

184

**MEETING  
LOUISIANA'S  
NEED FOR  
VOCATIONAL-  
TECHNICAL  
EDUCATION:  
A SUMMARY**

**PAR ANALYSIS**

Number 184  
October 1972

This *Analysis* summarizes PAR's forthcoming major study, *Meeting Louisiana's Need for Vocational-Technical Education*.

The complete report, which will be about 250 pages in length, will be off the press in February. To obtain a copy, see page 59.

# MEETING LOUISIANA'S NEED FOR VOCATIONAL-TECHNICAL EDUCATION

## *A Summary*

A growing number of citizens and public officials have become concerned that Louisiana's educational system is not relevant to the needs of today and tomorrow. Rather, education has been geared to the college-bound, despite the fact that in Louisiana only 13 of every 100 students who enter the first grade receive a college degree. An alternative must be provided aimed at retaining more youth in school and making all youth socially and financially independent insofar as their ability permits. To achieve these goals, many contend that the educational system must be reoriented toward greater emphasis on vocational-technical and career education.

The objective of this study is to identify problems existing in Louisiana's vocational-technical programs and find solutions to meet the educational needs of the majority of Louisiana's youth as well as adults.

### **What is Vocational-Technical Education?**

There have been many terms used to describe programs aimed at preparing one for life through education and training, including "occupational education," "trade education," "vocational education" and "vocational-

technical" education. Federal law defines vocational education to mean:

Vocational or technical training or re-training which is given in schools or classes (including field or laboratory work and remedial or related academic and technical instruction incident thereto) . . . conducted as part of a program designed to prepare individuals for gainful employment as semiskilled or skilled workers or technicians or sub-professionals in recognized occupations and in new and emerging occupations or to prepare individuals for enrollment in advanced technical education programs, but excluding any program to prepare individuals for employment in occupations . . . generally considered professional or which requires a baccalaureate or higher degree. . . .

### **Need for Change in Attitude**

The National Advisory Council on Vocational Education, in its first report of July 15, 1969, criticized the national attitude toward vocational education:

At the very heart of our problem is a national attitude that says vocational education is designed for somebody else's children. . . . We have promoted the idea that the only good education is an education capped by four years of college. This idea, transmitted by our values, our aspirations and our silent support, is snobbish, undemocratic, and a revelation of why schools fail so many students. . . .

The PAR ANALYSIS is published in January, February, March, April, September, October, November and December by the Public Affairs Research Council of Louisiana, Inc., 300 Louisiana Avenue (Box 3118), Baton Rouge, La. 70821. Rate: \$3.00 per year by subscription or \$.50 per issue.

The council noted that this attitude, which prevails in the federal government and is also evident in state governments and local school districts, must be changed.

Some argue that it is not the attitude of youth that needs changing, but the attitude of parents.

Attitudes do appear to be changing today. As noted by the National School Public Relations Association in its 1971 report, *Vocational Education: Innovations Revolutionize Career Training*:

Not long ago, if you wanted to visit the vocational education classes in a typical American secondary school, you could save some steps by heading directly for the basement. There, in dingy surroundings a few steps away from the school's boiler room, you'd find a man identified by his fellow faculty members as 'the shop teacher' struggling to inspire a group of young men to construct things out of wood and metal with hand tools or antiquated power equipment. The students in those basement rooms, inevitably, consisted of the boys rejected from the academic classrooms upstairs as either an uncontrollable discipline problem or a nonlearner.

Literally, as well as figuratively, 'Voc-Ed' classes were something you went down to. . . .

There are still too many places where these attitudes and conditions exist; but things are changing fairly rapidly. The educational institution that isn't doing some exciting new things in vocational education, or at least planning for them, is out of step. The school system that isn't thinking of vocational education as something that is part of its program from kindergarten through postsecondary years is headed for a traumatic future.

### What is Career Education?

The U. S. Office of Education is now urging that the term "vocational

education" be dropped in favor of "career education."

There are many conceptions and definitions of career education. A 1972 publication of the U. S. Office of Education, *Career Education*, defines the fundamental concept of career education as one in which:

. . . all education experiences, curriculum, instruction, and counseling should be geared to preparation for economic independence and an appreciation for the dignity of work.

The main thrust of career education is to prepare all students for a successful life of work by increasing their options for occupational choice, by eliminating barriers—real and imagined—to attaining job skills, and by enhancing learning achievement in all subject areas and at all levels of education. . . .

In scope, career education encompasses educational experiences beginning with early childhood and continuing through the individual's productive life. . . .

Career education, in the words of Commissioner Marland, will eliminate the artificial separation 'between things academic and things vocational.'

The concept of career education is not new. It has been pointed out that:

During the decades 1890-1910 vocationalism was one of the hottest issues in education, and the failure of educators during that period to agree on the place of vocationalism in the schools was to leave a heavy mark on the kind of vocational education which, inevitably, was put in the schools. It was a problem to which John Dewey directed some of his most penetrating thought. Sensing the inherent danger of developing dualism in the educational system, Dewey strongly urged the integration of vocational education into the general school program, stressing the benefits that would accrue to both forms of education to the worker-citizen, and to the democratization of industry. But Dewey's voice was to no avail. The

traditionalists refused to bend on such matters as the necessity of an academic curriculum for all students and requirements for teacher certification; many simply cringed at the sound of hammers and saws in the school.<sup>1</sup>

The philosophy of career education is that learning can occur when it is made meaningful through a practical setting rather than an abstract one. Career education begins in the elementary grades and continues through each succeeding level—junior high, secondary, postsecondary and adult. It demands no permanent bondage to a career goal or choice; rather, it should reveal to students their great range of options and help them develop positive attitudes toward work. Such a program is to serve as a core around which other areas of knowledge are organized so that it is integrated into the whole school program.

Career education envisions that all youth, as part of growing up, are entitled to experience the psychological meaning of work, to examine the benefit to society of different forms of work, and to test themselves in different work activities and acquire skills necessary to enter their chosen careers. Under present education programs, youth are reaching early adulthood without such experiences.

Career education also embodies the idea that students who have a reason to learn will do so, and motivation is stimulated through career development. The choice between "vocational" and "academic" education

should not be one of poor or good education but, rather, should be a choice of careers and individual pursuits.

### The Cluster Concept

One of the new developments embodied in career education is the "cluster concept." This concept holds that many jobs have a commonality, that is, they require some similar or identical skills and knowledge and, hence, can be clustered. Occupational clusters, which together should represent all kinds of jobs, are being advocated by the U. S. Office of Education as one means around which a career education system might be designed. The number of clusters that a student should explore is expected to narrow as a student advances in school and makes decisions as to areas in which he is interested.

### Guidance Services

Guidance services are fundamental to career education as well as vocational-technical programs in that they assist the student in self-understanding, in educational and vocational planning, and in personal and social development.

A number of services are offered by the professional counselor; some of the more important are: counseling, consultation, educational and occupational planning, testing and evaluation, referral, placement, and research to evaluate the school's programs as related to student needs.

<sup>1</sup>Grant Venn, *Man, Education and Work; Postsecondary Vocational and Technical Education* (Washington, D. C.: American Council on Education, c1964), 51.

## THE NATIONAL PERSPECTIVE

For many centuries vocations were learned almost entirely through the father-son pickup method in which the son learned skills by imitating his father. During the medieval period the apprenticeship system developed in which youth received skill training from a master. Formal education was limited largely to the wealthier classes until the industrial revolution. With the advent of modern industrial society, the teaching of basic skills began to be extended to everyone. Public vocational education systems were established in Europe in the 19th century; this need was first recognized in the United States at the beginning of the 20th century.

### IMPETUS OF FEDERAL LEGISLATION

The federal government has provided the impetus for the development of vocational-technical education in this country. Garth L. Mangum, who has directed and authored numerous studies on manpower programs, criticized federal policies:

Federal law which mandated a separate administrative structure for vocational education and defined it as less than college level did not create the separation between academic and vocational education but it has certainly perpetuated it. It is paradoxical that the very phases of education which are the most specifically vocational in nature, higher and graduate education, are held in esteem while occupational prepara-

tion at less than college level is without prestige.<sup>2</sup>

### The Smith-Hughes Act of 1917

It has been 55 years since the first federal legislation on vocational education was adopted—the Smith-Hughes Act of 1917. The rather rigid determination of specific programs under this act influenced the development of vocational education for over four decades. Because the law stipulated that federally supported programs had to be of less than college grade and terminal in nature, most development of vocational education took place at the high school level. Programs were heavily weighted toward agriculture and home economics.

The George-Dean Act of 1936 and the George-Barden Act of 1946 added support for additional programs and allowed states more flexibility.

The 1958 National Defense Education Act brought the first significant addition to vocational education since 1917 by providing federal funds to train persons “as highly skilled technicians in recognized occupations requiring scientific knowledge . . . in fields necessary for the national defense.”

By the 1960's, it was apparent that the nation's vocational education sys-

<sup>2</sup>Garth L. Mangum, “Preparing Youth for Employment,” in Committee for Economic Development, *Functional Education for Disadvantaged Youth*, ed. Sterling M. McMurrin, CED Series on Urban Education, Supplementary Paper Number 32 (New York: 1971), 31-32.

tem was inadequate. Vocational education funds were still too limited, and they continued to be channeled primarily into agriculture and home economics programs in the high schools. The trades and industrial programs that did exist were largely exploratory.

### **The Vocational Education Act of 1963**

The Vocational Education Act of 1963 was a turning point for vocational education. It (1) provided for a dramatic increase in federal funds and broadened the definition of vocational education; (2) recognized the need for a flexible educational system and (3) focused on services to people without regard to predetermined occupational groupings. These provisions allowed funds to be used for training at both the high school and postsecondary levels but below the baccalaureate degree level. Equally significant, the 1963 act recognized that large scale facilities would be needed and stipulated that a considerable portion of the funds were to be used for construction of area vocational centers or postsecondary training. The act also authorized the establishment of work-study programs and provided for development of research programs.

### **Vocational Education Amendments of 1968**

Amendments in 1968 authorized a more than doubling of federal funds for vocational education, and states were allowed still more flexibility. Highest priority was given to meeting needs of the disadvantaged, the mentally and physically handicapped and postsecondary programs.

The 1968 amendments created a National Advisory Council on Voca-

tional Education to advise the U. S. commissioner of education and report annually to Congress on its evaluation of programs and new federal legislation it feels is needed.

To receive federal funds under the act, each state must establish a counterpart state advisory council which must consult with the state board of education in developing its annual and long-range plan for federally assisted vocational education, advise the state board on administration of the program, and conduct independent evaluation at least annually.

Under the 1968 amendments, an annual state plan is required for federal funding; the state plans are to be revised and extended each year.

### **Education Amendments of 1972**

The 1972 education amendments will have a profound effect on vocational-technical education at the elementary-secondary as well as the postsecondary levels. The new act authorizes grants to states for planning occupational education; planning is to include:

... the development of a long-range strategy for infusing occupational education ... into elementary and secondary schools on an equal footing with traditional academic education, to the end that every child who leaves secondary school is prepared either to enter productive employment or to undertake additional education at the postsecondary level, but without being forced prematurely to make an irrevocable commitment to a particular educational or occupational choice.

Industrial arts programs are made eligible for federal funding. Moreover, postsecondary institutions are made eligible for federal vocational funding if they (1) admit high school graduates or the equivalent, or persons at least



18 years old; (2) offer an associate degree or credits acceptable toward a baccalaureate; and (3) provide technical, occupational and specialized education. Grants are authorized to establish or expand community colleges, which by definition may be 4-year institutions, but only to renovate, remodel or lease facilities.

### STATE VOCATIONAL EDUCATION SYSTEMS

Although the federal government has encouraged the development and expansion of particular programs in vocational education, each state is responsible for its own system. States have developed their programs according to their historical traditions, preferences, peculiar needs and goals.

A survey by PAR, in which over half of the states completed questionnaires, revealed that programs are offered at an amazing variety of educational institutions. The types of secondary institutions include comprehensive high schools, trade or technical high schools and area vocational centers, as well as combined or cooperative secondary-postsecondary schools and programs. The types of postsecondary institutions offering vocational training include area vocational-technical schools, technical institutes, technical colleges, 2-year community or junior colleges, senior colleges and universities, adult schools, and 13th and 14th year programs attached to high schools. Many states offer programs at almost all of these different types of institutions.

There does not appear to be an identifiable trend among states toward a particular type of structure nor toward one type of institution over another. Programs are frequently administered through several state boards, particularly in postsecondary educa-

tion, as well as through local authorities. Financing can come from federal, state and local sources as well as from student charges.

No state appears to be a model for other states to copy. A review of reports by all 50 state advisory councils and directors of vocational-technical education<sup>3</sup> indicates that no state feels that it is adequately meeting its needs, although some states are trying much harder than others.

The PAR staff visited state departments of vocational-technical education in six states (Georgia, North Carolina, Ohio, South Carolina, Tennessee and Wisconsin) to gain an insight into the operation of programs in states with different emphases and approaches. The general impression gained was that, while these states use several organizational arrangements and methods of funding, they would prefer as much centralization of authority within a single state board as possible rather than fragmenting authority among several boards. Those persons interviewed also tended to feel that state control is essential for a well-planned and coordinated system.

### TYPES OF INSTITUTIONS

*Comprehensive high schools* have been the largest single source of vocational education. Until the early 1960's, they were the only training institutions in many areas. In recent years many are questioning whether high schools, which cannot provide breadth and depth of curricula, should

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<sup>3</sup>U. S. House of Representatives, Committee on Education and Labor, General Committee on Education, *Reports on the Implementation of the Vocational Education Amendments of 1968* (Washington, D. C.: U. S. Government Printing Office, 1971.)



provide programs other than the very basic vocational courses.

Some have taken a new look at one of the nation's oldest types of vocational institution—the *trade high school* which was established by several of the more heavily industrialized states at the beginning of the century. However, these states have not extended these schools, and few other states introduced them into their systems during the last decade. One weakness is that the trade high school separates youth on a vocational basis, thus making them susceptible to a second-class status.

The federal government has given impetus to the development of area vocational schools which offer a wide range of programs and can be used as service centers for activities related to many fields. They can train high school youths on a cooperative basis, provide job training to high school and college dropouts, retrain and upgrade training of adults, and offer basic education to adults. Courses may range from crafts to sophisticated skills. Federal funds caused a tripling of such schools throughout the country in 4 years—from 405 in 1965 to 1,303 in 1969—with still more schools being planned or constructed.

Institutions of higher education are assuming an increasing role in vocational-technical education. Many states have made extensive use of community or junior colleges which are 2-year institutions offering terminal programs in occupational, technical and semi-professional training as well as the first 2 years of college for students planning to transfer to 4-year colleges and universities. Some also offer adult courses and hobby interests. Many 4-year institutions have begun offering subbaccalaureate curricula leading to an associate degree or certificate.

## COOPERATIVE WORK PROGRAMS

Cooperative programs allow students to obtain work experience which can be valuable in relating education to career goals.

Under cooperative work-study programs, high school juniors and seniors usually go to school part time and work part time on jobs approved by the school. The time in school usually includes a class concerned with the theory of the occupation or business in which the student is employed.

There is a difference between a cooperative work-experience program which has job training as its basis and a work-study program which has financial need as its primary purpose. Many feel that work-study programs are less satisfactory than cooperative programs, since employment may not be typical nor related to education and career goals of the student.

## MANPOWER PROGRAMS

The 1960's saw a vast array of manpower training programs introduced. Training of jobless workers in depressed areas began under the federal Area Redevelopment Act of 1961, was expanded considerably under the Federal Manpower Development and Training Act of 1962 (MDTA) and since has mushroomed into numerous programs. Some 18 different federal agencies established a variety of competing and overlapping manpower programs.

Most of the federal manpower programs have little relationship to the formal school structure. Emphasis has been placed on remedial rather than preventive programs. This approach has been criticized since the number of unskilled and disadvantaged remained unchanged during the 1960's,

## LOUISIANA SURVEY

Vocational-technical education is an issue not only in Louisiana, but in all states. There is not enough of it; it often is not the right kind; and it is failing to reach the majority of youth and adults who need it.

Louisiana was one of the first states to initiate vocational-technical schools, originally called trade schools, and should have had a jump on other states. However, Louisiana seems to have fallen behind many states in providing vocational-technical education to a large segment of its population.

The programs that Louisiana does provide are unplanned, uncoordinated and underfinanced. There is a serious lack of communication and cooperation among elementary-secondary schools, vocational-technical schools and institutions of higher ed-

ucation in the public sector. Private programs are unknown and ignored by those responsible for planning and implementing public programs. Serious conflicts are developing over funds and programs among the various types of institutions. The public has little knowledge of the public and private programs that are in existence, and knowledgeable persons in business and industry are seldom called on for assistance.

Louisiana has a vast assortment of vocational-technical programs, both public and private, but there is no central source of information concerning their operations and location, cost and effectiveness, nor the number and types of persons participating. To fill this void, PAR made an extensive, although not exhaustive, survey.

## CAREER EDUCATION

The concept of career education has been receiving mounting interest in Louisiana. The new State Superintendent of Education has committed himself to developing specific plans, and the 1973 state plan for vocational education incorporates this concept. The 1972 Legislature appropriated \$1 million for career education. This \$1 million, supplemented by federal matching funds, is being used to develop comprehensive career education models, assess job opportunities and establish new training programs. Approximately \$600,000 of the \$1 million will be directed to 25 vocational-technical schools for training programs.

Three models are being planned and developed to test career education programs so that they may be applied statewide later: (1) urban parish (East Baton Rouge); (2) rural parish (Natchitoches); and (3) consortium of rural parishes (Ascension, Assumption, St. James, St. John and St. Charles). The superintendent has also established a Task Force on Career Education.

Several career education pilot and innovative programs have been underway in Louisiana, some of which are federally funded. School systems which have such projects include Caddo, Calcasieu, East Baton Rouge,

Grant, Lafayette, Morehouse, Natchitoches, Orleans, Ouachita and Winn.

In response to a questionnaire, several school superintendents said they were planning to institute some

phase of career education in the near future while a number of superintendents expressed interest in career education.

## OVERVIEW OF ENROLLMENTS AND PROGRAMS

Information collected on enrollments in various vocational-technical programs within elementary and secondary schools, vocational-technical schools, colleges and universities, and apprenticeship programs, is summarized in Table 1. Enrollments in federal manpower programs, private vocational-technical schools and industry programs are not included, because data collected was incomplete.

Most enrollments were in the secondary schools. However, almost a third of the secondary students were enrolled in nonoccupational home eco-

nomics courses, and most of the remainder were in office occupations.

Vocational-technical schools and apprentice training put most emphasis on trade and industrial programs.

Colleges and universities placed greatest emphasis in the technical field, although technical programs comprised only 2.1 percent of total enrollments.

There was little overlap in program offerings among the different types of institutions, except in office occupa-

**Table 1. Summary of Enrollments in Vocational-Technical Programs By Type of Institution**

Programs <sup>a</sup>	Elem. & Secon.		Voc-Tech Schools		Postsecondary		Apprentice		Total	
	Enroll-ments 1969-70	% of Total	Enroll-ments 1969-70	% of Total	Enroll-ments Fall 1971	% of Total	Enroll-ments Aug. 1971	% of Total	Enroll-ments	% of Total
Agriculture	15,903	12.9	137	0.4	0	0	11	0.3	16,051	9.9
Distributive Ed.	3,150	2.6	1,870	5.7	29	1.5	0	0	5,049	3.1
Health	78	0.1	2,428	7.4	401	20.7	8	0.2	2,915	1.8
Home Economics	49,098	39.9	208	0.6	18	0.9	0	0	49,324	30.4
Office Occupations	51,984	42.2	9,838	30.0	704	36.3	5	0.1	62,531	38.6
Technical Ed.	14	0	2,002	6.1	733	37.8	593	14.2	3,342	2.1
Trades & Industry	2,914	2.4	16,326	49.8	55	2.8	3,552	85.2	22,847	14.1
<b>TOTAL</b>	<b>123,141</b>	<b>100.0</b>	<b>32,809</b>	<b>100.0</b>	<b>1,940</b>	<b>100.0</b>	<b>4,169</b>	<b>100.0</b>	<b>162,059</b>	<b>100.0</b>

<sup>a</sup> All enrollments have been converted to the U. S. Office of Education Classification Code.

SOURCE: PAR questionnaires to Louisiana vocational-technical schools and colleges and universities; the Louisiana State Department of Education; and the Louisiana State Apprenticeship Council.

## INTERSTATE COMPARISONS OF FEDERAL PROGRAMS

Data required by the federal government permits a limited comparison of Louisiana's vocational-technical programs with other states.

Louisiana has not kept pace with

the nation in either the increase in enrollments or expenditures. From 1965 through 1971, enrollments in Louisiana increased 68.1 percent compared to a 77.3 percent increase for the

United States. During the same period, Louisiana's expenditures for federally funded vocational education programs increased 122.8 percent compared to 255.6 percent for the nation.

Federal law requires that states match federal funds, with different vocational programs requiring differing ratios. All states over-match federal dollars, but Louisiana matches less than any other state.

One means of measuring state effort with federal matching requirements is comparing the ratio of total dollars spent for each \$1 of federal funds. During fiscal 1969-70, Louisiana spent \$1.67 for every \$1 of federal funds, ranking next to last among the 50 states. The average spent by states was \$5.14 for each dollar of federal funds, with a range from \$22.96 in Massachusetts to \$1.14 in Delaware.

## STATE ADMINISTRATION OF VOCATIONAL-TECHNICAL EDUCATION

The State Board of Education is designated as the State Board for Vocational Education in Louisiana, as is done in all but seven other states. The state superintendent of education, as executive officer and secretary of the State Board of Education, is charged with furnishing leadership and providing general direction to the vocational education programs, services and activities of the state. The function of the state department is to provide planning, advisory services, coordination, research, public relations and in-service education.

The state board, in compliance with federal law, submits a state plan for vocational education to the U. S. Office of Education; the plan is concerned only with vocational education

programs administered by the state board and which are eligible for federal funding.

There is a State Advisory Council for Vocational Education, also a federal requirement, which meets regularly and publishes an annual report recommending improvements.

The State Board of Education does not administer all vocational-technical education programs in Louisiana. The Louisiana State University system is administered by the university's board of supervisors. Manpower training programs are administered through a vast assortment of federal, state, local and private agencies. Private programs generally are operated independently of state governmental agencies.

## INSTITUTIONS PROVIDING VOCATIONAL-TECHNICAL PROGRAMS

A survey of vocational-technical education in Louisiana gathered information from the following types of institutions and programs:

1. Elementary-Secondary Schools

2. Vocational-Technical Schools
3. Institutions of Higher Education
4. Manpower Programs
5. Apprenticeship Programs
6. Private or Proprietary Schools
7. Industry Programs

## Elementary-Secondary Schools

Elementary and secondary education is particularly important in Louisiana since many students do not continue their education beyond high school, and far too many do not even complete high school. Since elementary and secondary schools are the only source of a formal education and job training for many, it is important that they be geared to meeting diverse needs.

### VOCATIONAL-TECHNICAL PROGRAMS

The largest enrollments in vocational programs in Louisiana were at the high school level. The programs tended to be traditional ones—particularly home economics and agriculture.

A total of 159,358 students in grades nine through 12 participated in public vocational education programs

during the 1970-71 school year, representing over two thirds (68.7 percent) of all those enrolled in public high schools. However, only 74,235 students, or 32 percent of total high school registration, were enrolled in vocational courses which provided occupational preparation. (See Table 2.)

**Agriculture:** Agricultural education had one of the largest enrollments (18,169 in 1970-71), despite the fact that agriculture no longer dominates the state's economy.

**Business and Office:** Almost a third of those enrolled in vocational programs took such courses as typing, shorthand and office machines. Of the 48,067 students enrolled in business and office training, typing had the largest enrollment (16,772).

**Distributive Education:** Distribu-

**Table 2. Public High School Students Enrolled in Vocational Programs, 1970-71**

Program	Number Enrolled	Number School System <sup>a</sup>	% of Total Enrolled in Vocational Programs	% of Total Enrolled in High School
Agriculture	18,169	57	11.4	7.8
Business and Office	48,067	63	30.2	20.7
Distributive	3,819	26	2.4	1.6
Health	99	1	0.1	b
Home Economics	52,731	64	33.1	22.7
(Gainful)	(715)		(0.4)	(0.3)
Industrial Arts	33,107	63	20.8	14.3
Technical	17	0	b	b
Trade and Industrial	3,349	38	2.1	1.4
TOTAL	159,358		100.0	

<sup>a</sup>Number among 66 local school systems.

<sup>b</sup>Less than 0.1 percent.

SOURCE: Louisiana State Department of Education.

tive education courses are aimed at training students in marketing or selling of goods or services. Cooperative arrangements with businesses, whereby students work part-time, form an important part of this program. During 1970-71, only 3,819 students were enrolled.

**Health:** The Orleans school system was the only one that provided training in health occupations during 1970-71, with 99 students enrolled in practical nursing. However, several other school systems have since instituted health programs or are considering doing so.

**Home Economics:** Home economics attracts the largest number of students among the vocational programs, although most take courses in home-making which are not geared toward wage-earning. Of the 52,731 home economics students enrolled in 1970-71, only 715 took courses aimed at gainful employment.

**Industrial Arts:** Industrial arts is a program of orientation and exploration rather than specific job training. Enrollments have not been included in Louisiana's state plan for vocational-technical education, although 33,107 students took such courses in 1970-71.

**Technical:** Technical courses are not offered within the high school curricula, but 17 high school students took such courses in 1970-71 by availing themselves of courses taught at vocational-technical schools.

**Trade and Industrial:** Crafts and industrial skills are encompassed in trade and industrial education. The courses most often taken by the 2,451 students enrolled in this program in 1970-71 included auto mechanics, carpentry and metal work.

## GUIDANCE COUNSELORS

There were 852 counselors in the public elementary and secondary schools in 1970-71. Of these, 691 were full-time and 161 part-time; 794 were certified. There were 5,731 elementary students for every elementary counselor and 437 secondary students for every secondary counselor. Less than half of the public schools had counselors.

The elementary-secondary guidance system in Louisiana is plagued with four acute problems:

1. There are too few counselors in the public schools.
2. Understaffing of counselor services is worse than ratios indicate, for many counselors must spend a great deal of their time on administrative and clerical work.
3. Few counselors are aware of the educational alternatives to college.
4. No comprehensive system of educational employment information is available to counselors.

## COOPERATIVE PROGRAMS WITH VOCATIONAL-TECHNICAL SCHOOLS

Few high school students participate in cooperative programs in which they spend part of their school days at vocational-technical schools acquiring specific job training. During 1970-71, only 1,015 high school students, or 0.6 percent of those taking vocational courses, attended vocational-technical schools.

There are several reasons why so few high school students attend vocational-technical schools:

1. Vocational-technical schools are

not within commuting distance of many high schools.

2. There are problems in coordinating class schedules and transporting students between the high school and vocational-technical school.

3. In some parishes where a vocational-technical school exists, there is a lack of communication between the local school superintendent and the director of the vocational-technical school.

4. Vocational-technical schools give low priority to admission of high school students since they lack facilities and funds to accommodate others who are seeking admission.

5. State board policy discourages admission of high school students to the vocational-technical schools by providing that such students may not be admitted unless there is already a class with 10 adults and the class has openings.

6. The cooperative program has been discouraged in recent years because of concern that the state provides funds to both the high schools and vocational-technical schools, thus paying twice for the same students.

#### **ADULT PROGRAMS OFFERED BY LOCAL SCHOOL SYSTEMS**

Most school systems which offer vocational training to high school students also have evening programs for adults. During 1970-71 a total of 6,379 persons participated in such courses, most of which were designed to upgrade or retrain adults.

#### **13TH AND 14TH YEAR**

Interest has arisen in establishing 13th and 14th grades on top of the

existing 12 grades in the public school system. Two pilot programs were established several years ago—the St. Bernard Parish Community College and the Airline Community College in Bossier; however, curricula are primarily academic. A 1970 act authorizes parish school boards to establish 13th and 14th year programs upon approval of the State Board of Education and the Coordinating Council for Higher Education. Under this law, interest has now developed in devoting these two additional grades to vocational-technical education. The coordinating council has opposed the 13th and 14th year concept, while the State Board of Education has not.

#### **COMMENTS**

The need for more vocational training is recognized by Louisiana's public school superintendents and their staff. In response to a PAR questionnaire to which 60 of the 66 superintendents replied, 42 felt that the need for more vocational training in their respective parishes was critical and 18 felt the need was moderate. None felt that needs were being met. However, public school administrators are turning increasingly to their own resources rather than vocational-technical schools to provide vocational training, but their efforts have been limited by lack of funds in most instances.

Another problem in offering vocational programs at the high school level is that, despite consolidation, fewer than one out of six high schools in Louisiana have over 1,000 students in grades nine through 12. Even a high school with 1,000 students can offer only a few occupational programs since only a portion of students will enroll.



## Vocational-Technical Schools

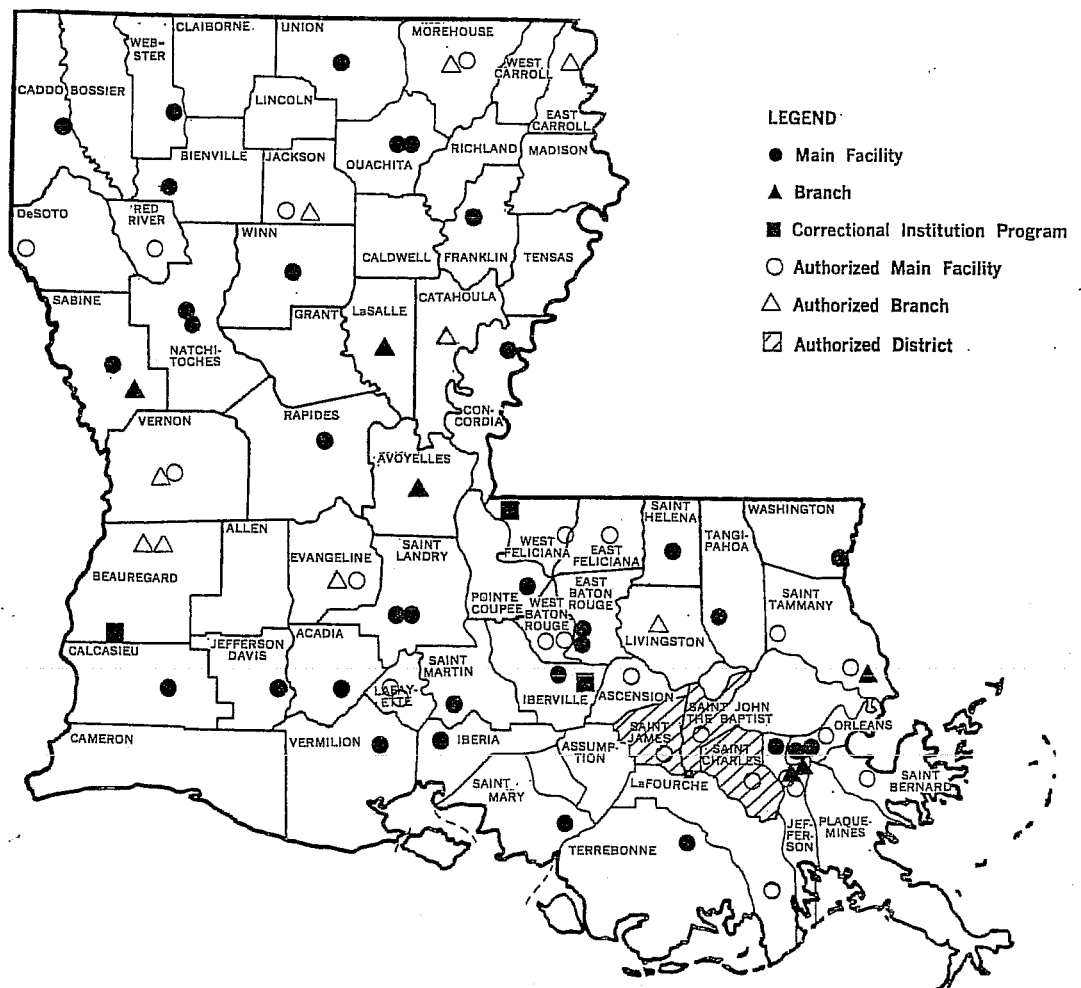
Louisiana has a state administered and financed system of 33 vocational-technical schools which provides vocational-technical education to a variety of students—high school dropouts, high school students, high school graduates, college dropouts and college graduates, ranging in age from 16 to 60. They provide most of the public, postsecondary vocational-technical education

offered in Louisiana. Figure 1 shows the present and authorized schools.

### COST PER STUDENT

There is no formula for allocating funds to the state's vocational-technical schools. However, the average cost per student for the majority of schools surprisingly falls within a range of

Figure 1. Existing and Authorized Vocational-Technical Schools



\$150 to \$250 a year. The average cost per student for the 33 schools was \$211.24 in 1969-70. The range among schools was \$68.35 at Jefferson Parish to \$538.84 at Capitol Area. (See Table 3.)

Some of the variation in student costs can be explained by the proportion of the enrollment that is full-time

preparatory students; the cost of training such students would usually be higher than part-time extension or apprentice students. Other variations could be due to types of programs as well as to the size of the student body, dropout rate, and education and experience of the faculty.

**Table 3. Average Cost Per Student at Vocational-Technical Schools, 1969-70 School Year**

Rank	Vocational-Technical School	Cost Per Student	Number Preparatory Students	% of Students Preparatory
1	Capitol Area	\$ 538.84	127	42.7
2	Natchitoches	513.98 <sup>a</sup>	306	52.6
3	Bienville	438.60 <sup>b</sup>	57	100.0
4	Central Area	394.93	200	59.3
5	Delgado	337.07	3,963	53.0
6	Orleans Area	314.54	313	49.0
7	Evangeline Area	314.29	522	100.0
8	Memorial Area	297.79	432	79.7
9	North Central Area	278.83	468	95.3
10	T. H. Harris	261.99	1,360	67.9
11	Opelousas Area	251.51	353	68.1
12	H. P. Long	249.52	344	74.0
13	Northeast Louisiana	246.46	256	57.3
14	Gulf Area	246.13	597	100.0
15	Florida Parishes	244.38	160	55.9
16	Hammond Area	233.58	254	46.0
17	Sowela	229.76	1,041	47.3
18	Sullivan	225.11	572	47.8
19	Westside	222.29	286	59.3
20	Alexandria	218.54	716	46.5
21	Concordia Parish	213.74	277	58.8
	Average	211.24	---	---
22	Jefferson Davis	199.96	311	53.8
23	Sabine Valley	196.80	451	56.4
24	South Louisiana	196.53	316	32.7
25	Delta Area	188.97	420	85.2
26	Young Memorial	187.39	538	39.6
27	Northwest Louisiana	183.57	330	42.4
28	Ouachita Valley	177.86	731	40.6
29	Southwest Louisiana	175.57	1,136	77.0
30	Shreveport-Bossier	141.77	1,063	34.8
31	Teche Area	129.41	423	35.5
32	Baton Rouge	113.39	745	23.0
33	Jefferson Parish	68.35	950	14.8

<sup>a</sup>Includes cost of curricular lab; separate data not available.

<sup>b</sup>Being merged with Northwest school.

SOURCE: PAR questionnaires to vocational-technical schools and *Financial Reports of the Louisiana Division of Administration*.

## FACILITIES OF VOCATIONAL-TECHNICAL SCHOOLS

Few who have seen the state's 33 vocational-technical schools would maintain that facilities are adequate. Most are crowded, old and poorly maintained.

### Value of Facilities

The state has invested little in its vocational-technical school facilities. One means of determining the value of these school plants—buildings and contents—is through the insured value compiled by the Property Insurance Section of the Division of Administration. This data has some drawbacks but does give some insight.

Data as of March 23, 1972 indicates that the 33 vocational-technical schools and branches had a combined insured value of \$26 million of which \$18.2 million represented buildings and \$7.7 million, equipment and other contents.

There has been little expansion of these facilities during the past 5 years. For example, in 1966-67 the vocational-technical schools, excluding Delgado which was then administered by the City of New Orleans, had an insured value of \$12.6 million. For comparative purposes, if Delgado is excluded from 1972 data, these facilities increased in value by only \$3.1 million, or 25 percent, during the past 5 years. (See Table 4.)

### Bond Funds

Since 1960 the state has authorized some \$350 million in bonds for capital construction, excluding highways and ports as well as revenue-type bonds of colleges such as those for dormitories. The 33 schools only received \$9.5 million from bond proceeds,

while colleges received over \$200 million.

Almost half (\$4.2 million) of the \$9.5 million in bonds for vocational-technical schools went to three of the 33 schools—\$1.6 million for Delgado; \$1.2 million for a new site for the Shreveport-Bossier school; and \$1.4 million for Sullivan at Bogalusa and its branch at Slidell. Three other schools received no funds, and 14 received less than \$100,000 during this 12-year period.

### Utilization

Maximum capacity of vocational-technical schools is determined by the size of the facility and the number of instructors.

Most schools reported that they were operating at or near their maximum capacity as of February 1971; half had enrollments between 90 and 100 percent of their capacity. This data has its limitations, however, since there are no standards for space per student.

A large majority of the directors stated that they were operating at maximum capacity for preparatory programs; the number of students served in evening extension programs depended on funds available.

### Waiting Lists

Waiting lists also indicate lack of adequate facilities at the vocational-technical schools. Unfortunately, there are different means of reporting waiting lists, and many schools do not maintain a waiting list for their evening and apprenticeship programs. There is no standard for determining who is placed on the waiting lists nor how long potential students remain on the list.

Table 4. Insured Value of Capital Facilities of Vocational-Technical Schools

Vocational Technical School	1966-67			1971-72		
	Building	Contents	Total	Building	Contents	Total
Alexandria	\$ 457,000	\$ 241,000	\$ 698,000	\$ 537,000	\$ 456,000	\$ 993,000
Baton Rouge	400,000	440,800	840,800	402,000	485,800	887,800
Bienville	114,900	30,100	145,000	114,900	30,100	145,000
Capitol Area	134,000	132,900	266,900	134,000	132,900	266,900
Central Area	181,000	73,300	254,300	181,000	69,300	250,300
Concordia Parish	93,000	48,600	141,600	93,000	80,000	173,000
Delgado	N/A	N/A	N/A	8,471,600	1,802,200	10,273,800
Delta Area	201,000	72,800	273,800	201,000	158,400	359,400
Evangeline Area	217,000	113,300	330,300	217,000	208,000	425,000
Florida Parishes	100,000	50,000	150,000	100,000	50,000	150,000
Gulf Area	135,200	80,100	215,300	174,700	182,800	357,500
Hammond Area	169,000	84,000	253,000	200,800	185,300	386,100
Huey P. Long	279,000	71,500	350,500	283,000	132,500	415,500
Jefferson Davis	171,900	80,000	251,900	171,900	100,500	272,400
Jefferson Parish	417,800	55,500	473,300	357,200	142,800	500,000
Memorial Area	83,000	48,700	131,700	83,000	258,000	341,000
Natchitoches	388,000	201,900	589,900	388,000	220,000	608,000
North Central Area	137,600	90,000	227,600	137,600	138,000	275,600
Northeast Louisiana	137,300	89,000	226,300	137,300	91,800	229,100
Northwest Louisiana	173,000	68,000	241,000	506,700	80,000	586,700
Opelousas Area	185,100	62,100	247,200	185,100	130,000	315,100
Orleans Area	402,000	95,000	497,000	402,000	95,000	497,000
Ouachita Valley	434,000	489,000	923,000	298,000	375,000	673,000
Sabine Valley	272,800	147,000	419,800	360,800	167,000	527,800
Shreveport-Bossier	768,000	107,000	875,000	1,143,500	207,000	1,350,500
South Louisiana	392,700	148,700	541,400	392,400	235,900	628,300
Southwest Louisiana	434,700	130,400	565,100	436,700	206,200	642,900
Sowela	477,900	217,500	695,400	477,900	317,800	795,700
Sullivan	100,000	70,000	170,000	100,000	70,000	170,000
T. H. Harris	425,600	314,600	740,200	854,800	554,100	1,408,900
Teche Area	136,000	84,000	220,000	136,000	84,000	220,000
Young Memorial	324,300	98,000	422,300	353,100	183,200	536,300
Westside	207,000	60,000	267,000	207,000	100,000	307,000
TOTAL	\$8,549,800	\$4,094,800	\$12,644,600	\$18,239,000	\$7,729,600	\$25,968,600 <sup>a</sup>
TOTAL (excluding Delgado)				\$ 9,767,400	\$5,927,400	\$15,694,800

<sup>a</sup>Includes Delgado.

NA—Data not available.

SOURCE: Property Insurance Section of the Louisiana Division of Administration.

Waiting lists reported as of February 1971 for preparatory programs ranged from none to double the maximum capacity of the schools. The number on the waiting lists equaled 77.9 percent of the maximum capacity of all schools. However, in only six schools were the waiting lists over 100 percent of maximum capacity, whereas, the number on the lists of half of the schools was under 50 percent. One reason the overall percentage was so high was that larger schools had longer waiting lists than most of the smaller schools.

### Appraisal of Need

While the needs of vocational-technical schools for capital funds seem obvious, this is hardly a basis for providing money.

One means of deciding whether institutions need additional facilities is through a space utilization study to determine condition and extent of use of existing facilities.

A 1971 facilities survey by the State Department of Education showed many inconsistencies in data presented. For example, in a drafting course, one school had 840 square feet with a student capacity of 20 (21 actually enrolled) and requested no additional space, whereas another school had 9,000 square feet with a student capacity of 15 (eight enrolled) and requested 1,500 square feet. In an industrial engines course, two schools were reported to have the same student capacity although one school had twice the square footage of the other and requested additional space. Numerous other examples could be cited. Explanations may have clarified these seeming inconsistencies, but none was offered.

## PROGRAMS AND ENROLLMENTS

The vocational-technical schools divide their programs into preparatory, extension and apprenticeship. *Preparatory* programs include training for those who have never worked in that field before; *extension* programs are mainly for those who need upgrading in a particular field; and *apprenticeship* programs are related courses for apprentices. Since students may enroll and leave at various times, enrollments may be reported as of a certain date or cumulative for the year.

For the 1969-70 fiscal year, there was a cumulative enrollment of 43,676 students in the vocational-technical schools. Of these, 19,731 were enrolled in the preparatory programs, 21,656 in extension and 2,289 in apprenticeship programs. Schools varied in size from 57 students at Bienville to 7,470 at Delgado. (See Table 5.)

### Programs

Students in vocational-technical schools enroll in programs for specific occupations. Practical nursing, welding, accounting and bookkeeping are programs offered by a large proportion of the schools. According to data reported as of February 1971, many schools had few program offerings. For example, 15 schools had 10 or fewer different program offerings, and two of these 15 schools had five or fewer offerings. Only five schools had more than 25 program offerings, the largest of which was Delgado with 45. (See Table 6.)

Offerings of the schools in preparatory programs ranged from two to 32, with half of the schools having 10 or fewer programs. The larger schools had a wide variation in the number of

Table 5. Cumulative Enrollments By Vocational-Technical Schools, 1969-70

Vocational-Technical School	Total	Preparatory	Evening	Apprentice
Alexandria	1,541	716	793	32
Baton Rouge	3,237	745	1,499	993
Bienville	57	57	—	—
Capitol Area	266	127	89	50
Central Area	337	200	137	—
Concordia Parish	471	277	194	—
Delgado	7,470	3,963	3,028	479
Delta Area	493	420	73	—
Evangeline Area	522	522	—	—
Florida Parishes	286	160	126	—
Gulf Area	597	597	—	—
Hammond Area	552	254	298	—
Huey P. Long	465	344	121	—
Jefferson Davis	578	311	267	—
Jefferson Parish	6,405	950	5,353	102
Memorial Area	542	432	110	—
Natchitoches	582	306	276	—
North Central Area	491	468	23	—
Northeast Louisiana	447	256	191	—
Northwest Louisiana	779	330	449	—
Opelousas	518	353	165	—
Orleans Area	638	313	293	32
Ouachita Valley	1,799	731	873	195
Sabine Valley	799	451	348	—
Shreveport-Bossier	3,052	1,063	1,790	199
South Louisiana	965	316	630	19
Southwest Louisiana	1,475	1,136	258	81
Sowela	2,199	1,041	1,063	95
Sullivan	1,196	572	612	12
T. H. Harris	2,002	1,360	642	—
Teche Area	1,193	423	770	—
Westside	482	286	196	—
Young Memorial	1,358	538	820	—
<b>TOTAL</b>	<b>43,794</b>	<b>20,018</b>	<b>21,487</b>	<b>2,289</b>

SOURCE: PAR questionnaires to Louisiana vocational-technical schools.

programs with Sowela and Shreveport-Bossier offering 18 programs each; T. H. Harris, 21; and Delgado, 32.

The number of *evening* programs offered at individual schools was also relatively small, with 14 schools offering five or fewer programs while only two schools, Jefferson Parish and Shreveport-Bossier, had over 20 programs.

There was a large number of different programs offered, but almost half were offered at only one school. Of the 101 unduplicated programs, 47, or 46.5 percent, were offered at only one school. Only seven programs were offered at 20 or more schools: practical nursing (offered at 20 schools), accounting (27), stenography/secretarial (32), auto mechanics (30), draft-

**Table 6. Number of Programs Offered By Vocational-Technical Schools, 1969-70**

Vocational-Technical School	Preparatory	Evening	Apprentice	Total	Unduplicated Total
Alexandria	8	9	1	18	11
Baton Rouge	12	15	6	33	23
Bienville	2	1	—	3	2
Capitol Area	5	3	3	11	10
Central Area	10	10	—	20	10
Concordia Parish	6	4	—	10	6
Delgado	32	16	9	57	45
Delta Area	5	2	—	7	7
Evangeline Area	8	7	—	15	9
Florida Parishes	8	7	—	15	8
Gulf Area	13	—	—	13	13
Hammond Area	7	2	—	9	7
Huey P. Long	4	2	—	6	5
Jefferson Davis	8	8	—	16	10
Jefferson Parish	14	21	12	47	33
Memorial Area	13	1	—	14	13
Natchitoches	12	3	—	15	13
North Central Area	8	1	—	9	8
Northeast Louisiana	7	12	—	19	10
Northwest Louisiana	10	5	—	15	10
Opelousas Area	8	3	—	11	8
Orleans Area	11	3	1	15	15
Ouachita Valley	17	11	4	32	28
Sabine Valley	15	8	—	23	18
Shreveport-Bossier	18	27	10	55	32
South Louisiana	9	6	1	16	11
Southwest Louisiana	15	7	3	25	17
Sowela	18	12	4	34	25
Sullivan	13	4	—	17	16
Teche Area	13	11	—	24	15
T. H. Harris	21	11	—	32	27
Westside	7	2	—	9	7
Young Memorial	9	7	—	16	13
UNDUPLICATED TOTAL	69	64	17		101

SOURCE: PAR questionnaires to Louisiana vocational-technical schools.

ing (21), welding (28) and typing (21).

Enrollments for particular programs during fiscal 1969-70 were relatively small. Only nine programs had more than 1,000 students enrolled within the year: typing had 1,700 students; business data processing, 1,092; drafting, 1,203; accounting and bookkeeping, 2,041; practical nursing, 1,357; auto mechanics, 2,136; supervisory training, 2,429; stenographic and

secretarial, 3,585; and welding, 3,979. Over half of the programs (53 percent) had less than 100 students enrolled during the year while almost a third (30.2 percent) had less than 50 students enrolled.

Programs are divided into areas of general training: agriculture, distributive education, health, home economics, office occupations, technical, and trade and industrial. Trade and



industrial education was the largest area with 57 different programs and a cumulative enrollment of 19,276 in the 1969-70 fiscal year. Office occupations also had a large enrollment—9,930 with eight different programs. Agriculture and home economics had the smallest enrollments and the fewest programs offered. Agriculture had 137 students and three programs, while home economics had 208 students and four programs. (See Table 7.)

### Curriculum Center

The State Board of Education maintains a Curriculum Development and Research Center located at the Natchitoches Trade School on the campus of Northwestern State University.

The name of the center is misleading; its primary purpose is to reproduce curricula materials and maintain a sufficient stockpile to be sent to the vocational-technical schools upon request. The center does not do research nor does it develop special curricula for particular schools.

### INSTRUCTOR EXPERIENCE AND EDUCATION

Schools reported on qualifications of their faculty as of February 1971. The instructional personnel for *preparatory* programs at the vocational-technical schools had considerable experience in the field in which they taught. All but 177 of the 566 preparatory instructors had over 6 years' experience; 124 had 6 to 10 years' experience; 161 had from 11 to 20 years' experience; and 104 had over 20 years' experience.

All but 29, or 5.1 percent, of the preparatory instructors had education beyond high school; 39 percent had

**Table 7. Cumulative Enrollments  
in Vocational-Technical Schools  
By Training Area, 1969-70**

Training Area	Enrollments	No. of Programs
Agriculture	137	3
Distributive Ed.	1,869	10
Health	2,428	7
Home Economics	208	4
Office Occupations	9,930	8
Technical	2,031	12
Trade and Industrial	19,276	57

SOURCE: PAR questionnaires to Louisiana vocational-technical schools.

some college training but did not have a baccalaureate degree. The majority (55.8 percent) had a baccalaureate; 17.8 percent, a master's; and 1.2 percent, a doctorate. All instructors with doctorates were at Delgado.

The 329 instructors in *extension* programs at the vocational-technical schools were all part-time. While these teachers were not as experienced as preparatory instructors, over half had more than 6 years' experience in their field of instruction. Their educational background was similar to that of preparatory instructors.

The 87 *apprentice* instructors, all part time, had approximately the same working experience as extension instructors, but generally less education. Still, over 60 percent had some formal education beyond high school.

### STUDENTS

Data was gathered concerning students who attended the vocational-technical schools—their characteristics, success or failure after they leave school, school policies and charges, and various services provided them.

## Admissions

There is no uniform policy on admissions. The State Board of Education has established what might be called an "open-door" admission policy to all those age 16 and over. However, a true open-door policy cannot be said to exist because the schools cannot accommodate all those who wish to be admitted. Considerable discretion is apparently allowed directors as to whether they will accept students on a "first come, first serve" basis. Some schools follow this policy so long as places are available while other schools give tests and require that certain scores be attained and certain aptitudes be shown before admission is permitted.

Further, some programs require a specific educational background while others require no previous educational training. Even so, these requirements tend to differ among schools.

Some schools may ignore the needs of disadvantaged students by "cream-ing" off the better students through high entrance requirements.

## Educational Deficiencies

Schools reported that many applicants were found to be deficient in basic education; the average of those felt to be deficient was about 40 percent. There were 23 schools that indicated they either had remedial programs or provided for a limited number of students to enter a regular program and receive help. Most schools advised applicants with deficiencies to look elsewhere for help before they could enroll in any program at the schools.

## Student Charges

There is no established tuition charge for Louisiana students at voca-

tional-technical schools other than at Delgado. However, many schools require that students pay fees to cover the cost of books and supplies for particular programs. According to data as of February 1971, these charges varied greatly among the schools. For example, fees for accounting and diesel mechanics varied from no charge to \$380; practical nursing, from no charge to \$300; auto mechanics, radio and television service, machine shops and welding, from no charge to \$200.

## Student Characteristics

Some people are under the impression that the poorer type students attend the state's vocational-technical schools, but there has been no data compiled to confirm or refute such impressions.

In an effort to determine the characteristics of students attending the state's vocational-technical schools, PAR surveyed the records of students enrolled during the 1970-71 fiscal year. Information collected included age, sex, residence, educational level and prior work experience. Information on race was not available from records in most schools.

Table 8 indicates the characteristics of students by school and by the state as a whole. While there were differences among schools, caused to some extent by the course offerings, following is a synopsis of predominate student characteristics:

21.9 years was the median age.  
61.5 percent were males.

70.1 percent had at least a high school education.

74.0 percent lived in the parish in which the school is located.

50.6 percent attended the vocational-technical school less than 6 months.

**Table 8. Characteristics of Students Attending Vocational-Technical Schools, 1970-71**

Schools	Median Age	Sex		Education		% Residing In Same Parish As School	% In School Less Than 6 Mos.
		% Male	% Female	% 11 Grade & Below	% Some College & Over		
Alexandria	22.8	63.8	36.3	18.9	5.0	85.5	48.0
Baton Rouge	22.6	58.5	46.1	7.2	19.6	75.4	46.8
Bienville	below 18.0	23.1	77.0	77.0	0	87.2	50.0
Capitol Area	21.2	29.4	70.7	17.8	17.1	83.3	62.3
Central Area	NA	NA	NA	NA	NA	NA	NA
Concordia Parish	19.5	51.5	48.6	46.0	2.0	72.9	56.0
Delgado	23.4	89.6	10.2	21.4	10.3	69.7	44.5
Delta Area	21.9	53.2	45.8	21.4	6.5	67.1	49.0
Evangeline Area	20.7	69.0	31.1	35.3	3.4	48.7	48.4
Florida Parishes	19.3	62.0	38.1	35.3	5.7	26.8	58.8
Gulf Area	20.8	65.6	34.5	48.0	2.0	86.1	52.1
Hammond Area	21.9	50.0	50.0	19.5	10.5	75.0	42.2
Huey P. Long	20.9	50.4	49.7	45.1	3.8	59.2	65.1
Jefferson Davis	19.9	66.7	33.4	48.5	1.7	90.0	64.8
Jefferson Parish	20.6	57.6	42.4	44.0	4.0	69.6	52.1
Memorial Area	24.4	83.2	16.9	61.0	3.6	35.0	66.7
Natchitoches	21.5	45.7	54.4	22.9	13.1	82.7	43.2
North Central Area	20.4	55.3	44.8	47.7	2.7	65.0	46.4
Northeast Louisiana	19.9	60.7	59.4	42.8	6.2	73.8	55.4
Northwest Louisiana	22.7	55.0	45.0	17.2	10.2	72.5	21.5
Opelousas Area	20.1	63.1	36.4	43.5	1.9	84.1	57.7
Orleans Area	27.0	66.1	34.0	48.1	7.9	95.2	48.0
Ouachita Valley	23.9	65.5	34.2	27.1	10.4	77.4	60.3
Sabine Valley	21.7	45.9	54.2	34.5	1.1	62.5	69.7
Shreveport-Bossier	28.9	52.3	47.8	23.1	2.5	76.3	47.1
South Louisiana	21.7	58.8	41.3	22.1	9.2	NA	61.2
Southwest Louisiana	21.1	73.5	26.6	38.7	5.7	74.4	45.3
Sowela	23.1	58.9	41.2	17.8	17.0	92.5	38.6
Sullivan	20.2	52.8	47.3	26.0	3.8	82.5	41.7
Teche Area	20.3	61.4	38.7	30.5	5.7	83.5	68.9
T. H. Harris	19.9	66.1	34.0	25.0	5.1	56.0	50.5
Westside	23.5	50.4	49.7	28.0	16.4	63.1	42.6
Young Memorial	23.9	65.1	35.0	46.5	4.0	87.5	45.6
All Schools	21.9	61.5	38.5	29.9	8.2	74.0	50.6

NA—Data not available.

SOURCE: Par survey of records of Louisiana vocational-technical schools.

### Follow-Up Study

A follow-up study was made of students who attended the vocational-technical schools during the two years 1968-69 and 1969-70 to determine what happened to these former students.

**Reason Left School:** The major reason given for leaving school was completion of the program (37.6 percent), followed by employment prior to completion (19.6 percent).

Older students were more likely to complete the program. The younger

age groups were affected by military service and marriage.

More students with at least a high school education completed their programs than those with less than a high school education (40 percent vs. 30 percent).

**Employment:** Almost two thirds of the students who left school were later employed, most full time; 11.2 percent were not available for employment; 15.8 percent were unemployed and available for employment; and another 6.5 percent were in the military service. Fewer males were unemployed (16.7 percent) than females (37.6 percent).

The percentage of those employed full time increased steadily with time spent in a vocational-technical school—from 59.1 percent for those in school for less than 6 months to 76.3 percent for those enrolled more than 2 years.

The major reasons given for being unavailable for employment were marriage (36 percent) and attending another school (28 percent). Almost half of the females who were unavailable listed marriage as the reason and almost half of the males were attending another school.

The program with the highest percentage unemployed was office occupations (39.7 percent) while instrumentation had the lowest (7.6 percent).

**Length of Time Before First Job:** Almost half of the students had no waiting period before they found their first job, and another 13.4 percent found a job within a month. However, 13.2 percent never found a job.

Generally, the lower a person's educational level, the longer it took to find a job, and those students who remained in school longer were more likely to find a job immediately.

**Employment Related to Training:** Almost half of the former students managed to obtain their first job in the occupational field in which they were trained.

However, training related to jobs varied among occupations. For example, 82.1 percent of those who were in the nursing program were employed as nurses while only 31.4 percent of those in auto mechanics were employed as auto mechanics. Nevertheless, the majority of students in every program got jobs in either the field in which they were trained or related areas.

**Income:** Income of former students ranged from 26.6 percent who made less than \$300 a month to 14.4 percent who made over \$600. The median monthly income increased with age and length of time in school.

Females had a lower monthly income (\$385) than males (\$464). While 25 percent of the males earned over \$600 per month, only 1.9 percent of the females did.

**Training Helpful:** Former students who found jobs were asked if their training at the vocational-technical school was helpful in preparing them for their new positions. Over half indicated that the training helped them a great deal, while 12.3 percent indicated that the training gave them little or no help. A far larger proportion (over 70 percent) of those who *completed their program* indicated that their training helped them a great deal.

**Evaluation of Program:** Former students were asked to rate various factors, i.e., ability of instructors, help from counselors, adequacy of classrooms, adequacy of facilities and

equipment, textbooks and instructional material, background theory, practical application of training to job, and the training program generally.

More than 40 percent of the students ranked all factors as excellent, and less than 10 percent ranked them as poor. Ability of instructors had the largest percentage of students ranking it as excellent (68.5 percent). (See Table 9.)

**Continued Education or Training:** Half of the former students indicated that they continued either their education or training—with company training, apprenticeship or in-service training received by 23.2 percent. Slightly over 5 percent went back to high school while 10.2 percent went to college.

#### Student Services

Student services are either quite limited or nonexistent at most of the vocational-technical schools. Data collected on services provided students as of February 1971 revealed the following:

1. Only 4 percent of students received some form of financial aid such as employment or loans.

2. Bus transportation was provided

at 21 of the 33 schools, but 12 schools charged students. Need for additional buses and lack of free buses (which are provided at elementary-secondary schools and some colleges) were cited as problems by some schools.

3. Most schools did not have cafeterias, libraries or student lounges.

4. Guidance was very inadequate. Delgado was the only school with more than one counselor, and 17 schools had no counselor. In many schools, tests for determining such aspects as aptitude, intelligence, achievement and vocational interests were given and interpreted by persons with no training.

### INDUSTRY RELATIONS WITH VOCATIONAL-TECHNICAL SCHOOLS

About half of 122 industrial firms responding to a 1971 questionnaire reported they had had recent contact with the vocational-technical schools. However, only 18 firms had been contacted regularly to find out about their needs; 53 had been contacted irregularly; and 50 firms had never been contacted.

Over half of the firms (65) did not use vocational-technical school stu-

**Table 9. Former\* Student Evaluation of Vocational-Technical Schools**

Factors	Excellent	Adequate	Poor
Ability of Instructors	68.5%	27.3%	4.1%
Advice and Help From Counselors	55.3	35.0	9.7
Adequacy of Classrooms	41.6	49.6	8.8
Adequacy of Facilities and Equipment	44.6	45.6	9.8
Textbook and Instructional Material	55.1	39.6	5.3
Background Theory	44.2	49.9	5.9
Practical Application of Training to Job	51.1	42.9	6.0
Training Program Generally	53.8	42.0	4.2

\*Survey of students who attended vocational-technical schools in 1968-69 and 1969-70.

SOURCE: PAR questionnaires to former students of Louisiana vocational-technical schools.

dents for filling entry level positions because of the following reasons: they employed only unskilled labor (19 firms); programs taught were irrelevant to needs of the company (45 firms); and there were no positions to be filled (13 firms).

Of the 57 firms that did use vocational-technical students, two thirds indicated that they were satisfied. Major reasons for dissatisfaction among the other 19 firms were the courses were not well taught, and training was not applicable.

### Suggestions for Improvement

Industrial respondents suggested ways to improve the vocational-technical schools:

1. Update curricula.
2. Place more emphasis on basics.
3. Standardize curricula among the various schools.
4. Institute on-the-job training in more occupations.
5. Improve counseling.
6. Improve facilities.

## Institutions of Higher Education

Awards below the baccalaureate level (associate degrees, certificates and diplomas) are a fairly new phenomenon among institutions of higher education in Louisiana, although not in other states. The new development in Louisiana is no doubt in response to a recognition that many youth drop out of college prior to graduation, as well as to a recognition that there is a growing need for technical personnel whose training is below the bachelor's degree level.

Louisiana's Coordinating Council for Higher Education in its 1972 master plan urged that the state's colleges and universities move into the area of subbaccalaureate technical and paraprofessional programs.

### ENROLLMENTS

A survey revealed that Louisiana's public and private colleges and universities enrolled 1,940 students in 24

different vocational-technical programs below the baccalaureate level in the fall of 1971, with specialization ranging from training for positions just below the professional level to training for much less specialized positions.

Collegiate enrollments in vocational-technical programs in Louisiana more than tripled during the 5-year period, 1966 to 1971, from 573 to 1,940. (See Table 10.)

### COUNSELING AND GUIDANCE

Colleges and universities have more formal counseling personnel than the vocational-technical schools. Only the LSU-Medical Center indicated that it did not have counseling personnel compared to the 17 vocational-technical schools without any counselors. The number of college counselors ranged from one to 14 persons in each institution of higher education.

## Manpower Programs

Louisiana's federal manpower programs, like those of most other states,

are uncoordinated and expensive for the results achieved.

**Table 10. Trend in Enrollments in Subbaccalaureate Vocational-Technical Programs, Louisiana Colleges and Universities—Public and Private**

Program Areas	Fall 1966	Fall 1967	Fall 1968	Fall 1969	Fall 1970	Fall 1971
Business & Office						
Computer Tech.	—	—	—	—	—	3
Sec. Sci. & Off. Adm.	472	531	478	451	564	701
TOTAL	472	531	478	451	564	704
Distribution						
Merch. & Mktg.	—	7	25	24	28	29
TOTAL	—	7	25	24	28	29
Engineering Tech.						
Architectural Tech.	—	—	—	18	12	9
Automotive Tech.	—	—	—	—	—	12
Aviation Tech.	—	—	—	—	10	39
Building Tech.	—	—	—	—	—	1
Chemical Tech.	—	—	—	—	1	2
Drafting Tech.	—	17	16	30	29	52
Electrical Tech.	11	20	14	19	19	22
Electronics Tech.	28	73	79	76	71	102
Engineering Tech.	—	—	—	—	—	30
Tool & Dye Tech.	5	—	1	3	3	2
TOTAL	44	110	110	146	145	271
Health						
Cytotechnology	—	1	2	2	1	—
Dental Hygiene	25	30	30	34	52	55
Electroencephalographic	3	3	3	5	3	6
Medical Lab Tech.	—	—	—	—	—	6
Mortuary Tech.	—	27	27	15	19	20
Nursing Tech.	29	32	146	131	187	314
TOTAL	57	93	208	187	262	401
Home Economics						
Food Service	—	—	—	—	—	18
TOTAL	—	—	—	—	—	18
Technology, Other						
Law Enforcement	—	—	—	—	65	135
Printing	—	—	—	1	1	1
Woodworking	—	3	2	1	2	2
TOTAL	—	3	2	2	68	138
Other						
Teacher Education	—	—	126	194	383	327
Social Welfare	—	—	—	—	40	52
TOTAL	—	—	126	194	423	379
GRAND TOTAL	573	744	949	1,004	1,490	1,940

SOURCE: PAR questionnaires to Louisiana colleges and universities.



## **MANPOWER DEVELOPMENT AND TRAINING ACT (MDTA) INSTITUTIONAL**

Approximately 70 MDTA classes a year are presently offered; programs have been offered in 42 different occupations. Over an 8-year period, about three fourths of those completing training found jobs.

MDTA classes have been conducted entirely apart from the state's vocational-technical schools except for several programs for prison inmates, contrary to the practice in most other states. Louisiana's policy tends to place a stigma on trainees within the manpower programs. Moreover, much of the federal funding for MDTA facilities and equipment could have been used by vocational-technical schools.

## **MANPOWER DEVELOPMENT AND TRAINING ACT ON-THE-JOB TRAINING (JOP)**

Louisiana's MDTA On-the-Job Training Program, administered by the Department of Employment Security, received \$1.1 million during fiscal 1970-71 to subcontract with employers for training slots. The department wrote 260 contracts covering 917 training positions involving some 200 separate occupations. The contracts averaged \$929 per training slot. Employers are expected to pay for productive labor, and the trainee is provided supplemental living allowances.

## **JOB OPPORTUNITIES IN THE BUSINESS SECTOR (JOBS)**

JOBS is designed to encourage private industry to train the hardcore unemployed and underemployed. The cost in Louisiana and the nation

approximates \$2,000 per trainee slot per year.

Louisiana, unlike other states, lacks the types of manufacturing industries where low skill workers can be placed in large numbers. As a result, the JOBS program has relied heavily on placing trainees in service occupations where placements per business are generally quite limited.

## **OPERATION MAINSTREAM**

Operation Mainstream, designed for older rural adults, had only 200 persons enrolled in Louisiana during fiscal 1970-71 at an average cost of \$2,237 per person. This program offers little, if any, job training.

## **WORK INCENTIVE PROGRAM (WIN)**

The WIN program, aimed at training persons 16 and older on welfare, served more than 2,000 persons during fiscal 1970-71.

Formal vocational training is usually provided through private schools, hospitals and individuals. Minimal use is made of the state's vocational-technical schools; the reason given is lack of facilities, inadequate offerings and inaccessibility.

## **NEIGHBORHOOD YOUTH CORPS (NYC)**

The NYC, whose objective is to provide financial support to youths from poor families, involves a number of Louisiana teenagers. The summer program is by far the most extensive, involving more than 13,000 Louisiana participants in 1971. The other two programs—"in-school" and "out-of-school"—assist about 3,000 disadvantaged youth. The cost of all pro-

grams averages \$340 per slot annually.

The NYC program provides some basic education instruction. Use of vocational-technical schools has been limited, partially due to lack of space.

### **CONCENTRATED EMPLOYMENT PROGRAM (CEP)**

The CEP, which aims at consolidating various MDTA programs, has only one operation in Louisiana, in New Orleans. The New Orleans CEP program is in its third year of operation.

More than 1,000 individuals were served by CEP during fiscal 1970-71; about half completed training programs.

### **JOB CORPS**

The Job Corps, established to provide general and vocational education to persons between 16 and 21 years who are not in school, who are unemployed or who are in "deadend" jobs, has had difficulty attracting recruits nationally, but not in Louisiana.

In fact, Louisiana has enabled the region to fill its quota by making up for deficits in neighboring states.

Since none of the 65 Job Corps training centers is located in Louisiana, it has been necessary to send Louisiana youths out of state. Enrollees from Louisiana totaled 2,922 in fiscal 1970-71, and they were sent to 21 different training centers.

### **COOPERATIVE AREA MANPOWER PLANNING SYSTEM (CAMPS)**

CAMPS was initiated by the federal government to coordinate various manpower programs into a unified plan. This voluntary cooperative approach has been unsuccessful in Louisiana and other states.

Louisiana's CAMPS plan does not attempt to evaluate the performance of programs; in fact, data is not available to do so. Most planning is done by individual agencies which do not want a central state agency speaking for them.

## **Apprenticeship Programs**

Apprenticeship is training for crafts or trades requiring a wide range of skills and knowledge as well as maturity and independent judgment. The apprentice receives instruction and experience in practical and theoretical aspects of a skilled trade.

Programs generally last from 2 to 6 years, depending upon the trade or skill to be acquired. The apprentice divides his time between on-the-job training supervised by a skilled craftsman (journeyman) and "related" classroom training usually provided by vocational-technical schools in evening courses. Apprentices are paid a per-

centage of the prevailing rate for journeymen.

### **ADMINISTRATION**

The apprenticeship program is regulated by Louisiana law and is administered through the Louisiana Department of Labor. The commissioner of labor appoints an Apprenticeship Council which oversees the program and is representative of employers, employees and the general public.

Each trade or group of trades has local joint committees and most have a state committee. Local committees

advise on education courses and on-the-job conditions. The number of apprentices is limited through agreements between local unions and employers. Both have reason to limit the number of apprentices—unions because they fear an oversupply of skilled labor and employers because they do not want to expend the time and expense of training persons who may be employed elsewhere.

### REQUIREMENTS

Apprenticeship applicants are screened by local committees. They must be 16 years old, have completed high school or the equivalent, be in

good physical condition, and have passed aptitude tests.

After approval, an applicant enters an agreement between him and the Joint Apprenticeship Committee which sets forth the terms of the apprenticeship. This agreement may be canceled by either party during a probationary period, but is binding thereafter unless canceled for good cause by the director of apprenticeship (who is a state official appointed by the commissioner of labor with approval of the Apprenticeship Council).

### NUMBER

Louisiana had 4,169 apprentices in 98 different trades as of August 31,

**Table 11. Apprentice Enrollments as of August 31, 1971**

Program <sup>a</sup>	Enrollments	Percent of Total
Agricultural Mechanics	11	0.3
Dental Technology	5	0.1
Orthopedic Technology	3	0.1
Mail Handlers	5	0.1
Engineering Related Technology	593	14.2
Appliance Repair	6	0.1
Automotive Services	104	2.5
Aviation Occupations	4	0.1
Business Machine Repair	37	0.9
Commerical Photography	1	b
Construction and Maintenance Trades	2,689	64.5
Diesel Mechanics	116	2.8
Drafting	2	b
Electrical Occupations	27	0.6
Electronics Occupations	73	1.8
Fabric Maintenance Services	2	b
Graphic Arts	67	1.6
Metal Working	340	8.2
Quantity Foods	23	0.6
Refrigeration	37	0.9
Small Engine Repair	6	0.1
Stationary Energy	3	0.1
Leatherworking	1	b
Upholstering	1	b
Woodworking	9	0.2
<b>TOTAL</b>	<b>4,169</b>	<b>100.0</b>

<sup>a</sup>All enrollments have been converted to the U. S. Office of Education Classification Code.

<sup>b</sup>Less than 0.1 per cent.

SOURCE: Louisiana State Apprenticeship Council.

1971. Almost two thirds were in the construction and maintenance trades which represented only 30 percent of the different trades. Table 11 shows the various programs in which

apprentices were enrolled. Since 1940 when Louisiana's first apprenticeship programs began, there have been 32,291 apprentices registered, and over 60 percent completed the program.

## Private or Proprietary Schools

Private schools meet needs of limited numbers by providing training programs for fairly specific jobs. Education in the broader sense is generally not a factor and if included, it is secondary to rapid development of marketable skills. Private schools usually do well in placing their graduates.

Louisiana has a number of privately owned and operated business, beauty and barber and other specialized schools. However, there is no central listing of these schools.

PAR sent questionnaires to 177 private or proprietary schools, and received responses from 57 (32.2 percent); another 12 schools reported they had closed.

The 57 responding private schools enrolled 5,887 during the year 1970-71, an increase of 23.4 percent over the previous year. The schools reported that 91.5 percent of their students left with marketable skills during 1970-71. No school had a cumulative enrollment of over 1,000 during 1970-71.

Business schools had the largest enrollment among the 57 responding schools. (See Table 12 for enrollments according to type of program and school.)

The cost of attending private schools varied from \$75 to \$2,065 per course of study.

**Table 12. Enrollments in Private Schools (Sampling)**

No. of Schools	Types of Schools	Number Enrolled				
		1966-67	1967-68	1968-69	1969-70	1970-71
11	Business	1,071	1,374	1,514	1,934	2,974
31	Cosmetology/Barber	620	680	744	852	1,020
4	Nursing	677	672	622	559	579
2	Radio/TV	86	109	112	103	100
2	Seamanship	147	1,115	1,193	1,316	1,133
5	Other (Art, Floral Design, Refrigeration, Welding)	172	245	259	290	280
55		2,773	4,195	4,444	5,044	6,086

SOURCE: PAR questionnaires to private schools.

## Industry Programs

Questionnaires were sent to Louisiana manufacturing and industrial

firms to gain insight into their hiring practices and training programs. All

firms hiring at least 200 were contacted; 122 firms, or 50.2 percent, responded.

### HIRING PRACTICES

The minimum age at which Louisiana firms reported they would hire employees was usually 18 years.

Few firms stipulated a minimum educational attainment for new employees.

Almost half of the responding firms tested their employees at entry-level positions—usually for clerical skills and manual tasks. Some firms also tested for reading comprehension and learning ability.

### INDUSTRY TRAINING PROGRAMS

Industry plays an important role in training its employees. There were 49 of 122 responding firms that had programs, and 10,284 persons were trained during 1970-71. The larger the firm, the more likely it was to offer training.

Most industries provided many programs at both the beginning and advanced job levels. However, industries in lumbering and paper products as well as food processing offered almost no courses at the advanced level.

Most instruction was on an individual basis and within the plant site; the company usually paid the entire cost.

The number trained by type of firms was as follows:

No. of Firms	Type of Firm	No. of Employees Trained
11	Fabricated Metal, Machinery, Electrical Equipment	2,856
1	Textiles	61
10	Lumbering and Paper Products	1,186
19	Chemical and Petroleum Products	6,053
5	Food Processing	58
3	Miscellaneous	70
49		10,284

### TRAINING FUND FOR NEW AND EXPANDING INDUSTRIES

Frequently industries considering moving into a state need a work force of local people; such needs may require a special training program.

For a number of years, Louisiana has appropriated funds for training prospective employees for new and expanding industries; the appropriation is made to the State Department of Education and spent with approval of the governor and the executive director of the Department of Commerce and Industry. The appropriation for 1972-73 is \$194,000. Little has been made available to the vocational-technical schools; instead, most of the money has been for on-the-job training of garment workers.

## MANPOWER PROJECTIONS

The projection of manpower needs is extremely important in planning educational programs geared to future career opportunities. Projections of Louisiana's manpower needs have been made by the Department of Employment Security, but full use was not made of the U. S. Bureau of Labor Statistics' industry-occupation matrix methodology. PAR projected Louisiana's manpower needs based on this methodology.

PAR's full report presents manpower projections to 1980—the industrial expansion expected between 1970 and 1980 and the demand for new workers during this decade. In addition, the present vocational-technical training output is related to the manpower needs. (See Table 13.)

### Major Findings

The following are some of the major findings.

Louisiana will have 1.5 million civilian residents employed in 1980, an increase of 300,000 over 1970.

The industrial composition of Louisiana's labor force will continue to be increasingly oriented toward the services-producing industries as opposed to the goods-producing industries. (The services-producing industries include transportation, communication and public utilities; wholesale and retail trade; finance, insurance and real estate; services; and public administration. The goods-producing industries include agriculture, mining, contract construction and manufacturing.) By 1980, it is projected that the services-

producing industries will employ 70 percent of Louisiana's labor force, and the goods-producing industries will be down to 30 percent.

**Table 13. Projected Worker Demand and Persons Trained, By Occupational Group**

Occupational Category	Projected 1970-80 Annual Job Openings	Total Job Ready 1971
<b>TOTAL</b>	<b>59,009</b>	<b>27,273</b>
Professional, Technical & Kindred	10,288	1,438
Engineers	610	0
Physicians & Practitioners	506	0
Health Workers	1,653	190
Teachers, Elementary & Secondary	1,720	0
Technicians (except health)	730	477
Other Professional	5,069	771
Managers & Administrators (except Farm)	4,808	0
Sales Workers	4,382	1,538
Clerical & Kindred	13,721	12,818
Bookkeepers	1,109	2,105
Secretaries, Stenographers & Typists	4,195	5,797
Other Clerical	8,417	4,916
Craftsmen, Foremen & Kindred	6,993	3,865
Auto Mechanic & Repair	584	1,183
Other Repair & Mechanic	969	1,619
Machinists	151	263
Metal Craftsmen	266	3
Carpenters	890	149
Construction Crafts	2,092	559
Other Crafts	2,041	89
Operatives	5,909	3,784
Laborer (except Farm)	1,035	0
Farmers & Farm Workers	18	934
Service (except private households)	9,625	2,896
Cleaning	2,649	36
Food	2,585	290
Health	2,408	1,722
Personal	1,320	644
Protective	644	204
Private Household	2,228	0

SOURCE: PAR questionnaires, Louisiana State Department of Education and Louisiana State Apprenticeship Council.

The shift in the makeup of Louisiana's industry, along with technological changes, will be accompanied by changes in the occupational composition of Louisiana's labor force during the 1970's.

- Professional, technical and kindred workers will be the fastest growing occupational group in Louisiana.

- Subbaccalaureate training for paraprofessional and technical personnel will be appropriate for many. Teacher shortages will become a problem of the past.

- The number in the managers group is expected to show slow growth.

- The group comprised of clerical and kindred workers (including secretaries, stenographers and typists) will be the largest source of employment in Louisiana. Office machine operators, including data processing personnel, will have the largest percentage growth in this category.

- Only a moderate increase is expected in sales workers, due in part to a lackluster expectation for retail trade growth.

- The increase in craftsmen, foremen and related workers will closely parallel changes in construction and manufacturing. The growth in this group will be only slightly above the average growth for all occupations. Construction craftsmen and carpenters will have the highest percentage growth in this category.

- The semiskilled operatives group is projected to grow very slowly.

- Opportunities for the "common laborer," i.e., those persons without vocational training or skills, will become fewer each year.

- The number of farmers and farm workers has been declining and will continue to do so, but at a slower rate.

- Service workers, excluding those in private households, will rise at about the same rate as all state employment during the 1970 decade, contrary to the 1960's when there was a tremendous increase. This slowdown in growth is due in part to a shift within service industries toward a higher concentration of professional, technical and kindred workers. In this category, health services will show the fastest growth, followed by cleaning services.

- The number employed in private households is definitely declining, and will continue to do so. The demand for domestic servants created by working mothers is being reduced by labor saving devices and child care centers. In the same way the shrinking laborer category is eliminating job opportunities for untrained men, opportunities for untrained women are also becoming scarce.

PAR's projection of manpower needs compared with educational programs reveals that Louisiana's training programs are out of kilter. The state is overtraining in some occupational areas, while it is failing to meet needs in many critical areas.

- Only 20 percent of the jobs during the 1970's will require 4-year college degrees, resulting in underemployment of many college graduates, forced migration, and competition for jobs for which college graduates have not been adequately trained.

- Those being trained as health workers (mostly professionals), technicians and paraprofessionals represent only about 14 percent of the demand.

- Training for clerical and related occupations approximates need.

- The number of craftsmen, foremen and kindred workers being trained



represent only slightly more than half the demand, but there are imbalances within this category. There is an oversupply of automobile mechanics and other vehicle repairmen, but an undersupply of metal craftsmen, carpenters and those in other crafts.

- Training programs in the aggregate are meeting the demand for operatives such as drivers, welders and textile workers, but industrial expansion in particular fields may create shortages, and hence flexibility in training programs is needed.

- PAR's statistical projection allows for only 18 new farmers and farm workers each year, while thousands are receiving training in farm production. If all of Louisiana's high school

agriculture teachers were to quit teaching and go into farm production, about a third of them would still be out of work by 1980. This data indicates the need to shift away from these programs toward those needed for an urban industrial society.

- There is room for considerable expansion of training programs for service workers, excluding domestic workers. Training for protective services—policemen, firemen and guards—is supplying only about a third of the demand.

- The pool of untrained persons in the labor force is not likely to be absorbed. Hence, it is imperative that the unskilled have an opportunity to obtain vocational training.

## COMMENTS AND RECOMMENDATIONS

This study revealed numerous voids and deficiencies in Louisiana's vocational-technical education programs. A basic weakness is that Louisiana has failed to develop a philosophy for vocational-technical education, much less the broader concept of career education.

Most of PAR's recommendations to correct present weaknesses and

deficiencies do not require legislation. Rather, they will necessitate leadership and imagination by the State Board and Department of Education. More money will doubtless be needed to implement a plan once it is formulated and approved, but in many instances, present institutions, faculty and equipment can and should be converted to new uses.

## CRITERIA FOR AN EFFECTIVE PROGRAM

In order to have an effective program of vocational-technical and career education, the following criteria are essential:

1. **Planning and Coordination.** Programs must be planned and coordinated so that students can progress along a path of discovery and development for whatever career choices they make at whatever stage. Planning based on projections of manpower needs is essential to avoid training for jobs that will not exist, and also to meet critical emerging needs. Studies to follow up on careers of students and attitudinal surveys of educational personnel and employers are essential to evaluate the effectiveness of programs.

2. **Comprehensiveness.** All phases of career education must receive proper attention to reach persons with vastly differing intellectual and economic capabilities.

3. **Availability.** Vocational-technical education should be available to all who want and need it. Availability entails adequate facilities,

programs offered within commuting distance of as many people as possible, minimal costs to students and transportation where feasible.

4. **Quality Instruction.** Unless there is a quality program, vocational-technical education can be not only ineffective but may even have a negative value. A quality program entails well designed curricula, capable instructors and proper equipment.

5. **Community Involvement.** Business, industry and labor must be involved with professional educators in any successful program of vocational-technical education to provide critical insights, work experience and job placements.

6. **Efficiency.** In order to use limited resources efficiently, cost data should be developed to permit evaluation of programs. A management information system is essential for knowledgeable and sound decisionmaking.

7. **Expertise.** Educators must

have expertise to develop programs which keep pace with new demands and technological changes, and to choose wisely among alternate approaches.

8. **Commitment.** Commitment, both philosophical and financial, is the most vital ingredient for a successful program.

## PRESENT WEAKNESSES

Louisiana's vocational-technical education programs have numerous weaknesses, including the following:

1. Despite improvements in the present plan for vocational education over prior ones, many of the objectives are still vague; the plan is not comprehensive since not all vocational-technical programs within the state are included; and it lacks precise data for measuring progress toward solving problems. As a result, the long-range plan still fails to give specific direction for the future.

2. High schools provide little vocational training but rather, are geared to nonwage earning programs such as home economics and agriculture as well as industrial arts, which tends to emphasize hobbies rather than an exposure to job training.

3. Most vocational-technical training in Louisiana is provided by the state's 33 vocational-technical schools. However, location of these schools has been unplanned, and they lack sufficient faculty and facilities so that they cannot serve all those who wish to enter and, hence, are not "open door." Moreover, some schools tend to "cream off" the better students through entrance requirements, leaving persons who may be most in need of training with few if any alternatives.

4. There is no clearcut statement of goals for the vocational-technical schools. They operate rather independently, with little central direction.

In fact, it is unclear whether the State Board of Education or the state superintendent of education has supervisory authority over the schools. There are no statewide uniform standards or policies in matters such as curriculum, student charges and admission policies, resulting in extreme differences among the schools.

5. Training programs are not correlated with present and future availability of jobs, because current and projected manpower needs are not adequately identified.

6. The state has not developed a management information system to permit evaluation of the effectiveness and costs of programs.

7. Little effort is made to follow up on the success or failure of former students at the vocational-technical schools or at any level of education.

8. Guidance and counseling are essential to assist students in choosing careers and finding employment, but such personnel are inadequate at the elementary-secondary levels and almost nonexistent at the vocational-technical schools.

9. Information concerning the state's vocational-technical programs is sadly lacking. To have a successful program, numerous people throughout the state must be informed and involved, yet hardly anyone knows what programs exist, where they are located, what they are doing, and what they plan to do.

10. Those concerned with vocational-technical programs rarely contact business and industry for help in

designing curricula, placing students in jobs or learning of their needs.

## RECOMMENDATIONS

Correction of present weaknesses and deficiencies in Louisiana's vocational-technical education program should be given top priority if Louisiana is to meet the needs of its citizens

and move ahead economically. The following recommendations are designed to bring about many needed changes.

### Career Education

The present education system—kindergarten through postsecondary education—should be revised to incorporate career education.

Career education is a complex concept. Essentially, it envisions that all persons will be exposed to various occupations so that they can choose a career wisely instead of through chance, and that they will acquire the necessary knowledge and skills so that they can earn a living and lead a productive and useful life—not only as a worker but also as an individual and a citizen. While career education places new emphasis on training for jobs and appreciating the value of work, it should complement and not replace other essentials of education that are not and should not be career-oriented, such as basic education and liberal arts. Emphasis on basic education should, of course, be continued and strengthened, and subjects which help persons enjoy a better life should be available. However, the concept of career education does envision that the education process will be made more relevant and interesting for students

than present methods which may be abstract and are geared either for the college bound or toward general education. By making education more relevant and interesting, career education should hold more students in school and offer them the flexibility to pursue a career which does not require a college education if they wish to do so.

Education should be so structured to prepare persons to earn a living at whatever stage they leave school, even if it is before high school graduation, and to equip them with the background and incentive to continue their learning and self-improvement at some future time.

Career education is new in terminology, emphasis, application and objective, although it does borrow from older concepts and experiences, some of which are embodied in vocational-technical education. Because career education is so new, Louisiana, along with other states, must develop its own models for ultimate implementation on a statewide basis.

## State Administration

1. The State Board of Education and the state superintendent of education should assume leadership in providing a comprehensive, expanded and quality vocational-technical educational program throughout the state. They should also provide leadership in converting Louisiana's educational system to the career education concept.

2. Boards to administer education programs at the state level should not be fragmented, nor should one area of education be separated from others. If education is to be a continuous process from one level to another, the state should consider moving to a single board to plan and coordinate the entire educational system of the state. A single planning and coordinating board for all of education does not mean that there would not be local governing boards for elementary-secondary schools, nor governing boards for institutions of higher education.

3. To eliminate conflicts and voids between the State Board of Education and the Department of Education, the board should confine its activities to policymaking, and a state superintendent appointed by the board should administer all programs for which the board has responsibility.

4. Decisions and policies of the board are now buried in its minutes. The minutes should be codified, and appropriate manuals should be prepared for the board itself, administrators within the department, school officials and other interested persons.

5. The State Department of Education should be reorganized to provide

more effective control and coordination. (See Figures 2 and 3 for the present organization and Figure 4 for PAR's proposed reorganization.)

The superintendent of education should have an executive assistant aided by a community affairs officer and a public information officer.

The department should have two major divisions—an Office of Administration and an Office of Instruction, each headed by an assistant superintendent.

The Office of Administration should include housekeeping, personnel, finance and research services. All departmental research functions should be consolidated into a single, highly professional research unit.

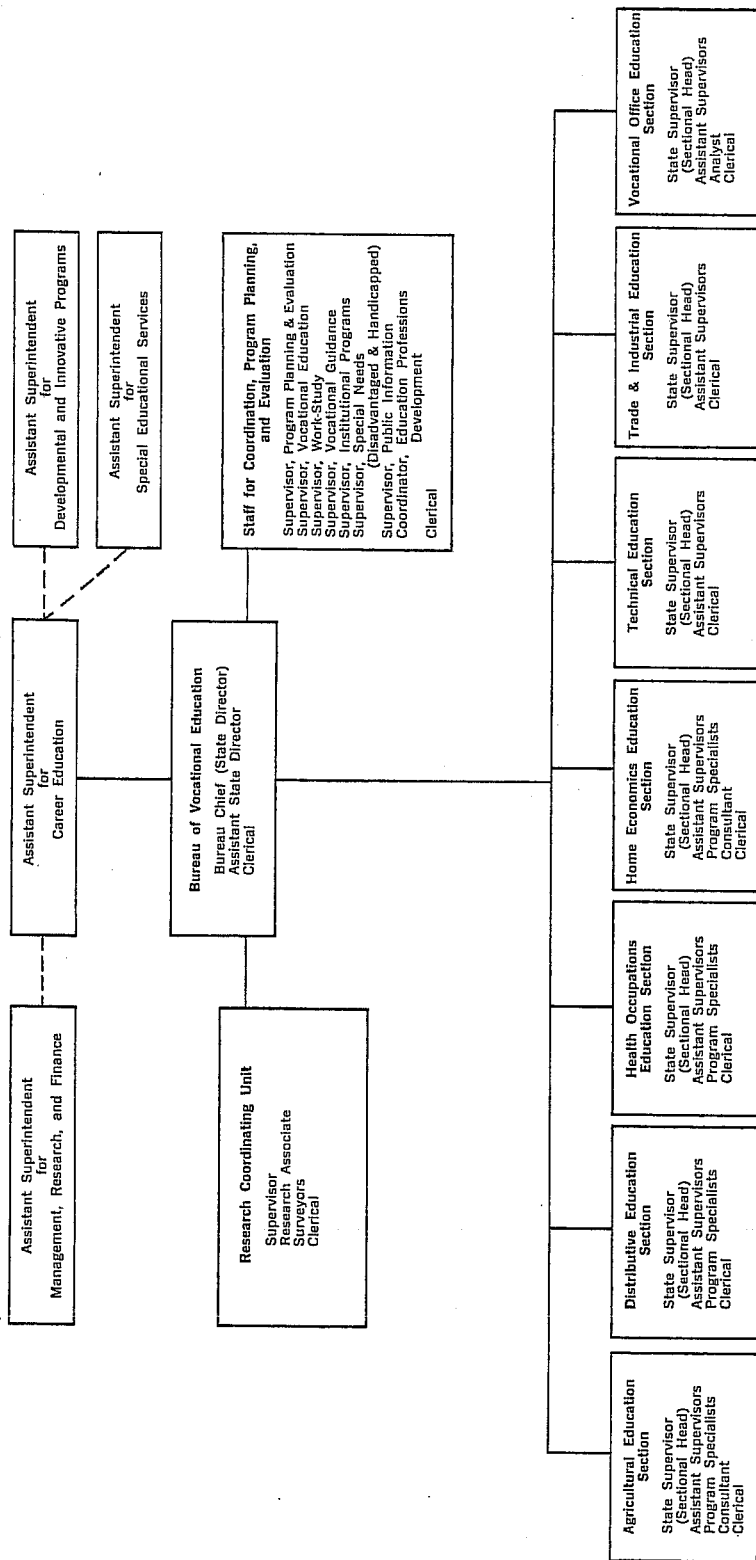
The Office of Instruction should include planning and evaluation as well as regional coordination. These staff services should develop comprehensive educational program planning, evaluation and supervision. There should also be four instructional divisions: (1) elementary and secondary education; (2) vocational-technical education; (3) higher education and (4) special education.

The staff arm for planning and evaluation should develop a state plan for education that is comprehensive, clear and concise, and that specifies steps planned to achieve objectives.

The administrative office should develop a management information system so that instructional programs can be evaluated and controlled.

The staff arm for regional coordination should assure that instructional programs administered by the four instructional divisions are coordinated.

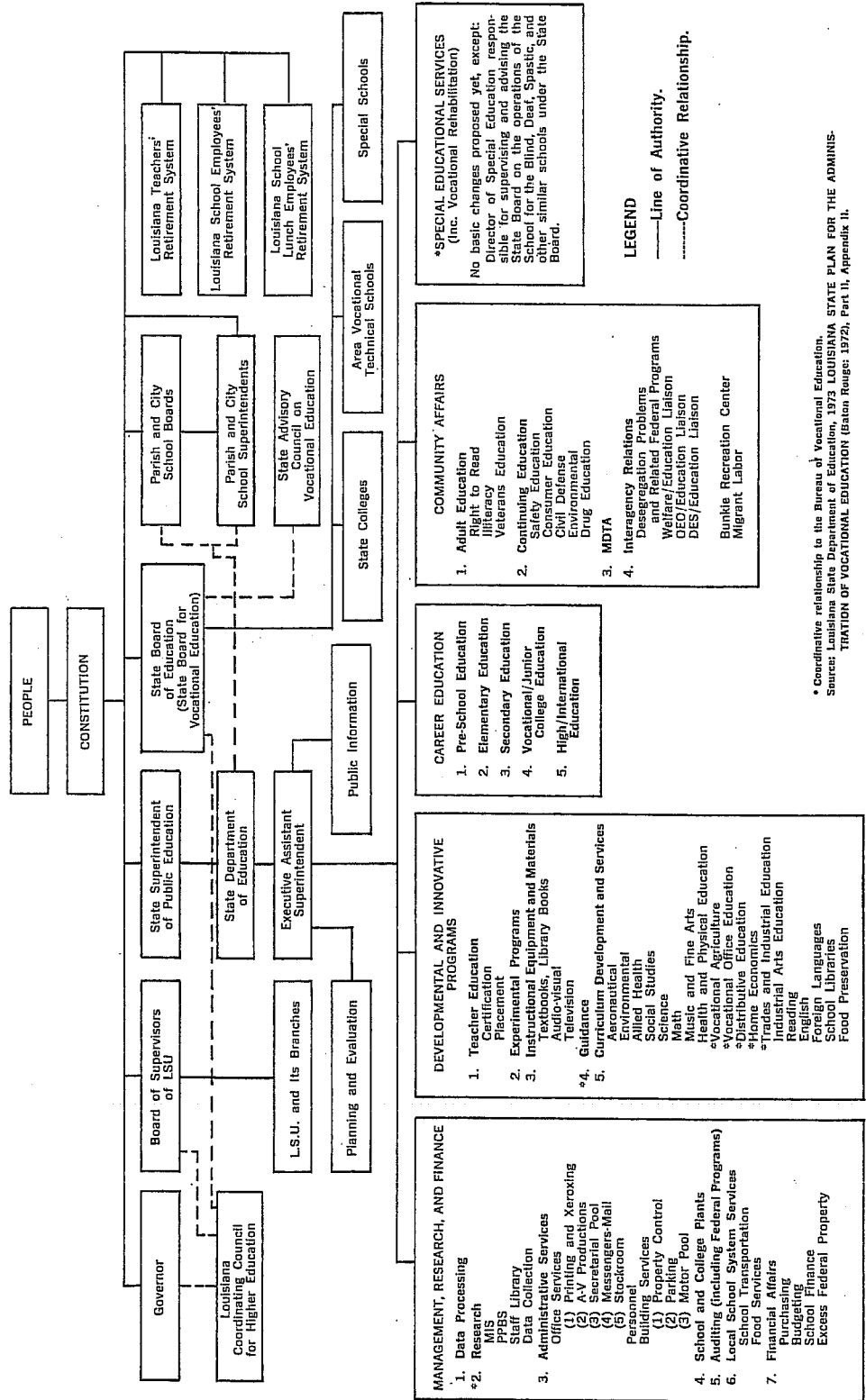
Figure 3. Present Organizational Structure for Vocational Education



**LEGEND**  
 — Line of Authority.  
 - - - - - Coordinative Relationship.

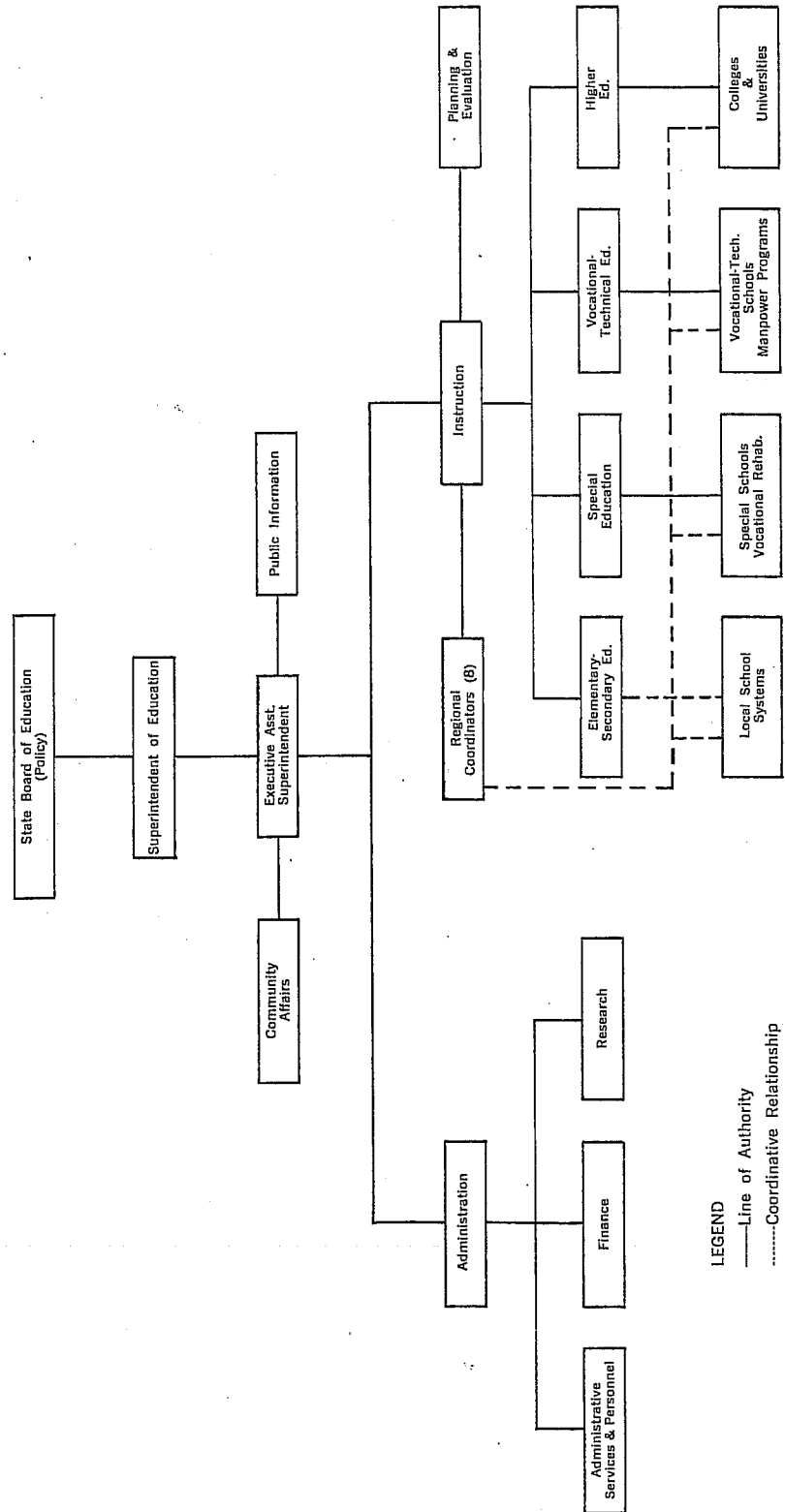
Source: Louisiana State Department of Education, 1973 LOUISIANA STATE PLAN FOR THE ADMINISTRATION OF VOCATIONAL EDUCATION (Baton Rouge: 1972), Part II, Appendix III.

Figure 2. Present Organizational Structure of Louisiana's Educational System



\* Coordinative relationship to the Bureau of Vocational Education.  
Source: Louisiana State Department of Education, 1973 LOUISIANA STATE PLAN FOR THE ADMINISTRATION OF VOCATIONAL EDUCATION (Baton Rouge: 1972), Part II, Appendix II.

Figure 4. Proposed Reorganization of State Department of Education





6. To permit better planning and coordination, the state should be divided into eight regions centering around the major cities. (See Figure 5.)

Each region should have a "coordinator" to coordinate all education programs within the region, and each coordinator should be responsible to the Department of Education for making recommendations concerning education programs in his region. These eight regions should be standardized for purposes other than education, such as gathering of various types of statistical data, economic planning, administering welfare programs, and establishing diagnostic centers for persons in need of various services.

The eight regional coordinators should meet regularly as a group with the state superintendent of education or his assistant to exchange information, coordinate educational services among regions, and assist in statewide planning.

7. A statewide system of planning and advisory councils should be created, and the use of these councils should be expanded at the state, regional and local levels.

There are numerous citizens in the state who have expert knowledge which can upgrade the quality of educational programs. Moreover, planning and advisory councils can be an excellent means of getting many persons interested and involved.

The State Advisory Council for Vocational Education, created by federal regulation, should utilize more fully its potential by concerning itself with meaningful evaluation of programs, policies and procedures; demanding a specific state plan; and expanding its area of concern to include all of career education. A strong pro-

fessional staff within the State Department of Education should assist the council in its endeavors.

Other statewide planning and advisory councils should be appointed by the state superintendent of education for each major occupational area, composed equally of employees and employers. These councils should advise on such matters as content of curricula, course planning, qualification of instructors, job placement, facilities and equipment, and public relations.

Regional coordinators, the director of planning and evaluation, directors of the instructional divisions, and institutional administrators should be authorized to establish advisory groups—formal and informal, permanent and ad hoc—for whatever purposes they find necessary.

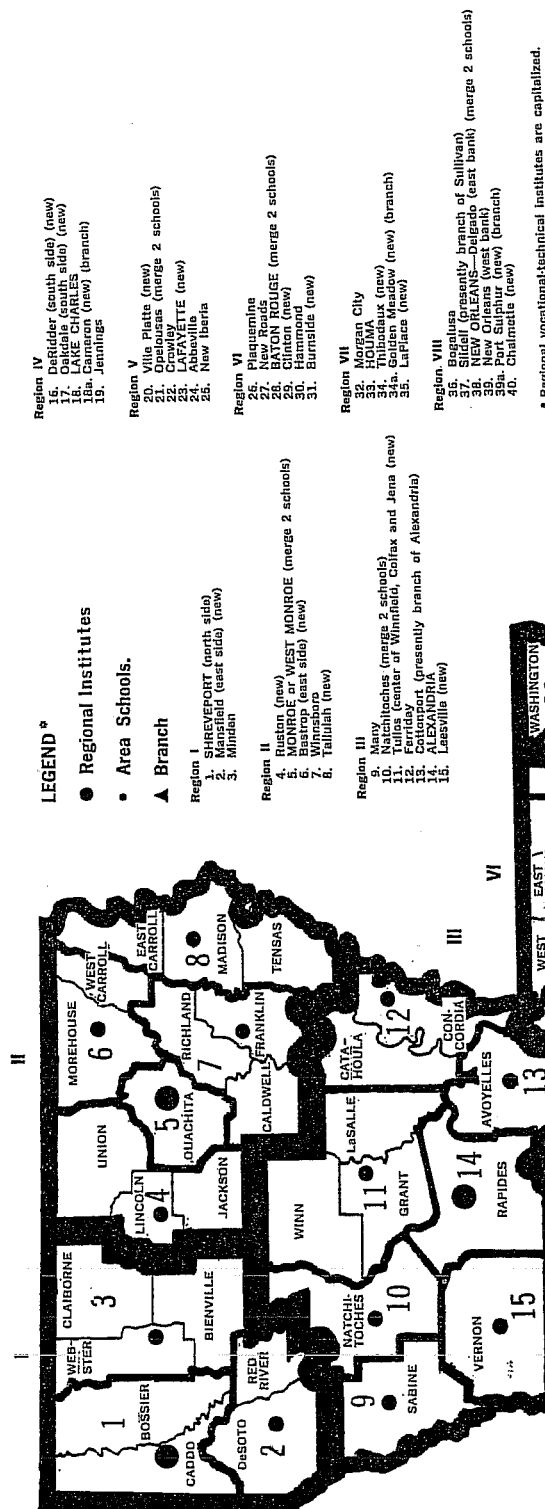
8. A meaningful plan for vocational-technical education, as well as career education, must be developed. Once it is devised, a popular version should be prepared and widely distributed.

The state plan should pinpoint the respective role and scope of elementary schools, secondary schools, vocational-technical schools and institutions of higher education. Private or proprietary schools offering vocational-technical training, industry programs, apprenticeship programs and federal manpower training programs should be encompassed in the state master plan instead of only those programs eligible for federal funds as at present.

To avoid overlapping, duplication and conflict, criteria should be established for the types of programs to be offered by each type of institution.

A complete inventory of all ex-

Figure 5. Proposed Vocational-Technical Education Institute System



isting programs and course offerings should be made so that duplicative programs can be phased out, and also to assure that the appropriate level of institution is allocated the proper programs.

The State Board of Education, assisted by staff of the State Department of Education, should review and approve all new vocational and technical programs in conformance with the stipulated criteria within the approved plan.

9. The Department of Education should intensify its research activities to include four objectives:

Educational research to take advantage of new knowledge and techniques in such areas as teaching methods, materials and curricula. Annual reports similar to those prepared on elementary and secondary schools should be prepared on vocational-technical schools, institutions of higher education and special schools.

Economic research to identify needs and determine how education can best contribute to future advancement of the state and its citizens. A computerized data system to relate present and anticipated training programs to projected jobs is needed, as well as research in areas such as changing occupational skills, job analysis and skill requirements.

Development of a computerized management information system. A number of other states have developed effective systems, and their experiences should be utilized in developing a management information system for Louisiana. This system should incorporate the development of statewide and area manpower projections, using the most current and sophisticated projection methods. It should also

be used to supplement career guidance programs.

Development of a system to disseminate research findings to educators, students and the general public. This might include designated centers throughout the state where research materials might be studied, workshops, and flyers informing specialized groups of new research developments in their field.

10. The State Department of Education should move rapidly to develop a uniform cost accounting system, covering all phases of education, so that programs can be evaluated, planned, organized and financed into a total program. The cost-benefit study approach should be used in selecting new programs as well as eliminating others.

An accountability system should be established; this system should include a contract method for assuring that desired objectives are achieved. For example, the state department would make a contract agreement with a local school system for state funds to implement a career education program, or with a teacher-training institution to assure the output of teachers oriented toward career education through in-service training programs as well as the training of new teachers.

The State Department of Education should design and implement a statewide follow-up system for secondary and postsecondary graduates and dropouts. Staff of the department should analyze the data to determine if needs of students are being met, and also to determine why students drop out of school.

The present budgeting system for education should be revised on the basis of programs to be carried out

and the number of persons involved in each program. Such an approach, called performance budgeting, would permit a comparison of costs and

benefits of individual programs, and assist the governor and Legislature in determining the manner in which state funds can best be spent.

## Role and Scope of Educational Institutions

If Louisiana is to achieve a comprehensive program of vocational-technical and career education, the various levels of education must be assigned their particular role as well as scope of their program. Unless this is done, the roles of each will become competitive instead of complementary. Already conflicts appear to be developing. Some local school superintendents have indicated interest in having their school system initiate advanced skill training and postsecondary programs. Some directors of vocational-technical schools want to add sophisticated technical programs that are akin to collegiate programs. Some presidents of institutions of higher education want to add programs that have been reserved to the vocational-technical schools. Vocational-technical education has long been a stepchild, but it appears to have suddenly become so popular that many want to adopt it.

It is recommended that the following role and scope be established.

### ELEMENTARY AND SECONDARY SCHOOLS

1. Elementary-secondary schools should revise their curricula to incorporate the career education concept. These schools already have expertise in basic education and certain exploratory areas; this expertise needs to be expanded into a comprehensive program of career motivation, orien-

tation, exploration and career counseling.

Elementary schools should concentrate on developing career motivation, which is the foundation of career development. This includes developing proper attitudes toward personal and social significance of work.

Junior high schools should emphasize career orientation so that students can identify possible career goals and receive guidance to help attain these goals.

High schools should concentrate on developing career exploration programs for all students. Basic job entry level training should be available to students who do not plan to continue their education through or beyond high school. However, training for specific jobs beyond the entry level should not be offered in high school; most Louisiana high schools are simply too small and programs are too expensive to enable high schools to offer such training. Moreover, most local school systems have neither the basic institutional format, facilities nor expertise to provide sophisticated skill training beyond the job entry level.

2. Cooperative programs between the high schools and vocational-technical schools should be expanded to allow high school seniors to attend the vocational-technical schools part or full time, thus allowing such persons

to acquire a specific job skill while in high school. Credit for such vocational training should apply to high school graduation.

3. More emphasis should be placed on building an adequate system of guidance which is of particular importance in career education. As an immediate goal, funds should be appropriated to provide at least one full-time professional guidance counselor in each school system. Within 5 years, the national standards of 400 students per counselor on the elementary level and 300 students per counselor at the secondary level should be achieved. Such counselors should be funded through the state minimum foundation grant to local schools.

State certification requirements should be changed to substitute experience as a guidance counselor trainee for a teacher certificate and teaching experience. Trainees in guidance counseling should have more exposure to and knowledge of vocational and technical occupations. Tests used by guidance counselors should be standardized throughout the state, and a manual should be written for use by counselors explaining the testing and interpretation system. A statewide guidance information system should be established.

### 13TH AND 14TH YEAR

The legal authorization for adding 13th and 14th grade programs should be repealed because such programs have a number of weaknesses and disadvantages insofar as Louisiana is concerned.

1. Such programs would add another layer to the state's educational structure, resulting in duplication with

vocational-technical schools, colleges and universities, and causing undesirable competition for funds and students.

2. An extended high school program would fail to meet the needs of many. If the programs used existing high school facilities, as some propose to do, then the building would be in use during the day for the regular high school program and persons wishing postsecondary training could attend only at night. Moreover, the high school setting may prove unappealing to adults who have left high school and do not wish to return. Louisiana's many high school dropouts would be ineligible since the program is designed for those who have graduated from the 12th grade. Vocational-technical schools, on the other hand, represent a distinct break with high school and provide training to diverse groups.

3. Curricula offerings would tend to be more limited than in a school serving a large area. Offerings might even be divided among several high schools in a community.

4. Rather than add to the responsibilities of local officials through a 13th and 14th year program, local school boards and officials should concentrate on meeting the great challenge they will face in restructuring the elementary and secondary grades to include the career education concept.

5. The possibility of achieving a well-planned and coordinated system of postsecondary vocational-technical training throughout the state would be diminished through a variety of local programs dependent upon the leadership, imagination and efforts of local school officials.

6. Most local school systems do not have the funds to institute many programs needed at the elementary and secondary school levels, much less a new postsecondary program. To extend the high school program would require additional funds, most of which would probably come from the state. However, the state could make more efficient use of its money through a state system of vocational-technical schools and colleges. Moreover, vocational-technical schools, if adequately funded, could relieve high schools of some of their costs by allowing senior high school students to attend the vocational-technical schools under cooperative arrangements.

### VOCATIONAL-TECHNICAL SCHOOLS

The vocational-technical schools should be assigned the primary role of providing vocational and technical training for the majority of persons in the state.

These schools should continue to serve the following types of students: high school dropouts, high school graduates, high school students under cooperative arrangements, college dropouts, and college graduates who may not be trained for a job and wish to acquire a specific skill.

These schools should continue to provide the following services: training or retraining for vocational and technical occupations; upgrading skills of those already employed; and classroom instruction to complement on-the-job training for apprentices. The schools should add adult basic education courses for those who cannot read or write and federal manpower training programs where possible under federal law.

Programs should be limited to those of less than an associate degree in nature.

Delgado should be reoriented toward vocational-technical education and its academic curricula should be limited.

### State Control and Financing

The vocational-technical schools should continue under state control and financing for the following reasons:

1. Leadership at the state level should enhance possibilities of a comprehensive, coordinated and well planned program which makes maximum use of facilities, faculty and equipment and assures equal opportunity for quality education at all schools.

2. Expertise, so essential in vocational-technical training, can be more readily developed through selection of key people as state and regional administrators.

3. The history of vocational-technical schools in Louisiana indicates local control has proved unsuccessful. The first such school was established by a local school board as part of the parish school system, but was given to the state 3 years later. Delgado, under administration of the City of New Orleans for almost 50 years, was transferred to state control in 1970, because local control proved unsatisfactory.

4. Few question that institutions of higher education should be administered and financed at the state level. Vocational-technical schools also represent postsecondary education.

5. Recent court decisions have held that the property tax is an inequitable means of financing schools at the local level. This could mean more state financing of schools. It is questionable that an additional financial burden should be placed on local schools at this time. Moreover, most local school superintendents report that they lack sufficient funds to institute vocational programs within schools for which they now have responsibility.

6. Some parishes do not have vocational-technical schools while other parishes have one or two. Since these schools are not located in all parishes, it is questionable whether it would be fair for the state to give such facilities to some local school boards and not to others.

7. State administration offers flexibility in allowing students to leave their parish and enroll in any school they wish within the state without having to obtain special permission or work out a means of reimbursing local school boards.

8. Community involvement, so important in vocational-technical education, can be achieved without local administration through such means as local advisory committees, cooperative arrangements between the state and local school boards, and a vigorous public information program.

9. State control can assure that offerings at schools reflect broad state and national rather than purely local labor market needs.

10. Those parishes with urgent need to provide jobs are frequently the poorer parishes which lack the sources to finance a vocational-techni-

cal program. Hence, under local administration some potential students may not have access to training programs.

11. Local school boards have traditionally been concerned with college preparatory and general education, and have little experience with skill training programs.

12. The State Department of Education, through research activities, should be in a position to conduct cost-effectiveness studies which would be the basis for better use of money and for innovative programs to replace existing ones that might not be achieving their objectives.

### A Statewide System

A 5-year program should be developed to provide vocational-technical schools at strategic locations throughout the state which would offer a variety of programs and be within commuting distance of almost everyone. This plan should be approved by the Legislature as part of the state capital budget. The Legislature should grant authority to the State Board of Education to merge or phase out some existing facilities when it is in the best interest of the state to do so.

The state should be divided into regions, each with a regional vocational-technical institute, and each region should be divided into areas, each with an area vocational-technical school.

A regional institute should (1) be located in a major urban center; (2) have a broad and sophisticated curricula encompassing 50 to 100 different job preparatory programs; and (3) supervise area schools within the region, provide administrative services such as accounting and record keep-

ing, and regulate the exchange of faculty and equipment among schools in the region.

An area school should offer a more limited curricula than a regional school, with approximately 10 to 25 different job preparatory programs, and tailor its program to area needs.

The following lists indicate the variety of programs that could be offered in regional and area vocational-technical schools. The lists are by no means exhaustive, but are intended to indicate the scope and variety of programs that might be offered.

**Examples of Programs  
at Regional Vocational Institutes  
(75 Preparatory Programs)**

Accounting  
Agricultural Mechanics  
Agricultural Production  
Agricultural Supplies and Services  
Air Conditioning and Refrigeration  
Aircraft Mechanics  
Apparel and Accessories  
Appliance Repair  
Auto Mechanics  
Bank Teller  
Barbering  
Body and Fender Repair  
Business Machine Maintenance  
Business Management  
Carpentry  
Cashier  
Cement and Concrete Finishers  
Child Care  
Clothing Production  
Commercial Art  
Commercial Cooking  
Commercial Photography  
Cosmetology  
Counter and Fountain Service  
Crane and Derrick Operators  
Custodial Services  
Data Processing  
Dental Assistant  
Diesel Mechanics  
Drycleaning  
Drafting  
Electricity  
Excavating and Grading  
Finance and Credit  
Fireman Training

Food Distribution  
General Clerical and Secretarial  
General Merchandising  
Geriatric Nursing Assistant  
Glazier  
Graphic Arts  
Horticulture  
Hotel and Lodging  
Industrial Electronics  
Instrumentation  
Insurance  
Laundering  
Law Enforcement Training  
Line and Service Maintenance  
Machine Tool Operation  
Masonry  
Medical Assistant  
Medical Laboratory Assistant  
Mental Health Assistant  
Nursing Assistant  
Optometrist Assistant  
Painting  
Plumbing and Pipefitting  
Power Sewing  
Practical Nursing  
Radio and Television  
Real Estate  
Rehabilitation Assistant  
Roofing  
Saw Filing  
Seamanship  
Sheet Metal Fabrication  
Shipping Clerk  
Small Engine Repair  
Surveying  
Tool and Dye Making  
Truck Driving  
Upholstery  
Waiter-Waitress  
Welding

**Examples of Programs  
at Area Vocational Schools  
(15 Preparatory Programs)**

Accounting  
Air Conditioning and Refrigeration  
Auto Mechanics  
Body and Fender Repair  
Carpentry  
Clerical and Secretarial (General)  
Commercial Cooking  
Diesel Mechanics  
Drafting  
Machine Tool Operation  
Merchandising (General)  
Nursing Assistant



Nursing (Practical)  
Radio and Television  
Welding

Branches should be established only in areas which lack the population to support an area school but would be isolated without some school. Program offerings at branch schools should be limited to a few basic courses.

Schools should be merged in cities which now have two vocational-technical schools.

The system proposed by PAR would have eight regional institutes, 32 area schools and three branches, and considers existing schools, population to be served and commuting distance. Ten existing schools are not used; these schools are small and have limited staff, facilities and programs. Five of these schools would be phased out and replaced with schools located more in the center of the population to be served. The other five schools are in cities with another school and would be merged with the larger facility. One regional institute, 14 area schools, and three branches would have to be established. Figure 5 shows PAR's proposed statewide system of vocational-technical schools.

Under PAR's proposed statewide system of vocational-technical schools, the following changes would be made:

**Suggested location of regional institutes:**

1. Shreveport
2. Monroe or West Monroe
3. Alexandria
4. Lake Charles
5. Lafayette (new)
6. Baton Rouge
7. Houma
8. New Orleans

**Suggested area schools:**

**New**

1. Mansfield
2. Ruston

3. Bastrop
4. Tallulah
5. Tullos
6. Leesville
7. DeRidder
8. Oakdale
9. Ville Platte
10. Clinton
11. Burnside
12. Thibodaux
13. LaPlace
14. Chalmette

**Existing**

1. Minden (Northwest Louisiana)
2. Many (Sabine Valley)
3. Natchitoches (Natchitoches)
4. Ferriday (Concordia)
5. Cottonport (branch of Alexandria)
6. Jennings (Jefferson Davis)
7. Opelousas (T. H. Harris)
8. Crowley (Southwest Louisiana)
9. Abbeville (Gulf Area)
10. New Iberia (Teche Area)
11. Plaquemine (Westside)
12. New Roads (Memorial Area)
13. Hammond (Hammond Area)
14. Morgan City (Young Memorial)
15. Bogalusa (Sullivan)
16. Slidell (branch of Sullivan)
17. New Orleans (Westbank)
18. Winnsboro (Northeast Louisiana)

**Suggested location of new branches:**

1. Cameron
2. Golden Meadow
3. Port Sulphur

**Suggested existing schools to be phased out:**

1. Greensburg (Florida Parishes)
2. Ringgold (Bienville)
3. Farmerville (North Central)
4. Winnfield (Huey P. Long)
5. St. Martinville (Evangeline Area)

**Suggested existing schools to be merged with larger school in same city:**

1. Baton Rouge (Capitol Area to be merged with Baton Rouge)
2. New Orleans (Orleans Area to be merged with Delgado)
3. Opelousas (Opelousas Area to be merged with T. H. Harris)
4. Monroe (Delta Area and Ouachita Valley to be merged)
5. Natchitoches (Central Area to be merged with Natchitoches)

A thorough facilities study of existing vocational-technical schools is vital to show the condition of existing facilities, the cost of repairing them and the cost of expanding existing facilities to conform to the proposed state plan, and to determine utilization of all present space. The new State Superintendent of Education is planning such a survey.

PAR did not attempt to determine the precise cost of its proposed state system of vocational-technical schools, but it should not be as staggering as some might presume at first glance. A "ballpark" figure for the cost of building and equipping new facilities would approximate \$20 to \$35 million. A regional center would approximate \$4 to \$6 million; an area school, \$1 to \$2 million; and a branch, \$0.3 to \$0.5 million. In addition, a facilities study should provide the necessary data to determine actual costs of repairing and expanding *existing* schools which would be used in the plan, but a "guesstimate" is that costs would approximate \$30 to \$55 million. Hence, the total cost of constructing and equipping new facilities and upgrading existing ones would approximate \$50 to \$90 million. Of course, this cost might be reduced if it were found that some buildings already exist which could be converted for use as a vocational-technical school. Even if the cost did approximate \$50 to \$90 million, spread over a 5-year period, this would require from \$10 to \$18 million a year. While such a cost is still sizable, this system would serve a vastly expanded segment of Louisiana's population in need of training to get or keep a job.

Vocational programs at the state's correctional institutions (Angola, DeQuincy and St. Gabriel) should be consolidated under a single coordinator

at the state level. However, to avoid the possible stigma of receiving certificates of completion from a correctional institution, arrangements should be worked out with a regional or area school to grant the certificates. Presently, certificates are granted by the vocational-technical schools which have a branch at a correctional institution.

### Advisory Committees

Advisory committees (three employers, three employees and three representatives of the public) should be appointed for every regional and area school by the directors of these schools to assist in program planning, curriculum design, job placement and public relations.

### Financing

A formula should be devised for allocating funds to the vocational-technical schools, based on curricula and its cost as well as the number of students served. The basis for counting students should be contact or clock hours since vocational-technical schools do not have regular semesters or quarters, and many students do not complete courses.

Funds should be appropriated to the State Department of Education in a lump sum amount and distributed by the department with approval of the State Board of Education. This would allow planning and implementing programs on a statewide rather than local need basis.

The salary schedule for staff of the vocational-technical schools should be revised to reflect merit instead of only degrees earned and years of experience. Salaries of directors should allow for differences in size and complexity of schools.

Public school systems should be allowed to contract with vocational-technical schools for services not provided by the state but which they feel are needed in their area.

### Curricula

Every curriculum offered in the state should be revised by staff of the State Department of Education with assistance of advisory councils.

1. Curricula and specifications for equipment should be standardized.
2. Curricula should be updated and made more relevant to present employment needs.
3. Programs should be reduced to minimal length and to essential matters.
4. Curricula should be designed so that students can be certified for marketable skills they have learned prior to completion of an entire program.
5. Certification requirements should be standardized for all curricula. This would allow students to transfer from one school to another more easily and to reenter programs more easily, and would aid employers in judging job applicants.
6. Programs at vocational-technical schools should complement those at the secondary and collegiate levels.
7. The name of the Curriculum Development Laboratory at Natchitoches should be changed to reflect its true responsibility for reproducing and distributing curricular materials. Funds for the lab should be placed in the budget for the State Department of Education and not be merged with the Natchitoches Trade School. The department should investigate the

possibility of moving the lab to its offices in Baton Rouge.

### Student Policies and Services

The vocational-technical schools should have a true policy of open admissions. Except for programs in which standards are set by licensing agencies, students should be allowed to enter any program they wish, but they should be tested and guided into areas most appropriate for them.

There should be a uniform student fee, except for high school students and the economically disadvantaged. This should be a nominal charge to help finance operating costs and discourage disinterested students from enrolling and dropping out shortly thereafter. Out-of-state tuition charges should be established on the basis of cost. Special fees for particular programs should be standardized at a low level.

The number of guidance counselors should be placed on a formula basis, and each vocational-technical school should have at least one guidance counselor.

Special education diagnostic centers at state university campuses should be expanded to provide, on a contract basis, occupational and other diagnostic services such as testing, evaluation and counseling for the wide range of agencies currently attempting to provide these services. These centers should be staffed with guidance counselors and psychologists to evaluate and counsel on the full range of personality characteristics, skills, preferences and abilities.

All students wishing to attend vocational-technical schools who require financial assistance should receive aid through expanded use of the state student loan program at the vocation-

al-technical schools, encouraging business and industry to provide scholarships and part-time work, and increasing state funds for matching federal funds for student aid programs.

Transportation should be provided students attending vocational-technical schools from within their designated areas. There should be a nominal charge for those able to pay, not only for transporting students to the vocational-technical schools, but to colleges as well.

When there are enough facilities to allow the vocational-technical schools to be "open admission," consideration should be given to auxiliary services such as cafeterias, libraries and office space.

## INSTITUTIONS OF HIGHER EDUCATION

Louisiana's public institutions of higher education should be used for subbaccalaureate programs in technical and paraprofessional fields, thus obviating the need for a junior college system. The State Department of Education should review these programs before they are instituted to assure that they are truly college-level courses and not just different names for programs already taught or which should be taught in the vocational-technical schools.

The type of associate degrees that might be offered are listed below.

### Example of College Associate Degree Programs (50 Preparatory Programs)

- \* Accounting
- Advertising Services
- \* Aeronautical Technology
- \* Agricultural Production
- Agricultural Supplies and Services
- \* Air Conditioning and Refrigeration Technology

- Apparel and Accessories
- \* Architectural Technology
- \* Automotive Technology
- \* Business Management
- \* Chemical Technology
- \* Child Care and Development
- Civil Technology
- Clothing and Textiles
- \* Computer Technology
- Data Processing Technology
- \* Dental Hygiene
- Dental Laboratory Technology
- \* Electrical Technology
- \* Electronic Technology
- Environmental Health Technology
- Fire Control Technology
- Food Distribution
- \* Food Service Management
- Forestry
- General Merchandising
- Geriatric Health Technology
- \* Horticulture
- Hotel and Lodging
- Industrial Marketing
- Industrial Technology
- Institutional and Home Management
- \* Instrumentation Technology
- Insurance
- \* Law Enforcement Technology
- \* Machine and Tool Design
- Mechanical Technology
- \* Medical Laboratory Technology
- Mental Health Technology
- \* Nursing
- \* Occupational Therapy
- Oceanographic Technology
- Physical Therapy
- Radiologic Technology
- Real Estate
- \* Secretarial
- \* Surgical Technology
- Transportation
- Water and Waste Technology
- Wood Products Technology

\*Already instituted or approved.

The present law authorizing parish school boards, except Orleans, to establish junior colleges should be repealed. This law is archaic and is not used.

There are many reasons why Louisiana should use its present institutions of higher education for paraprofessional and technical training, and not establish junior or community colleges.

1. The decline in the number of births in Louisiana in recent years means that colleges will experience only a moderate increase in enrollments in the foreseeable future. Hence, they will have facilities and faculty available to expand their curricula to students who might wish to attend college but not for a baccalaureate degree.

2. There is great need for persons with training below a college degree, while many with degrees are having difficulty finding employment. The most practical and least expensive means for Louisiana to meet this emerging need is to use its numerous existing campuses.

3. Louisiana has a tradition of allowing 2-year campuses to expand into 4-year campuses.

4. Despite the growth in junior colleges in other states, colleges and universities are now seeking new areas for expansion by initiating subbaccalaureate programs to overcome declining enrollments.

5. Louisiana's senior colleges have many of the characteristics of junior colleges, i.e., they are open-door, with-in commuting distance of most of the population, low cost and multipurpose.

6. Louisiana's present colleges and universities should be more attractive to students than junior colleges in that they have dormitories, student union buildings, infirmaries, stadiums, dining halls, athletic programs and other extracurricular activities which are usually lacking at a junior college. They also have a higher status, and can re-

coup some of their dropouts by steering them into an alternate program.

7. Louisiana simply does not have the money to add another system to its numerous institutions of higher education.

8. Louisiana's institutions of higher education, even though they are not junior colleges, are eligible for federal funding of occupational education under the federal Education Amendments of 1972.

## MANPOWER NEEDS

Federal manpower programs should be merged into the curricula of the vocational-technical schools where feasible, and other manpower programs should be encouraged to "buy in" for various services which the schools could offer on a contract basis.

## OTHER PROGRAMS

The manpower programs as well as apprenticeships, private schools and industry vocational-technical programs should be made a part of the state plan. The state should inventory these programs and keep the listings current.

Act 311 of 1972, which provides for an Advisory Commission on Proprietary Schools within the State Department of Education to license private and proprietary vocational-technical schools, should facilitate the inventory of such schools and their programs.

## Special Fund for New Employees

The amount of appropriations to a special fund for training employees

for new and expanding industries should be increased, and use of the

fund should be expanded to include training of employees for various types of industry, not just garment workers as at present. A special administrative unit within the Department of Education should be established to work cooperatively with the State Department of Commerce and Industry. This unit should study needs of a proposed industrial plant, particularly for skilled workers; locate a supply of trainable persons; outline the required training

program to meet industry needs; secure space for training the workers if it is not feasible to train them at existing schools; move equipment from a central warehouse; assign instructional staff; and recruit trainees. It is often necessary to be able to mobilize various resources within a short period of time to convince an industry that Louisiana offers the requisites for it to locate here.

## CONCLUSION

Louisiana is wealthy in terms of natural resources, but poor in human resources. While the 12 southeastern states have been the fastest growing region of the country in terms of personal income for the past two decades, Louisiana has been the slowest growing among its sister states. Louisiana has also lagged behind other states in the educational attainment of its adult population.

The greatest barrier to the economic progress of this state and the economic well being of its people is the lack of skilled labor. A 1971 PAR study, *Industry Rates Louisiana*, found that lack of skilled labor headed the list of factors impeding Louisiana's industrial growth. In fact, industry ranked labor-related problems as seven of 10 factors most harmful to Louisiana.

If Louisiana is to catch up with other states, it must make significant changes in its educational system which is not now geared to meeting the needs

of an increasingly urban and technological society. This state can ill afford to continue an educational system that offers few opportunities to its youth except to quit school or go to college. It has resulted in a far too great number of high school dropouts and an oversupply of college graduates in some fields.

Louisiana's programs for vocational-technical education have been poorly planned and are uncoordinated and underfinanced. There is a lack of basic information and communication required for planning a good system. Far too many are enrolled in home economics and agriculture which are least related to paid employment, while too few are being trained to meet labor market needs.

The plan proposed in this study is a first step toward the solution of one of Louisiana's most critical problems—the need for a comprehensive, state-wide system of vocational-technical and career education.

The study was financed in part through a grant to the Louisiana Higher Education Facilities Commission from the U. S. Office of Education, Department of Health, Education and Welfare. However, the opinions expressed in the study do not necessarily reflect the position or policy of the Louisiana Higher Education Facilities Commission nor of the U. S. Office of Education, and no official endorsement by these agencies should be inferred.