A Study of the Feasibility of Using the Existing Migrant Student Record Transfer System to Promote Continuity of Learning for Adult Migratory Farmworkers.

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The hypothesis that the existing Migrant Student Record Transfer System (MSRTS) can be used to promote continuity of learning for adult migratory farmworkers was tested. After an initial and careful study of the existing MSRTS combined with an analysis of the new system to be implemented, it was determined that the MSRTS can be used. The hypothesis was documented through the presentation of historical data, present operations, program statistics, and computer specifications. Next a prototype data form (actual data to be transferred) was developed. This report discusses the: (1) development of a prototype form, and (2) technical and administrative aspects for implementation. Part I presents an analysis of information needed by teachers to plan occupational programs for individual adult migrants and an investigation of other retrieval systems that could supplement the MSRTS. In Part II, 4 areas are discussed: (1) technical aspects of utilizing the system; (2) the current MSRTS administration's policies in regard to expanding the system, maintenance of confidential information, etc.; (3) specific implementation guidelines and a time-line for implementation of the system; and (4) recommendations and follow-up procedures. A listing of agencies providing services to migrant adults is included. (NO)
A STUDY OF THE FEASIBILITY OF USING THE EXISTING MIGRANT STUDENT RECORD TRANSFER SYSTEM TO PROMOTE CONTINUITY OF LEARNING FOR ADULT MIGRATORY FARMWORKERS

by

James A. Roberts
Edu-Systems, Inc.

1973

STATE UNIVERSITY COLLEGE OF ARTS AND SCIENCE
GENESEO, NEW YORK 14454

After 1 July 1975
GeneSEO Migrant Center
The Vocational Education Department of the New York State Migrant Center was initiated on July 1, 1972 under a grant from the New York State Department of Education, Division of Occupational Education, Dr. Robert Seckendorf, Assistant Commissioner, with Dr. Everett C. Lattimer, Director, and Dr. B. John Ross, Supervisor, Division of Occupational Education Supervision as liaisons.

The New York State Migrant Center, established in February, 1968 by Mr. John O. Dunn, former chief of the Bureau of Migrant Education, State Education Department, at the suggestion of Dr. Robert W. MacVittie, President, State University College of Arts and Science at Geneseo, New York, is comprehensive in its commitment and responsibility to the needs of the nation's migratory farmworkers, with emphasis both on delivery of services and research activities.

This study is consistent with the mission of the Vocational Education Department to enable the unskilled migrant and seasonal farmworker, living marginally at the periphery of society, in many cases illiterate, to move from his present condition to functional citizenship; with economic independence due to gainful employment of developed workable skills. It specifically fulfills one of the Long Range Plan objectives: An investigation will be made of expanding the existing Migrant Record Transfer System to include adult migrant education.

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James A. Roberts has been directly responsible for projects dealing with evaluation of educational programs and projects on the State level and the local level. Mr. Roberts has also conducted many surveys dealing with program evaluation and performance analysis of individuals for the purpose of establishing definite roles and responsibilities in relationship to total programs and program management.

Mr. Roberts is working on projects dealing with complete and thorough analysis of migrant adults with specific emphasis on job analysis for the purpose of analyzing behaviors and qualifications of migrant adults and matching them with existing areas of employment.

Mr. Roberts has served as Director of Migrant Education, New Jersey State Department of Education. In this capacity he directed and supervised the total migrant program for the State of New Jersey. At that time it was the philosophy of the New Jersey program to administer the majority of the program from the SEA program. This fact enabled Mr. Roberts to serve on the SEA and also as an LEA being totally responsible for individual projects on the field.

Mr. Roberts also served as Administrative Assistant to the New Jersey Migrant Program, prior to that being a principal in one of the migrant summer projects. In this capacity, Mr. Roberts was in fact serving as an LEA to the State.

Also in conjunction with his migrant background, Mr. Roberts served as consultant to the U.S. Office of Education in a project that was entitled "Project TIME."

Prior to his experience with the New Jersey State Department of Education, Mr. Roberts was employed as a Director of Vocational Education for South Brunswick Board of Education and as a Coordinator of Programs for the disadvantaged and handicapped. He also had five years' experience in the classroom on the Junior and Senior High School level.

In addition to this, Mr. Roberts served in the capacity of Consultant and Guest Speaker for three years with Columbia University dealing with workshops for the mentally retarded.

In 1969 he was named by the Commissioner of Education in New Jersey to be one of the two individuals to represent USEO Fellows Program in Washington, D.C.
Mr. Roberts attended Trenton State College where he received his BA degree in Industrial Arts in 1964 and in 1968 he received his MA degree in Industrial Education Technology.

In 1967 he completed a three month training session in Human Relationship Training which was conducted by the National Training Lab, Bethel, Maine.

After leaving the New Jersey State Department of Education, Mr. Roberts joined Intermodular Structures, Inc. in the capacity of Vice President in charge of Marketing. For this organization he served on the Board of Directors.

At the present time Mr. Roberts is President of Edu-Systems, Inc.
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SCOPE OF STUDY

GUIDELINES FOR ADULT TRANSFER RECORD SYSTEM STUDY

The study under consideration is an investigation to determine the feasibility of using the existing Migrant Student Record Transfer System to promote continuity of learning for adult migratory farmworkers.

This segment of the rural disadvantaged population is currently undergoing occupational difficulties. Mechanization in agriculture has increasingly reduced employment opportunity. This situation creates a need to provide retraining through occupational education for farmworkers; however, they possess learner characteristics which are unique.

The study should focus on the following main points:

1. Analysis of the information which is needed by teachers to plan occupational programs for individual adult migrants.

2. An analysis should also be made concerning information which would enable other information retrieval systems (i.e., Department of Labor Job Bank) to function at a secondary level.

3. Development of a prototype data form based on the existing form for children and the results of (1) and (2).

4. The technical aspects of utilizing the system should be investigated and summarized.

5. The policies of the administration of the current MRTS should be considered in regard to expanding the system, maintenance of confidential information, etc.

6. Specific implementation guidelines should result from the study and include a time-line for implementation of a system.

7. The study should be designed, executed, and a written report submitted to the New York State Migrant Center by April 15, 1973.
BACKGROUND

The plight of the migrant has in recent years been given a great deal of attention. For generations, migrants and their families suffered neglect, exploitation, widespread unemployment, and poverty. Probably the single most important factor in the increased recognition of the migrant problem is the impact of agriculture technology on the employment of migrant workers. Mechanization has caused many farm labor jobs to totally disappear. The National Advisory Commission on Food and Fiber has stated that by 1980 non-farm jobs will be needed for over 40 per cent of the present migrant labor force. This is coupled with the fact that in 1969 the migrant, on an average, worked only 78 days and earned an average yearly farm wage of only $891.00.

Labor statistics show that in 1967-68 1,244,698 migrants resided in or migrated into counties offering migrant labor. One can plainly see that if the 40 per cent reduction figure holds firm (more than likely this percentage will rise) there will be hundreds of thousands of migrants displaced.

It is due to these points and many others too numerous to mention that the Federal Government in 1964 enacted the Economic Opportunity Act. Title III-B set forth 15 million dollars specifically earmarked for special programs for migrants in the areas of education, day care, sanitation, and housing. Prior to this Act, the only previous legislation for migrants was the Migrant Health Act.

Since 1964 there has been a gradual and steady trend towards increasing services and programs for migrant families. In 1973 there were approximately 28 agencies providing services to migrants. (See appendix for complete listing.) The majority of these programs dealt with the total family with the major emphasis on the migrant adult. There is, however, one program that deals specifically with the children of migrant families, Public Law 89-10 as amended by PL-89-750 (Elementary-Secondary Education Act). Out of the 28 agencies providing services to migrants, two account for 90% of the funding and services for migrants; namely, Office of Economic Opportunity and the Department of Labor.
Today the OEO supports 97 farmworker programs in 36 states with an appropriation of 27.3 million. The Department of Labor supports 24 projects in 14 states at a funding level of 16,187,920.

These two programs have the following major thrusts:

- Upgrade Jobs
- Provide Alternatives to Farm Work
- Skill Training (Vocational)
- Basic Literacy
- Child Development
- Housing Assistance
INTRODUCTION

One can see that the migrant has suffered and is continually suffering. One must also recognize the fact that since 1964 a great deal has happened.

It is not our intent or role to document the results accumulated since 1964, but mainly to look into the feasibility of establishing a system that will assist those agencies serving migrants in reaching their goals.

The study is an investigation to determine the feasibility of using the existing Migrant Student Record Transfer System to promote continuity of learning for adult migratory farmworkers.

After an initial and careful study of the present MSRTS (Migrant Student Record Transfer System) combined with an analysis of the new system to be implemented, the writer has determined that the MSRTS can be used to promote continuity of learning for adult migratory farmworkers. The feasibility aspects of this system should be determined by those agencies in the field who are directly responsible for programs serving migrant adults. They should evaluate, test and recommend the final form that could be used in enabling them to promote continuity of learning for migrant farmworkers.

Having determined that the MSRTS will work, the writer has determined that a prototype data form must be developed. It must be noted that a distinction must be made concerning the words "system" and "form".

The term "system" refers to the mechanics by which the data on the form is transmitted from location to location. The "form" is the actual information or data to be transferred.

The form to be developed is in no way to be compared with the present form in existence but will be comprised of a totally new data base and will in fact use the same mechanism for transmittal.

The study will be in two major categories:

Part I - Development of a prototype form.

Part II - Technical and administrative aspects for implementation.
Part I will be divided into two areas:

A. Analysis of information which is needed by teachers to plan occupational programs for individual adult migrants.

B. Investigation of other retrieval systems that could supplement the MSRTS.

Part II will be divided into four areas:

A. Technical aspects of utilizing the system will be investigated and summarized.

B. Policies of the administration of the current MSRTS will be considered in regard to expanding the system, maintenance of confidential information, etc.

C. Specific implementation guidelines and a time-line for implementation of the system will be developed.

D. Recommendations and follow up procedures.
MIGRANT STUDENT RECORD TRANSFER SYSTEM

The hypothesis that the MSRTS is feasible will be documented through the presentation of data from three areas; namely, historical data, present operations, program statistics, and computer specifications.

The following information was received from Mr. Winford Miller, Administrator of the MSRTS. Mr. Miller has given full permission to use and reprint any and all the data secured from his offices and staff. The information contained was received by:

- Personal Interviews
- Monthly Reports
- Computer Specifications
- Training Manuals
- Correspondence

HISTORY

In February, 1968, a meeting was called in Phoenix, Arizona, of state directors who were interested in designing a Record Transfer System that could and would expedite migrant children's school and health records. At this meeting a Record Transfer Committee was selected and assigned a task of designing a record that would meet the approval of all forty-eight states. This committee worked diligently at their task and presented all migrant directors a copy of the record they would like to implement at the National Migrant Conference in Denver, May 13-17, 1968.

At this meeting the directors were divided into small groups in order to make a review and analyze all information that would be included on this record. As might be expected, all state directors were not in agreement with what the Committee had come up with. Therefore, a number of changes had to be made in order to come up with the present record that is being used in the system. However, everyone was in full agreement that a system should be built if we were ever going to meet the urgent need of migrant children.

By July, 1968, preliminary specifications had been completed and made ready for the approval of the Record Transfer Committee. The State of California had paid for having the specifications drawn up and made ready for the Committee's
Approval. Approval of these specifications as the system the forty-eight states desired was given by the Committee in Sacramento, California, in October, 1968.

At this point the question arose as to how printing would be handled for enough copies to be sent out for bids to be made on. Texas volunteered to print and send to USOE enough specifications for this proposal. These were sent to USOE in November, 1968, for their review and submission to the states.

At the first national meeting of migrant directors to be held in Washington, D.C., December 4-6, 1968, all state directors voted to accept these specifications without change. At the same meeting the state directors voted to set aside, at the U.S. Office of Education level, $650,000.00 for the implementation of the system. The Record Transfer Committee reported that all new changes and the design work of the new record to be used had been made and that states could begin in the Spring of 1969 to use these records on a manual basis. Every state set up their manual depository and transferred the Uniform Migrant Record by U.S. Mail, knowing full well this would not solve the many problems they had previously been faced with in trying to have records available at the school the same time their migrant children were there.

This manual system was to continue until the automated system had been completed and was ready to start accepting data by automation by the use of teletype machines.

In May, 1969, USOE sent out a RFP with the specifications to all states who were willing to make a bid for the system that must be submitted within a two-week period. Of the several states that were interested in the system only California, New Mexico and Arkansas made a formal bid.

By early June, 1969, Arkansas' proposal was selected and negotiations were begun by and between the Arkansas State Department of Education and the U.S. Office of Education. This original proposal was in the amount of $521,239.00. After the first meeting USOE informed Arkansas there was not enough money available and a number of things should be changed in order to reduce that amount. One of the most underrated and overlooked things that USOE insisted be deleted from the original contract was communication. In other words, everything would be handled by U.S. Mail.

Under USOE directive, Arkansas came home and returned to Washington, D.C., June 9-10, 1969, with a different proposal in which all communications were deleted. This contract was in the amount of $426,150.00. At this meeting
in Washington, D.C., as a former state director of migrant education, Mr. Miller consistently informed USDE and negotiating personnel that this was not the type of contract the state directors wanted to see and insisted as negotiations progressed that communications be left in the development of the system. This was not the case, however, and Arkansas was awarded the contract in July, 1969, to implement the Migrant Record Transfer System without communications.

In negotiations of this contract, personnel, namely, Dr. John Long, Mr. Walters, and Mr. Griffin, were present to explain how they arrived at the amount that would be subcontracted to the University of Arkansas Medical Center. This amount was $324,650.00.

After returning to Arkansas a contract was officially drawn up between the Arkansas State Department of Education and the University of Arkansas Medical Center in the above amount. Work was begun July 1, 1969, to implement what would be an unacceptable system to the Record Transfer Committee and state directors. In September, 1969, the Arkansas State Department of Education, U.S. Office of Education and their monitors, University of Arkansas Medical Center, and the Record Transfer Committee met in the conference room of the State Department of Education for a discussion of the contract that had been awarded to the State of Arkansas. At this meeting the Record Transfer Committee insisted that communications be put back into the system as they and all the state directors had wanted it to be done. This confirmed what Mr. Miller had originally stated in negotiations with the U.S. Office of Education. The U.S. Office of Education agreed this could be done if Arkansas would submit a management plan which would include a communications subsystem.

On the afternoon of September 5, 1969, USOE, with Mr. Vio Rivera, Chief of the Migrant Programs Branch, Dave Lewis, and Dwight Mottet, monitors of the project, Dr. John Long from the University of Arkansas Medical Center, and Mr. Winford Miller met in a meeting whereby procedures and agreements were worked out and their management plan would be used for that fiscal year as the contract.

Due to the change of scope and the increased amount of work that would be included in the contract, the fixed cost price of this contract had to renegotiated. A large amount of equipment had to be placed on order. An entire communications subsystem had to be designed and programmed.
File maintenance and data pre-auditing programs had to be increased to generate detailed teletype error messages that would not have been necessary without communications. Additional output formatting set of programs had to be developed to format teletype output in addition to the printing of the transfer record. In addition to these programs, the associated document volume and complexity increased accordingly. An entire communications network had to be designed. The contract had to be negotiated for all hardware and lines to be used in the communications network. Preliminary material for training teletype operators had to be developed. Many of the subsequent year's implementation activities had to be planned and coordinated to prepare all forty-eight states for their entry into the system the following year.

Even with the increased amount of work that had to be accomplished during this year, USOE informed the State of Arkansas that there was not any more money available and the contract dollar value should stand as originally negotiated by and between the Arkansas State Department of Education and the University of Arkansas Medical Center. After much discussion and deliberation consent was given and work was begun to implement what is found in the new contract.

The subcontract to the University of Arkansas Medical Center was agreed upon to be made in twelve equal installments. All milestones which are found in the contract were met and submitted to USOE in a final report and documented.

In the second year of this contract Arkansas made significant headway in bringing about a fully automated system, and as of May 10, 1971, all forty-eight states had been trained and thirty-three were submitting "live" data with a total of somewhere in the vicinity of 140,000 already on the data base. When all forty-eight states have finished it is believed that there will be in excess of 300,000 migrant children being served under the contract.

The contract, as it now exists, is a contract for all forty-eight states, with Arkansas only being the overseer for their monies. By this it is meant that each state contributes a portion of their allocation to be set aside at the national level.

Before going into the present status of the MSRTS, it would be very advantageous from a layman's point of view to present additional information concerning the system. This will give
SERVICES PROVIDED BY MSRTS

1. Yearly contract proposal development, negotiation and execution.
2. On-site visits to terminals to give needed assistance.
3. Daily monitoring of all terminals for volume and efficiency control.
4. All computer services.
5. Blank and printed student Transfer Record forms.
6. Mailing of student Transfer Record forms to schools.
7. A recommended total system operation.
8. Develops and provides training materials for states.
9. Develops and provides operational manuals for terminal operators and school users.
10. Monthly, quarterly and annual activity reports to USOE and the states.
11. Training for all terminal operators and back-up terminal operators and other state personnel.
12. Works with USOE and state agencies on operational development problems related to MSRTS.
13. In-service training for MSRTS Staff.
14. Monitors users' needs and modifies System accordingly with USOE approval.

BENEFITS OF MSRTS

1. Rapid transmittal of pertinent general, health and academic student data for rapid programming for students.
2. Information for placement and care of children:
   A. School attendance patterns
   B. Parent/guardian relationship to student
   C. Kinds of health screening exam(s) administered and when
   D. Health screening findings and subsequent treatments (if any)
   E. Urgent health conditions
   F. Status of treatment procedures
   G. Inoculations administered and needed
   H. Students' chronic health conditions
   I. Standardized test(s) administered, date and score(s)
   J. Special educational programs of student involvement. Encourages program continuity.

3. Encouragement for more attention to program development.

4. Encourages positive attitudinal changes toward problems and needs of migrant children.

5. One agency responsible for accumulation, storage and dissemination of pertinent data on seasonal farm migrant children.

6. Provides data for establishing an empirical method of distributing funds to states for student programs and services.

7. Provides a vehicle for interstate cooperation in the education of agricultural migrant children.

8. Provide statistics to USOE and the states for program planning and budgeting and for better understanding of the nature of farm migrancy.

PRESENT STATUS

Before getting into the present status, a few other facts should be mentioned which strengthen the standpoint of the usability of this system for migrant adults.

As stated, this system is used at the present time only for migrant children. However, one must not lose sight of the fact that these children are traveling with their parents who are the adult migrant farmworkers. The Title 1 Migrant Program is presently operating in forty-eight states. This means that there is a Migrant Education Program in every state that is operating one of the programs for OEO or DOL.

Since there are forty-eight states that operate a Title 1 Migrant Program; there are a minimum of forty-eight terminals feeding the main computer with information. Actually there are 106 terminals, each one having one or two operators. (See appendix for Terminal Operator Directory.)

It is quite evident that the mechanics are in existence for the utilization of the present system to serve migrant adults. It could be feasible to use the existing terminals; add terminals at present locations, or provide new terminals at designated locations where Adult Migrant Programs are operating. Questions such as this would have to be answered and worked out among the various agencies that would be involved.

Having stated the historical background of the system and the present status in terms of services, benefits, and statistics that support why this system can be used for migrant adults, the writer feels that it would be advantageous to characterize the system and the process by which this system functions. This process is best explained by Mr. David A. Lewis in a reprint from the "Journal of Systems Management," Volume 21, No. 10; October, 1970.

The hardware, as explained by Mr. Lewis, used in this system consists of a large 266,000,000 character capacity disc file, a 96K work core, a 3316 Communications Driver, a 200 User Terminal, and high and low speed terminals. The system is highly sophisticated utilizing disc storage.
for rapid information retrieval, tape storage for inactive student records; a telecommunications subsystem of telephone lines and terminals for effective response to critical data requests; terminals for error messages feedback and additional provisions for manual mailout of the complete student record.

Upon entering a school for the first time, a student's test, inoculation and other critical records are collected. When the student transfers, these records are forwarded to the data center by mail or teletype for inclusion in the national data bank. When the student enters a new school and does not have withdrawal records from a previous school, administrators mail or teletype a request for the student's records from the data center.

A copy of the critical information is sent to the school and the student is enrolled. The school is then quickly aware of further tests which must be administered, health needs, educational level, etc. All additional information gathered by this school is sent to the data center to update the student's file. Copies of the complete printed student record are kept in the student folder, sent to the state cleaning agency, and given to the student upon withdrawal from a school.

The information disseminated from the Migrant Data Bank at Little Rock, Arkansas, will be available to the participating state and local educational agencies. State educational agencies will request data from the center and will be responsible for safeguarding the information received to protect personal privacy. State educational agencies will use the same regulations and procedures followed in disseminating other academic and school health records information in their respective states. In addition, many precautionary steps are being built into the programs to protect the privacy of the data base.

All files in the system will have an access security code which must be known in order to have access to the files. This will prevent any unauthorized programmers from having access to the file.

Each transaction must pass a key data error check or it will be rejected. Fields specified as key data are terminal number, school number, student's first and last name, sex, and date of birth. These fields are checked to see if they are valid and also to see if they match the data on the student's data base record. The school number is checked against the terminal number to verify that the school actually belongs on that terminal.
A transaction will be rejected if the submitting school is not the one the student is presently enrolled in, or if the school doesn't furnish the correct enrollment and withdrawal dates. Enrollments and generations are exceptions to this.

In addition to providing personal information to identify the child and parents, the data bank has health records, testing information, academic characteristics, and special interests and abilities.

The migrant child and his parents or guardians are allowed to review the data on his transfer record at any time. When a child withdraws from a school he may receive a copy of his Uniform Transfer Record. State educational agencies will use the same safeguards, regulations, and procedures followed in disseminating other academic and school records in their respective states. No additional information beyond the data on the record will be issued.

NEW COMPUTER SYSTEM

Since 1968, the Migrant Education Program has gone through unprecedented changes. It has also proved itself as a working success. Paralleled with the educational changes are the changes that are taking place in our technology. As had been observed previously, the MSRTS is a merge of education and technology consigned to serve the migrant student.

Due to the changes in education and technology, the MSRTS has been forced to take its first evolutionary step. This step has necessitated that the system be changed to meet the needs that have emerged over the past four years.

Following is a description which will outline the changing needs and how, through explanation and examples, this new computer system will in fact address itself to these changing needs. The information presented was taken from a 212 page document that was an Invitation to Bid on the new computer system.

The specifications in this document are of a highly technical nature and could be much better understood by individuals knowledgeable in the computer field. What has been done is to take the highlights and summaries of these specifications. It is recommended that anyone who is interested in determining the full capabilities of this system should examine this document more carefully.
The new system will have the capabilities to handle a great deal more information. The changes run the gamut from commonplace to profound. Listed below are some of the changes that have taken place:

1. Enriching or enlarging a single field of data.
2. Elimination of data which is no longer useful.
3. Complete changes in the concepts for the use of academic data.
4. Reduction of terminal operators' work-load at peak enrollment and withdrawal times.
5. The ability to handle the state's programs on a more precise and individual basis. This deals with the relationship of program objectives and the techniques for reaching objectives.
6. The elimination of a single, fixed record. It can now accommodate changing user needs more readily and economically.

The changes that have taken place are both in computer hardware and software as well as internal processing. The software will be able to handle variable length records, provide a data management capability, and integrate communications with the operating system. The importance of these areas are discussed in the following:

**Variable length records**

It has been confirmed that the amount and depth of information required for migrant students varies considerably among individual students. For example, for some migrant students there is a need to store and make available to proper authorities an immense amount of health data; whereas, for the majority of students, the amount of health data is not nearly so extensive.

A quick scan of Figure 1 following will reveal that such a situation can only be met by a variable length record. A fixed length record to meet all migrant student health or other data needs would require peripheral storage in excess of the economic realities within which the System must function.
Data management

The ability to manage the data relatively easily within the computer makes it possible to store and retrieve data more in response to users' needs rather than in response to the computer's inner-mechanics of data handling.
CHARACTERISTICS OF A FIXED LENGTH RECORD:

- Each record is of a fixed length
- Space is reserved for data whether it is present or not
- Expansion of the data base to add "new" items of data affects each record on data base

CHARACTERISTICS OF A VARIABLE LENGTH RECORD:

- Each record can vary in length from other records
- Record length is determined by the amount of data placed into a student's record
- Expansion of the data base to add "new" items of data affects only those student records into which the "new" data will be placed
For illustrative purposes, the writer is enclosing sample printouts of the kinds and manner in which data will be displayed on the new form.

Figure 2 - Attendance Format

Figure 3 - Health Information--Treatment of Chronic Conditions

Figure 4 - Program Participation Data

Figure 5 - Special Interests Data

Figure 6 - Test Data Format Printout

Figure 7 - Definition of Criterion Program

Figure 8 - Technique for Providing Skill Lists to States

The current record does not show the amount or intensity of a student's past program participation. For this reason, the current design proposes that, at withdrawal, the school submit the following items of information concerning program participation:

A. Type of program

B. Approximate hours per week of participation

C. Number of weeks of participation

This data will affect the student's data base record in two ways as follows:

1. It will be added to a record program participation hours for all programs being accumulated in his record.

2. It will be entered as his program participation data for his most recent school. (See figure 4 for a representation).

Another important feature is the use of special interest data. The primary purpose of the special interest data is as follows:

A. To give the teacher immediate knowledge of a subject or activity of real interest to the child so that she may establish communications with the student.
<table>
<thead>
<tr>
<th>STATE</th>
<th>DAYS ENROLLED</th>
<th>DAYS PRESENT</th>
<th>CUMULATIVE (LESS PRESENT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AZ</td>
<td>47</td>
<td>39</td>
<td>83</td>
</tr>
<tr>
<td>CA</td>
<td>20</td>
<td>18</td>
<td>90</td>
</tr>
<tr>
<td>CA</td>
<td>30</td>
<td>22</td>
<td>73</td>
</tr>
<tr>
<td>CA</td>
<td></td>
<td></td>
<td>97</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>79</td>
</tr>
</tbody>
</table>
FIGURE 3

HEALTH INFORMATION

TREATMENT OF CHRONIC CONDITIONS

1

CHRONIC CONDITIONS NOTED ON TRANSFER RECORD. NAMES OF DRUGS TO WHICH STUDENT IS SENSITIVE ARE LISTED ON TRANSFER RECORD. EXISTENCE OF ADDITIONAL INFORMATION AT DATABASE IS FLAGGED BY SPECIAL SYMBOL.

TRANSFER RECORDS

642896 SMITH, JOHNNY
CHRONIC CONDITIONS
DRUG SENSITIVITY
PENICILLIN
ANEMIA

354178 ORTIZ, JUAN
CHRONIC CONDITIONS
DIABETES *

2

SCHOOL REQUESTS DETAILS ON CHRONIC CONDITIONS AS NEEDED.

3

DETAILED INFORMATION RETRIEVED AND SENT TO SCHOOL.

DATA BASE (PERMANENT STORAGE)

CHRONIC CONDITION INFO.

642896/DRUG SENSITIVITY, DR. ROBT. ALVAREZ, 1492 W. 4th. ST., FRESNO, CALIF., CATASTROPHIC SENSITIVITY TO

354178/DIABETES: PATIENT HAS BEEN UNDER DRUG THERAPY CONSISTING OF ............ SINCE 06-04-70. CONTACT DR. LEE, 1702 PALMETTO CT., LCDI, CALIF.
B. To inform the teacher so that she may take whatever steps possible to allow, assist, and encourage the student to pursue and develop his or her special interests.

To fulfill the above purposes, the System will do the following.

STORAGE OF SPECIAL INTEREST DATA

To the data maintained on each school in the school table, the System will permit the user to record those special interests for which the school has the necessary resources and available personnel that would make it possible for students to pursue.

A coded list of special interests will be established and maintained in the same manner as the test name code table is maintained.

When a student is observed to possess a special interest, different from those already appearing on the Transfer Record, that interest will be reported to the Depository. Should that particular interest already be indicated in that student's data base record, then his record will be unaltered. Should, however, the newly reported special interest be different from those already listed in the student's record, then the new interest will be added to the student's record. Special interests reported will remain a permanent part of the student's record and will be deleted only by specific delete transactions which result from a student's loss of interest. (See figure 5 for a representation of the special interest data form.)

Probably the most unique factor that this system will have will be in the use of criterion information or scores. The use of criterion information has gained a great deal of recognition for use throughout the migrant program. The concept of criterion scores, especially in the area of vocational education, has great implications.

A system similar to this will be explained in Part I, Section B, of this document (Project CAREER). It is for this purpose that the writer is giving a comprehensive picture of the use of criterion scores and their use on the new form.

Due to the increasing development and use of criterion programs, it has become mandatory that the MSRTS have the capabilities to store, process, and retrieve data relating to these programs.
FIGURE 5
SPECIAL INTERESTS DATA

SCHOOL TABLE
SCHOOL ID ---- XXXXX
SPECIAL INTEREST RESOURCES 02, 06, 09

CODE TABLE
01 ---- MUSIC (BAND)
02 ---- MUSIC (OTHER)
03 ---- SCULPTURE
04 ---- WOOD CARVING
06 ---- AUTO MECH
09 ---- DRAFTING

MAINTAINED IN SAME MANNER AS TEST TABLE

STUDENT RECORD
SPECIAL INTERESTS/POTENTIAL
01, 02, 03, 04, 05, 06, 09, 27

TRANSFER RECORD
SPECIAL INTERESTS FOR WHICH SCHOOL HAS RESOURCES
06 ---- AUTO MECH
09 ---- DRAFTING

TELETYPewriter PRINTOUT
SPECIAL INTEREST LIST
BAND
AUTO MECH
DRAFTING
TENNIS
<table>
<thead>
<tr>
<th>ITEM</th>
<th>TEST CODE</th>
<th>TEST NAME</th>
<th>DATE/ADMIN</th>
<th>FORM</th>
<th>LEVEL</th>
<th>SCORE</th>
<th>TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>#CH</td>
<td>5</td>
<td>12</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXAMPLES</td>
<td>020-10</td>
<td>DIAG READ</td>
<td>08-10-71</td>
<td>A</td>
<td>1</td>
<td>30.0</td>
<td>RS</td>
</tr>
<tr>
<td></td>
<td>510-10</td>
<td>CRIT READ</td>
<td>03-17-71</td>
<td>-</td>
<td>-</td>
<td>57.79</td>
<td>CR</td>
</tr>
<tr>
<td></td>
<td>309-08</td>
<td>THRNDK READ</td>
<td>05-10-71</td>
<td>R</td>
<td>2</td>
<td>4.1</td>
<td>GE</td>
</tr>
<tr>
<td></td>
<td>116-05</td>
<td>COOPER PRIM MATH</td>
<td>06-11-71</td>
<td>Q</td>
<td>2</td>
<td>26.0</td>
<td>RS</td>
</tr>
<tr>
<td></td>
<td>217-00</td>
<td>PRESCH INVTRY</td>
<td>08-01-71</td>
<td>I</td>
<td>0</td>
<td>49.0</td>
<td>RS</td>
</tr>
<tr>
<td></td>
<td>216-14</td>
<td>WKLY READER</td>
<td>04-16-71</td>
<td>3</td>
<td>2</td>
<td>27.0</td>
<td>RS</td>
</tr>
</tbody>
</table>
Criterion program data can be handled entirely within the format (see figure 6) proposed for other test data.

CHARACTERISTICS OF CRITERION PROGRAM DATA

Criterion programs consist largely of three (3) components; two of which are optional. The heart of any criterion program is, as the name implies, a set of criterion skills. Optionals are:

a) the tests to determine which skills the subject has acquired and,
b) the instructional materials, and methodology used to assist the student in acquiring the skills.

One of the reasons for the growing acceptance of criterion programs is that a) and/or b) (above) are independent of the criterion skills. Thus, schools may select their preferred tests, instructional materials, and methodologies yet, preserve all the value of continuity of education.

CRITERION SKILLS TAXONOMY

Figure 7 demonstrates the major attributes or items of information making up a criterion skill set.

Skills comprising a set of behavior (e.g., reading) are described in a list by level and major sub-subject area (e.g., phonology). The skills are said to be inter-dependent in that acquisition of one skill is dependent upon the prior acquisition of some other skill.

The "scores" associated with a criterion program usually exist at an ordinal level of measurement. Specifically, by observing a pair of criteria scores at the same level, one may tell whether the student, given one score has acquired "more" or "less" skills than the student assigned the other score. In other words, the relations =, ≠, > and < hold.
WHAT DO WE MEAN BY CRITERION PROGRAM?

ITEM TELLS

NAME OF PROGRAM — SUBJECT AREA
(READING, MATH, ETC.)

LEVEL —— GRADE BRACKET
(PRESCHOOL, PRIMARY, INTERMEDIATE, JR. HIGH, ETC.)

SUB-AREA ——— SUB-SUBJECT AREA

IF READING

MAJOR SKILL —— OBJECTIVE SKILL
(READING: "CLASSIFYING OBJECT PROPERTIES")

MINOR SKILL —— PROCESS SKILLS COMPRISING OBJECTIVE SKILL
(IDENTIFYING WORDS FOR WEIGHT, SOUND, ETC.)
A major theoretic property of criterion programs is the assumption of inter-skill ordered dependency.

For example: The "score" (in a criterion reading program) 5 4 7 1 9 means that the student is at level 5, in sub-area 4 and has gained all of the major skills up to #7 and has mastered sub-skills 1-#8 of major skill #7.
PROBLEM WITH ASSUMPTION OF INTER-SKILL DEPENDENCY

INTER-SKILL ORDERED DEPENDENCY MAY OR MAY NOT BE TRUE EMPIRICALLY: OR, HIERARCHIES OF INTER-SKILL DEPENDENCIES MAY CHANGE THROUGH KNOWLEDGE GAINED BY APPLICATION.

THEREFORE:

THE MSRRTS SHOULD BE ABLE TO ACCOMMODATE SCORE KEEPING THAT REFLECTS DEVIATIONS FROM THEORETICAL SKILLS DEPENDENCIES.

EXAMPLE: INSTEAD OF CARRYING THE SCORE 5 4 7 1 9 ONLY, THE SYSTEM WOULD CARRY THE FOLLOWING:

\[
\begin{bmatrix}
5 & 4 & 7 & 1 & 9 \\
7 & 17 \\
7 & 21 \\
\end{bmatrix}
\]

WHICH MEAN THAT THE STUDENT HAS ACQUIRED SUB-SKILL 1-18 OF MAJOR SKILL 7 EXCEPT SUB-SKILLS 17 & 15 AND HAS IN ADDITION ACQUIRED SUB-SKILL 21 OF MAJOR SKILL 7.
THE SYSTEM WILL ALLOW TEACHERS TO RECORD SUBJECTIVE JUDGMENTS OF SKILLS ACQUISITION WHERE NO CRITERION TESTS ARE AVAILABLE.

EXAMPLES: 5 4 7 196

5 4 7 20s

5 4 7 21s

THIS MEANS THAT 5 4 7 196 WAS ARRIVED AT USING A CRITERION TEST.

WHEREAS 5 4 7 20s & 5 4 7 21s WERE ASSIGNED BY SUBJECTIVE JUDGMENT (PERHAPS BASED ON TESTS OTHER THAN CRITERION TESTS).

THUS, A STUDENT GOING TO A STATE WHICH DOES NOT OPERATE A CRITERION PROGRAM IDENTICAL TO THE ONE HE WAS IN WHEN HE LEFT HIS PREVIOUS STATE MAY CONTINUE THE PROGRAM PROVIDED THE RECEIVING STATE HAS ACCESS TO HIS CRITERION SCORES AND THE REFERENT SKILL LIST.

A TECHNIQUE FOR PROVIDING SKILL LISTS TO ALL STATES IS SKETCHED IN FIGURE 8.
FIGURE 8
TECHNIQUE FOR PROVIDING SKILL LISTS TO STATES

A. STATE ADOPTS CRITERION PROGRAM
   SKILL LIST & CODE
   CENTRAL CONTROL AGENCY
   DISTRIBUTION TO ALL PROJECT SCHOOLS

B. STATE SUBMITS SCORES TO STUDENT RECORD
   DEPOSITORY

SCHOOL
THAT DOES NOT USE THIS PARTICULAR PROGRAM
1. USES SKILL LIST TO ASCERTAIN STUDENT'S STATUS
2. USES SKILL LIST (S) TO REPORT CHANGES IN STUDENT STATUS

SCHOOL
THAT DOES USE CRITERION PROGRAM
1. USES SCORES FROM DATA BASE TO ASCERTAIN STUDENT STATUS
2. USES CRITERION TESTS TO REPORT CHANGES IN STUDENT STATUS
The reader has been given a total picture of the MSRTS from an historical viewpoint, from its present operation, to a new computer system that will operate in the near future. The information contained in this section supports the hypothesis that this system is in fact feasible for use in the development of a record transfer system for adult migrants.

Besides the information contained herewith, the writer has spent a great deal of time with Mr. Joe Miller, MSRTS Administrator, and Mr. Gene Hackett, Computer Consultant, explaining the purpose of this study. It is their opinion that the system about to be implemented can in fact, with very few modifications, be used for migrant adults.
PART I

DEVELOPMENT OF A PROTOTYPE FORM
This section will deal with analysis of the information that will be used in the development of a final form. It will be divided into two main categories; namely,

A. Analysis of the information which is needed by teachers to plan occupational programs for individual adult migrants.

B. Investigation of other retrieval systems that could supplement the MSRTS.

The analysis of information will be subdivided into two categories:

1. Characteristics representing the adult migrant population as a group.

2. Individual characteristics of the adult migrant population.

In describing the characteristics of the adult migrant population as a group, the writer has focused in on the following indicators:

- Adult Learning Characteristics
- Characteristics of a Disadvantaged Population
- Sociological and Psychological Information about Disadvantaged Populations
- Elements of Program Planning and Development
- Description of Positive Learning Environment
- Effects of Teacher Attitudes and Perceptions

Information concerning the individual learner will be in two major categories - Statistical and Programmatic. It is this information along with the information in Part B that will comprise the substance of the actual physical form.

The statistical information will deal with such things as name, race, poverty status, health, etc. The programmatic information will be cumulative information dealing with kinds and types of educational programs, courses, training programs, basic education data, etc.

A great deal of the information found in the description of the population will be subjective or objective opinions. One should be very careful in how this information is used in reference to the individual. It is a part of this study so as to acquaint the reader with an overview that will give him a comprehensive picture of the adult migrant population.
In the development of information concerning the individual learner, the writer was careful not to include subjective or objective opinions dealing with the behavior, character, morals, habits, value system, politics, organizational affiliations, or any other aspect of the adult migrant's personal life.

Section B deals with the analysis of information which would enable other information systems to function at a secondary level and will focus on two systems; namely, the Job Bank (computer matching system to bring people and jobs together) and Project CAREER (computerization of individual performances that make up a job).

Before arriving at the conclusion that these two systems best complement the MSRTS, the writer investigated the following systems:

- Computerized Vocational Information System - Illinois
- Career Information System - Oregon
- Computerized Occupational Information
- Educational and Career Exploration System (IBM)
- System of Interactive Guidance and Information - ETS
- Vocational Information Through Computer Systems - Penna.

Due to the scope of this study and time constraints, the study was limited to these eight information systems. For the individual who would like to secure more information concerning computer systems, the writer recommends the following publication, "U. S. Office of Education Support of Computer Projects 1965-1971," by Lawrence P. Grayson and Janet B. Robbins. This document lists over 500 computer projects. It gives complete details of the project, the principal investigator and institution, the amount of funding, and the year in which the project took place. This document might also be used if the determination is given to finally implement an Adult Migrant Record Transfer System.
A. Analysis of the information which is needed by teachers to plan occupational programs for individual adult migrants.

1. Characteristics representing the adult migrant population as a group.

In order to understand the problems of the migrant, it is absolutely necessary to explore the various characteristics of the total population which society has branded as being disadvantaged.

It is safe to say that any identifiable characteristic of a disadvantaged population would most definitely be found within the migrant population since this group is at the bottom of the ladder.

According to the rules and regulations of the U. S. Office of Education, the term disadvantaged includes: "Persons whose needs for such programs or services result from poverty, neglect, delinquency, or cultural or linguistic isolation from the community at large but does not include the physically or mentally handicapped persons."

This is just one attempt to define what is meant by the term "disadvantaged." There is no one definition of the disadvantaged that will be universally accepted. From a broader base, it would be beneficial to list additional definitions as derived from Federal Agency Directives.

Listed are some of the characteristics that the federal government uses in defining the term disadvantaged:

- member of a poor family, and
- unemployed, under-employed, or hindered from seeking work, and
- has one of the following characteristics:
  - school dropout, under 22 years of age, minority member, 45 years of age or over, handicapped.

There are also five basic combinations of the definition:

- Poor school dropout without suitable employment.
- Poor minority member without suitable employment.
- Poor youth without suitable employment.
- Poor older worker without suitable employment.
- Poor handicapped worker without suitable employment.
As mentioned previously, the writer has focused on certain indicators or descriptors of disadvantaged populations. In identifying this population, the writer has divided these descriptors into two parts; namely, the information directly concerning the disadvantaged person, and secondly, factors which indirectly affect the disadvantaged person (Example: the teacher, the program, the environment).

The problems of the disadvantaged are complex. They stem from a whole host of areas; such as; the family, the community, health, housing, etc. The problems that arise from the various conflicts in community and family life are not simple unidimensional ones that could be solved quickly. Many factors have been influencing these people for years, and one short training program or even a job is not likely to erase their effects.

Since great variability is found among the disadvantaged in performance, background, experience, aspirations, and personality maturity, it cannot be assumed that any one approach will work with all individuals; that any one type of material or instructor will be most suitable for everyone.

The following information is a synopsis of subjective opinions concerning individuals labeled as disadvantaged in various training programs throughout the country:

For the most part, one of the key factors that identifies the disadvantaged is his extreme poverty. He has a long history of failure and frustration and his failures stem from unfulfilled promises which automatically makes him suspicious of any and all attempts made to rectify his position in life. With this frame of mind it is very difficult for him to see any relevance, especially in terms of long-range goals. Even if they had the ability to identify the goal, they have very little experience in planning.

In a report dealing with the JOBS Now of Chicago (6), the people that it dealt with were very insecure and had a lack of self-confidence. This lack of security and self-confidence is extremely important, especially when it comes down to the point when they have to sell themselves in the job market. This lack of confidence has a tendency to manifest itself in one of two ways; the individual is usually either aggressive and has a dominating attitude, or is extremely lethargic.
They also have a fear of the unknown, and most of the programs being developed are in fact taking them into an area of which they know little about. Being thrust into the environment has caused tremendous pressure, brought about by the rapid change in both the economic and skill structure. Lacking the skills, the disadvantaged finds it most difficult to cope with his problems and become self-sufficient.

They have great difficulty succeeding in conventional educational settings, which brings about frustration and disillusionment. They have low level reading ability, limited formal vocabulary, poor speech construction, and relative slowness in performing intellectual or verbal tasks. Considered misfits or disrupters, they exhibit hostility and unruliness, and what normally follows is dropout. At this point the dropout is physical; but prior to this, they have dropped out probably two or three years before this psychologically.

In one intercity project (6), it was estimated that 50% of the job-ready trainees could not read or write. This was so in spite of the fact that they had undergone a formal remedial education program.

The disadvantaged experiences difficulty prior to involvement in any type of training program. As mentioned, he has great difficulty during training programs; and many times the culmination of all the prior frustration will manifest itself to its fullest when the individual goes out into the world of work.

Their experience in the world of work, and its values is in many instances negative. Seiler reports (47) in a survey of individuals in a work situation that had been involved in the training programs that they know little about the general culture of our society, what modern work is like, and how to move self-confidently over the long geographic and social distances needed to get many jobs.

The ordinary work-a-day world of office, factory, and shop were alien to them; and they in turn were alien to it. They rarely had familiarity with the content, tensions, or demands of steady wage work. They had little opportunity to observe work settings or learn work habits.

While on the job there were certain things that typified the actions of the disadvantaged. A profile of these is as follows:

They were not reliable and would not show up for job interviews. They were frequently late for work and absent
without explanation. They dressed poorly and lacked personal hygiene. They were impulsive and were hostile and unfriendly to co-workers. They were reluctant to accept or profit by supervision or criticism. They were not interested or motivated to train for job skills in the belief that jobs would not be open to them. They were deficient in their knowledge about jobs in the world of work. As a result of these, many never held a full-time job for more than a few weeks.

These indicators were labels' put on this population; and in the estimation of the writer, they were extremely subjective. The intent here is not to pass judgment on the validity of these indicators, but merely to research the literature to determine the perceptions of those individuals working directly with this population.

As mentioned, the migrant population would, in varying degrees, be labeled as having the same types of characteristics.

The migrant population is made up of many cultures. The various cultures within the migrant stream differ greatly from one another. In general (49), all the cultures within the migrant stream definitely conflict with the values of the middle class American society.

One view of migrants is that the root cause for most of their problems is their extreme level of poverty. Because of their extreme poverty, they have a limited number of opportunities for free decisions.

One of the strongest attitudinal characteristics (8) of the migrant is his fear of want. The fear of want helps to explain most of the other attitudes of the farmworker. Also, their preoccupation with the present can be easily explained in terms of their lack of economic potential. Similarly, their dissatisfaction with life is the product of their extreme poverty.

A study dealing with the educational needs of the adult agricultural migrant in the southwest (49) identified twelve common characteristics of migrants:

1. They are family centered.
2. They are independent.
3. They follow many Spanish traditions.
4. They have present-time orientation.
5. They have definite fears.
6. They lack knowledge of community resources.
7. They have mixed feelings about education.
8. They are timid in action.
9. They are not very religious.
10. They are ethnocentric.
11. They differ on discrimination.
12. They are almost entirely work oriented.

Many of the things that our society takes for granted; namely, religion, government, and education, were basically an abstraction to these people. As a group, they had no preoccupation with religion. In terms of government, the majority seemed to have disassociated themselves almost completely from the government. In general, they seemed to be ignorant of the governmental structure. By their expressions, they seemed to think of the government as a personality.

Initially the adult migrant sees no reward resulting from further education. Due to the lack of understanding of the above facts coupled with minimal educational and vocational skills, they possess inadequate tools for the understanding or adjusting to today's modern and dynamic society.

It is rather common knowledge that these people possess very little formal education. One survey in particular (49) found that only 17% of the adults had completed any formal schooling whatsoever.

It has been pointed out that the disadvantaged experience great difficulties in acquiring, adjusting, and advancing in any type of employment. The farmworker in the past has had to adjust alone against bewildering and frustrating obstacles. He has very limited knowledge of formal channels for job finding and usually makes poor use of the informal channels.

When the migrants were able to secure jobs, many had problems in keeping that job. In a survey of unemployed among migrants, it was determined that most of the difficulties did not arise from skill deficiencies but rather from difficulties concerning those areas of a job not concerned with skills.
As has been pointed out by the writer, the research shows that most of the problems of the migrant stem from poverty. After an analysis of a random sample of proposals for programs for adult migrants (7, 8, 9, 10, and 11) the following areas have been identified as being absolutely essential in attempting to alleviate the poverty conditions of the migrant:

1. The problem of illiteracy.
2. The problem of undereducation.
3. The problem of underdevelopment of human and natural resources.
4. The problem of lack of a sense of community and lack of initiative.
5. The problem of lack of vocational skills.
6. The problem of inadequate housing.
7. The problem of outdated farming techniques.
8. The problem of injustices in the legal system affecting farmworkers.

The indicators presented above mainly fall into the socio-psychological domain. There are many other characteristics that could be listed, but they would be synonymous or metaphoric to those already presented.

The characteristics just presented are in no way to be viewed as facts concerning the migrant. They are all subjective opinions of individuals coming into contact with disadvantaged populations. They are all perceptions of how one viewed the disadvantaged in relationship to their particular backgrounds. It is for this reason that the writer will not include these within the content of the record form. Most of the research in identifying these characteristics listed only those negative elements of this group which when viewed by those individuals responsible for developing training programs cannot help but to prejudice their viewpoint and how they might handle that particular person or group.

It is the opinion of the writer that the migrant comes to the learning environment as a person no different from that of ourselves. The only difference being that his background experiences are somewhat different from ours. His past experiences are inalterable, and it will absolutely do no good to recount his past failures. The writer believes that the only thing that should be brought out are his successes. Knowing his successes and knowing
the requirements is all that is needed to develop a training program. Accepting the fact that the migrant comes to a program as a person, it is the prime purpose of the program developers to set an environment (physical, teacher, program, etc.) that will enable this individual to have the tools that will enable him to leave the migrant stream if he so desires.

The research indicates that of the three areas of the teacher, environment, and program, the teacher or individual coming into contact with the migrant for instruction purposes will in fact have the greatest impact on the migrant and how much he will learn or achieve.

There are literally thousands (21) of acts, conditions, and processes that might influence approach or avoidance behaviors of the learner. These acts, conditions, and processes are usually found in four distinct areas: namely: the instructor, the instructional materials and devices, the physical environment, and the administrative rules and policies. The writer will focus on the first three and will give major emphasis to the instructor.

The information will deal mainly with the attitudes and qualifications of teachers, descriptions of environments conducive to learning, and essential elements of good programs. This will be followed by an outline dealing with those universal areas that are essential for good program and project planning and implementation. This information is taken from documents secured from the Department of Labor and the O.E.O.

Glasser points out in his two books Schools Without Failure and Reality Therapy that the only way instruction will have any significant impact on the learner is that the teacher create an environment where the student can feel some type of love towards that instructor. (Love not in the traditional, physical type contact, but rather some type of affection or affinity towards each other.)

Throughout the research of this project, the writer has found that those dealing with the disadvantaged also felt that this is an essential element. The wording however was somewhat different; such as, the primary qualification for teaching the disadvantaged is the ability to relate to the trainees. (47). This ability is more a question of attitude and communication skills than teaching experience. To be effective as an instructor, one must build a positive interpersonal relationship in the role of counselor and friend. Understanding and ability to relate (35) are more significant in dealing with the disadvantaged than either knowledge of subject matter or pedagogical training and teaching methods. Credentials in fact appear to be less important than commitment.
In short, the teacher should be a secure, mature personality that is primarily person-centered and student-oriented and able to earn the confidence of the student.

Many feel (48) that we should not be so pre-occupied with good materials and student motivation; but we should concentrate on securing quality instruction. When the quality instruction is here, this will automatically generate other ingredients; namely, good materials and student motivation.

The successful instructor must be able to (13):

1. Demonstrate his respect and liking for his students and make known his belief in their latent abilities.

2. Communicate his respect by setting high but reachable expectations by his impartial and consistent firmness and honesty, and by his warm personal regard for each individual.

3. See his task as preparing his students to make appropriate choices among potentially available alternatives.

4. Be self-evaluative; continuing to learn by regularly checking with trainees to discover whether teaching or counseling has met their needs.

5. Be self-supervising; able to develop a variety of improved ways of getting the job done.

He must also have the following characteristics:

1. A willingness to listen and to try to understand what trainees say.

2. An openness to all aspects of a situation.

3. A sensitivity to recognize the strong feelings of trainees.

4. A skill in empathizing, in imagining what the other person's situation is like.
In addition, if the instructor is interested in creating a climate for learning, he must also:

1. Demonstrate consistently that he expects students to achieve.
2. Provide for each learner an opportunity for success.
3. Reward and thus reinforce successful learning.
4. Consider the ideas and viewpoints of students as it involves them when planning learning activities.
5. Show consideration when dealing with student questions.
6. Deal with unusual behavior or seemingly irrelevant questions in an open, fair way.

Another viewpoint is that the successful teacher must be able to exhibit these characteristics:

1. Understand the unique personal, family, community, social and economic problems of this group.
2. Minimize cultural and ethnic differences by avoiding conspicuous style of dress, inappropriate speech patterns, or condescending attitudes.
3. Communicate with the disadvantaged by utilizing simple, direct vocabulary, without being patronizing; making genuine identification with the needs of the student; avoiding sarcastic, judgmental or moralistic tones; and taking a positive, optimistic and encouraging approach.
4. Cooperate with teachers, counselors and other professionals in dealing with the reluctance, fears and ambivalences of the disadvantaged. The goal is to aid the student to gain confidence in his ability to learn, achieve, and experience success.
5. Adjust teaching approaches to the style and rate of learning of the disadvantaged by using step-by-step targets, stressing the concrete and literal rather than the theoretical and abstract, and pacing his progress at the student's abilities while not underestimating their potential.
Many are duplications; many are different ways of saying the same thing. The evidence overwhelmingly points to the fact that teacher attitudes, emotions, and feelings are paramount in creating the proper environment. It is too bad that the record form when transmitted could not also indicate the teacher's attitude, emotions and perceptions of the learner. This might give a clue as to the reasons for success or failure indicated on the form.

To a great extent the environmental conditions are set by the attitude of the instructor. It is not our intent to evaluate physical facilities in terms of size, layout, etc. We are concerned with an environment which will be made up mainly of the teacher's attitudes and the type of educational program presented.

The primary thing to be considered is that the information presented must be relevant to the student. This relevance must not be stated, but it must be demonstrated. The program information presented should not involve the use of memory, but should be strictly involved in getting the student to think to the maximum. Under ideal conditions, the program should reflect that the students are thinking only in terms of relevant material.

The following are some factors to be considered in how people learn (13):

1. Human beings learn by different experiences. (By doing and not just by listening.)

2. More learning is likely to take place when information is presented in several ways. (The student should see it, draw it, and use it, and not just hear about it.)

3. People learn at different rates. (Observe which student learns quickly and which learns slowly and be sure that instruction meets the needs of both.)

4. It is easier to remember information which is presented for a limited time on several occasions than information presented for a long time once. (Teach the new idea for a few minutes on many different days.)

5. Learning increases as a greater number of the senses are involved, and sight is a much more efficient source of learning than hearing. (Talk less and show more.)
Having covered the major characteristics of disadvantaged and migrant populations in the areas of teacher attitudes, environment conducive to learning, and essential elements of good programs, the writer will now give an outline of universal areas that are essential to good program and project planning and implementation taken from the Department of Labor and Office of Economic Opportunity.

UNIVERSAL CHARACTERISTICS FOR PROGRAM AND PROJECT PLANNING AND DEVELOPMENT

I. Program Planning and Development

A. Establishing Program Goals - Realistic goals must be established. The goals that are set should reflect the needs and capabilities of the migrant population. The proper utilization of information concerning migrants coupled with information contained in the record will aid in establishing overall and individual goals. The development will require careful analysis of two major factors:

1. The Population to be Served
   a. Number of Migrants to be served.
   b. Demographic characteristics of target population.
   c. Migrant patterns.
   d. Ethnic characteristics.

2. The Nature of Services to be Provided
   a. Training
   b. Supportive Services
   c. Extensive Job Development
   d. Relocation

B. Factors Determining Program Design

1. Time Frame - Period of time migrants are present.

2. Cultural Patterns - Cultural patterns of various streams.

II. Project Planning and Implementation

A. Statement of Work - This is an explicit explanation of those specific tasks which the project expects to accomplish. These are derived from the following:
1. Establishing Program Goals

Specific and realistic goals must be established to provide for effective measurement and evaluation of the work to be performed. Quantitative predicted goals for the number of migrant families to be served and the kinds of services provided will be determined. The development of project goals requires extensive analysis of several factors:

a. Population to be Served. What are the levels of employment and unemployment? What demographic characteristics have a direct bearing on project goals (age, family size and structure, mobility, educational level, health and housing availability)? Gathering and analyzing such information and statistics provides project sponsors with a better appreciation of the needs of migrant families.

b. Resources Available in or near the Community. What are the various social, manpower, education, and public health agencies? What are the local business and commercial concerns? What employment opportunities can be made available to the target community? How many training sites can be made available to the migrant families? What kinds of cooperative agreements can be arranged with said agencies for assisting migrants?

2. Designating Project Sites

a. In-Stream. It is the responsibility of the National RM Office to coordinate in-stream services. This will allow the required flexibility for determining the flow of migrants with regard to time and place and the availability of jobs in any locality. Where there is a labor market shortage a project could be implemented. However, the number of programs will be determined by target area needs and funding limitations.

Determination of site location is based upon the site's proximity to the general areas where migrants congregate, thus placing a premium on rural and non-metropolitan communities as settle-out
sites, the job potential of the area, the desirability of the area to the migrants concerned and the receptivity of the communities in the area.

b. Home Base. The location of projects in the home base area communities should be determined primarily on the basis of the number of migrant workers living in a general vicinity where the services are most needed. Additional considerations include:

(1) Migratory patterns—the period of time when migrants will be in the home base area.

(2) Potential for suitable permanent employment in the area, including development of private and public sector jobs.

(3) If jobs are unavailable in the local area, consideration should be given to tying in with existing regional and in-state job development and relocation efforts. Where such coordination is not possible, sponsors should develop alternate plans to perform these functions.

(4) Availability of resources:

(a) Institutions and agencies that can provide basic education, prevocational and skills training needed by the migrants.

(b) Housing at reasonable cost that migrant families find suitable for habitation.

(c) Agencies supplying specialized supportive services.

(d) Programs such as those sponsored or supported by OEO, HEW, and DOL/Manpower.

(e) Manpower Area and State Manpower Planning Councils.
(5) The potential for improving the community environment through manpower training projects; for example, improvements in sanitation, water, education, and other basic needs.

(6) Likelihood of substantial impact on the community.

(7) Ability to secure multiple agency funding.
A. Analysis of the information which is needed by teachers to plan occupational programs for individual adult migrants.

2. Individual characteristics of the adult migrant population.

As mentioned, the analysis was broken down into two areas. Having just covered the characteristics of the adult migrant population as a whole, the writer will now deal with the individual characteristics, both statistical and programmatic. It is this data, combined with the retrieval system data, that will actually make up the form.

The statistical and programmatic information is divided into four areas; namely:

1. Applicant Information.
2. Job Matching Information.
3. Program and Services Information.
4. Termination Information.

It is these areas that will make up four distinct sections of the form. Not every bit of information dealing with these four areas will be listed in this section. What will be listed are random areas that the writer has determined to be of prime importance to the program developers. The comprehensive listing will be found and listed on the record itself.

**Applicant Information**

- State of Training
- Occupational Goal
- DOT Code
- Target Area
- Name of Applicant
- Social Security Number
- Congressional District
- Date of Birth
- Military Service
- Marital Status
- Number of Dependents
- Educational Levels
- Previous Jobs
- Income
- Poverty Status
- Health Information
- Etc.
Job Matching Information - Refer to Part I, Section B - Other Retrieval Systems, "The Job Bank."

A. Applicant Non-Occupational Information

- Salary Desired
- Pay Unit
- Location
- Work Week
- Shift
- Union
- App. Preference Factor

B. Applicant Occupational Information

- Aptitudes
- Positive Temperaments
- Physical Limitations
- Industrial Setting
- Interests
- GED
- Education
- Typing
- Shorthand

Program and Services Information - Refer to Part I, Section B - Other Retrieval Systems, "Project CAREER."

Employability Plan
Services Provided
- Counseling Interviews
- Counseling Sessions
- Job Development Contact
- Placement in Job 3 Days or Less
- Placement in Regular Job
Applicant-Employer Interview
Training Referrals and Enrollments
- MDTA - Institutional
- NYC
- NYC - MDTA Concurrent
- Job Corps
- Operation Mainstream
- New Careers
- Special Impact
- Return to School
- Other
Termination Information

Reason for Termination
- Placed in Employment (CEP), or Employability Plan Completed (WIN)
- Transferred to Other Program (CEP)
- Full-Time Schooling
- Institutionalized
- Health Reasons
- Pregnancy
- Moved from Area
- Administrative Separation
- Referred in Error (WIN)

Program Components in Which Participated
- Orientation
- Basic Education
- Other Prevoc Training
- Regular OJT
- New Careers
- WIN OJT Full Cost
- GED
- WIN Intensive Follow-up
- Total
B. Investigation of other retrieval systems that could supplement the MSRTS.

1. Project CAREER

As has been pointed out, the migrant comes from a background highlighted by a history of extreme poverty. The research points out that the only way for the migrant to get out of this state of poverty is to develop marketable skills in tune with today's society and technology. It has also been pointed out that equally important to these skills is the environment in which these skills are taught.

The program developers, having accepted these facts and having taken the necessary steps to insure that the best environment exists, are now charged with the responsibility of enabling the migrant to acquire these skills.

Project CAREER is the unique attempt to aid program developers in developing the most up-to-date and relevant instruction available. Project CAREER is an educational process which runs a spectrum K through adult.

The primary focus of the project is centered around two key words - job and performance objective. They have taken 200 jobs from the Dictionary of Occupational Titles and broken each job down into performances. Each performance is an objective that in its final form is stated in behavioral and measurable terms.

Before getting too far into the explanation, the writer would like to clarify that this is all a computerized process. When the project is completed, the computer will be able to print out the following information:

Given a job heading (Example: Auto Mechanic, D.O.T. No. 620.218), the computer will be able to print out all the performances listed in behavioral terms that make up that particular job. It will also list the conditions under which the performance will operate and the extent to which that particular performance has to be done in order to make that person employable. On the printout will also be listed in coded form all disabilities and handicaps. Under each disability or handicap will be a space that will either be checked or not checked. If checked, this will indicate that that performance or behavior can be performed by a person with that particular disability.

Further on down the printout will be listed all the necessary prerequisite skills that are needed for that performance. It will also list the related skills necessary, or in other words, a complete task.
analysis of that performance.

Another important element on the printout will be various procedures or conditions for obtaining that objective. This will be indicated by some type of flag that when tapped the computer will give out information pertaining to the conditions or methodology by which that behavior was met.

Finally, the computer will list related concepts which apply directly to that behavior but are found in other areas of study - math, physics, science; etc.

Another thing which should be noted, in the information given above the behaviors described were only in the psychomotor area. It will also have the ability to print out other behaviors which will fall in the affective domain; namely, those performances that deal with attitudes, feelings, and emotions relative to success in a given job.

One cannot help but see the tremendous advantage in having these as a part of a record. The record will print out all these behaviors, which as mentioned previously will be all positive attitudes of the adult learner, and build upon these at each successive training installation.

The record will print out an identification number which will indicate by code the behavior, its relationship to a specific job, and the date completed.

Since the new MSRTS computer will have open-ended capabilities, the program developers will have the option to keep the computer for a complete print out of each behavior in depth. This means he will be able to get a continuous print out of behaviors that will indicate the performance, the extent, conditions, etc.

In a previous part of this document, the new MSRTS computer system was explained. One can see the natural tie-in between this process and that process being investigated by all the Title 1 Migrant Programs; namely, the use of criterion information. If they are successful in breaking the basic education components into criterion statements, this could also be put on to the computer for those areas outside psychomotor and affective. These will probably fall into the cognitive area or academic subjects.
Investigation of other retrieval systems that could supplement the MSRTS.

2. The Job Bank

Overview

The President has called for a national computerized system (18) to match jobseekers with job vacancies. In his Manpower Message he describes the process that would operate in each State:

"The computers of the Job Bank would be programmed with constantly changing data on available jobs. A job seeker would tell an employment counselor his training or employment background, his skills and career plans, which could be matched with a variety of available job options. This would expand the potential worker's freedom of choice and help him make best use of his particular talents."

History (Need)

Over the years, matching people and jobs worked like this: Employers called the employment service to describe their needs, and the office listed and filed their orders. When a jobseeker came in, he filled out a form describing his background. An interviewer then searched the office files, looking for a job listing that matched the applicant's qualifications. If he found one, he referred the jobseeker.

This system had several shortcomings. First, it limited the choices of jobseekers and employers. One local office might check with others to find a suitable job for an applicant or locate workers with the qualifications an employer needed, and some agencies had regular arrangements for matching certain categories of workers with openings listed in other offices. But both workers and employers usually had to settle for what was listed in the local office.

Second, it was highly centralized geographically. When applications and job orders are matched from a single set of files, the operation must be performed at one place or split by occupational or industrial classification among a few locations. As a result, workers usually had to go downtown to apply for work. For the growing numbers living in outlying areas, this meant great inconvenience. For inner-city residents, it meant that centers trying to serve them in their own neighborhoods could offer only limited job opportunities.
Third, the manual operation was slow. And it forced employment specialists to devote many hours to routine tasks such as checking and rechecking files - hours better spent in working with applicants to assess their capabilities and developing jobs for them.

What the employment service needed was a labor-saving method of offering complete, current job information at centers convenient to every jobseeker. The system that meets that need - and offers other advantages as well - is the computerized job bank.

The first job bank opened in Baltimore in May, 1968. As an experiment in computer-based job placement, it quickly proved itself through better service to both employers and applicants. Its most promising result was a dramatic increase in the number of disadvantaged workers finding jobs through the employment service - from less than 20 percent of all placements before the job bank started to over 40 percent after it was in operation.

With the success of the Baltimore model, job banks were opened in eight cities during 1969. In 1970, the pace quickened; by year's end 49 more cities had job banks. They operated in metropolitan and larger areas of 35 States and the District of Columbia, bringing job bank services to areas in which nearly half the Nation's labor force live. It was estimated that by the end of 1972, job banks would serve a major portion of the larger cities in the United States.

**Need for Computers**

Job banks harness computers to do a job that is beyond the capacities of a manual operation: Turning out a daily list of all job openings in a metropolitan or larger area which can be widely distributed to bring complete, up-to-the-minute job information to all jobseekers. In the average city, such a list contains thousands of job entries with needed details on each one; in a large metropolis, it may run to 200 pages or more. Obviously, compiling this mass of information by hand would take days - and a daily listing is out of the question, except in small job markets with limited employment activity. But a computer - with the unique ability to process information at tremendous speeds - can do the job in minutes.
The computerized job bank process works like this:

Central Order Taking - When an employer has jobs to fill, he calls the job bank's central order-taking unit. Here, an interviewer takes down all relevant information about his openings - such as type of work; salary; days and hours of work; place of employment; and the education, experience, and abilities required. Specialists check each order to make certain that it is accurate and complete. Rush orders are telephoned directly to offices throughout the city so that the search for qualified applicants can start at once. All other orders go to key-punch operators, who transfer them to punched cards.

Daily Computer Printout - At the end of each working day, cards for all new job orders are entered into the computer. At the same time the orders already stored are edited - that is, the computer is instructed to delete jobs that were filled or cancelled that day and make any other changes needed to keep every order up to date. Overnight it prints out a fresh list of all openings in the entire job bank area. It may list 10,000 or more jobs. Each is classified by type of work so that interviewers can quickly find the openings that match a particular jobseeker's qualifications.

Updated Books for Every Office - Enough copies of the computer printout are reproduced to supply the needs of every employment service office and cooperating community agency in the area. One large job bank turns out some 250 copies daily. In some cities the lists are issued as job bank books; in others, they are put on microfilm or microfiche that is read from special viewers. Early every morning copies are hand distributed. By starting time each day, a fresh job bank book is available to every interviewer in the city.

Choosing the Right Job - When the jobseeker comes to the employment office in his neighborhood, its staff is ready to help him find the best fit among all jobs currently open in the city. Before his interview, he fills out an application listing all pertinent information about himself. If he needs help with this form, employment specialists are ready to assist him. Next, he talks over his background and job preferences with an interviewer. Together, they select from among the openings in the job bank book the one that matches his requirements best.
Coordinating Referrals - Since interviewers all over the city are using the same book, coordination is essential to make sure that too many applicants are not sent to apply for one job while a similar opening has no takers. The nerve center of the job bank is central control, the busy unit that keeps track of all referral activity in the area. Before an interviewer makes a referral, he checks with central control: Is the job still open? How many applicants have already been referred? Employers see only the number of applicants they request. Jobseekers are spared the time, expense, and disappointment of applying for jobs that are already filled.

Bring People and Jobs Together - Once central control gives a go-ahead, the jobseeker is referred. His interviewer arranges an appointment for him and gives him a slip that introduces him to his prospective employer. If he is hired, his employer notifies the job bank and the order is dropped from the next day's job book.

The process ends with a worker on the job - an applicant who had a better chance of finding a good job fit, and finding it fast, through his job bank.

The Form

Each listing tells all a jobseeker needs to know about his prospective employment - such as type of work, salary, days and hours of work, place of employment, education, and other requirements.

Since printouts of job orders are in every office and outreach station, interviewers throughout the city work to fill each job order and to offer a wide choice to each applicant. As a result, employers have a greater chance of hiring the best qualified jobseekers; workers are more apt to find a good job fit.

A job bank is a better system of bringing people and jobs together; but obviously, a job bank cannot work miracles. It must operate within the economic climate of its area and base its referrals on job requirements. Among the things it does not do are:

- A job bank does not create jobs. The number of openings in a particular area depends upon the level of economic activity, labor turnover, technological innovations, and other developments. A job bank has no control over these factors.
A job bank does not put a person in a job for which he is unqualified. A jobseeker may yearn to be an airline stewardess or a bank executive, but if his qualifications do not match the requirements of these jobs, he will not be referred to them.

A job bank does not guarantee that a worker will get the job to which he is referred. It sends him to apply for a suitable position, but only the worker himself can convince an employer to hire him.

What a job bank does do is to enable jobseekers to find out faster about the vacancies that do exist — whether they are at nearby businesses or at firms across the city or in the suburbs. Whatever the economic climate in which a job bank operates, workers and employers reap better results from the wider choices it offers.

What a job bank also does is to help each applicant select the job that best fits his background, aptitudes, and interests. If he does not presently qualify for the sort of job he wants, it can refer him to the training he needs or help him find work which can give him the experience required for his career goal. If he needs help with his resume or tips on making a good impression at his job interviews, he can receive them. And if he does not get the first job he is referred to, the job bank will send him to apply for another suitable one.

The Future

Even though job banks are transforming the placement process in cities across the country, they are only the first step in bringing computerized employment services to the Nation. Citywide job banks are already being expanded to cover larger geographic areas and are beginning to be linked statewide. In some small States this may mean a single bank covering the entire State; in others, banks serving different cities will be linked to form statewide networks. Experiments to develop such networks are currently underway in several places, and by the end of fiscal 1972, a statewide job bank should be operational in every State. The next step will be linking job banks regionally and then nationally.
Yet even while this national job bank network is being installed, the Manpower Administration is working with the States to test more sophisticated uses of computer technology. Job banks involve a fairly simple operation - one that taps only a fraction of a computer's capacity to process job and applicant information at tremendous speeds. In a fully developed "matching" system, a computer can store information on applicants as well as on all current job orders in a State. On request, it can compare both files and search out at electronic speeds the best matches for any jobseeker or opening in the State.

The Manpower Administration is testing four different experimental job-matching designs. In 1969, Utah and Wisconsin started experimental job matching, and California installed a completely revised system, building on experiments begun in 1962. Early in 1970, New York started testing a job-matching design. In addition, during 1971, 10 other States conducted experiments on various computer applications. These experiments will test techniques and vocabularies that can later be added to the job bank network to provide even more effective service to job seekers and employers.

The problems to be worked out are great. A variety of complicated choices must be weighed and designs tested before a final model for matching systems is selected. However, an integrated network of State matching systems serving the Nation by 1976 is a major goal of the Manpower Administration. The present experiments show promise that this goal will be attained. In only a few years, a laid-off factory worker on the West Coast may be paired in minutes with an opening in his skill in Ohio or Illinois. A Florida employer searching for professional talents scarce in his State may find them in Minnesota, Massachusetts, Texas, or anywhere in the country.

Achievements such as this graphically point up a matching system's capacity as a potent tool in meeting the Nation's manpower needs more adequately. Speeding up the placement process means that applicants are out of work for shorter periods. Improving man-job fits means greater job satisfaction for workers and reduced turnover for employers. Broadening the job search for the disadvantaged means new opportunities that can be the start of productive careers. If, as early results indicate, computer job matching can reduce unemployment - even by a fraction of a percent - the Nation will gain from greater production and from unemployment insurance and welfare payments no longer needed. The gains to workers no longer jobless are incalculable.
The job bank relies very heavily on the Department of Labor's Dictionary of Occupational Titles. These titles include 35,000 jobs which, as you know, are classified by a code entry. What some people are not aware of is the fact that the Dictionary of Occupational Titles along with its companion, Dictionary of Occupational Titles, Volume 2, which deals with worker traits, was developed by individuals in the field compiling Job Analysis Schedules. It is from the Job Analysis Schedules that the basis for much of the data on the job bank form is derived.

In Washington, there is on file a Job Analysis Schedule for every one of the 35,000 occupations listed in the Dictionary of Occupational Titles. It will be very helpful for the training agency to become acquainted with these Job Analysis Schedules and to actually use them in helping the worker develop his profile.

The writer feels it would be very beneficial to include a typical Job Analysis Schedule within this report. It might be that after reading this, some of the terminology might be foreign to the reader—such as worker functions, work fields, or the total area of worker trait ratings. For a more detailed account, the writer suggests that the reader consult the book, Handbook for Analyzing Jobs.
1. Estab. Job Titles  
   Crew Leader

2. Ind. Assign.  
   (agriculture)  
   D.O.T. Ind. Desig.  
   (agriculture)

3. S.I.C. Code & Title  
   0122 Fruits and Tree Nuts

4. Description of Duties

Recruits seasonal Harvest Hands, contracts for blackberry harvest, and transports and pays crew members to harvest blackberries on a farm engaged in growing blackberries for sale to canneries.

1. Recruits workers - Contacts State Employment Service, ex-crew members, friends, relatives, and other seasonal agricultural workers to solicit crew members. Explains terms of working agreement such as; wages, transportation, crop condition and performance requirements to establish working agreement with crew member. (10%)

2. Contracts Berry Harvest - Contacts ex-employers, State Employment Service, and other community leaders to locate fields of mature blackberries, to obtain wage trends and other crop information. Drives to fields, usually accompanied by Farmer, and inspects crop to estimate production and number of pickers required. Negotiates with farmer to obtain profitable wages for pickers and crew leader services. Discusses anticipated date of harvest, number of workers required, and types of field container with Farmer to plan harvesting and work aids needed. (20%)

3. Harvests berries - Drives Truck to pick-up crew members at home or designated station and to transport assembled crew to blackberry field. Issues empty lugs to pickers and assigns rows according to Farmers' harvesting instructions. Instructs entry workers on selection of mature fruit and filling of container to train entry- or unfamiliar workers. Weighs empty lugs to obtain average weight for computing picked weights. Adjusts hand Scale to compensate for lug weight or explains to worker weight that will be deducted from gross weight. Weighs filled lugs, brought to pay station by pickers, and computes earnings according to agreed price per pound rate. Quotes berry weight and computed wages and pays each worker from Cash Box, for lugs harvested. Dumps berries from lugs into crates and returns empty lug to worker. Stacks filled crates. Periodically, inspects harvested rows to verify accuracy of pickers and admonishes lax workers. Occasionally carries filled lugs from field to pay station for children or older workers. (70%)

5. Work Performed and Worker Traits Ratings

<table>
<thead>
<tr>
<th>Worker Functions</th>
<th>Work Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>D F T</td>
<td>003 Gropping</td>
</tr>
<tr>
<td>6 6 7</td>
<td>M., P., S.M., S.</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Interests</th>
<th>Temp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9 0</td>
<td>X Y</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>G.L.D.</th>
<th>Phys. Activ</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6</td>
<td>S L X H V 2 3 4 5 6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SVP.</th>
<th>Pay Cond.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
</tbody>
</table>

Form IS 546 Exp.
UNITED STATES EMPLOYMENT SERVICE
JOB ANALYSIS SCHEDULE (EXPERIMENTAL)

Sched. # 6605653
Estab. # 66-29-366

WTA Group (See comments)
Aptitudes G3, V4, N4, S4, P3, Q4, K4, F4, M3, E4, C4.

6. Education and Training
   A. Elementary 8 High School NA Subjects or Courses No specific educational requirement as this is a self-employment job.
   B. College: No. Yrs. NA Degree NA Subjects or Courses
   C. Vocational Education NA
   D. Apprenticeship NA
   E. In-plant Training NA
   F. On-the-job Training NA
   G. Performance on Other Jobs Minimum one year in seasonal agricultural work to learn to deal with seasonal agricultural workers and to learn work activities.

7. Experience
   None Acceptable (Same as (G) above.

   Orientation 1 day.

8. Licensure, etc. Drivers License.

9. Relation to Other Jobs and Workers
   Promotion: From No formal lines. To No formal lines.
   Transfers: From No formal lines. To No formal lines.
   Direction or Supervision Received: None General X Close By Blackberry Farmer
   Direction or Supervision Given: None Number 24 Titles Blackberry Pickers

Use additional sheets as necessary to record items 10-13

10. Machines, Tools, Equipment, and Work Aids
11. Materials, Products, Subject Matter, and Services
12. Definitions of Terms.
13. General Comments.
PART II

TECHNICAL AND ADMINISTRATIVE ASPECTS FOR IMPLEMENTATION
INTRODUCTION

Part II deals with four distinct areas; namely:

A. Technical Aspects
B. Administration Policies
C. Implementation Guidelines
D. Recommendations and Follow Up Procedures

There is a tremendous overlapping and it will be very difficult to break these apart and relate to each one independently. The categories A, B, and C are definitely interwoven and because of this the writer has chosen to handle these as one particular topic. In spite of this, there will be definite segments that will relate specifically to either A, B, or C.

Item D will be recommendations made based on the entire report.
A. Technical aspects of utilizing the system will be investigated and summarized.

B. Policies of the administration of the current MSRTS will be considered in regard to expanding the system, maintenance of confidential information, etc.

C. Specific implementation guidelines and a time-line for implementation of the system will be developed.

The term "technical aspects" is extremely broad, and it would most probably mean different things to different people. The writer will touch upon certain aspects which he feels are of a technical nature and will have to be considered before implementation can be made.

Many of the technical aspects are at present extremely evident. Many will come about as a more in-depth study is made into the feasibility of using this system; and others will definitely come about after the system has begun.

Since the writer believes that the present MSRTS is feasible for use for adult migrants, the first technical aspect arises. The present MSRTS is operated by Title I funds and is used for migrant children. Since the system will be adapted to serve migrant adults, the first aspect that arises is: Under whose jurisdiction will the operation of this system lie?

As shown in the appendices, there are 28 agencies that serve migrants. This is not as difficult a problem as it sounds since after investigation it was found that there are basically three main agencies serving migrants; that is, the Department of Labor, the Department of Health, and OEO. Since this report was begun, the Office of Economic Opportunity has gone out of business and a great deal of their operations have been shifted to the Department of Labor.

The problem becomes less complicated since the writer has advocated the use of the Job Bank as a system that could serve in a secondary capacity to the MSRTS. The Job Bank is operated solely through the Department of Labor. Therefore, the initial thrusts for proposal should most definitely be made to the Department of Labor, Office of Rural Manpower Services.

Secondly, there would have to be a definite adaptation by the present system to incorporate an additional one with entirely new data that will have to be used for the migrant adult. This technicality is in the form of a hardware change and additional programming. The people at the data bank in Little Rock informed me that this is extremely feasible and that with the proper information they could very easily make the changes and program the new computer.
Since the MSRTS must interface with two additional computers, the question arises as to how to tie in the three computer systems. On the surface this does not seem too difficult. Once the applicant has a job match profile it does not change drastically since most of the information does not change that often.

It would seem almost impossible for the present computer system to have that data stored concerning job availability. The applicant profile could be sent to the trainee’s location and at that time that portion of the form could be detached and either hand-carried or sent to the nearest Job Bank office and at that time secure job profiles that would match the individuals.

If the trainee is securing employment immediately, again he has the option of going in person or the training center could forward a copy to the Job Bank and wait a couple of days for the reply.

The reply would be in the form of a computer print out of all available jobs that match the applicant’s profile. The writer would recommend this method simply because the trainee would have a chance to discuss these jobs at a counseling session and the counselor would therefore be able to help the trainee to possibly make a better selection than he would make on his own.

The interfacing with Project CAREER is less difficult since all of the job behaviors will be on a tape. The tapes could be purchased for the MSRTS and programmed into the computer. As more job behaviors become available they could then follow the same process.

Thirdly, there are approximately 96 projects serving adult migrants. The next question that arises is: What use could be made of the present terminals, if any, or the feasibility of placing terminals strategically with the projects operating in each state?

A fourth consideration deals with the costing and cost effectiveness. The writer believes that the only way to determine some type of costs is to analyze the costs of the present MSRTS. The following is a synopsis of the method for determining costs and a summary sheet that will be a synopsis of these costs.
METHOD FOR DETERMINING COSTS

1. AVERAGE NUMBER OF MOVES PER STUDENT PER YEAR = [1.24]

DATA BASE JUNE, 1971:
160,000
LESS 1/2 of 18,000 SUS/DUP: 9,000
LESS 2,500 TERMINATIONS: 2,500
148,500

DATA BASE JUNE, 1972:
320,000
LESS 18,000 SUS/DUP: 18,000
LESS 5,000 TERMINATIONS: 5,000
297,000

148,500 + 297,000 = 445,500
AVERAGE SIZE OF ACTIVE DATA BASE DURING PERIOD 6/71 - 6/72.

ENROLLMENTS FOR PERIOD 6/71 - 6/72 = 277,090
277,090 * 1.24 MOVES PER YEAR = 445,500

2. AVERAGE NUMBER OF UPDATES PER STUDENT PER ENR/WITH PERIOD.

MAXIMUM AVERAGE NUMBER OF STUDENTS ENROLLED PER MONTH (NUMBER OF STUDENTS AT END OF PERIOD PLUS NUMBER OF WITHDRAWALS DURING PERIOD) = 164,044 + AVERAGE NUMBER OF UPDATES TO DATA BASE BY MONTH (27,814) = .17 UPDATE PER MONTH PER STUDENT. AVERAGE LENGTH OF ENROLLMENT IS 4-1/2 MONTHS. .17 * 4-1/2 = .765 or 3/4 OF UPDATE PER ENROLLMENT/WITH PERIOD.

3. AVERAGE NUMBER OF CRITICAL DATA REQUESTS PER STUDENT PER ENR/WITH PERIOD.

AVERAGE CRITICAL DATA REQUESTS PER MONTH FOR PERIOD 6/71 - 6/72
= 12,365 + AVERAGE D-B SIZE (164,044) = .0754 * 4-1/2 (AVERAGE LENGTH OF ENROLLMENT) = .34

4. AVERAGE NUMBER OF CRITICAL DATA RESPONSES PER STUDENT ENR/WITH PERIOD = .41
RATIO OF CD-RESPONSES TO CD-REQUESTS IS 1.2/1.0.

5. AVERAGE NUMBER OF ERRORS PER TRANSACTION.
   EMPIRICAL DETERMINATION INDICATES AVERAGE NUMBER
   OF ERRORS IN AN ERROR RESPONSE IS 1.5. AVERAGE
   NUMBER OF RESPONSES WITH ANY ERROR MESSAGE IS
   11,127 x 1.5 = 16,690. DIVIDE BY TOTAL AVERAGE
   INPUT OF 130,162 = .13 (AVERAGE NUMBER OF ERRORS
   PER TRANSACTION).
6 & 7. AVERAGE COST TO ESTABLISH A DATA BASE RECORD.

<table>
<thead>
<tr>
<th>CRITICAL REQUESTS</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>250,806</td>
<td>1,311,138</td>
</tr>
<tr>
<td>1,561,944</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL EXPENDITURES (not including Hypermetrics & Systematics) = $1,531,158.48

LESS DEDICATED COMPUTER       161,168.88
LESS TTY TERMINALS            166,009.20
LESS WATS LINES               208,621.48
LESS POSTAGE                  55,414.99
LESS OFFICE SPACE             11,064.00
LESS SALARIES                 127,625.00
LESS TRAVEL                   51,142.38

781,038.93

250,806 (CRITICAL REQUEST) X 1.0 = 250,806
1,311,138 (OTHER) X 1.26 = 1,652,033

(WEIGHTING FACTOR) $1,902,839

750,119.55 + 1,902,839 = $0.39421 per c/r transaction.
$0.39421 x 1.26 = $0.497 per transaction other than c/r.

250,806 x $0.39421 = $98,870.23
1,311,138 x $0.49670 = 651,242.24

PROCESSING COST $750,112.47

$781,038.93 FIXED CHARGES + 1,561,944 TOTAL TRANSACTIONS = $.50 PER TRANSACTION FIXED CHARGES.

1 FIRST TIME ENROLLMENT $ .49670
1 GREEN RECORD .06
FIXED COSTS .50

$1.05670 or $1.06
1 MOVE GROUP

1 ENROLLMENT = 1.06
3/4 UPDATE = .80
1 WITHDRAWAL = \frac{1.06}{2.92}

HYPERMETRICS AND SYSTEMATICS = $208,281.47
- 1,561,944 = $ .13 PER TRANSACTION

AVERAGE COST TO ESTABLISH A DATA BASE RECORD INCLUDING ALL CHARGES
= $1.06
+ .13
$1.19

AVERAGE COST FOR ONE MOVE GROUP INCLUDING ALL CHARGES

$2.92
+ .36 (.13 x 2.75)
$3.26
SUMMARY SHEET

SYSTEM COST REPORT

1. AVERAGE NUMBER OF MOVES PER STUDENT: 1.24 PER YEAR.

2. AVERAGE NUMBER UPDATES PER ENR/WITH PERIOD: .75 (OR 3 OUT OF 4 STUDENTS HAVE AN UPDATE TO THEIR RECORD FROM ENROLLMENT TO WITHDRAWAL).

3. AVERAGE NUMBER CRITICAL DATA REQUESTS PER ENR/WITH PERIOD: .34 (OR 1 OUT OF 3 STUDENTS HAVE CRITICAL DATA REQUESTS TO THEIR RECORDS FOR EACH ENR/WITH PERIOD).

4. AVERAGE NUMBER CRITICAL DATA RESPONSES PER ENR/WITH PERIOD: .41. RATIO OF CD-RESPONSES TO CD/REQUESTS IS 1.2/1.0.

5. AVERAGE NUMBER ERRORS PER TRANSACTION: 1.5 FOR THOSE TRANSACTIONS WITH ANY ERRORS. ONLY 1 IN 8 TRANSACTIONS HAVE ANY ERRORS ON THEM.

6. AVERAGE COST TO ESTABLISH A DATA BASE RECORD: $1.06.

7. AVERAGE COST OF 1 MOVE GROUP: $2.92.

8. AVERAGE YEARLY COST PER STUDENT (BASED ON 313,188 STUDENTS AS OF 6-30-72) = $4.89.
Also in reference to cost, it would have to be determined as to what organization would have primary responsibility for picking up the costs for this. The whole area of interagency cooperation in terms of funding would have to be explored.

Fifth, during the research the writer has found while examining data and in visiting the field sites that there is not a high degree of cooperation or knowledge of the Title I Migrant Program in those centers that are only concerned with the adult migrant population. With the institution of this system both agencies - adult and child - would have to take a more careful look at how they might assist each other in achieving their goals and objectives. Both have developed a tremendous structure which at the present time is running parallel to each other. If this system were to succeed, they would have to overlap.

The form itself is very critical; that is, the data on the form will have different degrees of application and credibility for each program. It must be understood that the form found in this document is the first attempt at designing a form. In order to have a greater impact, this form must go through a rigorous testing and evaluation procedure. The writer believes that the more input that is received concerning the form, the greater impact the form will have on the learner with specific reference to development of training programs.

Personnel could be considered a technical aspect; that is, the training and the conditioning of all the people presently working with the adult migrants. These people have to be briefed and be made part of the implementation of this process. It has most definitely been demonstrated that the system cannot operate without the people that are directly working with the migrant whether the migrant be an adult or child.

In-service workshops will have to be developed. To give the reader an idea of a typical in-service workshop, the writer has included a workshop schedule that is used for teachers working with the migrant children in the present MSRTS.
# TERMINAL OPERATOR'S WORKSHOP

## SCHEDULE FOR JANUARY WORKSHOP

**January 4 - 7, 1971**  
Little Rock, Arkansas

**Tuesday, January 4, 1971**

<table>
<thead>
<tr>
<th>TIME</th>
<th>ACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 - 9:15</td>
<td>Registration, Introduction and Overview of Week's Activities</td>
</tr>
<tr>
<td>9:15 - 9:30</td>
<td>System Overview</td>
</tr>
<tr>
<td>9:30 - 10:00</td>
<td>Overview of Transfer Record</td>
</tr>
<tr>
<td>10:00 - 10:30</td>
<td>Break</td>
</tr>
<tr>
<td>10:30 - 10:45</td>
<td>Transfer Record with Line and Field Numbers</td>
</tr>
<tr>
<td>10:45 - 11:30</td>
<td>Lunch</td>
</tr>
<tr>
<td>11:30 - 1:00</td>
<td>Overview of System Messages, Legalities of Header Data, Key Data, Explicit Data</td>
</tr>
<tr>
<td>1:00 - 1:45</td>
<td>Break</td>
</tr>
<tr>
<td>2:45 - 3:00</td>
<td>Feedback Response Formats</td>
</tr>
<tr>
<td>3:00 - 4:00</td>
<td>Continue Explanation of Message Legalities</td>
</tr>
</tbody>
</table>

**Wednesday, January 5, 1971**

<table>
<thead>
<tr>
<th>TIME</th>
<th>ACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 - 10:30</td>
<td>Format Rules</td>
</tr>
<tr>
<td>10:30 - 10:45</td>
<td>Break</td>
</tr>
<tr>
<td>10:45 - 11:30</td>
<td>Format Rules</td>
</tr>
<tr>
<td>11:30 - 1:00</td>
<td>Lunch</td>
</tr>
<tr>
<td>1:00 - 2:30</td>
<td>Exercise on Preparation of Source Document</td>
</tr>
<tr>
<td>2:30 - 2:45</td>
<td>Break</td>
</tr>
<tr>
<td>2:45 - 4:00</td>
<td>Feedback Response Formats</td>
</tr>
<tr>
<td>A. Immediate Response</td>
<td></td>
</tr>
<tr>
<td>B. Overnight</td>
<td></td>
</tr>
<tr>
<td>C. Critical Data</td>
<td></td>
</tr>
<tr>
<td>D. Error Messages - Meaning and Format</td>
<td></td>
</tr>
</tbody>
</table>
Thursday, January 6, 1971

9:00 - 10:00  Open Book Quiz
10:00 - 10:30  Procedure for Training
10:30 - 10:45  Break
10:45 - 11:30  New Change in the System
11:30 - 1:00  Lunch
1:00 - 4:00  Message Handling Demonstration
              Terminal Demonstration
              (small groups)

Friday, January 7, 1971

9:00 - 9:30  Review Thursday's Quiz
9:30 - 10:30  Operator Functions and
              Communications with School
10:30 - 10:45  Break
10:45 - 11:30  Machine Training for new operators
11:30 - 12:00  Critique of Workshop
1:00 -  

**ADJOURNMENT**
At some time it will have to be determined whether a new system, even if it is to utilize the mechanics of the present MSRTS, should have its own administrative structure or rely on the present administrative structure with the addition of new personnel to handle the overload.

The following is a management chart that indicates the number and types of people needed to run the present system. A great deal of effort has gone into the development of this management chart; and for the reader that might be interested, a very excellent job description has been written on each one of these positions.

If this were implemented, these job descriptions would be very helpful in developing and hiring personnel.
SECURITY OF DATA

As with the present MSRTS, the Title 1 people have to develop many operators and instruction manuals for this system. At the present time, the MSRTS has developed and revised three complete training manuals. These training manuals do not only include the software but also include equipment: slides, tapes, etc. This would most definitely have to be done.

The final aspect is not really of a technical nature; but, in the viewpoint of the writer, it would have to be done. Some one or some agency would have to do an extensive, and hopefully short, study to determine the longevity of the programs serving migrant adults. It would make no sense to implement a system for a program that conceivably could in one to two years be out of existence. This statement is, however, not as simple as it might sound. This is due to the erratic types of funding given to these kinds of projects.

The policies of the administration of the current system have been elaborated on in previous sections of this document, namely: historical background, the present status, and the new computer system. At the present time, as one can see from a review of the information, there are no administrative policies that preclude incorporating the system for migrant adults into the present system.

A great many of the aspects mentioned above most definitely overlap in terms of administration and these have already been elaborated on, for example: the administration needed to handle the program, the dollar costs, the need for training, etc.

In terms of confidential information and how it is handled, the present system requires written permission from a State Director of Migrant Education before one of his schools can be placed on the data base and associated with a particular terminal. Each transaction submitted by a terminal operator must have a School ID associated with it. To be accepted at the depository, the School ID on the transaction must not only be in the data base, it must be legally associated with the terminal submitting the transaction.

The present technique is rugged and simple but very expensive in terms of line time consumed as the following simplified operational sequence will illustrate.

To receive transactions (including requests for data) from a terminal:

1. Terminal operator dials computer on IN (WATS) line.
2. Computer answers and triggers terminal's A/B (answer-back) code.
3. If A/B is legal (listed), computer sends W. C. (will call) to calling terminal.


5. Computer looks up telephone number of terminal associated with terminal's A/B.

6. When available, computer uses an OUT (WATS) line to call terminal.

7. If paper tape is loaded in gate and terminal is in proper mode, computer accepts tape.

Thus, a minimum of two calls is required for the computer to accept transactions from a terminal.

In another portion of the report the writer mentioned the use of subjective information and related that it should not be transmitted. If this information is transacted, the following occurs:

the supervisor SHALL, forthwith, without hesitation or deliberation return said transaction to the sender and shall refuse to store said data on the Depository Data Base. In returning such a transaction to the sender, the supervisor shall advise said sender that the transaction contained forbidden contents and that the sender may prepare a replacement transaction to include basic contact data only. The supervisor personally shall then destroy, beyond recognition, any hard copy or any other representation of a contact data transaction which, in the manner described above, is unacceptable to the System.

In terms of implementation, with specific reference to a time line, there are a great deal of variables that enter into this. It depends on whether implementation starts with this finished document or if implementation begins with the use of the form once it has been accepted.

One can see that in terms of implementation from the time when this report is finished it is almost impossible to reflect upon since no one can determine the amount or the extent of input from other agencies.

If we look at the implementation in terms of implementation of the system, the writer has drawn upon a time line that was instituted for the present MSRTS. This time line begins in February, 1968, with the assignment of tasks to committees, to the contract award to Little Rock, Arkansas in July, 1969.
The following is a breakdown of ten specific milestones that were accomplished in order to complete the implementation. This represents approximately 1-1/2 years.

One can only estimate that this time should be cut by at least 25 to 40 percent if those responsible for implementation can draw upon the resources, research, and reports of the existing MSRTS.
TIMELINE FOR IMPLEMENTATION

COUNTDOWN

Record Transfer Committee Selected & Assigned Task of Designing Record, Transfer Record, and System..................FEBRUARY 1968

Preliminary Transfer Record & System Functions Reviewed at 1st National Conference in Denver.......................MAY 1968

Preliminary System Specifications Completed......................JULY 1968

System Specifications Approved by Record Transfer Committee............OCTOBER 1968

System Specifications Submitted to All Participating States for Their Review..............................NOVEMBER 1968

States Vote to Accept System Specifications in Washington, D. C..............DECEMBER 1968

States Vote to Set Aside Funds to Implement System Specifications...............DECEMBER 1968

Use of New Transfer Record Begins.................................SPRING 1969

USOE Issues Requests for Proposals for Record Transfer System................MAY 1969

Proposals Evaluated........................................JUNE 1969

Contract Awarded to Arkansas................................JULY 1969
D. Recommendations and Follow-Up Procedures

1. Analyze existing programs to determine the long-range planning for funding.

2. Print sufficient copies of this report for distribution.

3. Send copies of this report to all agencies serving migrants asking for two types of responses:
   - One on the report and
   - One dealing with the record form.

4. Send record form with appropriate explanation and definition to all field projects for the purpose of receiving their input in reference to additions, deletions, and recommendations concerning the form.

5. Investigate possible funding sources and agencies that could implement the project. (Refer to appendices.)

6. Establish an interagency conference for the purpose of securing combined inputs concerning the feasibility of the system. Include representatives from the Department of Labor, HEW - Vocational and Migrant, Department of the Interior, and any others that have a prime responsibility for migrants, whether children or adult.

7. Place more emphasis on interstate projects utilizing inter and intra-agency cooperation and coordination.

8. Send final document and form to all State Title I Directors asking for their reactions and lists of other agencies within their state that serve migrant adults.
May 2, 1972

I. AGENCIES PROVIDING SERVICES TO MIGRANT ADULTS

INTERSTATE RECRUITMENT OF FARM LABOR

Dr. Daniel W. Sturt, Director
Office of Rural Manpower Service
U. S. Department of Labor
Washington, D.C. 20210
Phone: (202) 961-3681

SPANISH-SPEAKING AFFAIRS

Mr. Gilbert J. Chavez
Director, Office of Spanish-Speaking American Affairs
U. S. Office of Education
Washington, D.C. 20202
Phone: (202) 962-8566

BILINGUAL EDUCATION

Dr. Albar A. Pena, Chief
Bilingual Education Programs Branch
U. S. Office of Education
Washington, D.C. 20202
Phone: (202) 963-4891

TEACHER CORPS

Dr. Ned J. Bryan
Director, Teacher Corps
Bureau of Educational Personnel Development
U. S. Office of Education
Washington, D.C. 20202
Phone: (202) 962-7981

SOCIAL SECURITY

Mr. Andrew Hofer
Information Specialist
Social Security Administration
Social Security Building, Room 113
6401 Security Boulevard
Baltimore, Maryland 21235
Phone: (301) 594-2460

MIGRANT EDUCATION MATERIALS AND INFORMATION

Dr. Everett D. Edington, Director
ERIC Clearinghouse on Rural Education and Small Schools
Box AP
New Mexico State University
Las Cruces, New Mexico 88001
Phone: (505) 646-2623
Mr. Thomas Oxendine
Chief, Communication Services Branch
Bureau of Indian Affairs
1961 Connecticut Avenue, N.W.
Washington, D.C. 20242
Phone: (202) 343-7445

Mr. Richard W. Cull, Jr.
Public Information Officer
Immigration and Naturalization Service
119 D Street, N.E.
Washington, D.C. 20536
Phone: (202) 626-1468

Mrs. Yvette D. Armand
Administrative/Field Coordinator
Spanish Curricula Development Center
1420 Washington Avenue
Miami Beach, Florida 33139
Phone: (305) 531-4821

Miss Cassandra Stockburger, Director
National Committee on the Education of Migrant Children
145 East 32nd Street
New York, New York 10016
Phone: (212) 683-4545

Dr. Gloria Mattera, Director
New York State Center for Migrant Studies
State University College of Arts and Science
Geneseo, New York 14454
Phone: (716) 245-5481

Mr. Ronald T. Hamm
Director of Public Relations
Southwestern Cooperative Education Laboratory, Inc.
117 Richmond Drive, N.E.
Albuquerque, New Mexico 87106
Phone: (505) 265-9561

Mr. Antonio E. Garcia
Director of Migrant Program
Southwest Educational Development Laboratory
Commodore Perry Hotel
Austin, Texas 78701
Phone: (512) 476-8861
NUTRITION PROGRAMS

Food and Nutrition Service
Child Nutrition Division
U. S. Department of Agriculture
Washington, D.C. 20250
Phone: (202) 963-5154

RURAL HEALTH PROGRAMS

Mr. Birly M. Sandlin
Acting Chief, Migrant Health Branch
Division of Health Care Services
Department of Health, Education, and Welfare
5600 Fishers Lane
Rockville, Maryland 20852
Phone: (301) 443-1180

VOCATIONAL EDUCATION PROGRAMS

Mr. Michael Russo
Acting Director, Division of Vocational and Technical Education
Bureau of Adult, Vocational and Technical Education
U. S. Office of Education
Washington, D.C. 20202
Phone: (202) 963-7641

HOUSING FOR MIGRANTS

Mr. Maurilio V. Ortiz
Special Assistant to the Assistant Secretary for Housing Management
U. S. Department of Housing and Urban Development
Washington, D.C. 20410
Phone: (202) 755-6585

COMMUNITY PROGRAMS FOR MIGRANTS

Mr. Gary A. Weissman
Acting Chief, Migrant and Seasonal Farmworkers Division
Office of Economic Opportunity
1200 - 19th Street, N.W.
Washington, D.C. 20506
Phone: (202) 254-5656

INTERAGENCY COORDINATION OF PROGRAMS INVOLVING SPANISH SURNAMED AMERICANS

Mr. Manuel A. Carrillo
Office for Spanish Surnamed Americans
U. S. Department of Health, Education, and Welfare
Washington, D.C. 20201
Phone: (202) 962-7979

CIVIL RIGHTS AND EQUAL OPPORTUNITIES

Mr. Raymond D. Telles
Commissioner
Equal Employment Opportunities Commission
Washington, D.C. 20506
Phone: (202) 343-3134