)	25	24	12.25
6 (e)	25	24	12.25
6 (f)	23	26	12.25
Total	354	185	185.5

A correlation coefficient C at 0.26 was also found significantly different from 0, showing a significance of relationship between the questions and the number of similarities, thereby supporting the results achieved in the preceding paragraph.

Generation of Reports. In addition to data analysis, there were a number of reports generated for use by the KBVE and local school officials.[5] Appendix G shows the format of all the reports supplied to the KBVE for use by appropriate personnel at state, regional, and local school levels.

Revision of Instrument and Procedure for Next Cycle. Utilizing the experience gained and the findings of data analysis from the pilot test follow-up, certain changes were recommended in the procedures and instrument. These were as follows:

1. A detailed letter (instead of a post card) should be mailed to terminees about two weeks prior to the mailing of questionnaires. The purpose and objectives of follow-up should be explained in this letter and the recipient's cooperation should be requested. (A letter designed to be used for Cycle II is shown in Appendix H)

[5]The reports also included Form OE3139 and a table to deduce percentages for interfacing of manpower supply with manpower demand.

In later cycles, the objectives and procedures of follow-up should be explained to students before they terminate their vocational education. Teachers and counselors can acquaint the students with the questionnaire and allay their apprehensions about unauthorized use of data. This procedure should achieve a better response rate than a pre-letter.

2. A two-week period should be allowed between the mailing of a pre-letter and the questionnaire.

3. Cooperation of teachers, other school officials, and the community at large represented by parents and other social organizations should be sought through appropriate efforts.

4. A reminder should be mailed to non-respondents no more than three weeks after the mailing of the initial questionnaire.

5. A second questionnaire should be enclosed with the reminder.

Though the information and data from the validity check analysis supported the reliability of the instrument, it was considered necessary to amend the instrument slightly to remove some of the problems encountered by a small number of respondents. Also, some changes were indicated for ease of computer programming and data analysis. A revised draft instrument was approved by KBVE officials, the U.S. Office of Education, and the Committee for the Protection of Human Subjects. This revised instrument is shown in Appendix I.

Summary. A primary purpose of the follow-up pilot test was to outline, test, and finalize procedures for conducting a regular and systematic vocational education student follow-up in Kentucky. As has been explained in this section, revised and tested procedures are now available to KBVE personnel for the conduct of follow-up, another cycle of which is currently underway with the close cooperation and assistance of CVTE. A set of key punching instructions and a revised and updated set of computer programs will be made available to KBVE at the conclusion of Cycle II.

Training

An important aspect of the scope of work for the grant period was the orientation and training of key personnel in Kentucky in the obtaining and use of information. This was accomplished through a number of meetings with the KMPC, through close working relationships with key persons on the Bureau of Vocational Education staff, and by means of a workshop set up for the purpose of reviewing and analyzing data.

Billy Vice and Charles Neel of KBVE worked closely and extensively with CVTE staff members in the analysis of needs and in the definition of means for obtaining data. In his capacity as field associate to the CVTE project director, Vice was primarily responsible for on-site coordination of activities and meetings, as well as for the task of making necessary personal contacts and of assembling data. Neel, as coordinator of evaluation, was intimately involved in the design and development of the Follow-up Component. The close working relationships between Vice and Neel and the members of the CVTE project staff were mutually beneficial and contributed greatly to the accomplishment of project objectives.

The Cycle I time frame did not allow for the implementation of new data collection efforts. (The initial follow-up survey was implemented during the grant extension period.) However, available data was assembled from a number of sources and a workshop was conducted to evaluate the data for adequacy relative to defined analysis needs.

Reporting

In accordance with the Special Terms and Conditions of the grant, a "Work Schedule Plan and Suggested Format for Progress Reports" was submitted at the beginning of the grant period, followed by bimonthly progress and financial reports for the duration of the grant and extension periods.

In addition, a report entitled "Cycle I Report: Conceptual Design Phase -- Kentucky Comprehensive Information (CIS) for Occupational Education" was prepared in accordance with the provisions of Item 8 of the Scope of Work as defined in the Special Terms and Conditions. There was no Cycle I report prepared on activity in West Virginia. EDA provided notice to CVTE in October 1971, that support for system development activity in West Virginia was being suspended. Hence, data for such a report was not obtained.

Chapter IV

ANALYSIS OF DATA

Introduction

The focus of system development during Cycle I is explained in Chapter III of this report. Pursuant to that focus, available data on enrollments and manpower demand estimates were assembled, along with additional data on vocational programs offered in Kentucky, segments of the population being served, etc. Selected data was then published in the Kentucky Cycle I report, referred to previously. However, very little analysis based on this data could be undertaken that was germane to the desired focus on analysis of net manpower requirements. The published data served primarily to illustrate the need for more complete, comprehensive, detailed, and current information, in addition to providing a limited demonstration of the desired data correlation methodology.

Subsequent to the original grant period, implementation of plans to alleviate the observed information deficiencies was initiated. Under other auspices, a comprehensive survey of Kentucky manufacturers, utilizing personal interviews, was begun, the primary purpose for which was to obtain employers' projections of their future needs for trained manpower. Concurrently, the effort to develop a systematic means for obtaining follow-up information was continued by CVTE and KBVE. During the grant extension period, initial follow-up data were obtained and analyzed. The analysis of this data constitutes the main body of this chapter.

Analysis of Follow-up

With background data on 10,806 terminees from the KBVE and follow-up data from 5,189 respondents to the follow-up questionnaire, a composite data file was compiled at CVTE. This data file was utilized for the data analysis reported in this chapter as well as for generation of tables made available to KBVE officials. A copy of the complete file will also be made available to Kentucky officials for further possible analysis of data for program evaluation, guidance and counseling, and program planning.

The analysis presented in the following paragraphs is divided into four subsections: Job-Related Post-School Experiences, Other Post-School Experiences, Non-Completers, and Summary of Findings. It may be pointed out here that the terminees from "special programs" have not been included in these analyses and are dealt with in a separate subsection.

Job-Related Post-School Experiences

Working on a job was the most important post-training activity of the respondents to the follow-up questionnaire. A total of 61 percent reported working on full-time or part-time jobs. Data on the current status of terminees by their respective training program areas are reported in Table 7.

Technical education programs were found to have the highest placement rate (69.4 percent) and home economics program reported the lowest (32.5 percent). At the same time, home economics and vocational agriculture reported the highest percentage (34.9 each) of terminees going to school full-time or part-time. In general, 53.2 percent of all the respondents reported working on full-time or part-time jobs and 21.4 percent reported continuing their education. Health programs showed the lowest unemployment (8.5 percent), and home economics showed the highest with 17.5 percent; business and office education reported 16.9 percent of the respondents unemployed but still looking for work. "Homemakers" (not available for placement) varied from 10.9 percent of the terminee population from business and office programs, to 0 percent in technical education, and about 5.2 percent were not available for employment, including those in military service.[6]

Chi square analysis showed a significant difference (0.05 level) in the current status of former students from the seven program service areas, which indicated that the programs differed significantly in placing their terminees in jobs.

A detailed analysis of those working on jobs is shown in Tables 8 through 11. The follow-up population was asked to rate the relationship of current job to vocational training on a four-point scale from "Same for Which Trained" to "Job Not Related to Training." Results are shown in Table 8. Health education programs with 57.6 percent training-related placement were far ahead of any other program area. Vocational agriculture, with 17.2 percent, was a distinct second, with business and office, trade and industrial, distributive education, technical, and home economics following in that order. Distribution of the data on a simple dichotomy of "Related" (including "Slightly Related"), and "Not Related" also showed a significant difference among the program service areas, with health programs showing the lowest and technical the highest percentages working on unrelated jobs.

Chi square analysis of data reported in Table 8, and also on the dichotomy of "Related/Not Related," was not significant at the

[6] In this, and all subsequent analyses in this section, the percentages of individual items may not total to a hundred due to slight rounding errors.

TABLE 7

Occupational Status of Respondents, by Program Area

Current Status	Voc. Ag.		Dist. Ed.		Health Ed.		Home Ec.		Bus. & Off.		Technical		T & I		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Working on a job	50	47.2	271	46.4	294	66.1	93	32.5	488	46.8	59	69.4	1,240	58.0	2,495	53.2
School and work	16	15.1	71	12.2	23	5.2	31	10.8	59	5.7	4	4.7	157	7.3	361	7.7
Full-time school	21	19.8	88	15.1	45	10.1	69	24.1	160	15.4	8	9.4	250	11.7	641	13.7
Military	2	1.9	17	2.9	4	0.9	2	0.7	7	0.7	5	5.9	103	4.8	140	3.0
Unemployed (looking for job)	12	11.3	81	13.9	38	8.5	50	17.5	176	16.9	8	9.4	326	15.2	691	14.8
Unemployed (not available)	1	1.0	16	2.7	9	2.0	10	3.5	38	3.7	1	1.2	30	1.4	105	2.2
Homemaker	4	3.8	40	6.9	32	7.2	31	10.8	114	10.9	0	0.0	33	1.6	254	5.4
Total	106	100.0	584	100.0	445	100.0	286	100.0	1,042	100.0	85	100.0	2,139	100.0	4,687	100.0

TABLE 8

Training Relatedness of Jobs Obtained, by Program Area

Job and Program Relatedness	Voc. Ag.		Dist. Ed.		Health Ed.		Home Ec.		Bus. & Off.		Technical		T & I		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Same Occupation	11	17.2	34	10.3	178	57.6	4	3.3	90	16.8	6	6.4	217	16.0	540	19.2
Highly Related	9	14.1	66	19.9	58	18.8	9	7.3	132	24.6	14	14.9	153	11.3	441	15.7
Somewhat Related	15	23.4	113	34.1	29	9.4	34	27.7	153	28.5	13	13.8	311	22.9	668	23.7
Not Related	29	45.3	118	35.7	44	14.2	76	61.8	162	30.2	61	64.9	675	49.8	1,165	41.4
Total	64	100.0	331	100.0	309	100.0	123	100.0	537	100.0	94	100.0	1,356	100.0	2,814	100.0

0.05 level, indicating a significant difference among program areas on this important variable.

The results from Table 8 are also supported by the data reported in Table 9. More than 24 percent of the respondents claimed that they "Never" used the vocational skills they learned in school on their jobs, with another 14.5 percent using them "Seldom." On the other hand, 41.9 percent used their skills "Frequently." This analysis also showed a great variance among the program areas, as can be seen in the table. "Frequent" use of skills varied from a high of 80.9 percent for health programs to a low of 21.8 percent for home economics programs. Trade and industrial programs with 32.6 percent and distributive education with 35.3 percent "Frequent Use" were not too far behind vocational agriculture (36.4 percent), technical (41.9 percent), and business and office (52.1 percent).

Chi square analysis once again showed significant differences at the 0.05 level in the use of skills among the program areas.

Another measure of comparison among the vocational program areas was in regard to wages earned by former students. As can be seen in Table 10, the mode scale of wage rate was reported as $1.60 to $2.50 per hour for all programs. There was some difference, however, in the median wage rate. The lowest median wage rate was reported by former students of vocational agriculture ($1.97 per hour), with home economics, business and office, distributive education, trade and industrial, health, and technical education calculated at $2.02, $2.06, $2.07, $2.34, $2.44, and $2.78, respectively.

Chi square, however, was found significant at the 0.05 level and, therefore, the difference in wages among the program areas was not considered significant.

Similar results were drawn from data on monthly income. The highest median monthly income was reported by former students of technical education, and the lowest was reported by those of vocational agriculture. Again, the difference was not significant.

Former students of vocational programs were also asked whether they were satisfied with their current jobs. A five-point scale that ranged from "Like the Job Very Much" to "Dislike it Very Much" was used to measure job satisfaction. The data by program area are reported in Table 11. As many as 78 percent of the respondents were at least somewhat satisfied with their jobs, with only 8.5 percent expressing some dissatisfaction. Around these averages, considerable variation was found among the program areas. Health education was once again leading, with 73.3 percent of former students who liked their jobs "Very Much" and only 1.9 percent disliking their jobs very much. Ranking below health education programs

TABLE 9

Use of Learned Skills, by Program Area

Frequency of Use	Voc. Ag.		Dist. Ed.		Health Ed.		Home Ec.		Bus. & Off.		Technical		T & I		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Frequently	24	36.4	118	35.3	254	80.9	27	21.8	281	52.1	26	41.9	451	32.6	1,181	41.9
Occasionally	17	25.8	78	23.4	23	7.3	21	16.9	105	19.5	8	12.9	289	20.9	541	19.2
Seldom	8	12.1	73	21.9	9	2.9	29	23.4	56	10.4	7	11.3	228	16.5	410	14.5
Never	17	25.8	65	19.5	28	8.9	47	37.9	97	18.0	21	33.9	414	30.0	689	24.4
Total	66	100.0	334	100.0	314	100.0	124	100.0	539	100.0	62	100.0	1,382	100.0	2,821	100.0

TABLE 10

Wages Earned, by Vocational Program Service Area

Wage Rate	Voc. Ag.		Dist. Ed.		Health Ed.		Home Ec.		Bus. & Off.		Technical		T & I		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
$1.59 or less	15	26.8	49	16.0	9	3.1	15	12.9	47	11.0	2	3.6	90	7.2	227	9.1
$1.60 to $2.50	32	57.2	198	64.5	144	50.0	91	78.5	326	76.0	21	38.2	647	51.9	1,459	58.4
$2.51 to $3.50	7	12.5	38	12.4	134	46.3	9	7.8	46	10.7	18	32.7	267	21.4	519	20.8
$3.51 to $4.50	1	1.8	13	4.2	1	0.4	1	0.9	4	0.9	9	16.4	127	10.2	156	6.3
$4.51 to $5.50	0	0.0	6	2.0	0	0.0	0	0.0	5	1.2	4	7.3	76	6.1	91	3.7
More than $5.50	1	1.8	3	1.0	0	0.0	0	0.0	1	0.2	1	1.8	39	3.1	45	1.8
Total	56	100.0	307	100.0	288	100.0	116	100.0	429	100.0	55	100.0	1,246	100.0	2,497	100.0

in the percentage of terminees liking their jobs very much were business and office, distributive education, home economics, trade and industrial, vocational agriculture, and technical education, the last showing 41.9 percent. In addition, fewest from health education programs indicated indifference about their employment (4.8 percent); home economics had the largest percent (17.8 percent) who neither liked or disliked their jobs. The highest percentage (3.8 percent) of very dissatisfied terminees was reported by trade and industrial programs.

Difference, based on chi square analysis, among the program areas was significant at the 0.05 level, indicating once again that the trainees from different vocational program areas derived significantly different satisfaction from their jobs.

Geographic mobility of former students was another factor that provided a comparison among the program areas. Former students of technical education were the most mobile, 25 percent of them moving from the place of their training. However, the highest mobility out of state was reported from trade and industrial programs with 9.2 percent. The lowest out-of-state mobility was among former students of home economics programs (2.9 percent).

Highest job mobility was reported by trade and industrial programs, with 50 percent who had worked on more than one job at the time of reporting. Seventy-four percent of the former students of health programs, on the other hand, were still working on their first job. Vocational agriculture and business and office with 63 percent each, home economics and distributive education with 56 percent each, and technical education with 54 percent together provided the total number of respondents who had not changed jobs since terminating their education. Following are some of the other variables on which no significant difference at the 0.05 level was found among the programs.

1. Most (83.4 percent) of the working respondents were working at least thirty-five hours per week.

2. Teachers in the school placement service helped only 14.5 percent of those working to find a job.

3. Only 5.7 percent of the unemployed respondents had bothered to check with their school to obtain job placement assistance.

Other Post-School Experiences

More than 2,500 respondents expressed an interest in further vocational education, as reported in Table 12. As might be expected, the highest percentage of respondents from each program

TABLE 11

Job Satisfaction by Program Service Area

Job Satisfaction	Voc. Ag.		Dist. Ed.		Health Ed.		Home Ec.		Bus. & Off.		Technical		T & I		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Like the job very much	27	42.2	156	46.7	230	73.3	55	44.4	329	60.9	26	41.9	601	43.5	1,424	50.5
Like the job somewhat	22	34.4	106	31.7	50	15.9	43	34.7	134	24.8	19	30.7	400	29.0	774	27.5
Neither like nor dislike	9	14.1	48	14.4	15	4.8	22	17.8	44	8.2	7	11.3	237	17.2	382	13.6
Dislike somewhat	4	6.3	19	5.7	13	4.1	4	3.2	20	3.7	8	12.9	90	6.5	158	5.6
Dislike very much	2	3.1	5	1.5	6	1.9	0	0.0	13	2.4	2	3.2	53	3.8	81	2.9
Total	64	100.0	334	100.0	314	100.0	124	100.0	540	100.0	62	100.0	1,381	100.0	2,819	100.0

TABLE 12

Expressed Desire for More Vocational Education

	Program Area in Which Training was Obtained															
Program Area in Which Further Training is Desired	Voc. Ag.		Dist. Ed.		Health Ed.		Home Ec.		Bus. & Off.		Technical		T & I		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Voc. Ag.	29	44.6	16	5.1	1	0.5	3	2.1	3	0.7	1	1.7	49	3.8	102	4.0
Dist. Ed.	0	0.0	61	19.3	1	0.5	2	1.4	5	1.1	0		10	0.8	79	3.1
Health Ed.	0	0.0	30	9.5	175	77.4	21	14.4	43	9.6	2	3.3	18	1.4	289	11.3
Home Ec.	0	0.0	17	5.4	5	2.2	47	32.2	19	4.2	0		4	0.3	92	3.6
Bus. & Off.	10	15.4	99	31.3	27	12.0	51	34.9	347	77.3	2	3.3	88	6.8	624	24.5
Technical	5	7.7	35	11.1	14	6.2	11	7.5	15	3.3	38	63.3	265	20.5	385	15.0
T & I	21	32.3	58	18.4	3	1.3	11	7.5	17	3.8	17	28.3	857	66.4	984	38.6
Total	65	100.0	316	100.0	226	100.0	146	100.0	449	100.0	60	100.0	1,291	100.0	2,555	100.0

area wanted to continue education in their own field. The two exceptions were distributive education and home economics, in which only 19.3 percent and 32.2 percent, respectively, wanted further education in their own field. Former students from both fields showed greater interest in business and office education (31.3 percent and 34.9 percent, respectively). Further training in trade and industrial programs attracted the interest of the largest percentage (38.6 percent) of respondents from all programs.

Of those who enrolled in a school or college following vocational training, 27 percent were in the same field as their previous vocational training; 29 percent were in a "Related" field; and 44 percent were enrolled in an educational program that was not at all related to their previous vocational education.

Former students were also asked the kinds of jobs they would like to be trained for if they were interested in further training. A total of 1,722 respondents specified job titles for which they desired further, or more, training, as reported in Table 13. (Job codes were assigned from the *Dictionary of Occupational Titles*.) Data from Table 13 further support the results in Table 12 since the jobs in which greatest interest was shown are traditionally considered to be under trade and industrial programs.

Former students were requested to rate their schools, training programs, instructors, shops or laboratories, guidance or counseling, and placement services offered by their schools. Data that are exemplary of ratings on all of these are reported in Table 14. It can be seen that whereas most of the respondents considered their training programs excellent or good, placement was generally rated average or below. For example, 80.3 percent of the respondents among trade and industrial terminees considered their training programs excellent or good, but only 35.3 percent thought much of the placement service offered by their schools. Ratings on "Shop and Lab" correlated positively with those on training programs.

Non-Completers

The problem of dropouts (or non-completers) is one with which every vocational educator is quite familiar. In order to gauge vocational education's impact on the problem, comparative data for completers and non-completers of vocational programs were analyzed on selected variables considered important for both. The results of this analysis are reported in the following paragraphs.

There were some 3,653 dropouts in the follow-up population. The response rate to the follow-up questionnaire from the dropouts was 51.7 percent as against 54.4 percent from the graduates. The difference of 2.7 percent was not significant at the 0.05 level.

TABLE 13

Desire for Additional Training by Job Code and Title

Job Code	Job Title	Number of Former Students Expressing Need
620281014	Automobile Mechanic	196
201368018	Secretary	150
812884014	Welder, Combination	137
824281014	Electrician	125
075378014	Nurse General Duty (Registered Nurse)	86
079378026	Nurse, Licensed Practical	52
860381026	Carpenter	48
091228018	Teacher, Secondary School	44
209388022	Clerk Typist	43
600280030	Machinist	40
807381010	Automobile Body Repairman	38
007281014	Draftsman, Mechanical	35
355878034	Nurse's Aide	33
424883010	Heavy Equipment Operator	32
210388022	Bookkeeper	28
601280062	Tool and Die Maker	28
003081018	Electrical Engineer	27
003181014	Electronic Technician	27
332271018	Hair Stylist (Cosmetologist)	27
160188010	Accountant	23
625281010	Diesel Mechanic	23
020188026	Programmer, Business (Computer Programmer)	22
185168054	Business Management	22
007081038	Mechanical Engineer	19
213582010	Key Punch Operator	17
723884010	Appliance Repairman	16
421181010	Farmer	15
706884010	Air Conditioning Coil Assembly (Refrigeration & Air Conditioning)	15
202388014	Stenographer	12
001081010	Architect	10
029381022	Laboratory Technician	10
620281078	Mine Machinery Mechanic	10
Other Misc. Jobs (fewer than 10 each)		453
Total		1,863

TABLE 14

Ratings of School Experiences, by Program Area

(Numbers)

Program Area	Ratings On:					
	Training		Shop or Lab.		Placement	
	Exc. & Good	Av. & Poor	Exc. & Good	Av. & Poor	Exc. & Good	Av. & Poor
Voc. Ag.	86 (78.9)	23 (21.1)	76 (76.8)	23 (23.2)	25 (27.8)	65 (72.2)
Dist. Ed.	394 (68.5)	181 (31.5)	262 (49.6)	266 (50.4)	266 (49.6)	270 (50.4)
Health Ed.	384 (85.1)	67 (14.9)	301 (73.2)	110 (26.8)	201 (51.9)	186 (48.1)
Home Ec.	199 (73.1)	91 (26.9)	195 (69.9)	84 (30.1)	73 (29.3)	176 (70.7)
Bus. & Off.	907 (86.1)	146 (13.9)	751 (81.0)	176 (19.0)	379 (42.1)	522 (57.9)
Technical	60 (71.4)	24 (28.6)	57 (67.1)	28 (32.9)	23 (32.4)	48 (67.6)
T & I	1,751 (80.3)	430 (19.7)	1,682 (78.3)	466 (21.7)	662 (35.3)	1,215 (64.7)
Total	3,781 (79.7)	962 (20.3)	3,324 (74.2)	1,153 (25.8)	1,629 (39.6)	2,482 (60.4)

Note: Figures in parentheses represent percentages.

The background information from the student information data tape supplied by KBVE revealed some interesting characteristics of the dropouts. These characteristics are reported in Table 15 for comparison with those of graduates. From the table it can be seen that the dropouts do have some characteristics that distinguish them from the graduates. For example, the ratio of males among graduates was found to be 58.6 percent, whereas among the dropouts their proportion was 67.0 percent. Among the disadvantaged, the dropout rate was found to be 75.3 percent, whereas among the handicapped it was only 39.3 percent. A person's parent community seemed to make a considerable difference in whether he graduated or not. Sixty-five percent of the dropouts were from rural communities as against 55 percent of the graduates. Of the students who achieved average or better grades in school, 78.2 percent graduated. However, only 35.9 percent of those who achieved lower than average grades graduated.

Thus, our dropout, in general, turned out to be a young man about seventeen years old who had completed ten years in school, was enrolled in a secondary vocational program, belonged to a rural community, and was rated as a low achiever in school. He was more likely to be single than married and was more likely to be suffering from a disadvantage than a physical handicap. The disadvantage would be more often socioeconomic (68.1 percent) than any other type.

Whether a young person was allowed to enroll in a vocational program of his choice also had a significant effect on whether he graduated. Data on the rate of graduation as a function of the students' opportunity to enroll in vocational programs of their choosing are reported in Table 16. The rate of graduation was found to be lower among persons who were not allowed to enroll in the programs of their first choice. The rate was still lower for those unable even to enroll in a program of second choice. Where no choices were available, the graduation rate was slightly higher, though still lower than for those enrolled in their chosen program. Significant difference was found in the two distributions. Thus, another characteristic of a dropout is his inability to enroll in a vocational program of his choosing.

Working on a job was the most important activity after leaving school for both dropouts and graduates. Sixty-six percent of the graduates reported working full-time or part-time, as compared with 57 percent of the dropouts. Comparison of dropouts and graduates on job-related variables is shown in Table 17.

Chi square was found significant at the 0.05 level in the case of hours worked, wages earned, and job satisfaction, indicating no significant difference among the graduates and dropouts in these variables. Significant difference, however, was found where placement on jobs related to training programs was concerned. In

TABLE 15

Selected Characteristics of Dropouts and Graduates

Characteristics	Dropouts	Graduates
1. Median age (years)	17.1	19.9
2. Married (percent)	14.7	14.9
3. Male (percent)	67.0	58.6
4. Percentage among the disadvantaged	75.3	24.7
5. Percentage among the handicapped	39.3	60.7
6. Average (Mode) years of schooling	11.0	12.0
7. From rural areas (percent)	65.1	55.0
8. Average to high achiever (percent)	21.8	78.2
9. Low achievers (percent)	64.1	35.9

TABLE 16

Graduation Rate as a Function of Students' Opportunity to Enroll in Programs of Their Choosing

	Choice								Total	
	1st		2nd		3rd		None Available			
	No.	%	No.	%	No.	%	No.	%		
Graduated	2,509	63.0	332	57.8	47	43.9	111	52.9	2,999	61.6
Dropped Out	1,472	37.0	241	42.2	60	56.1	95	47.1	1,868	38.4
Total	3,981	100.0	573	100.0	107	100.0	210	100.0	4,867	100.0

Chi square is significant only at lever lower than .001.

TABLE 17

Comparison of Dropouts and Graduates
By Job-Related Variables

Variables	Dropouts No.	%	Graduates No.	%
1. Working 35 hours/week or more	806	86.0	1,589	83.0
2. Most common range of wages ($1.60 to $2.50)	479	55.0	1,018	60.0
3. Job related to training	401	43.0	1,285	67.0
4. Job not related to training	538	57.0	629	33.0
5. Satisfied on job	703	73.0	1,550	80.0
6. Out-of-state mobility	80	46.0	113	36.0
7. At least occasional use of skill	438	46.0	1,320	58.0

general, more graduates than dropouts were placed on jobs related to their vocational training.

Half of the graduates claimed to be using their skill "Frequently," but only 25 percent of the dropouts claimed a frequent use of skills learned in their vocational programs. Some 20 percent of the graduates and 34 percent of the dropouts reported "Never" using the learned skill on their job. These results support the data on job relatedness.

A greater percentage of dropouts was found to have moved out of the state. Among those who moved to find a job (46 percent against 36 percent for graduates), the difference was not significant. Job mobility among the dropouts was also higher. Sixty percent of the graduates were still working at their first job, whereas only 50 percent of the dropouts were doing so and once again the difference was not found to be significant. There was almost no difference found in the median wages earned by dropouts and graduates, calculated to be $2.21 and $2.22, respectively.

A comparison of those dropouts who completed at least half of their vocational programs with those who did not showed a significant difference on some of the variables. (Slightly less than a third, or 31.7 percent, of all dropouts did not complete at least half of their training programs.) The dropouts completing less than half of their training programs earned (on an average) ten cents per hour less ($2.17 per hour as against $2.27 per hour) than those who completed half or more of their programs. Early dropouts were also less likely to be placed on training-related jobs (13.7 percent against 23.2 percent) and were less satisfied with their jobs (70.9 percent against 74.3 percent).

Of the dropouts who were again enrolled in school (33 percent of all dropouts), 26 percent were enrolled in the same field, 25 percent in a related field, and 49 percent in a field not related to their previous vocational program. These figures were comparable with those reported for the graduates, although more graduates were enrolled in colleges than dropouts.

Only about 18 percent of the dropouts were unemployed for more than two months. This figure was not significantly different for the graduates, and contact with potential employers was the most popular method for seeking employment reported by both dropouts and graduates.

A significant difference, however, was found in the sources of assistance for placement on jobs. Teachers and schools helped 18 percent of the graduates but only 8 percent of the dropouts in job placement.

Background data on dropouts also included reasons for the early termination of their vocational education, as given by their teachers. Later, during the follow-up survey, the dropouts themselves were invited to state their reasons for dropping out. A comparison of these two sets of reasons is presented in Table 18.

Though chi square was not significant at the 0.05 level, broad similarities can still be detected in the data. For example, the reasons most frequently given by both teachers and dropouts related to attitude towards school, teacher, counselor, or program. The second big group of reasons may be classified generally as involuntary. These include financial reasons, acquisition of a job, or entrance into the armed forces.

From the follow-up data it was also apparent that only about 40 percent of those who stated their reason was "Move to Another Area" or "Change in Educational/Occupational Objective" later enrolled in another school or another vocational or academic program. The other 60 percent did indeed drop out of school and did not continue their education. No further information was available from these persons.

Special Programs

One hundred of the 285 former students of special vocational programs were in the follow-up population, giving a usable response of about 34 percent. Of the 100 respondents, sixty-three reported having completed their program. Only thirty were working full-time or part-time on a job, whereas twenty-four were going to school. Another twenty-four were unemployed and were looking for work and the rest were unavailable for placement due to a variety of other reasons.

Of those working on jobs, eighteen were placed on unrelated jobs, were earning a median wage of $2.16, and reported being satisfied with their jobs.

Of those who were continuing their education, only three were in the same or highly related fields, the rest being in fields not related or only somewhat related to their training.

The special program terminee followed the general patterns on ratings and other variables set by the average respondent from all programs.

Summary of Findings

Before summarizing the results of the analysis, it is appropriate to point out that the analysis presented here is exemplary

TABLE 18

Reasons for Dropping Out, as Given by Teachers and Students

Reasons	Responses Stated By Teachers No.	%	Students No.	%
1. Attitude Related				
(a) Poor attendance; misconduct; Could not adjust to program.	1,080	29.5		
(b) Dislike for teacher, school; time squeeze, etc.			598	32.7
2. Health and Family Related				
Poor health; family care; pregnancy; etc.	343	9.4	227	12.4
3. Work or Finance Related				
Found job; military; financial reasons, etc.	652	18.0	505	27.6
4. Mobility Related				
Change school or changed programs	733	20.0	462	25.3
5. Others	845	23.1	37	2.0
Total	3,653	100.0	1,829	100.0

only. Available data can be further analyzed by sex, age groups, program levels, type of disadvantage, or by planning regions within the state. Cross tabulation of variables other than those reported above could also be made available according to need.

One of the important findings of the data presented in Tables 7 to 10 can best be summarized in the form that is presented at Table 19. On the basis of available data, for every 100 terminees in all program areas only sixty-eight were available for employment. Of those available, twenty-eight were placed on related jobs; nineteen were placed on jobs not related to their training programs; six were working less than thirty-five hours per week; and another fifteen were still looking for jobs. Of the thirty-two not available for employment, twenty-one were enrolled in school or college, three were serving with the armed forces, and eight were not available for other reasons. As can be seen from the table, figures vary from program to program, with health programs placing most of their terminees on related jobs. If placement on related jobs were the only criterion for evaluating programs, health programs would be rated at the top, with technical, business and office, trade and industrial, distributive, vocational agriculture, and home economics following in that order.

Another interesting finding was the type of jobs on which the respondents were working when they completed the questionnaires. A rank-ordered listing of jobs with associated DOT codes and frequency of responses is reported in Table 20. For a single job title, "Secretary" was reported by the largest number (5.7 percent) of working respondents, followed by "Nurses Aide" with 4.1 percent. It may, however, be noticed that no effort was made to edit this information to eliminate unskilled or semiskilled jobs for which no training program was offered. Preliminary analysis showed that the relatedness of jobs to training programs, as reported by respondents, matched in most cases the relatedness defined in *Vocational Education and Occupations*.[7]

In addition to rating their training programs, etc., respondents utilized the blank space at the end of the questionnaire to express their feelings about almost all aspects of their student life in vocational education programs. A great majority (73 percent) considered their training good, whereas only about 3 percent thought their school was good. About 31 percent valued the efforts of their instructors, whereas 14 percent thought they should have been given more and better training. Only 1 percent thought the job placement service provided by their school was even worth mentioning, though 6 percent would have liked to see some effort towards

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[7]U.S. Department of Health, Education, and Welfare, and U.S. Department of Labor, *Vocational Education and Occupations* (Washington, D.C.: Government Printing Office, 1969).

TABLE 19

Post-Schooling Experience of Terminees from Vocational Programs
(By Program Area)

Post-School Experience	Voc. Ag.	Dist. Ed.	Health Ed.	Home Ec.	Trs. & Off.	Technical	T & I	All Programs
A. *Available for Placement*	58	60	75	50	64	78	73	68
Job related to training	20	21	49	8	28	36	26	28
Job not related to training	14	12	8	11	11	30	26	19
Working part-time (less than 35 hrs./week)	13	13	9	14	8	3	6	6
Unemployed	11	14	9	17	17	9	15	15
B. Not Available for Placement	42	40	25	50	36	22	27	32
Enrolled in school	35	27	15	35	20	15	19	21
Armed Forces	2	3	1	1	1	6	5	3
Other reasons	5	10	9	14	15	1	3	8
Total	100	100	100	100	100	100	100	100

Note: All figures are percentages rounded to whole numbers.

TABLE 20

Occupational Distribution of Former Students of Vocational Education*

JOB CODE	JOB TITLE	FREQUENCY	
		NUMBERS	% OF TOTAL
201368018	Secretary	134	5.7
355878034	Nurse's Aide	[illegible]	[illegible]
079378030	Nurse, Licensed Practical	86	3.7
589887042	Laborer, General	86	3.7
529886022	Factory Worker	80	3.4
620281014	Automobile Mechanic	64	2.7
263358022	Salesman (Sales person, Woman) (Men & Boy's Clothing)	59	2.5
812884014	Welder, Combination	58	2.5
421181010	Farmer, General	56	2.4
915867010	Automobile Service Station Attendant	53	2.3
211368010	Cashier	47	2.0
209388022	Clerk Typist	45	1.9
210388022	Bookkeeper	42	1.8
824281014	Electrician	39	1.7
905883018	Truck Driver	37	1.6
223387094	Stock Clerk	34	1.5
600280030	Machinist	34	1.5
860381026	Carpenter	34	1.5
424883010	Heavy Equipment Operator	31	1.3
311878058	Waiter, Informal	29	1.2

TABLE 20 (Continued)

JOB CODE	JOB TITLE	FREQUENCY NUMBERS	TOTAL
219388066	[illegible] eral Office	26	1.1
891138014	Maintenance Foreman (Supervisor or Foreman)	25	1.1
332271018	Hairstylist (Cosmetologist)	24	1.0
850781010	Miner	24	1.0
869887030	Construction Worker	23	1.0
860887018	Laborer, Carpentry (Carpenter Helper)	22	0.9
202388014	Stenographer	21	0.9
382884010	Janitor	19	0.8
739887034	Assembler, Small Products	18	0.8
807381010	Automobile Body Repairman	18	0.8
079378010	Dental Assistant	17	0.7
185168054	Manager, Store	16	0.7
729887010	Assembler, Electrical Accessories	16	0.7
922887070	Laborer, Stores (Warehouseman)	16	0.7
237368038	Receptionist	14	0.6
787885078	Sewing Machine Operator - Automatic	14	0.6
007281014	Draftsman, Mechanical	13	0.6
075378014	Nurse, General Duty	13	0.6
290478014	Salesclerk	13	0.6
315381010	Cook	13	0.6
091228018	Teacher, Secondary Schools	12	0.5

TABLE 20 (Continued)

JOB CODE	JOB TITLE	FREQUENCY	
		NUMBERS	% OF TOTAL
160188010	Accountant	12	0.5
219388286	Ward Clerk	12	0.5
289458014	Sales Person, General	12	0.5
319138010	Food Service Supervisor	12	0.5
899887050	Maintenance Man: Building (Maintenance Man)	12	0.5
201368014	Medical Secretary	11	0.5
213582010	Key Punch Operator	11	0.5
421883010	Farmhand, General	11	0.5
723884010	Appliance Repairman	11	0.5
829887014	Electrician Helper	11	0.5
206388018	File Clerk	10	0.4
652782010	Box Printer (Printer)	10	0.4
Other Misc. Jobs**		691	29.5
Total		2,346	100.0

*Based on follow-up data from former students of vocational programs in Kentucky--school year 1970-71.
**Jobs with frequency of less than 10 each.

providing placement service to students. These results supported the ratings reported earlier and strengthened their validity.

The following general findings in addition to those stated above are also based on the data presented earlier in this section:

1. On the criteria relative to jobs only, health programs seem to excel.

2. In general, most terminees found vocational education adequate for their present activities.

3. Most of the respondents rated their schools, programs, instructors, and shops and labs higher than the guidance and counseling, and job placement services provided by the schools.

4. Home economics programs were rated adequate for homemaking by the respondents. The training was actually used many times daily in the process of homemaking.

5. Completion rates seem to be quite comparable with those reported by other researchers using national data.

6. The dropouts seem to be doing equally well as graduates on the labor market, except that more graduates were placed on training-related jobs.

7. Completion rates were higher among females than males.

8. Completion rates were found lower among the disadvantaged, whereas they were higher than the state average among the handicapped.

9. Those who did not enroll in courses of their first choice showed a lower completion rate than the state average.

10. Those who completed at least half of their training programs were placed on better jobs and were more satisfied.

11. No significant difference was found among those who were placed on a waiting list to enroll in a training program.

12. Males, in general, were placed on better and more training-related jobs and earned better wages than females, though females were more satisfied with their jobs.

13. "Friends and Relatives" were the single most important source of assistance in finding employment for those who were working on a job.

14. Direct contact with employers was the most important means of seeking employment for the unemployed.

15. Most of those enrolled in school or college were in programs not related to their previous vocational education.

Since this section of the report has dealt with a presentation of available follow-up data only, no effort has been made to evaluate programs. This should be done only when appropriate criteria for evaluation are available. For example, home economics, where the most important program objective might be to make better homemakers, should not be compared with trade and industrial programs. Delineation of specific objectives with evaluation criteria for every vocational program is essential, therefore, for any objective evaluation. A comparison can be found useful where the objectives are similar, with similar standards of measurement.

Chapter V

SUMMARY

The Management Information System for Vocational Education (MISVE) was conceptualized, and focus for initial development effort was determined through assessment of needs and expressed desires of the Kentucky Manpower Planning Council member agencies. Needs assessment and system definition and development were closely coordinated efforts of CVTE personnel in conjunction with key personnel of the Kentucky Bureau of Vocational Education.

Evaluation of information needs in Kentucky, as related to the scope of MISVE, resulted in focus on development of systematic procedures for obtaining information to enable analysis of net manpower requirements. Procedures were already in use by the bureau to systematically obtain certain of the required data. Hence, effort was concentrated on the missing elements, namely, follow-up and assessment of manpower demand.

A methodology for obtaining manpower demand projections was formulated. Following this, training of personnel to collect data, and subsequent data collection and processing activities, were conducted in Kentucky under non-CVTE auspices.

Instruments and procedures were developed for initial follow-up of students exiting from vocational programs. These were employed with a sample population of approximately 11,000. Analysis of the data obtained is included in this report.

Appendix A

FOLLOW-UP QUESTIONNAIRE

Form CIS-14

BUREAU OF VOCATIONAL EDUCATION
DEPARTMENT OF EDUCATION
FRANKFORT, KENTUCKY

Dear Former Vocational Student:

Your school is cooperating with the State Department of Education to conduct a statewide survey of all former students of vocational education. The purpose of this survey is to improve the quality and level of vocational education in Kentucky so that you can provide better service to the students who follow you.

Since you are the most important source of information for this improvement process, your cooperation is essential for the success of this plan. Please complete this questionnaire and use the pre-addressed, postage-paid envelope to return it as soon as possible.

The information and opinions you give will be considered strictly **confidential.** Your school will be given only an analysis that will not identify you as an individual.

Thank you very much for your help.

Sincerely yours,

Earl F. Lamar
Assistant Superintendent for Vocational Education

Lyman V. Ginger
Superintendent of Public Instruction

INSTRUCTIONS:

1. Most of the questions require only an "X" mark in one of the boxes provided for your response.
2. "Vocational Program" in the questionnaire refers to the last vocational course you attended in high school, area vocational school, college, or university.
3. If you were ever enrolled in Home Economics, answer questions 21, 22, and 23 in addition to the section most appropriate to you.

If your name and address printed above is not correct, please supply the following information:

NEW NAME: _____ _____
Last Name Initials

NEW ADDRESS: _____
Number and Street or Rural Route

_____
City, Town, or Post Office State Zip Code

ABOUT YOU

1. Was the vocational program identified on the address label your first, second, or third choice? (check one)
11
   - [1] ☐ First choice
   - [2] ☐ Second choice
   - [3] ☐ Third choice
   - [4] ☐ No choice available

2. Were you ever placed on a waiting list to enroll in a vocational program of your choice?
   - [1] ☐ Yes
   - [2] ☐ No

3. Did you complete the vocational program identified on the address label?
   - [1] ☐ Yes
   - [2] ☐ No

   If "No," please indicate the most likely reason for terminating the program before completion. (check one)
   - [1] ☐ Change of occupational objective
   - [2] ☐ Financial reasons
   - [3] ☐ Dislike for the school
   - [4] ☐ Transfer to another school district
   - [5] ☐ Poor health
   - [6] ☐ Other (Specify)_____

4. Do you consider the vocational education received in this program adequate for your present activity?
15
   - [1] ☐ Yes
   - [2] ☐ No

5. Are you interested in more vocational or technical education?
   - [1] ☐ Yes
   - [2] ☐ No

   If "Yes," please specify the field in which you want further vocational education. (check one)
   - [1] ☐ Vocational Agriculture
   - [2] ☐ Distributive Education
   - [3] ☐ Health Education
   - [4] ☐ Home Economics Education
   - [5] ☐ Office or Business Education
   - [6] ☐ Technical Education
   - [7] ☐ Trade and Industrial Education

   Please also specify the job or jobs for which you would like to be trained.
18
   _____
   _____

6. Please rate the following by checking one of the boxes in each case.
27

	Excellent [1]	Good [2]	Average [3]	Poor [4]
(a) Your school	☐	☐	☐	☐
(b) Your training program	☐	☐	☐	☐
(c) Instructor	☐	☐	☐	☐
(d) Shop or laboratory	☐	☐	☐	☐
(e) Guidance and counseling service provided by the school	☐	☐	☐	☐
(f) Job placement services provided by the school	☐	☐	☐	☐

7. Which of the following statements best describes your current status? (check one)
33
   - [1] ☐ Working on a job—Full-time or Part-time (Go on to question number 8)
   - [2] ☐ Enrolled in school and also working (Go on to question number 8)
   - [3] ☐ Homemaker not working on a job (Skip to question number 21)
   - [4] ☐ Enrolled full-time in a school, college, or university (Skip to question number 24)
   - [5] ☐ Not working, but looking for a job (Skip to question number 27)
   - [6] ☐ Serving with the Military (Skip to question number 30)
   - [7] ☐ Not working, and not looking for a job (Skip to question number 30)

WORKING ON A JOB

8. How long after leaving the vocational program did you get your present job? (check one)
   - [1] ☐ Had the job before leaving the school
   - [2] ☐ Within two weeks after leaving school
   - [3] ☐ Between two weeks and one month
   - [4] ☐ More than one month

9. Who helped you most to get your present job? (check one)
   - [1] ☐ Vocational teacher
   - [2] ☐ School job placement service
   - [3] ☐ Private employment agency
   - [4] ☐ Relative and friends
   - [5] ☐ None of the above

10. What is your present job? (Specify job title and a brief description. Examples: Secretary in a law office or Machinist of automobile parts.)

_____

_____

11. How many hours per week do you usually work on your present job? (check one)

1 ☐ Less than 20 hours
2 ☐ 20 to 24 hours
3 ☐ 25 to 29 hours
4 ☐ 30 to 34 hours
5 ☐ 35 to 40 hours—Skip to question number 13
6 ☐ More than 40 hours—Skip to question number 13

12. If you are currently working less than 35 hours per week, why are you doing so? (check one)

1 ☐ Cannot find full-time job
2 ☐ Full-time work week less than 35 hours
3 ☐ Temporary cut-back by the employer
4 ☐ Enrolled in school or college
5 ☐ Do not want full-time work
6 ☐ Other (Specify)_____

_____

13. Which one of the following statements best describes the relationship between your present job and the training program on the address label? (check one)

1 ☐ Job same for which trained
2 ☐ Job highly related to the training
3 ☐ Job somewhat related to the training
4 ☐ Job not related to the training

14. Is your present job your first job after leaving school?

1 ☐ Yes
2 ☐ No

15. Did you have to move to a place away from where you were trained? (check one)

1 ☐ Yes
2 ☐ No

If "Yes," how far did you have to move?

1 ☐ Less than 100 miles within the state
2 ☐ More than 100 miles within the state
3 ☐ Out of the state

16. How far is your place of work from present residence? (check one)

1 ☐ 0-10 miles
2 ☐ 11-25 miles
3 ☐ 26-50 miles
4 ☐ 51-100 miles
5 ☐ More than 100 miles

17. What is the hourly wage rate of your present job? (check one)

1 ☐ $1.59 or less per hour
2 ☐ $1.60 to $2.50 per hour
3 ☐ $2.51 to $3.50 per hour
4 ☐ $3.51 to $4.50 per hour
5 ☐ $4.51 to $5.50 per hour
6 ☐ $5.51 to $7.00 per hour
7 ☐ $7.01 to $10.00 per hour
8 ☐ $10.01 or more per hour

18. If you are not paid an hourly wage, what is your monthly income before taxes? (check one)

1 ☐ Less than $250
2 ☐ $250 to $349
3 ☐ $350 to $449
4 ☐ $450 to $599
5 ☐ $600 to $799
6 ☐ $800 to $999
7 ☐ $1,000 or more

19. How do you feel about your present job? (check one)

1 ☐ Like it very much
2 ☐ Like it somewhat
3 ☐ Neither like nor dislike it
4 ☐ Dislike it somewhat
5 ☐ Dislike it very much

20. How often on your present job do you use the knowledge and skill acquired from your training?

1 ☐ Frequently
2 ☐ Occasionally
3 ☐ Seldom
4 ☐ Never

HOMEMAKING

(For homemakers and former students of home economics only. Others please skip to question number 24.)

21. Do you consider your vocational program adequate preparation for homemaking?

1 ☐ Yes
2 ☐ No
3 ☐ Did not study Home Economics in high school
4 ☐ Does not apply—am not a homemaker

22. If you get another chance, which one of the following areas in Home Economics would you like to study? (check one)

1 ☐ Food management
2 ☐ Care and guidance of children
3 ☐ Clothing management and service
4 ☐ Home and community services
5 ☐ Other (Specify)_____

23. How often do you use your training in home economics in your work at home?

58
- [1] ☐ Many times daily
- [2] ☐ At least once daily
- [3] ☐ Seldom
- [4] ☐ Does not apply

CONTINUING EDUCATION

24. Are you currently enrolled in an educational institution?
- [1] ☐ Yes (Go on to question number 25).
- [2] ☐ No (Skip to question number 30).

25. What is the type of instiution in which you are presently enrolled? (check one)
- [1] ☐ Public High School
- [2] ☐ Two year Junior or Community College
- [3] ☐ Technical Institute
- [4] ☐ Four year College or University
- [5] ☐ Private Vocational School
- [6] ☐ Private Business School
- [7] ☐ Other (Specify)_____

26. How related is your present educational program to the vocational course identified on the address label? (check one)
- [1] ☐ Same field
- [2] ☐ Highly related
- [3] ☐ Somewhat related
- [4] ☐ Not related

(Skip to question number 30).

NOT WORKING ON A JOB

27. How long have you been unemployed?

62
- [1] ☐ Less than one month
- [2] ☐ More than one but less than two months
- [3] ☐ More than two months

28. What have you done most recently to look for a job? (check one)
- [1] ☐ Checked with the school placement service
- [2] ☐ Checked with a public or private employment agency
- [3] ☐ Checked directly with employers
- [4] ☐ Checked with friends and relatives
- [5] ☐ Placed or answered newspaper ads
- [6] ☐ Other (Specify)_____

29. Please list three job titles for which you consider yourself qualified.

64 _____

11 _____

30. Please print your social security number for future reference

29 ☐☐☐ ☐☐ ☐☐☐☐

31. The following space has been provided for your frank comments about your school and your program. The information will be used as guidelines for program improvement only and your comments will be considered STRICTLY CONFIDENTIAL. The space may also be used to explain some of the answers given above.

Thank you

Appendix B

PRE-LETTER POST CARD

April 1, 1972

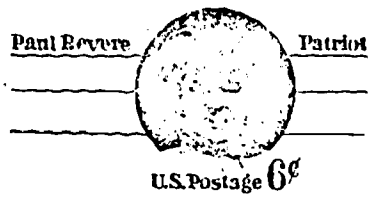
Dear Former Vocational Education Student:

In a few days you will receive a questionnaire requesting information regarding the training you received as a vocational education student. This information will be very helpful in improving programs of vocational education. We hope you will be able to respond quickly to the questionnaire.
WE PROMISE, the information you give us will be strictly confidential!

Earl F. Lamar
Assistant Superintendent for Vocational Education

Superintendent of Public Instruction

C. O. Neel, Coordinator
State Program Evaluation
Bureau of Vocational Education
Fifth Floor, State Office Building
Frankfort, Kentucky 40601



Appendix C

APPRECIATION/REMINDER POST CARD

April 28, 1972

Dear Former Vocational Education Student:

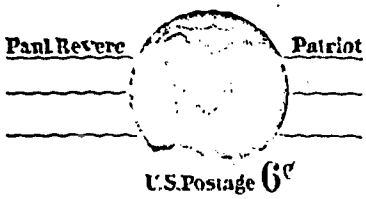
We deeply appreciate your participation in the Survey of Former Vocational Students. No one else can give us the insights and experience which you have--*and which we need.*

If your questionnaire is already in the mail, thank you for your help. If not, could you mail it today?

Earl F. Lanham
Assistant Superintendent for Vocational Education

Superintendent of Public Instruction

C. O. Neel, Coordinator
State Program Evaluation
Bureau of Vocational Education
Fifth Floor, State Office Building
Frankfort, Kentucky 40601



Appendix D

INTERVIEW SCHEDULE FOR NON-RESPONDENTS TO THE FOLLOW-UP QUESTIONNAIRE

MIS-15F

Survey of Non-Respondents to the Follow-up Questionnaire

NAME _____ SOCIAL SECURITY NO. _____

DATE _____

1. DID YOU RECEIVE THE QUESTIONNAIRE IN THE MAIL?

   ☐ YES

   ☐ NO

2. IF "YES," DID YOU COMPLETE AND MAIL IT?

   ☐ YES

   ☐ NO

3. IF "NO," PLEASE CHECK ONE OR MORE OF THE FOLLOWING REASONS FOR NOT COMPLETING THE QUESTIONNAIRE

   ☐ I LOST THE QUESTIONNAIRE.

   ☐ SOME OTHER MEMBER OF THE FAMILY THREW IT AWAY.

   ☐ I DID NOT THINK IT WAS IMPORTANT.

   ☐ I WAS AWAY FROM HOME MOST OF THE TIME.

   ☐ I WAS WAITING TO FIND A JOB BEFORE COMPLETING IT.

   ☐ I THOUGHT IT WAS NOT TO BE COMPLETED UNLESS I WAS WORKING ON A JOB.

   ☐ THE QUESTIONNAIRE WAS TOO LONG.

   ☐ I REALLY DID NOT UNDERSTAND THE QUESTIONS. (PLEASE SPECIFY THE QUESTIONS YOU DID NOT UNDERSTAND.

   _____

   _____)

   ☐ I OBJECTED TO SOME OF THE QUESTIONS. (PLEASE SPECIFY THE QUESTION NUMBERS _____

   _____)

- [ ] I DID NOT LIKE THE PROGRAM.
- [ ] I DID NOT LIKE MY VOCATIONAL TEACHER.
- [ ] I DID NOT LIKE THE SCHOOL.
- [ ] I DID NOT BELIEVE THE INFORMATION WOULD BE KEPT CONFIDENTIAL.
- [ ] I DID NOT KNOW THE ANSWERS.
- [ ] I DID NOT WANT TO PROVIDE ANY INFORMATION.
- [ ] I DON'T KNOW OR HAVE ANY REASON.
- [ ] OTHER REASONS (PLEASE SPECIFY _____

_____)

4. WHAT COULD WE HAVE DONE THAT WOULD PROMPT YOU TO RETURN THE QUESTIONNAIRE?

- [ ] PREWARNING BY TEACHER BEFORE I LEFT SCHOOL.
- [ ] DISCUSSION OF THE IMPORTANCE OF SURVEY WHILE I WAS IN SCHOOL
- [ ] LETTER FROM MY TEACHER AFTER I LEFT SCHOOL.
- [ ] BETTER EXPLANATION OF THE PURPOSE OF THE SURVEY IN THE LETTER PRINTED ON THE QUESTIONNAIRE.
- [ ] SLICKER PAPER.
- [ ] DIFFERENT COLOR OF PAPER (WHICH COLOR _____)
- [ ] OTHER (PLEASE SPECIFY _____

_____

_____)

Appendix E

INTERVIEW SCHEDULE FOR RESPONDENTS TO THE FOLLOW-UP QUESTIONNAIRE

MIS-16F

A Survey of Respondents to the Follow-up Questionnaire

NAME _____ SOCIAL SECURITY NO. _____

DATE _____

1. DID YOU UNDERSTAND EVERY QUESTION ON THE QUESTIONNAIRE?

   ☐ YES

   ☐ NO

   IF "NO," PLEASE SPECIFY THE QUESTIONS WHICH YOU DID NOT FULLY UNDERSTAND. _____

   _____

   _____

2. HOW DID YOU INTERPRET PRESENT ACTIVITY IN QUESTION NUMBER 4?

   ☐ WORK ON YOUR JOB

   ☐ WORK RELATED TO SCHOOL

   ☐ WORK RELATED TO HOME

   ☐ WORK RELATED TO HOBBIES

   ☐ OTHER WORK (PLEASE SPECIFY _____

   _____)

3. ON QUESTION NUMBER 6 WHAT WAS THE BASIS OF YOUR RATINGS?

   ☐ REPUTATION OF THE SCHOOL

   ☐ PRINCIPAL OR OTHER OFFICIALS

   ☐ OTHER STUDENTS

   ☐ ATHLETIC PROGRAM

   ☐ ACADEMIC PROGRAM

   ☐ OVERALL QUALITY OF SCHOOL

   ☐ OTHER (SPECIFY _____)

4. PLEASE EXPLAIN YOUR RESPONSE TO QUESTIONS 13, 20, 26, AND 28. (ONLY THOSE THAT APPLY) _____

_____

_____

5A ON THE QUESTION OF WAGES DID YOU REPORT AFTER/BEFORE-TAXES-WAGES OR SALARY?

- ☐ AFTER TAXES
- ☐ BEFORE TAXES
- ☐ DOES NOT APPLY

5B DID YOU INCLUDE OVER-TIME PAY IN THE FIGURE REPORTED?

- ☐ YES
- ☐ NO
- ☐ DOES NOT APPLY

6. HAVE YOU CHANGED YOUR OPINION ABOUT ANY OF YOUR ANSWERS TO THE QUESTIONS?

- ☐ YES
- ☐ NO

IF "YES," PLEASE EXPLAIN. _____

_____

_____

7. CAN YOU SUGGEST ANY CHANGES IN THE QUESTIONNAIRE TO IMPROVE ITS CLARITY? _____

_____

_____

_____

8. WOULD YOU MIND IF WE CONTACT YOU IN THE FUTURE FOR FURTHER CLARIFICATION OR FOR COLLECTING MORE INFORMATION?

☐ YES

☐ NO

THE CENTER FOR VOCATIONAL AND TECHNICAL EDUCATION
THE OHIO STATE UNIVERSITY

Appendix F

AGGREGATION OF DATA FROM INTERVIEW OF RESPONDENTS TO THE FOLLOW-UP QUESTIONNAIRE

Aggregation of Data from Interview of Respondents to the Follow-up Questionnaire

			Number	Percent
	Total number of interviews - 49			
1.	Did you understand every question on the questionnaire?	Yes	41	83.7
		No	8*	16.3
2.	How did you interpret present activity in question #4?	Job	39	79.6
		School	3	6.1
		Home	1	2.0
		Hobbies		
		Other	6**	12.3
3.	On question #6 what was the basis of your rating?	Reputation of school	-	-
		Principal or other official	-	-
		Other students	-	
		Athletic program	-	-
		Academic program	2	4.1
		Overall quality of school	44	89.8
		Other (Shop)	2	4.1
		No answer	1	2.0
4.	Number commented showing the relatedness (or otherwise) of their jobs		38	77.6
		No answer	11	22.4
5A.	On the question of wages did you report after/ before taxes-wages or salary?	After taxes	5	10.2
		Before taxes	24	49.0
		Does not apply	17	34.7
		No answer	3	6.1
5B.	Did you include over-time pay in the figure you reported?	Yes	6	12.3
		No	7	14.3
		Does not apply	30	61.2
		No answer	6	12.3
6.	Have you changed your opinion about any of your answers to the questions?	Yes	1	2.0
		No	46	93.9
		No answer	2	4.1
7.	(i) No need to change (easy to interpret)		16	32.7
	(ii) Difficult for those enrolled in more than one program		1	2.0
	(iii) Question #3 should have more than two responses		1	2.0
	(iv) No suggestion		31	63.3
8.	Would you mind if we contact you in the future for further clarification or for collecting more information?	Yes	1	2.0
		No	45	91.8
		No answer	3	6.1

*Question #15 (one)
**Whatever I am doing currently

Appendix G

PROTOTYPE OF TABLES SUPPLIED TO KBVE

TABLE 1
AGGREGATE OF FOLLOW-UP DATA
BY SEX, PROGRAM COMPLETION, AND EMPLOYMENT

	TOTAL RESPONSES	MALE NO.	MALE %	FEMALE NO.	FEMALE %	GRADUATE NO.	GRADUATE %	NON-GRADUATE NO.	NON-GRADUATE %	[illegible] NO.	[illegible] %	[illegible] NO.	[illegible] %
1. PROGRAM CHOICE													
FIRST	537	[illegible]	83	[illegible]	65	522	95	302	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SECOND	123	[illegible]	13	64	11	68	11	53	14	75	[illegible]	[illegible]	[illegible]
THIRD	32	[illegible]	2	[illegible]	2	[illegible]	1	[illegible]	[illegible]	14	[illegible]	[illegible]	[illegible]
NONE	32	16	3	15	3	15	2	16	4	[illegible]	[illegible]	[illegible]	[illegible]
TOTAL	1014	[illegible]	100	470	100	616	100	384	100	[illegible]	[illegible]	[illegible]	[illegible]
2. WAITING LIST TO ENROLL?													
YES	150	94	17	56	12	78	13	69	18	102	[illegible]	[illegible]	[illegible]
NO	877	453	83	424	88	543	87	321	82	507	83	347	89
TOTAL	1027	547	100	480	100	621	100	390	100	609	[illegible]	390	[illegible]
3. COMPLETE PROGRAM?													
YES	624	292	54	332	69	624	100	0	0	[illegible]	[illegible]	[illegible]	[illegible]
NO	394	248	46	146	31	0	0	394	100	206	34	177	45
IF NO, REASON WHY?													
CHANGE	33	[illegible]	23	25	17	2	25	90	21	[illegible]	[illegible]	[illegible]	[illegible]
FINANCIAL	50	37	15	13	9	4	50	46	17	[illegible]	[illegible]	[illegible]	[illegible]
DISLIKE	26	15	6	11	7	0	0	26	7	15	7	[illegible]	[illegible]
TRANSFER	7	3	1	4	1	0	0	7	2	[illegible]	[illegible]	4	[illegible]
HEALTH	11	4	2	7	5	0	0	11	3	[illegible]	[illegible]	6	[illegible]
OTHER	220	[illegible]	[illegible]	[illegible]	[illegible]	2	25	214	56	[illegible]	[illegible]	[illegible]	[illegible]
TOTAL	1018	543	101	478	100	626	100	394	100	[illegible]	100	[illegible]	[illegible]
4. VOC. EDUCATION ADEQUATE?													
YES	726	361	[illegible]	365	[illegible]	478	78	236	63	[illegible]	72	280	[illegible]
NO	272	169	32	103	22	131	22	138	37	[illegible]	[illegible]	[illegible]	[illegible]
TOTAL	998	530	100	455	100	609	100	374	100	[illegible]	100	375	[illegible]
5. WANT MORE EDUCATION?													
NO	403	169	31	235	50	273	45	124	32	236	40	[illegible]	[illegible]
YES	600	369	69	232	50	329	55	263	68	[illegible]	60	231	[illegible]
IF YES, WHICH FIELD?													
AGRICULTURE	25	23	7	2	1	14	5	10	4	15	5	9	4
DISTRIBUTIVE	27	11	3	16	7	18	6	9	4	17	5	10	5
HEALTH	62	8	2	54	25	45	14	17	7	27	[illegible]	33	15
HOME ECONOMICS	21	0	0	21	10	15	5	6	2	8	2	12	5
OFFICE OR BUSINESS	129	24	7	105	48	73	23	54	22	67	[illegible]	62	29
TECHNICAL	83	70	20	13	6	44	14	37	15	50	15	31	14
TRADE AND INDUSTRIAL	217	209	61	8	4	102	33	111	45	[illegible]	45	61	[illegible]
TOTAL	1003	536	100	467	100	602	100	387	100	[illegible]	[illegible]	[illegible]	[illegible]

TABLE 2
PERCENTAGE ANALYSIS OF FOLLOW-UP DATA
BY REGION

	STATE	RGN 1	RGN 2	RGN 3	RGN 4	RGN 5	RGN 6	RGN 7	RGN 8	RGN 9	RGN 10	RGN 11	RGN 12	RGN 13	RGN 14	RGN 15	% OF SCHOOL H.S.	K
1. PROGRAM CHOICE																		
FIRST	83	88	88	85	77	82	81	87	0	87	83	77	[illegible]	[illegible]	[illegible]	[illegible]		
SECOND	12	0	8	7	16	14	14	13	0	13	14	16	[illegible]	[illegible]		[illegible]		
THIRD	2	0	2	4	2	0	0	0	0	0	[illegible]	4						
NONE	[illegible]	13	3	4	5	4	4	0	0	0	[illegible]							
2. WAITING LIST TO ENROLL?																		
YES	15	13	10	11	20	13	16	5	[illegible]	[illegible]	33	24	[illegible]	[illegible]	[illegible]	[illegible]		
NO	85	88	90	89	80	87	84	95	[illegible]	[illegible]	67	76	[illegible]	[illegible]	[illegible]			
3. COMPLETE PROGRAM?																		
YES	61	56	69	51	55	56	80	72	0	58	53	48	47	[illegible]	[illegible]	[illegible]		
NO	39	44	31	49	45	44	20	28	0	42	47	52	53	[illegible]	[illegible]	[illegible]		
IF NO, REASON WHY?																		
CHANGE	21	0	25	29	[illegible]	35	27	5	0	20	29	20	16	[illegible]	[illegible]	[illegible]		
FINANCIAL	13	0	8	9	[illegible]	[illegible]	40	5	0	0	21	24	9	[illegible]		[illegible]		
DISLIKE	7	0	8	9	7	0	0	9	0	0	7	7	4	[illegible]	[illegible]	[illegible]		
TRANSFER	2	0	0	0	4	0	0	0	0	0	0	2	4	[illegible]	[illegible]	[illegible]		
HEALTH	3	14	0	3	3	0	7	0	0	10	0	2	4		[illegible]	[illegible]		
OTHER	55	86	59	51	61	57	27	73	0	70	43	46	61	[illegible]	[illegible]	[illegible]		
4. VOC. EDUCATION ADEQUATE?																		
YES	73	69	80	[illegible]	70	[illegible]	[illegible]	70	[illegible]	91	66	67	71	[illegible]	79	[illegible]		
NO	27	31	20	27	30	26	30	30	0	9	34	33	29	[illegible]	21	[illegible]		
5. WANT MORE EDUCATION?																		
NO	40	31	40	42	30	33	43	54	0	39	36	30	[illegible]	[illegible]	[illegible]	[illegible]		
YES	60	69	60	58	70	67	57	46	0	61	64	70	[illegible]	[illegible]	[illegible]	[illegible]		
IF YES, WHICH FIELD?																		
AGRICULTURE	4	20	0	0	7	7	3	0	0	0	7	3	[illegible]		[illegible]	[illegible]		
DISTRIBUTIVE	5	0	14	5	2	0	11	6	0	0	0	0	9			[illegible]		
HEALTH	11	0	29	18	14	0	17	6	0	0	14	3	11	[illegible]	17	[illegible]		
HOME ECONOMICS	4	0	5	0	5	0	0	6	0	0	0	3	5	[illegible]	[illegible]	[illegible]		
OFFICE OR BUSINESS	23	20	10	15	23	17	34	24	0	38	43	17	13	11	30	29		
TECHNICAL	15	10	14	23	14	14	6	6	0	14	0	12	17	11	15	14		
TRADE AND INDUSTRIAL	38	50	29	40	35	62	29	53	0	46	36	60	44	46	27	27		

SCHOOL NUMBER 005901

TABLE

ANALYSIS OF NON-GRADUATE REASONS FOR TERMINATION

	GRADUATE		NON-GRADUATE		REASON FOR TERMINATION									
					OCCUP. CHANGE		FINANCIAL REASONS		DISLIKE SCHOOL		TRANSFER SCHOOL			
	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%
140100	1	100	0	0	0	0	0	0	0	0	0	0		
140300	4	80	1	20	0	0	0	0	0	0	0	0		
140700	16	73	6	27	1	25	0	0	0	0	1	25		
170302	2	67	1	33	0	0	0	0	0	0	0	0		
171001	6	75	2	25	1	25	0	0	0	0	0	0		
171300	1	50	1	50	0	0	0	0	0	0	0	0		
171401	5	71	2	29	3	43	1	14	0	0	1	14		
TOTAL	29	56	23	44	5	21	1	4	0	0	2	8		

SCHOOL NUMBER 005901

TABLE 4

ANALYSIS OF JOBS RELATED TO TRAINING

NUMBERS

	MOVE?				USE SKILLS?				PRESENT WAGES?															
	EMPLOYER	< 100 MILES	> 100 MILES	OUT OF STATE	FREQ.	DOCAS	SELF	NEVER	LESS THAN 1.59	1.60 TO 2.50	2.51 TO 3.50	3.51 TO 4.50	4.51 TO 5.50	5.51 TO 7.00	7.01 TO 10.00									
140100	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0									
140300	4	0	0	0	2	0	2	0	1	0	2	0	1	0	0									
140700	11	2	1	1	4	2	1	0	7	1	14	1	0	1	0	0								
170302	3	1	0	0	1	0	1	0	1	0	2	0	0	0	0									
171001	6	0	0	0	2	1	1	0	3	0	1	1	0	1	0									
171300	2	0	0	0	1	0	0	1	1	0	1	0	0	0	0									
171401	6	0	0	1	2	2	2	0	0	1	1	0	0	1	0	0								
TOTAL	33	3	1	2	11	5	8	1	13	1	28	4	0	1	0	0								

SCHOOL NUMBER 005901

TABLE 4A

ANALYSIS OF JOBS RELATED TO TRAINING

PERCENTAGES

	MOVE? EMPLOYED	< 100 MILES	> 100 MILES	OUT OF STATE	USE SKILLS? FREQ.	OCCAS	SELD	NEVER	PRESENT WAGES? LESS THAN 1.59	1.60 TO 2.50	2.51 TO 3.50	3.51 TO 4.50	4.51 TO 5.50	5.51 TO 7.00	7.01 TO 10.00	10.01 OR MORE	FEELING TO PRESENT JOB? LIKE MUCH	LIKE SOME	DO NOT CARE	DIS-LIKE SOME	DIS-LIKE MUCH
140100	100	0	0	0	0	100	0	0	0	100	0	0	0	0	0	0	[illegible]	100	0	0	0
140300	100	0	0	0	50	0	25	25	0	100	0	0	0	0	0	0	[illegible]	[illegible]	0	25	0
140790	73	13	0	[illegible]	[illegible]	13	[illegible]	[illegible]	0	63	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
170302	75	25	0	0	[illegible]	0	33	[illegible]	0	67	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
171001	100	0	0	0	33	0	16	50	0	83	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	0
171300	100	0	0	0	0	0	50	50	0	50	50	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	50	0	0
171401	65	0	0	[illegible]	33	33	33	0	25	50	0	0	25	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	16	[illegible]
TOTAL	84	7	2	5	29	13	21	35	2	82	11	0	2	0	0	0	15	27	27	10	0

SCHOOL NUMBER 140

TABLE 5

ANALYSIS OF JOBS NOT RELATED TO TRAINING

NUMBERS

	MOVE? EMPLOYED	< 100 MILES	> 100 MILES	OUT OF STATE	USE SKILLS? FREQ.	OCCAS	SELD	NEVER	PRESENT WAGES? LESS THAN 1.59	1.60 TO 2.50	2.51 TO 3.50	3.51 TO 4.50	4.51 TO 5.50	5.51 TO 7.00	7.01 TO 10.00	10.01 OR MORE	FEELING TO PRESENT JOB? LIKE MUCH	LIKE SOME	DO NOT CARE	DIS-LIKE SOME	DIS-LIKE MUCH
049600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
040700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
040900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
041500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
042000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
049500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
049700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SCHOOL NUMBER 005901

TABLE 5A

ANALYSIS OF JOBS NOT RELATED TO TRAINING

PERCENTAGES

	MOVE?				USE SKILLS?				PRESENT WAGES?												
	TEMPL- OYED	< 100 MILES	> 100 MILES	OUT OF STATE	A GREAT DEAL	SOME	LITTLE	NEVER	LESS THAN 1.50	1.50 TO 2.50	2.51 TO 3.50	3.51 TO 4.50	4.51 TO 5.50	5.51 TO 7.00	7.01 TO 10.00	OVER 10.00	VERY MUCH	LIKE SOME	LITTLE	VERY LITTLE	DIS-LIKE MUCH
1140100	0	0	0	01	0	0	0	01	0	0	0	0	0	0							01
1140300	0	0	0	01	0	0	0	01	0	0	0	0	0	0							01
1140700	0	0	0	01	0	0	0	01	0	0	0	0	0	0							01
1170302	0	0	0	01	0	0	0	01	0	0	0	0	0	0							01
1171001	0	0	0	01	0	0	0	01	0	0	0	0	0	0							01
1171300	0	0	0	01	0	0	0	01	0	0	0	0	0	0							01
1171401	0	0	0	01	0	0	0	01	0	0	0	0	0	0							01
TOTAL	0	0	0	01	0	0	0	01	0	0	0	0	0	0	0	0	0	0	0	0	01

SCHOOL NUMBER 005901

TABLE 6

ANALYSIS OF DESIRABILITY OF FURTHER EDUCATION

FROM PROGRAMS CONSIDERED ADEQUATE

	MORE EDUC?						IF YES, WHAT?														
	NUM ND	%	NO	%	YES	%	VOC NO	%	AGRIC NO	%	DIST NO	%	HEALTH NO	%	OFFICE NO	%	[illegible]	[illegible]	TRADE INDUS		
1140100	0	01	0	0	1	100	0	0	0	0	0	0	0	0	1	100	0	0	0	0	01
1140300	0	01	5	71	2	28	0	0	0	0	0	0	0	0	1	50	0	0	0	0	01
1140700	0	01	8	53	7	46	0	0	0	0	0	0	0	0	7	100	0	0	0	0	01
1170302	0	01	0	0	2	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	01
1171001	0	01	2	40	3	60	0	0	0	0	0	0	0	0	1	33	0	0	1	33	01
1171300	0	01	1	33	2	66	0	0	0	0	0	0	0	0	0	0	1	0	1	50	01
1171401	0	01	4	50	4	50	0	0	0	0	0	0	0	0	0	0	0	0	4	100	01
TOTAL	0	01	20	48	21	51	0	0	0	0	0	0	1	4	10	47	2	9	7	33	01

SCHOOL NUMBER 567020

TABLE 7

ANALYSIS OF DESIRABILITY OF FURTHER EDUCATION

FROM PROGRAMS CONSIDERED INADEQUATE

	MORE EDUC?						IF YES, WHAT?													
	NUM		NO		YES		VOC		AGRIC		DIST		HEALTH		OFFICE	BUS	TECH		TRADE	INDUST
	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%
1042030	2	01	0	0	2	1001	0	0	0	0	0	0	0	0	2	100	0	0	0	01
1049700	0	01	0	0	0	01	0	0	0	0	0	0	0	0	0	0	0	0	0	01
1070101	0	01	0	0	0	01	0	0	0	0	0	0	0	0	0	0	0	0	0	01
1070303	2	01	0	0	2	1001	1	50	0	0	0	0	2	100	0	0	0	0	0	01
1070305	1	01	0	0	1	1001	1	100	0	0	0	0	1	100	0	0	0	0	0	01
1070306	2	01	1	50	1	501	1	100	0	0	0	0	1	100	0	0	0	0	0	01
1070399	1	01	0	0	1	1001	0	0	0	0	0	0	1	100	0	0	0	0	0	01
1140300	1	01	0	0	1	1001	0	0	0	0	0	0	1	100	0	0	0	0	0	01
1160108	2	01	1	50	1	501	0	0	0	0	0	0	0	0	0	0	0	0	1	1001
1160113	0	01	0	0	0	01	0	0	0	0	0	0	0	0	0	0	0	0	0	01
1170102	1	01	0	0	1	1001	0	0	0	0	0	0	0	0	0	0	0	0	1	1001
1170600	2	01	1	50	1	501	0	0	0	0	0	0	0	0	0	0	0	0	1	1001
1171001	3	01	1	33	2	661	0	0	0	0	0	0	0	0	1	50	0	0	1	501
1171300	0	01	0	0	0	01	0	0	0	0	0	0	0	0	0	0	0	0	0	01
1171401	7	01	2	28	5	711	0	0	0	0	0	0	0	0	0	0	1	20	4	801
1171900	6	01	1	16	5	831	0	0	1	20	0	0	0	0	2	40	0	0	2	401
1172303	1	01	1	100	0	01	0	0	0	0	0	0	0	0	0	0	0	0	0	01
1172306	2	01	0	0	2	1001	0	0	0	0	0	0	0	0	0	0	0	0	2	1001
1172902	0	01	0	0	0	01	0	0	0	0	0	0	0	0	0	0	0	0	0	01
1173000	0	01	0	0	0	01	0	0	0	0	0	0	0	0	0	0	0	0	0	01
TOTAL	32	01	8	25	24	751	2	8	1	4	0	0	5	21	5	20	1	4	12	501

SCHOOL NUMBER 005401

TABLE B

ANALYSIS OF RATINGS OF SCHOOLS & PROGRAMS

NUMBERS

	YOUR SCHOOL				TRAINING PROGRAM				INSTRUCTOR				SHOP OR LAB				COUNSELING				JOB PLACEMENT			
	EXC	GOOD	AVE	POOR	EXC	GOOD	AVE	POOR	EXC	GOOD	AVE	POOR	EXC	GOOD	AVE	POOR	EXC	GOOD	AVE	POOR	EXC	GOOD	AVE	POOR
1401001	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0
1403601	5	3	0	0	4	4	0	0	6	2	0	0	5	3	0	0	3	4	1	0	0	3	3	2
1407001	11	9	0	0	12	8	0	0	12	8	0	0	15	5	2	0	10	7	2	0	2	5	6	4
1703021	2	1	1	0	3	1	0	0	4	0	0	0	2	1	1	0	3	0	1	0	1	1	0	0
1710011	0	6	0	0	0	4	2	0	1	4	1	0	2	3	1	0	3	3	1	0	2	3	2	1
1713001	1	1	1	0	0	2	1	0	0	2	1	0	1	0	1	0	0	2	1	0	1	1	0	0
1714011	4	5	1	0	3	3	3	1	5	4	1	0	6	5	2	1	5	4	1	0	3	4	2	1
TOTAL	24	25	3	0	23	22	6	1	29	20	3	0	28	16	7	1	27	21	9	1	9	16	13	7

SCHOOL NUMBER 005401

TABLE BA

ANALYSIS OF RATINGS OF SCHOOLS & PROGRAMS

PERCENTAGES

	YOUR SCHOOL				TRAINING PROGRAM				INSTRUCTOR				SHOP OR LAB				COUNSELING				JOB PLACEMENT			
	EXC	GOOD	AVE	POOR	EXC	GOOD	AVE	POOR	EXC	GOOD	AVE	POOR	EXC	GOOD	AVE	POOR	EXC	GOOD	AVE	POOR	EXC	GOOD	AVE	POOR
1401001	100	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	0	100	0	0	100		0	0
1403601	62	37	0	0	50	50	0	0	75	25	0	0	62	37	0	0	37	50	12	0	0	37	37	25
1407001	55	45	0	0	60	40	0	0	60	40	0	0	75	15	10	0	52	36	10	0	15	27	33	22
1703021	50	25	25	0	75	25	0	0	100	0	0	0	50	25	25	0	75	0	25	0	25	25	0	50
1710011	0	100	0	0	0	66	33	0	16	66	16	0	33	50	16	0	50	33	16	0	16	33	33	16
1713001	33	33	33	0	0	66	33	0	0	66	33	0	50	0	50	0	0	66	33	0	0	33	0	66
1714011	40	50	10	0	30	30	30	10	50	40	10	0	25	50	25	10	20	40	30	10	0	40	20	40
TOTAL	46	48	5	0	44	42	11	1	55	38	5	0	54	29	13	1	41	39	17	1	12	31	26	30

TABLE 9

ANALYSIS OF HOMEMAKING PROGRAMS

	PROGRAM ADEQUATE								STUDY ANOTHER AREA										HOW BETTER USE TRAINING							
	YES		NO		NOT STUDY		NOT APPLY		FOOD		CHILDREN		CLOTHING		HOME		OTHER		MUCH DAILY		ONCE DAILY		SELDOM		NOT APPLY	
	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%
FEMALE	6	75	1	12	0	0	1	12	1	12	4	50	2	25	1	12	0	0	5	62	2	25	1	12	0	0
IS:515904																										
MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEMALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CTY:103																										
MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEMALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
REG:09																										
MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEMALE	6	75	1	12	0	0	1	12	1	12	4	50	2	25	1	12	0	0	5	62	2	25	1	12	0	0
IS:502902																										
MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEMALE	1	14	1	14	5	71	0	0	1	16	4	66	1	16	0	0	0	0	2	33	2	33	0	0	2	33
CTY:045																										
MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEMALE	1	14	1	14	5	71	0	0	1	16	4	66	1	16	0	0	0	0	2	33	2	33	0	0	2	33
REG:10																										
MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEMALE	1	14	1	14	5	71	0	0	1	16	4	66	1	16	0	0	0	0	2	33	2	33	0	0	2	33
IS:285900																										
MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEMALE	2	25	2	25	4	50	0	0	2	28	2	28	1	14	2	28	0	0	3	42	0	0	1	14	3	42
CTY:058																										
MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEMALE	2	25	2	25	4	50	0	0	2	28	2	28	1	14	2	28	0	0	3	42	0	0	1	14	3	42
IS:385903																										
MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
FEMALE	1	100	0	0	0	0	0	0	0	0	0	0	1	100	0	0	0	0	0	0	0	0	1	100	0	0
CTY:077																										
MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEMALE	1	100	0	0	0	0	0	0	0	0	0	0	1	100	0	0	0	0	0	0	0	0	1	100	0	0
IS:491904																										
MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TABLE 10

ANALYSIS OF JOB TO COURSE RELATION AND COURSE TO PROGRAM RELATION

	JOB RELATION								EC PROGRAM RELATION							
	SAME		HIGHLY		SOME		NOT		SAME		HIGHLY		SOME		NOT	
	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%
S:455030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
CTY: 091	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
S:525040	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	100
CTY: 105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	100
REG: 15	2	8	5	18	7	21	18	54	5	23	3	14	3	14	11	47
TOTAL	13	26	9	18	10	20	18	36	5	20	4	16	4	16	11	44
010300																
S:161090	0	0	0	0	0	0	0	0	0	0	0	0	1	50	1	50
CTY: 033	0	0	0	0	0	0	0	0	0	0	0	0	1	50	1	50
S:195060	1	100	0	0	0	0	0	0	1	100	0	0	0	0	0	0
CTY: 040	1	100	0	0	0	0	0	0	1	100	0	0	0	0	0	0
S:421030	0	0	0	0	2	50	2	50	0	0	0	0	0	0	2	100
CTY: 084	0	0	0	0	2	50	2	50	0	0	0	0	0	0	2	100
S:525040	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CTY: 105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
REG: 15	1	14	0	0	4	57	2	28	1	20	0	0	1	20	3	60
TOTAL	1	14	0	0	4	57	2	28	1	20	0	0	1	20	3	60
010500																
S:111501	0	0	0	0	0	0	4	100	1	50	0	0	0	0	1	50
CTY: 023	0	0	0	0	0	0	4	100	1	50	0	0	0	0	1	50
REG: 14	0	0	0	0	0	0	4	100	1	50	0	0	0	0	1	50
S:011020	0	0	0	0	0	0	1	100	0	0	0	0	0	0	0	0
CTY: 003	0	0	0	0	0	0	1	100	0	0	0	0	0	0	1	0
S:161090	0	0	0	0	0	0	1	100	0	0	0	0	0	0	0	0
CTY: 033	0	0	0	0	0	0	1	100	0	0	0	0	0	0	1	0
S:165904	0	0	0	0	1	16	5	83	0	0	0	0	0	0	2	100
CTY: 034	0	0	0	0	1	16	5	83	0	0	0	0	0	0	2	100
REG: 15	0	0	0	0	1	11	8	88	0	0	0	0	0	0	3	100
TOTAL	0	0	0	0	1	7	12	92	1	20	0	0	0	0	4	80
010501																

SCHOOL NUMBER 005901

TABLE 10A

ANALYSIS OF CONTINUING EDUCATION

	NOW ENROLLED?				TYPE OF INSTITUTION														HOW RELATED?							
	YES		NO		PUBLIC HIGH		2 YR JR COMM		TECH INST		4 YR COL OR UNIV		PRIVATE VOC		PRIVATE BUSINESS		OTHER		SAME		HIGHLY		SAME		NOT	
	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%
140100																										
MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEMALE	0	0	1	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140300																										
MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEMALE	2	25	6	75	1	50	0	0	0	0	1	0	0	0	0	0	1	50	1	50	0	0	0	0	1	50
140700																										
MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEMALE	7	35	13	65	2	28	0	0	0	0	3	42	0	0	0	0	0	0	2	28	1	14	2	28	0	0
170302																										
MALE	3	75	1	25	0	0	0	0	0	0	0	0	1	33	0	0	1	33	1	33	1	33	0	0	0	0
FEMALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
171001																										
MALE	2	33	4	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	50	0	0	0	0	0	0
FEMALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
171300																										
MALE	2	66	1	33	0	0	0	0	1	50	0	0	0	0	0	0	0	0	0	0	0	0	1	50	0	0
FEMALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
171401																										
MALE	7	58	5	41	1	14	0	0	0	0	1	14	0	0	0	0	2	28	1	14	0	0	0	0	2	28
FEMALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL																										
MALE	14	56	11	44	1	7	0	0	1	7	1	7	1	7	0	0	3	21	3	21	1	7	1	7	2	14
FEMALE	9	31	20	68	3	33	0	0	0	0	3	33	0	0	0	0	1	11	3	33	1	11	2	22	1	11

TABLE 11

ANALYSIS OF UNEMPLOYED BUT AVAILABLE RESPONDENTS

	HOW LONG NOT WORKING?						LAST LOOKED FOR A JOB										JOB TITLES					
	LESS 1 MONTH		1 MORE LESS TWO		ONE TWO MORE MONTHS		SCHOOL		AGENCY		EMPLOYER		FRIENDS		NEWS ADS		OTHER		1		2		3	
	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%
CTY:021	0	0	0	0	2	100	0	0	0	0	2	100	0	0	0		0	0	2	40	2	40	1	20
IS:291900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0
CTY:059	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0
REG:07	0	0	0	0	2	100	0	0	0	0	2	100	0	0	0	0	0	0	2	40	2	40	1	20
IS:435903	1	12	2	25	5	62	1	11	2	22	3	33	0	0	2	22	1	11	8	34	8	34	7	30
CTY:087	1	12	2	25	5	62	1	11	2	22	3	33	0	0	2	22	1	11	8	34	8	34	7	30
IS:515904	0	0	2	100	0	0	0	0	1	50	0	0	0	0	0	0	1	50	4	33	4	33	4	33
CTY:103	0	0	2	100	0	0	0	0	1	50	0	0	0	0	0	0	1	50	4	33	4	33	4	33
REG:09	1	9	5	45	5	45	1	8	4	33	3	25	0	0	2	16	2	16	13	35	13	35	11	29
IS:502902	2	18	0	0	9	81	0	0	2	16	4	33	2	16	0	0	4	33	13	41	10	32	8	25
CTY:045	2	18	0	0	9	81	0	0	2	16	4	33	2	16	0	0	4	33	13	41	10	32	8	25
REG:10	2	18	0	0	9	81	0	0	2	16	4	33	2	16	0	0	4	33	13	41	10	32	8	25
IS:285900	1	9	1	9	9	81	1	9	4	36	3	27	1	9	1	9	1	9	11	37	10	34	8	27
CTY:058	1	9	1	9	9	81	1	9	4	36	3	27	1	9	1	9	1	9	11	37	10	34	8	27
IS:385903	0	0	0	0	0	0	0	0	1	100	0	0	0	0	0	0	0	0	1	100	0	0	0	0
CTY:077	0	0	0	0	0	0	0	0	1	100	0	0	0	0	0	0	0	0	1	100	0	0	0	0
IS:491904	2	33	0	0	4	66	1	33	1	33	0	0	0	0	0	0	1	33	5	45	4	36	2	18
CTY:099	2	33	0	0	4	66	1	33	1	33	0	0	0	0	0	0	1	33	5	45	4	36	2	18
REG:11	3	16	2	11	13	72	2	12	6	37	4	25	1	6	1	6	2	12	18	40	15	34	11	25
IS:061901	1	14	0	0	6	85	0	0	4	66	1	16	0	0	1	16	0	0	7	41	6	35	4	23
CTY:013	1	14	0	0	6	85	0	0	4	66	1	16	0	0	1	16	0	0	7	41	6	35	4	23
IS:295902	0	0	1	25	3	75	0	0	0	0	3	75	1	25	0	0	0	0	4	33	4	33	4	33
CTY:060	0	0	1	25	3	75	0	0	0	0	3	75	1	25	0	0	0	0	4	33	4	33	4	33
IS:321903	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CTY:065	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IS:331904	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0
CTY:067	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IS:246903	0	0	2	28	5	71	1	12	4	50	1	12	1	12	0	0	1	12	8	36	6	36	6	27
CTY:097	0	0	2	28	5	71	1	12	4	50	1	12	1	12	0	0	1	12	8	36	8	36	6	27
REG:12	2	10	3	15	14	73	1	5	9	47	5	26	2	10	1	5	1	5	21	37	20	35	15	26
IS:111901	0	0	0	0	1	100	0	0	0	0	1	100	0	0	0	0	0	0	1	50	1	50	0	0
CTY:023	0	0	0	0	1	100	0	0	0	0	1	100	0	0	0	0	0	0	1	50	1	50	0	0
IS:215903	0	0	1	33	2	66	0	0	0	0	2	66	1	33	0	0	0	0	2	33	2	33	2	33

Appendix H

REVISED PRE-LETTER

COMMONWEALTH OF KENTUCKY
Department of Education
BUREAU OF VOCATIONAL EDUCATION
FRANKFORT 40601

September 10, 1972

Dear Friend,

All Kentucky schools providing vocational programs are cooperating in an annual survey of former vocational students. This survey is very important to the improvement of vocational education in our state, and your help in providing information for this planning is essential.

We already receive reports from the schools about the vocational education they have provided to students like you. Now we want to have your ideas about the programs they provide. The information we are asking you to provide will help in the following ways:

1. We will be able to improve the vocational programs being offered in the schools.

2. We will be able to plan more and better vocational education services to the classes that follow you.

3. We will be able to plan more and better facilities for post-secondary education, so that they will be ready when you need them.

A questionnaire will be mailed to you by the Bureau of Vocational Education in about a week or so. We would greatly appreciate your completing this questionnaire and mailing it back to us in the postage paid envelope as soon as possible. It will take only a few minutes of your time, but it will be a big help to us. We are counting on your help.

Thank you very much.

Sincerely,

Earl F. Lamar
Assistant Superintendent for
Vocational Education

Lyman V. Ginger
Superintendent of Public Instruction

P.S. SPECIAL NOTE TO PARENTS: This is a very important survey effort in our state. If your son/daughter lives away from home, please send this letter to him/her and then send us his/her present address. If your son/daughter is in the military service, please indicate this in the space provided in the instructions on the questionnaire that will follow, and return it to us. We appreciate your help. Thank you.

jhs

GPO1972;755-834/29

Appendix I

REVISED FOLLOW-UP QUESTIONNAIRE

Form VE-SS-15

INITIAL SURVEY OF FORMER VOCATIONAL STUDENTS

BUREAU OF VOCATIONAL EDUCATION, DEPARTMENT OF EDUCATION
FRANKFORT, KENTUCKY

If your name, address, or Social Security number is not correct on the label, please make the necessary corrections below.

Dear Former Vocational Student:

Your school is cooperating with the State Department of Education to conduct a statewide survey of all former students of vocational education. The purpose of this study is to improve vocational education in Kentucky and provide better service to the students who follow you. Some of you may be selected at a later date to participate in further studies.

Since you are the most important source of information for this improvement process, your cooperation is essential. While participation is voluntary, we would appreciate it if you would complete this questionnaire and use the pre-addressed, postage-paid envelope to return it as soon as possible.

We can assure you that your responses will remain strictly confidential. The information you provide will become the property of the State Department of Education and will be made available only to authorized education personnel. The data will be reported to your school only in summary form. No individual will be identified.

It is important that your name and address on this questionnaire be correct so that we can identify those who do not respond.

Thank you very much for your help.

Sincerely yours,

Earl F. Lancaster
Assistant Superintendent for Vocational Education

Lyman V. Ginger
Superintendent of Public Instruction

INSTRUCTIONS

1. If you are serving with the Military, please check this box only and then return the qu tionnaire. ☐
2. Please answer questions in Section I, and all other sections that apply to you. Example, if you are working part-time and also enrolled in college, answer questions in sections I, II, and III.
3. Space is provided at the end of this questionnaire for your comments. Please express your opinions freely and offer suggestions for improvement of vocational programs in Kentucky.
4. "Vocational Program" in the questionnaire means a course or a sequence of courses in any one of the following eight areas.

(a) Vocational Agriculture
(b) Distributive Education
(c) Health Education
(d) Home Economics
(e) Business and Office Education
(f) Technical Education
(g) Trade and Industrial Education
(h) Special Vocational Education

I. THIS SECTION FOR EVERYONE

1. Was the vocational program identified on the address label your first, second, or third choice at the time you enrolled? (check one)

   ☐ First choice

   ☐ Second choice

   ☐ Third choice

   If it was not your first choice, why didn't you enroll in the program you wanted?

   ☐ Courses were filled

   ☐ It was not offered at my school

   ☐ I didn't have the requirements

   ☐ Other reasons: _____

2. Were you ever placed on a waiting list to enroll in a vocational program of your choice?

   ☐ Yes

   ☐ No

3. Did you complete the vocational program identified on the address label?

   ☐ Yes

   ☐ No

   If "No," please indicate the reason(s) for terminating the program before completion. (check all that apply)

   ☐ Change of occupational objective

   ☐ Work on a job

   ☐ Financial reasons

   ☐ Marriage

   ☐ Dislike for the school

   ☐ Transfer to another school district

   ☐ Poor health

   ☐ Other (Specify) _____

4. Are you planning to enroll for more vocational or technical education within the next two years?

   ☐ Yes

   ☐ No

   If "yes," please specify the field(s) in which you want further vocational education (check all that apply)

   ☐ Vocational Agriculture Education

   ☐ Distributive Education

   ☐ Health Education

   ☐ Home Economics Education

   ☐ Office or Business Education

   ☐ Technical Education

   ☐ Trade and Industrial Education

   Please also specify the job or jobs for which you would like to be trained.

   _____

   _____

5. Please rate the following services of your school by checking one of the boxes in each case.

	Very Good	Average	Poor
(a) Vocational Instruction	☐	☐	☐
(b) All other Instruction	☐	☐	☐
(c) Vocational Shop or Laboratory	☐	☐	☐
(d) Guidance and Counseling	☐	☐	☐
(e) Job Placement	☐	☐	☐

II. THIS SECTION FOR THOSE NOW WORKING ON A JOB

6. After leaving school, how much time did you spend looking for your first job?

- ☐ Had the job before leaving school
- ☐ Looked for two weeks or less
- ☐ Looked for three to four weeks
- ☐ Looked for one to two months
- ☐ Looked for more than two months

7. Who helped you to get your first job? (check all that apply)

- ☐ Vocational teacher
- ☐ School job placement service
- ☐ Other school personnel
- ☐ State employment agency
- ☐ Private employment agency
- ☐ Relatives and friends
- ☐ Other (Specify) _____

8. Is your present job your first job after leaving school?

- ☐ Yes
- ☐ No

9. What is your present job? (Specify job title and a brief description. Examples: Secretary in a law office or Machinist of automobile parts.)

_____

_____

10. How many hours per week do you usually work on your present job? (check one)

- ☐ Less than 20 hours
- ☐ 20 to 24 hours
- ☐ 25 to 29 hours
- ☐ 30 to 34 hours
- ☐ 35 to 40 hours--Skip to question number 12

More than 40 hours--Skip to question number 12

11. If you are currently working less than 35 hours per week, please check the reason(s) for doing so.

- ☐ Cannot find full-time job
- ☐ Full-time work week less than 35 hours
- ☐ Temporary cut-back by the employer
- ☐ Enrolled in school or college
- ☐ Do not want full-time work
- ☐ Other (Specify) _____

_____

12. Which one of the following statements best describes the relationship between your present job and the training program on the address label? (check one)

- ☐ Job same for which trained
- ☐ Job highly related to the training
- ☐ Job only slightly related to the training
- ☐ Job not related to the training

13. Have you moved away from where you were trained? (check one)

- ☐ Yes
- ☐ No

If "Yes," how far did you move?

- ☐ Less than 100 miles within the state
- ☐ More than 100 miles within the state
- ☐ Out of the state

14. How far is your place of work from your present residence? (check one)

- ☐ 0-10 miles
- ☐ 11-25 miles
- ☐ 26-50 miles
- ☐ More than 50 miles

15. What is the wage rate of your present job excluding overtime?

- ☐ $1.59 or less per hour
- ☐ $1.60 to $2.00 per hour
- ☐ $2.01 to $2.50 per hour
- ☐ $2.51 to $3.50 per hour
- ☐ $3.51 to $4.50 per hour
- ☐ $4.51 to $5.50 per hour
- ☐ $5.51 or more per hour

16. What are your average overtime earnings per week on this job? _____

17. How do you feel about your present job? (check one)

- ☐ Like it very much
- ☐ Like it somewhat
- ☐ Neither like nor dislike it
- ☐ Dislike it somewhat
- ☐ Dislike it very much

18. How often on your present job do you use the knowledge and skill acquired from your training?

- ☐ Frequently (use most of the time)
- ☐ Occasionally (use only some time)
- ☐ Seldom (use only rarely)
- ☐ Never (never use it)

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Region #3-11

III. THIS SECTION FOR THOSE NOW ENROLLED IN SCHOOL OR COLLEGE

19. What is the type of institution in which you are presently enrolled? (check one)

- ☐ Vocational High School
- ☐ Public High School
- ☐ Two year Junior or Community College
- ☐ Public post-secondary technical institute
- ☐ Four year College or University
- ☐ Private Vocational or Business School
- ☐ Other (Specify) _____

20. How related is your present educational program to the vocational course identified on the address label?

- ☐ Same field
- ☐ Highly related
- ☐ Only slightly realted
- ☐ Not related

IV. THIS SECTION FOR THOSE WHO WERE ENROLLED IN HOME ECONOMICS

21. Do you consider your vocational program adequate preparation for homemaking?

- ☐ Yes
- ☐ No
- ☐ Does not apply--am not a homemaker

22. If you had the opportunity, which one of the following areas in Home Economics would you like to study? (check all that apply)

- ☐ Food management
- ☐ Care and guidance of children
- ☐ Clothing management and service
- ☐ Home and community services
- ☐ Other (Specify) _____

23. How often do you use your home economics training in your work at home?

- ☐ Frequently (use most of the time)
- ☐ Occasionally (use only sometime)
- ☐ Seldom (use only rarely)
- ☐ Never (never use it)

V. THIS SECTION FOR THOSE NOT NOW WORKING

24. Are you looking for a job?

- ☐ Yes
- ☐ No

25. If "Yes," how long have you been looking for a job?

- ☐ Less than one month
- ☐ More than one but less than two months
- ☐ More than two months

26. What have you done most recently to look for a job? (check all that apply)

- ☐ Checked with the school placement service
- ☐ Checked with a public or private employment agency
- ☐ Checked directly with employers
- ☐ Checked with friends or relatives
- ☐ Placed or answered newspaper ads
- ☐ Other (Specify) _____

VI. YOUR COMMENTS AND/OR SUGGESTIONS

Please use this space to give any additional comments and suggestions not covered by the answers on this and the preceding pages.

_____

_____

_____

_____

Thank you