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ABSTRACT

This case study describes the vocational education system and job training programs, especially those funded through the Carl D. Perkins Vocational Education Act, in an unnamed metropolitan area of California. The data were collected as part of another larger national study of state and local response to the Perkins Act. Information was collected during a week of unstructured interviews with individuals in the community involved in some capacity with vocational education. The resulting data provides the basis for the overview of the vocational education system presented in this report. The report is organized into sections dealing with the following areas: (1) labor market composition; (2) state influences on local vocational education activities (covering state administration, education initiatives, economic initiatives); (3) elementary and secondary education jurisdictions (covering student characteristics, course offerings, regional occupational center programs); (4) postsecondary educational institutions; (5) proprietary and trade schools and community-based organizations; (6) employer-based training; (7) data requirements and availability; and (8) the disadvantaged and the employment and training system. (KC)

Mapping of a Regional Work-Related Educational System

in a Metropolitan Area of California

by

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INTRODUCTION

The National Assessment of Vocational Education (NAVE) has been charged with providing the Congress with information on the implementation of the Carl D. Perkins Vocational Education Act (PL 98-524). Compared to its predecessors, the Perkins Act contains an increased emphasis on opportunities for handicapped, academically disadvantaged, economically disadvantaged, and other special populations and on services to economically depressed areas; earmarks non-targeted federal dollars to improve and expand on vocational education; and requires spending federal dollars to modernize the vocational education system.

In order to better understand the vocational education system and how it operates in various contexts, the NAVE has commissioned a number of papers that are to examine the work-related education system in selected geographic areas. The examination is broad in scope, not being confined to those activities funded by the Perkins Act. It is to include a look at the range of agencies or institutions that may be offering vocational education opportunities in an area and the types of courses offered. In addition, to the extent that it is possible, the types of individuals that are participating in vocational education opportunities in each institution are to be described. The goal is to develop a "map" that will show the degree of match between the distribution of services and the distribution of actual and potential recipients.

This paper focuses on the vocational education enterprise in one metropolitan region located in California. The data were collected as part of another larger national study of state and local response to the Perkins Act. The information in this case study was collected by a two-person team of researchers who spent one week in the metropolitan area conducting unstructured interviews with individuals in the community involved in some capacity with vocational education. The following types of individuals were interviewed at the secondary level: district superintendents, coordinators of vocational education, high school principals, counselors, and teachers of vocational education. At the postsecondary level, we spoke with community college deans and department chairmen.

In the community at large, we interviewed JTPA administrators, local employers, and staff of the regional occupational center/programs. Documents describing vocational education offerings and policies were collected whenever available.

A weakness of the case study is that very little information was gathered concerning non-publically funded institutions that offer vocational education or training. Many such private institutions exist in the area, but resources did not permit us to learn much about their offerings or their students. In addition, except for the industry-specific training which the public education system was involved with, no attempt was made to study the amount or type of training that local employers themselves may be conducting.

I. THE LABOR MARKET AREA

The F/C metropolitan area is a community of 386,500 people and encompasses about 5,000 square miles. The major employers in the area are agriculture-related, government, and service organizations (e.g., financial, insurance, real estate, etc.). There is a small amount of light business/industry including manufacturers of vending machines and pumps. As of December 1987, the unemployment rate in the area was 9.8%, but it can range from a low of 7% to a high of 11% during the year.

F county is the number one county in the United States in gross value of agriculture crops produced, with a figure exceeding two billion dollars annually. Agriculture, being both labor intensive and seasonal, is a major factor in the chronically high unemployment of the area.

According to the County Department of Social Services, 30 percent of county families receive over two-thirds of the county's income, while the remaining 70 percent receive less than one-third. Approximately 27 percent of the population meet federal poverty guidelines criteria.

Currently the racial/ethnic distribution of the major city in the area is 40% white, 32% Hispanic, 18% Asian, and 10% black. In the past five years, the Asian population has grown from being about one-half a percent to 18% of the total. Much of this growth results from an influx of Southeast Asian refugees.

Two school districts, including the urban center of the area and a neighboring suburban district, form the secondary-level educational system that is mapped in this paper. The area community college located in the city is the primary provider of vocational education at the postsecondary level. These and other work-related training providers are described in later sections.

II. STATE INFLUENCES ON LOCAL-LEVEL VOCATIONAL EDUCATION ACTIVITIES

State Administration

Publically-funded vocational education in the state of California is under the direction of both the State Department of Education and the community college system. While the two systems have some joint responsibilities in administering funds, articulation agreements, and other various projects, each operates autonomously. The two parallel structures have had conflicting priorities. There is a Joint Advisory Policy Council made up of representatives from the State Department Education and the community college system, but there was so much disagreement about agendas that it did not meet at all for two years, and is only now getting started again. At least some of the conflict has centered on the percentage share of federal vocational education funds that each system would like to have.

The community college system was part of the Department of Education until 1968 when it was given a separate governing authority. There still seems to be a lack of agreement, within the Board of governors of the community college system, as to what the role and identity of the system should be as a part of higher education in California. There are 71 community college districts in the state, and local boards determine the direction each district will take within its local context.

A recent management study of vocational education at the community colleges, "Pathways to Progress" (Carvell Education Management Planning, Inc., 1986, P. 1-13), faulted the community college system for lacking "a cohesive and agreed upon statement of purpose and role of vocational education in community colleges in California." This finding is consistent with our impressions of the way the system operates.

"Local control" remains an important part of the vocabulary about the relationship between the state and local levels in education. However, since the Serrano vs. Priest court decision local school districts no longer have control over the purse strings. Funding appropriations for education are decided at the state level and then are voted on by the legislature. Proposition 13 and the Gann spending limit have further complicated the funding picture. All of this results in a reduction of local discretion in setting funding priorities.

Each of the 112 high school districts and 271 unified (K-12) districts is permitted wide latitude in the type of vocational course offerings it provides. Across districts and even within districts across schools, vocational courses with the same title may cover different content and differ in their degree of sophistication.

To add to this variation, the state operates and funds (on the basis of average daily attendance) a regional system of vocational education. Within the State Department of Education, responsibility for the regional system is not assigned to the unit that administers vocational education in the school districts. In the state of California, a state-level decision prohibits the regional units from receiving federal vocational education funds (i.e., Perkins Act funding).

The 70 regional occupation programs (ROPs) and 11 regional occupation centers (ROCs) located throughout the state received a total of $211 million in 1987-88, and each one can decide locally the types of courses that it will offer. In the regional metropolitan area in this case study, however, the offerings of the ROP/C have been coordinated with those of the local school districts to avoid duplication. Many of the ROP/C courses are provided on the campuses of the secondary schools.

Even though the community college system in California is also dependent upon the state for its funding the local college districts have retained control over fiscal resources. At least as far as vocational education is concerned, the Board of Governors of the community college system has turned over the control of the bulk of financial resources to the local districts.

Education Initiatives

Academic Reform. The state has initiated a number of academic educational reforms during the past five years. These include specifying the number of courses in each subject matter area required for high school graduation and a re-examination of the content of academic high school courses. Students are also required to pass minimum competency tests which are to be developed by each district. Model curriculum standards for each academic area were released by the State Department of Education in 1985 and offered to districts as a way of upgrading and standardizing curriculum within and across districts.

Within the Educational Reform Act of 1983 (SB 813), there is a provision that academic credit can be granted for "alternative means of instruction." The provision is important for vocational education in that it allows local districts to grant academic credit for those vocational courses that have overlapping course content. For instance, if a local districts chooses to do so, a vocational course on principles of technology might be used to count toward the mathematics units requirement for graduation. In one case study district, the district has exercised the provision and grants academic credit for a vocational education course. The other case study district has not followed this path.

Vocational Curriculum Reform. The Vocational Education Division of the State Department of Education has developed a model curriculum for programs in vocational education. The development of academic and vocational curriculum models proceeded largely independently of one another without the involvement of staff from one group assisting the other group in the process. In the development of the vocational curriculum models, however, areas of alignment and overlap between academic and vocational courses have been identified and incorporated. Both of the districts discussed in this paper are voluntarily adopting the vocational education model curriculum.

Economic Initiatives

Employee Retraining. In 1982, the state legislature voted to set aside 1% (or about $55 million) of the monies paid into unemployment insurance to establish the Employment Training Panel (ETP). Its purpose as stated in the legislation, is to train unemployment

insurance recipients in skills needed by employers. A staff member of the ETP describes their target group somewhat differently. She said that those served are people currently employed but about to be laid off because of obsolete skills.

The suburban school district in this case study (CUSD), has received contracts through ETP to provide employer-specific training. It is one of the very few secondary-level districts in the state to use this avenue as a funding source. Most of ETP's 500 contracts are with businesses and a few community colleges. The dollars go to the employers under a performance-based contract arrangement. Employers are not reimbursed until an employee is trained, hired, and on the job for ninety days, working in a job related to training.

Training AFDC Mothers. California enacted the GAIN (Greater Avenues for Independence) program in 1985. This is a program which is designed to get AFDC mothers with school age children into job and training programs that will enable them to become financially independent. The program is still in the implementation stage. All counties were supposed to be GAIN active by September 1988. As of March 1988, only 26 of the 58 counties were active. The program mandates client needs assessment and labor market analysis, as well as the coordination at the local level between the Department of Social Services and all resources and agencies available to provide services to clients. The goal of training is employment and economic self-sufficiency. GAIN will fund training and education opportunities for clients for as long as 2 years if the end result of that training is employment.

GAIN has about $500 million to spend on training and education. This can be used to fund vocational education in either the public or private sector. GAIN administrators have expressed some frustration at the lack of responsiveness to local labor market conditions in many of the available vocational education offerings. We find GAIN clients being identified and served in this labor market area through multiple agencies each providing different services.

Industry Training and the Community Colleges. There is an Employment Training Unit that is part of the Chancellor's office of the community college system. The goal of the training is employment, not education. The unit was created in fiscal year 1982-83 and in response to the shutdown of California's smokestack industries. Initial funding

was at $2 million, which has expanded to $3.9 million. Another $2.5 million comes from industry, $1.13 million from the individual community colleges, and $300,000 from other sources. The monies are allocated on an RFP basis.

Approximately 70 requests come in each year, with about 25 receiving funding. The program's goals involve 80% student completion rate with 90% placement. A key factor in choosing the projects to be funded is industry support. Many of the projects funded were designed with the assistance of local employers who had specific training needs. Others enhanced college offerings in particular technical specialty areas that meet the needs of a dominant industry in the college's service area. In 1986-87 fiscal year, 27 projects were funded. All but 3 of these projects involved training in "high tech" fields. In 1986-87, 2100 students received training or retraining through these programs. The majority of these students were while males. Seventy percent of program participants were while at 68% were male. The greatest proportion of female students came from a single program for Home Day Care providers. The community college in this case study is not a recipient of an Employment Training Unit grant.

III. ELEMENTARY AND SECONDARY EDUCATION JURISDICTIONS

FUSD

We will examine two K-12 school districts, the F Unified School District (FUSD) and C Unified School District (CUSD), in the F/C metropolitan area.

FUSD has a total enrollment of 64,000 students and 15,000 of them are at the secondary level. There are eight high schools. One is a vocational magnet school and one is a school for at-risk students. The other six are comprehensive high schools. Two of the comprehensive high schools also contain school-within-a-school magnets--one is a performing arts magnet and the other is a computer/technical/math magnet. Smaller programs for at-risk students are housed on the campuses of five of the comprehensive high schools. Table 1 provides summary information about the high schools.

Table 1.

Percent of Students Enrolled Having Each Characteristic by Secondary School

Secondary School Codes	Total Enrollment	Percent			
		Minority	AFDC Eligible	Limited English	Low Achieving
E	1,227	77	53	11	53
R	2,449	74	43	24	68
F	2,748	55	32	21	57
M	2,259	54	45	25	60
H	2,000	40	12	8	44
B	2,148	25	2	2	28
Voc Magnet	890	65	31	18	67
At-risk	335	59	44	26	87

These statistics do not include students in the at-risk programs at the comprehensive high schools; however, in each case, such students number less than 100. Also, the percentage of low achieving students in school R does not include students in the performing arts magnet housed in that school.

As can be seen from this table, two of the comprehensive schools are quite affluent, and have a predominance of white students. Another two comprehensive schools are more mixed both in terms of affluence and ethnicity. The last two schools, both of which have school-within-a-school magnets in addition to serving neighborhood populations, are in poorer areas of the city containing higher proportions of minorities. School E, which houses the computer/technical magnet, is in a principally black area (42% black enrollment). School R, which houses the performing arts magnet, is in a principally Hispanic area (47% Hispanic enrollment).

Districtwide there are about 12,000 limited English proficient (LEP) students in the district. Eighty percent of these are Hispanic and Hmong; the remaining 20% are mostly other Southeast Asian language speakers. LEP students are not evenly distributed across the schools, with the highest concentrations at schools R, M, and F. As stated above, the student body of school R is heavily Hispanic. School F also has a large Hispanic population. The highest concentrations of Asian LEP students are found at schools R and M.

The vocational school contains about 1,600 students, about 890 of whom are full-time high school students. The others are students attending vocational education classes at the school for part of the day and taking their academic courses at their home high school.

Table 2 presents the 2-hour vocational education classes at each of the secondary schools. These courses are generally for students who are enrolled at the school offering the course, but exceptions can be made to this rule when time and scheduling permit.

Table 3 presents the 3-hour vocational education courses that are available in the district. All but three are located on the campus of the vocational magnet school. The 3-hour courses are open to all students in the district regardless of their home school. Note that those courses marked with an asterisk are supported by the Regional Occupational Center.

Table 2

Two-Hour Vocational Courses Offered at Each Secondary School in FUSD

School/Course	Grade	Program Length	Semester Units
SCHOOL B			
Work Experience Education	10-12		1-10
Work Experience Ed (Migrant)	10-12		1-10
SCHOOL FOR AT-RISK			
Employability Skills	10-12	1 semester	5
Work Experience Education	10-12		1-10
Work Experience Ed (Migrant)	10-12		1-10
VOCATIONAL MAGNET			
Ag Mechanics I & II	9-12	1 year	5
Micro Computer Accounting	11-12	1 year	10
Work Experience Education	10-12		1-10
SCHOOL E			
Child Care Attendant	10-12	1 year	10
Employability Skills	10-12	1 semester	5
Work Experience Education	10-12		1-10
SCHOOL F			
Intro to Ag Science	9-12	1 year	5
Auto Technician	10-12	1 year	10
Business Office Careers	11-12	1 year	10
Retail Occupations	10-11	2 semesters	10
Work Experience Education	10-12		1-10
Work Experience Ed (Migrant)	10-12		1-10

Table 2 (cont'd)
Two-Hour Vocational Courses Offered at Each Secondary School in FUSD

School/Course	Grade	Program Length	Semester Units
SCHOOL P			
Auto Technician	12	1 year	10
Business Office Careers	12	1 year	10
Child Care Attendant	10-12	1 year	10
Computer-Assisted Drafting	11-12	2 years	10
Work Experience Education	10-12		1-10
Work Experience Ed (Migrant)	10-12		1-10
SCHOOL M			
Intro to Ag Science	9-12	1 year	5
Auto Technician	12	1 year	10
Business Office Careers	12	1 year	10
Employability Skills	10-12	1 semester	5
Work Experience Education	10-12		1-10
Work Experience Ed (Migrant)	10-12		1-10
SCHOOL R			
Auto Technician	12	1 year	10
Business Office Careers	12	1 year	10
Child Care Attendant	10-12	1 year	10
Employability Skills	10-12	1 semester	5
Work Experience Education	10-12		1-10
Work Experience Ed (Migrant)	10-12		1-10

Table 3

Three-Hour Vocational Education Classes Offered at Each Secondary School in FUSD

School/Course	Grade	Program Length	Semester Units
VOCATIONAL MAGNET			
Ag Farm Lab			
Ag Equipment Repair	11-12	2 semesters	15
Forestry	10-12	4 semesters	15
Livestock Production	10-12	2 semesters	15
Landscape/OH	10-12	2 semesters	15
Supv Ag Projects	9-12	Arr.	1-5
Crop Management	10-12	2 semesters	15
*Banking and Finance	12	1 year	15
*Building Trades	11-12	2 semesters	15
*Cabinetmaking	11-12	2 semesters	15
*Child Care Occupations	11-12	2 semesters	15
*Electronic Ofc/Word Proc	11-12	2 semesters	15
*Electronics I and II	11-12	2 years	15
*Emergency Medical Tech	12	1 semester	15
*Fashion Merchandising	12	1 year	15
*Graphics/Printing I	11-12	2 semesters	15
Graphics/Printing II	11-12	2 semesters	15
*Hotel/Motel Occupations	11-12	2 semesters	15
*Inside/Outside Maintenance	12	1 semester	15
*Legal Secretary	12	1 year	15
*Medical Assistant	12	1 year	15
*Medical Lab Assistant	11-12	2 semesters	15
*Medical Office Specialist	11-12	2 semesters	15
*Nursing Acute (Spring)	11-12	1 semester	15
*Nursing Assistant (Fall)	11-12	1 semester	15
*Police Science	11-12	2 semesters	15
*Refrigeration/Air Cond I	11-12	1 year	15
Refrigeration/Air Cond II	12	1 year	15
*Restaurant Occupations	11-12	2 semesters	15
*Retail Sales Merchandising	11-12	2 semesters	15
Small Business Management	10-12	2 semesters	15

Table 3 (cont'd)

Three-Hour Vocational Education Classes Offered at Each Secondary School in FUSD

School/Course	Grade	Program Length	Semester Units
SCHOOL E			
Auto Mechanics I and II	10-12	4 semesters	15
*Body and Fender I and II	11-12	4 semesters	15
*Welding I and II	11-12	4 semesters	15

*Regional Occupation Center Courses

CUSD

CUSD and FUSD are neighboring school districts. The town of C, while a suburb of F, still retains much of its rural character. CUSD has an average daily attendance of 18,000, having grown from 7,000 students in 1960. The racial ethnic composition of the student population is as follows: 74% white, 17% Hispanic, 6% Asian, 1% Black, 2% other. The dropout rate in the CUSD is estimated to be about 5% compared to 35% to 40% in the FUSD.

There are two comprehensive high schools, C1 and C2, and a school for at-risk students (AR). The comprehensive high schools contain about 2,500 students each and the school for at-risk students has an average daily attendance of about 250 students.

To meet graduation requirements, students in the district must take five semesters (25 units) of elective credits either in an academic course strand or a vocational education course strand. At C1 and C2 the specific career clusters that fulfill the vocational education graduation requirement include:

Agriculture (only offered at C1)

- Horticulture - Ag science 1AB and 3AB, floral design, and nursery work experience
- Landscape gardener - Ag science 1AB, 3AB, and 4AB, welding and landscaping work experience
- Farmstock livestock - Ag science 1AB and 2AB, Ag mechanics*, welding, agricultural work experience

Business/Office

- Secretary - Business common core, typing 1AB and 2AB, office core, information processing*
- Clerk Typist - Business common core, typing 1AB and 2AB, office core/office procedures
- Word Processing - Machine Operator - Business common core, typing 1AB and 2AB, office core, simulated office, information processing*

- General Clerk - Typing 1AB, business common core, accounting 1AB and 2AB, micro information processing

- Bookkeeper - Typing 1AB, business common core, accounting 1AB and 2AB, micro information processing

- Computer Operator - Typing 1AB, business common core, office core, simulated office, word processing/information processing*, micro information processing*

- Marketing - Sales Clerk - Typing 1AB, business common core, market management 1AB and 2AB

Home Economics

- Teacher, Preschool

  Child development, basic foods, sociology of family living, child care occupations*

- Nursery school attendant

  Basic foods, child development, child care occupations*

Industrial Education

- Automobile Mechanic

  Auto I, II and III, auto lab, beginning metal welding

- Automobile-Body Repairman

  Auto I, Beginning metal-welding, auto lab

- Carpenter

  Basic woodworking, advanced woodworking, building trades*

- Cabinet Maker

  Basic and advanced woodworking, cabinet making*

- Engineering

  Drafting, graphics, design plus suggested math and science courses

- Architecture

  Drafting, graphics, design, architecture, computer assisted drafting/design (CADD)*, plus suggested math and science courses

The asterisk (*) indicates that these courses are offered through the Regional Occupation Center.

At-risk students may attend school AR for only one semester and then must return to their home high school. During the year, school AR serves as many as 600 different students. In addition, School AR is the site of the independent study program which involves about 300 students, who work part or full-time or are pregnant or have children.

Regional Occupation Center/Program

Regional Occupation Center/Program (ROC/P) is a department of the county office of education that provides vocational education programs for youth and adults. ROC/Ps exist throughout the state and receive separate funding based on average daily attendance directly from the State Department of Education. The F Metropolitan Regional Occupational Center/Program serves a total of 16 school districts, including the two in this case study.

A limited number (5) of vocational education programs are offered at the site of the Regional Occupation Center located in the major city of F. Of the 50 programs offered by ROC/P, the majority of them are located on the campuses of the high schools in the case study sites. (The others are located in the 14 school districts served by the ROC not included in the case study.) The vocational magnet school in District F offers 21 vocational courses through the ROC/P, and High School E offers two. In district C, there are two ROC/P courses offered at high school C1 and four at school C2. Most ROC/P courses are in time blocks of two to three hours. Table 4 shows the specific course offerings available through the ROC/P at each site.

Table 4

Vocational Education Courses Offered

by the Regional Occupation Center/Program by Location

	LOCATION					
	ADULT SCHOOL	ROC	VOC MAGNET	C1	C2	E
VOCATIONAL COURSE						
Auto Collision Repair						X
Banking & Finance	X		X			
Building Trades			X	X		
Cabinet Making			X	X		
Child Care Occupations			X			
Computer Assisted Drafting					X	
Computer Assisted Drafting (upgrade)	X				X	
Custodial/Maintenance Occupations			X			
Electronic Office			X			
Electronics			X			
Emergency Medical Tech	X		X			
Fashion Merchandising	X		X			
Floral Occupations	X		X			
Furniture Upholstery		X				
Graphics/Printing			X			
Hotel/Motel Occupations			X			
Information/Word Processing	X					X
Legal Office Secretary	X		X			
Medical Assistant	X		X			
Medical Lab Assistant			X			
Nursing Assistant/Home Health Aide		X	X			X

Table 4 (cont'd)
Vocational Education Courses Offered
by the Regional Occupation Center/Program by Location

	LOCATION					
	ADULT SCHOOL	ROC	VOC MAGNET	C1	C2	E
VOCATIONAL COURSE						
Nursing Assistant (Acute)			X			
Office Training		X				
Police Science			X			
Refrigeration/Solar Technician			X			
Retail Sales			X			
Restaurant Occupations			X			
School Bus Driver		X				
Vehicle Upholstery		X				
Welding						X

About 881 adults are enrolled in ROC/P courses, some of whom attend classes with the secondary students on the high school campuses during the day. Nearly 60% of the adults are female and 38% are minority.

The View of Vocational Education Within Each District

The district superintendent in CUSD has held this position in the district for over 25 years. As early as 1970, he established rigorous academic standards for students. One district goal is that 90% of the students will perform at or above grade level on a standardized test and another is that 90% of the students will take a high school program that will allow them to be eligible for college admissions. Indeed, the district claims that it meets these goals annually and that 60-70% of its students go to college.

We were told that unlike other districts (or at the state department of education) where vocational education sees itself being frozen out by academic reforms, CUSD views vocational education as not separate from academics, but rather as applied 3Rs. All secondary students in the district must take 25 elective units to graduate. They may choose between academic courses (e.g., foreign language) or a *particular vocational education sequence*. This 25 unit commitment may not be a mixture of academic and vocational courses.

The superintendent of FUSD is supportive of vocational education and believes that there needs to be a variety of education programs. He disagrees with those who might say such things as "everybody needs algebra." He is concerned about students in the forgotten middle. He believes there is a lot of emphasis on and funding for the students in the bottom and top quartiles and that for many students in the middle vocational education fits comfortably into their goals.

As part of voluntary desegregation efforts FUSD instituted two school-within-a-school magnet programs and opened a vocational magnet school on the site of a former junior high school. The vocational high school has been in operation for 3 years and has been well subsidized. The district took the political risk that a vocational school would be sufficiently attractive to the community that it would draw a variety of students to achieve racial balance. The strategy is viewed as having been a success.

Relationship Between the State and the Districts

The state has a regional office located in the F/C metropolitan area. Staff from both districts feel they have ready access to state personnel both at the regional- and state-office levels. District personnel speak well of the quality of the state's work on the model curriculum. (It was developed with extensive input from the field and the vocational education coordinators from both case study districts were involved in the development stages.)

Relationship Between the County and the District

The County Office of Education operates the Regional Occupation Program/Center. As noted earlier, it provides 50 different vocational courses, which are located primarily on the campuses of the secondary schools. The county and the districts have worked out arrangements for allocating average daily attendance between schools and the ROP/C; sharing facilities, equipment, and staff; arranging schedules for courses; and determining the courses to offer. These arrangements seem to work well and we heard no complaints from any of the groups involved.

IV. POSTSECONDARY EDUCATIONAL INSTITUTIONS

The Community College

The major community college in the metropolitan area is FCC, which enrolls over 15,000 students. FCC and a second community college comprise a community college district that serves 17 unified and high school districts in four counties. Enrollment in the community colleges is open to any person who is a high school graduate or who is 18 years of age or over and able to benefit from appropriate programs. Enrollment is also open to high school students who qualify for advanced placement.

Presently the racial ethnic distribution of the student body at FCC is as follows: 58% white, 19% Hispanic, 7% black, and 1% Asian. There are about 5,000 students enrolled full time and about 10,000 students enrolled part time. The median age is 26 years old and 59% of the enrollment is female. About 46% of the FCC students indicate that they come from households with combined incomes of less than $15,000. Nearly 1200 students receive some form of financial aide.

Nearly 68% of the enrolling freshmen in 1985-86 scored below college level on the English examination. The ACT and SAT test scores of entering freshmen have declined dramatically during the past several years. The college attrition rate exceeds 50% between entering freshmen and completing sophomores. Dropout rates among Hispanic students are higher than for the general population.

Tuition was introduced in California Community Colleges for the first time in 1984. Tuition is current $5 per unit for state residents ($91 for non-residents).

The distribution of students across vocational programs by racial/ethnic background, is presented in Table 5 and by percent handicapped, percent limited-English proficient, and percent disadvantaged in Table 6.

In addition, the college also has state approved apprenticeship classe. in Diesel, Electricity, Meat Cutting, Paint and Decoration, Plaster and Masonry, Roofing, and Sheet Metal. Enrollment in such classes is restricted to students working in the particular trades and must be approved by the Director of Apprenticeship Training.

The FCC also operates a Vocational Training Center (VTC) located in an economically depressed area. Its mission is to retrain displaced employees or to train new entrants to the labor force. Enrollment at the VTC is about 250 students. All classes at the VTC are offered only during the day time in six-hour blocks. Entry and exit are open, and programs take 6 to 9 months to complete. There is no tuition or registration fee at the Vocational Training Center. The center offers no-credit vocational classes in Auto Mechanics, Body and Fender, Clerical Training, and Maintenance Mechanic. All classes require that a student test at about the fourth grade level on a short English placement test.

Table 5

F Community College Enrollment in Vocational Education

	Total	% Asian	% Black	% Hispanic	% White
Acco	563	6.2	4.8	16.5	57.4
Banking	21	4.8	9.5	23.8	52.4
Business Management	1158	4.5	5.6	11.3	60.5
Marketing & Distribution	298	4.4	4.4	12.4	65.8
Real Estate	393	3.8	2.8	7.9	72.3
Secretary	148	10.8	7.4	23.0	39.9
Legal	15	6.7	6.7	13.3	60.0
Medical	132	8.3	10.6	12.9	37.9
Clerical	437	11.2	11.2	14.6	41.9
DP	584	6.8	7.4	11.6	54.3
Tech and Occu	44	27.3	4.5	20.5	31.8
Electronics	68	17.6	8.8	13.2	29.4
Industrial Elect	238	25.6	2.9	10.9	47.1
Electrical-Power	53	9.4	1.9	5.7	67.9
Environmental Control	64	7.8	0.0	15.6	51.6
Auto Mechanic	282	9.9	2.1	11.0	50.0
Body-Fender	59	16.9	1.7	8.5	42.4
Commercial Pilot	37	0.0	0.0	8.1	81.1
Carpentry	30	0.0	6.7	26.7	53.3
Mill Cabinet	41	2.4	9.8	14.6	51.2
Drafting	182	7.7	1.6	11.0	60.4
Architectural	117	7.7	4.3	10.3	61.5
Industrial Tech	34	8.8	5.9	11.8	38.2
Machine Tool	37	29.7	0.0	5.4	21.6
Welding and Cut	103	8.7	7.8	14.6	52.4
Civil and Construction	21	4.8	9.5	14.3	47.6
Graphic Arts	437	3.4	1.1	13.5	66.6
RN	127	1.6	5.5	12.6	69.3
LVN	16	31.3	6.3	25.0	31.3
Medical Assistant	16	0.0	0.0	12.5	62.5
Dental Hygienist	40	2.5	0.0	5.0	90.0
Respiratory Therapy	26	3.8	0.0	26.9	61.5
Medical Record	184	8.7	9.8	12.5	54.9
Radiological Technician	48	4.2	6.3	14.6	66.7
Child Development	924	2.7	10.7	14.0	57.6
Foods, Nutrition	243	4.9	10.3	12.8	55.1
Legal Assistant	95	1.1	5.3	8.4	72.6
Social Worker	269	6.3	20.1	16.7	38.3
Administration of Justice	1195	2.1	6.9	14.7	61.0
Educational Aide	98	10.2	8.2	11.2	54.1
Recreation Assistant	49	0.0	26.5	4.1	57.1
Fire and Safety	69	2.9	1.4	8.7	65.2
Fire Academy	42	0.0	2.4	4.8	76.2
Cosmetology	48	2.1	2.1	14.6	70.8
Consumer & Home	143	2.1	11.2	14.7	55.2
Cloth & Textiles	70	5.7	12.9	12.9	54.3
	9319				

Table 6

F Community College Enrollment in Vocational Education

	Total	% Handicapped	% LEP	% Disadvantaged
Acco	563	2.3	14.9	15.6
Banking	21	4.8	19.0	19.5
Business Management	1158	1.8	12.8	15.4
Marketing & Distribution	298	1.3	11.4	14.8
Real Estate	393	1.5	8.4	11.2
Secretary	148	1.4	20.3	37.2
Legal	15	6.7	13.3	20.0
Medical	132	6.1	22.0	34.1
Clerical	437	3.4	28.4	38.7
DP	584	3.4	16.1	20.4
Tech and Occu	44	4.5	34.1	36.4
Electronics	68	10.3	29.4	52.9
Industrial Elect	238	5.0	29.0	29.4
Electrical-Power	53	0.0	13.2	13.2
Environmental Control	64	3.1	12.5	28.1
Auto Mechanic	282	2.1	12.8	25.9
Body Fender	59	0.0	18.6	22.0
Commercial Pilot	37	2.7	2.7	13.5
Carpentry	13	3.3	6.7	20.0
Mill Cabinet	41	7.3	14.6	34.1
Drafting	182	2.2	13.2	19.8
Architectural	117	4.3	12.8	22.2
Industrial Tech	34	0.0	23.5	8.8
Machine Tool	37	5.4	29.7	40.5
Welding	103	3.9	18.4	17.5
Civil & Construction	21	0.0	14.3	9.5
Graphic Arts	437	2.7	6.9	14.4
RN	127	0.8	7.9	4.7
LVN	16	0.0	37.5	12.5
Medical Asst	16	0.0	0.0	31.3
Dental Hygienist	40	0.0	2.5	12.5
Respiratory Therapy	26	3.8	3.8	15.4
Medical Record	184	3.8	19.0	31.5
Radiological Tech	48	2.1	10.4	6.3
Child Development	924	3.0	15.3	25.2
Foods, Nutrition	243	1.6	16.5	23.9
Legal Assistant	95	4.2	7.4	10.5
Social Worker	269	9.7	30.1	36.1
Admin. of Justice	1195	0.6	10.6	11.1
Educational Aide	98	6.1	19.4	22.4
Recreation Assist	49	4.1	26.5	26.5
Fire and Safety	69	0.0	7.2	17.4
Fire Academy	42	0.0	2.4	9.5
Cosmetology	48	0.0	10.4	14.6
Consumer & Home	143	3.5	14.7	21.0
Clothing & Textiles	70	1.4	18.6	17.1

ROP/C

The Regional Occupational Center/Program provides vocational education training to adults as well as youth. There are about 881 adults enrolled. Of these, 522 (59%) are female and 334 (38%) are minorities.

The ROC/P charges *no* tuition. While the community college is on a semester system, the ROC/P is more or less open entry-open exit. Finally, the *ROP/C has many locations* throughout the three counties (see secondary-level description).

The ROC/P and the FCC serve somewhat different types of students. We were told that the ROC/P students usually are those who come simply to get a job or upgrade skills, while FCC students are more likely to be "degree conscious" and have longer term ambitions. The ROP/C encourages their students to continue at FCC after completing programs at the ROP/C.

Adult School

FUSD operates an adult school which has an enrollment of over 4,000 students. The school offers business classes, such as typing, bookkeeping, accounting, and shorthand. With the exception of typing, these classes are only offered at nights and are not offered during the summer. According to district personnel, the only serious occupational training programs are cosmetology and barbering which are held on-site at a beauty college. The campus that houses the adult school also houses the "newcomer school" which all students who are new to the county must attend until they have survival English skills. Students who have basic English skills upon arrival transfer to their neighborhood school after merely showing some documentation at the newcomer school, while other students stay up to one semester learning English.

CUSD runs an adult school that offers a vocational education certificate program in business in addition to adult basic education, ESL, and community education classes. There are currently about 150 students in the business program, most of whom are female. Students tend to be displaced homemakers, GAIN students who are being retrained, people making career changes, and hearing impaired adults. Adult school students may also take classes at the ROC.

Postsecondary-Secondary Relationships

Articulation. Articulation allows high school credit to be used at the community college level after twelve units of successful work have been completed. Students do not have to repeat basic courses at the community college that they have already taken in high school. The student has to apply for articulation, credits do not transfer automatically.

After five years of negotiation, FUSD, CUSD, the ROC/P, and the community college have worked out the details of an articulation agreement for electronics and drafting. Next, articulation agreements will be worked out for automotive and child care.

The process of negotiating the articulation agreements involved comparing the curriculum course by course and unit by unit across institutions. To make the curriculum comparable across institutions has meant that both the CC and the school district have had to change course descriptions.

V. PROPRIETARY, TRADE SCHOOLS, AND COMMUNITY-BASED ORGANIZATIONS

Proprietary and Trade Schools

There are over 20 proprietary and trade schools in the metropolitan area. Nearly half of them offer business training and one-third offer technical training. Most of these have day and evening classes and offer help to students to obtain financial assistance. The program offerings appear to be of short duration, some 4 months (dental assisting), 6 months (fashion design and merchandising), 10 months (cosmetology) and one school offers an associates degree in 18 months. Limited resources made it impossible to obtain information about the characteristics of the students who enroll, the tuition charged, the quality of the training provided, or the placement rate of graduates.

Community-Based Organizations.

The Private Industry Council (PIC) has seven service providers within the metropolitan area and all are community-based organizations. Examples of well-known community based organizations include the YMCA, Boy Scouts of America, and the Opportunities Industrial Center of America. The JTPA-8% funds are given to GAIN. (The county was the first in the state to get its GAIN program into operation.) Nearly 99% of GAIN participants are eligible for JTPA. GAIN now pays for such things as child care, transportation, and medical, and JTPA pays only for training.

The GAIN unit contracts with the community college to provide actual vocational training. Most of the GAIN students attend the Vocational Training Center of the FCC. While they can go into a two-year program, it usually takes more than two years for them to get their degree and JTPA has a two-year limit on the duration of the support it will provide. Students can apply for a time extension however.

We were told that over 65% of the GAIN participants are unable to read well enough to profit from further job training. This widespread need for remedial education among this population came as a surprise to the service providers. The FUSD, under contract to the GAIN unit, has been brought in to provide remedial education services. The remedial services are provided at the Adult School which also offers ESL and GED preparation. Halfway through a course, JTPA will review a student's progress and attendance. The district will notify JTPA when a student has successfully completed the course.

V. EMPLOYER-BASED TRAINING

The suburban school district, CUSD, has been actively promoting employer-based training activities since 1984. These promotional activities result in $2 to $3 million dollars annually flowing through the district. The district has also acquired equipment through the contracts (e.g., computers for drafting) in order to provide the specific training desired by the employer.

Initially, the CUSD became involved with the Employment Training Panel (ETP) as a subcontractor in the area of agriculture. During 1984-85 they trained over 147 farm laborers in job-expanding areas for five different clients. In 1985, they obtained their first independent ETP contract in Computer Assisted Drafting/Design. Since then they have trained over 200 professionals from over 20 employers. Both the CAD/D and agriculture-related work continue to be ongoing areas of activity. In 1986, the district obtained an Automated Office (computer training) contract with ETP. It involves training 50 employees from 12 employers. The district has done a survey of the training needs of local employers and actively seeks partnerships and training with local business.

The community college also engages in a sizable amount of employer specific training, but not through ETP. The latest effort underway involves retraining employees of the telephone company. The training is conducted at the employer's facility. One hour of training is done on company time and two hours are done on the employee's own time. The community college expects to train workers for a steel mill and a cotton mill that will be opening in the future.

In contrast to the employer-specific training activity generated by CUSD and the community college, the Private Industry Council representative indicated to us that "local employers do not need employer-specific training because there is little manufacturing in the area. Sometimes when a new employer enters the area this type of training is done, but ETP will do it if needed." This comment was at variance with the training activities going on in the area.

The PIC has recently participated in a study of employer demand conducted with the Employment Development Department and another study of labor supply, conducted by a consortium of the community college, JTPA, Employment Development Department, the State Department of Education, and other agencies. Through this effort they have identified 100 entry-level occupations that will be in demand in the local area. (No training is to be provided through JTPA in occupations that are not in demand.) There was no indication, however, that the PIC was going to examine this information to identify possible employer specific training needs.

VI. DATA REQUIREMENTS AND AVAILABILITY

Date on student enrollments in vocational education were much more readily available in FUSD, the urban district, than in CUSD, the suburban district. FUSD has a centralized computerized database on all students in the district that includes virtually any item that would be of interest to researchers. Grades, test scores, economic and academic disadvantage, and participation in various programs are among the types of items in the data base. As a result, FUSD was able to provide data on total student enrollment, ethnicity, AFDC counts, and enrollment in vocational classes by ethnicity for each school in the district. They were also readily able to provide the number of pregnant and parent students enrolled in parenting centers.

While FUSD staff were able to answer questions concerning program statistics readily and support them with data from the computerized database, CUSD staff appeared not to know many relevant statistics off hand or where to get them. Data appear to be collected and kept in a rather haphazard fashion; there is no centralized database. Thus, when asked to provide a description of the students enrolled in vocational education, CUSD staff referred us to vocational education guidance counselors at the two high schools who in turn provided us with Attachments 1 through 3. Attachment 1 is a state form that must be completed for every school. At the bottom of the form, vocational education enrollment is broken down by gender and ethnicity. The form was provided only for one of the two comprehensive high schools in the district. For the other comprehensive high school, the guidance counselor offered Attachment 2 and a document containing Attachment 3. The handwritten Attachment 2 gives no breakdown by ethnicity but does show enrollments of handicapped and disadvantaged students in vocational education by gender and grade. The counselor did not know whether counts were duplicated or unduplicated. Attachment 3 is one page of a document that lists enrollment by gender and ethnicity in each vocational education class. Thus, duplicated counts of enrollments by gender and ethnicity may be generated, and patterns of enrollment in particular classes may be computed from these forms. While it was clear that summary information had to exist for both schools, since the CBEDS form provided for school 1 is required by the state, CUSD could not easily provide all the information contained in Attachments 1-3 for both schools.

What neither district was able to provide was data on the enrollment patterns of special populations in vocational education. This was requested from both districts. It seems unlikely that CUSD simply did not collect such data. Whether FUSD did not provide the information because it was not readily available on the computerized database or because of some other reason--such as it being a low priority item or fear concerning the use of the information, etc.--is unclear.

Like FUSD, FCC has detailed computerized databases on students. Thus, it was able to provide data on enrollment patterns of various groups in the institution as a whole and in vocational education programs. Unlike FUSD, the college did keep statistics on the numbers of disadvantaged, migrant, LEP, and handicapped individuals, enrolled in particular classes.

Definitions. While we found a fair amount of agreement at the secondary level as to what constitutes "economically disadvantaged" students, there was less consensus as to the criteria for being "academically disadvantaged." In CUSD, academically disadvantaged students are identified by grades in academic classes. Within FUSD there seemed to be some disagreement or lack of knowledge as to how academically disadvantaged students are defined. The Director of Vocational Education indicated that academically disadvantaged students are identified by C grades or lower, scoring below the 25th percentile on standardized tests, and/or a teacher's judgment that the student "needs help." The district data processing office, however, stated that only students who score below the 36th percentile in reading, English, or math are considered academically disadvantaged.

At FCC, various definitions of economic disadvantage are used for different purposes. The college collects statistics on family income and reports the proportion of its students with family incomes below $15,000. It also maintains data on who receives financial aid, and on GAIN and JTPA students. Academic disadvantage is determined by a placement test that virtually all students must take upon entrance. Students scoring below certain cutoff points in English and math placement tests are considered academically disadvantaged and must take remedial classes.

In addition to problems regarding definitions of various types of special categories of students, there is also some disagreement across institutions over who is a vocational student and which classes are vocational classes. Vocational classes in CUSD include all classes in agriculture, business/office, home economics, and industrial education. In contrast, in FUSD, a class must be at least two hours long in order to be considered a vocational class. Thus, a host of classes that might be considered vocational elsewhere are not "vocational classes" in FUSD. For instance, one hour classes in business communications, various typing classes, record keeping/mathematics, clothing and fashions, foods and nutrition, auto mechanics I and II, auto technician, drafting I and II are only a few of the classes that are not "vocational", while multi-hour classes in agriculture, banking and finance, legal secretary, retail sales, health care, auto technician, and auto mechanics are among the classes that are "vocational." FCC staff did not indicate how they distinguish between vocational classes and other classes.

If the broad objectives are to understand enrollment patterns of special populations and to influence these patterns if necessary through the provisions of special services, standardized definitions and data collection procedures would be helpful. Standardized definitions of "handicapped", "disadvantaged", "vocational class", and "vocational student" would ensure that the intended populations ar actually being counted and served. Standardized data collection and reporting procedures would not only ensure that all institutions and districts are gathering the same data, they would also focus the attention of the districts on particular groups and issues.

VII. THE DISADVANTAGED AND THE WORK-RELATED AND TRAINING SYSTEM

Secondary Level

FUSD. All 9th grade students in the district take a career assessment test and a unit dealing with career planning. Every student is entitled to receive vocational counseling at that time; disadvantaged students are entitled to services from a special counselor, and 14 paraprofessionals who serve only disadvantaged students. The required 10th grade English curriculum contains a resume writing unit, and at that time another assessment instrument is administered. Additional assessments are administered in 11th

and 12th grades. Throughout high school, special career technicians (who are paraprofessionals) and one professional counselor are available to disadvantaged students.

At the vocational high school, ROC/P provides liaison services with JTPA agencies as well as the Department of Rehabilitation and the Department of Social Services, according to the ROC/P brochure. Limited job placement services are also offered at the ROP/C. Every program at the ROC/P contains a pre-employment skills component (application, resume, interviews, job market, grooming). It is unclear whether similar services are provided in the comprehensive high schools.

Students on all secondary-school campuses except those for At-Risk students have access to introductory business courses, industrial arts (drafting, metals, woods), home economics (food and nutrition, sociology for living), agriculture (livestock production, agricultural equipment repair), and medical. These courses are for one-period a day.

Most students wanting to take other courses must attend part-time ROP classes at the vocational high school or at another ROP site. Transportation to ROP classes is provided either by school district bus or by token for the city busses.

There is competition among students for full-day slots at the vocational school. About 5% of those who apply are rejected. The vocational school requires that students have "good" grades, behavior, and attendance records in their sending schools. Students who have been absent more than 20 days in a year may not attend the school, regardless of the reason for absence. Once admitted, students must maintain good attendance and grades. These requirements were criticized by personnel at other schools in the district, accusing the vocational high school of "creaming" in order to achieve high success rates. (It should be noted that students may attend vocational classes at the vocational school on a part-time basis without meeting these requirements.) The demographic statistics for the vocational school indicate, however, that the percent minority is 5 points higher than the districtwide average and only two schools have a higher percentage of educationally disadvantaged students.

The vocational high school has only one ESL class. Personnel at the school stated that students are expected to "make it in regular classes." (We were not given information on ESL programs in other schools.) While it might be expected that the absence of ESL classes would lower the LEP population of the school, the LEP population of the school is actually quite high. Approximately 39% of the students are first generation Southeast Asian immigrants and are LEP, and another 15-25% of the students speak Spanish at home, according to the principal of the school. (Official district LEP figures shown above show a smaller percentage of LEP students: 18.3%; however, these figures do not include part-time students.)

The vocational school has the capacity to enroll 1000 full-time students. A cap is placed on enrollment levels which has been allowed to decrease by 100 students each year to its present level of 890 full-time students. The vocational school has a CAI lab open to all academically disadvantaged students. The lab has software for four courses (basic math, etc.) to help low achieving students.

Perhaps the students who are the most disadvantaged are those who attend the school for at-risk youth. These high risk students have been referred to this facility because of attendance problems, low academic levels, low self-esteem, and economic problems. Students must attend a minimum of three hours per day. Most attend four or five hours. It is open entry-open exit and offers small class sizes of about fifteen students, with an understanding faculty. At such schools, one does not encounter organized sports, student government, or other types of extra-curricular activities.

The school for at-risk youth offers a number of limited vocational education classes. It has a business program which includes business math, recordkeeping, word processing, and accounting. Crafts and woodshop classes are also available. Although at-risk students are permitted to attend ROP/C classes at the vocational school, few of them elect to do so. The principal says that it would make the school day too long--these students have other needs. He thinks it might help to have more vocational education classes on the campus, but he's not sure.

Minorities. One district person in FUSD indicated that "black and brown" students tend to be underrepresented in vocational education, and that they "have not realized the value of vocational education." On the other hand, the fact that over half of the stu-

dents at the vocational high school are minorities seems to contradict this statement. An analysis of data on some vocational educational classes at a subset of schools in the district, shows no systematic patterns in terms of minorities being over or underrepresented in particular vocational education areas. That is, minorities are not clustered in crafts or business, for instance. With the exception of the following classes, minority students make up about the same proportion of the classes as they do in the district as a whole. Data show the following patterns among ethnic groups.

> Whites are overrepresented in Agriculture, Building Trades, Medical Office, Hotel/Motel, and Legal Office classes.
>
> Asians are overrepresented in Accounting and Auto Body classes.
>
> Blacks are underrepresented in Agriculture, Accounting, and Drafting classes.
>
> Hispanics are underrepresented in Agriculture, but are about justly represented in most areas.

CUSD. Approximately 150 students are enrolled in ROP/C classes in CUSD. These include building trades, cabinet making, and computer-assisted drafting. Students from the comprehensive high schools in the CUSD are not permitted to enroll in ROC/P courses at the vocational magnet school in the FUSD even though the campuses are perhaps only a 30 minute drive from one another. CUSD students are much more restricted than FUSD students in their choice of vocational education program offerings. The requirement to take a 25-unit elective strand in either academic or vocational courses has resulted in a decline in the proportion of the general student population enrolling in vocational education classes. About 75% of students in the CUSD choose academic electives and 25% choose a vocational education sequence.

The vocational education offerings available at the school for at-risk youth are limited to self-awareness, business communication, homemaking, prevocational training classes and work experience. The qualifying academic elective courses are not offered, therefore all AR students must take these low-end vocational classes during their semester enrollment at AR or attend one of the three ROC/P courses on the comprehensive high school campuses.

Overview at the Secondary Level. At the secondary level, many disadvantaged students in FUSD appear to have access to the advanced vocational offerings available through the ROP/C at the vocational magnet school. Enrollments for various types of disadvantaged students are higher at that magnet than for the district as a whole. Support services, such as assessment and counseling for disadvantaged students and a remedial skills laboratory are at the vocational school to meet their special needs. While there are some admission requirements for full-time enrollment mostly involving past attendance records, all types of students may enroll part time. One ESL class is available for limited-English proficient students, but no other types of special supplementary services are provided for this group. LEP students are overrepresented at the magnet school, despite the lack of services.

The range of vocational programs available to students in CUSD is much more restricted than that in FUSD. One-fourth of the secondary students in the district take the 25-unit vocational strand, including the disadvantaged students who spend a semester at the school for at-risk students.

Both districts have created special purpose institutions to serve those students most at-risk who have not been able to function well in their comprehensive high schools. These students are likely to be among the most disadvantaged in their districts. The vocational offerings available at the special purpose institutions are extremely limited and students tend not to enroll in the part-day vocational programs available on the other campuses.

The Community College. At the community colleges, disadvantaged students are an increasing proportion of the total enrollment, although they are underenrolled relative to their proportion in the comm ·ity. Hispanics and Asian students are not taking advantage of the community colleges to the extend that other minorities are. Minimal tuition fees and admission requirements and the availability of financial aid eliminate these factors from hindering the enrollment of the disadvantaged. The community college offers a wide range of vocational programs and there are no academic prerequisites for most entry-level vocational courses.

The articulation agreement with the school districts may work to bring in disadvantaged students who would not otherwise have enrolled. These have been in place for such a short period their effect is not yet known. Public transportation is readily available to the city campus from within the urban and suburban areas. Classes are available in t he evening for those students unable to attend during the day.

An examination of the enrollment counts shown earlier in Table 2 reveal that patterns of enrollment in voc ed programs differ across minority groups. That is, Asians, blacks, and Hispanic students have different patterns. Overrepresentation of various groups is as follows:

Asians	Blacks	Hispanics
Clerical	Clerical	Banking
Tech and Occupational	Child development	Some electrical classes
Electronics	Foods	Tech and Occup
Body and Fender	Social work	Carpentry
Machine tool	Recreation assistant	LVN
LVN	Home ec	Respiratory therapy

The only pattern apparent here is the high concentration of blacks in some "helping" occupations. All three minority groups are underrepresented in a fairly large number of classes. Recalling that minorities make up about 42% of the college population, if all minorities are considered together, representation is as follows:

Overrepresented	Underrepresented
electronics	electrical-power
machine tool.	commercial pilot
LVN	water and waste
some clerical	graphic arts
indust elect	RN
mfg tech	dental hygiene
body and fender	legal assistant
indust tech	fire academy
civil and const	cosmetology
social worker	

A look at this list might seem to indicate that minorities are not in the more profitable medical fields; however, not that they are bout justly represented in medical assistant, respiratory therapy, radiological technology, and medical records programs.

From Table 6 (shown earlier), it can be seen that patterns of LEP students are fairly similar to minority patterns, since such a high proportion of minorities are LEP. LEP students make up over 25% of the enrollment in technology and occupation, electronics, manufacturing technologies, machine tools, LVN, social work, and recreation assistant. On the other hand, they are under 10% of the enrollment in real estate, commercial pilot, carpentry, water and waste, graphic arts, RN, medical assistant, dental hygienist, respiratory therapist, legal assistant, and fire and safety.

Disadvantaged students are over one-third of the students enrolled in electronics, some clerical, technology of occupations, mill cabinet, machine tool, and social worker. They tend to be less than 15% of the enrollment in real estate, electrical-power, commercial pilot, industrial technology, civil and construction, graphic arts, RN, LVN, dental hygienist, radiological technician, legal assistant, administration of justice, fire academy, and cosmetology.

Overview of the Postsecondary Level. On the whole, the students who are disadvantaged (except those who are severely disadvantaged) have adequate access to the vocational opportunities available in the community and it appears that that access is improving each year.

The situation for the severely disadvantaged is more problematic. The students who attend the Vocational Training Center are severely disadvantaged, both economically and educationally. While under the jurisdiction of the community college, the VTC is operated in a separate location from the main campus and provides a limited number of vocational courses The students at the VTC appear to be older versions of the at-risk secondary-level students.

At both institutional levels, at-risk students attend separate facilities that offer a small subset of the vocational programs available in other parts of the system. Just as the secondary-level at-risk students do not enroll in ROC/P courses, the postsecondary-level at-risk students (i.e., GAIN students) tend not to attend classes at the ROC/P or at the main community college campus.

The scheduling of classes at the VTC–6 to 9 month courses with six-hour classes, 5 days a week–resembles the schedules of the proprietary and trade schools. We do not know if the characteristics of the student populations are the same. The high tuition fees required by some of the proprietary and trade schools may prevent economically disadvantaged students from attending.

The current practices used in this community to serve those severely at-risk are not uncommon. These students tend to be small in number and have multiple special needs. How to best serve the severely disadvantaged is somewhat analogous to the issue of how to best serve the severely or multiply handicapped. Generally, such students are unable to profit from instruction in the mainstream setting and have special needs that must be accommodated if they are to learn. Special purpose institutions at district, regional, or state-levels, are created to serve the small special population of severely handicapped.

Although the appropriateness of providing education and training experiences to the severely disadvantaged in a separate facility segregated from non-disadvantaged students is a concern of many, it is important to remember that these same students have already failed to thrive in mainstream settings. In addition, not every institution in which they might otherwise be found will have the staff or other resources to meet the special needs of this group.

Special-purpose institutions may be the more appropriate setting for the severely disadvantaged. If they are to be served in such settings, the vocational program offerings need to be carefully selected to avoid inadequate preparation and low end programs that do not offer possible advancement. A full range of support services will need to be provided to attract the severely disadvantaged to the institution and to retain them once enrolled. For the GAIN students in our case study who receive remedial education services at the Adult School, vocational education at the VTC, and support services through GAIN and other agencies, dealing with the multiple locations and bureaucracies may be

overwhelming. It is likely that the range of support, education, and training services required by the severely disadvantaged need to be centralized to facilitate access to the greatest extent possible.

Attachment 1

CBEDS
California Basic Educational Data System
California State Department of Education

School Information Forr
October 198

A. NUMBER OF CLASSIFIED STAFF — Report in whole numbers only

TYPE OF STAFF		MALE							FEMALE							
[illegible]	Full-time															
	Part-time															
[illegible] Staff	Full-time															
	Part-time												1		26	
Other Classified Staff	Full-time				2	1	1	10							2	
	Part-time												3		9	

B. SCHOOL ENROLLMENT — (Unduplicated enrollment on information day.)

Kindergarten															
Grade 1															
Grade 2															
Grade 3															
Grade 4															
Grade 5															
Grade 6															
Grade 7															
Grade 8															
Other Elementary															
Grade 9	9	21	1	1	32	5	236	5	19		1	37	3	249	(6)
Grade 10	9	24		1	40	5	232	7	14		1	33	1	223	59
Grade 11	12	16			20	5	235	6	9		2	36	3	232	57
Grade 12	9	14		1	33	2	249	6	16			31	6	248	(6)
Other Secondary															
TOTALS	39	75	1	3	125	17	952	24	58		4	137	13	952	230

C. HIGH SCHOOL GRADUATES (1986-87) — (Including the summer of 1987.)

Twelfth grade graduates	3	16			24	2	217	5	9		1	27	6	198	50

D. HIGH SCHOOL GRADUATES COMPLETING "a-G" SUBJECTS — Completion of all University of California requirements

Twelfth grade graduates		8		1	2		67	2	7	1		10		80	17

E. HIGH SCHOOL DROPOUTS (1986-87) — (Including the summer of 1986.)

Grade 10					1							1		2	
Grade 11					1		2							2	
Grade 12					2		8					1		9	

F. ENROLLMENT IN SELECTED HIGH SCHOOL COURSES — (grades 9-12)

Intermediate Algebra/ Algebra II	6	4			12	1	135	5	4		1	14	1	141	37
Any other 3rd or 4th year [illegible] math course	13	26			9	2	138	6	10		1	10	2	120	31
Chemistry - 1st year	3	16			6	2	84	1	7		1		8	108	21
[illegible] 1st year	3	7					26	1	2			3		27	6

G. VOCATIONAL EDUCATION ENROLLMENT — (grades 9-12 and adult)

CH's Loss of Vocational Education
8687

	Male	Female
9th		
Disadvantaged	175	178
Handicapped	5	6
10th		
Disadvantaged	82	67
Handicapped	7	4
11th		
Disadvantaged	10	91
Handicapped	8	3
12th		
Disadvantaged	113	93
Handicapped	5	5

~! Business

WHEN YOU COMPLETE YOUR CBEDS CLASS COUNTS ON OCTOBER 14, PLEASE COMPLETE THIS FORM FOR BOTH THE CBEDS AND VEA ETHNICITY COUNTS WHICH ARE ALSO REQUIRED AT THAT TIME.

THANKS!

	MALE						FEMALE						
1				3		12		2			10		16
2													
3				3		10		1			2		16
4				1		5		1			3	1	20
5				4		12		2			5		13
6													
TOTAL				11		39		6			16	1	55

12

TOTALS (By Period)
1 32
3
4 39
5 20
6 35
7