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The accomplishments and activities of Project Follow-Through, a system designed to gather data from college students, are reported for the first six months of its development (July 1 through December 31, 1968). The system will gather data from students at three distinct points during their junior college careers: (1) at their initial application for admission; (2) each semester during registration; and (3) during the semester while the student is attending class. The project will also gather data from those who have left college. The problems so far encountered, a look into the future of the project, and conclusions and recommendations are included, as well as a comprehensive appendix of project materials. (MC)

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Orange Coast Junior College District

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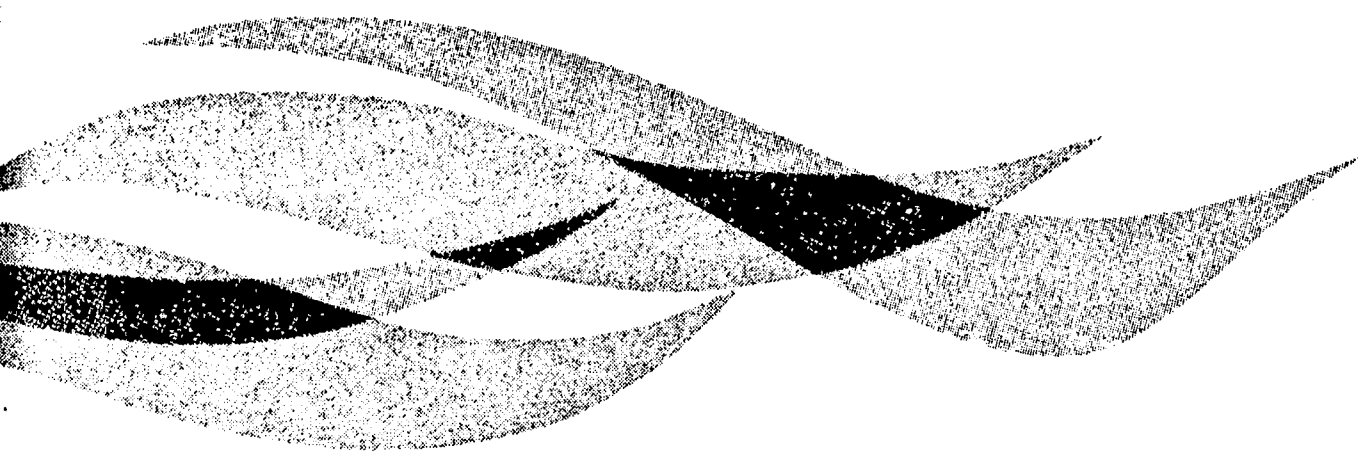

PROJECT FOLLOW-THROUGH

PROGRESS REPORT I

JANUARY, 1969

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ORANGE COAST JUNIOR COLLEGE DISTRICT

PROJECT FOLLOW-THROUGH

Progress Report I

January, 1969

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LOS ANGELES

FEB 24 1968

CLEARINGHOUSE FOR
JUNIOR COLLEGE
INFORMATION

PREFACE

This report summarizes the activities of Project Follow-Through, a project sponsored in part by the Bureau of Industrial Education of the California Community Colleges. The activities reviewed took place during the period of time from July 1, 1968, through December 31, 1968.

We are indebted to many for the help and solace we have been awarded during this period of travail. Advice and good counsel have been received from far too many to even list here. Cooperation and help above and beyond the call of duty were offered by many, however, whose contributions constrain us to award specific recognition. These include John Buller, Associate Dean of Students, Admissions and Records, Golden West College; Kenneth Mowrey, Dean, Admissions and Records, Orange Coast College; Fred Garcia, Associate Dean, Admissions and Records, Orange Coast College; John Owens, District Director, Vocational Education; Jack King, District Director of Data Processing; and, Carl Taylor, Data Processing Supervisor.

No project like the one reported here can hope for success without the full cooperation of the college faculties and administrative officials. The cooperation we have enjoyed while working with these people illustrates how well deserved is their reputation for excellence and for dedication to the improvement of community college education.

Finally, we salute especially Bonnie Borawski, our girl Friday, and Monty Ruth, our systems analyst-programmer, who, in the last analysis, are the ones who made it all work.

Richard Brightman

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PROJECT FOLLOW-THROUGH

I. REVIEW OF PROJECT FOLLOW-THROUGH PURPOSES

The purposes and objectives of Project Follow-Through have been outlined in some detail in the report entitled "Project Follow-Through" dated August, 1968. The paragraphs that follow summarize material found in that report.

A. The Need

Evidence is needed showing the extent to which community colleges, by means of various programs, are in fact meeting the educational needs of their clientele.

Proponents of community college education have been vocal in asserting their ability to achieve results in a number of areas: occupational preparation, transfer preparation, remedial education, in-service training, general education, counseling and guidance, and community service.

Current emphasis on education as a means of coping with problems involving employment, shortages of trained technicians, and poverty have resulted in considerable public and private expenditures to improve and expand educational opportunities for Americans. Congruent with the need to expand and improve education is the need to evaluate the

educational processes offered at colleges and other institutions to determine how best to expand and what and how to improve.

One of the prime measures of the efficiency of the institution in meeting the educational needs of its clientele will appear to be an assessment of results. To what extent has the student with junior college experience profited from his education? How well prepared is he for his occupational role? How successful is he in other areas of life? To what extent have specific remedial courses accomplished their objectives?

A prerequisite to evaluating educational programs is the availability to institutions who would perform such evaluation of an information system capable of providing the data needed for appropriate analysis. Also needed is a standardized, systematic means by which reports required by funding institutions can be prepared. Developing a data processing system which would serve these needs would do much to improve the efficiency with which public and private funds may be used to improve education.

B. The Importance

The growth of the community college during the last two decades has been little short of phenomenal. All indications suggest that growth will continue or be accelerated during the next decade.

An assessment of the results of community college education, or the product effectiveness, can be of the greatest importance in asserting new and existing institutions to modify programs, adjust emphasis, and evaluate techniques. The results of such a study can bring significant facts to bear on such areas as facilities, curriculum, personnel, and organization.

C. The Plan

The most critical prerequisite of meeting community college needs for program education deals with the implementation of an information storage and retrieval system. From the broadest perspective, the purpose of Project Follow-Through is to design just such a system and to design it in a manner that would make it applicable to the needs of most junior colleges with a minimum of pain. The system is not meant to completely replace data processing systems now used for purposes of class registration, student accounting, and similar purposes. It may, however, serve as a basis upon which standardized systems for such purposes may be developed.

The specific purposes of Project Follow-Through may be divided into several distinct parts.

1. Development of an information storage and retrieval system for the purpose of making data available to those who would use them for purposes of educational program evaluation. The system will gather data from students while the students are enrolled and will continue to gather data after the student leaves college.

2. Development of a data processing system which, using data collection techniques implemented for purposes of #1, above, will produce the various reports used for local, state, and federal reporting of data related to students enrolled in trade and technical education.

3. Conduct initial studies, using data gathered under #1, above, for students in the Orange Coast Junior College District during the school years 1968-69 and 69-70. Such studies will serve these purposes:

   a. They will provide an operating test of the information storage and retrieval system.

   b. They will serve as the basis of initial evaluation of educational programs in the College District.

4. Initial design and implementation of long-term student follow-up studies designed to provide continuing evaluation and improvement of educational programs conducted at Orange Coast and Golden West Colleges.

5. Initial evaluation of the "Proposed System for Reporting Job Placement Follow-Through Data" developed during the school year 1966-67 by Wayne Harris of the San Diego Junior Colleges under the sponsorship of the Bureau of Industrial Education of the California Community Colleges.

II. SUBJECT OF PROGRESS REPORT I

Progress Report I reviews the accomplishments and activities of Project Follow-Through during the period July 1, 1968, through December 31, 1968. During this period, the project devoted its efforts to three main areas: developing an information system, evaluating the "Proposed System for Reporting Job Placement Follow-Through Data," designed by Wayne Harris of the San Diego Junior Colleges, and implementing a reporting system which prepares the various forms and reports required by the Bureau of Industrial Education with respect to reimbursed trade and technical course offerings.

The information system gathers data from students at three distinct points during their careers at one of the junior colleges within the Orange Coast Junior College District: when the student applies for initial admission; each semester for which he enrolls in courses at his college; and once during the semester while the student is attending class. In addition, the system will gather data from those who have left college.

The Bureau of Industrial Education of the California Community Colleges has invited the Orange Coast Junior College District to join with Modesto Junior College and San Jose Junior College in evaluating the reporting system designed by Wayne Harris. Much of the design of the information system, described in the preceding paragraph, reflects the work initially done by Mr. Harris. As a result, the information system, described in the pages to follow, represents an outgrowth of this first effort and may be used as a springboard to evaluate the Harris proposal.

In addition, the Harris proposal makes at least oblique reference to the production of forms required by the Bureau of Industrial education for reporting of data concerning trade and technical courses. Initial steps have been taken to implement a reporting system using the same basic files developed for the information system.

Each of the three activities briefly described above will be discussed in detail in the sections to follow. Documentation, record formats, charts, and illustrations, to which these sections refer from time to time, appear in an appendix at the end of this report.

III. INFORMATION SYSTEM

The information system, designed to serve the needs discussed in Section I of this report, consists of a number of data gathering devices and a complex of files in which data gathered from students and other sources are maintained. Pictorially, this system appears quite simple, as seen from Figure 1 in Appendix A. The system employs four data gathering devices completed by each student to be included in the study. These are completed by students at different times during their college careers. Application data are gathered when students first apply for admission to junior college. Registration data are gathered from students each semester for which the student enrolls for course work. Students complete one short questionnaire for each course in which they are enrolled. Finally, once a student leaves the college, follow-up data are gathered to determine his activities after college.

The various data gathering devices, data files, record formats, and processing procedures, employed in the information system will be discussed in the paragraphs to follow. Full appreciation of the thought processes underlying their development suggests a chronological review of the system's development as an outgrowth of the system proposed by Wayne Harris. This is the approach we will take.

A. Population

The set of students, from whom data are collected, was determined early in the study. Harris designed his system specifically for students majoring in trade and technical occupational programs. In response to

needs of the District for studies of all students, not only those majoring in trade and technical areas, we decided to expand the population to include students of all majors, both transfer and terminal.

This larger view, we believe, will serve the needs of trade and technical program evaluation more adequately than one which attempts to determine a college student's major area at the time the student applies for admission. In view of the long-established fact that college students, and particularly junior college students, change majors frequently during the course of their college experience, it seems to us more realistic to determine whether or not a student is (or was) an industrial student after he has completed his program or left college. In this way, even if a student should elect an industrial major as late as third or fourth semester of work, the data concerning his earlier course work and his personal data at the time he entered college are complete. We have a full historical record of his college experience. This avoids the necessity of trying to gather historical data for such students on an a posteriori basis, a process invariably doomed to some degree of failure.

The two colleges within the Orange Coast Junior College District, Golden West College and Orange Coast College, both offer courses in the day and in the evening. Evening college operations are conducted separately from day school operations and the District maintains a distinct evening college division which offers evening courses at both colleges. As a result, students within the District are classified as day or evening students according to the following criteria:

1. Students enrolled only in courses offered by the evening college (even though such courses may have parallel day college offerings) are defined as evening college students.

2. All other students are defined as day college students. Thus, a student enrolled, for example, in two evening college courses and one day college course would be classified as a day college student.

The District distinguishes between full and part-time students as well. A full-time student is one who is enrolled in 12 or more college units of work in the semester. Any student enrolled in less than 12 college units during a semester is classified as a part-time student.

Initially, we decided to gather data on all full-time day college students who registered for the first time in the District during the school year 1968-69 and all subsequent years. In addition, some data were to be gathered for part-time evening college students enrolled in specified trade and technical courses.

Early statistics describing student enrollments indicated that a substantial number of students initially enrolling in 12 or more units, and consequently classified as full-time students, withdrew from courses to extents that reclassified them as part-time students. Believing this phenomenon to be important and frequent enough to warrent further study, we decided to expand our population to include all day school students, whether full or part time, as well as evening students enrolled in specified trade and technical courses. This doubled the number of students to be included in the project.

At the present time, data are being gathered from all students meeting the following characteristics:

1. Day school student, full or part time.

2. Registered for college work for the first time in the District during the school year 1968-69 and all subsequent years.

3. Registered in specified trade and technical courses in the evening college (initial entrance into the District not considered).

Thus, a student is included in the study if he meets both characteristics 1 and 2 or if he satisfies only characteristic 3.

Data have been gathered for 4,895 students meeting these criteria and who have been attending the Fall, 1968 Semester. Once a student becomes part of the study (by registering as a day college student), the system continues to gather data from him even though in later semesters he may register only as an evening college student. We anticipate the number of students participating in the project to increase by 3,000 to 5,000 students each semester.

B. Application Data

Project Follow-Through got under way during the summer of 1968. Application and registration procedures for entering freshmen for the Fall Semester, 1968, had been completed by the majority of high school graduates within the District who intended to register for classes in the Fall Semester. This was done before June, prior to fall registration. As a result, the only way to gather data on many incoming freshmen involved the use of a mail questionnaire which would gather data to supplement that already gathered as a matter of course in the regular college matriculation procedure. The supplementary data would satisfy the requirements of the Harris proposal evaluation and the needs of the District.

The questionnaire form used to gather the supplementary data appears as Figure 2 in Appendix A. This document was mailed to 3,090 full-time day college students. Address labels were affixed to the top of the questionnaire in such a way that they showed through window envelopes

used to mail the questionnaire to the student. The material sent to the student included a prepaid, postage return envelope and an explanatory letter which is included in Appendix A as Figure 3.

While preparing this mailing, we decided, as described in the preceding section, to include, as part of the population of the project, part-time students as well. Additional labels were produced accordingly and a second mailing to 1,805 part-time day college students was prepared and mailed.

Our returns from these two mailings were excellent. Generally, one looks upon a rate of return for mail questionnaires of 8 per cent to 10 per cent as very good. Our rate of return exceeded 49 per cent. Had we been able to present our questionnaire to the students when they applied for admission and registered, as was intended in the Harris proposal, we would have enjoyed close to 100 per cent response. Thus, we prepared yet a third mailing of 2,487 questionnaires which was sent to those who did not return their first questionnaire. These were accompanied by the letter shown as Figure 4. As of this writing, it is too early to assess the success of the third mailing in terms of response frequency.

Hereafter, data to be gathered from students when the student originally matriculates at one of the District colleges will be done so as part of the regular admissions procedure. To accomplish this, the admissions application form used by the colleges was modified to include the additional questionnaire items required by Project Follow-Through. The document which does this appears as Figure 5 in Appendix A. Pages 1 and 2 of Figure 5 represent the application form used by the District colleges prior to the modification required by Project Follow-Through. A second sheet was added, with a perforated crease, which contained the

additional data items to be gathered for the purposes of the project. The student's name and other identifying data are written, as before, on the first page and this writing is recorded through the use of carbon ink on that part of the form containing the Project Follow-Through questions. In this way, the student's name and identification need only be written once, thus avoiding errors that inevitably arise through copying numerical data. Pages 1 and 2 are processed in ways which fit the matriculation needs of the colleges. Pages 2 and 3 are separated from pages 1 and 2 and delivered to the Project Follow-Through operation for its processing. Eventually, data from all four pages of the application form find their way into the Project Follow-Through files. This requires coordination with the District Data Processing office and use of their student master records as the source for the information found on the first two pages of the application form.

C. Registration Data

The Harris proposal considered the use of in-class questionnaires to gather data concerning students each semester. These data were of two varieties: data concerning each course the student was taking and data concerning the student's future plans. Three different questionnaires were to be delivered to each student in courses in which the student was enrolled. Two of these, entitled "Verification of Enrollment, Form F1" and "In-Class Follow-Through, Form F-3," appear in Figure 6 in Appendix A. In addition, each student was to receive, during the course of the semester, and while in class, a verification of address questionnaire, the purpose of which was to assure that the student's current address is on file.

The F1 questionnaire was to have been sent to each class in which the student is enrolled. Only one was to have been completely filled out, the remaining questionnaires used only to indicate whether or not the student was still enrolled. Similarly, the address verification form and Form F3 was to be completed only once each semester by students.

In reaction to various inherent shortcomings of using three in-class questionnaires in this fashion, we decided to try to streamline the procedure. Address verification takes place, in our scheme, once each semester when students enroll in classes. This is already done at both colleges in the District and we intend to take advantage of this.

In an effort to avoid confusion and duplicated effort, we designed the two cards shown in Figure 7 to serve as in-class questionnaires. Form F-1Q was delivered to one of the courses in which each student in the population was enrolled. Form F-1V was sent to each of the remaining courses in each student's schedule. Thus, if a student was enrolled in four different courses, he was asked to answer Form F1-Q in one of the four, and he was asked to answer Form F1-V in each of the remaining three. The questions asked in these questionnaires yeilded essentially the same data as Harris' Forms F1 and F3.

Inasmuch as three of the five questions on Form F-1Q gather data which are relatively constant throughout the semester and in view of our desire to add questions which would not easily fit into this punched card format, we decided to introduce these questions in a short questionnaire to be answered by students during the class enrollment and registration process conducted each semester. In this way, questions relating specifically to particular courses within a student's schedule could be asked using a very, very brief in-class questionnaire and other questions, of a more

general nature but which would yeild data likely to change from semester to semester, could be asked during registration. Acting upon this, we designed an enrollment questionnaire to be completed by students during the registration process. This questionnaire gathers data found in Harris' Forms F1 and F3 as well as additional information of interest to the District. This enrollment questionnaire appears as Figure 8.

Use of the enrollment questionnaire was introduced into the enrollment and registration procedure for the Spring Semester, 1969. Every day school student registering for classes was required, as part of the registration procedure, to complete the questionnaire. The process of answering the questions required less than three minutes of time for any one student. This was an important consideration in view of timing problems faced by the colleges in processing large numbers of students during the registration periods. At Orange Coast College, for example, fall registration, 1968, required processing up to 1,500 students in any one day. Questionnaires to be answered by students during this activity are not viewed charitably by either students or administrators.

D. In-Class Data

During the Fall Semester, 1968-69, over 38,000 in-class questionnaires were produced and distributed to students while in class. Part of the decision (discussed in the preceding section) to ask many of these questions during the registration process amounted to deciding to change the nature of the questionnaire to be used in class. Reactions solicited from both faculty and students suggested that changes in the nature of the questions themselves were in order. These reactions and our interpretation of them are discussed in more detail in the section of this report entitled "Evaluation of Wayne Harris Proposal."

As of this writing, we are investigating the use of a shorter in-class questionnaire to be delivered to each class in which students participating in the study enroll. The tentative questionnaire, which appears in Appendix A as Figure 9, was delivered to the District faculty for their reaction early in January, 1969, and we anticipate that it will be used during the Spring Semester.

It should be observed that the data gathered by the application form, the enrollment questionnaire, and the in-class questionnaire are essentially the same as that suggested in the Harris proposal with the addition of data items desired for our own purposes.

E. Follow-Up Data

A follow-up questionnaire will be sent to all students who do not re-enroll in a semester following one in which they were enrolled. The document to be used for this purpose is still under development but most of the data items to be found on it have been determined and appear on the tentative follow-up questionnaire appearing in Figure 10. As with the data items on the application questionnaire, the enrollment questionnaire, and the in-class questionnaire, items included with the follow-up questionnaire are designed to serve the needs expressed by the Harris proposal as well as those unique to the District.

Additional questions of the open-end variety are under consideration for use with this instrument. These include, among several under study, the following examples.

1. What is the most important change in your life that has been brought about as a result of your junior college experience?

2. In what ways has your junior college experience assisted you in what you are now doing (for example: financially, educationally, socially)?

3. In what ways do you believe junior college should have assisted you in what you are now doing but which it did not?

4. What one junior college experience did you find most useful and beneficial to you?

5. What one junior college experience did you find least useful and beneficial to you?

F. Data Files

Data gathered through the use of devices discussed in the preceding sections are transcribed into punched cards using manual keypunch methods and are stored in a data bank, that is, a set of files, from which the data may be made available for a variety of studies. Two different files are used to store data gathered from students. These are the student master file and the enrollment file. The student master file stores relatively constant data describing basic student characteristics gathered through the use of the application and enrollment questionnaires as well as data which may vary from semester to semester such as number of hours per week the student works, whether or not he is seeking employment as of the first of the semester, and other data eminenting primarily from the enrollment questionnaire.

The enrollment file stores data concerning each course in which the student is enrolled during a semester. This file was built by providing one record for each course in which each student was enrolled. The result, in our District, is a file with over 53,000 records. This file may then

be processed to produce a number of reports relating to student enrollment statistics.

Figures 11 and 12 in Appendix A illustrate the record layouts of the student master file and the enrollment file respectively. To date, no reports have been produced using data in either of these files since, as of this writing, the data has not been completely gathered and processed for the Fall Semester, 1968. The in-class questionnaires, however, which were produced and distributed during the semesters were produced through use of the enrollment file as illustrated in Figure 13. Similarly, the third mailing of supplementary registration questionnaires were produced through the use of the student master record file. The file was scanned to determine those students for whom no supplementary data existed. Address labels were produced for each.

In addition to the two files described here and in Figures 11 and 12 of Appendix A, the total information system under development by Project Follow-Through includes other data files to serve the purposes of the reporting system for reimbursed trade and technical courses. These data files will be discussed in the section dealing with that reporting system.

G. The League for Innovation in the Community College

In the development of the data gathering and storage system described in the preceding pages, Orange Coast Junior College District has worked closely with the League for Innovation in the Community College, an organization devoted to encouraging and evaluating innovation and experimentation designed to improve all aspects of community college operation. The League is considering the development of a long-term study of junior college methodology and evaluation of results. This study

presumes the development of an information system capable of gathering, storing, and retrieving substantial quantities of data and one which would be amenable to use by a number of different colleges.

League membership consists of 32 different junior college districts throughout the United States representing almost 90 junior colleges. A committee of League members, consisting of representatives from Los Angeles Southwestern College, Bakersfield College, the University of California at Los Angeles, Orange Coast Junior College District, and members of the League staff, are working closely with the Research and Development Center at the University of California at Los Angeles to develop a research design to serve as the basis for seeking funding of the entire project. Project Follow-Through is deeply involved in this activity of the League. We look forward to substantial benefits from this relationship.

H. Other Information Systems Under Development

Project Follow-Through has become acquainted with the development of other information systems for the purpose of educational evaluation. These are listed and briefly described here.

1. As discussed above, the League for Innovation in the Community College is considering the development of an information system. This effort is likely to result in a centralized, League-operated information system serving research and evaluation needs of all members of the League.

2. Culver City Unified School District has been operating an information system under a project entitled "Baseline Data Project: Total Pupil Information System" for some years now. This project has yielded important successes in assessing the needs of individual students in that district. Even more promising prospects are reported to be in the offing.

3. An organization of northern California community colleges, calling itself the Northern California Research Group, is requesting federal funding of a student attrition study to be jointly conducted by 37 colleges.

4. The California Joint Committee on Higher Education has contracted with the Computing Sciences Section of Aerojet General Corporation and Baxter-McDonald and Company to design an information system to serve the entire California educational system. This system would gather data from students in California public educational institutions from the time they enter secondary school until they finish high school. This system anticipates the employment of a centralized data bank fed by educational institutions throughout the state.

5. Dr. Steven Sheldon, of the University of California at Los Angeles, has proposed a number of geographically centralized information systems serving the needs of junior colleges for student accounting functions and other more or less mundane functions. These are described in a report entitled "Feasibility Study, Common Data Bank and Common Data Processing System for California Junior College System," dated October, 1968. These systems, if implemented, would require substantial standardization of forms and documents used by community colleges for matriculation and class registration purposes.

IV. EVALUATION OF THE WAYNE HARRIS PROPOSAL

The "Proposed System for Reporting Job Placement Follow-Through Data," developed by Wayne Harris, has served as the starting point for the development of the information system described in Section III of this report. That discussion suggests that we find reason to modify the Harris system to meet the needs of our project. Some of the reasons underlying these modifications as well as other comments appear below.

1. The various in-class questionnaires suggested by Harris involve considerable repetition as seen from the perspective of the classroom instructor and the student. In each class in which a student is enrolled, he gets no less than three different questionnaires, some of which he must fill out completely; some he just signs. This requires efforts on the part of the teacher that are hard to justify as long as the same data can be gathered some other way.

2. Producing more than one in-class questionnaire to be used during a given semester involves more work than can be reasonably expected of even an efficiently operated data processing installation that is concerned with the day-to-day production requirements of an on-going college district. If the in-class questionnaires were to be produced only for industrial students, production time requirements would be alleviated somewhat from the 15-odd production hours necessary to prepare the 38,000 cards we distributed. However, as we pointed out in Section III, limiting the population of this project to students with declared trade and technical majors reduces its value so greatly, in our opinion, that it becomes hardly worth doing.

In addition to the machine processing time (which does not include time spent in preparing and testing computer programs) are uncounted hours spent in banding together the groups of cards to be sent to the instructors, attaching memoranda, distributing the cards to the instructors' mail boxes, auditing the returns, and punching the results. Following up unreturned cards alone required as much time as the initial distribution. On top of this must be added the time spent by the classroom teacher in distributing the questionnaires by name to students, collecting their answered questionnaires, trying again the next class meeting for those who were absent, and answering (when they could) questions asked by students who were confused by the questionnaire.

In general, the Orange Coast Junior College faculty has been most helpful and cooperative in working with us in distributing these questionnaires. We believe that more than one questionnaire per semester would reduce the degree of cooperation remarkably, if not result in open hostility. Most educators with whom we have talked regarding the use of a questionnaire during the semester are most enthusiastic and see great value in such a system. We agree. However, we must not expect 100 per cent returns even from this seemingly well-controlled procedure. Of the 1,896 classes to which in-class questionnaires were delivered, 553 did not return them despite several reminders. The situation is better than these return statistics would suggest for reasons discussed in Section VI of this report. Refinement of procedures should yield a much better rate of return.

3. Students found it difficult to interpret questions found on the in-class questionnaire. They typically don't know when they intend to go to work: "When I graduate, I guess," or even, in many reported cases, don't

know when the term ends. They were even less certain whether a particular course was leading to employment or more advanced employment: "I can't get a job in my field unless I graduate, so I guess that this psychology course will help me get a job as a X-ray technician, since I need the course to graduate." Industrial courses, apparently, fare no better: "This drafting course is required for my Construction Technology major, but I don't see how it will help me get a job as an apprentice carpenter."

Instructors in class were able to offer little help. In general, the instructional staff found the questions on the in-class questionnaire to be most unusable. They have indicated a great preference for the questions found on the questionnaire shown in Figure 9.

4. Harris' Form F1 asks early in the semester, presumably, whether the student intends to continue school or go to work in the following semester. There is good reason to believe that students cannot answer this very accurately. It is important to learn if a student <u>intends</u> to finish his work during the present semester, but his answer should not be used as a controlling element to send him subsequent questionnaires.

5. Students are sent a Form F1, under Harris' plan, for each class in which they are enrolled. Only one of these is to be completely filled out, the remainder signed. This procedure is fraught with difficulties:

a. Who is to determine whether a student has completely filled out a F1 in another class? The students will not remember dependably enough, particularly if several different questionnaires are sent to them in class. The teacher can hardly be expected to be responsible for this and will believe what the students tell him if he bothers at all to try to control the process.

b. What role does question 3 of Form F1 play if all but one of the F1 questionnaires are only to be signed? It seemed to us important to try to learn something about the perceived usefulness of <u>each</u> course in terms of employment and other future plans. Thus, our version of the in-class questionnaire will try to determine this in a general sense.

c. Why ask the student to sign cards to determine whether or not he is enrolled in classes. If the sole purpose of the F1 cards (with the exception, of that one completely filled out by the student) is to determine enrollment, why not simply send a class roster to the teacher and ask him to mark those students no longer enrolled?

5. We have been troubled with some difficulty is agreeing upon what it means when a student is or is not enrolled. Faculty members don't know how to check the "Student Not Enrolled" box of the in-class questionnaire. Clearly, students who have officially withdrawn and those who have been dropped by the instructor are not enrolled. But what of those who have been absent and who have not withdrawn and who the instructor intends to keep on the roster until the end of the semester, whether or not he returns? What of those who do not attend class meetings but who, perhaps through special arrangements with the instructor, will nevertheless complete the course? What of students who challenge courses and only take the final examination?

6. We found less problems with data items on the registration form than on the in-class questionnaires. In general, students did not know how to answer the question trying to determine in what sort of program they were enrolling. They didn't know, for instance, what "MDTA," "Specified Business Courses," "Trade Extension Supplementary Education," "Apprentice," "Off Campus," "Adult," and, with less frequency, others of Harris' question 10 meant, and could not answer. Interestingly enough, few administrators and virtually no instructors at either of the colleges we talked to were able to accurately define all of these terms.

7. Some of the logical choices Harris' registration form required the student to follow seem too tortuous for many students, particularly if they fill the registration form out during a hurried registration

procedure. Whose address is the same as whose or is different from which line on the form and so on requires more time to decipher than if the applicant wrote each address out.

8. The ethnic background question is particularly inadequate, in our view. Those who consider themselves to be American Indians and who use a Spanish surname will not know what to check. American negros who prefer to be called "black" are likely to check "other nonwhite." The ethnic origin question we used is an improvement, we think, but still leaves much to be desired.

By and large, the Orange Coast Junior College District is most enthusiastic about many aspects of Harris' proposed system, particularly the use of in-class questionnaires. Difficulties we have encountered and critical comments we offer above reflect operational rather than conceptual problems and we believe that continued effort will result in a smoothly operating, productive system.

V. REPORTING SYSTEM FOR TRADE AND TECHNICAL REIMBURSED COURSES

One of the tasks to which we set ourselves early in the history of Project Follow-Through involved the development of a system to produce various forms required by the Bureau of Industrial Education for reimbursed trade and technical course offering in the Orange Coast Junior College District. Heretofore, hundreds of man-hours were spent each school year preparing these documents; and the District Coordinator of Vocational Education, upon whom this responsibility fell, reported to us his understanding that it was impossible to prepare the reports any way other than the time-consuming, manual way he has used in the past.

Rising to this challenge, and seeing it as a natural, if not altogether specific, outgrowth of the information system for student follow-through purposes, we devised a system of files which can be used to produce the required reports with little effort, once the files have been built and made machine-readable.

Our attention so far has been limited to working with forms A1, B1, and C, all of which pertain to reimbursed trade and technical courses and examples of which appear as Figures 14, 15, and 16, respectively, in Appendix A.

Developing a system to produce these reports amounted to designing three files to be used in conjunction with the enrollment file, developed as part of the information system described in Section III of this report, and a class schedule file produced by the District each semester as a matter

of routine. Figure 17 lists these files and shows the data fields in each record of each file which are used in producing the desired reports. The class schedule file includes, as part of each record in the file, many more fields than we show in Figure 17. Only the three fields needed for our system, ticket number, instructor number, and serial number, are shown. Ticket number is a number arbitrarily assigned to each course offered during a semester. These numbers change each semester at Orange Coast Junior College District and can, therefore, only be used for reference purposes during the current semester. The instructor number is a number assigned to instructors teaching for the District during the semester. Again, this number changes each school year and can be used only for temporary reference purposes in our district. The serial number is a unique number assigned to each course offered by the District. This number remains constant over time and can be used as a unique identifier for automated data processing purposes.

Figure 18 illustrates the basic logic used in processing these reports to produce the A1 report for courses qualifying for reimbursement. The procedure is reduced to only three clerical procedures, the first of which, identified as operation "A" near the upper left-hand corner of the diagram appearing as Figure 19, is performed each semester. In this operation, the published class schedule for the coming semester (Sem_1) is used together with information appearing in the District college catalogs and the contents of the course record file to produce a basic index listing. This listing is used to prepare the basic index file which is described in Figure 17.

The other two clerical operations are much less time consuming. They involve updating and auditing the instructor record file and the course record file to assure that changes taking place during the course of the semester with respect to these files are appropriately reflected in the files.

The remaining automated procedures to produce Form A1 from these files, once updated, is fairly straight forward. Essentially, the process amounts to adding to the data, available in the basic index record file, pertinent information for each course offering taken from the instructor record file and the course record file. The result, called, in Figure 18, the Complete Index, contains all of the data needed to produce Form A1.

The files used in producing Form A1 are all, with the exception of the class schedule file, punched card files and are small enough (a few hundred cards) to be maintained manually with ease. The card files were processed this semester using an IBM 1401 computer with both disk and tape processing ability. The files shown in Figure 18, which are named "Basic Index + Instructor Number" and "Complete Index, Sem_1," were stored temporarily on disk in our operation for processing expediency.

A sample Form A1, produced using these procedures, appears in Appendix A as Figure 19. There are three varieties of Form A1 that are produced by the District each school year. One variety shows all courses which are defined as technical courses for purposes of the National Defence Education Act, another shows all of the apprenticeship programs offered in the District, and a third shows the remaining reimbursable trade and technical course offerings. These three types of Form A1 reports are further categorized into courses which are offered in two-semester sequences (yearly)

and courses which are offered during only one semester (fall or spring) of a particular school year.

Using the files shown in Figure 17 to produce Forms B1 and C involves processing steps illustrated in Figure 20 and 21. Operation "E" of Figure 20 calculates the costs of each course by allocating the instructor's salary on the basis of relative teaching load. Thus, an instructor earning $10,000 per year (two semesters), and who is assigned to teach 20 semester units during the year, and who teaches one 5-unit course which is reported for reimbursement, generates a course cost of $2,500 (one-fourth of his two-semester salary). Operation "F" draws upon data from the three files shown to produce Form B1. The programs for this operation are still under development, but we anticipate no untoward difficulty in producing the report.

Figure 21 shows how the enrollment file for the Spring Semester (Sem_2) is used together with the enrollment file of the preceding semester (Sem_1) to produce Form C. Operation "G" calculated the unduplicated enrollment for the year; and the course record file, as updated for the Spring Semester (Sem_2), is used with this unduplicated enrollment file to produce the report. Again, the programs to do this are still under development.

Much of this elementary system to produce the reports shown in Figures 14, 15, and 16 will be modified in the very near future for operation involving the District's new System/360 computer. Details concerning the necessary conversion may be found in Section VII of this report.

VI. PROBLEMS

A colleague of ours reminds us from time to time that there is no such thing as an easy data processing job. We have found this to be particularly true with respect to the development of this project. In addition to the routine, even mundane, problems one would expect to encounter in conducting a project such as this one, we have coped with some which, because of their nature, deserve specific comment. We offer these in the spirit of warning others who try to do what we have done.

A. Work Scheduling

The Orange Coast Junior College District has enjoyed the use of an elaborate, sophisticated IBM 1401 computer system for a number of years. This system is in considerable demand for instructional purposes and for routine data processing chores of the District. As a result, we find the time available to use the computer system for our development efforts to be scarce indeed. We have been charged, not altogether inappropriately, of developing an entirely separate student record-keeping system and that the data processing facility is hardly able to cope with one such system, much less two.

The lesson we have learned is clear. There is no such thing as idle capacity in any data processing installation, no matter how large or how effeciently run. Undertaking to implement an information system along the lines of Project Follow-Through, whether as an integral part of the on-going student record system or as an independent system, requires time

and service that the data processing system department is not often able or willing to provide. Almost invariably, work we needed done for purposes of Project Follow-Through conflicted impossibly with work needed for other purposes of the District. As a result, the majority of our production runs using the computer system were performed almost surreptitiously on weekends, during the wee hours of the night, and during time borrowed, after much persuasion , from that set aside for purposes of the educational data processing program.

Needless to say, we have not found this situation amendable to getting our project implemented effectively. Vital work has been weeks and even months delayed in getting done. As a result, much of our data is of unacceptable quality.

We are optimistic about the future, however. Our system, now initially designed, can get its work done earlier, affording more lead time. Moreover, the District is installing a new computer system that, we are assured, will completely solve all work scheduling problems.

B. Faculty Cooperation

The use of in-class questionnaires requires the cooperation of classroom teachers to distribute them, collect them, and to answer questions raised by students with respect to responding to the questionnaire items themselves and with respect to explaining why the student should answer in the first place.

The Orange Coast Junior College District faculty has been most cooperative in every aspect. However, in order to prepare them effectively, considerable effort was spent in explaining what we were trying to do and helping them get the job done. A District-wide faculty meeting was used at

the start of the Fall Semester to explain the purposes of Project Follow-Through, its procedures, and what the faculty could expect. Literature was distributed at this time providing details of the project. Further information was provided later when the in-class questionnaires were initially distributed. Reminders in the form of memoranda were delivered to those teachers who were tardy in returning the cards. More literature describing the project was distributed while the teachers were handling the cards. All in all, no little effort was expended in soliciting faculty help and cooperation. Nevertheless, of the 1,896 classes to which in-class questionnaires were sent, 553 remain unreturned. There are a number of reasons for this, many of which will be rectified in semesters to come. The point is this: no matter what efforts are expended, 100 per cent response, even in a relatively controlled procedure, is all but impossible to expect, even with excellent faculty cooperation.

C. In-Class Questionnaires

Despite changes we made in the use of in-class questionnaires, problems we encountered were as troublesome as those we anticipated with respect to using Harris' questionnaires unchanged. Sending one type of questionnaire (F1-Q) to one of a student's classes and another type (F1-V) to the rest left substantial holes in the data available for students who had dropped or otherwise stopped attending the one class to which the vital (F1-Q) questionnaire was sent. No way could be found which could route a new Form F1-Q to the student before the end of the semester.

The return response, as discussed in preceding paragraphs, of in-class questionnaires was much less than desirable. Instructors of large groups (300 or so) of students would not pass out the questionnaires if they

expected to see the student as a member of a smaller seminar section associated with the large lecture group. Also, influenza and other reasons of student absenteeism accounted for a large number of unanswered questionnaires being returned.

D. Supplementary Registration Data

As mentioned earlier in this report, the rate of return from registration questionnaires mailed to students enrolled during the Fall Semester, 1968, amounted about 50 per cent. Judged by past experience with such matters, this is a good rate of return. However, and we hope to demonstrate this in the near future, those who did not return the questionnaire are likely to be those of most interest to the District--namely, those who dropped out of college during the semester. This problem will not arise in the future, since these data are now gathered at the time the student applies for admission to one of the two colleges within the District using the application form shown in Figure 5 of Appendix A.

E. Population Definition

A problem, which we avoided but which may prove quite troublesome to some institutions, involves selecting those students who can be properly categorized as trade and technical or industrial types. Asking the student, at registration time or whenever, what his status is with respect to his college major or career plans or specific junior college occupational or transfer program is most unlikely to yield information that can be used to categorize students in any permanent way. Students' plans change about as frequently as the weather, we find. Furthermore, trying to

categorize students as industrial or otherwise by examining one or more classes in which he is or was enrolled yields equally non-deterministic data about the student.

It is important, we believe, to ask the student such questions as numbers 5, 6, and 8 of the enrollment questionnaire (Figure 8). This information is best used to assess the impact that the college experience exerts on the student in helping him select realistic personal goals. It is useless for purposes of categorizing students into specific type groupings according to the enrollment program.

Because of these considerations, we have not limited our project to those students who seem to us to be industrial students. We believe that definitive categorization of students can take place only after the student finishes or nearly finishes a particular program. Consequently, we will categorize students according to what they have done rather than according to what we (or they) think they are doing.

F. Relationship With Established Data Processing System

With the exception of point E, above, the problems we have encountered have all been operational rather than conceptual. Of particular concern to us, and we are sure that other institutions will face the same trouble, are operational problems concerning coordinating the development of an information system for purposes of student follow-through that is to operate more or less in conjunction with an on-going data processing system already serving the institution. Our efforts have concentrated upon making our system as independent as feasibly possible from the system used to serve other needs of the District. One might expect, then, a minimum of difficulty with respect to interfacing with the established system. If our

experience represents such a minimum-difficulty effort, then those who try to develop systems which work closely and dependently with the established system are in for a rough go of it.

Problably our greatest difficulty arose with respect to using data files which were organized in a fashion most difficult to process for our purposes. File organization, record formats, file updating procedures, and other facets and techniques of the on-going data processing system at Orange Coast Junior College District hear little resemblance, in our eyes, to the ideal sort of system we might devise specifically for Project Follow-Through. Much of our computer programming efforts have been devoted to coping with data files that, while apparently satisfying other needs adequately, were most difficult for us to work with.

We find it self-evident, however, that it is neither feasible nor is it desirable to design a completely independent system for a follow-through project. Such independence invariably involves duplicated effort and redundant files. A point must be found somewhere between a completely symbiotic and a completely ambiotic relationship with the established system (and the developing follow-through system which allows the needs of both systems to be served with minimum friction). Once this point is found, then gradually the two systems can be expected to meld together into one information system serving the more mundane administrative chores, the educational program and college evaluation through student follow-through data.

VII. THE FUTURE

The future for Project Follow-Through promises considerable activity in perfecting what we have started and putting the information system to useful work. We plan a number of specific undertakings which deserve top priority in the months to come. These are listed below.

A. Beating the Bushes for Missing Data

Those students who did not return the Supplementary Registration Data questionnaire shown in Figure 2 but who do enroll for classes in the Spring Semester, 1969, will be sent a Notice of Incomplete Registration delivered to one of the courses in which he is enrolled. This notice will direct the student to the Project Follow-Through office where he will be asked to complete the questionnaire. Data missing from in-class questionnaires will be captured through the use of the enrollment questionnaire shown in Figure 8 for those students registering for courses in the Spring Semester. Missing data for non-returning students will be gathered using techniques described in the following paragraphs.

B. Gathering Follow-Up Data

Students who attended classes for the first time in the Fall Semester, 1968-69, but who do not enroll for classes in the following Spring Semester will recieve, through the mail, a Follow-Up questionnaire designed along the lines illustrated in Figure 10 of Appendix A. We expect the return from this mailing to be about normal for mail questionnaires, i.e., 30 per cent. The group of ex-students who do not return the Follow-Up

questionnaire will be sampled and contacted via telephone in order to determine basic characteristics of this group.

We suspect that many, if not most, of the students who have not yet returned the Supplementary Registration Data questionnaire mailed during the Fall, 1968 Semester will not register for classes offered in the Spring Semester. In any case, we certainly intend to find out if this is so. If our hypothesis is correct, the Follow-Up questionnaire and sampling procedure will yield important information about this group. If our hypothesis is incorrect, and the non-responding students do in fact register for classes in the Spring Semester, we will gather data from them through the mechanism discussed in point A, above.

C. Adapt to New Computer System Environment

The Orange Coast Junior College District data processing facility has recently replaced its IBM 1401 computer system with a computer system consisting of an IBM Model 40 System/360, equipped with an IBM 2314 mass data storage device, magnetic tape drives, and associated card readers, line printers, and terminal input/output devices. We are taking immediate steps to adapt the Project Follow-Through information system for operation in this more flexible environment. We are confident in relying on the assurances of data processing personnel that most, if not all, of the operational problems discussed in Section VI of this report will be solved by virtue of using this new equipment.

D. Descriptive Reports

In the months ahead we will begin to produce a series of descriptive reports, using data available in our files. The purpose of these reports is two-fold. First, to study ways in which the data now available to the

District for the first time in machine-processable form may be used for purposes of program evaluation, counseling, and a host of other anticipated uses. Second, the reports will demonstrate to college administrators and to the faculty the types of information now available to those who would use them for analytical and evaluative purposes.

E. Bureau of Industrial Education Reports

Work will continue in perfecting the reporting system for reimbursed trade and technical courses offered in the District. Already, we are redesigning the basic structure of the enrollment file, shown as it was used in the Fall, 1968 Semester in Figure 12, into a more flexible format. The final results, which will be documented in detail in Progress Report II of Project Follow-Through, will show a system that is readily usable by any institution enjoying the use of at least elementary electronic data processing ability.

VIII. RECOMMENDATIONS AND CONCLUSIONS

Much of the discussion appearing in previous pages of this report includes explicit or implicit suggestions as to how things might be done in the future. To these we have little to add. However, we offer here a handful of specific recommendations that, if implemented, would do much to serve the purposes of Project Follow-Through and other similar efforts.

A. Coordinate With Other Developing Information Systems

As mentioned in an earlier portion of this report, several agencies are busying themselves with the design and anticipated implementation of more or less centralized information systems serving various types of educational institutions. It is most important, we feel, for all such efforts to work together towards the obviously common goal of improved education and improved education administration.

Two of the organizations listed in Section III of this report show considerable promise as agencies to coordinate the various diverse efforts now being devoted to developing student follow-through systems. One of these is the League for Innovation in the Community College. This group has the broadest perspective of any, being national in scope, and is already working closely with the Research and Development Center of the University of California at Los Angeles, which development center is funded through the United States Office of Education specifically for the purposes of developing methods of evaluation for educational programs and institutions. The League for Innovation in the Community College thus offers

expertise, scholarship, and the resources of the United States Office of Education.

Another, but less promising, in our opinion, organization developing an information system is the group formed by the Joint Committee on Higher Education of the California State Legislature. This group is oriented to the needs of California and could thus function well as a coordinating agency for all California efforts to develop standardized information systems. It is, however, first, only state-wide in scope, and, second, the group consists primarily of professional data processors and businessmen contracted for the job by the Subcommittee and who must first learn about the needs of education before intelligent work can be done in developing an information system to serve those needs. In both these aspects, the League for Innovation offers more in terms as serving as the coordinating agency for such developmental efforts.

Whoever coordinates, we cannot overstress the need to do so. If a number of different schemes are perfected which are to serve as information systems and which, inevitably, would compete, no one scheme can be expected to be universally adopted and little, if any, large scale efforts at educational evaluation and improvement could be hoped for.

B. Revise the Harris System

Many of the changes with which we have experimented in implementing the Harris system represent improvements. Reducing the number of in-class questionnaires to one, minimizing the number of questions on that form, and gathering the remaining information during the class registration process will do much to make this a more viable scheme for data collection. We recommend modifying the Harris system along the lines suggested in this

report. Most important, continued development and effort spent in data item design and questionnaire development is called for. Many of the questions appearing on Harris' instruments reflect hasty preparation and minimum pre-testing. Doubtless, this is a direct result of time pressures felt in the design of the Harris system. Realizing the promise of the Harris proposal will require much effort in polishing and perfecting the questionnaires. The mechanics of questionnaire distribution and data collection are relatively easily solved using techniques discussed earlier in this report. We now need to concern ourselves with improving the quality of the data.

C. Update and Standardize the State Reporting System

Developing our system for reporting reimbursable trade and technical courses brought to our attention several interesting features of the reporting system now used in California. The reports are prepared in as many different ways as there are different college districts in the state, we suspect. Consulting with a number of different college officials concerning the manner in which the reports shown in Figures 14, 15, and 16 are produced leads us to believe that the Bureau of Industrial Education is gathering little useful data. We understand that these forms, and others like them, are soon to be modified and we heartily applaud. With respect to these modifications, we make two recommendations.

First, for those schools who have the capability, require that the information to be reported be done so in the form of magnetic tape or, as a second best alternative, in the form of punched cards. We understand that the Forms A1, B1, and C, which we produce through the use of punched cards are used as source documents to punch more cards. Those schools able

to implement the reporting system described in this report will be equally able to deliver the data in machine-readable form, thus avoiding considerable duplicated effort.

Second, and this suggestion is quite independent of the first, establish code numbers to be used for reporting purposes once and henceforth leave them alone. The reports now required make use of course code numbers and occupational code numbers. In addition, frequent reference is made to instructional code numbers. We understand that these numbering systems are changed once every year or so. Changing identifying numbers with such frequency can only lead those who produce the reports to distraction, particularly if automated data processing methods are to be used. In fact, there is every reason to believe that such frequent changing of identifying numbers precludes, for all practical purposes, any hope of producing the reports in any way other than the Bob Cratchett manner most schools use now.

D. Require Time for Data Gathering

Our most difficult problem regarding gathering data reflects the difference between the amount of time required of the student to answer the questions we would like to ask and the amount of time we could reasonably expect him to spend answering them. We find ourselves squarely between those who want lots of data for research purposes and those who strive to minimize the amount of time the student spends in the only activities in which it is most logical to gather the data--during registration. We agree with all the researchers with whom we have discussed this problem, who assert that in order to gather the type of data we need for most effective evaluation of the educational process on students, data gathering

time is required to the tune of several hours each semester. The mundane nature of the questions we have been able to ask in the few minutes per semester we have been able to steal from students testifies to the great need for more time devoted to purposes of data gathering.

It has been suggested time and time again that a day or half of a day be devoted at the beginning of each semester for testing and data gathering on the part of all students. We are well aware of the difficulties in establishing such a program. Unless required, the students probably will not attend the testing session. If required, many will be unable to attend because of work schedules, personal problems, and the like. Are these then to be denied admission to college? If not, and this must surely by the case, how do we make special arrangements for each individual with a unique problem if there are several thousand such individuals?

A system of several questionnaires delivered to each student in class at two or three points during the course of the semester might be a viable approach, providing the faculty fully supports the program and is willing to devote class time for its implementation. Our experience this past semester suggests that this would be a difficult approach both logistically and from the standpoint of persuading the teachers to donate their classroom time.

A questionnaire at the first class meeting, another at mid-term, and another to be answered as part of the final examination has been suggested. Each questionnaire would be limited to ten minutes or so of questions. Logistically, this is most difficult, and the data gathered are bound to be incomplete since students leaving school in mid-semester would not, of course, answer all of the questionnaires. Moreover, the personal and

psychological data that seem to be most useful for counseling and evaluative purposes cannot be adequately gathered (with instruments we now use) in a few minutes.

We recommend most strongly that time for data gathering be found so that meaningful data concerning our students can be made available to use in helping colleges do a better job. We sincerely wish we could suggest where to find the time.

ERIC

APPENDIX A

Illustrations, Forms, Documents

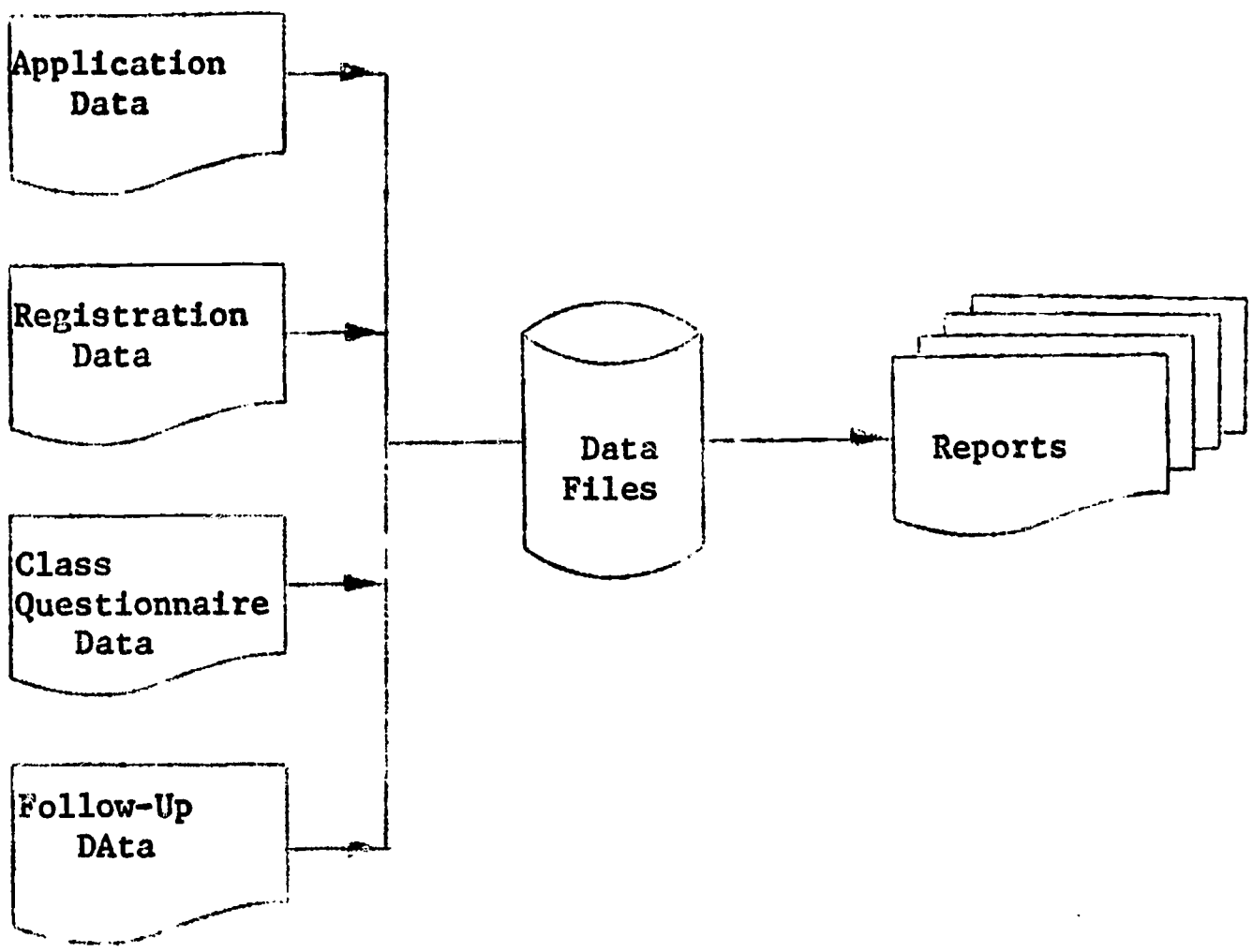


Figure 1

Information System

ORANGE COAST JUNIOR COLLEGE DISTRICT
PROJECT FOLLOW-THROUGH

SUPPLEMENTARY
REGISTRATION DATA

1.
2.
3.

Social Security Number

4. Are you a United States Citizen? ☐ Yes ☐ No
If no, type of visa held: _____

5. Check educational benefits you are eligible to receive:
☐ 1966 G.I. Bill ☐ Vet Dependent ☐ War Orphan ☐ Vocational Rehabilitation
Disabled Vet Other _____

6. Which of the following is now in active military service?
☐ Self ☐ Father ☐ Mother ☐ Spouse ☐ Guardian ☐ None

7. If you are a high school graduate, write the name and city of your school below.
Name _____ Year of Graduation _____
City _____

8. Write the names and cities of any colleges or universities you have attended prior to this semester (Include OCC and GWC).

Name	City	State	Dates	Units Earned	Degrees Earned

9. Which of the following is now living? ☐ Father ☐ Mother ☐ Neither

10. With whom will you be living while attending college?
☐ Father ☐ Mother ☐ Father and Mother ☐ Court-Appointed Guardian
☐ Other Person ☐ Alone

11. If you are not now living with one or both of your parents, when did you stop?
(Date) _____

12. Check your ethnic background:
☐ American Indian ☐ American Negro ☐ Philippino American ☐ Oriental American
☐ Mexican American ☐ Spanish American ☐ Foreign Student ☐ Other _____

13. What is your marital status? ☐ Married ☐ Single ☐ Divorced

Orange Coast Junior College District
2701 FAIRVIEW ROAD · COSTA MESA · CALIFORNIA 92626

NORMAN E. WATSON - SUPERINTENDENT

Dear Student:

Now that your college program is well under way, we hope that you are finding your experience at Golden West and/or Orange Coast College enjoyable and profitable. In order that we may serve you and the Orange Coast community better, the Orange Coast Junior College District is participating in a student follow-through study conducted by the California State Department of Education.

As part of this study, we ask you to fill out the enclosed questionnaire which has been adopted as part of the registration procedure for all new students. Your registration in college will not be finished until your completed questionnaire is on file with the College District.

Please fill out the questionnaire and mail it to the College using the enclosed return envelope. Additional instructions concerning the questionnaire appear on the reverse of this letter.

Thanks for your cooperation and good luck for the coming year.

Sincerely,

Richard W. Brightman

Richard W. Brightman
Administrative Assistant

RWB:blb

Enclosures

Orange Coast College
COSTA MESA

Golden West College
HUNTINGTON BEACH

INSTRUCTIONS
ORANGE COAST JUNIOR COLLEGE DISTRICT
SUPPLEMENTARY REGISTRATION
DATA FORM

Most of the questions on the form are self-explanatory. Some, however, deserve additional comment and this is provided below. If you have further questions, call 834-5739.

Many questions can be answered by writing an X in the box to the left of the item. For example,

4. Are you a United States Citizen? [X] Yes [ ] No

Item 3. Check the accuracy of your social security number. If it is not listed here, write in the space provided. Your registration will not be considered complete until a social security number is recorded for you. If you have no social security number, you may get one at any social security office. It takes about ten minutes.

Item 5. If you do not expect to receive educational benefits, leave this blank.

Item 14. Check your enrollment plan. If you are working for a Certificate of Achievement, check "Completion Certificate." If you are working for a degree and a certificate both, check "Completion Certificate" and the appropriate degree program. Check "Adult" if you are not working for either a degree or a certificate. Check "High School" if you are enrolled in a program leading primarily to a high school diploma.

If you are enrolled in 12 or more units this semester, ignore the items "Specified Business Courses" and "Trade Extension Supplementary Education."

If you are enrolled in less than 12 units this semester, check the appropriate items as described above. Also, check:

a) "Specified Business Courses" if you are enrolling in a business course required for a non-business major or certificate program.

b) "Trade Extension and Supplementary Education" if you are enrolling in courses shown as electives or which are not required technical courses for your certificate or degree.

c) "Apprentice" if you are enrolled in an apprentice program.

Orange Coast Junior College District
2701 FAIRVIEW ROAD · COSTA MESA · CALIFORNIA 92626

NORMAN E. WATSON - SUPERINTENDENT

Dear Student:

Our records show that your registration data is not complete. In order that we may finalize your registration, please complete both sides of the enclosed questionnaire and return it to the college using the enclosed return envelope.

Many thanks for your cooperation.

Sincerely,

Richard W. Brightman

Richard W. Brightman
Administrative Assistant

RWB/blb

Enclosures

Orange Coast College
COSTA MESA

Golden West College
HUNTINGTON BEACH

Application for _____ Semester, 19____
Fall, Spring, Summer

ORANGE COAST COLLEGE ADMISSION APPLICATION

ADMISSIONS OFFICE
2701 Fairview Road, Costa Mesa, California

INSTRUCTIONS TO APPLICANT **PLEASE CHECK APPROPRIATE BOX:**

☐ DAY COLLEGE: Return the completed application to the Admissions Office.

☐ EVENING COLLEGE: Complete and turn in form at the time of registration.

Please Type or Print Answer All Questions, Failure to do so Will Delay Your Registration.

Additional instructions appear on the last page of this application.

College Student No.
1. | 6 | | | | | | |
Leave Blank if not yet Issued

Social Security Number
2. | | | | | | | | | |

Date of Application
3. _____ / ____ / ____
Month Day Year

PLEASE TYPE OR PRINT

4. Name: _____ / _____ / _____
Last First Middle Initial

5. _____
Maiden Name

6. Birthdate _____ / ____ / ____
Month Day Year

7. Birthplace _____ / _____
City State

8. High School last attended _____ / _____ / _____ / _____
Name City County State

9. Address while attending college _____ / _____ / _____ / _____
Number and Street City Zip Code Phone

10. Permanent or legal address _____ / _____ / _____ / _____
Number and Street City Zip Code State

11. 1 ☐ Male 2 ☐ Female

12. _____
For Office Use

13. Are you now or will you be a high school graduate at the time of registration? 1 Yes ☐ 2 No ☐

14. 19____ Year of high school graduation or last date attended high school or elementary school.

15. Are you working for a College Degree?
- 1 ☐ Associate in Arts (Junior College Degree)
- 2 ☐ Bachelors Degree
- 3 ☐ Both Associate and Bachelors
- 4 ☐ No

16. Transfer Plans:
- 1 ☐ Non-Transfer
- 2 ☐ State College, California
- 3 ☐ State University, California
- 4 ☐ Private College or University, California
- 5 ☐ Out of State College or University

1. _____
2. _____
3. _____

OFFICE USE ONLY

17. Have you ever attended another college? 1 ☐ Yes 2 ☐ No

18. If yes on 17, check status upon leaving 1 ☐ Good Standing 2 ☐ Probation 3 ☐ Scholastic Dismissal

19. College Units earned prior to this registration:
- 1 ☐ 0 to 29½
- 2 ☐ 30 to 59½
- 3 ☐ 60 or more, no degree
- 4 ☐ Junior College or four year graduate

20. High school grade average: 1 ☐ D 2 ☐ C 3 ☐ B 4 ☐ A

21. United States Citizen? 1 ☐ 2 ☐ No If no, type of visa held _____

22. Will you be using Veteran's benefits? 1 ☐ Yes 2 ☐ No

PLEASE COMPLETE THE NEXT PAGE

23. Which of the following is now in Active Military Service:

1 ☐ Self 2 ☐ Father 3 ☐ Mother 4 ☐ Spouse 5 ☐ Guardian 6 ☐ None

24. **COMPLETED BY DAY STUDENTS ONLY**

Indicate College Major_____

List each college or university attended (include previous attendance at Golden West College or Orange Coast College)

Name	City and State	Dates Attended From	To	Units Compl.	Earned Degrees

25. **COMPLETED BY THOSE UNMARRIED AND UNDER 21 YEARS OF AGE**

Father's Name_____ Is your father living? ☐ Yes ☐ No

If yes, his permanent address is_____ Number and Street City State

Mother's Name_____ Is your mother living? ☐ Yes ☐ No

If yes, her permanent address is_____ Number and Street City State

Will you be living with your parents while attending college? ☐ Yes ☐ No

If you will be living with a person other than your father or mother answer the following:

Since what date have you lived with this person_____ Month Day Year

Has a court assigned you to the custody of this person? ☐ Yes ☐ No

Name of person_____ Relationship_____

Address_____ Number and Street City State

26. I certify that all information listed is correct to the best of my knowledge.

_____ Applicant's Signature Date

FOR OFFICE USE ONLY

☐ New ☐ Readmission

RESIDENCE:

Permit needed from_____

Acceptance letter_____ Early release letter_____

Registration Checked by _____ Date Clerk

PLEASE COMPLETE THE NEXT PAGE

27. Write your Selective Service classification here _____ (male only)

28. Check educational benefits you are eligible to receive:

☐ 1966 G. I. Bill ☐ Vet Dependent ☐ War Orphan ☐ Vocational Rehabilitation
☐ Disabled Vet ☐ Other_____ ☐ Scholarship ☐ None

Instructions for some of the questions below may be found on the last page of this application. Make sure that your name, address, Student Identification number and Social Security number appear clearly below.

College Student Number | 6 | | | | | |
Leave Blank if not yet Issued

Social Security Number | | | | | | | | | |

Date of Application _____/_____/_____
Month Day Year

Name: _____/_____/_____ _____
Last First Middle Initial Maiden Name

Birthdate _____/_____/_____ Birthplace _____/_____
Month Day Year City State

High School
last attended _____/_____/_____/_____
Name City County State

Address while attending
Orange Coast College _____/_____/_____/_____
Number and Street City Zip Code Phone

29. Indicate your college major_____ (see instructions)

30. Check your enrollment plan (See instructions. You may check more than one)

☐ Two-year Degree ☐ Transfer Program ☐ Completion Certificate
☐ General Interest ☐ Apprentice ☐ High School

31. If you intend to transfer, have you selected a college? ☐ Yes ☐ No

32. If yes, what college?_____

33. At what college will you do most of your junior college work?

☐ Golden West ☐ Orange Coast ☐ Other:_____

34. On what basis did you pick your junior college?

☐ Close to Home ☐ High School Presentation by College ☐ Friend's Advice
☐ Parent's or Guardian's Advice ☐ High School Counselor's Advice
☐ College Counselor's Advice ☐ Other:_____

35. If you are a transfer student, on what basis did you pick your four-year school?

☐ Close to Home ☐ High School Presentation by College ☐ Friend's Advice
☐ Parent's or Guardian's Advice ☐ High School Counselor's Advice ☐ Not decided
☐ College Counselor's Advice ☐ College Instructor's Advice ☐ Other:_____

36. On what basis did you pick your college major or vocational choice?

☐ High School Presentation by College ☐ Friend's Advice ☐ Not decided
☐ Parent's or Guardian's Advice ☐ High School Counselor's Advice
☐ College Counselor's Advice ☐ College Instructor's Advice ☐ Other:_____

37. What is your marital status? ☐ Married ☐ Single ☐ Divorced ☐ Widowed

PLEASE COMPLETE THE NEXT PAGE

ERIC

38. Estimate the annual family income of your parents or guardians:
☐ Less than $3,000 ☐ Between $3,000 and $6,000 ☐ Between $6,000 and $10,000
☐ Between $10,000 and $15,000 ☐ Over $15,000

39. Check your ethnic background:
☐ American Indian ☐ American Negro ☐ Philippino American ☐ Oriental American
☐ Mexican American ☐ Spanish American ☐ Foreign Student ☐ Other_____

40. What was your high school major? ☐ College Preparatory ☐ Vocational

41. If you are not a high school graduate, how many years of school have you completed? _____

42. Have you ever been or are you presently enrolled in a vocational program in any California public educational institution? ☐ Yes ☐ No

If yes, under what name did you enroll? _____

ADDITIONAL INSTRUCTIONS

Most of the questions on the form are self-explanatory. Some, however, deserve additional comment and this is provided below.

Many questions can be answered by writing an X in the box to the LEFT of the item. For example,

21. United States Citizen? [X] Yes ☐ No

ITEM 1. If you are a returning student, you may find your Student Identification number by consulting the appropriate registration official. New students will be assigned a number during registration.

ITEM 2. Write your Social Security number in the square provided. Your registration will not be considered complete until a Social Security number is recorded for you. If you have no Social Security number you may get one at any Social Security office. It takes about 10 minutes.

ITEM 29. If you have not decided upon a college major or are attending college for general interest, write "999' in the space provided. If you have decided upon a major and it appears in the list of majors offered by colleges in the Orange Coast Junior College District, write the code number for that major in the space provided. The list of college majors is available with your registration materials. If your major does not appear on this list, write "999" in the space provided.

ITEM 30. Check your enrollment plan. If you are working for a Certificate of Achievement, check "Completion Certificate." If you are working for a degree and a certificate **both**, check "Completion Certificate" AND the appropriate degree program. Check "Adult" if you are not working for either a degree or a certificate. Check "High School" if you are enrolled in a program leading primarily to a high school diploma. Check "Apprentice" only if you are enrolled in an apprentice program as an indentured employee.

CALIFORNIA STATE DEPARTMENT OF EDUCATION
BUREAU OF INDUSTRIAL EDUCATION

INSTRUCTIONS:

PLEASE READ QUESTIONS CAREFULLY, THEN REMOVE THE DESIRED ANSWER TAB (S). (HOLD THE CARD DOWN, PLACE A SHARP PENCIL ON THE TAB, THEN GENTLY LIFT THE CARD). USE "0" BEFORE ANY ONE PLACE FIGURES.

THERE ARE FIVE QUESTIONS, WITH 10 TABS TO BE REMOVED.

NAME | SCHOOL CODE | SOCIAL SECURITY NUMBER | CLASS CODE

EXAMPLE 2 UNITS

SIGNATURE

DATE

1. TOTAL NUMBER OF UNITS AND/OR HOURS PER WEEK YOU ARE ENROLLED IN? — UNITS (42, 44) / HOURS (46, 48)

2. IF EMPLOYED, HOW MANY HOURS PER WEEK? — HOURS (50, 52)

3. DO YOU INTEND TO OBTAIN EMPLOYMENT, OR MORE ADVANCED EMPLOYMENT AS A RESULT OF THIS CLASS? — YES / NO

4. INDICATE INTENDED DATE OF EMPLOYMENT (IF DATE IS NOT KNOWN, ENTER DATE THAT THE TERM ENDS) — JAN 67, FEB 68, MAR 69, APRIL 70, MAY 71, JUNE 72, JULY 73, AUG 74, SEPT, OCT, NOV, DEC

5. ARE YOU NOW SEEKING PART-TIME EMPLOYMENT (PRESENT JOB STATUS NOT CONSIDERED)? — YES / NO — STUDENT NOT IN CLASS

REPORT OF JOB PLACEMENT VERIFICATION OF ENROLLMENT FORM F-1

Form F1

CALIFORNIA STATE DEPARTMENT OF EDUCATION
BUREAU OF INDUSTRIAL EDUCATION

INSTRUCTIONS:

PLEASE COMPLETE EVERY QUESTION

REMOVE TAB COMPLETELY FROM THE PROPER ANSWER BOX.

EXAMPLE

(BLACKED-IN AREA IS THE TAB YOU PUNCH OUT)

NAME | SCHOOL CODE | SOCIAL SECURITY NUMBER | CLASS CODE

1. ARE YOU CONTINUING IN SCHOOL FULL TIME AND IN THE SAME VOCATIONAL AREA? ..... YES / NO (IF YES, STOP HERE)

2. (a) IF YOU ARE DROPPING OUT OF SCHOOL (OR GRADUATING FROM SCHOOL) WITHOUT COMPLETING YOUR VOCATIONAL EDUCATION PROGRAM, ANSWER HERE .....

(b) IF YOU ANSWERED QUESTION 2(a) ABOVE AND YOU LEFT WITH ENOUGH SKILLS TO BE EMPLOYABLE IN THE OCCUPATION IN WHICH YOU RECEIVED TRAINING, ANSWER HERE .....

3. WILL YOU COMPLETE ALL THE REQUIRED COURSES THIS SCHOOL YEAR? ANSWER HERE ..... YES / NO

4. IF YOU ARE NOT PRESENTLY AVAILABLE FOR PLACEMENT, ANSWER ONE OF THE FOLLOWING ..... (a) JOINED ARMED SERVICES (b) CONTINUING FULL TIME SCHOOL (c) OTHER REASON

5. IF YOU ARE WORKING FULL TIME (OR IN THE ARMED SERVICES) 30 OR MORE HOURS PER WEEK, ARE YOU WORKING ..... (a) IN THE OCCUPATION FOR WHICH YOU WERE TRAINED (b) IN A RELATED OCCUPATION (c) IN AN UNRELATED OCCUPATION

6. IF YOU ARE NOW EMPLOYED AND THE TRAINING YOU RECEIVED HAS RESULTED IN A PROMOTION OR A NEW JOB, ANSWER HERE .....

7. IF YOU ARE NOW GOING TO SCHOOL AND WORKING PART TIME (29 HOURS OR LESS PER WEEK), ANSWER HERE .....

8. IF YOU ARE UNEMPLOYED AND ACTIVELY SEEKING WORK (NON-STUDENT, FULL TIME OR PART TIME STUDENT), ANSWER HERE .....

IF STUDENT WAS NEVER IN CLASS, ANSWER HERE

INSTRUCTOR: FORM F-3 IS SENT TO THE CLASSROOM JUST BEFORE THE DATE INDICATED BY ITEM 4 OF FORM F-1, OR THE COMPLETION DATE OF THE COURSE. IF THE STUDENT IS NOT NOW IN CLASS, THE INSTRUCTOR IS TO COMPLETE THE QUESTIONNAIRE TO THE BEST OF HIS KNOWLEDGE AND ABILITY. IF THE INSTRUCTOR IS COMPLETING THE QUESTIONNAIRE IN ABSENCE OF THE STUDENT, ANSWER HERE .....

SIGNATURE | DATE

REPORT OF JOB PLACEMENT (IN-SCHOOL FOLLOW-UP) Form F-3

Form F3

Figure 6

STUDENT IS NOT ENROLLED ☐

1 IF YOU ARE EMPLOYED, HOW MANY HOURS PER WEEK DO YOU WORK ?

☐ 0 ☐ 1-10 ☐ 11-20 ☐ 21-30 ☐ 31-40 ☐ MORE THAN 40

2. APPROXIMATELY HOW MUCH DO YOU EARN PER WEEK WHILE ATTENDING COLLEGE ? $ ☐☐☐ ☐☐

(IF NOT EMPLOYED LEAVE BLANK)

3. DO YOU INTEND TO OBTAIN EMPLOYMENT OR MORE ADVANCED EMPLOYMENT AS A RESULT OF THIS CLASS ? ☐ YES ☐ NO

4 IF SO, WHEN DO YOU INTEND TO GO TO WORK ? ☐☐ ☐☐

(IF DATE IS NOT KNOWN, ENTER DATE THAT TERM ENDS) MO YR

5. ARE YOU NOW SEEKING PART-TIME EMPLOYMENT ? ☐ YES ☐ NO

(PRESENT JOB STATUS NOT CONSIDERED)

PROJECT FOLLOW THROUGH FORM F-10 ENROLLMENT VERIFICATION QUESTIONNAIRE

Form F-10

STUDENT IS NOT ENROLLED ☐

1. DO YOU INTEND TO OBTAIN EMPLOYMENT OR MORE ADVANCED EMPLOYMENT AS A RESULT OF THIS CLASS ? ☐ YES ☐ NO

2. IF SO, WHEN DO YOU INTEND TO GO TO WORK ? ☐☐ ☐☐

(IF DATE IS NOT KNOWN, ENTER DATE THAT TERM ENDS). MO. YEAR

PROJECT FOLLOW THROUGH FORM F-1V VERIFICATION OF ENROLLMENT.

Form F-1V

Figure 7

PROJECT FOLLOW-THROUGH, SEMESTER ENROLLMENT QUESTIONNAIRE

Name_____ I.D. No._____ Soc. Sec. No._____

1. If you are employed, how many hours weekly do you work? ☐ 0 ☐ 1-10 ☐ 11-20 ☐ 21-30 ☐ 31-40 ☐ 40 Plus
2. Approximately how much do you earn per week while attending college? $_____
3. Are you now seeking part-time employment (present job status not considered)? ☐ Yes ☐ No
4. If you are now working (or in the armed services) 30 or more hours per week, do you work
   ☐ In your major field ☐ In an unrelated field ☐ In a related field ☐ Working less than 30 hours per week
5. What are your transfer plans at this time? ☐ Non-transfer ☐ California State College ☐ California State University
   ☐ Private California College or University ☐ Out-of-State College or University
6. Write your major code here (see reverse side) _____
7. Will you complete your junior college program this semester? ☐ Yes ☐ No
8. At this time what is your career objective?
   ☐ Professional (five or more years of college) ☐ Educator ☐ Military ☐ Technician ☐ Athlete
   ☐ Corporate Executive ☐ Fine Arts ☐ Tradesman or Journeyman ☐ Self Employment ☐ Other ☐ Undecided
9. On what basis have you chosen your career objective? ☐ Parent's or guardian's advice ☐ Friend's advice
   ☐ College counselor's advice ☐ College instructor's advice ☐ Advice of high school teacher or counselor
   ☐ Your own determination ☐ Other ☐ Undecided on career objective

Front

MAJOR CODES

Agriculture
102 Agri-Business
103 Agronomy
104 Animal Husbandry
•106 Grounds Maintenance
105 Ornamental Horticulture

Business
201 Accounting
203 Business Data Processing
207 Business Mngmt. & Retailing
•209 Escrow Procedures
•204 General Office Practices
205 Grocery Merchis. & Mngmt.
•206 Insurance
213 Office Technician
•211 Purchasing
•208 Real Estate
210 Secretarial Science
•212 Travel Agency Operation
•214 Sales & Marketing Mngmt.

Agriculture
101 Agriculture

Business
202 Business Administration

Communications
301 English
302 Foreign Language
304 Library Science
305 Speech

Fine and Applied Arts
404 Humanities
407 Theatre Arts

TWO-YEAR ASSOCIATE IN ARTS PROGRAM

Communications
303 Journalism

Fine and Applied Arts
401 Airline Stewardess Training
402 Art
408 Commercial Art
403 Home Economics
405 Music
406 Photography

Para-Medical
602 Dental Assisting
601 Dental Technology
603 Medical Assisting (Admin.)
604 Nursing (Associate Deg. Program)
605 Nursing (Vocational)
606 X-Ray Technology

Physical Education
704 Recreational Leadership

Social Science
814 Social Service Associate

Technology
918 Airframe & Airpower Tech.
919 Air Transportation
902 Architectural Technology
915 Auto Body & Frame Tech.
903 Automotive Technology
920 Chemical Technician
921 Civil Technician
904 Construction Technology
905 Cosmetology
927 Culinary Arts
930 Drafting. Technical
•931 Electrical Power
•906 Electro-Mechanical Drafting
907 Electronics Technology
917 Engineering Technology Instrumentation

Orange Coast Junior College District
908 Food Services
929 Hotel Management
•932 Machine Shop Practices
916 Manufacturing Technology
922 Marine Technology
911 Metal Trades Technology
•925 Nursery School Education
913 Petroleum Business
912 Petroleum Technology
•933 Petroleum Practices
914 Police Science
•926 Quality Assurance
928 Restaurant Management
•934 Stationary Engineering & Air Conditioning
•923 Supervision
924 Tool & Die Design Drafting

Other 999 General Interest

•EVENING SCHOOL ONLY

TRANSFER PROGRAMS LEADING TO A FOUR-YEAR DEGREE

410 Music
409 Home Economics

Math and Sciences
501 Architecture
502 Biology
512 Chemistry
503 Dentistry
504 Engineering
505 Forestry
506 Mathematics
507 Medicine
508 Optometry
509 Pharmacy
510 Physics
511 Veterinary Medicine

Physical Education
702 Health Education
701 Physical Education
703 Recreational Education

Social Science
801 Anthropology
813 Behavioral Sciences
802 Economics
803 Geography
804 History
806 Philosophy
807 Political Science
805 Pre-Law
810 Psychology
809 Sociology
808 Social Science
811 Social Welfare

Technology
910 Industrial Arts

Other
812 Liberal Arts

Back

Figure 8

(STUDENT NAME AND COURSE IDENTIFIERS APPEAR HERE)

☐ STUDENT IS NOT ENROLLED OR IS NOT ATTENDING

CHECK THE BOX TO THE LEFT OF THE APPROPRIATE ANSWER.

1. HOW DO YOU SEE THIS COURSE IN TERMS OF YOUR CAREER PLANS?

☐ OF IMMEDIATE, DIRECT BENEFIT

☐ OF LONG-TERM DIRECT BENEFIT

☐ OF INDIRECT BENEFIT

☐ OF NO BENEFIT

2. IS THIS COURSE: (YOU MAY CHECK MORE THAN ONE BOX)

☐ REQUIRED SPECIFICALLY FOR YOUR JUNIOR COLLEGE GRADUATION?

☐ REQUIRED SPECIFICALLY FOR YOUR JUNIOR COLLEGE MAJOR?

☐ REQUIRED SPECIFICALLY FOR YOUR MAJOR AT, OR GRADUATION FROM, A 4-YEAR COLLEGE?

☐ NOT SPECIFICALLY REQUIRED IN YOUR COLLEGE PROGRAM.

PROJECT FOLLOW-THROUGH
FORM F-1

Figure 9

ORANGE COAST JUNIOR COLLEGE DISTRICT
PROJECT FOLLOW-THROUGH
FOLLOW-UP QUESTIONNAIRE

1. Did you complete your junior college program while at Golden West or Orange Coast College? ☐ Yes ☐ No

2. If you are now enrolled in college, in what type of program are you engaged? (Check more than one)

   ☐ Two-year community or junior college
   ☐ Four-year college
   ☐ Vocational or occupational program
   ☐ Program leading to an AA degree or junior college certificate of achievement
   ☐ Program leading to a bachelor's degree or higher degree
   ☐ Taking courses specifically to help me in my present job
   ☐ Taking courses required for my degree or certificate program
   ☐ Taking courses for general interest and self-improvement
   ☐ Taking college courses and working part time (less than 30 hours per week)
   ☐ I am not enrolled in college courses at this time

3. If you are not enrolled in college, do you intend to enroll:

   ☐ Next semester
   ☐ Within one year
   ☐ Within two years
   ☐ After two years
   ☐ After I finish service in the armed forces
   ☐ Never

4. Are you presently seeking full- or part-time work? ☐ Yes ☐ No

5. If you are working full-time (or in the armed services) 30 or more hours per week, are you working:

   ☐ in an occupation for which you received training in junior college?
   ☐ in an occupation related to the training you received in junior college?
   ☐ in an occupation unrelated to my junior college training?

Figure 10 (Page 1)

6. If you were enrolled in an occupational or vocational program while in junior college, did the occupational training you recieve:

- ☐ help you get a new job?
- ☐ help you get a promotion or a better job?
- ☐ My training did not help me get a job or a promotion.
- ☐ I was not enrolled in an occupational program.

7. If you were enrolled in a transfer program while in junior college, did you (answer more than one):

- ☐ transfer as a freshman to a four-year college?
- ☐ transfer as a sophmore to a four-year college?
- ☐ transfer as a junior to a four-year college?
- ☐ transfer as a senior to a four-year college?
- ☐ find your junior college work to be of great value?
- ☐ find your junior college work to be of moderate value?
- ☐ find your junior college work to be of minimum value?
- ☐ find your junior college work to be of no value?

8. In general, how would you rate your junior college experience?

- ☐ of great value
- ☐ of moderate value
- ☐ of limited value
- ☐ of no value

9. If your address, as shown at the top of this questionnaire, is incorrect, please show your correct address below.

_____	_____
Street	City
_____	_____
State	Zip Code

Figure 10 (Page 2)

Field Name	Length	Relative Location	Field Description
NCOL	1	0	College 1 = OCC 2 = GWC
NID	7	1	Student Identification Number
NSS	9	8	Social Security Number
NNAME	20	17	Student Name
NSEX	1	37	Student Sex 1 = Male 2 = Female
NMBD	6	38	Birthdate Mo-Da-Yr
NMARST	1	44	Marital Status
NBACK	1	45	Ethnic Background
NCITZ	1	46	Citizenship
NHI	3	47	Height Feet-Inches
NLB	3	50	Weight Pounds
NHPROB	1	53	Health Problems
NFI	1	54	Family Income
NSSER	3	55	Service Classification
NBEN	1	58	Education Benefits
NREL	1	59	Relative in Military
NOCCU	3	60	OCC Units - Supplementary Reg.
NGWCU	3	63	GWC Units - Supplementary Reg.
NALIVE	1	66	Parent Living
NWM	1	67	Living with Whom
NSUP	1	68	Supplementary Registration Code
NEP	1	69	Enrollment Plan
NJC	1	70	Work at What College
NWPTJC	1	71	Why Pick This Junior College
NMV	1	72	Vocation or Major
NVE	1	73	Vocational Enrollee
NYS	2	74	Years Schooling
NTP	1	76	Transfer Plans
NMTU	3	77	Total Units - Supplementary Reg.
NMTX	1	80	Transfer School
NHSMAJ	1	81	High School Major
NHSCD	6	82	High School Last Attended - Code
NHSYR	2	88	Year Last Attended High School
NHSG	1	90	High School Graduate Code
NHSGR	1	91	High School Grade
NDIST	3	92	District Code
NFSEM	3	95	Yr/Sem First Registered
NCKHR	1	98	Clock Hours
NUERN	1	99	Earned Units
NULCD	1	100	Unit Load Code
NULTT	3	101	Current Unit Load
NMAJ	3	104	Major Code
NPRIR	1	107	Prior Attendance at Another College
NDEG	1	108	Type Degree Working For
NDROP	1	109	Withdrawal Code
NAGE	1	110	Age Code

Figure 11 (Page 1)

Master File

Field Name	Length	Relative Location	Field Description
NADST	1	111	Admission Status
NTRAN	1	112	Transfer Plans at Registration
NCOUN	2	113	Counselor/Advisor Code
NIDTX	1	115	In District Transfer
NRET	1	116	First Time-Returning-Continuing
NSEL	1	117	Government Benefits
NCC	1	118	Classification Code Day-Eve-Com
N430	1	119	Before 430, After, or Combination
NCODE	1	120	Graded, Adult, or Combination
NCMUA	3	121	Com. Units Attempted
NCMUC	3	124	Com. Units Completed
NCMGS	4	127	Com. Grade Points
NCMGA	3	131	Com. Grade Point Average
NCRUA	3	134	Curr. Units Attempted
NCRUC	3	137	Curr. Units Completed
NCRGS	4	140	Curr. Grade Points
NCRGA	3	144	Curr. Grade Point Average
NYSLA	3	147	Yr/Sem Last Attended
NULCP	3	150	Selective Service Comparitive Units
NSTAT	1	153	Current Status
NXFCD	5	154	Transfer Institution Code
NTELE	7	159	Current Phone Number
NLOCA	20	166	Local Address
NLOCC	25	186	Local City/State
NLZIP	5	211	Local Zip Code
NPRMA	20	216	Perm. Address
NPRMC	25	236	Perm. City/State
NPZIP	5	261	Perm. Zip Code
NVRAW	2	266	Raw Verbal
NQRAW	2	268	Raw Quantitative
NTRAW	3	270	Raw Total
NVPER	2	273	Percentage Verbal
NQPER	2	275	Percentage Quantitative
NTPER	2	277	Percentage Total
NVC	1	279	C Verbal
NQC	1	280	C Quantitative
NTC	1	281	C Total
NSDTE	4	282	SCAT Test Date
NSCODE	1	286	Test Code
NOPEN	108	287	- Open -
NDLP	4	395	Date Left Parents
NSE	1	399	Seeking Employment
NHME	3	400	Earnings Per Week
NYES	2	403	- Open -
NHMH	1	405	How Many Hours Per Week Working
	72	406	- Open -
NEOF	1	478	End of Student Record

Figure 11 (Page 2)

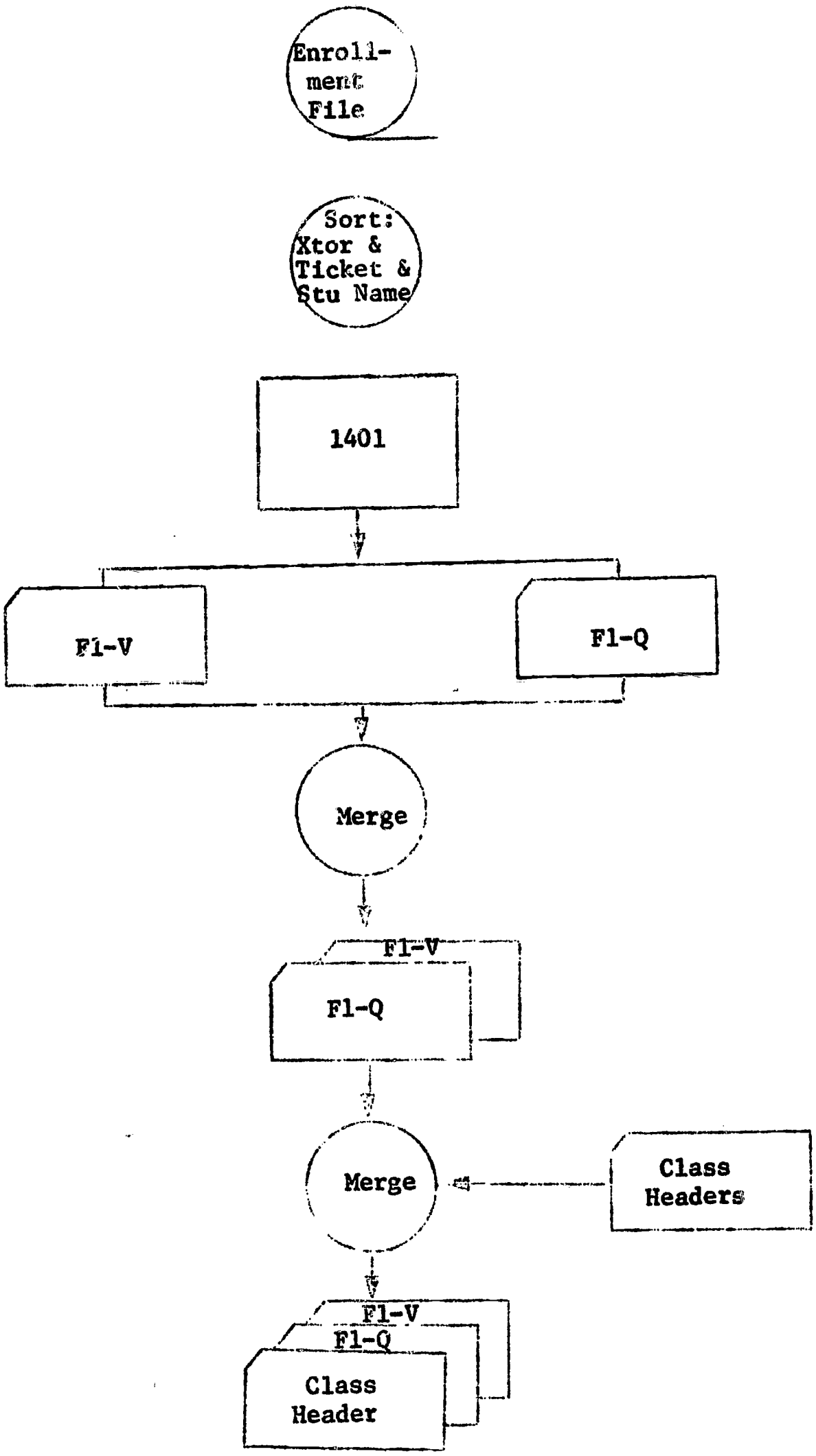
Master File

Field Name	Length	Relative Location	Field Description
EID	7	0	Student I. D. Number
ESS	9	7	Social Security Number
ESEX	1	16	Student Sex
ETIC1	4	17	Ticket Number
ETIC2	4	21	Grade-Period-Section-Credit
ECOURS	6	25	Course Number
ETYPE	1	31	Type of Course (alphabetic)
EINST	4	32	Instructor Code
ESER	6	36	Serial Number
EUNIT	3	42	Units
EHOUR	3	45	Hours
EWITH	1	48	Withdrawal Code
ESNE	1	49	Student not Enrolled
EOE	1	50	Obtain Employment
EWW	4	51	(Mo/Yr) Intend to go to Work
ESE	1	55	Seeking Employment
ETCP	1	56	Course in Terms of Major Plans
EITCR	1	57	Course Required
EFREE	8	58	- Open -
ECODE	3	66	District Code
EAG	1	69	Adult or Graded Class
ENAME	20	70	Student Name
EOPEN	5	90	- Open -
EFIRST	1	95	Student's First Class
ESEMYR	3	96	Yr/Sem
EEOR	1	99	End of Record

Figure 12

Enrollment File

In-Class Questionnaire Production



Note: Class header cards show instructor name and course name and number. This information is used for routing purposes.

Figure 13

CALIFORNIA STATE DEPARTMENT OF EDUCATION
BUREAU OF INDUSTRIAL EDUCATION
FORM A-1

APPLICATION FOR APPROVAL OF TRADE AND TECHNICAL EDUCATION CLASSES

Name of School District _____

Name of School _____

School Year 19____ – 19____

Three copies of this application must be submitted to the appropriate Regional Office of the Bureau of Industrial Education, California State Department of Education, within 30 days after the opening of the classes for which approval is being requested.

Class number	Type of class[1]	Course title	Course code number	Instructor's name	Type of credential held	Hours per week class meets	Course outline	Advisory committee
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

[1] Indicate type of class and whether secondary (grades ten, eleven, and twelve) or post secondary (grades thirteen, fourteen or adult) as specified under Instructions for Completing form A-1, column 2—Type of Class on reverse of this form.

CAL[illegible]RNIA STATE DEPARTMENT OF E[illegible]TION
[illegible]

_____ Name of school district

_____ Name of school

REPORT ON AUTHORIZED TRADE AND TECHNICAL EDUCATION CLASSES

School year 19____ - 19____

Two copies of this report must be submitted to the appropriate regional office of the Bureau of Industrial Education, California State Department of Education, no later than July 15 following the close of the school year for which reimbursement is being requested.

Class number	Type of class [1]	Course title	Course code number	Instructor's name	Enrollments			Number placed	Total annual hours of instruction	Teacher's salary for this class	Fund	Basic reimbursement
					Males [2]	Females	Apprentices					
1	2	3	4	5	6	7	8	9	10	11	12	13
TOTALS:	Column 1 Indicate total number of classes reported on this sheet only. Column 10 Indicate total hours of instruction reported on this sheet only. Column 11 Indicate total salaries reported on this sheet only						TOTALS				X	

[1] Indicate type of class as whether secondary (grades ten, eleven, and twelve) or post-secondary (grades thirteen, fourteen, or adult) as specified under Instructions for Completing Form B-1, column 2—Type of Class on reverse side of this form.
[2] Do not include apprentice enrollment. Apprentice enrollment should be recorded in column 8 only.

Name of School District _____

Name of School _____

AND INDUSTRIAL EDUCATION CLASSES

School Year 19____ – 19____

Two copies of this report must be submitted to the appropriate Regional Office of the Bureau of Industrial Education, California State Department of Education, no later than July 15 following the close of the school year for which reimbursement is being requested.

OCCUPATIONAL CODE	OCCUPATION FOR WHICH TRAINING WAS GIVEN	PRE-EMPLOYMENT				EXTENSION			GRAND TOTAL		
		Types A and B		Type C		Other Than Apprentices[1]		Apprentices			
	Title	Male	Female	Male	Female	Male	Female	Total	Male	Female	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)

[1] Do not include apprentice enrollment. Report apprentice enrollment in Column (9) only.

49160-300 3-58 2303 C 5P

Trade and Technical Education
Report System

PRIMARY FILES

Class Schedule

Ticket Number
Instructor Number
Serial Number

Basic Index Record File

Ticket Number
Course Number
Day and Hours

Instructor Record File

Instructor Name
Salary
Certificate

Course Record File

Course Type
Course Number
Occupation
Units
Course Description
Instructional Code Number
Occupational Code Number
Advisory Committee Number
Serial Number

Enrollment File (See Figure 12)

Figure 17

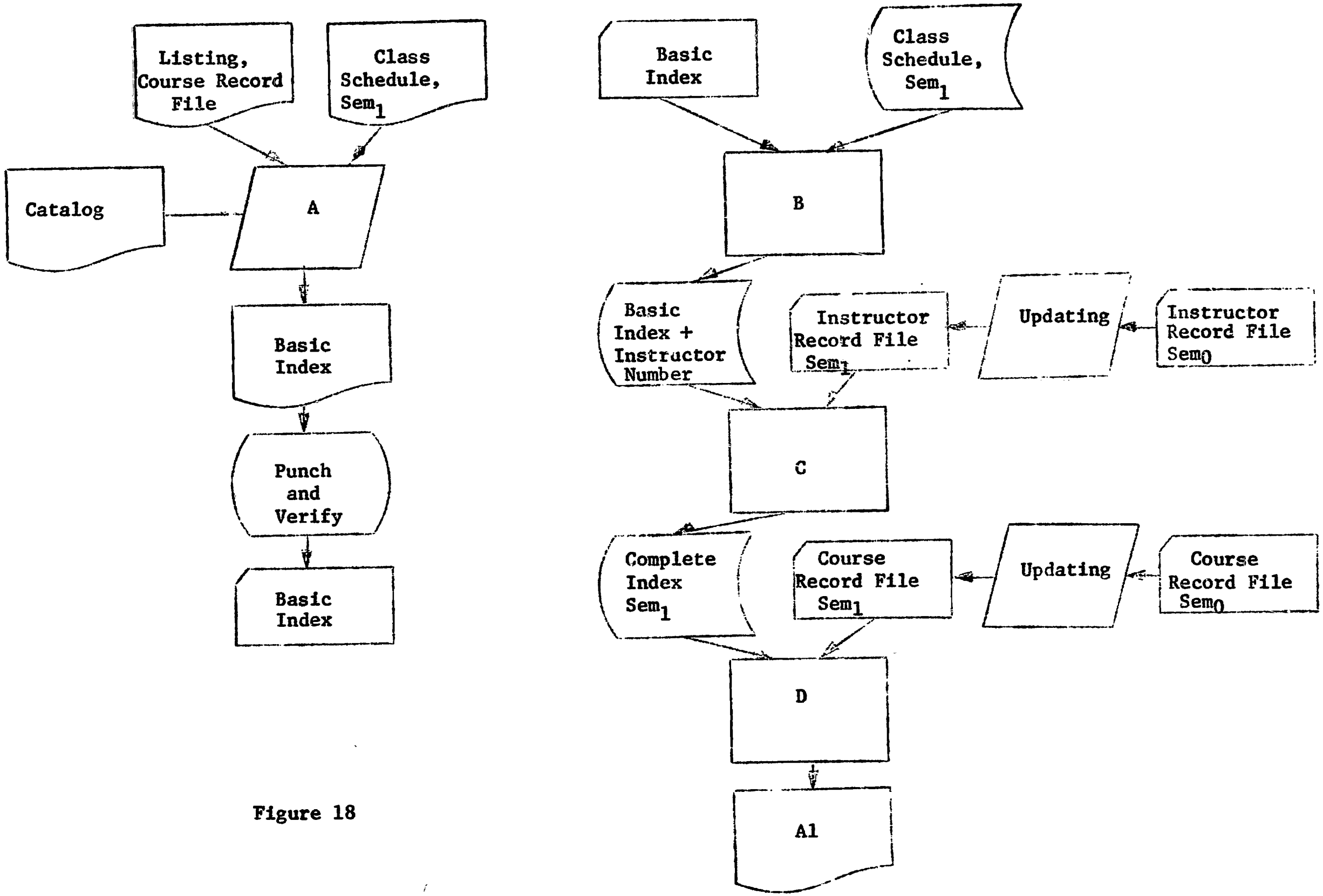

Listing, Course Record File
Class Schedule, Sem1
Catalog
A
Basic Index
Punch and Verify
Basic Index
Basic Index
Class Schedule, Sem1
B
Basic Index + Instructor Number
Instructor Record File Sem1
Updating
Instructor Record File Sem0
C
Complete Index Sem1
Course Record File Sem1
Updating
Course Record File Sem0
D
A1

Figure 18

APPLICATION FOR APPROVAL OF TRADE AND TECHNICAL EDUCATION CLASSES

SCHOOL YEAR 1968-1969

YEAR APPRENTICE

ORANGE COAST JUNIOR COLLEGE DISTRICT

CLASS NUMBER	TYPE OF CLASS	COURSE TITLE	COURSE CODE NUMBER	INSTRUCTOR NAME	TYPE OF CREDENTIAL HELD	HOURS PER WEEK CLASS MEETS	COURSE OUTLINE	ADVISORY COMMITTEE
21570	C-P	AUTO. TECH. 70 AB	170302	FANNING, RICHARD O.	SD VOC	5.0	21570	82
22150	C-P	BLD. TR. 50 AF	171004	HEUN, JOSEPH H.	SD VOC	4.0	22150	12
22160	E-P	BLD. TR. 60 AH	171001	COCHRAN, ROBERT W.	CLASS D	5.0	22160	06
22160	E-P	BLD. TR. 60 AH	171001	DENISON, FRANK E. JR.	SDS	5.0	22160	06
22160	E-P	BLD. TR. 60 AH	171001	POTTER, JOHN P.	CLASS D	5.0	22160	06
22170	C-P	BLD. TR. 70 AD	160103	WEBER, DONALD E.	SD BUS	4.0	22170	01
22172	E-P	BLD. TR. 72 AB	171009	BATES, NEIL W.	CLASS D	3.0	22172	44
22250	E-P	SHEETMETAL50 AF	172305	ABERNATHY, BILL JR.	CLASS A	5.0	22250	11
22250	E-P	SHEETMETAL50 AF	172305	COX, FLOYD W.	SD VOC	5.0	22250	11
22250	E-P	SHEETMETAL50 AF	172305	GREELEY, JACKIE D.	SD VOC	5.0	22250	11
22375	E-P	BLDG.CON. 75 AB	171005	CETNAR, WILLIAM I.	SD VOC	5.0	22375	08
22376	E-P	BLDG.CON. 76 AB	171005	JUSTIN, ERVIN G.	SD VOC	5.0	22376	08
22377	E-P	BLDG.CON. 77 AB	171005	JUSTIN, ERVIN G.	SD VOC	5.0	22377	08

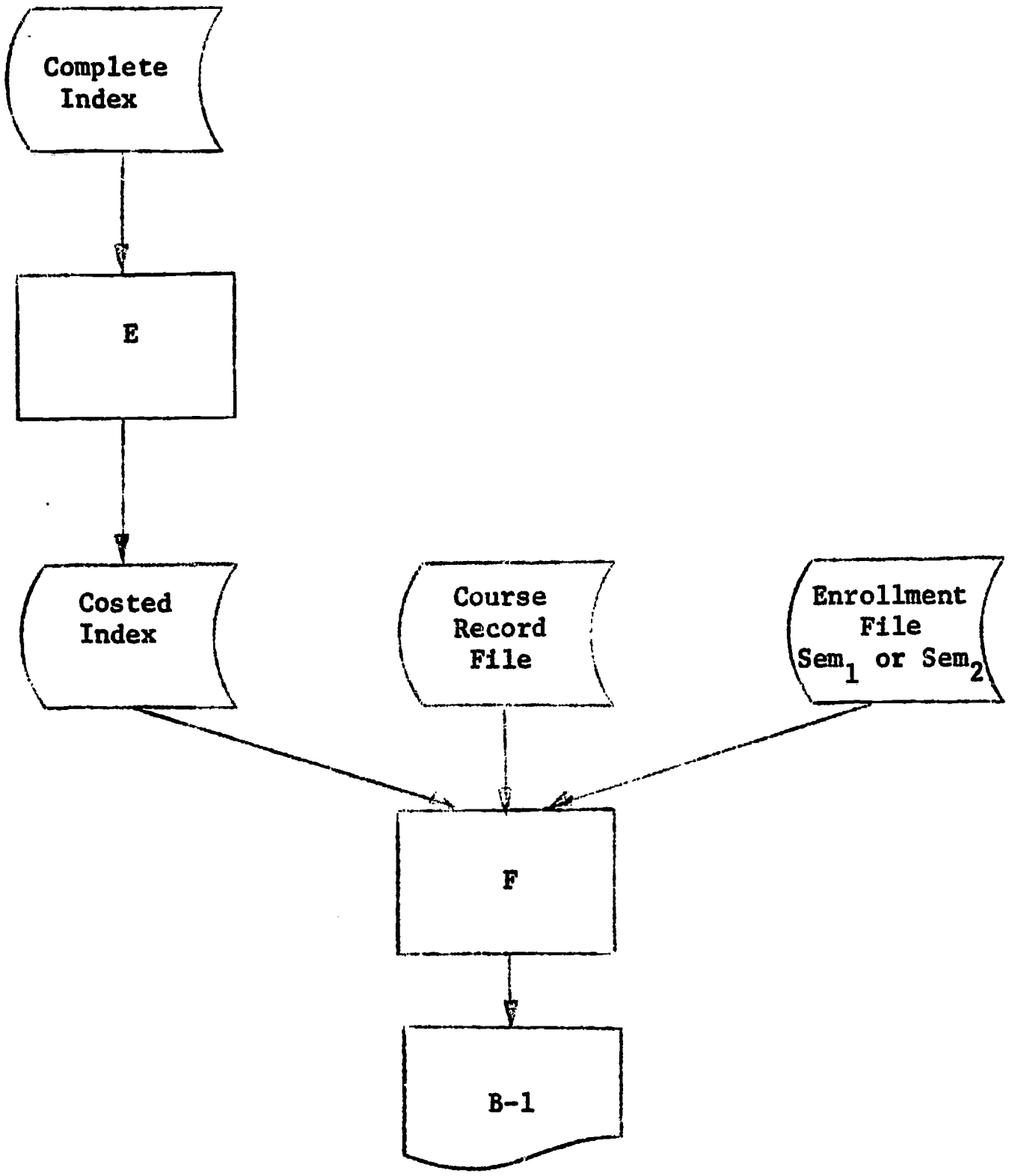

Complete Index
E
Costed Index
Course Record File
Enrollment File Sem1 or Sem2
F
B-1

Figure 20

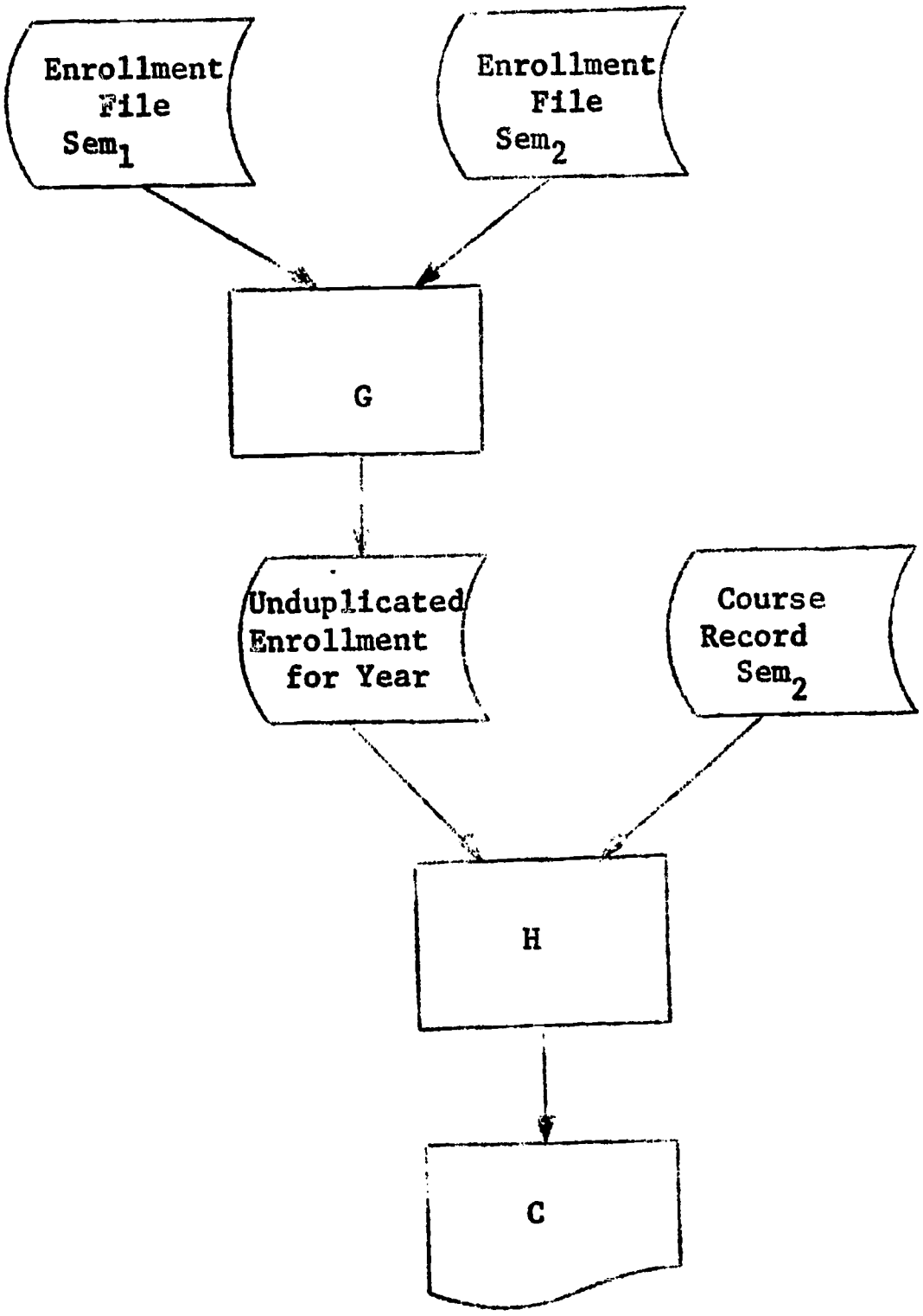

Enrollment File Sem1
Enrollment File Sem2
G
Unduplicated Enrollment for Year
Course Record Sem2
H
C

Figure 21