ABSTRACT

        Results of the first year's operation of EUREKA (a
computerized system to provide current, accurate, and locally
relevant labor market and educational information to California high
school students and counselors for the purposes of career exploration
and decision making) are presented in this report. The general
project design is outlined: (1) modification of the Oregon Career
Information System to make it usable in California; (2) the
development of special materials for the California system; (3) the
implementation of EUREKA in San Francisco Bay Area Schools, and
especially in Richmond-area schools; (4) the creation of a board and
users' consortium; and (5) the invitation to other non-profit schools
and agencies to use the system. Implementation and evaluation of the
program are traced briefly under the following headings:
Accomplishments; Major Activities and Events; Problems; Publicity
Activities; Dissemination Activities; Data Collection and Evaluation;
Staff Employment and Utilization; and Staff Development. The major
conclusion presented is that the success of the year's operation
(114,000 users) warrants continued funding and support. The
appendices, comprising one-half of the report, include a third-party
evaluator's report, sample computer printouts, and a costs sheet, and
a user handbook. (BL)

ANNUAL INTERIM REPORT

Project No. 07-61796-D-7-010

Grant No.

BEST COPY AVAILABLE

EUREKA, The California Career Information System

Exemplary Project in Vocational Education

Conducted Under
Part D of Public Law 90-576

Patrick Halligan

Richmond Unified School District
1108 Bissell Avenue
Richmond, California 94802

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June 30, 1977

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Summary of the Report

(a) Time period covered: September 1, 1976 - June 30, 1977

(b) Goal:

EUREKA, The California Career Information System, will provide current, accurate, and locally relevant labor market and educational information to California youths in the process of career exploration and decision-making so they can knowledgeably select careers and training opportunities appropriate to their needs.

Objectives:

1. By January 31, 1977, EUREKA will be fully operational in Richmond-area public and private non-profit high schools. This objective will be verified by an on-site survey conducted by the Project Director.

2. By January 31, 1977, every secondary school district in California will have been informed of EUREKA and invited to see the system demonstrated. This objective will be evidenced by copies of letters sent.

3. By January 31, 1977, EUREKA will be made available to all institutions which are represented by BACE members. This objective will be evidenced by BACE meeting minutes.

4. By January 31, 1977, the Richmond EUREKA staff will provide leadership in forming a statewide EUREKA consortium consisting of representatives from developers and users of system information. This objective will be evidenced by EUREKA consortium meeting minutes.

5. By March 15, 1977, EUREKA will be made available to California schools, institutions, and agencies interested in its implementation. This objective will be evidenced by materials in the EUREKA enrollment packet.

6. By June 30, 1977, a report evaluating EUREKA and its use in Richmond-area schools will be provided for the Career Education Unit of the California Vocational and Career Education Services Section. This objective will be evidenced by the evaluation report which is submitted.

(c) Results: Accomplishments

Because of this Part D Project, EUREKA, The California Career Information System, is a reality. Using simple commands at a computer terminal, 114,000 Californians can now access EUREKA's library of occupational and educational information which is localized and continuously updated.

(d) Evaluation

Users were overwhelmingly satisfied with EUREKA. The vast majority felt that the instructions were very easy to understand, that the handbook and printouts were very easy to read, and that the system was both very interesting and very helpful. The vast majority also gave the various parts of EUREKA the highest of ratings on a scale of one to three.

(e) Conclusions

Project EUREKA's success can best be measured by the interest it has generated in other schools and agencies. Whereas there are currently 114,000 EUREKA users, all of them in Northern California, next year there will be at least 250,000 users throughout California. Many people have benefited from this project already, but there are a great many more who still stand to benefit.

Recommendations

EUREKA as it exists today is by no means a finished product. To be sure, it is working and it is useful, but it lacks proprietary school information, certain California occupational files, much scholarship information, and extensive occupational localization, all of which characterize the good occupational and educational information systems and all of which can certainly be added.

EUREKA requires further development time and development funds before it can be considered mature and can sustain itself through user fees. Experience in other states which have adopted Oregon's Career Information System has shown that the system can mature in three years. As this report shows, EUREKA's first year has been most productive. It should be given two more years of VEA Part D support.

Body of the Report

(a) Accomplishments

(i) The problem area to which Project EUREKA was directed was identified
as follows in the original proposal:

There is a lack of career and vocational direction in California
schools, causing wasted years in school, and inadequate or erroneous
information about the world of work. Information which is available
is disorganized, outdated, and ineffectively disseminated to students
by school counselors who can devote little time to vocational guidance
and counseling.

This problem area was at least partially solved by Project EUREKA as
follows:

EUREKA began to provide California youths with well-researched
information about locally relevant occupations, preparation procedures,
programs of training and apprenticeship, and post-secondary educational
institutions so they are informed enough to make important career
decisions.

System information is organized so that simple commands to the
computer will yield whatever occupational and training information the
user wants to access.

All newly updated information in the EUREKA files becomes available
within eight weeks to all system users.

By explaining EUREKA to large numbers of students at one time,
scheduling student use of computer terminals, and later reviewing the
results individually, each counselor can provide adequate vocational
guidance and counseling with minimum demands on the counselor's own
time.

(a) Accomplishments (con't)

(ii) As finally delineated, the Project's goal and objectives were as follows:

EUREKA, The California Career Information System, will provide current, accurate, and locally relevant labor market and educational information to California youths in the process of career exploration and decision-making so they can knowledgeably select careers and training opportunities appropriate to their needs.

1. By January 31, 1977, EUREKA will be fully operational in Richmond-area public and private non-profit high schools.' This objective will be verified by an on-site survey conducted by the Project Director.

2. By January 31, 1977, every secondary school district in California will have been informed of EUREKA and invited to see the system demonstrated. This objective will be evidenced by copies of letters sent.

3. By January 31, 1977, EUREKA will be made available to all institutions which are represented by BACE members. This objective will be evidenced by BACE meeting minutes.

4. By January 31, 1977, the Richmond EUREKA staff will provide leadership in forming a statewide EUREKA consortium consisting of representatives from developers and users of system information. This objective will be evidenced by EUREKA consortium meeting minutes.

5. By March 15, 1977, EUREKA will be made available to California schools, institutions, and agencies interested in its implementation. This objective will be evidenced by materials in the EUREKA enrollment packet.

(a) Accomplishments (con't)

6. By June 30, 1977, a report evaluating EUREKA and its use in Richmond-area schools will be provided for the Career Education Unit of the California Vocational and Career Education Services Section. This objective will be evidenced by the evaluation report which is submitted.

(III) The Project's goal to establish EUREKA, The California Career Information System, was met as stated. EUREKA does provide current, accurate, and locally relevant labor market and educational information to California youths in the process of career exploration and decision-making so they can knowledgeably select careers and training opportunities appropriate to their needs.

Project EUREKA met each of its objectives as follows:

1. EURCKA was operational in Richmond-area public and private non-profit high schools but on a rotating basis, each site having un-limited access for a period of three weeks.

2. Virtually every secondary school and community college dis-trict in California was informed of EUREKA and invited to see a demon-stration. Numberous demonstrations and workshops were conducted throughout California.

3. EUREKA was made available to all institutions which are represented by members of Bay Area Computer Educators (BACE). Every eight weeks the latest updated computer tape was shipped to each BACE site.

4. The EUREKA Board met on a monthly basis to discuss matters of concern to the development and dissemination of EUREKA. Minutes from the seven September-March meetings were included with the first two interim reports. Minutes from the April and May meetings are attached

(a) Accomplishments (con't)

as Appendix A. Minutes from the June meeting, scheduled for June 30,
will not be ready in time for inclusion in this report.

5. As of March 1, EUREKA was made available to California schools,
institutions, and agencies which did not participate in the original
selection and development of the system. Two schools had the proper
combination of decision makers, computer availability, and funding to
adopt EUREKA immediately: Sacramento City College and Gavilan College.
Others, like San Marino High School; St. Francis High School (Mt. View);
the Southern California Regional Occupational Center; the Los Angeles
Community College District; the Sacramento City Unified School District;
U.C. Berkeley; Cal State Northridge; the Jewish Vocational Service, Los
Angeles; the San Mateo County Schools Office; and Contra Costa County
ROP, were working to adopt EUREKA by September of this year.

6. Interim quarterly reports evaluating EUREKA and its use in
Richmond-area schools were provided in February and April for the Career
Education Unit of the California Vocational and Career Education Services
Section. This report serves as both the third quarterly interim report
and the annual interim report.

The Richmond Unified School District does intend to apply for funds to
continue Project EUREKA another year.

(b) Major Activities and Events

    (I) The general project design for Project EUREKA included the following:

        1. the Californiazation of the Oregon Career Information System, to make it usable in California;

        2. the development of special materials for the California system;

        3. the implementation of EUREKA in San Francisco Bay Area schools, and especially in Richmond-area schools;

        4. the creation of a board and users' consortium; and

        5. the invitation to other non-profit schools and agencies to use the system.

This design was carried out as follows:

    1. The entire effort to transform Oregon's Career Information System into EUREKA, The California Career Information System, which would be usable anywhere in California, necessitated a division of labor and assignment of tasks among BACE members. It was done as follows:

        Richmond--localize occupational files; write, design, typeset, print, and distribute User Handbooks

        Diablo Valley College--perform all data entry tasks

        Palo Alto--localize program files; localize schools files

        Berkeley--localize preparation files

        San Francisco--input scholarship information

    2. The 3000 copies of EUREKA's first handbook, which was written, edited, designed, typeset, printed, and distributed by the Richmond Project EUREKA staff, were exhausted by February. A new edition of some 7000 copies was readied for distribution to all EUREKA users in March. Incorporated in this new edition were certain changes to reflect the system's expanded user base; for example, all the California community colleges were included as was new localized program file information for Regional Occupational Programs. A copy of this

(b) Major Activities and Events (con't)

new User Handbook is attached as Appendix B.

3. To implement EUREKA in Richmond-area schools, Project Staff first held informational sessions for instructional vice principals, guidance counselors, and work experience counselors. Then, when the System became operational, Project Staff trained those involved at each site in the actual use of the System at a computer terminal. Project Staff provided BACE members at other San Francisco Bay Area sites using EUREKA with the materials to conduct their own implementation sessions.

4. The EUREKA Board consisted of the following:

    Bill Banaghan, Contra Costa County Schools

    John Buckham, Mills High School

    LeRoy Finkel, San Carlos High School

    Allan Jensen

    Mary Koss, US Army Recruiting Command

    Gerard Laureyns, US Army Recruiting Command

    Paul Lorton, University of San Francisco

    Eugene Muscat, San Francisco Unified Schools

    Ernie Pope, Palo Alto Unified School District

    Leigh Robinson, Richmond High School

    Jim Stubblefield, Diablo Valley College

    Bob Tryon, Berkeley High School

The minutes from EUREKA Board meetings are sent to all of the above and also to the following:

    John Clyde, Oregon Career Information System

    Leo Day, Independent Data Processing Center

    Odessa Dubinsky, California Department of Employment Development

(b) Major Activities and Events (con't)

L. Donald Frazier, San Mateo High School District

Mary Griffin, Stanford

Robert Hotchkiss, California Employment Development Department

Pat Hubbard, Bay Area Cooperative Education Clearing House

Mitsu Kumagai, Santa Cla·a County Schools

Dr. Beth Lee, American River College

Donald Mayall, Career and Employment Analysis

Dr. Mary Lou Neasham, American River College

Jim Neto, California Employment Development Department

Herb Peckham, Gavilan College

Lt. Col. Joseph Shea, US Army Recruiting Command

Dr. Gary Strauss, Sacramento City College

Margaret Thal-Larsen, UC Berkeley Emeritus

Glenn Vaughan, Santa Clara County Schools

To assure the permanence of EUREKA when project monies are no longer available for sustenance, the Board wrote, amended, and finally adopted the EUREKA Constitution on February 17, 1977. A copy of this Constitution was attached to the second quarterly interim report. The By-Laws have been written and will be acted upon at the June 30th Board meeting.

The Board scheduled the first meeting of the EUREKA Users' Consortium for May, 1978.

5. Project Staff conducted numerous dissemination and publicity activities as referred to in later sections of this report.

(c) Problems

    (i) The timeline for implementing EUREKA in all the Richmond Unified School District's secondary schools had to be adjusted because of computer programming problems.

Although it was written in the Dartmouth BASIC computer language, the Oregon Career Information System, which served as the model for EUREKA, would not run on Richmond's Instructional computer center hardware, a Digital Equipment Corporation PDP-11. To solve this problem for the short term, Project staff exchanged program access for computer access at the local community college. This arrangement made one computer port available for all Richmond-area schools, which then had to be scheduled on a rotating basis. To solve the problem of hardware incompatibility for the long term, Project staff contracted with the Oregon Career Information System to have a translator program written for running EUREKA on the PDP-11. This translator, which will be completed July 15, 1977, doubles the potential users for EUREKA in California because the PDP-11 is widely used in high schools and colleges throughout the state.

    (ii) EUREKA Project staff had not anticipated the overwhelmingly favorable reception of its efforts to localize the Career Information System for California. The demands on staff time for dissimination resulted in less time being available for development of EUREKA's data files. And, of course, with new sites becoming interested in using the system, there must be even more development of localized files. For example, all the Southern California community colleges have now been added to the system because of interest among Southern California educators. The EUREKA Project consequently needs more funds and more staff.

(c) Problems (con't)

        The lack of a full-time information-development staff to increase

EUREKA's occupations from 230 to 400 has been a major problem. A

system which purports to reflect the occupational distribution in

California should surely have more than 230 occupations in its files.

Project staff recognize this problem as do some users, but the funds

simply haven't been available to increase the number of occupations.

(d) Publicity Activities

    (i) The Project EUREKA presentation before the Richmond Unified School

        District's Board of Education on February 9th resulted in a newspaper

        article in the Richmond Independent/Berkeley Gazette, a copy of which

        is attached as Appendix C.

        In addition to this published article, it should be mentioned here

        that the Project Co-ordinator was interviewed about EUREKA on the

        Community Closeup program broadcast over Radio Station KNBA-Vallejo,

        November 3, 1976.

    (ii) The EUREKA Project at Richmond High School was visited on 16 occasions

        by 130 people as follows:

11/16	Demonstration for Sacramento City Schools (4)*
12/1	Demonstration for Richmond Employment Development Department (12)
12/6	Demonstration for Marin County Schools (2)
1/4	Demonstration for Salesian High School VicePrincipal
1/5	Presentation/demonstration for Richmond Unified School District's Vice Principals (12)
1/14	Demonstration for Roland Boldt, State VEA and Dick Wenstrum, District VEA
1/26	Presentation/demonstration for RUSD counseling chairpeople (12)
2/9	Presentation for the RUSD School Board
3/2	Informational visit by Suzanne Köehn, Coordinator of Career Programs and Information, Career Planning and Placement Center, UC Berkeley
3/9	Informational visit by Vic Hutchins, CSD, Berkeley and Tim Arinson, Lawrence Hall of Science
3/30	Informational visit by Phil Brutcher, Standard Oil Education Coordinator
3/31	Informational visit by Hartley Campbell, Educator Program Coordinator, Headquarters for the US Army Recruiting Command, Ft. Sheridan, Illinois

  * Numbers in parenthesis are approximate counts of people involved.

(d) Publicity Activities (con't)

   5/6 Presentation/demonstration for Orange Unified School
       District Career Education Deliver System, Northern
       California Workshop (40)

   5/18 Informational visit by College Park High School
       Counselors (2)

   6/7 Informational visit by Dublin High and Foothill High
       School Counselors (3)

(e) Dissemination Activities

(1) A complete list of those who were sent the EUREKA informational letter
was included in the first quarterly interim report. It is too lengthy
to repeat here.

Informational packets consisting of a User Handbook, (see Appendix B),
a System explanation sheet, (see Appendix D), sample computer
printouts, (see Appendix E), and a costs sheet (see Appendix F) were
sent to the following at their request:

Robert Argo, Sacramento City Unified School District.

Don Bender, Grossmont Union High School District

Marc Berkov, East Los Angeles College

Lee Berman, Lawrence Hall of Science

Virginia Black, San Luis Obispo Community College District

Dr. Tom Bogetich, Vocational Education Council

Jack Bond, Cuesta College

Harold J. Brenner, Los Angeles City Unified School District

Johney Brooks, Pomona Unified School District

Walt Brooks, Shasta College

Elaine Burns, College of San Mateo

Alan Button, Digital Equipment Corporation

Herb Cohen, Long Beach City College

Rich Coker, Yolo County Schools

Joe Cooney, San Mateo County Office of Education

Leigh Croskrey, Tustin Unified School District

Robert B. DeWeese, Monterey Peninsula Unified School District

Paul DeWitt, Newark High School

Odessa Dubinsky, California EDD

Vern Dwelly, Cordova Senior High School

(e) Dissemination Activities (con't)

Harriet Glickman, UCLA Extension

Arthur Glover, West Los Angeles College

Polly Hammonds

Leonard C. Harlow, Champlain Valley Work & Training Programs, Inc.

Edward Hascall, San Francisco State University

Guinnevere A. Hodges, Compton Community College

Steve Iverson, Fairfield-Suisun Unified School District

David W. Jordan, El Camino College

Bob Kresck, Hewlett-Packard

Virla Krotz, State Board of Education

James S. Loughridge, Woodland Joint Unified School District

Natalie Malkovich, Santa Rosa City Schools

Robert A. Mantovani, Long Beach City College

Jean McIlyar, Arcadia High School

Wilma McLeod, Southwestern College

David Nashelsky, San Jose Public Library

Mike Navone, Mt. Diablo School District

Jim Neto, California EDD

Betty Owens, Orland High School

Evelyn Pollard, Santa Rosa Junior College

Jane Reece, Spartanburg Technical College, South Carolina

John Rice, KQED Television

Hal Roach, Cerritos College

Ann Roberti, City College of San Francisco

Maria Robinson, San Jose Unified School District

Fred Rusk, Rohnert Park High School

Stuart J. Silver, Beverly Hills High School

Siskiyous, College of the

(e)   Dissemination Activities (con't)

    Gary Straus, Sacramento City College

    Patricia Wenz, Santa Barbara High School

(II) The following is a list of presentations made by Project Staff outside

   the Project site:

11/17 Presentation/demonstration for the National Alliance of Business-
    men Career Guidance Institute - Hilltop Shopping Center,
    Richmond (125) *

11/19 Presentation/demonstration for the Northern California Community
    College Counselors' Association Mini-Conference - Hilton Inn,
    Oakland (200)

12/3 Presentation/demonstration for the Northern California ROP/C
    Counselor Career Center Technician Workshop - County Office
    of Education, Sacramento (75)

12/13- Presentation/demonstration for the American Personnel and Guidance
12/14 Association Career Information System Workshop - Los Angeles
    County Board of Education Building, Downey (80)

1/6 Presentation/demonstration for the Apostolic Christian Academy
    staff - El Sobrante (5)

2/2- Booth and workshop/presentation at the Third National Forum on
2/4 Education and Work, sponsored by the National Institute of
    Education and The Center for Vocational Education at Ohio
    State University - Hyatt Regency, San Francisco (40)

2/16 Presentation/demonstration for Lawrence Hall of Science personnel -
    LHS, Berkeley (2)

2/22 Workshop for Los Angeles-area educators - Glendora Uni ied School
    District Office (35)

2/23 Workshop for San Diego-area educators - San Diego County Department
    of Education (30)

2/24 Workshop for Los Angeles-area community college staff - Los
    Angeles City College (60)

2/24 Demonstration for San Marino and Pasadena secondary school staff -
    San Marino High School (10)

2/25 Workshop for Fresno-area educators - Fresno City College (25)

3/10 Presentation/demonstration for the North Santa Clara County ROP
    Counselor Inservice Workshop - Palo Alto (45)

  * Numbers in parenthesis are approximate counts of people involved.

(e) Dissemination Activities (con't)

3/18   Presentation/demonstration for the Southern California Regional
         Occupational Center's participating schools - Torrance (17)

3/29   Presentation/demonstration for the Department of Education -
         Sacramento (12)

3/30   Presentation/demonstration for the UC Berkeley Career Planning
         and Placement Center - UC Berkeley (15)

5/12   Presentation/demonstration for Santa Ana College staff - Santa
         Ana College (15)

5/13-   Table topics sessions at the California Association of Work
5/14   Experience Educators' Workshop - Sheraton, Anaheim (135)

5/17   Presentation/demonstration for the Stockton Schools staff -
         Franklin High School, Stockton (15)

(f) Data Collection and Evaluation

(i) To substantiate claims regarding the participation of a private non-profit school in the Project, and regarding the interest that has been generated in EUREKA throughout California, there is a sampling of letters attached as Appendix G.

To measure user responses to EUREKA, a single-page questionnaire was designed that enables users to comment on their reactions to the system as a whole and to each part. A blank questionnaire is attached as Appendix H.

The results of these questionnaires were overwhelmingly positive. Table 1 shows user ratings for the individual EUREKA components. Especially noteworthy in this table is the "great" rating giving the Occupational Descriptions file by 77% of the respondents. This file was accessed by more users than any other, a total of 93% in all, so the enthusiastic response is certainly meaningful.

Table 2 shows how users reacted to their experience with the total system. Two of their most positive responses, that EUREKA was very easy to read (83%) and that it was very interesting (84%), substantiate the Project staff's original reasons for selecting the Oregon Career Information System over the others available.

(ii) The third-party evaluator's report is attached to this report as Appendix I.

TABLE 1

EUREKA COMPONENT RATINGS

	Great	Fair	Poor	Did Not Use
QUEST	42%	36%	2%	20%
Occupational Descriptions	77%	15%	1%	7%
Bibliography	18%	21%	1%	60%
Preparation	59%	24%	1%	16%
Programs of Study and Training	43%	12%	1%	43%
Schools	28%	20%	5%	47%

TABLE 2

STUDENT USERS' EVALUATION

	9	10	11	12	Grad
Grade of Student	18%	12%	33%	36%	1%

	10	20	30	40	50
Time spent using terminals (in minutes)	24%	42%	18%	10%	6%

	Yes	No
Did you have an occupation in mind before using EUREKA?	84%	16%

	Yes	No
Do you have a better idea about what you'll do after high school now that you've used EUREKA?	77%	23%

	Very	Fairly	Not at all
How easy were EUREKA's instructions to understand?	69%	31%	
How easy was EUREKA to read?	83%	16%	1%
How interesting was EUREKA to you?	84%	16%	
How helpful was EUREKA to you?	60%	38%	2%

(g) Staff Employment and Utilization

There were no staff personnel changes during the period covered in this report, but the Project co-ordinator's percentage of involvement increased substantially from the anticipated 65% to nearly 90%. At least 60% of the co-ordinator's total involvement was devoted to administration and management activities.

(h) Staff Development

The EUREKA Project Co-ordinator, who is currently acting as the statewide
EUREKA Administrative Director, attended both meetings held this year for
Career Information System directors from throughout the United States.

The meeting held in Oregon, October 20-22, 1976, covered cooperation
possibilities of statewide systems, long-range development concerns,
promotional materials, exchange of file information, user materials, system
design changes, and the creation of a CIS clearinghouse to coordinate
various activities of statewide systems on a continuous basis.

The meeting held in Colorado, April 18-19, 1977, continued the discussion
of CIS clearinghouse functions and agreed to pursue a variety of tasks
cooperatively, tasks such as sharing promotional and user service materials,
sharing hard copy or microfiche of each state's information files and
suggesting changes to the QUEST access strategy.

The next CIS Directors' Meeting will be held in California, August 25-26, 1977.

Project staff conducted EUREKA inservice workshops for Richmond Unified
School District counselors and instructional vice principals. The workshops
concentrated on various implementation aspects of EUREKA including efficient
scheduling, terminals use, file contents, and motivational approaches.

(i) Conclusion

There is no doubt but that this Project, more than any other single effort, has succeeded in establishing EUREKA as an easily accessible computer-delivered occupational and educational information system which is capable of serving the needs of Californians all around the state.

The effect which this Project has had on other schools and agencies in California can be seen in Table 3, which lists those sites currently using EUREKA, those sites which will begin using EUREKA in September, and those sites which have been considering EUREKA and may still adopt it in September.

EUREKA's success thi: year, as determined by the interest and enthusiasm of counselors, teachers, and administrators in adopting this system over any other available and determined also by the satisfaction of students in using it, should be followed up next year with continued VEA Part D support.

The primary responsibilities of this continued project would be the following:

1. Coordinate EUREKA implementation in RUSD

2. Coordinate statewide EUREKA board

3. Conduct EUREKA demonstration workshops

4. Conduct EUREKA inservice workshops

5. Publish EUREKA user handbooks

6. Publish and/or distribute EUREKA implementation handbooks

7. Publish EUREKA newsletter

8. Design and publish EUREKA posters

9. Initiate public relations contacts with the public media

10. Contract with Oregon CIS for technical assistance in information development and user services

11. Add more occupations to EUREKA's files

12. Extend occupational localization

TABLE 3

EUREKA SITES, CURRENT AND POTENTIAL

Current EUREKA Sites	Potential Users
Berkeley High School	3,300
Palo Alto Unified School District	4,500
Richmond Unified School District	10,000
San Francisco Unified School District	17,700
San Mateo Union High School District	31,400
Contra Costa College	9,600
Diablo Valley College	18,600
Gavilan College	2,300
Sacramento City College	13,400
Solano Community College	3,300

Additional EUREKA Sites (Beginning September, 1977)	
St. Francis High School, Mt. View	1,400
San Marino High School	1,300
San Mateo County School District	34,000
Cal State Northridge	27,700
Lawrence – Livermore	2,000
American River College	19,000
Cañada College	8,000
Santa Rosa College	7,000

TABLE 3 (con't)

EUREKA SITES, CURRENT AND POTENTIAL

Sites Where EUREKA Is Being Considered for Adoption	Potential Users
Merced Union High School	6,500
Sacramento City Unified School District	17,800
Stockton City Unified School District	6,500
Cabrillo College	9,000
Fresno County Schools	36,000
Consumnes River College	5,300
Glendale College	4,100
Los Angeles Community College District	133,700
Merced College	8,100
Napa College	5,600
San Joaquin Delta College	16,000
Santa Ana College	16,700
UC Berkeley	27,000
Jewish Vocational Service	500
Lawrence Hall of Science, Berkeley	2,500
Southern California ROC (33 high schools)	54,000

(1) Conclusion (con't)

13. Add more postsecondary schools, to include some proprietary schools

14. Develop scholarship information file

15. Duplicate and distribute EUREKA PDP-11 version

16. Provide EUREKA evaluation report

As this report shows, EUREKA's first year has been most productive. It should be given two more years of support.

EUREKA Meeting Minutes   April 29, 1977   2 - 4:30 p.m. · Richmond High School

Present: Bill Benaghan, John Buckham, Mike Doggett, Allan Jensen, Mary Ross,
          Gerard Laureyns, Don Hayall, Ernie Pepe. Leigh Robinson, Jim Stubblefield

1. INTRODUCTIONS...Mary Ross introduced herself as representing Col. Shea and
    the San Francisco District Army Recruiting Command. Mike Doggett introduced
    himself as Mary's counterpart in the Los Angeles District. And Gerard Laureyns,
    familiar to everyone, explained the Army's interest in EUREKA by detailing
    the Army's efforts to provide career counseling before enlistment, during
    active duty, and prior to discharge.

2. REPORT ON STATE CIS DIRECTORS' MEETING...Jim and Leigh reported that they
    met with CIS directors from Colorado, Iowa, Minnesota, Oregon, and Washington
    in Boulder, Colorado, on the 17th and 18th of April. After one wasted day
    discussing such "givens" as "What is CIS?", the directors voted to form a con-
    sortium with the following five purposes:

    a. The Consortium will be formed to share common experiences, ex-
        change ideas, use common products, and maximize the use of
        available resources in operating CIS-based services;

    b. Provide a basis for adopting CIS standards, cooperating in the
        solution of technical problems and developing the system
        further;

    c. Cooperate with others involved in delivering occupational
        information to establish national standards and to provide
        for education and public information;

    d. Participate in a united effort to identify, devolop, enhance,
        and use various private and public sources of occupational
        and educational information and to encourage the commitment
        of resources to this effort; and

    e. Support the establishment of occupational information
        services and the commitment of resources to this effort.

    The initial CIS Consortium membership fee for July 1, 1977 - June 30, 1978,
    will be $2500, which includes the following agreed-upon clearinghouse activities:

    a. Publish a CIS newsletter.

    b. Coordinate further development of the Implementation Handbook
        and additional "recipes" for system use.

    c. Coordinate exchange and/or common production of user materials.

    d. Coordinate occupational coding.

    e. Coordinate system design changes and improvements.

    The directors heard several reports as follows: QUEST revisions being tested
    by Oregon; producing CIS; exploring legal liability problems; federal
    legislative developments (esp. with S.R. 1797/1249); and the newly prepared
    technical specifications describing how the CIS operation system functions.

    The next CIS directors' meeting will be held at Diablo Valley College on the
    23rd and 24th of June.

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3. REPORTS ON WORKSHOPS, DEMOS, ETC....Jim said he gave a well-received presentation at the California Educational Computer Consortium Meeting in Sacramento on the 22nd...Leigh reported that he and Carlo Cam of WUSD Special Projects made a EUREKA presentation before a group of VEA, State Department of Education, and EDD people, April 29th...Jim and Leigh will be showing EUREKA at the California Association of Work Experience Educators' Convention, Anaheim-Sheraton Hotel, Friday, May 13 at 3:45 and Saturday, the 14th at 9 and again at 9:30.

4. PROJECTS UPDATE...Still no word on any of the three EUREKA projects submitted.

5. HARDWARE UPDATE...Jim announced that EUREKA now runs on the DEC 10 in Fortran IV at Solano. Soon versions will be available for the CDC, Data General, Honeywell, IBM, and PDP 11 computers also...There are microcomputer possibilities, too, but they're still a ways off.

6. FEES...Leigh presented a two-tier pricing structure that was discussed, altered somewhat, and finally adopted. It will begin in July, 1978. The computer fee, which will cover production and distribution of tapes and discs, will be $250. The user fee will be 75¢ per estimated user for the first 3000 and 50¢ for each additional user. Included with user fees will be one user handbook for every three users and one recipe book for thousand users, as well as the other materials, privileges, and services. There will be a minimum user fee of $150 and a maximum determined by the number of terminals available to the general user population. The maximum number of estimated users per terminal will be 1500. For example, a college with 20,000 students and two accessible terminals would pay a user fee based on two terminals times 1500 estimated users or 3000 estimated users altogether, rather than 20,000 x 2/3 or 13,333 estimated users.

7. BY-LAWS COMMITTEE REPORT...Bill presented us with another of his "masterpieces," the By-Laws Draft One, which incorporates Allen's suggestions and is herewith made a part of those minutes. Bill solicited comments and suggestions and suggested that they be mailed to him before the next meeting, when the By-Laws will be discussed.

8. PARTY, MAY 14...Jim distributed maps (one attached) to Carol Johnston's house, 15 Hatter Ct., Pleasant Hill, where the EUREKA bash will be held May 14, from 4 p.m. on. Carol's place has a pool, sauna, patio, and view for everyone's enjoyment, and Carol has promised to provide drinks, eats, music and a tasty cake decorated with the EUREKA logo. By May 9, if possible, let Wanda Esberg, Jim's secretary (685-1250), know if you're coming, and send your check for $7 per person made out to Carol Johnston to either Carol at her home address or to Wanda in care of the Counseling Dept., Diablo Valley College.

9. NEXT MEETING...In order to accommodate others interested in attending EUREKA Board Meetings and because Ernie's tired of Richmond's refreshments, it was decided that the next Board Meeting will be held at Mills High School, 100 Murchison Avenue, Millbrae, May 26, 2 p.m.

   (Enclosed is a revised estimate of EUREKA's direct costs for a school with 1200 students which has no computer of its own.)

A. **Parliamentary Procedure.** Board procedures shall be in conformance to Robert's Rules of Order (Revised).

B. **Terms of Board Members.** The normal term of membership of a board member shall be three years. However, at such time as a seat becomes vacant before the term is completed and a new member is named, the new member shall be named to fill the unexpired period rather than a full three year term.

C. **Election of Consortium Members to the Board.** Procedures for the election of representatives from the Consortium to the Eureka Board shall be adopted by the Board.

D. **Resignations.** Resignation shall be recognized only by a written notice submitted to the Chair by the school, college or agency represented by the member. Such resignation shall be recorded in the minutes of the meeting immediately following receipt of the resignation.

E. **Removal of Member.** A Board member will be removed from membership at such time as that member acquires two consecutive and unexcused absences from regular meetings of the Board, as determined by the Chairee. A member having three unexcused absences from regular Board meetings within one year shall be removed from membership. Any member having four absences from regular Board meetings within a one year period shall be removed from membership. The Secretary shall notify the individual removed from membership, and the school, college, or agency represented by the former member of the action by the Board.

F. **Vacancies.** Vacancies which occur shall remain vacant until the next annual election.

G. **Scheduling of Meetings.** Regular meetings of the Board shall be scheduled for 2 P.M. on the (fourth Thursday) of each month. Other meetings may be held at the call of the Chairee or upon the request of three members of the Board.

H. **Annual Meeting.** An annual meeting of the Board shall be held in the month of ??????? at which time there will also take place the annual meeting of the Consortium. For good and sufficient reason, the annual meetings may occur in a month other than ?????.

I. **Location of Meetings.** The location of regular meetings shall be varied so as to share the inconvenience of travel among the members and to provide more equitable access to the Board by the members of the Consortium.

J. **Notice of Meetings.** Notice of the time and location of each

regular meeting shall be provided to all board members at least two weeks prior to the meeting. The time and location of all special meetings shall be provided to all board members at least two weeks prior to the special meeting, together with an agenda of business to be conducted at the meeting.

K   Attendance at Meetings. {All regular meetings of the Board shall be open to the public.} 2.{Attendance at Board meetings by individuals other than Board members, or designees of Board members shall be by Board invitation only.} 3. {???????}

L   Policies, Rules and Regulations. Policies, rules and regulations of the Board may be adopted, revised, added to or amended at any regular meeting of the Board by a majority vote of those members present. Proposed changes or additions shall be introduced not less than one regular meeting prior to the meeting at which action is recommended.

M   Agenda of Meetings. The Chairee of the Board shall cause an agenda to be prepared and mailed to the Board and to all members of the Consortium at least ten days prior to the meeting.

N   Committees. Advisory and other committees may be established by the Board when such action is consistent with the constitution and the By-Laws. {e.g. Membership Subcommittee, Audit Subcommittee, Planning Subcommittee, Advisory Commitee, etc.}.

O   Quorum. A quorum of Board members shall be required for official action by the Board. A quorum shall consist of two thirds of the current Board membership.

P   Voting. Each member of the Board shall be entitled to one vote. The concurance of a majority of the members present is required for Board action.

Q   Absentee Ballotts. ??????

R   Recording of Votes. The ayes and nays shall be taken, by voice or ballott upon all propositions presented to the Board for action and the passage or non passage shall be recorded in the minutes of the Board.

S   Non-Voting Participation. An absent member may designate an alternate to participate at a Board meeting as a non-voting representative.

T   Organizational Meeting. At its first meeting subsequent to the annual meeting of the consortium and the election of members to the Board, the Board shall organize by electing the following officers: Chairee, Vice Chairee, Secretary, and Treasurer.

U   The Responsibility of the Chairee. The Chairee, or in his absence the Vice Chairee shall chair all meetings of the Board, and shall

act for the Board in signing all contracts or agreements in which Eureka is a participant.

Responsibility of the Treasurer. The Treasurer shall asure that all funds, property, and tangible rights of Eureka are inventoried and protected, that commonly accepted budgetary procedures are maintained, and that information of this nature is readily available to the board and to the chief administrator on all income received and disbursements made by Eureka. Further, the treasurer shall be responsible for the development of an annual financial report to be presented at the annual meeting of the Board.

Responsibility of the Vice Chairee. In the absence of the Chairee, the Vice Chairee shall chair the official meetings of the Board and shall sign such documents as may be necessary to fulfill the action of the Board.

Responsibility of the Secretary. The Secretary shall be responsible for maintaining the minutes of the Board and for conducting such correspondence between the Board and other agencies or individuals as shall be desirable.

Staff Support. The Board shall retain staff as needed. All staff shall be hired under contract.

Director. The chief administrator shall be the Director who shall be an employee of the Board, and shall be directly responsible to the Board through the Chairee.

Responsibilities of the Director. (A) The Director shall recommend policy and procedures to the Board regarding:

1. Election of members to the Board and election of Board officers.
2. Goals and objectives, activities, and priorities for action.
3. Budget development, pricing of services and products, solicitation of funding and other resources, contracts and agreements.
4. Purchasing, accounting, and inventory control.
5. Personnel recruitment, salary schedules, job descriptions.
6. Representation of consortium members (agencies, schools, colleges) by individuals empowered to represent the Consortium members.
7. Reembursement for expenses of Board members and of staff in the fulfillment of their responsibilities to Eureka.
8. Minimizing the possiblity of conflict of interest.

(B) The Director shall:

1. Assist the Chairee in the scheduling of all regular and special meetings of the Board and the coordination of the annual meetings of the Board and the Consortium.

2. Assist the board in the development of an annual plan.
3. Assist the Secretary in the maintenance of the minutes and correspondence of the Board.
4. Assist the Treasurer in the development of the annual budgetary report.
5. Serve as purchasing agent for the Board within policy and regulations approved by the Board.
6. Serve as the agent of the Board in the development of agreements and contracts for services, materials, licences, etc., between the Board and other agencies. The Board retains the responsibility for final approval or rejection of all such agreements.
7. Provide coordination of workshops, demonstrations, etc., when provided under the sponsorship of the Eureka organization.

BB. Amendments. Changes in the By-Laws may be proposed by any member of the Board or of the Consortium. Proposed changes must be submitted to the Board at least one month prior to the meeting at which the amendment is to be considered by the Board. Approval of a majority of those Board members voting, a quorum being present, is required for passage.

CC Date of Adoption(s). These By-Laws are hereby adopted by the Eureka Board on this_____ day of _____1977, and shall become effective _____.

Presented for consideration April 29, 1977.
Bill Banaghan, Contra Costa County Superintendent of Schools Office

Present: Bill Banaghan, John Buckham, Dic. Carey, LeRoy Finker, A. Ian Jenson,
          Mary Koss, Gerard Lauroyns, Don Fayal, Gale Pope, ___ gh Robinson,
          John Rollin, Jim Stubblefield, Bob Tryon

1. REPORT ON CAWEE CONVENTION...Jim, Bob, and Leigh made workshop and rap'd
   topics presentations at the California Association of Work Experience Ed-
   ucators' Convention held in Anaheim May 12 - 14. They distributed about
   180 EUREKA packets consisting of the User Handbook, a cost sheet (the one
   included with last month's minutes), and a ___er/hardware sheet (copy enclosed).
   They felt for two reasons that EUREKA has finally "arrived": -the inquiring
   policy makers are outnumbering the merely curious at presentations; other
   "systems," e.g. SEARCH and CRIS, are trying to ride EUREKA's coattails.

   Other user sites which appear more promising since the user /hardware sheet
   was prepared are these: Stockton City Unified, UC Berkeley, Feather River,
   Fresno, and San Mateo County.

2. STATUS REPORT ON DATA ENTRY...Jim mentioned that only a gradual change will
   be noticeable in new EUREKA tapes between now and the end of June. Begin-
   ning in July, however, he will rehire all staff and process space to gather
   and load new data so that September's version will be in good shape.

3. PROJECTS UPDATE...Jim indicated that his postsecondary education project
   is a virtual certainty now. The only uncertainty involves the exact date
   of disbursement.

   Because all VEA funding is still so unsettled, DVC's other project and the
   Richmond project are still in limbo.

   Dick Carey suggested that EUREKA's marketing include mention that districts
   consider using Title IV funds to implement EUREKA. Every district receives
   these funds and may spend them on guidance/counseling at its discretion.

4. FEE STRUCTURE...After buying new batteries for his calculator, Leigh figured
   the user-maximum-per-terminal figure of 1500 users discussed at the last
   meeting to be unrealistic. One terminal available for running EUREKA at
   a large community college, for example, would yield only $1125, and that one
   terminal could serve 4410 users if accessed by three students per hour,
   seven hours per day, and 210 days per year. If accessed by only two students
   per hour, six hours per day, and 180 days per year, one terminal could serve
   2160 users. No one knows exactly how many will use one terminal, but since
   the purpose of this user-maximum-per-terminal figure is to offer a reasonable
   price alternative to large institutions, there's no reason to set the figures
   much lower than reasonable expectations of use.

   After discussion, the 2000 user-maximum-per-terminal was adopted.

   LeRoy suggested and then promised to produce a grid which would help prospec-
   tive users determine software costs. The grid variables would be number
   of users and number of terminals.

5. BATCH QUEST CHANGE...In a communication sent to CIS Directors, The Colorado
   Career Information System (CCCIS) proposed a change in batch QUEST making it
   easier to use and offering greater flexibility. Called Abbreviated QUEST,
   this mode allows the user to determine the question sequence and prints each
   question just as it ___ QUEST does, thereby avoiding the confusion in using
   equal signs and commas.

   While recognized as an improvement, Abbreviated QUEST was considered of low
   priority at this time.

6. BY-LAWS...There was some discussion about whether the EUREKA non-profit corporation would be required to have by-laws at all since the constitution is so detailed. Regardless of whether or not they would be required by law, it was felt that a smaller group should put the by-laws into a shape that the Board could act upon. Bill, John B., Allen, and Leigh volunteered to meet at Richmond High, 2 p.m., June 8, to work on the by-laws.

Bill passed out copies of state and federal tax exemption applications which must be filed in order to gain non-profit status. These, too, it was felt, should be filled out by a smaller group, checked by an attorney, and then presented to the Board for action. Bill, Don, and Leigh volunteered to meet at Richmond High, June 15, to work on these papers and others related to the status of EUREKA as a non-profit corporation.

Leigh mentioned that he would like to contribute a $100 honorarium toward forming the corporation, and Jim mentioned that he would do likewise with a $200 honorarium. The money could be used for legal fees, filing fees, or other related costs.

7. MARKETING STRATEGY FOR NEXT YEAR...EUREKA will try next year to be represented at the NCS and CPGA conventions, as well as at the California Community College Counselors' Association and Secondary School Administrators' conferences. It will participate in workshops sponsored by the DVC Post-secondary Ed. Commission project, and it will make every effort to advise policy makers in districts which already have computer access. In addition, it will encourage efforts by demonstration sites to spread the good word.

8. USER MEETING...Although it was felt that two user meetings would be desirable next year, one in the late fall and one in the spring, only one meeting could be adequately prepared for; hence, one statewide user meeting will be convened next year in early May. Time, place, and order of business will be set later.

9. QUESTIONNAIRE...Attached is a copy of the user questionnaire, second edition. A version of this questionnaire which can be machine scored by DVC's new optical scanner will be used next year.

10. NEXT MEETING...Jim will host EUREKA's next Board Meeting at Diablo Valley College, June 30th, 2 p.m.

EUREKA

The
California
Career
Information
System
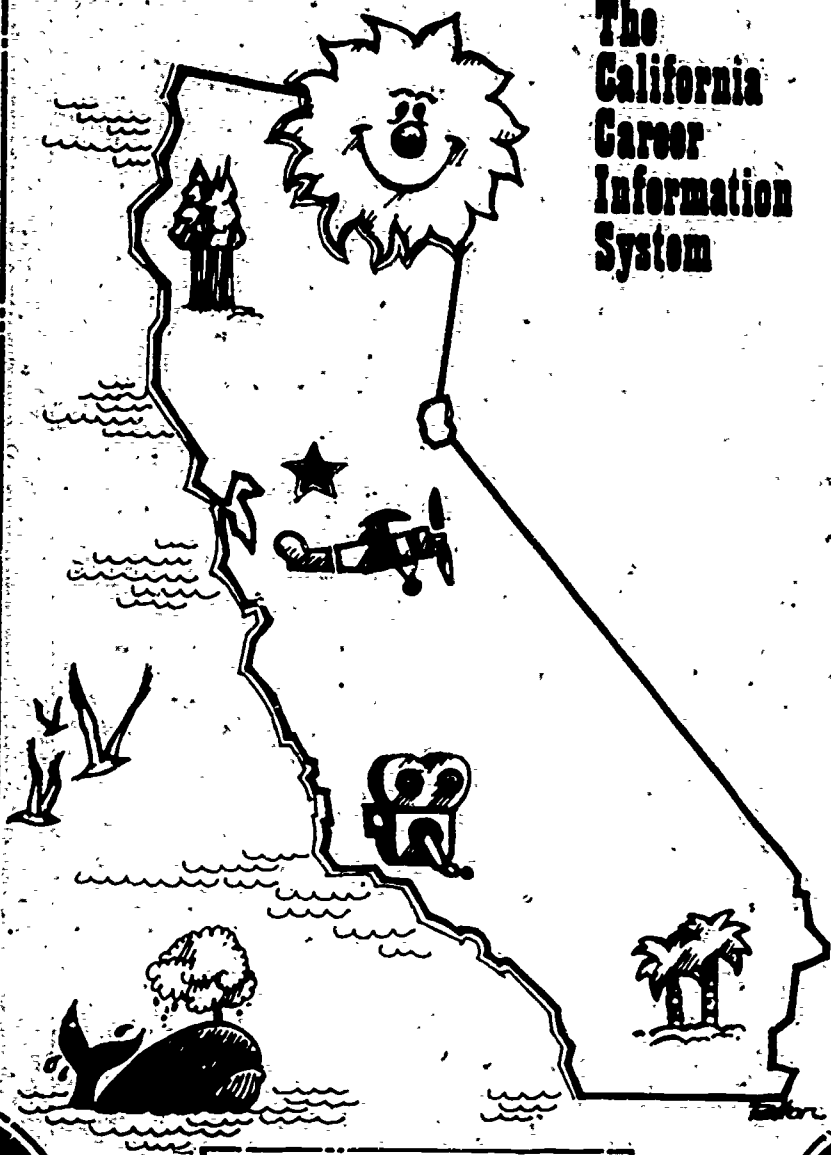
USER HANDBOOK

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WHAT IS EUREKA, THE CALIFORNIA CAREER INFORMATION SYSTEM?

Basically, EUREKA is a library of occupational and educational information which is up-to-date and localized to the area where you live.

The information is stored in EUREKA's computer memory and you can get it by telling the computer just what you want to find.

This handbook will be your guide.

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ARE YOU UNDECIDED ABOUT WHAT OCCUPATIONS TO EXPLORE?

If so, you can tell the computer some things about yourself and get lists of job titles to explore.

See QUEST* on page 2.

DO YOU ALREADY HAVE SOME OCCUPATIONS IN MIND?

That's great, because EUREKA has some of the most current information available in California about occupations. There's information on wages, working conditions, hiring requirements, job outlook in the area where you want to live, and ways to prepare for employment, as well as other, more general career information.

See OCCUPATIONS on page 8.

DO YOU HAVE A FIELD OF STUDY IN MIND?

Good, you can find information about programs, courses, requirements, and degrees. You can even get a list of schools which have programs in your chosen field of study and learn about the careers that are related.

See PROGRAMS OF STUDY AND TRAINING on page 14.

ARE YOU CONSIDERING CERTAIN SCHOOLS OR COLLEGES?

If you are, you'll be happy to know that EUREKA has information about costs, admission requirements, programs of study, housing, and services.

See SCHOOLS on page 19.

ARE YOU LOOKING FOR A JOB RIGHT NOW?

Sorry, but EUREKA does not have information about current job openings. You will need to get that help elsewhere. You might ask a counselor or work experience coordinator, or you could check with your local Employment Development office or some other source of current job openings.

ARE YOU WONDERING HOW TO GET THE COMPUTER TO DO WHAT YOU WANT?

See INSTRUCTIONS on pages 24 and 25.

Pages 2-7, "QUEST," have been removed

from this user handbook because of

copyright.

★ ★ ★ OCCUPATIONS ★ ★ ★

These occupations are the major kinds of work found in California. Find the occupations you want to know about and note their code numbers. Then see instructions on pages 24 and 25.

1614 Accountants and Auditors
       Actors and Actresses (see 9866
         Performing Artists)
1136 Administrators, Education
1134 Administrators, Health Service
1138 Administrators, Public
       Advertising Salespeople (see 7422
         Business Services Salespeople)
8428 Aides, Social Service
8488 Aides, Recreation
3116 Aircraft Mechanics
       Airline Pilots (see 6188 Pilots and
         Flight Engineers)
6126 Air Traffic Controllers
9824 Announcers, Radio and Television
3169 Appliance Repairers
1634 Appraisers and Underwriters
2316 Architects
4724 Artists, Commercial
9866 Artists, Performing
5966 Assemblers, Production
9868 Athletes, Professional
       Attorneys (see 8432 Lawyers)
1614 Auditors, Accountants and
       Automobile Body Repairers (see
         5486 Body & Fender Repairers)
3112 Automobile Mechanics
7418 Automobile Salespeople

       Baby Sitters (see 3456 Domestic
         Service Workers)
4324 Bakers
1642 Bank Tellers, Cashiers and
8184 Barbers
7852 Bartenders
       Beauticians (see 8186
         Cosmetologists)
5488 Blacksmith and Forge Shop
         Workers
5486 Body and Fender Repairers
5483 Boiler Makers, Structural
         Metal and
5944 Boiler Operators
1616 Bookkeepers
       Box Boys (see 7134
         Grocery Baggers)

4264 Bricklayers
5664 Broadcast Technicians
       Building Maintenance Occs., See:
         3422   Building Maintenance
                 Workers
         3456   Domestic Service
                 Workers
         3455   Janitors
         3454   Room Cleaners
3422 Building Maintenance Workers
6152 Bulldozer Operators
6142 Bus and Taxi Drivers
7888 Bus Boys
       Business Administrators (see
         1142 Small Business Operators,
         1132 Hotel and Motel Managers,
         1138 Public Administrators,
         1144 Business Executives)
1144 Business Executives
7422 Business Services Salespeople
1184 Buyers and Purchasing Agents

4586 Cabinetmakers
4348 Cannery Workers
7112 Car Loaders
4254 Carpenters
8416 Caseworkers
1642 Cashiers and Bank Tellers
       Catskinners (see 6152 Bulldozer
         Operators)
4246 Cement Masons
7824 Chefs and Dinner Cooks
       Chemists (see 2624 Physical
         Scientists)
8459 Child Care Workers
8122 Chiropractors
4516 Chokersetters
8436 Clergy
       Clerical Occupations, See:
         1616   Bookkeepers
         1642   Cashiers and Bank Tellers
         1416   Clerk Typists
         1418   General Office Clerks
         1412   Secretaries
         1415   Shorthand Reporters
         1414   Stenographers

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4348 Cannery Workers
4328 Commercial Fishermen
4326 Meat Cutters
Food Service Occupations, See:
   7852 Bartenders
   7888 Bus Boys
   7824 Chefs and Dinner Cooks
   7856 Flight Attendants
   7826 Fry Cooks
   7884 Kitchen Helpers
   7854 Waiters and Waitresses
4124 Foresters
4128 Forestry Technicians
5488 Forge Shop Workers, Blacksmith &
6158 Fork Lift Operators
5426 Foundry Workers
2174 Freelance Writers
7826 Fry Cooks
4584 Furniture Making Machine
     Operators

1418 General Office Clerks
    Geologists (see 2626 Earth
     Scientists)
4538 Graders and Inspectors, Lumber
    Graphic Arts Occupations, See:
   4724 Commercial Artists
      and Designers
   4734 Photographers
   4766 Printing Production
      Occupations
7134 Grocery Baggers
4144 Groundskeepers and Gardeners
9476 Guards, Security

5982 Handcrafters
1134 Health Service Administrators
    Health Service Occupations, See:
   8184 Barbers
   8122 Chiropractors
   8186 Cosmetologists
   8176 Dental Assistants
   8174 Dental Hygienists
   8113 Dentists
   8116 Dietitians
   1134 Health Service
      Administrators
   2654 Health Technicians/
      Technologists
   8126 Health Therapists
   8164 Licensed Practical Nurses

8166 Nurse Aides and
     Orderlies
8115 Optometrists
8124 Pharmacists
8112 Physicians
8117 Physician's Assistants
8162 Registered Nurses
2674 Sanitarians
8128 Speech & Hearing
     Specialists
8114 Veterinarians
2654 Health Technicians/Technologists
8126 Health Therapists
8128 Hearing Specialists, Speech and
3146 Heat & Cooling System Mechanics
    Heavy Equipment Operators (see
     6154 Operating Engineers)
    Historians (see 2144 Social
     Scientists)
    Hospital Administrators (see 1134
     Health Service Administrators)
1132 Hotel and Motel Managers
    Housekeepers (see 3456 Domestic
     Service Workers)
8174 Hygienists, Dental

    Industrial Machinery Repairers
     (see 3142 Millwrights)
    Industrial Truck Operators (see
     6158 Fork Lift Operators)
2672 Inspectors, Quality Control
3186 Instrument Repairers
7416 Insurance Salespeople
2366 Interior Designers & Decorators

3455 Janitors
3184 Jewelers

1688 Keypunch Operators
7884 Kitchen Helpers

    Laboratory Occupations, See:
   2626 Earth Scientists
   2654 Health Technicians/
      Technologists
   2656 Laboratory Testers
   2644 Opticians
   2624 Physical Scientists
   2672 Quality Control Inspectors
   2674 Sanitarians
   2628 Soil Scientists

2656   Laboratory Testers
4286   Laborers, Construction
4168   Laborers, Seasonal Farm
2314   Land Use Planners
       Landscape Occupations (see 4144
          Groundskeepers and Gardeners)
4464   Laundry and Dry Cleaning Workers
9414   Law Enforcement Officers
8432   Lawyers
7164   Librarians
7166   Library Assistants
8164   Licensed Practical Nurses
5624   Linemen
1636   Loan Officers
       Loggers, See:
          4516   Chokersetters
          4514   Fallers and Buckers
          6156   Yarding & Loading Occs.
4538   Lumber Graders and Inspectors
       Linotype Operators (see 4766
          Printing Production Occupations)

5472   Machine Tool Operators
5464   Machinists
       Maids, Room (see 3454 Room
          Cleaners)
7122   Mail Carriers
3422   Maintenance Workers, Building
       Managers, See:
          1152   Construction
                 Superintendents
          1136   Education Administrators
          1134   Health Service
                 Administrators
          1132   Hotel & Motel Managers
          1411   Office Managers
          1186   Personnel Managers
          1138   Public Administrators
          8482   Recreation Program
                 Directors
          1162   Sales & Service Managers
          1142   Small Business Operators
2332   Mathematicians and Statisticians
4326   Meat Cutters
3116   Mechanics, Aircraft
3112   Mechanics, Automobile
3146   Mechanics, Heat & Cooling System
       Mechanics, Industrial (see 3142
          Millwrights)

3114   Mechanics, Truck & Heavy
       Equipment
       Medical Technologists (see 2656
          Laboratory Testers)
1456   Messengers
5421   Metal Refining Occupations
       Metal Working Occupations, See:
          5488   Blacksmith and Forge
                 Shop Workers
          5486   Body and Fender
                 Repairers
          5426   Foundry Workers
          5472   Machine Tool Operators
          5464   Machinists
          5421   Metal Refining Occs.
          5422   Metalworking
                 Patternmakers
          5424   Molders
          5468   Saw Filers & Tool
                 Sharpeners
          5484   Sheet Metal Workers
          5483   Structural Metal and
                 Boiler Makers
          5462   Tool and Die Makers
          5482   Welders
5422   Metalworking Patternmakers
       Meteorologists (see 2626 Earth
          Scientists)
9436   Military Enlisted Personnel
1172   Military Officers
3142   Millwrights
       Ministers (see 8436 Clergy)
9842   Models
8182   Morticians
1132   Motel Managers, Hotel and
5424   Molders
       Musicians (see 9866 Performing
          Artists)

7124   Newspaper Carriers
       Newspapermen (see 2176 Writers
          and Editors)
8166   Nurse Aides and Orderlies
8164   Nurses, Licensed Practical
8162   Nurses, Registered

       Oceanographers (see 2626 Earth
          Scientists)
1692   Office Machine Operators
3164   Office Machine Repairers

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1411	Office Managers	1684	Programmers and Systems Analysts
1172	Officers, Military	8418	Psychologists
3126	Oilers	1138	Public Administrators
6154	Operating Engineers	1195	Public Relations Workers
2644	Opticians	4574	Pulp and Paper Workers
8115	Optometrists	1184	Purchasing Agents, Buyers and
7126	Packers and Wrappers	2672	Quality Control Inspectors
4242	Painters		
5926	Painters and Finishers, Production	9824	Radio and Television Announcers
4442	Patternmakers, Clothes	3168	Radio and T.V. Repairers
	Designers and	6174	Railroad Brakemen and Switchmen
5422	Patternmakers, Metalworking	1646	Railroad Clerks
9866	Performing Artists	6128	Railroad Conductors
1186	Personnel Managers	6172	Railroad Engineers
5914	Petroleum Processing Occupations	4288	Railroad Laborers
8124	Pharmacists	7417	Real Estate Salespeople
4734	Photographers	1452	Receptionists
2624	Physical Scientists	8488	Recreation Aides
	Physical Therapists (see 8126	8486	Recreation Leaders
	Health Therapists)	8482	Recreation Program Directors
8112	Physicians	8162	Registered Nurses
8117	Physician's Assistants	3169	Repairers, Appliance
	Physicists (see 2624 Physical	5466	Repairers, Body and Fender
	Scientists)	3164	Repairers, Office Machine
6188	Pilots and Flight Engineers	3168	Repairers, Radio and T.V.
4528	Planer Mill Occupations	3118	Repairers, Small Engine
2314	Planners, Land Use		Reporters (see 2176 Writers and
4244	Plasterers & Dry Wall Installers		Editors)
4274	Plumbers	1415	Reporters, Shorthand
4552	Plywood Finishing Occupations	4276	Roofers
4554	Plywood Laborers	3454	Room Cleaners
4548	Plywood Lay-Up Occupations	7434	Routemen
4524	Plywood Log and Block Handlers	5918	Rubber and Chemical Processing
	Policemen (see 9414 Law		Occupations
	Enforcement Officers)	5924	Rubber and Plastics Fabricators
	Political Scientists (see 2144	1162	Sales and Service Managers
	Social Scientists)	7484	Sales Clerks
	Postal Clerks (see 7122 Mail	7418	Salespeople, Automobile
	Carriers)	7422	Salespeople, Business Services
4222	Powdermen	7414	Salespeople, Commodities
	Powerhouse Firemen (see 5944	7416	Salespeople, Insurance
	Boiler Operators)	7417	Salespeople, Real Estate
	Principal (see 1136 Education	7415	Salespeople, Securities
	Administrators)	7454	Salespersons
4766	Printing Production Occupations	2674	Sanitarians
8164	Practical Nurses, Licensed	5468	Saw Filers and Tool Sharpeners
5966	Production Assemblers	4534	Sawmill Drying Occupations
5926	Production Painters and Finishers	4536	Sawmill Greenchainmen
1154	Production Superintendents	4559	Sawmill Laborers
9868	Professional Athletes	4522	Sawmill Log Handling Occupations

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★★★ PROGRAMS OF STUDY AND TRAINING ★★★

The computer contains information on many kinds of educational and training programs. Some are intended to prepare people for certain occupations; others are not. Some are conducted in schools and called college majors; others are conducted on the job.

Find the programs you want to know about and note their code numbers. (Remember that this list covers educational information. The occupational list is on page 8.)

Then see the instructions on pages 24 and 25.

4 9

★ ★ ★ PROGRAMS OF STUDY AND TRAINING ★ ★ ★

EUREKA currently has in its files all of California's community colleges and public colleges and universities, as well as popular private colleges and universities in California and certain out-of-state schools.

Here's how to get information on these schools:

First, find the schools you want information about and note their code numbers. You may compare as many as three at a time.

Next, pick some school topics from the list on page 23. You may pick as many as you want, but be sure you note the code numbers.

Then, using the computer terminal, type in SCH and 1, 2, or 3 school codes. Here's an example: SCH 21143, 21001, 21024. (Put a comma between the numbers.)

After that, strike the Return Key and prepare to type in the numbers of the topics you picked.

CALIFORNIA COLLEGES AND UNIVERSITIES (PUBLIC)

21326 California Polytechnic State University, San Luis Obispo
21910 California State College, Bakersfield
21411 California State College, Chico
21512 California State College Dominguez Hills
21722 California State College, San Bernardino
21227 California State College, Sonoma
21528 California State College, Stanislaus
21520 California State Polytechnic University, Pomona
21413 California State University, Fresno
21514 California State University, Fullerton
21015 California State University, Hayward
21116 California State University, Humbolt
21517 California State University, Long Beach
21518 California State University, Los Angeles
21519 California State University, Northridge
21221 California State University, Sacramento
21623 California State University, San Diego
21024 California State University, San Francisco
21125 California State University, San Jose
21001 University of California, Berkeley
21402 University of California, Davis
21503 University of California, Irvine
21504 University of California, Los Angeles
21105 University of California, Riverside
21606 University of California, San Diego
21007 University of California, San Francisco
21008 University of California, Santa Barbara
21309 University of California, Santa Cruz

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CALIFORNIA COLLEGES AND UNIVERSITIES (PRIVATE)

21577 California Institute of Technology
21069 Claremont Men's College
21076 Harvey Mudd College
21068 Mills College
21578 Occidental College
21079 Pomona College
21080 St. Mary's College of California
21181 Stanford University
21382 University of the Pacific
21073 University of San Francisco
21183 University of Santa Clara
21572 University of Southern California

OUT-OF-STATE SCHOOLS

84602 Brigham Young University
02912 Brown University
02138 Harvard University
02139 Massachusetts Institute of Technology
21219 Oregon State University
08540 Princeton University
80302 University of Colorado
21812 University of Oregon
98195 University of Washington
80901 U.S. Air Force Academy
11024 U.S. Merchant Marine Academy
10996 U.S. Military Academy (West Point)
21402 U.S. Naval Academy (Annapolis)
99163 Washington State University
06520 Yale University

CALIFORNIA COMMUNITY COLLEGES

21035	Alameda, College of
21084	Allan Hancock College
21229	American River College
21585	Antelope Valley College
21986	Bakersfield College
21787	Barstow Community College
21430	Butte College
21331	Cabrillo College
21032	Canada College
21591	Canyons, College of the
21588	Cerritos College
22945	Cerro Coso Community College
21033	Chabot College
21789	Chaffey College
21590	Citrus College
21940	Columbia Junior College
21594	Compton Community College
21041	Contra Costa College
21242	Cosumnes River College
22746	Crafton Hills College
21395	Cuesta College
21596	Cypress College
21143	De Anza College
21792	Desert, College of the
21066	Diablo Valley College
21597	East Los Angeles College
21598	El Camino College
22144	Evergreen Valley College
21944	Feather River College
21145	Foothill College
21499	Fresno City College
22500	Fullerton Junior College
21346	Gavilan College
22501	Glendale College
22502	Golden West College
22603	Grossmont College
22304	Hartnell College
22805	Imperial Valley College
21067	Indian Valley Colleges
22943	Lake Tahoe Community College
21047	Laney College
21948	Lassen College
22506	Long Beach City College
22507	Los Angeles City College
22508	Los Angeles Harbor College
22542	Los Angeles Mission College
22509	Los Angeles Pierce College
22510	Los Angeles Southwest College
22511	Los Angeles Trade-Technical College
22512	Los Angeles Valley College
21049	Los Medanos College
21036	Marin, College of

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CALIFORNIA COMMUNITY COLLEGES

22147	Mendocino College
21550	Merced College
21051	Merritt College
22613	Mira Costa College
21552	Modesto Junior College
22314	Monterey Peninsula College
22715	Moorpark College
22516	Mt. San Antonio College
22717	Mt. San Jacinto College
21253	Napa College
21055	Ohlone College
22518	Orange Coast College
22741	Oxnard College
22620	Palomar College
22719	Palo Verde College
22521	Pasadena City College
22048	Peralta College for Non-traditional Study
22622	Porterville College
21137	Redwoods, College of the
22423	Reedley College
22524	Rio Hondo College
22725	Riverside City College
21256	Sacramento City College
22526	Saddleback College
22727	San Bernardino Valley College
22628	San Diego City College
22629	San Diego Evening College
22630	San Diego Mesa College
22640	San Diego Miramar College
21034	San Francisco, City College of
21357	San Joaquin Delta College
21158	San Jose City College
21038	San Mateo, College of
22531	Santa Ana College
22032	Santa Barbara City College
22533	Santa Monica College
21259	Santa Rosa Junior College
21693	Sequoias, College of the
21960	Shasta College
21951	Sierra College
21939	Siskiyous, College of the
21062	Skyline College
21063	Solano Community College
22634	Southwestern College
22935	Taft College
22736	Ventura College
22737	Victor Valley Community College
22438	West Hills College
22539	West Los Angeles College
21164	West Valley College
21465	Yuba College

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★ ★ ★ SCHOOL TOPICS ★ ★ ★

After entering school numbers, you will need to tell the computer what you want to know about the schools.

Note the topics you want information about and their code numbers. Then type in these code numbers and strike the Return Key.

Example: 1-5, 21, 71, 85

GENERAL INFORMATION

01 General Information (type of school, location, etc.)
02 Student Enrollment
03 Minority Student Enrollment
04 Student Enrollment by Age Group
05 Contact for More Information
71 Alternative Credit Opportunities
72 Size of Freshman Classes
73 School Graduation Requirements
74 Availability of Pass/Fail Grading

PROGRAMS OF STUDY
(lists types of programs offered)

06 Agriculture and Natural Resources
08 Architecture
11 Area Studies
13 Biological Sciences
14 Business & Management
19 Communications
21 Computer & Information Sciences
23 Education
25 Engineering
27 Mechanical Engineering Technologies
31 Fine and Applied Arts
33 Foreign Languages
35 Health Services
41 Home Economics
42 Law
44 Letters (English, Philosophy, Speech)
46 Library Science
48 Mathematics
51 Military Science
52 Physical Science
54 Psychology
56 Public Affairs & Services
58 Social Sciences
61 Interdisciplinary Studies
63 Other Programs of Study
65 Foreign Study Programs
66 Honors Programs
67 Reserved Officer Training (ROTC)
68 Ethnic Studies Programs

69 Women's Studies Programs
70 Other Special Programs

ADMISSIONS
(requirements for entering the schools)
75 Freshman Admission Requirements
76 Transfer Admission Requirements
77 Admission Application Procedures
78 Special Admission Procedures for Minority Students
79 Special Admission Procedures for Adults

HOUSING
80 Dormitory Information
81 Fraternity & Sorority Information
82 Cooperative Housing Information
83 Off-Campus Housing Information
84 Married Student Housing Information

COST AND FINANCIAL AID
85 Single Student Costs (tuition, board and room, etc.)
86 Married Student Costs (including single parents)
87 Part-time Student Costs
88 Types of Financial Aid Available
89 Financial Aid Application Procedures
90 Examples of Financial Aid Received by Students
91 Availability of Part-time Jobs

SERVICES
92 Services for All Students (counseling, tutoring, etc.)
93 Student Services for Special Groups
101 Health Services Available
102 Day Care Facilities Available
103 Library Available
104 Bus Service to School Available
105 Student Parking Available

GENERAL COMPUTER INSTRUCTIONS

WHEN YOU WANT TO:	DO THIS:
Tell the computer you're a new user at the terminal.	Type in HELLO.
Tell the computer you have finished answering.	Strike Return Key.
Skip to the next section of the printout.	Strike Return Key when the terminal pauses.
End a long printout if you don't want the whole thing.	Strike Period and Return Keys when the terminal pauses.
Get help with what to do next.	Type in HELP
Erase a mistake before you strike the Return Key. Your mistake will be ignored, but you'll have to enter your whole message again.	Hold down the Control (Ctrl) Key & strike the letter X
Stop using the system and there's someone waiting.	Strike Return Key & tell the next user to type in HELLO.
Stop using the system and there's nobody waiting	Type in STOP.

INSTRUCTIONS FOR USING QUEST AT THE COMPUTER TERMINAL

WHEN YOU WANT TO:	TYPE IN:
Begin answering questions.	QUEST
Find out how many occupations remain on your list.	HOW MANY
Back up one question to change an answer	BACK UP
Find out what occupational titles and codes are on your list. You can end a list by quickly striking the Period and Return keys whenever the terminal pauses. Or you may jump to the next occupational group by striking the Return key when the terminal pauses.	LIST
Find out why a particular occupation was left off your occupational list	WHY NOT (occ. no.)
Change the answers to questions you have already answered.	CHANGE
Put in QUEST answers quickly.	BATCH QUEST
back to where you were in QUEST if you left it to get some other information.	FINISH

INSTRUCTIONS FOR USING INFO FILES

WHEN YOU WANT TO:	TYPE IN:
Find out what information there is in the computer.	INFO
Get a **description** of job duties, working conditions, hiring requirements, employment prospects, etc. for a certain occupation.	DESC (occ. no.)
Get a **bibliography** of occupational books.	BIB (occ. no.)
See how people **prepare** for an occupation.	PREP (occ. no.)
List high school courses that will help in preparing for a field of work (cluster).	PREP (first two digits of occ. no.)
Get the **names** of people for personal discussion about their occupations. (Not available in all areas.)	VISIT (occ. no.)
Get a list of courses, degrees, and schools for a program of study and training.	PROG (prog. no.)
Compare the services and costs of schools.	SCH (1, 2 or 3 sch. codes)

Example:
SCH 21143, 21001, 21073

SPECIAL NOTES:

You may ask for information from any of these files at any time.

Sometimes the computer terminal may stop for a while and you may think it has finished printing its message to you. Maybe it has and maybe it hasn't. You can tell for sure by looking at the very last thing printed.

If you see a question mark, then the computer has finished its message and is only waiting for you to type something.

If you don't see a question mark, then it hasn't finished and you should wait for it to print the rest of its message before you type in anything else.

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'EUREKA' an educational showpiece

By GORDON RADDUE
I-G Staff Writer

SAN PABLO — The Richmond Unified School District's innovative Career Development Center (CDC) and Project EUREKA, the computerized data bank connected with it, is rapidly becoming an educational show piece, according to a report presented to the district board.

The Richmond high School-based CDC, instructional vice principal Hal Holt, said at last night's meeting, has gained national and statewide attention and could well become a model for other school districts to follow.

And CDC staff member Leigh Robinson, discussing Project EUREKA, said the career information system would not now be available in California were it not for the Richmond district's strong leadership role in first adopting the system and then helping to adapt it for use throughout the state.

The planning for the CDC began early in the fall of 1973 under the direction of Superintendent of Schools W. W. Snodgrass and Richard Lovette, who since has succeeded Snodgrass.

It was put into operation two years later with the aim of providing school district graduates with saleable skills and pointing them in the direction of employment.

"Our Career Development Center grew out of a desire to develop and implement a program that would satisfy the needs of the majority of our students," said Holt. "We . . . know that our college prep program is a good program; and yet research indicates the number of jobs in the United States requiring a college diploma will fall to 10 percent by 1980.

"We also know," he continued, "the cost of a college education is rising rapidly . . . We know college diplomas are not for everyone, and we are concerned with the vast majority of students who either are not going to college or who need a saleable skill to work their way through further educational training."

Establishment of the program, Holt said, involved surveying national employment trends, examining local community needs and looking into the district's facility capabilities and teacher qualifications. Business and industry advisory committee meetings were held for input to assist in the creation of career clusters which would enable students to determine their areas of specialization and the amount of education and technical training they would pursue.

Three goals were set for the program; namely to provide each student with a high school diploma, the necessary training for college, technical school or special training, and a saleable skill.

Nine career clusters were established, including business, electronics, food service, graphic communications, people care services, plastics technology, security services, transportation services and fashion merchandising.

State-funded Regional Occupational Programs (ROP) also were established to allow county residents to upgrade and learn new job skills. These programs permit adults to attend school as well.

Holt said the CDC is currently offering courses to prepare students to become computer operator trainees and automotive tune-up and repair specialists. A new program recently added is TSPS (Traffic Service Position System), designed to prepare second semester senior students to become telephone operators at the San Pablo office of Pacific Telephone.

According to Holt, the phone company has assured the district that between 80 and 90 percent of those students successfully completely the one-semester program will be employed by Pacific Telephone.

Five other ROP offerings are being added for the 1977-78 school year, including clerk typist, fashion merchandising sales, lab assistant, legal/medical secretary and word processing.

The CDC program has expanded from an original 180 students in 1975 to more than 300 and should continue to grow both in numbers and course offerings, according to Holt.

A parent-student orientation is scheduled for 7:30 p.m. next Thursday night at the CDC and a big attraction is certain to be the Project EUREKA, which Robinson has been championing in workshops throughout the-state.

"Basically," said Robinson, "EUREKA is a library of occupational and education information which is up - to - date and localized. The information is stored in the system's computer memory and can be accessed through a computer terminal."

The computerized data bank currently has five files of information: occupational descriptions, a bibliography of occupational books, preparation for occupations, programs of study and training and post-secondary schools. The files are localized and kept up - to - date by EUREKA's own information-development staff.

Then there is an access strategy called Quest, which consists of 24 questions covering aptitudes, interests, physical limits, location and earning preference and educational expectations.

Once the user has answered the questions in the EUREKA handbook, he uses the computer terminal to get a list of job titles that fit his answers. The user may type "why not" to learn why a field of interest isn't on the list, "change" to change his or her answers and "list" to get a new list of job titles.

EUREKA enables users to discover which occupations suit their preferences, values and abilities, and which programs of training will best serve their own career development. It provides a factual basis, continuously updated and locally relevant, for personal decision-making, and it frees counselors to aid in the process.

The career information system is modeled after one developed in the state of Oregon. But each state or area has to be responsible for its own data files, said Robinson.

"We have to develop California data to put into the system. That's the costly item," he said.

Although five school districts are using the system, none has developed it to the point Richmond has, said Robinson.

Robinson has given workshops in Southern California, among other places, and he says the people in those areas "can not believe one district is so involved in a system that will be so widespread in California."

Robinson said the computer terminal is being provided to each high school in the district and Helms Junior High for three-week periods and that students are making full use of it.

Lovette gives Robinson much of the credit for the success of the program and expects it to expand steadily.

"We're the first district to make it grow and spread out," said Lovette. "The jobs will be there for the students who qualify for them. We can keep adding new clusters as the number of students in the program increases."

The California Career Information System

LEIGH ROBINSON
Richmond High School
1250 23rd Street
Richmond, CA 94804
(415) 237-8770

JIM STUBBLEFIELD
Diablo Valley College
Pleasant Hill, CA 94523
(415) 685-1230

WHAT IS EUREKA, THE CALIFORNIA CAREER INFORMATION SYSTEM?

Basically, EUREKA is a library of occupational and educational information which is up-to-date and localized. The information is stored in the system's computer memory and can be accessed through a computer terminal.

EUREKA currently has five files of information: occupational descriptions, a bibliography of occupational books, preparation for occupations, programs of study and training, and post-secondary schools. These files are localized and kept up-to-date by EUREKA's own information development staff.

In addition, there is an access strategy called Quest, which consists of twenty-four questions covering aptitudes, interests, physical limits, location and earnings preferences, and educational expectations. Once the user has answered these questions in the handbook, he uses a computer terminal to get a list of job titles that fit his answers. If need be, the user may then type WHY NOT to learn why an occupation of interest is not on the list. He may type CHANGE to change his answers, and he may type LIST to get a new list.

After Quest, the user commonly asks for information about one or more of the occupations on his Quest list, but he may ask for information from any of the five files at any time, even without using Quest.

The occupational description file contains a 300-word description on each of 230 common occupations. It describes job duties, working conditions, and hiring requirements, and it even tells how many people are currently employed in the occupation locally, how much one can expect to earn in that occupation, and whether or not there are favorable employment prospects.

The bibliography file refers the user to sections of selected occupational books which have additional information on the occupation accessed.

The preparation file explains how one commonly prepares for a general field of work or for a certain occupation.

The program file locates desired study and training programs and describes what they entail. They range from apprenticeship and regional occupational programs to college and university programs leading to advanced degrees.

The school file compares up to three post-secondary schools at one time on any of 64 different topics, such as dormitory information, size of freshman classes, types of financial aid available, programs of study offered, and student costs. Public, private, and proprietary schools within California, as well as popular out-of-state schools are included.

All in all, EUREKA enables users to discover which occupations suit their preferences, values, and abilities and which programs of training will best serve their own career development. It provides a factual basis, continuously updated and locally relevant, for personal decision-making, and it frees counselors to aid the process.

```
HELLO, PLEASE ENTER YOUR NAME, THEN PUNCH THE 'RETURN' KEY.
?MICHAEL
HELLO MICHAEL,
YOU ARE LOGGED IN TO EUREKA - THE
CALIFORNIA CAREER INFORMATION SYSTEM.
HOW DO YOU WANT TO START?
IF YOU FILLED OUT THE QUESTIONNAIRE IN YOUR HANDBOOK,
        TYPE IN: 'QUEST.'
IF THERE ARE OCCUPATIONS, EDUCATIONAL PROGRAMS,
OR SCHOOLS YOU WANT INFORMATION ABOUT,
        TYPE IN: 'INFO.'
?QUEST
   WE WILL NOW BEGIN.  AS EACH QUESTION IS LISTED, LOOK
TO SEE HOW YOU ANSWERED IT IN YOUR USER'S HANDBOOK,
THEN TYPE IN THE CODE YOU CIRCLED.  DON'T FORGET TO
PUNCH THE 'RETURN' KEY AFTER EACH RESPONSE.
HERE IS YOUR FIRST QUESTION:
   01 LIFTING (YES,NO,CD,DK)
?DK
   02 IMPAIRED VISION (YES,NO)
?NO
   03 DEAFNESS (YES,NO)
?NO
THERE ARE 227  OCCUPATIONS THAT MEET ALL YOUR RESPONSES.
ANY TIME YOU WANT TO KNOW HOW MANY OCCUPATIONS ARE
LEFT ON YOUR LIST, TYPE IN 'HOW MANY'.
   04 REGION (AREA,NW,US)
?US
   05 CITY SIZE (LM,LMSC,SC,SCR,RUR,NP)
?NP
   06 WORKING CONDITIONS (IN,OUT,NP)
?NP
   07 EDUCATION (NO,HS,ONE,TWO,FOUR,ANY)
?ANY
   08 WORKING WITH HANDS (HVG,HFG,HFP,HDK)
?HFG
   09 EYE FOR ACCURACY (CVG,CFG,CFP,CDK)
?CDK
   10 ABILITY WITH WORDS (VVG,VFG,VFP,VDK)
?VVG
   11 ABILITY WITH NUMBERS (NVG,NFG,NFP,NDK)
?NVG
   12 CATCHING ON TO THINGS (GVG,GFG,GFP,GDK)
?GVG
   13 PRECISION WORK (YES,NOT,NP)
?NP
   14 OPERATING EQUIPMENT (YES,NOT,NP)
?HOW MANY
 227  OCCUPATIONS REMAIN.
?NOT
   15 HANDLING MATERIALS (YES,NOT,NP)
?NOT
   16 INTERPRETING FACTS (YES,NOT,NP)
?NP
   17 ORGANIZING AND USING INFORMATION (YES,NOT,NP)
?NOT
   18 COPYING, SORTING, PUTTING THINGS TOGETHER (YES,NOT,NP)
?NP
   19 GIVING COUNSEL (YES,NOT,NP)
?NP
   20 DISCUSSING, BARGAINING (YES,NOT,NP)
?YES
   21 INSTRUCTING, SUPERVISING (YES,NOT,NP)
?YES
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    22 SELLING, PERSUADING (YES,NOT,NP)
?NOT
    23 ASSISTING (YES,NOT,NP)
?YES
    24 BEGINNING WAGE (NI,MIN,500,700,1000,1250)
?HOW MANY
 17   OCCUPATIONS REMAIN.
?NI
THERE ARE 17   OCCUPATIONS THAT CORRESPOND TO THE
ANSWERS YOU GAVE.
'QUEST' LIST FOR MICHAEL

ADMINISTRATIVE OCCUPATIONS: 1100
    1134    HEALTH SERVICE ADMINISTRATORS

BOOKKEEPING-ACCOUNTING OCCS: 1600
    1684    PROGRAMMERS & SYSTEMS ANALYSTS

ENGINEERING & DESIGN OCCUPATIONS: 2300
    2356    ENGINEERING TECHNICIANS

GRAPHIC ARTS OCCUPATIONS: 4700
    4724    COMMERCIAL ARTISTS & DESIGNERS

TRANSPORTATION OCCUPATIONS: 6100
    6126    AIR TRAFFIC CONTROLLERS

HEALTH SERVICE OCCUPATIONS: 8100
    8122    CHIROPRACTORS
    8126    HEALTH THERAPISTS
    8128    SPEECH AND HEARING SPECIALISTS
    8186    COSMETOLOGISTS

SOCIAL SERVICE OCCUPATIONS: 8400
    8414    COUNSELORS
    8416    CASEWORKERS
    8418    PSYCHOLOGISTS
    8428    SOCIAL SERVICE AIDES
    8436    CLERGY

PROTECTIVE SERVICE OCCUPATIONS: 9400
    9436    MILITARY ENLISTED PERSONNEL
    9476    SECURITY GUARDS

ART AND ENTERTAINMENT OCCUPATIONS: 9800
    9842    MODELS

CHECK FOR THE OCCUPATIONS YOU ARE NOW CONSIDERING.
ARE THEY ON THE LIST?  TYPE IN: 'YES' OR 'NO'
?NO
LET'S FIND OUT WHY NOT.
   TYPE IN 'WHY NOT' AND AN OCCUPATION CODE.
   EXAMPLE:  WHY NOT 2674
?WHY NOT 8432
   8432    LAWYERS ELIMINATED BY THE FOLLOWING RESPONSE(S):
ORGANIZING AND USING INFORMATION    17=NOT
YOU CAN CHANGE ANSWERS AND THE LIST BY TYPING IN 'CHANGE'.

?WHY NOT 9414
   9414    LAW ENFORCEMENT OFFICERS
   ELIMINATED BY THE FOLLOWING RESPONSE(S):
ORGANIZING AND USING INFORMATION    17=NOT
YOU CAN CHANGE ANSWERS AND THE LIST BY TYPING IN 'CHANGE'.
```

PRESC9414
WHICH AREA ARE YOU IN:
SAN FRANCISCO BAY AREA? TYPE IN: SF
OTHER AREA? TYPE IN: OTHER
?OTHER

  9414   LAW ENFORCEMENT OFFICERS
LAW ENFORCEMENT OFFICERS HAVE THE RESPONSIBILITY OF
PROTECTING LIFE, PROPERTY AND PRESERVING THE PEACE. THEY
PREVENT VIOLATIONS OF THE LAW, INVESTIGATE COMPLAINTS AND
CRIMES, APPREHEND VIOLATORS, AND ASSIST IN PROSECUTIONS IN
ORDER TO PRESERVE LAW AND ORDER. OFFICERS ALSO PREPARE AND
SUBMIT REPORTS OF THEIR ACTIVITIES AND TESTIFY IN COURT.
SPECIALTIES: DEPUTY, SHERIFF, SERGEANT, DETECTIVE, CHIEF,
AND PARKING CONTROL ATTENDANT. WORK SETTING: INDOORS &
OUTDOORS, WORKING IRREGULAR HOURS AS WELL AS HOLIDAY
AND WEEKEND DUTY. APTITUDES: ABILITY TO MAKE QUICK JUDG-
MENTS AND PERFORM WELL UNDER STRESS, ABILITY TO RELATE &
CONVERSE WELL WITH PEOPLE. HIRING PRACTICES: FOR SOME
EMPLOYERS, COMPETITIVE EXAMS WHICH TEST FOR APTITUDES, ATTI-
TUDES, STRENGTH & GENERAL HEALTH MUST BE PASSED; EDUCATION
BEYOND HIGH SCHOOL IS INCREASINGLY PREFERRED. APPLICANTS
WITH COURT CONVICTIONS ARE OFTEN DISQUALIFIED. CANDIDATES
MUST ALSO MEET AGE REQUIREMENTS. EMPLOYERS: CITY, COUNTY,
STATE, AND FEDERAL GOVERNMENTS. TRAINING: ALL RECEIVE
ON-THE-JOB INSTRUCTION AND ATTEND THE POLICE ACADEMY; IN-
STITUTIONAL TRAINING OFFERED AT MOST COMMUNITY COLLEGES
(SEE PREP 9414 & PROG 567).

---CURRENT EMPLOYMENT: ABOUT 63,000 IN CALIF. WITH LAW EN--
FORCEMENT OFFICERS FAIRLY EVENLY DISTRIBUTED WITH POPULA-
TION. THIS FIGURE INCLUDES POLICEMEN, SHERIFF DEPUTIES,
DETECTIVES, BALIFFS, MARSHALLS AND CONSTABLES.
WAGES: THE AVERAGE ENTRY RATE FOR LAW ENFORCEMENT
OFFICERS IS $850/MO., MAXIMUM IS $19,000/YR. OUTLOOK: BALANCE
TO SLIGHT SURPLUS. OUTLOOK DEPENDS ON THE EXPAN-
SION OF CURREN: PROTECTIVE SERVICE FORCES, & UPON PUBLIC FI-
NANCIAL SUPPORT. STUDIES PREDICT MODERATE EMPLOYMENT GROWTH.
PRESENTLY, THE SUPPLY OF APPLICANTS (ALTHOUGH MANY ARE UN-
QUALIFIED) CONTINUES TO EXCEED DEMAND, PARTICULARLY IN POPU-
LATION CENTERS. HIRING REQUIREMENTS ARE HIGH AND COMPETITION
IS KEEN. COMPETENT PEOPLE SHOULD FIND OPPORTUNITIES GOOD;
INSTITUTIONAL TRAINING IS HELPFUL BUT DOES NOT GUARANTEE ONE
A JOB. OTHER OPPORTUNITIES ARE OPENING UP IN RELATED AREAS
SUCH AS PRIVATE SECURITY & INVESTIGATING FIRMS. QUALIFIED
MINORITY GROUP MEMBERS SHOULD FIND GOOD JOB PROSPECTS; SOME
OPPORTUNITIES FOR WOMEN IN CERTAIN SPECIALTIES.

FOR WAYS TO PREPARE, TYPE IN: PREP 9414
FOR BOOKS, TYPE IN: BIB 9414
CIS/CALIFORNIA/MAY 9 1977

?PREP9414
9414   LAW ENFORCEMENT OFFICERS
---SKILLS: WORKING KNOWLEDGE OF POLICE METHODS, PROCEDURES
AND PERTINENT LAWS & ORDINANCES.   ABILITY TO USE POLICE EQUIP-
MENT & TECHNIQUES; TO CONDUCT INVESTIGATIONS, COLLECT, EVALU-
ATE & ANALYZE FACTS AND TO DRAW CORRECT CONCLUSIONS; TO
UNDERSTAND & FOLLOW ORAL & WRITTEN ORDERS; TO DEAL EFFECTIVELY
WITH THE PUBLIC AND TO WRITE REPORTS.
---PREPARATION: CITY POLICE OFFICERS MUST BE 21, HAVE A HIGH
SCHOOL OR GED DEGREE, BE ABLE TO WRITE & SPELL & HAVE GOOD
HEALTH, A DRIVER'S LICENSE & GOOD MORAL CHARACTER. HOWEVER,
MISDEMEANOR CONVICTIONS DO NOT ABSOLUTELY DISQUALIFY ANYONE,
INSTEAD EACH APPLICANT IS EXAMINED ON A INDIVIDUAL BASIS.
STATE POLICE OFFICERS HAVE THE SAME QUALIFICATIONS PLUS COR-
RECTED 20/20 VISION & THE ABILITY TO PASS A WRITTEN EXAM OF
GENERAL INFORMATION, SPELLING & APPLIED MATH. ALTHOUGH AN IN-
CREASING NUMBER OF ENTRY LEVEL POLICE OFFICERS DO HAVE SOME
COLLEGE TRAINING, THIS IS NOT REQUIRED OR NECESSARILY PRE-
FERRED. MORE THAN HIGHER EDUCATION, SUPERVISORS EMPHASIZE A
PERSONALITY THAT CAN WITHSTAND THE STRESS & DEMANDS OF THE
JOB. ONE CAN PREPARE TO BE A CITY POLICE OFFICER BY JOINING
EXPLORER SCOUTS AND BECOMING INVOLVED IN LOCAL SERVICE PROJ-
ECTS. AT AGE 20, A PERSON CAN WORK FOR A YEAR AS A COMMUNITY
SERVICE OFFICER, ASSISTING THE PUBLIC UNARMED, WITH THE OPTION
OF BEING CONSIDERED AS A RECRUIT AT THE END OF THE YEAR. IN-
TERESTED STATE POLICE APPLICANTS AT AGE 18 CAN WORK AS CADETS,
PATROLLING PUBLIC RECREATION AREAS OR WORKING AS LEGISLATIVE
SECURITY GUARDS. ADVANCEMENT TO OFFICERS IS NOT GUARANTEED
BUT THEY WILL BE CONSIDERED. COMMUNITY COLLEGES ALSO OFFER
TRAINING. (FOR RELATED EDUCATIONAL PROGRAM SEE LAW ENFORCE-
MENT, PROG 567.) PROMOTION IS BASED ON PERFORMANCE AND FUR-
THER EDUCATION. A FEDERAL PROGRAM FINANCES TUITION FOR FULL
TIME OFFICERS. CITY RECRUITS ADVANCE TO PATROLMEN & STATE
RECRUITS TO TROOPERS. FURTHER PROMOTION IS TO DETECTIVE WORK
OR SUPERVISORY LEVELS. FEDERAL JOBS OPEN FOR LAW ENFORCEMENT
OFFICERS INCLUDE: TREASURY AGENTS, NARCOTICS WORK, UNDERCOVER
AGENTS, BORDER PATROL, CUSTOMS AGENTS.

WHAT NEXT?
?PREP94
9400   PROTECTIVE SERVICE OCCUPATIONS:
PERSONS IN THE PROTECTIVE SERVICE OCCUPATIONS ARE RESPON-
SIBLE FOR GUARDING ALL TYPES OF PROPERTY, AND FOR THE SAFETY
OF PEOPLE AS ESTABLISHED BY PUBLIC LAWS. CAREER PREPARATION
COULD INCLUDE THE FOLLOWING HIGH SCHOOL SUBJECTS:
        ARITHMETIC   MECHANICS
        AMERICAN GOVERNMENT & HISTORY   PHYSICAL EDUCATION
        BUSINESS LAW   PSYCHOLOGY
        DRIVERS TRAINING   SPEECH
STUDENTS SHOULD ALSO CONSIDER POST-SECONDARY AND/OR ON-
THE-JOB TRAINING.

YOU CAN LEARN MORE BY LOOKING AT THE DESCRIPTIONS FOR THESE
OCCUPATIONS:

9414   LAW ENFORCEMENT OFFICERS
9426   FIRE FIGHTERS
9436   MILITARY ENLISTED PERSONNEL
9476   SECURITY GUARDS

PROG567
567   LAW ENFORCEMENT

SEVERAL SCHOOLS OFFER PROGRAMS INTENDING TO PREPARE
PEOPLE TO WORK IN SOME AREA OF LAW ENFORCEMENT IN POLICE
DEPARTMENTS, SHERIFFS' OFFICES, PRIVATE INVESTIGATION,
SECURITY, ETC. THE PROGRAMS ALSO INTEND TO PROVIDE FURTHER
TRAINING FOR PERSONS ALREADY ENGAGED IN LAW ENFORCEMENT OC-
CUPATIONS. PROGRAMS VARY FROM 2-YEAR ASSOCIATE DEGREE PRO-
GRAMS TO BACHELOR'S DEGREE PROGRAMS AT 4-YEAR SCHOOLS. MANY
COMMUNITY COLLEGES ALSO OFFER THE FIRST 2 YEARS OF DEGREE
REQUIREMENTS FOR THE 4-YEAR SCHOOLS' LAW ENFORCEMENT PRO-
GRAMS WHICH CAN THEN BE TRANSFERRED TO THOSE SCHOOLS FOR
DEGREE COMPLETION.
MOST PROGRAMS REQUIRE THAT ENTERING STUDENTS NOT HAVE
POLICE RECORDS OR FELONY CONVICTIONS & REQUIRE EACH APPLI-
CANT TO BE FINGERPRINTED FROM WHICH A PERSONAL INVESTIGATION
IS COMPLETED PRIOR TO ACCEPTANCE INTO PROGRAM.
COURSEWORK: USUALLY INCLUDES AT LEAST THE FOLLOWING:
        CRIMINAL EVIDENCE   CRIMINAL INVESTIGATION
        CRIMINAL LAW   CRIME & DELINQUENCY
        FIRST AID   PATROL & TRAFFIC PROCEDURES
        PERSONAL DEFENSE   ADMIN. OF CRIMINAL JUSTICE
TYPING, HUMAN RELATIONS & SIMILAR RELATED COURSES ARE
USUALLY REQUIRED. MANY PROGRAMS ALLOW STUDENTS TO
GAIN PRACTICAL EXPERIENCE BY WORKING FOR CAMPUS SECURITY
OR THROUGH FIELD PLACEMENT WITH LOCAL LAW ENFORCEMENT AGEN-
CIES. CONSULT SCHOOL CATALOGS FOR A MORE COMPLETE
DESCRIPTION OF CURRICULUM.
RELATED OCCUPATIONS: DESC 9414 LAW ENFORCEMENT OF-
FICERS, DESC 9476 SECURITY GUARDS.
RELATED PROGRAMS: 568 CORRECTIONS; 421 LAW.

DO YOU WANT A LIST OF SCHOOLS? (TYPE IN 'YES' OR 'NO').
?NO
WHAT NEXT?
?HELP
SORRY YOU ARE HAVING TROUBLE.

YOU CAN GET ANY OF THE FOLLOWING:
OCCUPATIONAL INFORMATION:
        TYPE IN 'INFO' AND A 4-DIGIT OCCUPATION CODE.
LIST OF EDUCATION AND TRAINING PROGRAMS:
        TYPE IN 'PROG' AND A 3-DIGIT PROGRAM CODE.
DATA ABOUT SERVICES AND COSTS OF SCHOOLS:
        TYPE IN 'SCH'

IF YOU ARE USING QUEST, YOU CAN TYPE IN:
        HOW MANY
        FINISH
        LIST
        WHY NOT (PLUS AN OCCUPATION NUMBER)
        BACK UP
        CHANGE
        START OVER
FOR MORE DETAILS, SEE PAGES 24-25 OF YOUR USER'S HANDBOOK.

IF YOU WANT TO STOP, TYPE IN: 'STOP'.
?

SAMPLE OF SCHOOL INFORMATION FILE

```
NOW, TYPE IN THE SCHOOLS.
     ENTER 'SCH' AND 1, 2, OR 3 SCHOOL CODES.
EXAMPLE:  SCH 21143,21001,21024

?SCH21520,21346,02139
WHAT DO YOU WANT TO KNOW ABOUT THE SCHOOLS?
     TYPE IN THE SCHOOL TOPICS.   EXAMPLE: 1-5, 21, 71, 85
     SCHOOL TOPIC CODES ARE ON PAGE 23 OF YOUR HANDBOOK.
?1-2,85
```

	CALIF. POLY- TECHNIC STATE UNIVERSITY POMONA	GAVILAN COLLEGE. 5055 SANTA TERESA BLVD. GILROY, CALIF 95020	HARVARD UNIVERSITY CAMBRIDGE, MASS. 02138
	3801 W. TEMPLE AVENUE POMONA CA 91769		
01 GENERAL INFORMATION		2-YR PUBLIC	4-YR. PRIVATE
TYPE OF SCHOOL	4 YEAR PUBLIC UNIVERSITY-COED	CO-ED COM- MUNITY COLLEGE	NON-SECTARIAN UNIVERSITY AND COLLEGE FOR MEN. (HAS BEEN AFFILIATED WITH RADCLIFFE WHICH HAS 1,900 UNDER- GRADUATE WOMEN
GRADUATE DEGREES	YES	NO	EXTENSIVE
SCHEDULE OF CLASSES	QUARTER SYSTEM MOSTLY DAY	QUARTER	SEMESTER
CORRESPONDENCE COURSES		NO	NO
UNDERGRAD SUMMER CURRICULUM	FULL ACAD. QT. & SUMMER SESS.	ONE 6-WEEK SESSION	YES
LOCATION OF SCHOOL	POMONA	GILROY, CALIF.	CAMBRIDGE,MASS
POPULATION OF NEAREST CITY OR TOWN	87,900	15,000	100,000
CAMPUS TO CITY CENTER	5 MILES	1 MILE	3 MILES
MILES TO SAN FRANCISCO OR NEAREST LARGE CITY	L.A.-40 MINUTES	75 MILES TO SF	BOSTON=4 MI.
02 ENROLLMENT INFORMATION			WITH RADCLIFFE
TOTAL (EXCL ADULT ED)	10,021	1,142	6,600
WOMEN	3,204	517	1,900
MEN	6,817	625	4,700
FULL-TIME UNDERGRADS.	7,708	800	6,600
PART-TIME UNDERGRADS.	2,313	342	=0=
OUT-OF-STATE STUDENTS	6%	FEW	80%
NEW STUDENTS (FROSH)	1,772	400	2,175
NEW WOMEN	619	200	400
NEW MEN	1,153	200	1,175
TRANSFERS	WELCOME		
FOREIGN			
05 SINGLE STUDENT COSTS			
TUITION AND FEES	$200	$25	$4,100
BOARD, ROOM, EXPENSES	$2,030	$1,500-3,000	$3,200
BOOKS & SUPPLIES	$180		
TOTAL COSTS	$2,410	$1,525-5,000	$7,300

EUREKA, The California Career Information System   May, 1977

Estimated direct costs for school with 1200 students

	Year 1 (1977-78)	Year 2 (1978-79)
Terminal	$689^1 - 405^2$	$\emptyset - 405$
Maintenance	$150 - \emptyset$	$150 - \emptyset$
Paper	72	72
Lease line modem[3]	$250 - 135$	$\emptyset - 135$
Telephone lease line[4]	208	168
Computer port[5]	1,620	1,620
EUREKA software[6]	1,000	600
Total	3,989 - 3,440	2,610 - 3,000
Estimated cost per user per year (total ÷ 800[7])	4.99 - 4.30	3.26 - 3.75

1. Outright purchase of teletype terminal, KSR-33, rebuilt as new, 10 characters per second (cps). For faster (30 cps) and quieter Decwriter terminal, add $1,300 to first year costs.

2. Figures for leasing equipment, if different from other figures given, are shown on the right.

3. New modem, necessary to transmit data over telephone line.

4. Charges vary with distance; within the same exchange, normal charge is $14 per month plus $40 installation.

5. Based on current charges for timesharing at Lawrence Hall of Science, $180 per month x 9 months.

6. EUREKA software includes user handbooks, implementation handbook, updates at least every 8 weeks, inservice training, and membership in the EUREKA cooperative. Institutions electing to become demonstration sites pay a fee of $1,000 for full use of the system through June, 1978. After the demonstration period, the fee will be based on the number of estimated users: 75¢ per estimated user for the first 3000 and 50¢ for each additional user. Estimate for schools is based on 2/3 of ADA.

7. In a school of 1200 students, an estimated 2/3 or 800 would be likely to use the system. Each user generally accesses EUREKA 2 to 3 times per year for 20 to 30 minutes each time.

SACRAMENTO CITY UNIFIED SCHOOL DISTRICT

ADMINISTRATION BUILDING
1619 N STREET, P.O. BOX 2271
SACRAMENTO, CALIFORNIA 95810

Tel: 454-8335

JOSEPH H. LYNN
Superintendent

December 1, 1976

Mr. Leigh Robinson
Richmond High School
1250 - 23rd Street
Richmond, CA, 94804

Dear Leigh:

On November 16, 1976, four members of our school district toured your project the California Career Information System "EUREKA" at Richmond High School. This was an extremely informative and exciting experience for our people. Now we will begin to establish the framework of a Vocational Guidance Program for this district.

Thank you so much for your hospitality and welcome. The information that was brought back will certainly help us for a long time to come.

Sincerely,

Harold Stainbrook
Director
Vocational Education

HS:pm

900 FALLON STREET • OAKLAND, CALIFORNIA 94607
(415) 834-5740

December 10, 1976

Mr. Leigh Robinson
Richmond High School District
1250 23rd Street
Richmond, CA 94804

Dear Mr. Robinson:

Giving of your time to participate on a panel at the California
Community College Association Conference was appreciated by
all of those who attended the Computer Based Career Information
and Guidance Systems Workshop.

From the comments that were recorded on the evaluation forms,
they were very commendable. We thank you for making our
conference a success.

Sincerely,

Carl Mack, President
C.C.C.C.A.

CM/pw

Apostolic Academy
Christian School

P. O. BOX 699
4892 SAN PABLO DAM ROAD
EL SOBRANTE, CALIFORNIA 94803
PHONE 223-5960

B. J. ROBISON
ADMINISTRATOR

February 8, 1977

To Whom It May Concern:

This past week has been an exciting one for us here at the Apostolic Academy. We have had the opportunity to use the computer-delivered career information system known as EUREKA. The Richmond School District provided us with computer equipment and directions for accessing the system.

Our students found EUREKA easy to use, interesting, and helpful. Most of them haven't thought very much about what they will be doing once they leave high school. Careers seem to be a long way off. That is why the Quest part of EUREKA was so helpful to focus their attention on occupations that fit their interests and abilities. When students have thought about their futures, they become motivated to do well in school, and that is what we want. The Quest lists and the up-to-date occupational and educational information with the students used all helped to get them thinking about their futures.

We are happy to see that EUREKA is now available in California. We would like to use it again becuase we feel that it serves an important need in our school.

Sincerely yours,

B. J. Robison

/kd
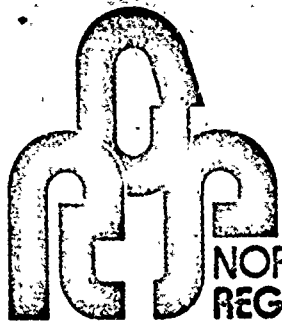
NORTH SANTA CLARA COUNTY REGIONAL OCCUPATIONAL PROGRAM

A PROGRAM OF THE SANTA CLARA COUNTY SUPERINTENDENT OF SCHOOLS

PO BOX F
589 W FREMONT AVE SUNNYVALE, CA 94087
PHONE (408) 245-2360

March 22, 1977

Mr. Leigh Robinson
Richmond High School
1250-23rd
Richmond, CA 94804

Dear Leigh:

My sincere thanks for participating in our Counselor Inservice Workshop.

As you know our purpose for the workshop was to update our counselors and career center staff regarding ROP and to make them aware of the EUREKA Project.
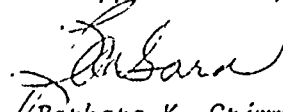
Without a doubt your talk was very timely and informative especially since Palo Alto has installed the system and Mtn. View/Los Altos District is looking for a computerized informational system.

My only regret is that there was not enough time for people to try out the computer while at Palo Alto.

I was pleased to find out that in the near future that information on the ROP programs will be part of the informational system.

Again, many thanks for your time and effort. I know you have a very schedule; therefore, it was extra special having you as one of our workshop speakers.

In appreciation,

Barbara K. Grimm
District Consultant

DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY RECRUITING COMMAND
FORT SHERIDAN, ILLINOIS 60037

USARCASP-E   7 April 1977

Mr. Leigh Robinson
Administrative Director
The California CIS
Richmond High School
Richmond, CA 94804

Dear Mr. Robinson:

Let me say in writing how much we appreciate your time and interest
on Thursday, 31 March 1977, in discussing and demonstrating the CIS/
Eureka program. The dedication and enthusiasm you show contributes
much to a visitor's interests. The general goals of the program are
shared by many, including Mr. Laureyns and me.

I feel the CIS program has potential value for many youth. Neverthe-
less, I hope it will eventually be able to incorporate other concepts
such as offered by SEARCH or that SEARCH will be able to find a way
to use the CIS approach in some of its career decision making class
learning experiences. The programs appear to be compatible, and both
should help to meet the needs of youth.

Thanks again for sharing your busy and valuable time with us. We
enjoyed it and we learned. It was also good to see students using
computers in the learning resource center, and in the classroom for
that specific instruction.

Sincerely,

Hartley B. Campbell, Ed.D.
Educator Program Coordinator
Education Liaison Division

cf/Gerard Laureyns
   US Army WRRC
   Ft. Baker, CA

-48- 74

Project EUREKA Questionnaire

You can help us to improve EUREKA by answering these few questions after you have used the system:

What grade are you in?   9   10   11   12

About how much time (in minutes) did you
spend using EUREKA at the computer terminal?   10   20   30   40   50

Did you have an occupation in mind before
using EUREKA?   yes   no

Now that you have used EUREKA, do you have any   yes   no
better idea about what you'll do when you
leave high school?

How easy were EUREKA's instructions to   Very   Fairly   Not at all
understand?

How easy was EUREKA to use?   Very   Fairly   Not at all

How interesting was EUREKA to you?   Very   Fairly   Not at all

How helpful was EUREKA to you?   Very   Fairly   Not at all

* * * * * * * * * * * * * * *

Please rate each part of EUREKA by circling one answer at the right.

QUEST	Great	Fair	Poor	Did Not Use
Occupational Descriptions	Great	Fair	Poor	Did Not Use
Bibliography	Great	Fair	Poor	Did Not Use
Preparation	Great	Fair	Poor	Did Not Use
Programs of Study and Schools	Great	Fair	Poor	Did Not Use
Schools	Great	Fair	Poor	Did Not Use

Any comments? _____

Richmond Unified School District
Richmond, CA 94804

PROJECT EUREKA

Evaluation Report

By:

Donald Mayall
Career & Employment Analysis
Menlo Park, CA 94025

June 1977

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INTRODUCTION

Project Eureka, a computerized career information system based upon a model developed at the University of Oregon*, was installed at the six high schools of the Richmond Unified School District (RUSD) in the spring of 1977, as part of a Vocational Education Act, Part D, funded exemplary project.

The purpose of the project was to provide up-to-date career guidance information to high school students and counselors, using remote key terminals in classrooms to access a data base of occupational information stored in a computer. The data base consisted of the following:

1. QUEST, an interactive computer access strategy designed to narrow the range of occupational goals based upon the users vocational interests, preferences, and self-assessed abilities.

2. Job Descriptions of 231 occupations, including pay scales and employment outlook.

3. Preparation necessary to enter these occupations.

4. Programs of training and study relating to these occupations.

5. Information on post-secondary schools and colleges.

6. A bibliography of additional sources of information.

In accordance with standard procedures for demonstration projects, evaluative data was collected from project participants and clients. The following is an analysis of this data prepared by a consultant under contract to the RUSD.

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*This system is described in detail in McKinlay, Bruce, Developing a Career Information System, University of Oregon, 1974.

EVALUATION CRITERIA

Project Eureka is, in essence, a data base consisting of five sets of files, and means of accessing and delivering this data. In short, it is an information system. Criteria for evaluating an information must take user need as their point of departure. Was the information system used? Did the system meet the user's needs, in terms of detail and coverage desired? Was the system what it seemed to be? In other words, was the data base accurate? The foregoing questions provide the framework for evaluating an information system.

In the case of Project Eureka, two sets of users may be identified; students and counselors. Students are ultimate users, but counselors, acting as intermediaries between students and many information sources, also are properly regarded as users.*

Method of Approach

Sources of data for answering the evaluative questions were:

1. A questionnaire completed by student users of Project Eureka in each of the RUSD high schools.

2. A questionnaire completed by counselors in each of the high schools.

3. A review of the data files and comparison with source documents.

4. Discussions with project staff.

5. Attendance at Project Eureka consortium meetings from November 1976, through May 1977.

6. Attendance at demonstrations of Project Eureka to staff of other schools.

Implementation of the Project

A number of technical problems were encountered by the project staff in the course of implementing Project Eureka, notably the lack of a compatible

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*A detailed treatment of the evaluation of information systems may be found in Thal-Larsen, Margaret, _Requirements and Designs of a Labor Market Information System for a Large Metropolitan Area_, University of California, Berkeley, 1972.

computer program. As a consequence, the computer terminals were available for an average of 3 weeks each at 5 of the six Richmond area high schools. This meant that only a limited number of students had the opportunity to use the system. Some counselors also had so little experience with the system that they were reluctant to offer judgments of the project. For these reasons, the evaluative comments in the following section should be regarded very tentatively since they are based upon a small sample of students, and the counselors' experience with the system was not only very limited, but also included the frustrations of start-up problems; machine failures, typographical errors, and the like. A fair evaluation of the system will require a much longer period of observation, and experience with an error-free software.

Student Ratings

The Eureka system was used by 690 students in the course of the study period for an average of 22 minutes at the terminal per student. Of these, 330 completed evaluation forms. Eighty percent used the QUEST files, and over 90 percent used the occupational description files. The preparation file was accessed by 84 percent of the users. Other files were used less often. The program files were used by 57 percent, the schools files by 53 percent, and the bibliography files by 40 percent of the student users.

The occupational descriptions got the highest ratings, with 83 percent of users reporting them to be "great." The information on how to prepare for chosen occupations was ranked "great" by 70 percent of the users, while programs of training and study were given a high mark by 75 percent of users. QU and the files of information on schools were rated high by about half of those who used it.

More than 80 percent of student users found the system interesting and easy to read, 69 percent found the instructions very easy to understand.

Overall, 60 percent of student users rated the system very helpful,
and 77 percent said that they had a better idea of what they would do after
high school after using the system.

Counselor Ratings

The Project Eureka system was rated by 18 counselors who worked with it
during the study period. In most cases, their contacts with the system were
limited to a three-week period when the terminals were available at their
school. Counselors, however, represent sophisticated system users. Since
they are accustomed to directing students in information search, they are
familiar with a variety of sources of career information and strategies for
accessing information. Counselors were asked to rate the importance of each
of six occupational topics in counseling; career goals, programs of training
and study, school information, job descriptions, pay scales, and employment
outlook. They were then asked what sources they used to get information on
these topics. Then they were asked to compare Eureka with these other sources.
Additionally, they were asked to compare QUEST with other measures of voca-
tional interest. Following is a summary of the couselor responses.

Career goals were considered the most important occupational topic in
counseling. Eight out of 10 counselors rated it as very important. Among
the tools used to elicit career goals were the Strong Vocational Interest
Check List, The Kuder Preference Test, and JOB-O. More than 80 percent of
counselors reported that QUEST was superior to both JOB-O and Kuder. Opinion
was divided on the Strong test. About 10 percent thought Strong superior to
QUEST, and 70 percent thought QUEST superior to Strong. Several commented
that Strong and QUEST were not addressed to the same issues, and, hence, not
substitutable.

Sixty-seven percent of the counselors thought information on programs
of training and study was important, 57 percent thought that Eureka was better.

than other sources of information, but 29 percent thought that Eureka was inferior to other sources. This may be more of a reflection on the data base than the concept, since only a fraction of the applicable program data for California had been entered into the computer files. Several counselors specifically mentioned the need for more California program data.

Sixty percent of counselors thought information on schools important and all thought the Eureka data access superior to the various college guides that they had been using.

About half of the counselors said that job descriptions were very important, 30 percent fairly important, and 20 percent not very important. Most had used the Occupational Outlook Handbook or the Dictionary of Occupational Titles as a source of this information in the past. Sixty-two percent preferred the Eureka system, 15 percent preferred these other sources, while 23 percent considered them equivalent.

Employment outlook was considered very important by slightly less than half of the counselors, and important by 40 percent. Sixty-two percent thought Eureka better than other sources, but 23 percent found Eureka less satisfactory than sources such as the Occupational Outlook Handbook, which some liked for its comprehensiveness.

Opinion was divided on the value of pay rate information. The percentage of counselors that rated it very important, 38, was equal to the number that did not think it important. Despite this disagreement on its value, 92 percent thought Eureka superior to other sources of wage data.

COUNSELORS' COMMENTS ON THE SYSTEM

Some of the things that counselors liked about the system were the currency of the information, the ease with which students could use it, the fact that it was "self-directing," that it engaged students' attention, the quickness of response, the volume of occupations, and the capability for

storage and updating information. One counselor remarked, "I think Eureka is fantastic. No counselor can have as much information or dispense it as quickly."

Counselor dislikes partly relate to system failures and partly to the data base available at the time of the study. There were frequent problems with keeping the terminals operational in the test period. Only a limited amount of California school or program information was in the files, and this was regarded as a distinct drawback. Counselors also wished that they had had more time to familiarize themselves with the system and to prepare students in its use.

DATA FILES

The basic model of the CIS was obtained from the University of Oregon in the form of computer tapes. A data base of California information was assembled and entered in place of the Oregon data. The occupational structure was not changed, however. Since the Oregon labor market is dominated by wood products industries, this resulted in the overrepresentation of wood processing occupations which are not relevant in the San Francisco Bay Area labor market in which the Richmond schools are located.

The development of "localized" data bases was done by staff of various local school districts who were members of a group known as the Bay Area Computer Educators (BACE). These development efforts were done on a voluntary basis with the understanding that localized data tapes were to be made available to their school districts. An unfortunate consequence of this volunteer effort was that some data components were slow in preparation, and other were less than complete.

The job descriptions and c clook files were developed by staff at the Richmond Unified School District. All Oregon job descriptions were reviewed

and compared with appropriate <u>California Occupational Guides</u>. Current
employment estimates were taken from <u>California Manpower</u>, 1975-1980. Wage
data was taken from Occupational Guides, the California State Personnel Board
Salary Surveys, and the Bureau of Labor Statistics Wage surveys.

Program files were based upon <u>Inventory of Academic and Vocational</u>
<u>Programs</u>, Post Secondary Education Commission of California, 1976. School
Information was based upon responses to questionnaires sent to 85 schools
and colleges. Data actually entered in the files during the test period
covered only a fraction of the schools and colleges in the State.

Information for the preparation files was obtained from California
Occupational Guides, the California Apprenticeship Information Guide, and
information obtained from State and Federal licensing agencies. Much of this
data was also not in the computer files during the test period, however.