THE PURPOSE OF THE PROPOSAL WAS TO DEVELOP A SYSTEM WHICH WOULD EFFICIENTLY FOLLOW UP STUDENTS WITH VOCATIONAL PREPARATORY TRAINING. THE RESULTS WOULD GIVE THE FEDERAL, STATE, AND LOCAL SCHOOL ADMINISTRATORS FACTUAL INFORMATION ON THE PRODUCTIVENESS OF VOCATIONAL COURSES, AND IT WOULD INDICATE WHETHER THE STUDENT WAS EMPLOYED IN THE OCCUPATION FOR WHICH HE WAS TRAINED. STEPS ARE OUTLINED FOR A FOLLOWUP SYSTEM DESIGNED TO -- (1) GENERATE A HIGH PERCENTAGE OF RESPONSE, (2) PERMIT EASE OF ADMINISTRATION AT THE SCHOOL AND INSTRUCTOR LEVELS, (3) CAPTURE THE NECESSARY DATA WITH WHICH TO MAKE VALID STATISTICAL REPORTS AND STUDIES ON THE EFFECTIVENESS OF VOCATIONAL PREPARATORY TRAINING. THE SYSTEM WOULD USE BOTH PSYCHOLOGICAL AND MECHANICAL METHODS OF ENCOURAGING VOLUNTARY RESPONSE FROM THE FORMER STUDENT, AND IS DESIGNED TO SIMPLIFY THE PAPER WORK AND THE ACTUAL FOLLOWUP ACTIVITIES AT THE SCHOOL. A LIST OF SOME OF THE QUESTIONS WHICH THE FOLLOWUP STUDY COULD ANSWER, SUGGESTED USES OF THE STUDY, GENERAL FLOW CHART, TIMETABLE, AND SAMPLE INFORMATION FORMS ARE INCLUDED. (SL)
FOLLOW-UP STUDY
Vocational Preparatory Students

A Proposed System
for
The State of Washington

Prepared under Supervision of the
State Office of Public Instruction

Dr. Ray E. Jongeward
Research Director

Patrick J. Mailey, CDP
Student Follow-Up Project

Dr. Fred V. Miner,
Research Coordinating Unit Director

LOUIS BRUNO
State Superintendent of Public Instruction
Olympia, Washington
August 1966
STATE BOARD FOR VOCATIONAL EDUCATION

STUDENT FOLLOW-UP RESEARCH PROPOSAL

by

Patrick J. Mailey, CDP
Research Project

under the direction of

Fred V. Miner, Ed. D.
Director
Research Coordinating Unit

Prepared under supervision of the Research Office of The Department of Public Instruction

Ray E. Jongeward
Director of Research

LOUIS BRUNO
State Superintendent of Public Instruction
Olympia, Washington
The State of Washington supports one of the most progressive and comprehensive Vocational Education programs in the nation. Aside from serving people by training them for gainful and useful employment, the diversification of vocational courses fills a serious job need in this State. However, a thorough study of the true effectiveness of these training courses has never been made on a State-wide approach.

The purpose of this research project is to develop a system which would efficiently follow students who have had vocational preparatory training. The results of this Follow-Up would give federal, State, and local school administrators factual information on the productivity of the many vocational courses. It would, above all, answer the question: Was the student employed in the occupation for which he was trained?

Of course, other data would be made available which would make possible a close evaluation of the job being done in Vocational Education programs.

This system, then, would provide for the collecting and analyzing of information about the results of Vocational Education in the State of Washington.

The system proposes to use electronic data processing techniques to facilitate the handling, computing, and summarization of data into meaningful reports.

My sincere appreciation must be extended to the many Research Coordinating Unit Directors across the nation who responded to my plea for Follow-Up information in their States. Special thanks to Norman P. Mitby, Director, Madison Vocational, Technical and Adult Schools, Madison, Wisconsin, who showed the way to a simplified approach to the problem and who convinced me that a Follow-Up study was practical and worthy of the effort.

To the many instructors, counselors, vocational directors, administrators, and supervisors across the State of Washington, I owe a debt of gratitude. Their contributions to this proposed system make it their custom design.

Dr. Alan Metcalf and Norm Gibson, of the Research Department, I am especially indebted. These men not only served as resilient sounding boards but gave me invaluable assistance.

Dr. Fred V. Miner, the Research Coordinating Unit Director, who fostered the idea of a computerized Follow-Up system in this State, and who kept me from wandering too far astray from the subject, my thanks.

PATRICK J. MAILEY, CDP
FOLLOW-UP RESEARCH PROJECT
VOCATIONAL EDUCATION
STUDENT FOLLOW-UP

THE SYSTEM:

The Follow-Up system is designed with three main considerations:

I. Generate a high percentage of response.
II. Ease of administering at the school and instructor levels.
III. Capture the necessary data with which to make valid statistical reports and studies on the effectiveness of vocational preparatory training.

I. Generate a High Percentage of Response:

The Follow-Up system is designed to use practical methods of encouraging voluntary response from the former student. These methods are both psychological and mechanical.

A. PSYCHOLOGICAL METHODS

Perhaps the key method in the entire system is the "conditioning" of the student, while he is in school, to respond to a future questionnaire. This can be done in several ways, some of which are:

(1) The instructor/student relationship is probably the more important method. Good instructors will be in contact with their former students. Perhaps all that is needed is a more conscious awareness on the part of instructor and student that Follow-Up will help the instructor maintain a current file on former students.

(2) Have student fill out a SAMPLE questionnaire, while he is in school, so that any misunderstandings on question interpretation can be cleared up at that time.

(3) Be certain the student is aware the system will locate him and, if necessary, a personal interview can be obtained, even though the student may have moved to a foreign country. This must be subtle in tone as voluntary response should be emphasized.

(4) Entry and exit reminders to the student that he will be expected to respond to a brief Follow-Up questionnaire in the future.

(5) Other miscellaneous methods of conditioning the student are:
Campus newspapers can promote "Follow-Up" through articles and advertisements. Lunchroom banners reminding
the student of "Follow-Up"; packets of "we have moved" cards, a percentage of which would be pre-addressed to the former students' instructor; radio, T.V., and the press could also provide public service announcements at response time; birthday cards provided for the instructors to send to their former students, if they wish, -- included, of course, could be a "Follow-Up" postal card which would provide space for any change in status of the student for updating existing records.

(6) The student should be completely educated to the purpose of "Follow-Up". The usefulness of the information to the people of the state should be emphasized as well as the personal interest the instructor has in the student's future. An unmistakable understanding of the positive nature of "Follow-Up" should dispel distrust at response time.

All of these methods should tend to "condition" the student to respond. These are, fundamentally, psychological methods.

B. MECHANICAL METHODS:

Modern data processing techniques, using the computer, can greatly facilitate the uniform storing of standardized data, maintain control over the system, automatically generate response questionnaires, and, quickly and accurately identify the non-respondents for implementation of routines designed to acquire additional responses.

(1) By use of a standardized STUDENT EXIT FORM, filled out when the student exits from any vocational preparatory program, the data needed on the student can be captured. Examples of such data are: Social Security Number, Course Code, Birth Date, Type Student (Rehab., P.L. 815, etc.), Current Address, Current Employer (if any), Military Status, Exit Date, etc. THIS FORM MUST BE FILLED OUT FOR EVERY STUDENT WHO LEAVES A COURSE, WHETHER THIS IS A TRANSFER, EARLY DEPARTURE, OR GRADUATE. A space to indicate whether or not the student is employable at the time of departure will be provided on the form.

(2) The exit form will be batch assembled, with a control posted at the school on the number of forms assembled per batch, and, then, the batch mailed to Central Processing. At arrival they will be key punched/key verified, balanced to the controls and captured, by computer, on magnetic tape. THE INFORMATION WHICH IS ON THE EXIT FORM WILL NOW BE ON MAGNETIC TAPE FOR FUTURE PROCESSING. Each batch would contain not more than 100 Exit Forms and be transmitted to Central Processing upon reaching that approximate figure, excepting at close off time.
(3) At intervals of, perhaps, three months, the Computer
will print out the Instructors Record. This record
will show the current address and current employer
of the student. It will also show the students mili-
tary status and whether the student has continued his
schooling full time. This instructors record will be
printed on 24# weight paper; this is near-post-card
weight for durability. It will provide space for the
instructor to up-date any information he receives on
his former student. It is hoped this record will be
of considerable help to the instructors.

(4) The MAIL-OUT OF QUESTIONNAIRES would be next in the
cycle. The computer would generate these response
questionnaires in the form of a pre-printed IBM card,
i.e., the questions would be pre-printed on the card
form. The card would then have the students name,
social security number, course number and, school code
prepunched into it. The card would be personalized as
to school. If the Follow-Up procedure were adopted to
begin this September (1966), the first mail-out would
be approximately October 1, 1967. A study could then
be made on those who had exited before July 31, 1967,
and, on whom, an Exit Form was transmitted.

(5) The MAIL-OUT of questionnaire cards would be from the
city of the school. They would be accompanied by a
First Class Mail envelope, pre-addressed to Central Pro-
cessing, and, pre-stamped. The former student would
reply, place card in the envelope and mail within 10
days. After 10 days, a Reminder Questionnaire Card
would be mailed out from Central Processing to those
who have not responded to the first wave. After an ad-
ditional 10 days, non-respondent lists would be mailed
to the individual course instructors, accompanied by a
Personalized Questionnaire card. This card could be
filled in by the instructor, if he definitely knows the
answers to the questions asked, or, it could be referred
to the non-responding student by the instructor. The
importance of keeping an accurate Instructors Record is
obvious at this point. The Address Unknowns would be
searched by the computer through the Employment Security
Department and the Department of Licensing.

It is hoped that the three step sequence; Original mail-
out, reminder card, and, instructor personalized response
card, will result in an 85% response. If it does not,
a non-respondent list can be given to the Retail Credit
Co., an International Fact-Gathering Service, and they
will use their system in locating and interviewing at least
a random sampling of non-respondents. Experience of other
Follow-Up studies indicates the Retail Credit Co. has a very effective system. The latter method would be used only as a reserve for economic reasons.

(6) The Change of Status form would be used to report to Central Processing any changes pertinent to the Follow-Up study. For example: change of address, employer, name, military status, position, schooling, etc. This form would be available to the schools and instructors to send in as the change in status occurs. These, then, would not be batch assembled or controlled. They are intended to be a convenient, standardized method of reporting to Central Processing. They would immediately cause an up-dating of the computer magnetic tape record on the student. The result would be a more current address and status file on the former student at response time.

This completes the Mechanical methods to be used in getting the response from the former students. Only a combination of the Psychological and Mechanical methods will insure maximum response. Both need to be studied carefully and implemented fully.

11. Ease of Administering at Schools and Instructor Levels

The Follow-Up System is designed to simplify the paperwork and actual Follow-Up activities at the schools. There are three basic clerical functions required:

(1) FILLING OUT THE EXIT FORM. The schools will be responsible for the accounting of each student who exits from a course, whether this is a transfer to another course or program, graduation, or departure from school for any reason. In some schools this has been loosely controlled, such that, students literally disappear from the scene. The formalization of exiting will need additional emphasis. Students absent from school, without notifying the office or instructor, will need to be contacted more frequently and at an early date in their absence. Students need to be impressed with the idea that leaving the school requires a formal procedure similar to that required at registration time. A few schools expect to include an "agreement" between the student and school at registration time, that he will formalize his exit from school and respond to future Follow-Up questionnaires.

(2) MAINTAINING THE INSTRUCTORS RECORD. The instructors record will be automatically produced by the computer at Central Processing for the convenience of the instructor in maintaining a file on former students. It will be of durable weight paper, file size, and contain basic information on
the student as captured by the EXIT Form. There will be ample space provided which can be used for up-dating the students post-course history. This form, while a convenience to the instructor, would be used as reference when the instructor receives his non-respondent list. The non-respondent list would be mailed to the instructor ONLY after the second wave of questionnaires have been given sufficient time for response. The instructor would not be responsible for finding EVERYONE on the list, but, those whom his records identify or who are relatively easy to contact. If he knows the information he may answer and mail-in a personalized response card himself. This would be the only burden on the instructors.

(3) THE CHANGE OF STATUS FORM. This form may be used by the school or instructor to note any pertinent change in status on a former student. No control would be maintained. It is hoped this would provide a convenient method of reporting to Central Processing any known changes in status of former students, so that, at response time the most current addresses, and other data will facilitate Follow-Up response.

III. Reporting the Result of the Follow-Up Study

The purpose of the Follow-Up study is to produce valid statistical reports on the effectiveness of vocational preparatory training: to answer the basic question -- is the former student employed in the occupation for which he was trained?

Follow-Up has been designed to capture sufficient raw data with which to make a comprehensive analysis of statewide and local courses of instruction. These reports would be produced on Electronic Data Processing equipment. The design of the reports would emphasize ease of reading and simplicity in presenting the data. It would not be necessary to refer to a code manual or interpreter in order to study these reports.

The reports can be as detailed as needed and/or in summary form. They can be run to satisfy the interests of State and Federal administrators, local school administrators, department heads, instructors, and former students.

The report requirements must be outlined previously to an EDP Systems Programmer assigned to the study. He must be given precisely what it is the concerned individual needs to know. If it is within the source data, the report can be produced. However, the Systems Programmer must be given sufficient "lead time" to write, debug, and test his computer program. Anticipation of individual requirements from the Follow-Up survey must be made approximately six months before the questionnaires are mailed out. This planning will expedite the running of the reports on the computer and the prompt distribution to the concerned responsible parties. It is expected that all reports will be run and distributed to the various recipients within two (2) months after the initial mailing of the Follow-Up questionnaire cards. (For example, if the response questionnaire cards were to be
mailed on October 1, 1961, the final reports will be produced and distributed by December 1, 1967.)

In addition to the required reports, other studies may be made, but, if these are not planned for in advance by those who request them, there will be delays of from two days to two months before they are received.

The reports would cover those courses pre-determined to be covered by the Follow-Up study. This determination would probably be made by State Supervisors, School Administrators, and Directors. Once this determination is made there must be no changes other than deletion of courses. Any additions would be included in a subsequent survey but not in the initial survey. The reason for this pre-determination is the maintenance of stability and control of the system.
Some of the questions which the Follow-Up study can answer are:

Is the former student working in the occupation for which he was trained?

Is he working in a related field?

What percentage of vocational preparatory students find employment in the occupation for which they were trained?

In related employment?

Is he in the Armed Forces?

Is he continuing his education full time?

Is he employed?

Was he hired because of his training?

Did his training contribute significantly to his progress on the job?

Did he seek employment in the occupation for which he was trained?

What was his beginning salary after training? Present?

Does the student feel his training was "worth it"?

Would he retrain in a vocational school?

What abilities or skills were needed on the job that were not included in his training?

Which courses, which schools, had the greatest percentage of response to the Follow-Up survey?

Are there strengths and weaknesses in vocational programs in certain areas within the State?

How are the Rehabilitation students succeeding as compared with the balance of the population of former students?

Are some courses too long? Too short?

Are there courses which need additional emphasis?

Are there courses which should be de-emphasized?

What are the employment figures for male, female? Age groups?
What is the mobility of the student, by school and course, before he becomes trained for a specific occupation?

Does a high turnover of students indicate poor or inadequate counseling? Instruction?

How many students drop from a given course before becoming employable in the occupation for which the course trains?

How many employable former students have remained in Washington State?

How many have moved to other States?

What is the average age of the vocational student?

What is the average income, by course, of students who are working in the job for which they were trained?

What are the employment figures by State; by school; by school and course; by course and school; by school, course, and type of student (Rehab, P.L. 815, etc.); by course and age; by course and sex; by age, sex, and course; by type of vocational program (Voc Ag., T & I. etc.); by type of vocational program and course; by school, type of vocational program, and course; by type of program and age; and many other combinations of statistical information.

The foregoing questions are but a sampling of some of the information which can be available after an effective Follow-Up survey in this State. Again, if the information has been captured in the source documents (the Exit form and Follow-Up Questionnaire card) then, it is available for reporting in any sequence desired by those needing the information.
The findings of this study will be of value only if they are used constructively. Following is a list of various ways in which the results of this study can be used.

1. Used to emphasize the primary objective of vocational education, "training for useful employment."

2. Used with local Boards of Education and State Board for Vocational Education to show evidence as to services provided to people by the vocational education program.

3. Used with members of legislature and legislative committees to show effectiveness of program of vocational education.

4. Used with consulting or advisory committees to show evidence of placement and need or lack of need for training.

5. Used with craft committees when it is desirable to bring about an improvement in the placement of graduates in those craft fields.

6. Used to upgrade the public image of vocational training.

7. Used for publicity purposes on state and/or local level.

8. Used at state-wide meetings of local directors and supervisors to focus attention on:
   a. Employment and placement trends
   b. Reasons for good or poor placement
   c. Courses with marginal values
   d. Causes for lack of completion of training

9. Used by state supervisors for consultation with local directors or supervisors to aid in recognizing need for establishment, consolidation, reorganization and/or elimination of training opportunities in certain course areas.

10. Used in working with planning committees when new schools are under construction or consideration as indication of variety of training opportunities available in area.

11. Used by guidance counselors when counseling students to indicate opportunities for employment in various fields.

12. Used as a means of identifying strengths and weaknesses in local programs.

Patrick J. Mailey
Vocational Education
Student Follow-up Project
Department of Education - Research
State of Washington
This is an example of the schedule which would be followed if the follow-up system were to be adopted. This schedule exits from vocational preparatory courses between Oct. 1, 1966 and July 31, 1967.

EXECUTION

Time table of follow-up

Prepared by P. J. Mailey
August, 1966
STATE OF WASHINGTON DEPARTMENT OF EDUCATION

STUDENT EXIT FORM
FOLLOW-UP

YOUR SCHOOL NAME
CITY, STATE

FORM NO. FU-1

STUDENT NAME: LAST FIRST MIDDLE INITIAL

ADDRESS

CITY & STATE

TELEPHONE NO.

DATE OF BIRTH: MONTH - DAY - YEAR

TOTAL COURSE HOURS

HOURS STUDENT COMPLETED

EXIT DATE: MONTH DAY YEAR

AT EXIT, IS STUDENT EMPLOYABLE IN OCCUPATION FOR WHICH TRAINED? YES NO

D.O.T. CODE S.I.C. CODE

IS STUDENT CONTINUING SCHOOL FULL TIME? YES NO

IF YES, IS STUDENT ENROLLED IN ☐ ACAD. ☐ VOCAT. ☐ PREP. ☐ BOTH

STUDENT GOING ON ACTIVE DUTY IN ARMED FORCES? YES NO

REASON STUDENT IS LEAVING (IF CONFIDENTIAL LEAVE BLANK)

INSTRUCTIONS
REFER TO CODE MANUAL FOR CORRECT CODES. CAREFULLY DOUBLE CHECK THAT CORRECT CODE IS USED, BATCH ASSEMBLE AND ESTABLISH CONTROL. TRANSMIT EVERY 10 DAYS TO CENTRAL PROCESSING, P.O. BOX 349, OLYMPIA, WASHINGTON. PRINT ALL ENTRIES IN FULL, IF NOT FILLED IN COMPLETELY IT WILL BE RETURNED FOR COMPLETION.

STATE OF WASHINGTON DEPARTMENT OF EDUCATION

CHANGE OF STATUS FORM
FOLLOW-UP

YOUR SCHOOL NAME HERE
CITY, STATE

STUDENT NAME: LAST FIRST MIDDLE INITIAL

ADDRESS

CITY & STATE

TELEPHONE NO.

EMPLOYER

ADDRESS

CITY & STATE

BUSINESS TELEPHONE NO.

JOB TITLE (NEW)

D.O.T. CODE S.I.C. CODE

IS THIS OCCUPATION FOR WHICH TRAINED? YES NO RELATED

This form may be used to correct erroneous data.

No.
<table>
<thead>
<tr>
<th>STUDENT NAME &amp; ADDRESS</th>
<th>EMPLOYER NAME &amp; ADDRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TELEPHONE</td>
<td>BUSINESS PHONE</td>
</tr>
<tr>
<td>EXIT DATE</td>
<td>POSITION</td>
</tr>
<tr>
<td>BIRTH DATE</td>
<td>ARMED FORCES</td>
</tr>
<tr>
<td>DATE HIRED</td>
<td>DATE LEFT</td>
</tr>
<tr>
<td>CONTINUING SCHOOL</td>
<td></td>
</tr>
</tbody>
</table>

**OTHER NOTES:**

- Use this area for new addresses of student or employer.
- **TELEPHONE**
- **EXIT DATE**
- **DATE HIRED**
- **DATE LEFT**
- **CONTINUING SCHOOL**

**STATE OF WASHINGTON DEPARTMENT OF EDUCATION STUDENT FOLLOW-UP**

**INSTRUCTOR'S RECORD**

**SCHOOL**

**COURSE**

**DATE ISSUED**

**PAGE**
FORMER STUDENT: THIS IS YOUR FOLLOW-UP QUESTIONNAIRE. PLEASE RESPOND & MAIL WITHIN 10 DAYS.

1. ARE YOU ON ACTIVE DUTY IN THE ARMED FORCES? □ YES □ NO □
   (PARENTS, WIVES, RELATIVES AND FRIENDS MAY REPLY IF ABOVE IS YES)

2. ARE YOU PRESENTLY ENROLLED FULL TIME IN □ COLLEGE-4 YR. □ 2 YR. □ VOC.-TECH. □
   (CHECK ONLY ONE BOX PLEASE)

3. ARE YOU EMPLOYED IN THE OCCUPATION FOR WHICH YOU WERE TRAINED?
   □ (CHECK ONLY ONE BOX) □ YES □ PART TIME □ NO □ RELATED □ FULL TIME □ PART TIME □

4. IF ANSWER TO QUESTION NO. 3 IS NO, THEN, ARE YOU EMPLOYED FOR WAGES? □ YES □ NO □

5. DO YOU BELIEVE YOU WERE HIRED BECAUSE OF YOUR TRAINING? □ YES □ NO □

6. DO YOU FEEL YOUR TRAINING IS IMPORTANT TO YOUR JOB SUCCESS? □ YES □ NO □

7. WHAT WAS YOUR BEGINNING SALARY AFTER TRAINING? □ $__________ PRESENT $__________
   (MONTHLY RATE) □ (MONTHLY RATE)

8. DID YOU SEEK EMPLOYMENT IN OCCUPATION FOR WHICH YOU WERE TRAINED? □ YES □ NO □

9. DO YOU PLAN TO TAKE ADDITIONAL VOCATIONAL TRAINING? □ YES □ NO □

THE FOLLOWING TWO QUESTIONS ARE OPTIONAL:

10. WHAT IS YOUR PRESENT OCCUPATION? ____________________________
   JOB TITLE ____________________________

11. WHAT ABILITIES OR SKILLS WERE NEEDED ON THE JOB THAT WERE NOT INCLUDED IN YOUR TRAINING?

YOUR COMMENTS (IF ANY)

THANK YOU. YOU HAVE PERFORMED A VALUABLE SERVICE TO YOUR INSTRUCTOR, SCHOOL AND STATE.
BIOGRAPHY

Patrick J. Mailey, 44, has been a resident of Tacoma, Washington since 1930. He is a graduate of the University of Puget Sound, 1951, with a B.A. in Business Administration.

Mr. Mailey started his data processing career in 1951 as a tabulating equipment operator for the City of Tacoma. From 1953 to 1962 was associated with the United Pacific Insurance Co., Home Office, Tacoma, serving as Electronic Data Processing Production Supervisor the last five years. In June 1962 Mr. Mailey was employed by Clover Park School District #400 as department head/instructor of Data Processing Education in the Vocational Technical division, a position he presently holds.

He is active in the Data Processing Management Association, having served as an officer and board director of the Puget Sound and Mt. Rainier Chapters. He holds the Certificate in Data Processing (CDP), a professional accomplishment, having passed the examination held at the University of Washington in February, 1965.

Mr. Mailey is married and has four children. He and his family reside in Tacoma.