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Allies in Education

A Profile of:

**California Regional Occupational
Centers and Programs
State of California**

by Bernard J. McMullan and Phyllis Snyder

September 1987

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I. INTRODUCTION

Regional Occupational Centers and Regional Occupational Programs (ROC/Ps) operate throughout the state of California as part of the public education system. They were formed in 1968 to "provide high quality vocational and technical job training opportunities to a larger number of the population than can be provided adequately, efficiently, and economically by a single school or district." They serve youth who are 16 and older, and adults--more than 300,000 persons during the 1984-85 school year. Students generally take ROC/P courses to supplement their high school curricula, often taking classes during free periods, after school or on weekends. Districts vary on how much credit toward graduation a student may earn by taking ROC/P classes.

ROC/Ps may differ in structure along several dimensions. ROC/Ps can be administered by a single large school district, two or more districts jointly, or a county school office. Some sites have built a separate facility where classes are taught. These sites are commonly known as centers. In many ways they resemble vocational high schools. In contrast, programs use existing facilities--high schools, community centers, space in private industry. Course offerings must be justified by unmet labor market needs in the area served by the program. Funding for instruction, administration and supplies for the 68 different programs and centers is provided by the state and is allocated according to course enrollment within each program or center. The business sector contributes equipment and technical advice, serves as an important source for instructors and often acts as a "community classroom" for ROP classes.

California's ROC/P initiative is part of the state's vocational education system. It differs in several respects from other collaborations between schools and businesses that are part of Public/Private Venture's study and was included for several reasons.

First, in contrast with many collaboration initiatives, the impetus and locus of control of ROC/Ps are firmly in public education. Management rests with a state government agency and not with an intermediary organization directed by the private sector. Business participation is sought as an adjunct to the larger effort to increase the availability of quality vocational education within the state.

Second, the statewide scope offers an opportunity to observe a program whose scale and potential impact exceed that of the other partnerships in the study.

Third, the immediate goals of ROC/Ps--adequate vocational preparation for and improved access to entry-level employment--do

not vary substantially from the goals of other collaborations being studied. To the extent that many of the same employment and training goals are achieved, ROC/Ps offer an interesting contrast to programs that are characterized by substantial leadership and direction by the private sector.

The 68 ROC/Ps have the flexibility to develop in a manner that is most appropriate to local conditions. However, they share a number of common features mandated by the state's Department of Education. These features distinguish ROC/Ps from many other programs, as follows:

- o The primary objective of the ROC/P initiative is to prepare teenage and adult students for employment. Educational change, dropout prevention and other goals are secondary.
- o Approval for introducing courses requires documentation from local professional organizational and government agencies that job growth in the industry is projected in the local area.
- o Teachers must not only be certified in the particular subject area, but have experience in the industry for which they are preparing students. It is frequently the network of contacts that instructors bring with them that provides the students with leads for employment.
- o Although skill training is the primary focus of ROC/P courses, incorporated into all of the courses is instruction in job search skills.
- o Courses are taught both in schools and at the workplace, frequently encouraging adults who might be uncomfortable attending classes in schools to enroll.
- o Enrollment and attendance at ROC/P classes are voluntary, and the funding is based on average daily attendance rates. Therefore, programs must develop active recruitment strategies and promote course offerings. Frequently, this gives local programs "an entrepreneurial cast" according to a recent report on vocational education in California.
- o ROC/P classes are available to people of varying ages and from widely different economic and educational backgrounds, and to the handicapped. This reduces the likelihood of stereotyping the courses by limiting them to one segment of the

population.

- o The program strives to be sensitive to the employment and training needs of local business, and, in return, seeks access to equipment and classroom space from local industry.

This profile describes the goals, origins, context, structure and key features of the program. Since it was impossible to visit all 68 sites, staff gathered information based on visits to three of the larger sites. In keeping with the study's focus on exemplary models of school/business collaborations, the three sites were chosen as good examples of the model that also reflected the diversity of ROC/P operations and settings. Information was gathered by two researchers over a total of seven days through focused and unstructured interviews, observations and review of documentary materials. The head of the statewide organization of ROC/Ps was also interviewed. The three ROC/P sites visited were the Contra Costa ROP near San Francisco, the Los Angeles County ROP, and the South California ROC located in Torrance. Since observations were limited, impressions and descriptions reported in this profile are only illustrative of some of the activities that occur within the ROC/P framework. The many variations in operation and delivery of the ROC/P model throughout California are not represented.

The remainder of this profile describes the Regional Occupational Program/Center model in detail. Chapter II briefly presents the history and goals of the initiative. Chapter III reviews the different administrative structures that have developed and summarizes the responsibilities and activities of key positions in individual ROC/Ps. Chapter IV records illustrations of the program in action, describing its instructional component and job placement activities. Chapter V profiles the youth and adults served, and Chapter VI characterizes the nature of business involvement. The concluding chapter characterizes some of the key lessons that can be learned from the ROC/P model.

II. HISTORY AND GOALS

California's vocational education delivery system has two main components. At the secondary level, vocational education is provided through comprehensive high schools and ROC/Ps. At the postsecondary level, vocational education is delivered through community colleges.

The impetus for ROC/Ps was generated from individual school districts' escalating costs to offer a wide range of vocational educational courses. The facilities, equipment and materials needed for vocational training took a large share of available funds. In addition, standards used to accredit vocational programs required constant upgrading of facilities and equipment. At the same time, demand for these courses within individual school districts was not always sufficient. School districts were thus faced with the dilemma of limiting vocational educational offerings or allocating substantial funds to under-utilized programs.

The consequences of such policies were clear. Many students would be prepared in the same few vocational areas and would ultimately compete for increasingly scarce jobs, while other technically oriented positions went unfilled because no training was available. Public school administrators appealed to the state for assistance in resolving the problem. They argued that one solution was to give individual school districts access to shared resources--facilities, equipment and materials--and provide students within these districts the opportunity to take vocational education courses in other school districts. The ROC/P model was developed to coordinate these shared resources among individual school districts without diminishing their autonomy or reducing their overall school enrollments.

Initial legislation allowing school districts to form regional vocational high schools was passed in 1963, but there was considerable resistance to the concept of "trade schools." In 1965, the legislation was amended to allow the creation of Regional Occupational Centers. Later years saw expansion of the legislation to allow instruction of adults, year-round operation and the development of "programs" (ROPs) in addition to "centers."

Throughout this period of constantly changing requirements and definitions, the growth of ROC/Ps was slow. Only two centers (ROCs) had been created by 1968. However, with the legislative change allowing school districts the option of operating joint programs (ROPs), 15 programs were inaugurated in 1969. New programs and centers continued to be added throughout the 1970s and 1980s and by 1986, a total of 68 centers and programs were in operation. Currently, only a few isolated sections of the state are not served by a program or center. ROC/Ps are the only high school program in California completely funded by the state.

Strict requirements govern the courses a program or center may offer. Skill training must be in occupational fields that have current and future employment needs and these needs must be documented by local labor market surveys. The training itself is structured to meet business' needs and concerns, including such features as open entry (allowing students to begin a training program at any time thereby creating a constant flow of trained employees), teachers with industry experience and training to industry specifications on equipment often made available by industry. The education provided by these programs is often innovative, crosses many educational and jurisdictional boundaries and seeks to differentiate itself from traditional vocational education. The following goals and objectives summarize the ROC/P initiative:

- o By design, training programs are offered by several schools or districts jointly so they can pool resources, serve a larger group of participants and reduce duplication.
- o It provides a structure for bringing together schools and businesses for their mutual benefit. Representatives of industry serve on advisory panels that review the match between curriculum and jobs available in their industry. Many businesses also allow ROC/P courses to be taught on their premises using company equipment, often employing company personnel as ROC/P instructors. Businesses are also actively involved in work/study programs for ROC/P students and seek to hire graduates.
- o The programs recruit students from a spectrum of educational achievement and economic backgrounds; no one segment of the school or adult population is targeted. And despite the clear training objectives of the program, ROC/P has, as a result, avoided the stigma often attached to vocational programs.
- o It brings together state and local education agencies without sacrificing local autonomy and control. Participation in the ROC/P initiative allows local school districts access to additional teaching and funding resources that supplement their existing curriculum.
- o The location of ROP classes in a variety of business, community and school settings, and the scheduling of classes both during and after the school day increase accessibility for both youth

and adults who might otherwise be unable to attend classes. Although serving high school dropouts is not a specific mandate of the program, staff report that some dropouts are attracted to ROC/P classes because skill training is provided.

The goals of ROC/Ps, then, are relatively simple. They are designed to supplement the vocational training capacity of schools throughout California. Their strength derives from their ability to transcend jurisdictional boundaries and thereby increase the range of training opportunities for students in multiple school districts. The link between training and employment is emphasized and becomes a standard by which individual program components are evaluated. The following chapters describe the arrangements that have been devised to meet these objectives and provide some illustrations of the delivery of the program.

III. ROC/P ORGANIZATION

The California Regional Occupational Centers and Programs are part of a statewide bureaucracy. This chapter reviews the key organizational components of the ROC/P model. First, it considers the similarities and differences between the two variations of the initiative--programs and centers; second, it describes three different ROC/P administrative structures; and finally, it reviews the responsibilities and activities of key positions the system.

STATE ORGANIZATION

Individual Centers and Programs operate relatively autonomously. Their day-to-day operations are governed by the local boards described below. No separate ROP/C agency exists at the state level. However, the Vocational Educational Unit of the State Department of Education retains oversight responsibility for course approval and certification. ROC/Ps are funded primarily by state apportionments; state lottery receipts also contribute a small portion of ROC/P funds. Funds are allocated to each of the 68 separate programs based on the average daily attendance (ADA) for their respective courses.

The system is well-enough established to warrant its own association of administrators, staff and professionals--the California Association of ROC/Ps--which holds an annual statewide meeting in California to discuss common problems and solutions in administering and operating ROC/Ps.

REGIONAL OCCUPATIONAL PROGRAMS AND CENTERS

A Regional Occupational Program (ROP) and a Regional Occupational Center (ROC) differ in operation. Although the Program option was initiated several years after California began this supplementary approach to vocational education, it is by far the more common model. Fifty-seven of the 68 operating units are identified as programs. A program uses existing school and business facilities as the sites of instruction, though it may lease space to offer classes. Its staff consists of administrators, coordinators, counselors and support personnel. Some ROP teachers are recruited for specific courses and hired on a part-time basis.

In contrast, an ROC operates out of its own separate facility. Its staff includes administrators, counselors in area high schools, support staff and a complete vocational educational faculty. In essence, a Center shares many contains of a traditional regional vocational high school. For example, the Southern California Regional Occupational Center (SCROC) is located

in a large complex of buildings erected to house it. It contains impressive facilities for vocational training. A full staff, including a superintendent, assistant director, registrar and other personnel administer the ROC. A faculty of 81 teach the courses. Most centers also operate classes and activities at satellites, usually at businesses and other schools, a system identical to that of the program model. The bulk of vocational training activities, however, take place within a center's facilities.

Some interesting contrasts emerge when comparing the program and the center models. The program theoretically offers greater flexibility in responding to new employment demands. Its greater reliance on classrooms in business locations, access to business equipment, and restriction of teaching staff to those currently needed allow it to adapt to market demands. At the same time, however, the program model can be vulnerable to changing support in the state and business community.

This situation is reversed for centers. Here, costs are greater at the beginning and the initial investment can tend to limit offerings to those occupations for which the facility is designed. Its reliance on a permanent staff also constrains its ability to respond to quickly changing employment needs. However, these same factors make centers less vulnerable, since closing a facility and laying off a permanent staff would require economic and political justification.

ADMINISTRATIVE OPTIONS

Three different administrative formats can be employed to govern an ROC/P. The format chosen depends on whether the ROC/P operates in a single school district, serves all school districts within an entire county or combines the resources of multiple school districts.

Single School Districts. Only two single school district ROPs exist--Los Angeles City ROP and Long Beach ROP. In these cases, boards of education are also the controlling boards of the ROPs.

County ROC/Ps. These are the most common administrative structures, governing 42 of the existing ROC/P sites. As in the single school district option, county ROC/Ps are directed by such existing educational authorities as the county school superintendent and the county board of education.

Joint Powers Agreements. These require that individual school districts appoint representatives to a steering committee that directs ROC/P activities. The remaining 24 ROC/Ps are based on Joint Powers Agreements, which may be carried out in a variety of ways. The following are examples of such agreements:

- o The Los Angeles County ROP (LACROP) is a Joint Powers Program. Twenty-five separate school districts combined in 1974 to create the program. These districts had previously resisted, for a variety of reasons, joining other ROPs in Los Angeles County and the Los Angeles County superintendent of schools strongly suggested that they come together to form a new ROP. Under the Joint Powers Agreement, each participating school district sends one representative to a steering committee for LACROP. This steering committee has no authority, but it does carry considerable clout in LACROP decisions. For example, the steering committee's recommendations have only been overruled by LACROP only once or twice in the past 10 years and then only over specific personnel policy matters.

- o The Southern California ROC serves students residing in six different school districts. Each school district board has appointed one of its members to serve on the Center's governing board which controls its activities and programs.

- o Contra Costa ROP encompasses the nine high school districts within the county and two districts in neighboring Alameda County. The county Board of Education oversees and coordinates the relationship between the ROP and the county's adult education programs, its 27 high schools and three community colleges.

KEY ROLES AND RESPONSIBILITIES

The staff of ROC/Ps perform a variety of duties including teacher recruitment, production of materials, advertising courses, student placement, certification/justification of new courses and continuing courses, determination of the needs for individual courses and negotiation with individual schools on use of ROC/P equipment when ROC/P classes do not require their use.

LACROP provides a good example of the range and functioning of positions encountered in a ROC/P office. LACROP is the second largest ROP in the state. More than 50 staff are employed in the ROP office, including coordinators, consultants and support staff. In addition, LACROP employs 16 counselors who serve the participating district high schools. The types of roles and responsibilities described here can be found in most ROC/P units throughout the state.

Coordinators. The determination of courses and programs to be offered and the recruitment of teachers is handled by the coordinator-in-charge. Coordinators work out of the central LACROP office and are assigned a number of school districts relative to the district's size and level of participation in LACROP. Coordinators are assisted by administrative aides and by counselors from the high schools in the assigned districts.

The coordinator role includes negotiation with the individual school districts and their participating high schools. Coordinators try to accommodate the needs of individual schools by scheduling LACROP courses at times that complement the other needs of the school, by obtaining equipment using ROC/P funds that can most effectively be shared by the host school and by offering courses in high schools where budget reductions have forced the elimination of some vocational programs. For example, one of the program's benefits to school districts and schools is access to equipment ROC/P when classes are not meeting. Thus, individual school principals have access to computers, laboratory equipment and other vocational training equipment for their regular academic and vocational education courses.

Coordinators also act as primary recruiters for instructors. In some instances, high school teachers who teach vocational courses are hired to teach additional ROC/P-paid sections. In other cases, instructors are recruited from industry by word-of-mouth, through industry advisory committees or by advertisement in local newspapers.

Program Specialists. Coordinators are assisted in their course planning and development work by program specialists. These specialists have responsibility for monitoring and developing courses in particular subject areas, such as health, office automation and skilled trades. Subject specialists work out of the LACROP central office and oversee curricula in all districts served by the ROP. A few subject specialists are also coordinators; others are consultants hired specifically to monitor particular topics.

Counselors. The most visible link between individual high schools and the ROC/P is the program's staff of counselors. Each high school is assigned a ROP guidance counselor. These counselors are responsible for promoting ROC/P offerings in the school, enrolling students for courses, monitoring attendance, making travel arrangements for students who wish to take courses at other high schools, and keeping track of the vocational and other needs at their assigned high school. ROC/P guidance counselors report to the coordinators assigned to their districts. They organize their activities with the high school principal and with the school's own guidance office. In addition, counselors may also work with other job placement and counseling offices (i.e., JTPA) that may be operating at the high school.

Each year, counselors ask all 10th graders in their high schools to fill out an interest survey and take a vocational aptitude test. Based on the results of these, the counselor meets individually with students to suggest courses or curricula in which the student might enroll during his or her remaining two years in high school. The counselor attempts to match students' interests with the wide range of curricula that are available through the ROC/P. In the case of LACROP, more than 125 vocational programs are available and students may elect to enroll in virtually any of them. Figure III.1 lists a sample of the courses and programs that were offered through LACROP during Spring 1986.

Instructors. ROC/P class instructors must, as a rule, have industry experience in their instructional area. Many of the instructors observed during these site visits operated their own business or held a technical position in a local company. While some ROC/P instructors are full-time vocational education instructors in local school districts, a large proportion hold full-time jobs in the private sector. ROC/Ps are given considerable latitude on how instructors are paid. In some areas, a standard rate is applied to each course taught and indexed against years of industry or teaching experience. In other programs, such as LACROP, instructors are paid at the prevailing rate in the school district in which they teach. Since most instructors are part-time employees, the cost of employee benefits is reduced.

Industry experience is not the only requirement for teaching a ROC/P course. All instructors must pass California teacher competency tests in order to continue as instructors in the program. This requirement has led to several dismissals or resignations because the instructor could not meet the state-established minimum competencies. Although some concern has been raised about the consequences of certification as it is applied to industry-based part-time instructors, state teacher standards require that ROC/P adhere to the requirements. State teacher credentialing, in fact, is regularly noted in descriptive materials distributed to employers and students.

Advisory Committees. Each program area in a Regional Occupational Program is required to have an advisory committee composed of representatives of the related local industry. Committee members are volunteers from area business and industry who are recruited by coordinators to assist in planning and implementing the ROC/P curriculum. The role of the advisory committee is to:

- o Assist the ROC/P in determining educational needs for their industry;

Figure III.1

EXAMPLES OF COURSES AND PROGRAMS OFFERED BY THE
LOS ANGELES REGIONAL OCCUPATIONAL PROGRAM (SPRING 1986)

Accounting clerk	Hotel/motel occupations
Aircraft ground service	Industrial drafting
Airframe and powerplant	Infant care
Auto specialization	Instructional aide
Auto body and fender repair	Interior design/merchandising
Bank teller	Landscaping
Banking occupations	Licensed vocational nurse
Barbering	Machine shop
Building remodeling	Manicurist
Building maintenance	Medical assisting
Business machine repair	Medical transcription
Cable TV installation	Motorcycle repair
Commercial photography	Nurse assistant
Community counselor aide	Office occupations
Computer programming	Ornamental horticulture
Computer applications	Printing occupations
Cosmetology	Proof machine operator
Dental assisting	Recreational worker/health club
EEG technician	Retail sales
EKG technician	Security guard service
Electronics occupations	Silkscreen
Emergency medical technician	Small business management
Fashion Coordination/ merchandising	Stage technology
Floristry	T.V. productions
Food service management/ Restaurant occupations	Tow truck/emergency operator
Greenhouse operations	Travel occupations
Health care administrative assistant	Welding
Hospital Ward Clerk	Word/information processing

- o Assist in determining the content and length of courses;
- o Maintain public relations;
- o Set standards for student selection; and
- o Assist in conducting community surveys.

Advisory committees must meet at least once a year to review progress in the program, air issues and make suggestions.

Business involvement extends beyond serving on advisory committees. Many offer ROC/Ps the use of their facilities as classrooms and offer cooperative education slots for students. In addition, as noted above, business serves as a major of ROC/P instructors.

The structure of the ROC/P model is complex. Its variations in design and implementation make definitive characterizations difficult. The picture is further complicated because the ROC/P must work in tandem with an existing school bureaucracy. However, ROC/P is able to deliver an impressive amount of vocational training throughout California. The next section summarizes P/PV's observations of the actual implementation of this training.

IV. PROGRAM IN ACTION

A great variety of classes and activities is offered within the ROC/P model. This chapter summarizes educational activities, placement activities and requirements, and related programs.

THE EDUCATIONAL COMPONENT

Many instructional techniques are used to teach vocational skills to students in ROC/P--classroom instruction, hands-on exercises during class, work/study opportunities and cooperative education placements of individual students. In the sites observed, most teaching was done through classroom-based instruction, sometimes in the traditional form, i.e., a teacher lecturing before a class of students. However, in a great number of classes visited, tremendous emphasis was placed on doing rather than listening. In these classes, students were engaged in working with CAD/CAM (computer-assisted design/computer-aided manufacturing) equipment, practicing dental hygiene techniques, running printing equipment or doing other hands-on tasks. The registrar at the Southern California Regional Occupation Center (SCROC) emphasized the commitment his facility has to experiential learning. At SCROC, virtually no course books are used and the goal is to have instructors lecture only 20 percent of the time while students "learn by doing" 80 percent of the time. The deemphasis of lecturing by the instructor allows self-paced learning and individualized attention by the instructor during the class period.

Depending on the subject and time, classes vary in length and frequency of meeting. For example, courses that meet during the school day often occur every day and last for 55 minutes. Other classes meet less frequently but may last four-to-six-hours per meeting. Classes that meet after regular school hours are often three or four hours long.

Courses are offered throughout the day and evening. As one staff member noted, "We could offer courses 24 hours a day, 365 days a year." In reality, courses begin as early as 7 a.m. and end by 11 p.m., though most occur in the late afternoon and early evening. Students may take courses throughout the week and on the weekends (Saturdays and Sundays). ROC/P courses can be taken separately, but students are encouraged by counselors to pursue a complete curriculum that leads to a specific job. Thus, SCROC groups courses according to particular occupations and offers a series of sequential courses over several years. Similarly, LACROP and Contra Costa ROP offer courses as part of extensive, comprehensive curricula designed to prepare students for entry-level positions in certain industries. Of course, certain occupations require only a single course. Among these are grocery store clerking and laboratory animals handling.

Some classes are designed to meet the needs of specific groups of students. For example, some sections of a hospitality occupations course offered by SCROC at an area hotel are reserved for special education students. Similarly, LACROP classes preparing students as nursing assistants are designed to serve students with limited English. Most programs also reserve some classes for adults and offer them at sites most accessible to adult students.

Each course offered by an ROP must go through a district, regional and state certification process in order to be eligible for state funding. To be approved, the program must be able to document a direct link between the curriculum and an occupation and, further, must document the availability of entry-level positions in the geographic area. The local ROP must identify the likely pool of students who would be attracted to the course, specify the site(s) where the course will be offered, and provide a detailed description of the course including outlines, instructional materials and methods for assessing competencies of students completing the course.

At the three ROC/P sites visited, generally high quality and up-to-date equipment was available for student use. At the Southern California Regional Occupational Center, what appeared to be items of new automotive, welding, dental and emergency medical (EMT) equipment in place in the classrooms. In the automotive section, for example, a corporation that specializes in automotive paint had recently installed a painting room where students, as part of their automotive restoration class, worked with experimental paints and painting techniques being developed by the paint manufacturer.

In visits to ROP sites in Los Angeles County and Contra Costa County, the same general level of equipment and teaching aids were in evidence. The rows of personal computers being used by students in computer and business courses were the most common evidence of the availability of up-to-date equipment. In addition, students in these programs had access to industry equipment courses that were taught on the premises of local businesses. In one instance, a cosmetology and hairstyling course held at a local proprietary cosmetology and beauty school gave students access to new styling equipment and supplies. In a course on airframe mechanics, students use equipment at a local aircraft manufacturer.

An observation in a report prepared by a major educational research organization underscores the prominence of new equipment offered by ROC/Ps:

In one high school we visited, two classrooms for office occupations were side by side, one run by a ROC/P

and the other by the home high school itself. The ROC/P classroom had a word processor at each student station. The classroom administered by the comprehensive high school had manual typewriters--two generations of equipment behind. (PACE, One Million Hours a Day: Vocational Education in California Public Secondary Schools, p. 4)

In addition, the level of teaching observed by P/PV was quite high. Of particular note was the constant use of "real world/real work" information. In a nursing assistant class for students with limited English speaking ability, the instructor always used working hospital examples and procedures to make her point. Students in a retail merchandizing class taught by an area sales representative were shown advertisements of the stores in which they worked to learn about co-op advertising and advertising layout strategies. In several classes that took place in school print shops, students were producing ROC/P materials, high school catalogs and commercial work for area merchants. The central theme guiding each of these classes was learning to do tasks that were grounded in experiences students would encounter in real jobs.

When appropriate, a program may enter into what is known as a facilities agreement with an employer. LACROP, for example, reports that it has more than 1,000 separate facilities agreements with businesses throughout the Los Angeles area. The facilities agreement designates a business or office as a community classroom in which a class can meet or, more frequently, enables an individual student to be placed on a cooperative education basis. The business agrees to accept a student or students and give them the opportunity to learn by working. Business is not allowed to pay students for the work they do during "co-op time" or class time, but may hire the student to continue the work for additional hours each week. The school district or ROC/P office is responsible for providing an instructor/supervisor--often an employee of the business--and for offering additional training for the student. When a class meets at a business site, the business agrees to set aside a classroom area and provide access to equipment students might require for the course.

A wide variety of businesses participate in these agreements. Many of them host individual students. However, a substantial number of business organizations provide space and access to new equipment for entire classes. For example, a private hospital has for several years provided classroom space and given students assignments in a curriculum designed to prepare students as ward clerks, medical records clerks, and other entry-level positions. The hospital's support for the program has continued despite major changes in its operation and administrative staff. The agreement is coordinated by the hospital receptionist, who teaches many of the classes at the hospital and makes arrange-

ments for students to work with individual departments as part of their course work. At a new large hotel in Torrance, two ROP instructors train students in all aspects of hotel operations, including skills relating to reservations, registration, maintenance and housekeeping, banquets and advertising. The hotel has set aside a room for teaching and regularly accepts dozens of students as co-op workers in all areas of its operations.

Business collaborates with ROC/P for many reasons. In some instances, the connection is an extension of the traditional relationship between business and vocational education. Business offers advice on training and equipment and contracts with the vocational school to do some work--small manufacturing or construction tasks. In other instances, businesses participate in order to get employees trained on their equipment. In such cases, the costs of employee training is being transferred from the corporation to the public sector. In addition, the ROC/P model allows corporations to request special courses specifically designed for them. For example, a large hotel, that allowed the program to use its training facilities for several classes each day and also placed students in co-op positions throughout the year requested that ROP offer an advanced course in the hospitality industry. A third reason for participation by many employers is a desire to help youth be better prepared for a job. Finally, a substantial number of business participants are motivated by individual employees who take personal responsibility for maintaining their company's involvement in the program. These individuals are often part-time ROC/P instructors or supervisors who monitor ROC/P students placed in their company.

Students may receive academic credit for ROC/P courses but few graduate early as a result. For many students, ROC/P classes are additional electives within their course of study. In addition, for some students, especially those for whom continued academic training or vocational training may be economically unfeasible, opt to take the courses to prepare for specific jobs. The reputation of ROC/P in getting students access to good jobs is a strong incentive for many minority and disadvantaged students. One administrator contended that the ROC/P could serve the potentially hard-core unemployed, those who came from families that had been out of the mainstream labor market for several generations. The ROC/P, he said, gave students an opportunity to escape this cycle.

CONTRACTS WITH PROPRIETARY SCHOOLS

ROC/Ps may also contract with area proprietary schools to deliver specialized training to students. Schools of cosmetology and hairstyling are most commonly, used in this manner. Students then have access to a complete curriculum that prepares them to take the state licensing examination in these areas. As in all

ROC/P classes, students do not pay any tuition for these courses, nor are the schools allowed to charge students for materials and supplies. ROC/P pays the proprietary school by student hour at the same rate that non-ROC/P students pay to take the course.

As a safeguard for both the program and the school, ROC/P limits its placement of students to less than 50 percent of the total enrollment of a proprietary school. In this way, in the event that ROC/P decides to terminate its agreement with a proprietary school, it will not be in the position of forcing the school to close because it had become dependent on ROC/P students and funding.

PLACEMENT ACTIVITIES

A key contributor to the ROC/P ability to translate training into jobs for graduates is the requirement that courses be competency-based. Each course has an associated set of competencies that a student must demonstrate. At the completion of the course, the instructor completes a preprinted form for each student, checking off the that the student has achieved and deleting those competencies that the student has failed to demonstrate. The student is awarded a certificate for each course or curriculum completed. On the reverse side of the certificate are printed the specific competencies that this student has achieved and to which the teacher and the ROC/P will attest. Students are encouraged to use these certificates in applying for positions. ROC/P staff and the employers with whom P/PV talked believe that these competency certificates give ROC/P students a competitive edge when seeking employment. Beyond the specific competencies it lists, the certificate also indicates student commitment and an ability to learn. Employers, when faced with a pool of applicants, may use the ROC/P certification to distinguish between otherwise similar candidates.

The second key element of the placement process is the role played by the course instructor. Many instructors are practicing professionals and often use their personal contacts to secure positions for their students. The fact that they are required to attest to the competencies of these students further encourages them to train and monitor students carefully. Administrators and staff note the key role that instructors play in placement and laud their efforts to find students well-paying positions.

As part of an evaluation of the courses being offered, administrators require that coordinators, counselors and teachers follow-up with graduates to determine their employment status. ROC/P reports that between 80 and 85 percent of their students are employed six months after completing the course and that between 40 and 45 percent of them are working in occupations that are demonstrably related to their training.

The emphasis upon employment of graduates as a measure of program effectiveness has interesting results. For example, in LACROP, courses or curricula whose placement rate falls below 50 percent for two consecutive semesters are dropped. Stressing the ROC/P goal of relevant training, one staff member said, "It's ridiculous to train persons for jobs that don't exist."

OTHER ACTIVITIES AND VENTURES

In some instances, the central ROC/P office also becomes a broker or administrator for other related programs. For example, LACROP oversees an adult-only apprenticeship program sponsored by the California Apprenticeship Council and local Joint Apprenticeship Committees. Participants must be 18 years old and have completed high school or a GED. Apprenticeship programs are offered in air conditioning and refrigeration, electrical, roofing, and sheet metal specialties. The longest program, air conditioning and refrigeration, lasts five years. The shortest, the roofing program, lasts three years. Admission requirements are stringent and poor performance leads to quick dismissal. Nevertheless, the apprenticeships are greatly sought since they promise well-paid employment upon completion.

LACROP has also worked with the Los Angeles County government to develop programs to serve individuals currently receiving government assistance. It has developed a program called Project Workability designed to place physically handicapped youth in work settings and continues to seek new ways to serve the employment needs of the county.

V. YOUTH SERVED

Regional Occupational Centers/Regional Occupational Programs serve youth throughout California. Requirements for admission to class are few. All students in California aged 16 or older are eligible, including those enrolled in parochial and private schools. Younger students may enroll if permission is granted by the school district. Students classified as dropouts in their school districts may also enroll. Occupational interest and aptitude tests are given to students before they enroll in ROC/P classes not to screen out students, but to provide a basis for advising and placing them. Students with learning disabilities or other handicaps are eligible for participation and special classes are offered to mentally handicapped youth. ROC/P classes are available to all students regardless of family income and no tuition or course fees are charged. ROC/Ps offer an extensive network of buses to transport students between high schools so that they can take courses in other school districts.

ROC/Ps served more than 300,000 students during the 1985-86 school year--less than 10 percent were adults and the remainder were primarily high school students. They represent between one-quarter and one-third of all high school students aged 16 or older in California.

The ROC/P model does not target a particular type of student. It is explicitly not a program to which nonacademic students are tracked. Rather, the ROC/P philosophy is that any student can benefit from some occupational training even if he or she plans to continue education after graduation. This nontargeted, wide-net approach removes some of the stigma that is often associated with traditional vocational programs, i.e., that vocational education is for people who can work only with their hands not their minds. Students demonstrating a range of academic achievement enroll in the same classes. Self-paced instruction allows students to proceed as quickly as they are able and competency-based assessments document each student's achievements.

Enrollment in ROP classes varies across school districts and ROC/P sites. For example, the Los Angeles County ROP reports that 40 percent of all county public school students enroll in ROP classes. However, participation varies substantially, approaching 70 percent in some school districts and below 20 percent in others. The primary determining factor appears to be the support of local school districts and principals. Some school districts continue to be suspicious of the ROC/P initiative and are less inclined to publicize the courses, give students credit for enrolling, or facilitate the delivery of ROP classes. Other districts and principals incorporate the ROP initiative into their overall educational plan and work closely with ROP administrators to coordinate courses, develop more comprehensive pro-

grams and encourage students to take ROP classes.

The level of participation in ROC/P classes does not appear to be a function of the income level of students in the district. For example, Beverly Hills High School, which boasts one of the highest levels of postgraduation enrollment in higher education in the nation, also enrolls large numbers of students in ROP courses offered through LACROP. However, levels of participation from other affluent communities are not as high. School districts that serve student populations economically at risk show similar variation in program participation.

During interviews, many students in ROC/P classes indicated their desire to learn a skill needed in the workplace. They applauded ROP instructors for training them for "real world" jobs and teaching them skills they needed to qualify for existing positions. This attitude was most apparent among students who were pursuing an extensive sequence of courses. They expected that their long-term investment would ultimately be rewarded by a well-paid position. Students who had enrolled in a single class were interested in preparing for a job but recognized that a single class would not guarantee them a position. Students planning to go to college noted that their ROC/P classes would help them find part-time and summer work.

Certain factors limit the number of students served. Among these are the reluctance of some school districts to embrace the ROC/P option within their areas and differences of approach to recruitment, course development and management. Recent state-level decisions, such as Proposition 13 and other cost-limiting measures, have put a ceiling on how fast a program may grow. Thus, even if more students wished to enroll, some ROC/Ps may not be able to accommodate them.

Traditional prejudice against vocational education among students, parents, guidance counselors and teachers may also act to reduce ROC/P enrollments. Much of the resistance found by ROP counselors and administrators centered around the issue of basic educational and academic instruction in competition with skills training.

ROC/P staff and instructors also report several unanticipated impediments to high levels of participation among youth from impoverished areas. One problem is the time lag between when training begins and when a student becomes eligible for a job. This lapse may be too great for a youth whose income contributes to total family support. Students wishing to start work immediately may opt for lower-paying positions that require no special training. ROC/P staff said they often tried to work with employers to get students additional hours of paid work, but admitted that it was difficult. A second common problem was that some youth under 16 continued to attend school only because of legal

requirements. In general, ROC/P classes are limited to students 16 or older, and younger students at risk of dropping out are not served by the program unless special administrative dispensations are given.

VI. BUSINESS INVOLVEMENT

The Regional Occupation Program did not originate with business nor is it under business control, but it has been structured to give business a role in shaping development at the local level at the same time that it provides business with experienced workers trained to their specifications. There are several aspects of the ROC/P structure that ensure sensitivity to business needs:

- o The legislation creating Regional Occupational Programs requires that there be business advisory councils associated with the courses offered.
- o Course approval by the state education department is predicated on demonstration of labor market needs in a particular area.
- o Many of the classes are taught in "community classrooms," classes held at a work site. A business's commitment of space for classes generally includes a commitment to allow students to gain work experience on site as well.
- o ROC/P's teachers must have had experience in the business world, working in the subject area they are hired to teach. Many teach on a part-time basis and continue with their jobs.

The autonomy given to local ROP/Cs allows each of them to involve business in a slightly different manner. For example, in Contra Costa County, businesses in different parts of the county were drawn deeply into the operation of the local ROC/P through their own intermediary organization, known as BOOST. It was formed in 1982 by the General Manager of the Chevron Richmond Refinery as a nonprofit corporation to foster industry education partnerships for the Career Development Center (CDC) at Richmond High School, the principal site for ROP classes in West Contra Costa County.

According to the current president of the Board of Directors of BOOST, who is an employee of Chevron, the business community and the education community speak "two different vernaculars." The function served by BOOST is to bring the two sides together to foster communication. BOOST has also taken responsibility to promote the work of the ROP to local communities. BOOST is seen as the major intermediary between business and the employment and training community: when a new or existing business has particular training needs, their training requirements are communicated to CDC/ROP through BOOST. It appears to be a highly visible organization and has gained the support and participation of some of the major power brokers of the business community.

The BOOST literature proudly describes growth in the number of training programs offered by the CDC/ROP: when it began in 1974 it offered 28 training programs; during the 1985-86 school year, it offered 168. The literature also promotes the idea that graduates of these training programs have far lower attrition rates than others the company might hire. The success of BOOST in West Contra Costa led to the development of a similar effort in the eastern part of the county as well, though the model does not appear to have been adopted in conjunction with other ROPs.

Clearly, BOOST ensures business "ownership" of the program as well as visibility for the program within local communities. BOOST has benefitted from dedicated and dynamic leadership in both sectors; both business leadership and the program manager of the Contra Costa ROP move easily between the worlds of business and education.

Business involvement in other ROC/Ps is less developed. Both LACROP and SCROC draw on the local business community for access to equipment, work/study and co-op placements, and classrooms at the worksite. However, neither program enjoys the independent business support evidenced in Contra Costa County. The reasons for this variation bear some scrutiny.

In both LACROP and SCROC, the responsibility for the effectiveness and activity level of advisory committees rests with ROC/P staff and not with the business community. Since ROC/P coordinators recruit business representatives, set the agenda and convene the meetings, business advisory activity is heavily dependent on how the coordinator resolves his/her competing responsibilities and how high a priority is placed on advisory board input.

The resulting level of involvement of business representatives varies substantially across sites. While some advisory committees are quite active--meeting regularly, forming separate organizations to advance the goals of the ROC/P in their area--other advisory groups are only marginally involved. ROC/P standards require that industry advisory committees meet at least once a year. Discussions with many coordinators and staff disclosed that only this minimum requirement was normally met. At the annual meeting, the coordinator or teacher in charge generally summarized the year's activities and achievements and then asked for questions and comments. Coordinators and teaching staff readily admitted that the advisory committees were underused but offered few ideas on how their effectiveness might be increased.

The general perception was that persons who served on the advisory boards were willing to show their support by attending the annual meeting and possibly giving preference to ROC/P students for jobs, but little else. Some coordinators indicated they believed that advisory committees could not be realistically expected to do much more. Assessments of the employment market

by industries are done using professional economic/employment research services; most job placements result from instructor contacts and intervention; curriculum content is reviewed by curriculum specialists and approved by various committees. Thus, beyond maintaining the appearance of a link between ROC/P and industry, some staff questioned the utility of the advisory committee requirement.

They also point out that business support of ROC/P is apparent in other ways. A 1985 survey of 46 of 68 ROC/Ps by the California Association of Regional Occupational Programs/Centers found that 35,785 students had been placed in community classroom settings, 2,506 students were engaged in cooperative education settings with business, almost 6,800 business people served on advisory committees and more than 350 classrooms were located in private business locations. Thus, it is apparent that business involvement is not insignificant. Real contributions in terms of facilities, access to equipment, on-the-job training, personal time and classroom space are being made to students through the ROC/P initiative.

VII. CONCLUSIONS

California's Regional Occupational Centers/Regional Occupational Programs are an interesting contrast to other school/business collaborations. While their objectives closely match those of many other partnerships, these programs take a distinctly different approach to achieving them. Several things distinguish the ROC/ROP model from other initiatives. Its impetus and implementation are controlled by an existing state educational system; it is administered by coalitions of school districts. Private-sector involvement in implementation--through provision of instructors, up-to-date equipment and job placements--is substantial but not dominant. Finally, the initiative is massive in comparison with other programs, affecting more than 300,000 students. An analysis of the ROC/P approach is valuable to the study because it may suggest alternative approaches that can be adapted in other states or regions.

A WIN-WIN PROGRAM

There are positive outcomes from the ROC/P approach for students, teachers and instructors, schools, school districts and employers:

- o For students--access to market-relevant vocational instruction, using equipment and facilities whose quality often exceeds what is available in their school; competency-based instruction that is recognized by employers; high placement rates among students completing classes and access to positions they would not normally obtain; overall improved schools and equipment.
- o For teachers and instructors--access to supplemental income for teaching ROC/P courses; access to new equipment and facilities; access to motivated, self-selected students; accommodation of scheduling needs by ROC/P.
- o For schools--ability to expand and improve vocational education curricula for students without jeopardizing other programs; access to ROC/P equipment and facilities when not in use by ROC/P classes; alleviation of the pressure to offer vocational training in multiple subject areas, which had resulted in inferior efforts.
- o For school districts--greater contact with the local business community; expansion of curricula throughout the school district; reduced pressure

on burdened vocational education budgets; access to high quality instructors without a related increase in cost for employee benefits; more effective, full-time use of physical plant.

- o For employers--ability to shape the specific training of potential employees; effective mechanism for employee screening; certification of competencies by instructors from industry; relatively inexpensive method for directly assisting public education.

CONTINUING ISSUES

The ROC/P model offers many interesting challenges to the provision of vocational training within the context of school/business collaborations. However, any effort to replicate such a model must be conditioned by a recognition of several issues.

- o Magnitude--The essential component of the ROC/P model is its ability to draw resources from multiple school districts without diminishing their autonomy. Only a regional or statewide initiative has the perspective, authority and resources necessary to accomplish this task. Thus, a program based on the ROC/P model would be difficult to initiate and implement solely at a local level.
- o Bureaucracy--A separate bureaucracy was created to implement the ROC/P initiative. The ROC/P program does not have a separate state-level office with the state Department of Education in Sacramento. Program issues, including course certification and funding, are handled by a unit in the Office of Vocational Education as part of its normal activities. This unit oversees two regional offices and the 68 individual ROC/P sites with professional and support staff and associated boards. This added level of bureaucracy and responsibility necessarily increases administrative complexities and costs.
- o Costs--California's ROC/P plan requires a substantial investment of state funds that may be inaccessible for other initiatives. The 1985 budget approached \$200 million or approximately \$667 per student. These funds come from state apportionment and are distributed to programs and centers based on an average daily attendance and are in addition to the regular local, state and

federal contributions to vocational education. In-kind contributions by industry--facilities, equipment and supplies--also support program operations.

- o **Constraints on Funding and Growth**--Like many other states, California is trying to limit its support for education and other programs. The ROC/P initiative has been affected by this. Despite increased demand, its expansion has recently been curtailed by state caps on program growth. Thus, state programs like ROC/P may encounter fiscal constraints resulting from state-level political pressures that are unrelated to program efficacy.
- o **Uneven Participation**--The ROC/P model is notable for its lack of "heavy-handedness" in dealing with individual schools and districts. In fact, observations suggest a high degree of accommodation to individual school needs and schedules. However, a by-product of this nondirected, voluntary approach is an unevenness across schools and districts in the degree to which they allow ROC/P to serve students. As a result, students in some districts are not as well-served by ROC/Ps.
- o **Students Served**--ROC/Ps generally serve students who are in their final years of high school. Although the initiative serves students with a broad range of academic abilities and from different family backgrounds, the age requirements of the program mean that the needs of many youth who drop out before they turn 16 are not met. Thus, the ROC/P model is not designed to serve as a dropout prevention program.

ROC/PS COMPARED WITH VOCATIONAL EDUCATION

The ROC/P model offers a point of comparison with both traditional vocational education and with programs included as part of P/PV's study of school/business collaborations. As a supplement to the existing vocational education system in California, the ROC/P initiative does not diverge substantially from regular vocational education: its focus is on preparing students for specific jobs or careers. It emphasizes hands-on instruction; business community involvement consists of technical advice, cooperative education placements and some preferential hiring of program students and graduates. However, there are several elements that distinguish the ROC/P model from vocational education:

it pools the resources of several school districts; it mandates a direct and substantiated link between training and available positions; it makes wide use of part-time instructors from industry; it offers instruction outside existing school facilities and after normal school hours; it provides up-to-date equipment on which to train students; it is available and is used by students with varying academic abilities and family backgrounds; and all costs associated with the program normally paid by local school districts are borne by the state.

ROC/PS COMPARED WITH OTHER SCHOOL/BUSINESS COLLABORATIONS

The ROC/P model shares several characteristics with school/business collaborations: it emphasizes making youth ready for employment; it often has the by-product of improving the overall school environment; and it draws upon business-sector experience in the classroom by using instructors from industry and equipment that is either made available by industry or matches that used by employers.

ROC/Ps differ from other school/business collaborations along several important dimensions. First, the model was initiated and is directed by public education. The level and range of private-sector involvement is determined by the education sector. Business participation is more highly circumscribed in the areas of administration, program development and curriculum than in initiatives that are more closely linked with the private sector. The private sector is involved in advisory committees, serves as a pool of instructors, offers cooperative education placements, and makes a commitment to hire students who pass through the program.

Second, the program is noteworthy because it serves a broad range of students from the most to the least able, including significant numbers of disadvantaged youth. Unlike a number of other school/business programs, it does not neglect the least able in the belief that they are inappropriate for private-sector employment. It has developed approaches and experiences for special education and ESL students. On the other hand, it also serves college-bound youth, reasoning that all youth can benefit from vocational skills. Thus, ROC/P has avoided the stigma often associated with "special" programs.

Third, the goal of ROC/Ps is almost exclusively to make youth employable. Toward that end, courses emphasize the acquisition of skills needed in industry, all courses must be clearly linked with available jobs in the area, and only courses that have a proven record for getting students jobs are continued. ROC/Ps diverge from many other school/business collaborations by limiting their primary objective to employability and not adding drop-out prevention, school improvement or improved school/business

relations as competing goals.

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