VO-TECH— IN SEARCH OF A SYSTEM

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The Gist of It

Management of the state's 52 vo-tech schools should be completely overhauled—turning postsecondary vo-tech education over to a new policy board and director, both appointed by the governor.

The change, which would require a constitutional amendment, would remove the Board of Elementary and Secondary Education's supervision and control of the schools and transfer their administration from the State Department of Education.

The proposed change would place postsecondary vo-tech schools on an equal footing with elementary-secondary and higher education. The unique role of the postsecondary vo-tech schools justifies making the distinction. The vo-tech schools are not part of the local school systems nor are they akin to the academically oriented colleges and universities.

The change would allow BESE and the department to devote full time to improving public education.

Vo-tech enrollment has increased by more than 50 percent from 1977 to 1981, and the system is costing an estimated $58 million this year. Problems cited in a 1978 PAR study still persist. Information on vo-tech education remains so sparse that an in-depth analysis of school operations is impossible.

PAR surveyed a representative sampling of Louisiana's business and industrial firms to determine if there was adequate communication between them and the vo-tech schools, and also to see how they rated the vo-tech training. The survey revealed:

—Two thirds of respondents had not been contacted by the schools in the past five years to determine job needs.

—Almost three fourths had not been contacted by a vo-tech school in the past five years to place students in jobs.

—Employers who have hired vo-tech students generally appreciate vo-tech training.

A formula should be used to fund individual vo-tech schools to assure equitable financing among schools. Funding outside the formula should be allowed for special purposes such as new programs if they are justified.

The state should stop building more vo-tech schools. There is now a vo-tech school within 25 miles of nearly every Louisiana resident. Generally as the size of vo-tech schools decreases, the cost per hour of teaching increases.

Other recommendations include:

—A yearly evaluation of schools to assure that training is up-to-date and meeting the needs of students and employers.

—Further efforts to revise, update and standardize the programs offered in schools around the state, so the same type of training is comparable from school to school. Where a school wishes to offer a program to meet local needs, the vo-tech board should approve the divergence.

—Each school be required to establish a committee of local employers and professionals in each major program area to provide greater communication between schools and employers.

The vo-tech expansion phase is essentially complete, and it is time now to make certain each vo-tech school operates as effectively as it can. And, with costs rising rapidly, it is imperative that the schools also operate as efficiently as they can.

The 52 state-funded vo-tech schools should be managed as a system, not mismanaged as a loose collection of semi-autonomous institutions.

Vo-Tech— In Search of a System

The state's $200 million-plus vo-tech school expansion is nearing completion. With the recent opening of the New Orleans Regional Institute, 52 new or renovated vo-tech schools are in operation—one within 25 miles of nearly every Louisiana resident.

In the 1981 school year, 51 schools served 31,967 day students and 44,121 students in evening programs. In contrast, when PAR published its major study on vo-tech education in 1973, only 33 schools, most in deteriorating facilities, served 22,418 day and 25,149 evening students.

PAR's early recommendations and the planning efforts preceding the facility expansion emphasized treating vo-tech schools as a statewide system. The operations of these schools were to be closely coordinated through planning, program selection, curriculum development, budgeting, evaluation and supervision.

In 1978, PAR examined the expansion program and found the schools still operating independently with limited central supervision or evaluation. Today, an objective, quantifiable evaluation of the school operations still is impossible. The State Board of Elementary and Secondary Education (BESE) and the State Department of Education (SDE) have yet to implement an adequate management system to oversee the operation of the vo-tech schools which will spend about $58 million in fiscal 1982.

This *Analysis* was designed initially to evaluate and compare the effectiveness and efficiency of the 51 vo-tech schools. The data available precludes such an analysis, but does raise a number of important questions.

VO-TECH INFORMATION

BESE and the SDE have made little, if any, improvement in collecting and processing vo-tech data necessary to plan, budget, manage and evaluate vo-tech schools and the programs they offer. Data on students—enrollments, student characteristics, attendance, program completions and follow-ups—is recorded manually at all but nine schools which use word processors. Summary data compiled by the SDE is done manually.

Data is collected to meet the federally mandated Vocational Education Data System (VEDS) requirements. The relatively new system was designed to serve federal program interests and provide justification for federal program funding. VEDS and the related annual vocational education plan have little relevance to

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planning and managing postsecondary vo-tech schools. The annual vocational education plan, required by federal law, focuses on federal funds to be spent in high schools and vo-tech schools. Yet, federal money comprises only 8% of the vo-tech school funding. The "plan" ignores the 92% in state funding and presents no financial data for individual vo-tech schools or regions.

The SDE concentrates on preparing summary data to meet federal requirements and fails to compile other, equally useful data submitted by or available from the schools. School budget requests, for example, contain data on the percent of capacity used in each day program as well as the number on waiting lists. The SDE does not compile or use this data for planning, budget analysis or program evaluation. No uniform guidelines exist for recording much of this data to assure it is comparable.

The schools are not required to determine the cost of their programs. The cost per student contact hour (SCH) for individual programs at each school is not known.

The occupational supply and demand data for use in planning vo-tech programs still is inadequate—a problem Louisiana shares with most other states. The State Occupational Information Coordinating Commission (SOICC) was created in 1978 to help remedy the situation. At present, the Governmental Services Institute at LSU is under contract to the commission to develop supply data—that is, the number of persons entering the labor market with training from various sources including private as well as public schools. One of the most difficult areas to develop good estimates, however, may be the vo-tech schools themselves. The present system for following up students to see what happens to them once they leave school is incomplete. For example, of the 4,091 vo-tech students enrolled in welding programs in 1981, 543 or 13% completed the course. The VEDS follow-up reports will show how many of these completers took welding jobs. But, how many of the more than 2,000 who left the program before completion can be considered employable?

The demand side of the occupational data system also presents problems. Job openings have been projected through 1990 for the state, but information is needed for the regional labor markets.

Inadequacies of the information system pervade the following discussion of vo-tech students, schools, programs, results and costs.

STUDENTS

Between 1977 and 1981, cumulative vo-tech enrollments rose by more than half—from 49,291 to 76,088. (See Table 1.) During 1981, 31,967 attended day programs; 44,121 attended evening classes.

Cumulative enrollments show how many students pass through the system but not how long they stay. For example, 30,309 students enrolled in day programs in 1980. Of those, 4,325 (14% of the total) completed programs and left during the year. Another 3,922 (13%) left school after completing more than 50% of a program, while 11,109 (37%) left with 50% or less of their programs completed. The remaining 10,953 (36%) were still enrolled at the end of the year and presumably continued their training in the next year.

The number of student contact hours (SCHs) is a more accurate mea-

TABLE 1. Enrollment and Completion Data, 1977, 1980 and 1981

	1977	1980	1981	Percent Change, 1977-1981
Day Programs				
Enrollment	22,418	39,309	31,969	42.6%
SCHs	9,444,732	12,491,395	14,338,645	51.8
SCHs per enrollee	421	412	449	6.6
Evening Programs				
Enrollment	25,149	36,193	44,121	75.4
SCHs	1,303,051	1,927,958	1,975,267	51.6
SCHs per enrollee	52	53	45	-13.5
Total				
Enrollment	49,291	66,502	76,088	54.4
SCHs	10,747,782	14,419,353	16,313,912	51.8
SCHs per enrollee	218	217	214	-1.0
Day Completions	5,044	4,325	5,249	4.1
Percent of enrollment	22.5%	14.3%	16.4%	—
Program Leavers				
Complete 50% +	NA	3,922*	NA	NA
Complete less than 50%	NA	11,109	NA	NA
High School Students	1,299	1,661	1,492	14.9
Academic Special Needs (remedial)	1,824	4,915	5,735	NA

NA - Not available.
SOURCE: State Department of Education reports.
SOURCE: State Department of Education reports.

sure of the amount of training provided than is the number of students enrolled. One SCH is generated when one student spends one hour in a classroom. SCH data is collected as a performance measure reported in the budget, but the SDE makes no use of this information. In 1981, day SCHs totaled 14.3 million (88% of the total) and evening SCHs were 2.0 million (12%). The number of SCHs per enrollee was 449, the equivalent of 15 weeks per student, for day programs and 45 for evening programs in 1981.

Day Enrollment

Daytime programs are full time (six hours per day) providing pre-employment training. The school expansion program has permitted a rapid growth in day enrollments, but most of the expansion was completed by 1980. The modest increase in day enrollment (5.5%) in 1981 indicates that the increase in day students may be leveling off. The recent opening of the large regional institute in New Orleans and the new facility for the Delta-Ouachita Regional Institute will allow continued growth in those areas during 1982 and 1983 as programs are phased in. Nearly all schools report lengthy waiting lists, but these are not maintained uniformly nor kept current. No systematic statewide analysis of waiting lists is made to determine where delayed enrollment occurs, or how often, or in what training areas.

Evening Enrollments

Enrollments in evening programs, designed for employed adults to upgrade their skills or to retrain for

another occupation, shot up in 1981. Evening programs involve fewer contact hours each week per enrollee than day programs, and most are short and have limited training objectives. So, while evening enrollments were 58% of the total 1981 enrollments, evening SCHs were only 12% of the total. Assuming the evening hours comprise a third of the potential class day, evening programs can be expanded at existing facilities.

Enrollment Characteristics

The VEDS system requires day program enrollment data to be listed by racial, ethnic, sex and 11 handicap categories.

In 1980, male students were 54% of the total; females, 46%. White students were 64%; black students, 34%. (In the state population, blacks comprise an estimated 31% of the prime vo-tech age group of 20-24.) The VEDS system provides no information on the age of adult enrollees. However, a recent independent study of four schools in the New Orleans area organized by the Business Task Force on Education, Inc. indicates considerable variation among schools, with students 25 or older comprising from 37% to 54% of school enrollment.

In 1980, 1,661 high school students attending vo-tech schools comprised 5% of the enrollment, about the same as in 1979. The number of high school students decreased in 1981 to 1,492. Considering that 1,299 high school students were in vo-tech schools in 1977, this group has not played an important part in the vo-tech expansion. This is attributed to the increase in high school requirements for graduation.

The VEDS system shows the number of students with "special needs" who are "academically disadvantaged" to be growing—from 3,441 in 1979 to 5,735 in 1981. These students are enrolled in remedial programs.

THE SCHOOLS

Cumulative day and evening enrollments for 1981 are shown in Table 2 for each school and region. (The location of schools and regions is shown in Figure 1.) Enrollments at individual schools range from a low of 86 day students to a high of 2,090; and for evening students, from 81 to 6,080. Some schools have shown tremendous growth; enrollments in two large schools rose more than 60% in two years.

The SDE compiles no data showing the percent of school capacity in use. However, the individual annual school budget requests show the number of student stations for each program along with an estimate of the percent of utilization. This school capacity data, however, cannot be used for comparisons. For example, some schools show more than 100% of capacity used in some programs because they rotate students in and out of remedial programs during the day. Other schools handle and report remedial students differently.

An estimate of the full-time equivalent (FTE) day enrollment is shown in Table 2. This estimate assumes that 1,350 SCHs equal one student attending full time for a year. BESE policy calls for a school year of 225 six-hour days. However, school catalogs indicate some may operate on longer or shorter schedules. For example, one school catalog indicates the school offers five 45-day terms with classes

TABLE 2. Cumulative Day and Evening Enrollments and Estimated FTE, 1981

	Enrollment		Estimated Day FTE*
	Day	Evening	
Jefferson Parish	988	6,080	400
Sidney N. Collier	738	920	200
West Jefferson	1,026	1,822	294
Elaine P. Nunez	370	1,056	204
Port Sulphur Branch	131	142	40
Region 1	3,253	10,020	1,139
Baton Rouge	1,782	3,334	616
Sullivan	1,122	893	399
Hammond Area	720	1,355	233
Slidell	628	418	424
Memorial Area	916	301	321
Florida Parishes	742	365	207
Westside	407	391	158
J. M. Frazier	302	81	92
Portside	294	133	68
Ascension Branch	215	238	76
Folkes	327	256	100
Region 2	7,455	7,765	2,693
South Louisiana	705	1,051	182
Young Memorial	765	2,261	220
Thibodaux Area	312	346	80
River Parishes	107	182	80
Golden Meadow	221	132	38
LA Marine & Petroleum	0	508	12
Region 3	2,110	4,480	611
Lafayette	1,066	780	362
T. H. Harris	1,542	208	614
Southwest Louisiana	1,001	1,742	246
Teche Area	689	1,102	226
Gulf Area	896	480	229
Evangeline Area	318	200	104
Ville Platte	304	176	82
Region 4	5,816	4,688	1,864
Sowela	2,090	1,731	562
Jefferson Davis	445	250	136
Cameron Branch	86	155	27
Oakdale Branch	375	110	118
Region 5	2,996	2,246	843
Alexandria	1,255	1,030	421
Huey P. Long	480	159	156
Avoyelles	460	371	160
Concordia	504	211	124
West Louisiana	452	1,033	181
Region 6	3,151	2,804	1,043

Table 2. (Continued)

	Enrollment		Estimated Day FTE*
	Day	Evening	
Shreveport - Bossier	1,613	4,857	584
Northwest	622	781	239
Natchitoches - Central	724	1,214	256
Sabine Valley	577	535	180
Mansfield Branch	230	1,135	57
Ruston Branch	445	299	123
Claiborne Parish	134	186	50
Region 7	4,345	9,007	1,491
Delta - Ouachita	1,185	1,651	350
Northeast Louisiana	453	405	163
North Central	399	157	113
Tallulah Branch	145	291	111
Lake Providence	322	310	76
Bastrop Branch	307	297	123
Region 8	2,811	3,111	937
TOTALS	31,937	44,121	10,621

* See text for method of estimating FTE.
SOURCE: State Department of Education, *Program Enrollment and Termination Report.*

meeting only five hours a day. This means that the most contact hours a student could have in a year would be 1,125.

Fourteen schools had 100 or fewer full-time equivalent students in 1981—fewer than five full 20-student classes for the year. Four of these schools had the equivalent of only two or fewer full classrooms for the year. Another 11 schools had between 100 and 160 FTE students, or from five to eight full classrooms.

An examination of student contact hours shows a 13% increase overall from 1980 to 1981. But, 10 schools registered declines ranging from 2% to 24%.

The distribution of vo-tech training by region, as measured in SCHs, should approximate the distribution of population. Table 3 shows the regional shares of total SCHs and population as well as a ratio of the two. A region with the same percentage of statewide population and SCHs would have a ratio of 1.00. A regional ratio of less than 1.00 indicates a lower share of vo-tech training than would occur if training were distributed equally according to population. A ratio of more than 1.00, conversely, shows a higher level of training.

Two regions, New Orleans and Houma, have low ratios of vo-tech training to population. The very low ratio in the New Orleans region may be balanced to some extent by the area's two community colleges which are not included in the vo-tech school data. Also, the developing regional institute in New Orleans will help alleviate the apparent imbalance. The Lafayette region, on the other hand, offers an unusually high level of training for its share of population.

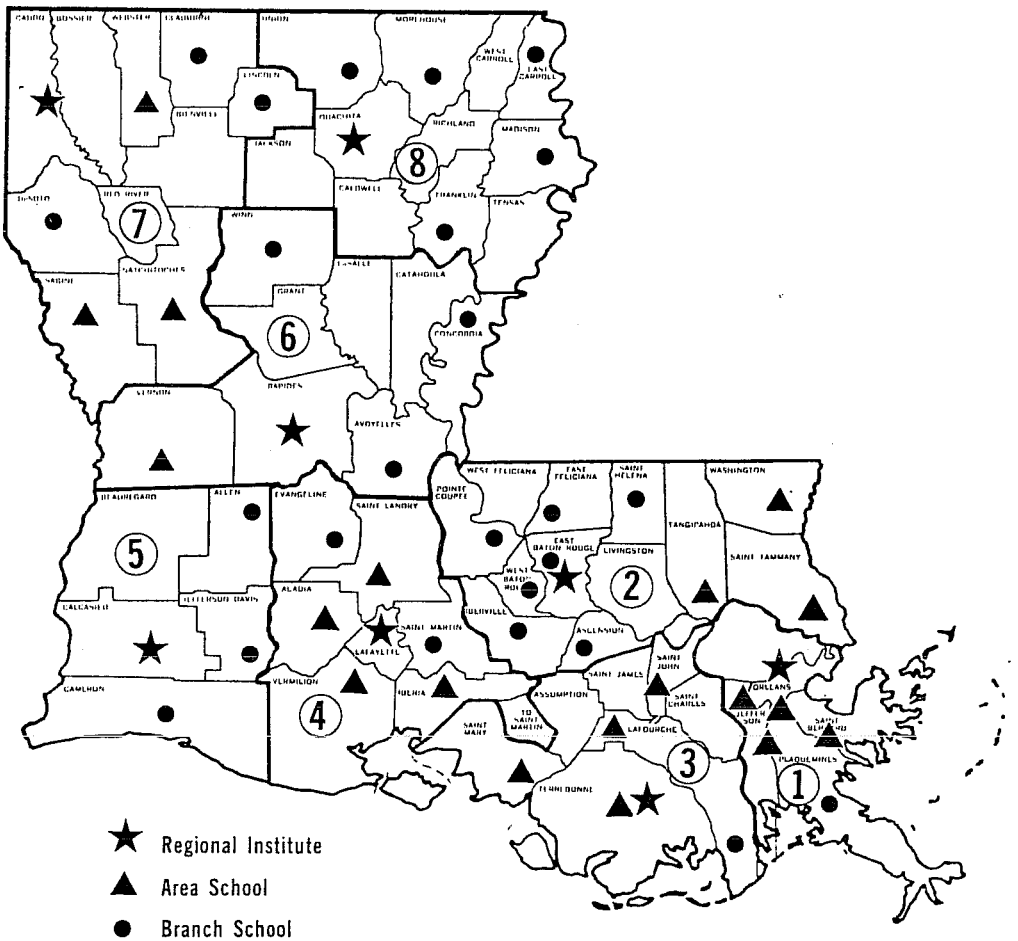
School Evaluation

Louisiana has no formal system to evaluate vo-tech schools other than

independent evaluation conducted every three to five years by the Southern Association of Colleges and Schools, the regional accrediting association. No evaluation is involved in the state budgetary process nor is there any real evaluation of post-secondary vo-tech schools or regions in the annual vocational planning process. The training area supervisors in SDE (office occupations, health, trade and industry, etc.) are spread thinly, some with responsibilities for both secondary and vo-tech school programs. The information system does not provide them adequate data for analysis.

BESE recently instructed the SDE to develop a procedure for evaluating vo-tech schools noting that "(e)valuation represents the principal means whereby vocational education holds itself accountable." The board is considering a draft proposal which could possibly provide the basis for a very comprehensive periodic school evaluation. This still would not fill the existing need for a less detailed annual appraisal of the efficiency and effectiveness of the schools.

FIGURE 1. Louisiana Vo-Tech Schools, 1982



(Not shown is a school authorized for Assumption Parish not yet under construction.)

Proliferation of Schools

In 1978, PAR called for a moratorium on building additional vo-tech schools. PAR argued that the vo-tech expansion plan already included a number of schools too small to allow diversified course offerings and provide other student services. At each subsequent legislative session, additional schools have been proposed.

Small schools are relatively expensive to operate as shown in the following section. Some are in trouble now because they are not attracting and maintaining enrollments. Currently, 17 parishes are without schools, but commuting distances to existing schools are reasonable, and in some cases, transportation is even being provided.

VO-TECH PROGRAMS

In 1979, the SDE published a list of programs offered or to be offered at each approved school. The list included 97 program categories, of which 34 (a third) were to be offered in only one school and 54 (half) in four or fewer schools. Ten schools would offer three to five programs, 20 schools would have six to 10 offerings, 13 schools would have 11 to 20, and 10 schools would have 21 to 58.

The actual number of programs offered in 1981 is shown in Table 4, along with the day enrollments and the number of schools in which they were offered. Some of the 65 categories used by the SDE for data collection combine related programs so not all separate offerings are shown.

In 1981, 11 day programs, each with more than 1,000 enrollees, accounted for 21,434 students or exactly two thirds of the total enrollment. Only 27 of the program categories shown in Table 4 were offered in more than five schools.

From 1980 to 1981, enrollments rose only 5.5%, but the number of programs offered at different locations rose by 10%, from 543 to 597.

The SDE does not collect school program catalogs or keep a central compilation of each school's curricula. To determine the content and length of programs offered at various schools, PAR wrote each school for curricula information. Only 17 re-

TABLE 3. Comparison of Regional Shares of Student Contact Hours and Population

Region	Region as Percent of Total SCHs[a]	Region as Percent of Total Population[b]	Ratio, SCH/Population Shares
1 New Orleans	12%	26%	.46
2 Baton Rouge	25	20	1.25
3 Houma	6	8	.75
4 Lafayette	17	11	1.55
5 Lake Charles	8	6	1.33
6 Alexandria	9	8	1.13
7 Shreveport	14	13	1.08
8 Monroe	9	7	1.29

a SCH data is for 1981, as reported in regional centers' budget requests.
b Population is from 1981 census data.

TABLE 4. Day Program Enrollment Data, 1981

Programs	Number of Schools Offering	Enrollment, 1981
Agricultural Mechanics	1	46
Horticulture	3	70
Forestry	2	76
Total Agriculture	—	192
Food Services	1	105
Marketing and Distribution	1	48
General Merchandise	3	204
Total Distribution	—	357
Practical (Vocational) Nursing	36	3,133
Nursing Assistance (Aide)	17	742
Other Nursing	2	56
Inhalation Therapy	2	38
Medical Emergency Technician	3	135
Medical Laboratory Technology	2	48
Other Health Occupations Education	5	75
Total Health	—	4,227
Care & Guidance of Children	2	65
Clothing Mgt., Production & Services	1	38
Food Mgt., Production & Services	3	153
Homemaking	1	37
Home Furn., Equipment, & Services	1	28
Total Home Economics	—	321
Accounting & Computing Occupations	39	1,653
Computer & Console Operators	2	189
Programmers	3	198
Business Data Processing	4	170
Filing, Office Machines & Gen. Office	18	1,467
Information, Communication Occupations	2	168
Personnel, Training & Related	1	10
Stenographic, Secretarial & Related	45	2,077
Supervisory & Administrative Mgt.	7	188
Typing & Related Occupations	31	2,092
Other Office Occupations	7	573
Total Office	—	8,785
Civil Technology	2	118
Electronic Technology	8	681
Industrial Technology	2	180
Mechanical Technology	1	39
Other Technology	1	58
Total Technology	—	1,076
Air Conditioning	29	1,143
Appliance Repair	5	137
Body & Fender Repair	16	660
Auto Mechanics	44	2,351
Aviation Occupations	1	88

Table 4. (Continued)

Programs	Number of Schools Offering	Enrollment, 1981
Commercial Art Occupations	2	72
Commercial Photography	1	47
Carpentry	26	1,018
Electricity	10	365
Masonry	9	251
Plumbing & Pipefitting	7	216
Diesel Mechanics	20	854
Drafting Occupations	26	1,265
Electrical Occupations	9	531
Electronics Occupations	27	1,144
Graphic Arts Occupation	2	87
Instrument Maintenance & Repair	2	139
Machine Shop	15	663
Machine Tool Operation	2	89
Sheet Metal	1	26
Welding & Cutting	48	4,091
Cosmetology	4	216
Personal Services	2	105
Quantity Food Occupations	4	94
Small Engine Repair	8	298
Textile Production & Fabrication	0	0
Upholstering	7	188
Other Trade & Industrial Occupations	11	871
Total Trade & Industrial	—	17,009
TOTAL	—	31,967

SOURCE: State Department of Education, *Program Enrollment and Termination Report.*

sponded. While this did not permit a full comparison, considerable variation in curricula was shown. For certain programs, particularly those in the health area, standardized curricula are used in all schools offering the program. For some other programs, there are approved standard curriculum guides which schools may or may not use. SDE records do not indicate the extent to which schools use standardized curricula.

Comparing only a few school catalogs indicates a wide range in the time needed to complete a particular program. For example, the suggested average completion time for an auto body repair program ranges from 15 months in one school to 24 months in another, 15 to 24 months for carpentry, 14 to 24 for climate control, 12 to 19.5 for secretarial and 14.5 to 24 for machine shop. BESE recently appointed a committee to examine this problem.

Not all schools use standard names for the same program. And programs offered under the same name may differ in content from school to school to meet the particular needs of the area—welding may be geared to pipe welding in one area and plate welding for shipbuilding in another.

One of the largest schools reported various office occupations enrollments under the typing category in 1980 and under stenography in 1981. Program descriptions which do not differentiate among offerings, such as a 14-month and 24-month climate control program, make planning and evaluation difficult.

Program Evaluation

There are three levels of responsibility for program evaluation—the school, the region and the state. Each school has an advisory council with representatives from various sectors of the community and may set up craft committees in each program area to help coordinate the offerings with business and industry needs.

PAR could not survey the craft committees to assess their role in shaping programs, since it was not possible to obtain addresses of committee chairmen from the SDE or from most schools. Some schools reported a large number of craft committees, but the extent to which committees are appointed and used could not be determined for most schools. BESE has not required the schools to provide any evidence that craft committees are appointed and operating.

At the regional level, there are committees composed of directors of schools in each region. Some of these committees are reported to be active in reviewing the offerings in their areas, at least for the purpose of coordination. However, there is no formal indication of any meaningful evaluation being performed at this level.

Likewise, at the state level, there is no formal evidence of program evaluation other than the monitoring to determine if enrollments are being maintained above the minimum allowed. SDE program supervisors may evaluate programs during their occasional school visits but no reports are prepared to give an overall annual appraisal of statewide program offerings.

Recent private efforts to analyze vo-tech programs in the New Orleans area highlight the lack of a central evaluation system. A research project is being completed and further studies are contemplated to learn more about student characteristics and program effectiveness. Since the state's information system was of limited assistance, independent surveys and examination of school records were undertaken to gather the desired information.

VO-TECH RESULTS

The primary objective of vo-tech education is to train people for jobs. The students' ability to obtain employment related to vo-tech training is an important measure of program effectiveness.

Vo-tech schools not only should operate effective programs, but they should be efficient—operating at the lowest possible cost and at full capacity.

As noted, without a good management information system it is impossible to adequately measure results of programs and school operations. Little is known about the employment success of the vast number of students who attended the vo-tech schools.

Only a small portion finish the programs. Students normally remain in school only until they have sufficient training to get a job and then drop out to go to work. But there is no adequate follow-up on these dropouts to show if they become employed and, if so, whether the job is training-related. The VEDS follow-up reports deal only with completers.

Under federal requirements in 1980, the VEDS reports broke down program leavers into those with less than 50% of the program completed and those with 50% or more. This requirement was dropped in 1981.

During 1980, half the cumulative day enrollment left the vo-tech schools without completing a course of study, and three quarters of those finished less than half their programs.

Program and school data for 1980 show a wide range in the percentage of those dropping out with less than 50% of the program completed. Health programs averaged only a 20% early-leaver rate while some programs had very high rates—82% in the sheet metal program, 61% in agriculture mechanics, and 59% in small engine repair. In 1980, several large enrollment programs had half of their students dropping out early—carpentry, 50%; auto mechanics, 48%, and filing and business machines, 47%. The reasons for the high dropout rates are not documented. Some programs apparently provide enough training for students to get jobs without completing them. It is also possible that problems such as the length of programs, inadequate procedures for placing students in programs or poor program offerings are partially responsible.

Completion rates (as used here—annual completions as a percent of annual cumulative enrollment) are an inadequate measure of effectiveness, but they can raise questions. Varying completion rates among schools for given programs may be due to differences in the calibre of students, job opportunities and length and difficulty of programs. Differences in the quality of the program also might affect the dropout rate.

The statewide completion rate for all day programs was 14% in 1980 and 16% in 1981. (Completion data is not maintained for evening programs.) The highest rates are found in the health programs which students must complete to be certified. The 1980 completion rate for practical nursing was 32% statewide, but rates varied widely among schools. Several schools showed no completions, but these may have had programs which continued into the next reporting year. On the other hand, one school had 92% complete and another 88%. Schools with larger nursing programs appear to have below average completion rates in those programs. One with 250 nursing enrollees had 17% completing and another with 152 students had 18%. There may be logical reasons for these low completion rates, but these schools should be evaluated to see how they differ from schools having completion rates two to five times higher.

The same type of comparison can be made in other program areas. The stenography program shows one school with 227 enrollees having a 46% completion rate while another school with 223 enrollees has only 1% completing. Of the 62 accounting students in one school, 52% completed; only 2% of a comparable program at another school finished. And, several schools show completion rates in auto mechanics and welding of from 30% to 40%, while in most other schools the rates are below 10%.

Students who leave before completing a program may be given certificates of accomplishment, but this is not done uniformly among the schools. One school brochure states that students leaving before completion are given certificates acknowledging the number of hours completed. Another school brochure states that programs have "unit completions" whereby students may exit with a certificate. Other school brochures mention neither type certificate.

Except for the 50% completion breakdown, data on the number of hours or units completed by dropouts is not compiled by SDE to evaluate programs or schools.

VO-TECH COSTS

Expanding enrollment and inflation have resulted in a rapid growth in vo-tech funding. Vo-tech school expenditures for fiscal 1981 were nearly $46 million, and the estimate for 1982 is almost $58 million, a 26% increase. For 1983, the schools have requested another 24% increase—nearly $72 million.

The state is financing 92% of the cost in 1982; the federal government picks up 8%. No local funds are involved in the postsecondary vo-tech program. A 12% decrease in federal funding is expected for 1983; thus, the state will carry a larger share in the future.

School expenditures per student contact hour, computed by PAR, provide a rough measure for comparing cost efficiency among the schools. In 1981, the statewide average cost per SCH was $2.93 with costs among individual schools ranging from $1.72 to $11.74. Even among regions the average cost per SCH ranges from $2.70 to $4.08.

Table 5 shows the number of schools by cost category. In eight schools the cost exceeded $5.00 per SCH.

The correlation between school size and cost per SCH is shown in Figure 2. As the size of the school increases, the cost per SCH decreases. The smallest schools are comparatively inefficient, probably because institutional overhead is spread over fewer students and it is difficult to maintain full capacity with fewer programs and students. Yet some small schools are as efficient as some large schools. Of interest is the wide range in costs among the group of five middle-sized schools which rank in size below the five largest schools. Each operates at almost an identical SCH level, but their costs range from less than $2.00 to more than $3.00 per SCH.

Differences in school costs per SCH may be partially explained by how long a school has been in operation, different ratios of day and evening course SCHs, different mixes of high and low cost programs, the number of hours in operation each year, and the fact that fixed administrative overhead may be a larger share of total costs for smaller schools. But, it also is likely that programs with low student enrollments, poor recruitment practices and ineffective scheduling contribute to higher costs in some cases.

Cost data by program for each school is not maintained although this information is essential to evaluate school efficiency and analyze budget requests.

Budgeting

PAR's earlier reports criticized the traditional method of budgeting for vo-tech schools because it resulted in

TABLE 5. School Expenditures Per SCH, 1981

Number of Schools	Cost Per SCH
1	Under $2.00
18	$ 2.00—2.99
21	$ 3.00—3.99
3	$ 4.00—4.99
8	$5.00 and above
51 school average	$2.93

SOURCE: Computed by PAR.

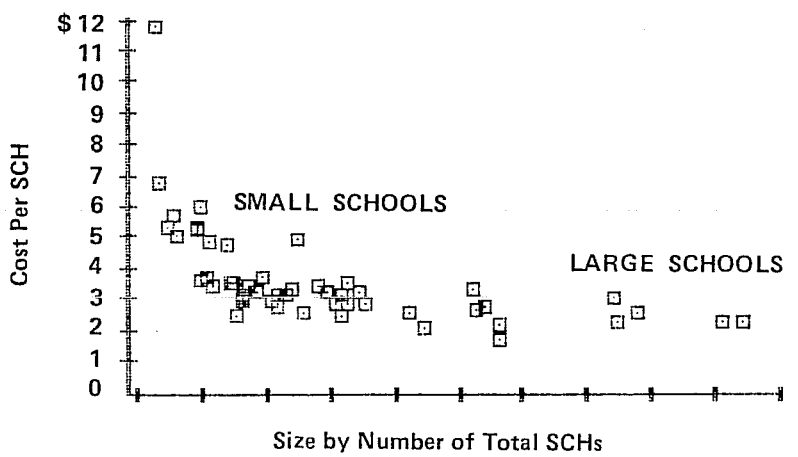
inequitable funding based on politics rather than objective criteria reflecting school needs and performance. Although some regional director committees have become more involved in budgeting, the process is essentially unchanged. Schools continue to draw up their budget proposals without adequate guidelines from BESE. The budgets are submitted to the SDE where they are checked only for mathematical correctness and sent on to BESE. The board reviews the requests without the benefit of recommendations from the SDE staff and forwards them to the budget office with little if any change. The budget officer makes the only real analysis of school requests.

School requests for 1983 call for increases in state appropriations ranging from 4.2% to over 70% in three cases. One of the largest schools requested a 51.1% increase even though it is unlikely that it could effectively implement in one year all of the new programs involved. The fact that BESE would permit an unrealistic request like this to pass through unchallenged demonstrates the board's unwillingness or inability to apply budgetary controls.

Not counting the major increase in regional center funding, the school requests alone totaled an overall increase in state funding of 26% and 183 new positions. The budget office recommendation would allow for only 93 new positions and hold the total increase to about 13%.

School efforts to justify funding requests for new programs varied widely. Some schools merely said the program was included in the original expansion plan, now six years old. One school, on the other hand, gave comprehensive documentation of the space available, student interest (waiting list), employer interest (list of employers requesting trainees for job placement) and available qualified instructor applicants (list of applicants and qualifications). Although the schools and regional centers requested 195 new positions, BESE did not ask the professional staff in the SDE to analyze the need for new programs or make recommendations concerning the requests.

FIGURE 2. Relative Cost and School Size, 1981



SOURCE: Computed by PAR.

When PAR studied the vo-tech budget process in 1978, BESE and the SDE had prepared and submitted a formula funding proposal to the Legislature. The Legislature did not approve the formula, and no effort has been made to revive the proposal. The formula was designed to tie funding to average costs per SCH for operating specific programs, with the aim of providing a more equitable, uniform and accountable method of financing vo-tech schools. The formula allotted administrative and other nonteaching personnel to the schools based on their SCHs. It also allowed flexibility for temporarily funding new programs and other special nonformula expenditures if they were justified and given separate legislative approval.

ADMINISTRATIVE STRUCTURE

The administrative structure for vo-tech has remained unchanged since PAR's 1978 study, although the structure is the major impediment to developing a sound administrative system. BESE, a predominately elected board, has constitutional authority for supervision and control over the postsecondary vo-tech schools. The board appoints the school directors and selects one in each of the eight regions to serve as a part-time regional director.

The SDE, headed by an independently elected education superintendent, is legally responsible for implementing board policy. The administrative functions in SDE are housed in the Office of Vocational Education and are carried out primarily by the Trade and Industrial Education Bureau (T & I).

PAR's earlier study criticized the lack of a direct line of responsibility from the policy board through the superintendent to his professional staff in the T & I Bureau and then to the regional and school directors. The problems of poor coordination and cooperation resulting from this structure continue.

Under the present structure, BESE may set policy but it cannot hold the SDE accountable for implementating it. The board has no say in the selection of the SDE's vo-tech staff and has no direct control over the staff and its activities. Conversely, the SDE has no direct control over the school directors who are appointed by the board and have direct access to the board through the members representing their areas.

The board may request and urge SDE action, but it must rely upon the voluntary cooperation of the SDE staff for accomplishment. Likewise, the SDE may request school directors to take actions, but must rely heavily upon their voluntary cooperation for compliance.

BESE and its vo-tech committee are quite protective of their vo-tech supervisory role. Yet, the board has only one staff person responsible for vo-tech and must rely on SDE cooperation for information and administrative support.

The Legislature has not acted on PAR's recommendation that BESE appoint the superintendent to provide a direct line of administrative responsibility. Neither have the regional administrative centers been fully funded and staffed to operate as the law originally authorizing them envisioned.

Each part-time regional director, with one clerical person as staff, serves as chairman of the regional directors' committee. He calls monthly meetings of the other school directors and has assumed a leadership role in coordination and planning for some regions.

In the original design, the regional centers were to handle certain fiscal, recordkeeping and other management housekeeping chores for the schools. Each year, the regional directors unsuccessfully request increased funding and staffing for the regional centers. The eight regional centers were budgeted $157,741 for 1982 with eight clerical positions in addition to the part-time directors. They requested 12 new positions, mostly accountants, and $909,411 for 1983.

While staffing the regional centers might centralize some school operations at the regional level, it would still not eliminate the basic defects in the administrative structure.

DIRECTORS' OPINIONS ON PROPOSED CHANGES

In requesting information from the vo-tech schools, PAR included a short questionnaire to obtain the directors' opinions on a number of proposals made in recent years. Six proposals dealt with aspects of vo-tech covered in this *Analysis* and the 17 directors' responses are summarized in Table 6. A number of directors commented on their reasons for agreeing or disagreeing with the proposals.

Formula funding was opposed by a majority of the directors who generally felt that average costs for programs would hurt schools whose costs were higher due to factors beyond their control. Some said the formula would result in schools emphasizing quantity (SCHs) rather than quality education. Those agreeing with the formula approach said some flexibility would be necessary to accommodate schools with rapidly changing enrollments,

TABLE 6. Director Questionnaire Responses

Proposal	Yes	No Opinion	No
1. Formula funding for vo-tech schools based on average costs per SCH for the various courses.	4	2	11
2. Administration on a regional basis with a stronger role in coordination, planning, budgeting and management.	4	0	13
3. Standardized statewide curricula for all programs.	12	0	5
4. Exit points for programs with standard criteria.	14	1	2
5. SDE conducted follow-up of student completers and noncompleters.	8	4	4
6. Platooning full-time programs with high demand.	6	7	4

NOTE: "Platooning" is rescheduling class hours earlier and later to permit two full-time classes to be offered each day instead of just one.
SOURCE: PAR questionnarie.

new programs and programs with higher than average, but justifiable, costs.

Beefing up regional administration appealed to a minority of the respondents who felt it could reduce the housekeeping burden on the schools and allow more effective use of personnel. Generally, directors opposed the additional layer of bureaucracy.

Standard curricula for programs was supported by most respondents. However, both those agreeing and disagreeing stressed flexibility to meet local needs. One director argued that flexibility could be achieved through a minimum standardized curricula.

Most of the respondents supported establishing exit points for programs using standard criteria. One said this was already being done in many schools—another wanted exit points but not standard criteria.

Half of the respondents wanted the SDE to follow up student completers and noncompleters. Some felt the schools were already doing this adequately and that it was the school's responsibility.

Only a fourth opposed platooning high demand programs to allow two classes a day. One said it would interfere with the evening extension programs in his school. Others commented it would be workable if funding were provided, although it could inconvenience students and faculty.

SURVEY OF BUSINESS AND INDUSTRY

PAR mailed a questionnaire to 500 Louisiana firms to determine the type and frequency of communication between firms and the vo-tech schools, and to have the firms rate the vo-tech training received by their employees. The sample represented the major categories of business and industry. PAR received 275 usable responses, a 55% return, well distributed among the eight vo-tech school regions. Three of the four categories of firm size were well represented. Relatively few responses were from the very large firms (those with more than 1,000 employees).

Responses to questions about firm contacts with schools are shown in Table 7.

Employer Contacted by School

Two thirds of the respondents statewide had not been contacted within the past five years by a state vo-tech school to determine their manpower training needs. Only in two regions—Regions 5 and 8—did a majority of respondents indicate they had been contacted. The largest proportion of firms contacted frequently (33%) was in Region 5.

Almost three fourths, 70%, of the respondents statewide had not been contacted by a vo-tech school in the past five years to place its students in jobs.

The frequency of schools contacting employers, whether regarding manpower needs or placement, increased as the size of the firm increased. Only when a firm's size reached 250 or more employees did a majority of the responding firms indicate that a school contacted them frequently or at least once.

School Contacted by Employer

The size of the firm also influences employer-initiated contact with vo-

TABLE 7. Employer Questionnaire Responses

QUESTIONS:

1. Has your firm been contacted by a state vo-tech school in the past five years to determine your manpower training needs?
2. Has your firm been contacted by a vo-tech school in the past five years to place its students?
3. Has your firm contacted a state vo-tech school in the past five years to seek job applicants?
4. Has your firm contacted a vo-tech school to request a new course or to request a change in an existing course to better meet your needs?
5. Has your firm hired employees who have been trained in one of the state vo-tech schools?

Responses		Question 1			2			3			4		5	
Category	Number	Never	At Least Once	Frequently	Never	At Least Once	Frequently	Never	At Least Once	Frequently	Yes	No	Yes	No
TOTAL	275	67%	24%	9%	70%	20%	9%	46%	37%	16%	16%	84%	55%	45%
Region:														
1 New Orleans	41	76	20	5	73	20	7	54	29	17	17	83	54	46
2 Baton Rouge	47	66	26	9	77	15	9	55	32	13	13	87	38	62
3 Houma	27	78	19	4	78	19	4	37	52	11	22	78	59	41
4 Lafayette	30	70	27	3	67	27	7	53	33	13	3	97	57	43
5 Lake Charles	21	48	19	33	57	14	29	24	33	43	14	86	67	33
6 Alexandria	15	84	13	—	87	13	—	80	20	—	7	93	15	85
7 Shreveport	52	75	19	6	77	15	8	42	46	12	19	81	58	42
8 Monroe	20	45	35	20	55	30	15	45	30	25	20	80	55	45
Firm Size:														
Less than 50	129	78	18	4	84	13	3	59	33	9	5	95	38	62
50 - 249	81	63	32	5	67	26	7	40	38	22	17	83	62	38
250 - 1,000	49	45	29	27	45	29	27	29	47	24	35	65	87	13
Greater than 1,000	8	38	25	38	25	38	38	25	50	25	63	38	86	14

tech schools. Fewer than half of the firms with 50 or fewer employees had contacted a vo-tech school in the past five years to seek job applicants. A majority of the firms in each of the other three categories of firm size did so frequently or at least once—and the size of the majority increased with the size of the firms. Larger firms were also more likely to have requested a new course or a change in an existing course at a vo-tech school.

Statewide, 46% of the firms had not contacted a state vo-tech school to seek job applicants, although in five regions, a majority had sought applicants from vo-tech schools. Overall, the percentages of firms answering that they had never contacted the school were smaller or the same as those answering "never" to the two questions concerning school-initiated contact. Also, statewide 16% of the respondents had contacted a school to request course changes.

Of the firms who elaborated on the outcome of their requests for course changes, about half received positive responses from the schools. In many cases, the requested new course was added or the requested change made. However, the remaining firms claimed to have experienced very limited or no results.

Ratings of Vo-Tech Trained Employees

More than half of the firms responding to PAR's questionnaire had hired persons trained in state vo-tech schools. These employers were asked to rate the training of those employees using the following five-point rating scale used in the VEDS employer follow-up:

Please rate the vocational training received by your vo-tech school trained employees in the following areas:

	Very Good	Good	Average	Poor	Very Poor
a. Technical knowledge	☐	☐	☐	☐	☐
b. Work attitude	☐	☐	☐	☐	☐
c. Work quality	☐	☐	☐	☐	☐
	(5)	(4)	(3)	(2)	(1)

What is your overall rating of the vocational training by such employees as related to the requirements of their jobs:

Very Good	Good	Average	Poor	Very Poor
☐	☐	☐	☐	☐
(5)	(4)	(3)	(2)	(1)

How would you rate the preparation of vo-tech trained employees in relation to other employees in their work groups who did not receive the same training:

No basis for comparison
(5) ☐ Individual is better prepared
(3) ☐ Both are about the same
(1) ☐ Individual is less prepared

The results of the employer ratings are shown in Table 8. Overall, the ratings fall between average and good (3.5). This is also the case for ratings of technical knowledge, work attitude and work quality. Ratings vary somewhat by region, but the small sample size may cause some of the differences. Of the three firm size categories which were well represented in the sample, firms with less than 50 employees tended to give somewhat higher ratings.

In rating the preparation of vo-tech trained employees against that of workers without such training, respondents in all categories found the vo-tech trained employees better prepared. Ratings on this question were provided only by those who felt they had a basis for comparison. The number of respondents was smaller than for the preceding questions, and the variation by region and firm size may not be significant.

TABLE 8. Results of Employer Rating of Vo-tech Training

	Number of Respondents[a]	Mean of Employer Ratings: Technical Knowledge	Work Attitude	Work Quality	Overall Rating	Relative Preparation[a]
PAR Survey (1981)						
Total	132	3.5	3.7	3.5	3.5	3.9
Regions						
1	19	3.5	3.4	3.3	3.5	4.2
2	15	3.3	3.5	3.5	3.3	3.2
3	14	3.6	3.9	3.6	3.7	4.0
4	15	3.6	4.1	3.9	3.7	4.2
5	13	3.7	3.9	3.8	3.6	4.2
6	2	4.5	4.5	4.5	5.0	5.0
7	25	3.4	3.4	3.3	3.2	3.4
8	11	3.3	3.6	3.2	3.3	3.7
Firm Size						
Less than 50	45	3.6	3.9	3.7	3.6	4.0
50 - 249	45	3.4	3.5	3.4	3.5	3.6
250 - 1,000	35	3.5	3.6	3.4	3.4	4.1
Greater than 1,000	4	4.0	3.8	3.8	3.8	5.0
VEDS Survey[b] (1979)						
Total	803	4.26	4.60	4.34	4.43	4.31

a The number of respondents shown for PAR survey is for first rating only. The usable responses to the relative preparation section totaled 95.
b Source of VEDS Survey: Louisiana Vocational Education Data System (VEDS) 1979-80.

Also included in Table 8 are the results of the VEDS employer follow-up rating for the school year 1978-79. The VEDS ratings are about a point higher than those from PAR's survey. The VEDS survey had schools contact firms who employed recent vo-tech graduates. PAR's sample was drawn from a list of businesses without regard to the firm's experience with vo-tech students. The nature of the sampling may account for the difference in the ratings.

Reasons For Not Hiring Vo-Tech Students

Employers who indicated they had not hired vo-tech trained students were asked to comment on the reasons. The 80 comments received fell into the following categories: no one had ever applied (26), no reason not to (8), no students available (3), employer not aware of school offerings (9), no need for vo-tech trained employees (10), schools do not train for firm's needs (10), hires through union only (4), poor quality of applicant (5), and poor quality of training (3).

Obviously, not all firms can make extensive use of vo-tech trained persons. They may require unskilled or professional people. Also, it is not always feasible for a school to offer a program to meet the limited special needs of a single employer. Yet, many of the comments indicate that with better communication between the schools and these firms, more employers could make better use of vo-tech trained students:

> We have had no contact with these schools. We do not exclude vo-tech students . . . we just have not been exposed to them.

> Am unfamiliar with the vo-tech curriculum and what vo-tech students can offer in various skill areas.

> I have no reasons for not hiring a vo-tech trained student. None have

applied, nor has any attempt been made to place these students. I contacted the vo-tech school once, and received no cooperation, so I have not contacted them since.

Frankly, we have never thought of it.

It is also possible some were unaware the schools were training in skills they could use. And some firms may not be looking beyond the immediate school to become acquainted with offerings of other schools in their region. As one firm commented: "Need more info on who and what skills available."

Employers' General Comments

Asked to comment generally on positive or negative aspects of the operation of the vo-tech schools in their area, 73 employers responded briefly. Most comments were from employers who had experience with employees trained in the vo-tech schools. Of these, 20 made very positive statements praising the schools:

"a definite asset"
"we have a good school"
"very good"

Only a handful of responses broadly condemned the schools:

Waste of time and money.
Very poor! Typical bureaucratic operation . . .
Minimally serves a purpose.

Most respondents, however, suggested specific areas for possible improvement or criticized particular aspects of school operation. Many alluded to problems of vo-tech schools not offering training geared to their firm or industry's needs. A number were concerned with the quality of school instructors.

Some had concerns about student motivation and suggested many were not serious about learning. Others felt more students needed to be recruited for such programs as machinist and auto mechanics.

By far the most frequent criticism was lack of communication between the schools and employers:

Not involved enough with the entire employment community to be aware of requirements.

The people are helpful and hear you out, but never seem to follow up with aggressive placement effort.

It would be a good idea for teachers . . . to contact personnel directors and vice versa.

They need to contact industry more often to find out what our needs are.

Better public relations with small business; perhaps survey on what special areas they could help us with by the training they offer.

Director lacks personality, lacks the advertisement skills that should go with his job.

I wish vo-tech schools would promote more to businesses in the electronic and appliance fields.

I believe they should assume a more visible position in showing the community the types of training they perform. Open houses, seminars with business, etc.

A great deal could be accomplished if the vo-techs and industry would jointly work together in designing programs to meet industry needs.

Employers' comments generally indicate an appreciation of the role of the vo-tech schools, but suggest a

potential for a closer working relationship with the businesses and industries.

Advisory Council Employer Survey

The State Advisory Council for Vocational Education recently surveyed 1,542 Louisiana employers who had previously hired vo-tech students and received about a 30% response. The council reported the following findings:

—84% rated their communication with vocational educators as average or better;

—69% had communicated with a vo-tech school guidance counselor;

—63% had visited their area vo-tech school;

—85% said they were somewhat familiar or very familiar with vo-tech school programs, and

—93% rated the overall job skills and knowledge of their employees with vocational education as being average or better than average.

The favorable picture of communication between business employers and the vo-tech schools indicated in this survey contrasts with results of PAR's survey. However, the difference lies in the nature of the sample. PAR took a broader sample of Louisiana firms by not limiting the selection to those who had hired vo-tech students. Firms having vo-tech trained employees should be more conversant with the school programs than those who do not.

COMMENTS AND RECOMMENDATIONS

PAR's 1978 vo-tech *Analysis* cited problems with the administrative structure, information system, budgeting process, financing, program evaluation, proliferation of schools, and policies regarding enrollment, remedial training, instructor salaries and student recruitment. In most respects, problems highlighted in the earlier study persist today.

This *Analysis* reiterates problems noted earlier and emphasizes the lack of uniformity in many aspects of the management of the schools. The wide variation among schools in enrollments, student turnover, curricula, operating policies and costs indicates a need for the state to manage the schools as a system. A systematic approach should be applied to all aspects of administration—structure, planning, budgeting, data management, curriculum, operating policies, and program and school evaluation.

It has become abundantly clear that an adequate system for managing the vo-tech schools cannot be developed within the present governance structure. Having both a predominately elected board that appoints school directors and an elected education superintendent who selects the state administrative staff presents an insurmountable obstacle to effective administration. This is true for elementary-secondary education as well as for postsecondary vo-tech education. The situation is further complicated by merging administration of these two levels of education in the same structure. Unlike elementary-secondary education, the vo-tech schools are postsecondary institutions with an adult clientele and training objectives tied closely to labor market needs. The vo-tech schools further differ from the elementary and secondary schools in their funding, which is entirely from state and federal

sources, and in their control. Local government has no legal authority or responsibility for the vo-tech schools, whereas it does have a significant role in administering and funding the public schools.

If Louisiana is to have an effective statewide vo-tech school system, a major change must be made in the way the schools are governed.

The following recommendations include a proposed new method for governing the state's vo-tech schools. The remaining recommendations need to be addressed regardless of who governs the schools.

Governance of the Vo-Tech Schools

The structure for governing the state's postsecondary vo-tech schools should be completely revamped, as follows:

- Responsibility for supervision and control of the schools should be removed from the Board of Elementary and Secondary Education (BESE).
- A separate policy board should be created, with members appointed by the governor for four-year concurrent terms.
- Administration of the state system of vo-tech schools should be removed from the State Department of Education (SDE). A director appointed by the governor should have the primary responsibility for administering the vo-tech school system. The director should be provided with sufficient staff to gather data, evaluate schools and programs, develop curricula, perform budget and financial analysis, and other tasks required for an effective system. Funding for postsecondary vo-tech administrative staff should be transferred from the SDE.
- School directors should be appointed by the system director, subject to approval of the new policy board.
- Implementation of the regional center concept should be held in abeyance until the centralized administrative system is in place and a compatible regional operation is designed. Until this occurs, the present use of regional committees of school directors should be continued.

A constitutional amendment would be required to shift governance of the vo-tech schools from BESE to a separate agency with its own administrator and board. This shift would have the additional benefit of allowing BESE and the SDE to devote their full time to improving the quality of the public school system—a major responsibility of both.

The change in administration might present problems in coordinating secondary and postsecondary vo-tech education—but there is little evidence the present structure provides much coordination. Elementary and secondary education is governed by 66 elected school boards who act independently in establishing vo-tech policies in their local systems.

The proposed change would place the governance of postsecondary vo-tech schools on an equal footing with both elementary-secondary and higher education. The unique role of the postsecondary vo-tech schools justifies making this distinction. The vo-tech schools are not part of the local school systems nor are they akin to the academically oriented colleges and universities. The new vo-tech board, BESE and the Board of Regents

should coordinate the different types and levels of vo-tech training.

The vo-tech board would have purely policy and advisory functions with no administrative role. Authority and responsibility for administering the state system of vo-tech schools would be pinpointed in the position of the director. This would emphasize managing the schools according to statewide goals, standards and criteria. And, this would deemphasize regional or local politics resulting in favored treatment of certain schools at the expense of the system as a whole.

Information System

- The present Vocational Education Data System (VEDS) should be revised to provide the management information needed to administer the vo-tech school system and assure the schools are held accountable for program outcomes and costs.
- The information system should make optimum use of electronic data processing and assign data collection, compilation and reporting responsibilities efficiently between the school and state levels.
- The system design should involve research, computer and finance personnel in addition to the state vo-tech school management staff.
- A full review of existing and potential data should be undertaken to assure the resulting system will permit continuing evaluation, planning, budget analysis and policy development. Improvements are required in data on: (1) enrollment and student characteristics, (2) student follow-up and (3) program costs.
- Program capacity, utilization and costs by school should be based on student contact hours.
- A centralized, computerized follow-up of students should be established at the state level, as is done in some other states. This might include all students or a sample, but should be designed to evaluate programs statewide as well as by region and school. The student followup must include those who leave programs with marketable skills as well as those who complete the course.
- The information should identify early leavers by the percentage of the program completed as demonstrated by hours or units completed.
- Data on academic proficiency levels of entrants and remedial training should be collected and analyzed.

The vo-tech information system, maintained in the SDE, is designed to comply with federal requirements and is of little use in assessing and managing the schools. For example, there appear to be large differences among schools in the composition of enrollment—the ratios of day and evening students, adults, high school students and remedial students—which may reflect community needs and clientele or simply different school emphases. Better data and ongoing analysis is needed to assure vo-tech facilities are available to all types of potential users.

Efforts are underway (by the State Occupational Information Coordinating Commission) to improve the occupational demand and supply data. While this may aid long-range planning, current data on what happens to vo-tech completers and dropouts is needed to evaluate those programs. Present follow-up data is inadequate.

The vo-tech schools offer courses in computer programming, yet the management data used by SDE and BESE is compiled manually.

Program Evaluation

- Each program should be formally evaluated annually to assure the training is up-to-date, relevant and meeting the needs of students and employers. The evaluation should involve trade and craft advisory councils at the school and regional level, the regional committees of school directors and state vo-tech staff. Evaluation should include an analysis of: (1) school data on program capacity, use, costs, and enrollment characteristics; (2) student follow-up and placement data, and (3) manpower demand and supply projections.

- Major emphasis should be given to analyzing why students leave programs early, what programs and schools are having particular problems and what might be done to retain students until they achieve marketable skills.

- Current efforts to develop a method for evaluating schools should continue; however, a comprehensive school evaluation process will be of little value unless a better method for annual evaluation of programs is implemented. The school evaluation could be conducted only every few years, but decisions must be made annually about program expansions and contractions, budgeting, curricula development and admission policies.

Curricula Development

- Continuing efforts should be made to revise, update and standardize program curricula so that similar courses use the same outlines. Where divergence from standard curricula is required to meet special local needs, units should be developed with state board review and approval. Where possible, these diverging units also should be standardized.

- Information concerning curricula used in all schools should be maintained centrally with exceptions to standard curricula noted.

- Planned exit points or unit completions should be provided for all programs where applicable. Certifications indicating skill levels should be granted early leavers on a standardized basis.

- A statewide policy should be formulated to assure availability of remedial programs for all vo-tech students evidencing such need.

- A state policy and procedures should be developed for cooperative programs with private employers willing to offer on-the-job training for vo-tech students.

Budgeting

- The vo-tech schools should be funded by formula with program funding based on established costs per student contact hour for each program offered, administrative costs tied to personnel allotments based on total school SCHs, and nonformula funding for special purposes (e.g., new programs) with separate justification. The formula proposal submitted by BESE to the 1979 Legislature should be updated and approved by the Legislature for use in fiscal 1984. Implementation of the formula might be phased in to avoid sudden disruptions in school funding.

The budgeting process has been undermined severely by the defects in the administrative structure. Neither BESE nor the SDE has participated effectively. The budget process lacks adequate budget guidelines, uniform performance measures and cost data,

and central review and evaluation of new program requests.

Formula funding and strict requirements for justifying new programs would produce cost data and uniform performance measures needed to budget school operations equitably. A formula would encourage greater efficiency and economy. The provisions for administrative costs and nonformula expenditures would permit flexibility to meet the needs of small schools and those with special funding problems.

Proliferation of Schools

- A moratorium should be placed on building more vo-tech schools. The moratorium should include the Assumption Parish school, already authorized by law but not financed.
- Operations and programs at the small area and branch schools should be closely monitored and those which fail to operate efficiently and economically should be converted to other uses.
- Stringent guidelines for school location feasibility studies should be developed emphasizing cost factors. Where areas need vo-tech services, alternatives should be examined, such as extension programs at nonschool locations and transportation arrangements, which could be used to provide services without building new facilities or adding administrative costs.

Communication With Business

- Each school should be required to establish a functioning committee of local employers and knowledgeable practitioners for each of its major program areas.

Minimum meeting and reporting requirements should be established to assure the committees an opportunity to review and evaluate programs and offer suggestions to assist the school. These craft committees should also cooperate on a regional basis to analyze training needs for the metropolitan labor markets.

- The state should develop a model public relations program to assist school administrators in improving communication with potential employers in their area.

PAR's survey shows the vo-tech schools need greater contact with business and industry. A large segment of the business community apparently has little or no contact with or information about the vo-tech schools and their offerings. This is particularly true of smaller firms which, in combination, hire the largest number of people and are least likely to have their own training programs.

CONCLUSION

Vo-tech education in Louisiana has grown tremendously during the past few years in the number of new and renovated schools, the number and diversity of programs offered, enrollments and operating expenditures. Opportunities for vocational and technical education have increased significantly. Yet, information is not available to show whether the increase in vo-tech education has produced better trained individuals with improved chances for obtaining jobs. The results may have been spectacular or only mediocre—but no one knows.

The expansion phase is essentially complete and it is time now to make certain each vo-tech school operates as

effectively as it can. And, with costs rising rapidly, it is imperative that the schools also operate as efficiently as they can. The 52 state-funded vo-tech schools should be managed as a system, not mismanaged as a loose collection of semi-autonomous institutions.