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VOCATIONAL-TECHNICAL EDUCATION  
AND  
SCHOOL DISTRICT ORGANIZATION

by

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The impact of scientific, technological, social and economic change on the American way of life necessitate a re-examination of the educational system. These changes modify established needs and create new needs to be met by the public school system. Instructional programs and supporting services must be developed to meet these needs.

The primary purposes of school district organization are to make possible: (1) the desired quality or excellence of the programs and services; (2) the efficiency of the organization for providing the programs and services; and, (3) the economy of operation, or the returns received for the tax dollar invested in education.

Vocational-technical education at the high school and post high school levels is of major concern at local, state, and national levels. The direction for this phase of the total educational program, and the necessary structure to provide comprehensive vocational training opportunities to all youth, is in the emerging process in the United States. Dr. Byrl Shoemaker, Past President of the America Vocational Association, was invited to provide data and information for use in the four states as plans are made to develop guidelines for an appropriate school district organization structure in each of the four participating states.

The value of this paper rests upon its utilization by those with advisory and/or decision making responsibilities about the educational structure in each state. It represents a beginning point for further study and evaluation, and for establishing criteria upon which guidelines can be developed for effective and constructive school district organization.

Respectfully submitted,

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# VOCATIONAL AND TECHNICAL EDUCATION IN THE PUBLIC EDUCATION SYSTEM

## INTRODUCTION

Throughout the Nation, there is a massive expansion in the area of vocational and technical education--a massive expansion, encouraged and supported by government, business, industry, school administrators, parents, and students. This growth of interest is indicated in the raw figures on growth of programs throughout the Nation.

In 1963 there was a total of 4,217,198 youth and adults of the Nation served by vocational education programs reported to the Division of Vocational Education in the U. S. Office of Education. Preliminary figures for the fiscal year just closing as of July 1, 1967 show an enrollment for that year of slightly over 7,000,000 youth and adults.

This phenomenal growth in vocational education programs and the projected growth based on facilities already under construction, point to the fact that vocational education is being accepted truly as an important part of the total educational program and as one of the weapons in the war on social and economic problems that have faced every great civilization. The further growth of vocational education is predicted on the basis of the continuation of our technological evolution and the interest throughout our Nation in overcoming some of the social problems that no civilization has ever solved.

The growth in productivity during the industrial revolution was brought about by making men slaves to machines. The technological evolution which we are under going is freeing men from slavery to machines. The price of this freedom is increased knowledge and skills required to serve as master of the machines. The jobs that will be available in the world of today and tomorrow will be for people who "know something" and "can do something." A man who earns his living with his back is going out of business.

Our society is also determined to bring the benefits of that society to all citizens, including those who in previous societies have been assumed to be necessary evils. As efforts are made to integrate all people regardless of race, creed, or color into the mainstream of our economic life, it has become increasingly evident that education is a ladder from the pit of poverty for most of the unfortunate people, and that vocational education provides many important rungs on that ladder.

As vocational education becomes increasingly important in our economy and as increased efforts are made to bring the benefits of such programs to more youth and adults, it is important that careful consideration be given to the type of vocational education programs and the program organization which can best perform the tasks assigned to it.

This position paper suggests some principles and practices of vocational and technical education for the public education system.

## IDENTIFYING VOCATIONAL AND TECHNICAL EDUCATION

The term "vocational education" and the term "technical education" often are used interchangeably in public education to describe the same types of

programs. Within the framework of this description, however, the terms will be used to describe companion programs, but programs which have different goals, different purposes, and serve different types of occupations.

There are no legal definitions as concerns these terms, so it cannot be said that anyone is using them incorrectly. However, if we want to talk about two different types of education, both related to occupations in business and industry, it is feasible to define these terms to identify these different levels.

A definition or description of vocational education concerned with skilled level occupations in the areas of construction, maintenance, repair, servicing, or production can be worded as follows:

The primary purpose of vocational education is to equip persons for useful employment. The program is designed to serve the needs of people in two distinct groups. First, adults who have entered upon, and second, youth and adults who are preparing to enter occupations in agriculture, business, home-making, distribution, trade, and industrial fields requiring less than a college degree.

Vocational education helps to give definite purpose and meaning to education by relating it to occupational goals. It provides the technical knowledge and work skills necessary for employment; but, it is more inclusive than training for job skills. It develops abilities, attitudes, work habits, and appreciations which contribute to a satisfying and productive life.

Vocational education contributes to the general educational needs of youth, such as citizenship, respect for others, and acceptance of responsibilities; but, it makes its unique contribution in the field of the preparation for work. It is a part of a well-rounded program of studies aimed at developing qualified, efficient workers. It recognizes that the American worker should be competent--economically, socially, emotionally, physically, and in a civic sense.

The uniqueness of vocational education programs in our public schools is in their contribution to the skills and technical knowledge required for employment. Recognizing the needs of youth and adults for instruction in a field of occupations, no public high school or public school system can be classified as comprehensive unless the educational offerings include a comprehensive vocational education program to serve youth and adults.

Technical education, on the other hand, as the term will be used in this report, is concerned with design, development, testing, supervision, or mid-management functions. The technician does not replace the professional person or the skilled worker. The technician does, however, enable the professional person to work at his highest level of educational training by providing supportive services. The technician also enables the skilled worker to function effectively and economically through coordinative and interpretive functions served by the technician between the professional and the skilled worker.

Technical education is a new level of education in keeping with our technological revolution and the changing needs of both people and business and industry in our economy. This new level of education is planned to prepare para-professionals in two-year post-high school programs to support the professional people in engineering, business, agriculture, distribution, health, and public service occupations. Such para-professionals can be prepared in two-year post-high school technical education programs to work in a team relationship with both

the professional people and the people at the skilled or vocational levels of employment.

Both vocational and technical education may at times be lumped under the one term "vocational education" since the Vocational Education Act of 1963 and Title VIII of the National Defense Education Act, establishing Title III of the George-Barden Act, both include technical education as a part of the overall vocational education function. It is essential, however, that these two separate functions be identified clearly for one purpose--the curriculum, facilities, instructional materials, student goals, and minimum levels for successful achievement are normally different.

#### BASIS FOR VOCATIONAL EDUCATION

Even the early theorists in the area of education, while lacking the support of educational psychology, recognized and understood the need for an experience-centered curriculum. Rousseau, Froebel, and Pestalozzi all pointed toward the need to involve the children's ongoing experiences in life within the learning process.

During these early days, however, there was little necessity for vocational education, since the learning of work skills was a function of the family or the ongoing society in which they lived. The emphasis placed upon the importance of the relating of the child's home and work experiences, in terms of his school work, was based on the necessity of using such an experience base as support for the teaching of reading, writing, arithmetic, and other basic educational functions important to the changing society.

Essentially, John Dewey, one of our modern theorists in the area of education as he propounded his concept of learning by doing. The learning by doing theory founded by Dewey did not, however, fit easily into the subject-centered curriculum that had grown in our public schools. In too many cases, the interpretation was made that activity, however meaningless, would be a basis for learning, or to the acceptance of an extreme permissive concept of "What do you want to do today, children?" The educators who attempted to introduce the concepts of Dewey on these bases missed the whole point of the early leaders in learning theory, who deduced that the curriculum should be experience-centered--experience-centered in terms of things meaningful to the youth from the standpoint of either their goals or from the society in which they live.

The principles of learning developed as a result of educational experiments in clinical psychology support both the basic theses of the early educational theorists and the concepts of John Dewey. Some of the common principles of learning which serve as a basis for instruction in education, and certainly have a direct application in the field of vocational education are as follows:

1. We learn best when we are ready to learn. When we have a strong purpose, a well-fixed reason for learning something, it is easier to receive the instruction and to make progress in learning.
2. The more often we use what we have learned, the better we can perform or understand it.
3. If the things we have learned are useful and beneficial to us, so that we are satisfied with what we have accomplished, the better we retain what we have learned.

4. Learning something new is made easier if the learning can be built upon something we already know. It is best to start with simple steps which related to things we can now do or which we already understand.
5. Learning takes place by doing. Before the learning can become complete, we must put into practice what we are attempting to learn.

Vocational education is an experience-centered curriculum, accepting and making application of the basic principles of learning. Vocational and technical education are not disciplines, but they cut across and draw content from a number of disciplines and from the practical work of the world. The contribution of vocational education is the blending of theoretical knowledge from the disciplines with the practical experiences and requirements of entry jobs, recognizing the nature of the work of the world. In vocational and technical education we weave together the principles of mathematics and science, skills and technical knowledge into a mix which will help youth and adults to enter and adjust to employment opportunities or to upgrade themselves in their chosen field of work.

A preparatory program of vocational education is essentially a "core" program, built around the "pegged-core" concept of Dr. Alberty, Professor Emeritus, Ohio State University. The vocational and technical education programs take the students choice of occupation as the core of the program and build around this occupational choice the necessary skills, technical knowledge, work habits, attitudes, and job adjustment information necessary to enter employment in their chosen occupation upon graduation.

The principles underlying vocational and technical education, in terms of its goal to serve youth and adults and their needs in preparation for employment and the principles underlying the organization and operation of such programs, are educationally sound. While there have been some failures in the practice of vocational education, such failures have often been caused by a lack of acceptance of vocational education as an integral part of the total educational process and the sentencing of students in some centers to vocational education programs in which they cannot succeed. The large majority of the vocational education programs throughout the Nation have been successful in providing sound education to youth and adults.

The majority of the criticisms of vocational education tend to come from some major cities in which the facilities and equipment within their vocational programs have become antiquated. The occupational goals of the programs have not changed and broadened with the changing times, but the type of student enrolled has changed to the point where those enrolled cannot succeed in terms of the goals of the programs. Too often, these sad situations are the ones that gain the headlines instead of the large number of high-quality vocational programs operated under public education.

Annually, a follow-up study, in terms of placement of graduates is conducted in the State of Ohio, and a follow-up study was made in 1964 covering a four-year period of time involving graduates from vocational programs. Annually, the placement of graduates shows the viability of the programs, not only in terms of the overall placement, but also in terms of placement of graduates into the occupations for which they were trained. Only the field of agriculture shows a need for major changes in program orientation in relationship to job placement. The four-year follow-up study completed in 1964 showed that 95% of the graduates were employed and that 65% of the graduates were working in occupations utilizing directly the skills and knowledges learned in their vocational programs.

A study by the American Institutes for Research dealing with the subject "Vocational Education--The Process and The Product" summarizes the result of their studies covering 10,000 students in 30 States as follows:

"Vocational graduates get their first full-time job after graduation much quicker than do academic graduates. The average time to get a first full-time job for vocational graduates is less than six weeks. Fifty percent get their first full-time job within two weeks after graduation.

"Vocational graduates enjoy substantial greater employment security than do academic course graduates without college education. The median 1953-1962 graduate was 95 percent fully employed.

"Vocational graduates have greater accumulated earnings over the eleven-year period covered by the survey than do academic course graduates with no college education.

"About 50 percent of the vocational graduates enter into the trades for which trained or highly related occupations. Another 15 percent enter occupations that are somewhat related to the trade studied in high school.

"The percentage of vocational graduates who enter the trades for which trained rises and falls with the general level of the U. S. economy. In the recession year of 1958, only 28 percent of the graduates entered the trades for which they were trained.

"Negro vocational graduates have more difficulty getting their first full-time job, enjoy substantially less employment security, earn significantly less pay, and are much less likely to enter the trade for which trained than white vocational graduates. Fewer than 17 percent of the Negro graduates were able to get their first full-time job in the trade for which trained. (It should be noted that lack of enrollment is probably due to the lack of opportunity for employment for youth of the minority race in skilled occupations during the period of time covered by the study.)

"Of the vocational graduates who obtained jobs in the trade for which trained in high school, 50 percent reported they were 'exceptionally well prepared.' Another 45 percent reported 'on the whole, well prepared.'

"There is very little mobility among vocational course graduates. Less than three percent obtained their first full-time job by moving to another city. Eleven years after graduation, 87 percent still reside and work in the city in which they went to school. Another ten percent have made only one new city move in the eleven-year period.

"A comparison of vocational and academic graduates without a college education reveals no difference in conversational interests, leisuretime activities, and affiliation with community organizations. The findings contradict the contention that the vocational graduates are more poorly educated than academic graduates from the standpoint of education of the 'whole person.'

"While only 15 percent of the vocational graduates went to college, about 42 percent reported having had some type of formal post-high school education. Most attended private and public adult-level trade and technical schools and company courses."

A review also of the Manpower Development and Training programs which grow out of **expressed needs for employment on the part of business and industry** point to a **high correlation between programs organized on this basis and the ongoing vocational programs called "traditional" within the public schools.**

Every set of goals for education, starting from the **seven cardinal principles of education**, following through the **ten imperative needs of youth and the developmental needs of youth as expressed by Havighurst**, all have indicated vocational education as one of the goals of education for those youth who are not preparing for college. Preparation for a vocation has often been established as a goal of education, but ignored in terms of implementation in our secondary schools and post-secondary institutions.

Public education has continued to ignore the earlier maturity of our youth **and the importance of goal-centered education for youth as they reach the important age of 16.** We have recognized the need for changes in education at the point of their **physiological change at age 12 or 13**, but have failed to give consideration to perhaps the even more important **psychological change at age 16.** If you **accept the premise that the theory underlying vocational education is sound, it then becomes a responsibility to look for practices implementing the theories.**

#### ECONOMICAL BASIS FOR THE NEED OF VOCATIONAL EDUCATION

The **industrial revolution brought on the new age of productivity, providing more goods and more services to more people.** While this revolution relieved the backs of men from the drudgery of heavy labor, in many cases, the **industrial revolution made men slaves to machines**, with the men feeding the machines raw material and hauling off the completed work. While skilled occupations were always **important** and a skilled worker, except in the depression of the 1930's, was always in demand, the mass of unskilled and semi-skilled jobs within industry permitted youth the opportunity of graduating from high school, entering an unskilled job, and then living long enough on the **unskilled job to the point where he could obtain a higher position or earn a living at the production type job.**

Our economy is now undergoing a **technological evolution in which man has become the master of the machine, rather than the slave.** The price of this change is increased skill and technical knowledge in **available jobs** and the loss of the unskilled job. Secretary of Labor, Wirtz, made the challenge of the technological age clear as he made the following statement before a general subcommittee on education in the National Congress:

"There was a place in the old work force for the boy or girl who left high school, either dropping out, or with a diploma in hand, and entered the work force with no skilled training. He or she could, and did take an unskilled job and worked up from there. Now, such jobs are vanishing, and so, today, there are 700,000 sixteen to twenty-year olds out of work and out of school. Every American youngster has to be given today, as a part of his education, **some know-how about making a living, which means for a great many of them, vocational education.**"

A review of a June, 1965 report on unemployment in a midwestern State reveals that when the unemployment of males is considered by each category, the largest percentage of unemployment exists within the youth between the ages of sixteen

and twenty-four, and that the vast majority of the unemployed in this category are classed as unskilled workers. A study by the State Unemployment Service of the unemployed youth in this age range indicated that 89.4% of this group had absolutely no skills to sell to an employer. The facts point to the great need in the youth group for preparatory training for employment.

The need for upgrading courses for employed workers is in evidence, particularly for the worker thirty-five years of age or older. Both upgrading and re-training courses are important for the worker in the forty-five years of age and over category.

Looking at the pattern for women, we find again that unemployment is highest among the unskilled youth group. A review of the unemployed youth pattern would indicate that there is a need for training girls in occupations other than clerical and business occupations. Other occupations, however, such as cosmetology, dental assistants, medical assistants, laboratory assistants, and technical areas such as food service, food management, child care, etc., should be given consideration for the training of girls and women.

A study of the employment pattern within one midwestern State indicates that in the 1960 census, 7.6% of the jobs in the work force were classes as professional, requiring a baccalaureate degree or higher in the field of education. This analysis of jobs available matched the study of the census data which indicated that 7.2% of the adults above the age of twenty-one had a baccalaureate degree from a college or university. While projections would indicate that the 7.6% of professional jobs in our work force would increase to 11-12% by the 1970 period, simple arithmetic would indicate that 88% of our people are going to be employed in jobs which do not require a baccalaureate degree.

A further study dealing with student educational patterns within this same midwestern State reveals that for every 100 students entering the first grade, 75 will graduate from the ninth grade, 32 will start to college, and 14 will finish college. The 14 finishing college may be the most important in terms of our economical and cultural growth, but the other 86 also are important to our economy and our democracy. Vocational and technical education is concerned with the 86% who will enter employment without a baccalaureate degree.

It is a professional person's desire and an administrator's obligation to project his plans as far in the future as possible. It is difficult, however, to talk now about the preparation of youth and adults for jobs to be available in 1980. It is true that for some the academic studies will enhance their chances for employment. The problem, however, is stated succinctly by Grant Venn in the book entitled, Man, Education and Work, published by the American Council on Education.

"Their assumption seems to be that the best and only necessary preparation for a job today is the longest possible immersion in academic and professional subjects.

"This assumption at once fails to heed the factor of youth unemployment and misapprehends the relevance of general education. The liberal or academic studies do enhance the long-range civic and occupational competence of a person; they do not, at least below the baccalaureate degree level, and as a rule, qualify young people for meaningful job entry. The technological work world is one of specialization and sophisticated skills, and being a 'bright young man' cuts relatively little ice with employers looking for skills to do

some specific kind of work."

It is impossible for those of us in vocational education to project the job pattern in 1980. It is within our range of abilities, however, to provide for sound entrance programs today, and to encourage a flexible curriculum, flexible facilities and flexible program offerings for those vocational education programs now functioning within our individual States.

Vocational education is not the total answer to the overall unemployment problem brought about by cyclical and structural changes in our employment pattern. Vocational education is one of the answers for the unemployed persons who wish to reenter the labor market and for those in high school or post-high school levels preparing to enter the labor market for the first time. I would predict that when the answer to unemployment is found, vocational education will have a prominent part in the solution. This prediction is based upon the concept that the new technological evolution, brought about by automation, has placed a premium upon preparation in skills and technical knowledge for new jobs and has diminished the need for the unskilled worker.

As the governmental unit in our society works frantically to develop a "Great Society" a greater and greater reliance is being placed upon the concept of education as the only ladder out of a continuous poverty cycle.

#### AREAS OF VOCATIONAL EDUCATION

##### Agriculture

Vocational agriculture education offered in the high schools and area vocational schools and technical agriculture education offered at the technical institutes provide a source of trained people necessary for the agriculture industry of a State. Vocational agriculture education is offered in most rural schools. Specialized programs in horticulture, agricultural equipment mechanics, and non-farm agricultural business and service often can be made available only in area vocational schools and in some of the area vocational centers of our major cities. The teaching of skills, knowledge and abilities necessary for employment in production and non-production agricultural occupations is available to both high school and post-high school students. The high school program through organized class instruction, laboratory experience and supervised occupational on-the-job experience provides the student with the basic principles in agricultural production, mechanics, management and leadership. The specialized technical and related instruction given to the 11th and 12th year students prepares the students to enter semi-skilled and skilled occupations in agriculture, including farming.

The adult programs in vocational education and agriculture includes organized instructional programs for young and adult farmers and others who engage in non-farm agricultural occupations. Manpower programs are conducted for training and retraining individuals for production and non-production agriculture. Special emphasis is often given to the young and adult farmer programs in the area of farm business planning and analysis from which management decisions are evolved.

##### Home Economics

Vocational home economics today has two purposes in education, 1) to train for homemaking and family living, and 2) to train for occupations directed toward gainful employment. The major areas of homemaking instruction at the secondary level include: personal and family relationships; home management; consumer competence and responsibility; care and guidance of children; selection and care of the house and its furnishings; clothing for individuals of the family; and, food for the family.

The programs assist women in carrying out their dual role of homemaker and wage earner through services of the adult education program. Through such adult programs, parent education is provided for both men and women.

The training of youth and adults for wage earning occupations under vocational home economics which require home economics knowledge and skills and lead directly to employment is another function of the program. Such training programs prepare persons to be child care workers, clothing service workers, food service assistants, homemaker's assistants for homes and nursing homes, etc. Wage earning programs in home economics are developed at the secondary, adult, and technical levels.

### Business and Office Education

Business and office education programs have been common in the public schools from the junior high school on through. Too often, however, such programs have been a combination of personal use, practical arts, or exploratory functions and only a limited effort at vocational preparation. A major effort in most such business programs has been in the area of stenography.

Vocational business and office education programs can be established normally for the last two years of high school and in post-high school technical centers to prepare youth and adults for entrance into employment or upgrading into a higher level job.

Vocational business and office education programs are being developed based upon occupational goals of the students and providing sufficient depth for preparation for entrance into employment. Seven vocational areas have been identified in the field of business and office education, providing opportunities for vocational training in this field in keeping with different interests and different ability levels. Six vocational areas are: bookkeeping, clerical, office machines, data processing, secretarial, and stenographic.

As in all areas of vocational education, all of the technical education level programs are at the post-high school centers.

### Distributive Education

The distributive education program is concerned with the preparation of people for employment in the areas of retailing, wholesaling, or service. Such programs are normally organized as cooperative programs and offered to juniors and seniors in the public schools as a service to high school students. In such cooperative programs, the students spend one half of the day in school and one half of the day working in a business establishment in an occupation relating to the distribution of goods or services. In school, the student spends two periods studying merchandising and marketing and completing the school subjects required for graduation.

Post-secondary technical and adult programs are offered in the field of distributive education. The post-secondary technical programs emphasize management areas of retailing and wholesaling, and other areas such as hotel and motel management, food service, etc. Short courses are offered for adults for purposes of upgrading and retraining of those employed in the field of distribution or for those who wish to enter the field.

### Trade and Industrial Education

There is virtually no limit to the kind of programs that can be offered in the areas of trade and industrial education. The imagination of the educator, the vocational interests of the students, and the needs of employers for a skilled work force are the only determining factors in the types of programs offered. Trade and industrial education is a balance of study and work experiences. This program develops the skills, technical knowledge, understandings, and work habits needed by individuals who desire to enter and make progress in employment. It is of paramount importance that business, industry, and the public be made aware of this type of education and give active support for its further development.

Some of the common areas of trade and industrial education for the high school level include: machine trades, auto mechanics, basic electricity and electronics, mechanical drafting, printing, welding, sheet metal, bricklaying, carpentry, plumbing, and cosmetology.

Post-high school technical education programs fall in the area of those supporting the field of engineering. Upgrading courses are offered in trade and industrial education to employed workers, and preparatory programs are provided for out-of-school youth and adults wishing to enter or reenter the labor market.

Areas specifically related to public service falling under the area of trade and industrial education include fire service training, emergency and rescue training, custodial training, law enforcement training, school bus driver training, and health occupations. In many States the health occupations may fall under the broad area of trade and industrial education, since the original health occupations programs grew out of the broad concept of public service training in the field of trade and industrial education.

Health occupations training is offered on the skilled or vocational level in both the high school and post-high school programs, including preparatory and upgrading training. Post-high school technical programs also are provided in health occupations. Some of the common vocational programs in the area of health occupations at the vocational level include practical nursing, dental assistants, medical assistants, X-ray assistants, physical therapists assistants, etc. Associate degree programs for registered nursing would be included as post-high school technical programs in health occupations.

### Technical Education

Throughout this paper, reference has been made to technical education as an integral part of a total vocational and technical education program, and reference has been made to technical education as a post-high school program relating to the broad occupational areas. There is an evident need throughout

the Nation for an expansion of this relatively new field in education, an area of education more practical than the professional, and more theoretical than the craftsman; an area of education worthy of a unique position within the pattern of education--not a watering down of professional education, and not an upward extension of vocational education; a unique level of education to prepare for new levels of employment in business, industry, agriculture, distribution, health, and the social sciences to prepare persons to work as para-professionals in a team relationship with a professional. This need is based upon the concept of the increasing requirements in the professional field, changes of assignment in the professional field, and the shrinking number of professional persons per thousand of population.

Technical education is a level of education that is growing in keeping with our technological evolution and with the changed needs of both people and business and industries in our economy. This level of education is Planned to prepare para-professional people in two-year post-high school programs to support the professional people in engineering, business, agriculture, distribution, health, social science, and other public service occupations. Such para-professionals can be prepared in two-year post-high school programs to work in a team relationship with both the professional people and the people at the skilled or vocational levels of employment.

Technical education is concerned with design, development, testing, supervision, or mid-management functions. The technician does not replace the professional person or the skilled worker. The technician does, however, enable the professional person to work at his highest level of education and enables the skilled worker to function effectively and economically through coordinative and interpretive functions served by the technician between the professional and the skilled worker.

Examples of the team relationship of the technical level of employment are as follows:

A. Industrial

Professional - Mechanical Engineer  
 Technical - Tool and Die Designer  
 Skilled - Tool and Die Maker  
 Semi-Skilled - Drill Press Operator

B. Business

Professional - Accountant (College Graduate)  
 Technical - Business Data Computer Programmer  
 Skilled - Unit Record Operator  
 Semi-Skilled - Clerk

The possibilities for program development in the field of technical education are limitless. Wherever there is a profession, and wherever the profession will accept a para-professional, two-year post-high school technical programs can be organized to prepare such para-professionals.

#### PURPOSES OF VOCATIONAL EDUCATION

As indicated earlier, the unique function of vocational and technical education in the total pattern of education is to prepare youth and adults for

employment. The concept of preparing a person for employment, however, now must go beyond the concept of providing skills and technical knowledge necessary for entrance into employment. Vocational and technical education must accept the concept of their role as preparing persons for employability. Skills and technical knowledge are essential and basic to employment, but our modern society places additional demands upon the person desiring to enter business and industry.

These additional concerns involve literacy, mental and physical health, work habits and attitudes, interpersonal relationships, motivation, and acceptance of citizenship responsibilities in his place of employment and in his community.

Since the original vocational education act in 1918, vocational education has assumed a responsibility for services to different age levels of students. Skill level programs were offered for high school youth in the areas of agriculture, distribution, homemaking, and trade and industrial education. For those students with average or better I.Q.'s, post-high school vocational programs were offered on a preparatory basis, but such programs have not been as numerous as the vocational programs for high school youth, even though our changing patterns of employment and growing unemployed group in the ranks of the unemployed propose a social problem. Additionally, vocational education has served in a commendable manner the employed adults who need instruction for upgrading and apprentices who need related technical instruction. Vocational education, however, tended to ignore the needs of the less able students, the needs of the unemployed adults, and the need for a massive expansion of vocational education opportunities in a variety of occupations.

The Vocational Education Act of 1963 and the Manpower Development and Training Act of 1963 both pointed the way toward a broad expansion, in not only the numbers enrolled in vocational education, but also in the responsibilities to be assumed by public vocational education if it is to prevent the establishment of a national system of vocational education.

Under the National Defense Education Act of 1958, which predated the two acts mentioned above, vocational education was given the impetus to expand the area of post-high school technical education for the more able out-of-school youth and adults. Vocational education accepted this responsibility to add this very desirable program to the vocational education offerings without a question.

The two 1963 acts mentioned above directed vocational education to be more concerned with the underprivileged, the unemployed, and the disadvantaged people in terms of the great social needs of our modern economy. Vocational education, therefore, now has the responsibility of serving socially and economically deprived students, the less able and the underachievers, the average students, and the above average students. Vocational educators have been directed to have a concern not only for the skills and technical knowledges of youth, but also to the physical, mental, social, economical, and educational needs of youth and adults.

One State Superintendent of Public Instruction placed the challenge before his Division of Vocational Education staff in this manner: "Yes, I know that you cannot enroll low ability students in a high-skill vocational program; but my challenge to you is to develop a vocational program to meet the needs of the less able student." The opportunity to serve the socially and economically disadvantaged students and the less able and underachieving students provides a challenge to the field of vocational education. With State and Federal funds providing the flexibility for programming, including the opportunity to provide paid employment under the work-study program of the Vocational Education Act of 1963 to those students who need money to stay in school, many States are making progress in the

establishment of programs planned specifically for this group. Such programs are based on preparation for occupations within the ability and interest range of the group to be served. Programs planned for the less able and underachievers normally point toward the semi-skilled or single-skill occupations and are identified as occupational level programs so as to place them in a proper perspective with the vocational skill level and the technical level programs.

Experiences with dropouts enrolled voluntarily in a residential center established with the help of manpower development and training funds at the Youngstown Air Force Base, near Youngstown, Ohio, revealed the fact that over 50% of such dropouts had measurable physical rehabilitation problems that had never been considered during the school career of the youth. As a result of this finding, an effort is being made to establish a rehabilitation evaluation unit in cooperation with each area vocational school established in Ohio.

Experiences with a work laboratory giving work experiences to less able youth prior to placement in business and industry on a semi or single skill occupation, combined with the concepts learned at the residential center referred to above, has given birth to a concept of a center for school dis-oriented youth for the major cities in Ohio. Plans for the center envisions a program oriented heavily toward the concept of rehabilitation.

The purposes established for vocational education are broad enough to be concerned with the needs of any youth or adult desiring preparation for employment, retraining for reentry into the labor force, or upgrading for the employed worker who faces new tasks or wishes to prepare for advancement. The only limitations to the breadth of services of vocational and technical education are interest, ability to plan, innovate and implement new programs, and the availability of sufficient dollars to do the job.

The job of vocational education is not only to teach knowledge and skills, but to prepare youth and adults for employment.

## QUALITY AND QUANTITY IN VOCATIONAL EDUCATION

### Quality

The concept of flexibility is important in the area of vocational education, in terms of curriculum, facilities, and program offerings. But, this term should not be used to imply a concept of lowering the investment of time by students in a program of vocational education in order to enhance his opportunities to enroll in the college preparatory courses of mathematics and science and other related disciplines. There is a real question as to whether this type of flexibility improves either the vocational education or the ability in mathematics and science.

The Division of Vocational Education in Ohio, in cooperation with the Ohio State University, has completed two research studies involving the question of depth of training for students enrolled in vocational education. From the one study, it is evident that students enrolled in depth programs of vocational education in the trade and industrial field achieve significantly higher scores on trade achievement tests than did those students who enrolled in programs

requiring less of the students' time for vocational education and making available a greater portion of the students' time for liberal and academic studies.

A further study of the report reveals that students enrolled in a more flexible program, requiring less time in vocational areas, do not achieve more in the areas of mathematics and science than those who enrolled in depth programs of vocational education. To the contrary, those students who remain enrolled in depth programs of vocational education requiring instruction in the math and science related to their trade showed a significantly higher achievement in the understandings of principles of mathematics and science than did the students in the so-called "flexible programs." Too often, the value of sound vocational education programs to the total educational process has been adversely attacked by those with the concept that a college preparatory program is the "general education" curriculum that all students can and should follow.

The contribution of vocational education to the total curriculum is alluded to by Dr. Conant in the January issue of "Changing Times." Dr. Conant was asked the question, "Dr. Conant, suppose that one or more of the children in a family are not interested in going to college?" His answer was, "Along with its academic courses, the high school should offer a vocational program. Thus, a boy could develop an occupational skill which would interest him, such as automobile mechanics, tool and die work, or carpentry. This would also stimulate him to learn mathematics, history, social studies, and English, since he now would see the point of it all. Girls might take such courses as stenography, typing, or home economics."

The research study reported earlier as conducted by Ohio State University has indicated that for students other than the college bound, interest and achievement in the areas of mathematics and science can be encouraged by the following conditions:

1. The instruction is a required part of the vocational program.
2. The instruction is provided in a block of time separate from the skill instruction, but correlated with such skill instruction.
3. The students are taught in homogeneous groups according to the occupational area in which they are enrolled (i.e. machine trade, auto mechanics, etc.).
4. The principles of science and functions of mathematics should be taught in relation to the real problems in the occupation for which the student is preparing.
5. The principles of science and the functions of mathematics are selected on the basis of applicability to the occupational area and taught at the "applied" rather than at the "proof" level.

A report from one major city indicated that less than 15% of the students were enrolled in the higher mathematics and science courses at the eleventh and twelfth year levels. A much higher percentage of the students need mathematics and science following graduation. Not all students need the "proof" type of mathematics and science provided in the college preparatory mathematics and science courses. The students who are not going on to college do not have the goal orientation necessary to encourage success in the college prep classes, and many do not have the aptitude or ability to succeed.

Often, a next attempted solution is the establishment of general, shop, or applied mathematics courses which place all students not in the college preparatory courses in classes together with all vocational students in such common classes. The history of such courses has been poor. The goal orientation in

such classes is no more clear for students not planning to go on to college than the college preparatory courses, even though the content may be functional or applied. Functional in what way? Applied to what? What does the boy in an auto mechanics vocational program or the boy in vocational agriculture care about the functions of trigonometry as applied to the machine trade? As a matter of fact, why should the boy in auto mechanics be required to learn to use the functions of trigonometry? Unused knowledge is soon forgotten, and the auto mechanics student has no use for trigonometry.

Vocational education should not be considered primarily as a means to teach principles of mathematics and science, but as a program which includes instruction in such principles as a means of reaching a goal of preparing students to live and to earn a living.

### Quantity

Vocational programs prepare students for entrance into a family of occupations, not into "a" job. As an example, vocational training in the auto mechanics field would be basic to approximately 750 of the jobs listed in the occupational handbook. A comprehensive program will offer a wide variety of programs to meet the interests and abilities of students at the high school level and the out-of-school youth and adults.

In the development of a Master Plan for Vocational Education in Ohio, C. O. Tower, Supervisor of Research and Surveys, Division of Vocational Education, developed the following facts concerning the size of a vocational program.

He suggests that at least three factors should be considered: (1) breadth of program, (2) costs, and (3) pupil travel time. Table 1:--Recommended Minimum and Optimum Enrollments for Vocational Schools, presents the number of programs in each of the vocational areas for recommended minimum and optimum size vocational school. It also presents normal and maximum enrollments for such centers. Table 2:--Size of Joint Vocational or Intermediate Districts for Recommended Vocational Schools, presents pupil populations of such districts to produce the enrollments for recommended minimum and optimum size vocational schools. Item "2" assumes that approximately 33 1/3% of the graduating class continue to post-high school higher education and that vocational education will be provided in grades eleven and twelve for 50% of the non-college bound. Item "3" is 8.2 times item "1". This is the ratio of total enrollment, K-12, to grades eleven and twelve. Item "3" is the needed pupil population of a joint vocational or intermediate district for a minimum vocational school and the size of the district which can justify an optimum scope of vocational offering. Joint vocational or intermediate districts can serve a larger student body but should consider more than one vocational center as the school district student population approaches 70,000. This would produce two vocational schools of approximately 1400 pupils each.

### Minimum Enrollments

Table 3:--Recommended Vocational Programs and Related Information for Illustrative Schools of Various Sizes, summarizes the number of programs, capital outlay per pupil and operating cost per pupil for each school.

Table I

## RECOMMENDED MINIMUM AND OPTIMUM ENROLLMENTS FOR VOCATIONAL SCHOOLS

Vocational Areas	Minimum Size School			Optimum Size School		
	No.	Enrollment		No.	Enrollment	
	Different Programs	Normal	Maximum	Different Programs	Normal	Maximum
Agriculture Education	2	70	100	6	210	300
Business Education	3	120	150	9	360	450
Distributive Education	1	20	30	3	60	90
Home Economics Education	1	40	50	3	120	150
Trade & Industrial Education	5	200	250	15	600	750
TOTAL	12	450	580	36	1350	1740

Table 2

## SIZE OF JOINT VOCATIONAL OR INTERMEDIATE DISTRICTS FOR RECOMMENDED VOCATIONAL SCHOOLS

Item	Minimum Population	Optimum Population
1. Vocational Pupils From Table I	580	1,740
2. Total Pupils Grades 11 and 12	1,740	5,220
3. Total Pupils Intermediate School District	14,268	42,804

Table 3

## RECOMMENDED VOCATIONAL PROGRAMS AND RELATED INFORMATION FOR ILLUSTRATIVE SCHOOLS OF VARIOUS SIZES

Item	Pupil Enrollment							
	408	620	1,004	1,379	1,719	2,109	2,339	2,779
1. Enrollment ÷ 50 <sup>1</sup>	8	12	20	28	34	42	47	56
2. Number Different Programs	15	16	22	27	33	36	39	41
3. Capital Outlay Per Pupil	\$3,994	\$3,136	\$2,858	\$2,589	\$2,500	\$2,453	\$2,415	\$2,363
4. Operating Cost Per Pupil	\$ 519	\$ 517	\$ 480	\$ 479	\$ 477	\$ 474	\$ 478	\$ 467

<sup>1</sup>Maximum number of programs for pupil enrollment with full utilization of building.

Most shops and laboratories can accommodate fifty pupils in two sections. A drafting room can accommodate sixty pupils, but a cosmetology laboratory can accommodate only forty. Therefore, if we divide the enrollment of a vocational school by fifty, we will obtain the approximate number of different programs that the pupil population can support with full utilization of the facilities; see item "1", table 3.

Start with a school enrollment of 1,379, see table 3. The enrollment divided by fifty gives twenty-eight programs. The table further shows that as the schools become smaller, the different programs which the enrollment will support decreases to 12 then 8. As schools become smaller, the breadth of the program must be reduced to those common areas of training with greatest employment. In order to minimize this reduction in the breadth of programs in the illustrative schools of less than 1,379 enrollment, class size has been reduced and grade levels combined. This consequently reduces the utilization of the building and increases the capital outlay per pupil, \$2,589 - \$2,858 - \$3,136 - \$3,994, and operating cost per pupil, \$479 - \$480 - \$517 - \$519. As we go below an enrollment of 620 pupils, in the vocational center, a satisfactory breadth of program can be maintained only by increasing the cost.

### Optimum Enrollment

Table 3 also shows that, as schools become larger, the number of different programs, see item "2", increases 33, 36, 39, then 41. The enrollment divided by fifty produces more programs, 34, 42, 47, then 56, than are offered in the illustrative schools. As schools become larger, the breadth of the program can increase into those areas with lesser employment. Although the increased enrollment gives sufficient program selection by pupils to justify opening new courses, it also increases program selection by pupils to more than one shop in the more common areas. Therefore, duplicate programs must be added. As we move upward and pass enrollments of 1,719, the breadth of programs does not increase in proportion to enrollment increases and the capital outlay per pupil \$2,453 - \$2,415 - \$2,363 and operating costs \$474 - \$478 - \$467 are reduced very little.

Vocational education pupils travel additional time from resident school to joint vocational school. Since they ride to resident schools with other students, this extra transportation must be taken from class time. Class schedules of vocational pupils should not be reduced more than one hour per day. It appears that a vocational school of more than 1,700 pupils reduces costs very little, adds new programs in areas not offered by smaller schools but not in proportion to increased enrollments.

### Conclusions

Mr. Tower suggests that the minimum enrollment for a vocational school should be approximately 600 pupils and consequently a joint vocational or intermediate district of approximately 15,000 students in order to give an acceptable vocational program. It also appears from this study that little is gained by increasing the enrollment above 1,700, which would have a corresponding joint vocational or intermediate district of approximately 42,000 pupils. It should be kept in mind, however, that a joint vocational or intermediate district does not have limiting factors by being larger than 42,000 that it does by being smaller than 15,000 as it can operate two vocational schools.



PROGRAMS ILLUSTRATIVE OF VOCATIONAL OFFERINGS IN JOINT VOCATIONAL SCHOOLS BY SIZE<sup>1</sup>

Vocational Education Programs	Enrollment									
	408 <sup>2</sup>	620	1004	1379	1719	2109	2339	2779		
Child Care Assistant 2-year.....	X	X	X	X	X	X	X	X	XX	
Clothing Service 1 or 2-year . . .							X	X	X	
Food Service 1 or 2-year. . . . .	X	X	X	X	X	X	X	X	X	
Home Makers Assistant 1-year or Aide for Nursing and Rest Homes.	X	X	X	X	X	X	X	X	X	
Trade and Industrial Education										
Industrial Maintenance Mech. . . .									X	
Industrial Lab Assistant . . . . .									X	
Small Engine Repair. . . . .									X	
Appliance Repair . . . . .						X	X	X	X	
Automobile Body Repair . . . . .			X	X	X	X	X	X	X	
Automobile Mechanic. . . . .	X	X	X	X	X	X	XX	XX	XX	
Architectural Drafting . . . . .	X	X	X		X	X	X	X	XX	
Mechanical Drafting. . . . .					X	X	X	X	XX	
Carpentry. . . . .			X	X	X	X	X	X	X	
Commercial Art . . . . .				X	X	X	X	X	X	
Cosmetology. . . . .	X	X	X	X	X	X	XX	XX	XX	

PROGRAMS ILLUSTRATIVE OF VOCATIONAL OFFERINGS IN JOINT VOCATIONAL SCHOOLS BY SIZE<sup>1</sup>

Vocational Education Programs	Enrollment							
	408 <sup>2</sup>	620	1004	1379	1719	2109	2339	2779
Commercial Food Production. . . . .			X	X	X	X	X	X
Dental Assistant. . . . .				X	X	X	X	X
Electrical. . . . .	X	X	X	X	X	X	X	X
Electronics and T.V.. . . . .				X	X	X	X	XX
Fabric Service. . . . .						X	X	X
Machine Shop. . . . .	X	X	X	X	X	XX	XX	XX
Metal Fabrication . . . . .	X				X	X	X	X
Welding . . . . .		X	X	X	X	X	X	X
Printing. . . . .			X	X	X	X	X	X
Diversified Coop. Training. . . . .	X	X						
Occupational Work Experience. . . . .			XX	XXX	XXXX	XXXX	XXXX	XXXX

<sup>2</sup>This scope of program cannot be offered economically on the basis of this number of students. Most facilities are used half time.

<sup>1</sup>Program offerings in a Joint Vocational School are designed to meet pupil as well as local, state, and national labor needs. Therefore, it must be understood that a school may or may not offer some listed course(s). Moreover, these tabulations are not to be construed as minimum program requirements, nor that a school of a certain size must offer only these programs. It must further be understood that each school is evaluated upon the degree to which the program(s) satisfy the needs of the pupils, the community, and local, state, and national labor needs.

2. A sufficient student base to provide an economical enrollment in the individual programs offered.

Experiences in Ohio have indicated that area centers can be established to serve a number of school districts with the area centers serving as an extension of each of the participating schools. Under this plan, students in the last two years of their public school experience may enroll in the vocational center on a full-time basis, but continue their registry and official relationship with the local school district. The students are officially members of the school districts participating in the area centers and may play athletics and participate in extra curricular activities. Students graduate from the local school district, rather than from the area vocational school. A pattern of taxation provides for the funding of local tax levies and bond issues in the same manner as they are voted by other school districts, even though the area school district is superimposed over that of the participating school districts. On the basis of the broad tax base gained by the joining together of a number of districts, the tax rate for construction and operation normally will run someplace between two to three mills on the total tax.

Experience within one mid-western State would indicate that joint vocational school districts can include an area measured in time of travel of thirty to forty minutes from the farthest home school to the area vocational center. Experience has indicated that joint vocational school districts can provide many services to the participating districts. In addition to that of vocational education programs for out-of-school youth and adults, and in some cases, serve as a center for post-high school technical education. The area vocational school becomes a center for not only high school youth, but also for retraining of unemployed out-of-school youth and adults, and upgrading instruction for employed workers.

In sections of many States, it is impossible to bring together sufficient students from the high school level to provide even a minimum comprehensiveness in the field of vocational education. In these cases, the travel distances make daily commuting an impossibility.

There is no evidence or experience which indicates that mobile units can do more than orient students to occupational areas. Mobile units can neither provide the type of equipment or the breadth of equipment necessary to prepare for adequate entrance into a vocation. Likewise, the amount of time a mobile unit would be available to a school would not give the opportunity to develop any depth of skill or technical knowledge.

In areas of such sparse population, consideration must be given to residential centers at either the high school or post-high school level.

Large cities of 200,000 population or over normally can offer a comprehensive vocational program without joining with other school districts. Some organizational patterns for vocational education in the larger cities and their strengths and limitations are as follows:

- I. A series of vocational high schools, with broad programs corresponding to the needs of the students, with the district high schools providing limited vocational education programs, such as distributive education.

The areas of vocational education included in each district high school would need to be limited to those areas in which the possibilities for employment are adequate within the city or region for the number that would be pre-

In looking at the area post-high school technical education programs, the Ohio Board of Regents also indicated that a viable technical education program would enroll no less than 500 students in order to economically provide the minimum comprehensiveness of program. A sample minimum scope program in technical education might include:

- A. Engineering
  - 1. Mechanical Technology
  - 2. Electronic Technology
  - 3. Chemical Technology
  - 4. Metallurgical Technology
  - 5. Civil Technology
- B. Health
  - 1. Dental Laboratory Technology
- C. Business
  - 1. Computer Programming Technology
  - 2. Junior Accounting Technology
- D. Distribution
  - 1. Retail Mid-Management Technology
- E. Agriculture
  - 1. Agriculture Business Technology

No studies have been made to indicate either the optimum size or maximum size in relationship to post-high school technical education units, since this area is still in its developmental stages within most States. Studies suggest, however, that even the minimum comprehensiveness in technical education identified above could be supported only in population areas of not less than 75-100,000.

## ORGANIZATION FOR VOCATIONAL AND TECHNICAL EDUCATION

### Vocational Education

Outside of our large cities very few school districts as they are now constituted in most of our States can offer a comprehensive program in vocational education. As indicated in the previous section, studies would indicate that a minimum of 500 students should be enrolled in vocational education programs in order to provide for a minimum scope of offerings. Experiences in Ohio would indicate that the enrollment of 500 students in vocational education at the eleventh and twelfth grade level would require an enrollment of 1500 students in the upper two grades of the school or schools participating in the vocational programs. Likewise, to meet a desirable program as outlined in the previous section, enrollment of 1300 students in a two-year program would require an enrollment of 4,000 students in the upper two grades of the high school. A vocational program is dependent upon its breadth in order to reach the different interests and ability levels of the students. The opportunity to provide this breadth is based upon:

- 1. The availability of sufficient tax base to support the necessary construction, equipment, and operation.

pared. In both the vocational high school and in the district high schools, the vocational programs would be limited to the eleventh and twelfth years, or the last two years of a student's school career.

#### A. Strengths

1. Provides administration by people highly qualified to direct vocational education activities.
2. Provides economy of equipment and facilities.
3. Recognizes vocational education programs as an important field of education not to be delegated to secondary citizenship.
4. Provides direct relationships with business and industry.
5. Serves the needs of out-of-school youth and adults, as well as the needs of high school youth on an economical and effective basis for day, late afternoon, evening, or night programs, since vocational education areas are concentrated.
6. Develops a necessary emotional state of belonging to, a pride in, and a satisfaction of participating in extra curricular activities within the vocational high school.

#### B. Possible Limitations

1. Affects the entrance into certain colleges for a few students due to the lack of certain college preparatory offerings in the curriculum such as foreign languages.
2. Separates students planning to enter employment upon graduation from those planning to enter college upon graduation.
3. Enrolls qualified youth in proportion to the understanding that administrators have of vocational education and to the encouragement of qualified youth to attend.

Item three is a limitation only when administration of the school system does not understand the place of vocational education in the total program, and, therefore, has not provided the necessary administrative relationships and in-service teacher education so that professional personnel will encourage students to enroll in vocational high schools on the basis of goals, interests, and abilities.

## II. Vocational education service centers offering vocational programs and enrolling students from a number of district high schools in the eleventh and twelfth years, or the last two years of a student's school career.

Under such an arrangement, each of the district high schools would offer areas in vocational education as described in "I". Under this organizational pattern, schools could be organized either on a pattern such as 6-4-2 or pupils could be encouraged to enroll in the vocational education service center at the beginning of the eleventh year on the basis of needs and interests. Under this arrangement, the students could either become members of the vocational education service center or remain members of the district high school for purposes of extra curricular activities, sports, and graduation.

#### A. Strengths

1. Provides more effective use of expensive equipment and facilities than the vocational high school, because the facilities and equipment are used only by students enrolled in the vocational program and not by pre-vocational students in the ninth and tenth grades of a vocational high school.
2. Provides possibility for students participating in such vocational education service centers to take the required academic subjects at the vocational service center or in their district high school.

3. Provides administration by people highly qualified to direct vocational education activities.
4. Provides direct relationships with business and industry.
5. Serves the needs of out-of-school youth and adults, as well as the needs of high school youth for day, late afternoon, and evening programs on an economical and effective basis, since vocational education areas are concentrated.

B. Possible Limitations

1. Enrolls qualified youth in proportion to the understanding administrators and teachers have of vocational education and to the encouragement of qualified youth to attend. (This can be minimized through proper guidance and counseling and administration and teacher attitudes as evidenced by enrollments in joint vocational school districts.)
2. Limits extra curricular activities, since pupils change schools in the middle of their high school career, except for those who return to their district high schools.
3. Separates students enrolled in vocational education service centers from those completing their college preparatory programs in the district high schools.
4. Affects the entrance into certain colleges for a few students due to a lack of certain college preparatory offerings in the curriculum, such as foreign languages.

III. A vocational education service center combined with one of the district schools of the school system.

Under this organizational pattern, a vocational education service center, such as that identified in "II" above, would be attached to a district high school which would be offering the usual high school program including college preparatory, etc. Under this organizational pattern, students from other district high schools would attend the service center for vocational education purposes, and would remain attached to their own district high school.

A. Strengths

1. Provides effective use of expensive equipment and facilities.
2. Provides possibility for students participating in such vocational education service centers to take the required academic subjects at the vocational service center or in their district high school.
3. Provides administration by people highly qualified to direct vocational education activities.
4. Provides direct relationships with business and industry.
5. Serves the needs of out-of-school youth and adults as well as the needs of high school youth for day, late afternoon and evening programs on an economical and effective basis, since vocational education areas are concentrated.
6. Maintains relationships of vocational education students with students in college preparatory programs.

B. Possible Limitations

1. Leaves students from the district high schools other than those to which the service center is attached virtually in an "enemy camp" as concerns sports, extra curricular activities, loyalties, etc., unless they transfer to the district high school.

2. Affects the organization and operation of the vocational education programs by the more restrictive scheduling practices of the district high school programs.
3. Provides an atmosphere for the operation of the law of social gravity in which emphasis tends to flow toward the highest level of academic training, so that the vocational education programs become secondary citizenship.

IV. Offer some vocational programs in each district high school, with enrollment of students into these high schools on a full-time basis determined by interests, goals, and abilities.

Under this organizational pattern, students would enroll in their district high schools, and at the eleventh year they would be encouraged to transfer to and become a member of a district high school in keeping with their interests, goals, and abilities.

A. Strengths

1. Maintains relationships of vocational education students with students in college preparatory programs.
2. Develops loyalties and relationships within the one high school.
3. Enables the school district to show on an overall basis a rather comprehensive vocational education offering.

B. Limitations

1. Requires transporting students at times across town to a different district high school to enter an area of instruction of their choice.
2. Serves inefficiently the needs of out-of-school youth and adults for preparatory vocational and technical education, retraining for the unemployed, related instruction for apprentices, and up-grading instruction for adults.
3. Diverts attention from administration of vocational education programs, because the school is concerned predominately with academic facets of the school program.
4. Restricts flexibility for vocational education curriculum, due to the many scheduling problems within a district high school.
5. Leaves students from the district high schools other than those to which the vocational program is attached virtually in an "enemy camp" as concerns sports, extra curricular activities, loyalties, etc.
6. Restricts in a sense the offerings in vocational education programs to those offerings within the school district because of the likelihood that students would attend their own district high school.
7. Transfers pupils so frequently that they fail to establish loyalties, a necessary emotional state of belonging to or the satisfaction of identifying themselves with any school.

V. Offer some vocational education programs in each district high school with students enrolling in their school district and attending another district for vocational education, but remaining a member of their own district high school.

Under this organizational pattern, students would enroll in their district high school, and at the eleventh year would be encouraged to attend for vocational education purposes only, the district high school which offers the area of vocational education in which they are inter-

ested. The students would remain members of their district high school for purposes of sports, graduation, and extra curricular activities.

#### A. Strengths

1. Maintains relationships of vocational students with students in the college preparatory program.
2. Provides an economical comprehensive vocational education program, looking at the city as a whole.

#### B. Possible Limitations

1. Serves inefficiently the needs of out-of-school youth and adults for preparatory vocational and technical education, apprentices, and upgrading instruction for adults.
2. Requires transporting students at times across town to different district high schools to enroll in the area of instruction of their choice.
3. Diverts attention from administration of vocational education programs because the school is concerned predominately with academic facets of the school program.
4. Restricts in a sense the offerings in vocational education programs to those offerings within the school district, because of the likelihood that students would attend their own district high school.
5. Restricts flexibility for the vocational curriculum, due to the many scheduling problems within a district high school.
6. Requires students from one district high school to be divided among several other high schools in terms of their educational goals.
7. Requires student enrollment in district high schools in which pupils have no loyalties and are not a part of the extra curricular activities.
8. Leaves students from the district high schools other than those to which the vocational program is attached virtually in an "enemy camp" as concerns sports, extra curricular activities, loyalties, etc.
9. Provides an atmosphere for the operation of the law of social gravity in which emphasis tends to flow toward the highest level of academic training, so that the vocational education programs would become secondary citizenship.

In considering any organizational pattern, the following principles should be considered:

1. The organizational pattern should provide for a comprehensive program of vocational education.
2. The pattern of organization should not force students to enroll in an "enemy camp", (i.e. a rival "comprehensive" school which they play in competitive athletics).
3. The pattern of organization should not establish impossible transportation systems.
4. The pattern of organization must have the support of administrators, guidance counselors and parents, and the acceptance by the teacher group.
5. The pattern of organization must provide for administration of the vocational programs by persons competent in the field of vocational education.
6. The pattern or organization must provide for freedom of scheduling essential in the area of vocational education without the straight-jacket of the normal high school subject-centered curriculum.

7. The pattern of organization must be such as to provide for services to out-of-school youth and adults on a broad basis.

### Technical Education

The most common organizational pattern for technical education and some of their strengths and limitations are described as follows:

- I. A technical education center functioning in cooperation with an area vocational education center, both administered by one authority with one tax base for both.

Under this arrangement the local taxing authority is normally required to pay a portion of the building costs and operating costs. Such programs normally receive reimbursement from State and Federal agencies through the State Board of Education and/or a State Board of Higher Education. The technical institute programs in such joint ventures should be permitted to grant the associate degree for those programs meeting the standards of the State operating units.

#### A. Possible Strengths

1. One tax base and taxing authority for both the area vocational and technical education programs.
2. One board of education to administer the two programs.
3. Possible savings in administrative costs for direction and supervision.
4. Possible savings in costs of materials and supplies.
5. Dual use of certain expensive laboratory facilities and of certain common service centers, such as heating, cafeteria, laboratories, etc.
6. A service center providing a continuing education in non-baccalaureate degree education, starting with vocational education at the high school level, and with provisions for vocational and technical education of a preparatory and upgrading nature on the post-high school level.
7. One relationship with industry for programs in which their advice and counsel must be sought on a continuing basis.
8. Technical education becomes a premium program in this organizational pattern, since it is the unit of highest status.
9. Emphasis in technical education in this organizational pattern tends to remain focused on its purpose of preparing youth for entrance into technical employment rather than upon continuation toward a baccalaureate degree.
10. There is less chance for the programs to become inclined toward a duplication of the first two years of a baccalaureate degree program.
11. The administration of the program will be in the hands of people concerned with vocational and technical education rather than baccalaureate degree education.
12. The local control inherent in this organizational pattern will encourage adjustment of the programs to meet the needs of both people and business and industry.
13. Local funds assist with both the construction and operation of the program.
14. Technical education is placed within a reasonable driving distance of the homes of the students.
15. Due to local and State participation in the construction and operation, the cost of technical education to the student is maintained at a

6. There is a history of the desire of such technical institutes to become four-year degree granting engineering centers.

### III. Community Colleges.

Community colleges are normally organized to provide: (1) transfer programs giving credit toward baccalaureate degree programs at universities and colleges; (2) technical education programs preparing people for para-professional occupations, which programs may or may not accrue college credit toward the baccalaureate degree; and (3) community service programs of an adult education nature. In such institutions both the transfer collegiate curriculum and the technical education curriculum lead to a granting of the associate degree upon the completion of a two-year program.

#### A. Possible Strengths

1. The community college is community oriented and will give careful consideration to the interests of people and of business and industry in the areas served.
2. The community college provides partial local financing for both construction and operation.
3. Technical education is placed within a reasonable driving distance of the homes of the students.
4. Due to local and State participation in the construction and operation, the cost of technical education to the student is maintained at a reasonable rate.
5. Costs of administration for a college transfer program and the technical education program are reduced by reason of the one administrative board.
6. Under this plan there would be a single administrative authority.
7. The program remains responsive to changing needs within the local area.

#### B. Possible Limitations

1. A curriculum developed with transferability in mind will likely not produce quality technical education.
2. The community college represents a separate tax authority which may be in addition to a joint vocational school district, and could be in addition to a branch university center.
3. Such community colleges may tend to grow into four-year collegiate institutions, in which cases the two-year technical programs receive less emphasis, since the emphasis tends to be placed upon the professional areas.
4. On the basis of the law of social gravity, finances and emphasis in a community college tend to move toward a collegiate transfer program, rather than a technical education program. Also, enrollment tends to follow the law of social gravity unless the students in the technical programs are pacified by the granting of baccalaureate degree credit for the curriculum completed.

### IV. University Branches.

A university branch is a local part of a sponsoring university, but located in an urban area separate from the main campus. The purpose of

the university branch is to decentralize the lower division of instructional activities in a State assisted university. The university branch is tied to and administered by the parent university and the programs and standards are expected to be those of the parent university. The university branches in some States can legally offer technical education programs.

#### A. Possible Strengths

1. Technical education students who change their goals and decide to pursue baccalaureate degree programs may find it easier to obtain recognition of course credits by the parent university.
2. The status symbol attached to the university will tend to encourage enrollment of students into the programs, many on a part-time basis.
3. The administration and funding of the branch is provided through the parent university under the direction of the State Board of Regents.

#### B. Possible Limitations

1. The tendency in the branch is to organize technical education on the basis of courses offered in the lower divisions of the baccalaureate degree programs.
2. If the baccalaureate degree standards maintained at the central campus are maintained at the branch, many students who could succeed in technical education will be denied entrance or be unable to achieve at an acceptable level.
3. A number of students will enroll in the technical education curriculum on the basis of the status symbol of the university, believing they are enrolling in a university program. Such students will have little interest in preparing for a technical occupation upon graduation. A great number will enroll on a part-time basis and will never graduate.
4. Most university branches are not adequately equipped with the necessary laboratories and shop facilities to provide for a sound technical education program.
5. Finances available to a university and to a university branch will tend to flow to the programs of highest status, the transfer programs in the branch and the graduate programs on the parent campus.
6. There is a tendency for programs in the university branch to be central campus oriented, with little direct contact in relationship with business and industry in the local area to be served, and close relationships with business and industry are necessary for the further development of sound technical education programs.
7. Since the status programs are transfer programs, enrollment in the technical education programs would generally decrease as students feel that they are secondary citizens in relationship to the transfer programs.

#### V. Colleges and Universities.

Technical education programs operated by universities and colleges tend to have the same possible strengths and possible limitations as identified for the university branch.

Technical education will grow best if it is identified as a unique program, in a unit separate and apart from institutions offering transfer programs to universities and in a unit in which the students are not looked upon as second class

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planned to serve the needs of people and of business and industry and deserve the full support of people concerned with the modernizing of the educational program throughout the Nation.

Just as nature deplores a vacuum and makes every effort to fill the vacuum, so society deplores a vacuum in terms of the needs of that society and makes every effort to fill such needs. Public education within the fifty States has a short time in which to accept its responsibility for the total student, including his preparation for employment, and the responsibility for continuing education for out-of-school youth and adults. Unless this need is met by the individual States such an educational program will be provided under the auspices of the Federal Government.

1. Vocational and technical education are essential parts of the modern curriculum for public education.
2. Public education has responsibility for and an obligation to provide vocational education for high school youth, out-of-school youth and adults, in terms of preparatory training, retreating, and upgrading instruction for employed workers.
3. The needs of youth and adults for vocational education suggest that a minimum scope of programs require an enrollment of approximately 500 youth in a center for vocational education. An optimum program of vocational education can be reached with an enrollment of 1,000.
4. Needs of out-of-school youth and adults for technical education and the needs of business and industry for graduates of such programs suggest a minimum enrollment of 500 post-high school technical students in order to achieve minimum scope of program.
5. Large cities of 500,000 or more normally have sufficient tax base and student base to provide for a comprehensive vocational education program. Several options are available to large cities in terms of adequate organization for vocational education, but the pattern selected must provide for comprehensiveness of the vocational program in keeping with the nature of the students and the community, and for continuing services to out-of-school youth and adults.
6. Most suburban and rural communities do not have sufficient student base or tax base to provide for vocational education unless such districts join together to provide sufficient student base and tax base to support a comprehensive vocational program.
7. In some sparsely populated areas, it will be impossible to provide even a minimum comprehensiveness of vocational program at the high school level due to the great distances between the school districts involved. In such cases, residential type programs must be considered, either on a high school basis or on a post-high school basis for post-vocational and technical education.
8. Vocational and technical education programs are essential programs

SELECTED CHARACTERISTICS  
OF EMERGING INTERMEDIATE UNITS OF  
SCHOOL ADMINISTRATION

BY

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OFFICE OF EDUCATION  
WASHINGTON, D.C.

PREPARED FOR  
THE NOVEMBER 28-29, 1967, CONFERENCE  
"MEETING THE NEEDS OF YOUTH"

THE GREAT PLAINS SCHOOL DISTRICT ORGANIZATION PROJECT

RALPH D. PURDY, *Director*

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## SELECTED CHARACTERISTICS OF EMERGING IN

State	Year Established	Name of Unit	Minimum Pupil Numbers	Purpose of the Unit	Governing Body
Colorado	1965	Board of Cooperative Services	8,000 <sup>1</sup>	To provide special services desired by member school Districts	A 5-9 member board selected by and from membership of cooperating boards for terms same as those held on <sup>2</sup> local boards
Iowa	1965	Joint County Systems	No specific number required	Administrative duties and services which individual school districts cannot efficiently or economically provide by themselves	A seven member joint board of six from specified election areas and one member at large elected by the people for 6 year terms
Michigan	1962	Intermediate School District	5,000	Special education programs and consultative and technical services to member school districts	A 5-7 member board chosen by one member from each cooperating board for 6 year terms
Nebraska	1965	Educational Service Unit	10,000 used as a guide	Supplementary educational services for member school districts	A board composed of one member from each county plus four members at large are chosen by the electors for four year terms
New York	1948	Board of Cooperative Educational Services	No specific number required	Specialized education services and programs for member school districts	A board of five members elected by members of cooperating boards for five year terms
Texas	1965	Education Service Centers	50,000	To develop, provide and make available to participating school districts a program of specialized services including educational media and long range planning	A board of five or seven members appointed by a joint Committee representing all school districts which are members of the Center
Washington	1965	Intermediate District	20,000	Services to member school districts	A board of five members chosen by the electors in special board member districts for four year terms
Wisconsin	1965	Cooperative Educational Service Agency	25,000	To render special services identified by member school districts as being desirable	A board not to exceed eleven members, composed of one representative from each cooperating school district. Local boards designate their delegate to the agency board for terms agreed upon by each agency

<sup>1</sup> Boards of Education of any two or more school districts organized under the school district reorganization Act of 1949 or school district organization Act of 1955.

<sup>2</sup> Each cooperating board of education is guaranteed membership on the Board of Cooperative Services.

<sup>3</sup> Ten units operate as originally planned. In elections held in the Fall of 1966, eighteen counties voted to exclude participation in the new service unit by the legislation.

<sup>1</sup> Limited to those States where changed intermediate unit programs were actually operative. Others in which a changed structural organization was planned but not yet implemented.

**MEDIATE UNITS OF SCHOOL ADMINISTRATION<sup>1</sup>**

Chief Administrative Officer	Financial Support	Territory Included In Unit	Number of Units
Board appoints Chief Executive Officer	Receives operating funds from the cooperating districts; is authorized to receive State and Federal funds	Two or more school districts, more or less than single county in area	Eleven Units have been formed
Board appoints a superintendent for the multi-county area	Tax levy plus the authorization to apply for, accept, and spend State and Federal funds for educational programs	Two consist of two counties each and one is a four county area	Three such districts
Board appoints a superintendent	Tax levy, contracts with cooperating districts, state funds	County and multi-county in area. Range is one to five counties in area	46 single county, 8 two county, 4 three county, 1 four county, 1 five county
Board appoints a Director of Educational Services	Tax levy, contracts with cooperating districts, may receive State and Federal funds	Multi-county range is two to nine counties in area. From 1,464 to 8,891 sq. miles in area	Nineteen units in the State. Three of these are larger in geographic area than the combined States of Rhode Island, Delaware and Massachusetts <sup>a</sup>
Boards appoints a District Superintendent	State funds and contracts with cooperating school districts	County, or more or less than a single county	There are 68 BOCES units in the State
Board of Directors appoints an Executive Director	State funds and matching funds from school districts which are members of the center. Also utilized Title III, ESEA funds	All centers serve multi-county area. Range is from two counties to 26 counties in area	There are 20 such centers in the State
Superintendent is chosen by the electors of the intermediate district	Funds authorized by county commissioners, contracts with cooperating school districts	County or multi-county in area. One is a single county area and four are multi-county areas	Five of fifteen proposed districts have been created
Board appoints an Agency Coordinator	State aid and contracts with cooperating school districts	Multi-county and the areas often cut across geographic county lines	Enrollments ranged from 17,390 to 190,218 pupils in grades K-12. Nineteen agencies have been formed covering entire State

<sup>1</sup> An Act of 1957 may form a board of cooperative services irrespective of this number.

units. These counties were located in 9 different service units. Several service units operate with only a part of the number of counties originally

being considered include California, Ohio, Oregon and Pennsylvania.



THE EMERGING REGIONAL EDUCATIONAL SERVICE AGENCY:  
THE NEWEST MEMBER OF THE RESTRUCTURED  
STATE SCHOOL SYSTEM

by

Dr. E. R. Stephens

Department of Educational Administration  
University of Iowa  
Iowa City, Iowa

November 24, 1967

The Great Plains School District Organization Project  
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68508

## FORWARD

The impact of scientific, technological, social and economic change on the American way of life necessitate a re-examination of the educational system. These changes modify established needs and create new needs to be met by the public school system. Instructional programs and supporting services must be developed to meet these needs.

The primary purposes of school district organization are to make possible: (1) the desired quality or excellence of the programs and services; (2) the efficiency of the organization for providing the programs and services; and, (3) the economy of operation, or the returns received for the tax dollar invested in education.

Area districts (multi-county, or "Regional" as used in this paper) are an emerging educational structure in many states. Its potential significance in planning for school district organization in each of the four states merits exploration and critical evaluation. Dr. Robert Stephens, The University of Iowa, has just completed an investigation of such units in the United States, with an assessment of their strengths and limitations for potential implementation in and around Linn County, Iowa. This background of depth study into area districts makes Dr. Stephens eminently qualified to develop the following position paper on Area Educational Districts for further study and analysis within each of the four states.

The value of this paper rests upon its utilization by those with advisory and/or decision making responsibilities about the educational structure in each state. It represents a beginning point for further study and evaluation, and for establishing criteria upon which guidelines can be developed for effective and constructive school district organization.

Respectfully submitted,

Ralph D. Purdy, Director  
Great Plains School District  
Organization Project

November 24, 1967

## INTRODUCTION

It is my purpose to discuss with you this evening the regional educational service agency - the newest member of the restructured state school system. By definition, the regional educational service agency is the middle or second echelon unit of school administration in a three echelon state school system.

The middle echelon agency has many titles in the several states which have a three level structure. The most common title is that of the county office of education or county school system. Other titles used include "Intermediate School District" (Michigan); "Educational Service Unit" (Nebraska); "Board of Cooperative Educational Services" (New York); and, "Cooperative Educational Service Agency" (Wisconsin), and a number of variations of these basic titles.

The multiplicity of titles attached to the middle echelon agency makes precise definition of the regional education service agency somewhat difficult. Therefore, for purpose of this discussion I am defining this unit of school government as follows:

The second or middle echelon of a three echelon state school system structured primarily to serve local school districts which are organized on a regional basis.

The term regional educational service agency (or RESA Unit) rather than some other term is used because it more accurately describes certain concepts which will hopefully be incorporated in its development; mainly, a regional base rather a single county base, and, an organization with a posture of service to local school districts rather than a regulatory or supervisory arm of the state education agency.

My remarks concerning this unit will be structured around the following six topics:

1. The major needs of public elementary and secondary education and the need for a new type of educational service agency.
2. Characteristics of strong regional educational service agencies.
3. The role and function of regional educational service agencies.
4. Major benefits resulting from the establishment of a statewide network of regional educational service units.
5. Major alternative approaches to the improvement of elementary and secondary education.
6. The future of regional educational service agencies.

Prior to discussing these points, it would be well if we could review for a moment certain background information which bear upon the above topics.

#### ORGANIZATIONAL PATTERNS OF STATE SCHOOL SYSTEMS

Essentially, school government in the several states is organized around three basic organizational patterns:

1. One-echelon systems in which there is a single state unit of school government.
2. Some states are organized on a two-echelon system in which there is a state educational agency and local school districts.
3. Still other states are organized on a three-echelon system in which there is a state educational agency, local school districts, and a middle, or second-echelon unit.

In the 1965-66 school year, the most recent year in which comparative data is available, one state, Hawaii, operated a one-echelon system. Seventeen states, the majority of which are located in the south, operated a two-echelon system, and 32 states, or approximately, two-thirds of the 50 states, functioned with a three-echelon structure. The most common form of second-echelon unit of school government was the county office of education.

The county school systems, of the Intermediate School District, in those states that have them were until recently, creatures of another age. They are initially created to perform one or more of the following tasks.

1. To provide an official to examine and certify teachers.
2. To provide active supervision, including visitation of schools, to the thousands of rural schools found in most states.
3. To supply the state education agency with information on the condition of school buildings, expenditures, programs of study and other data.

These traditional functions are fast diminishing in importance in a state school system. Circumstances are now different, requiring a new kind of middle-echelon unit of school administration.

For over a half century attempts have been made to re-structure state systems of schools, and specifically to restructure the county or Intermediate Unit of school administration.

In some states, particularly those with large metropolitan centers, these efforts have been relatively successful. In many other states, particularly those in the mid-west, the office was withered on the vine.

#### RECENT INTEREST IN A RESTRUCTURING OF THE SECOND ECHELON

There is considerable activity relating to the Intermediate Unit of school administration in a large number of states, resulting in a reconfiguration of the state school system and in a majority of cases, a strengthening of the second-echelon unit whatever it might be called.

1. Washington in 1965 enacted permissive legislation creating 15 new regional, multi-county service areas. In January of this year, six units had been formed. Efforts were exerted in the past legislative session to mandate the creation of the remaining nine districts.
2. Oregon in 1963 enacted legislation which changed the functions of single county Intermediate Units from that which was essentially supervision and control to an emphasis upon a broad range of responsibilities and services to both local school districts and the state education agency.
3. The past session of the California legislature also greatly strengthened the county unit. Predictions are that sixteen to nineteen service units will be created in California in the very near future.

Midwestern states, including Nebraska, Wisconsin, Illinois, Michigan, Ohio, and Iowa, have also taken significant action in recent years:

1. Nebraska in 1965 passed legislation creating 19 Educational Service Units. With the opening of school this fall, 17 units were in various degrees of development.
2. Wisconsin in 1965 abolished the county school office and created 19 new State Cooperative Educational Service Units.
3. Michigan in 1961 passed legislation requiring counties of less than 5,000 students to merge with another county. There are now less than 60 Intermediate Units and this number will, it is safe to say, be greatly reduced within the near future.

In my own state of Iowa, the Sixty-First Iowa General Assembly in 1965 enacted permissive legislation allowing two or more adjacent counties to merge by concurrent action of county boards of education. To-date, three mergers involving eight of the former 99 single county school systems have taken place. There is considerable merger discussion in nearly all parts of the state.

In the East, New York and Pennsylvania have experienced considerable legislative activity relating to the Intermediate Unit --- in all cases, resulting in a strengthening of this unit.

These recent developments are illustrative of the current widespread analysis of state school systems, and, more specifically, of the recognized potential of the regional educational service agency concept as a means of improving and strengthening the state school system and education at all levels.

The regional service concept is the biggest thing going in school government in this country today, although it is not universally recognized as a movement in all quarters.

## PART II

### THE MAJOR NEEDS OF PUBLIC ELEMENTARY AND SECONDARY EDUCATION AND THE NEED FOR A NEW TYPE OF EDUCATIONAL SERVICE AGENCY

#### THE MAJOR NEEDS OF PUBLIC ELEMENTARY AND SECONDARY EDUCATION

In many if not most of the states the major needs in the provision of elementary and secondary education essentially relate to the inadequacies of local school districts (the assumption is made here that this unit of school administration will continue to be the central figure in the provision of educational programs in most states.) These inadequacies stem in large part from one or more of the following characteristics of many local school districts:

1. Inadequate enrollment size.
2. Deficiencies in educational programs.
3. Provision of professional personnel.
4. Inadequate financial resources.

Nearly all of the characteristics are interrelated and it should be recognized that it is frequently difficult to determine the cause-and-effect relationships of the four characteristics. In the discussion following, these interrelationships are to be recognized.

#### INADEQUATE ENROLLMENT SIZE

All of the states represented at this conference have a large number of small school districts. There are few districts in the four states which have enrollments in excess of 10,000 students, the figure identified as optimum through a comprehensive examination of the literature relating adequate size of local school districts conducted as part of Iowa Study.

In most states the additional reorganization of local school districts and the creation of larger administration units will surely be beneficial, but this will still not create school districts of adequate size to provide many programs and services characterizing an optimal educational program.

#### DEFICIENCIES IN EDUCATIONAL PROGRAMS

One of the factors relating to size of enrollment is the comprehensiveness of course offerings, an important characteristic of educational programs. It has been repeatedly shown and is generally recognized that there is a direct relationship between the size of enrollment of high schools and the comprehensiveness of course offerings.

A second major deficiency of many educational programs of local school districts relates to matters of curriculum development. Many local school districts are unable because of lack of human or financial resources, to develop their own curriculum

objectives, units of study, and educational materials, and thus rely heavily upon textbooks for the direction and implementation of educational programs.

A third major deficiency of the educational program of many elementary or secondary schools is the provision of special services. The complexity of modern society and the resulting demands being placed on education are well recognized. The present-day educational program is complex, requiring the services of a large number of specialists and supportive programs and services. Yet relatively few elementary or secondary schools provide, or are able to provide, adequate guidance programs, elementary and secondary curriculum consultant services, library services, special teachers for art and remedial reading, health services, supervisors, and other needed programs and services.

A final major deficiency of the education programs of many local school districts relates to the adequacy of programs and services for exceptional children. Not all of the exceptional children are provided the most suitable educational opportunities. Many of the special classes for exceptional children which are administered by local school districts or county school systems in Iowa, for example, are those for the educable mentally retarded. In addition, only a limited number of specialists in most areas of special education are employed by the school districts of the state. Little is being done for the emotionally disturbed child, the child with physical or other handicapping conditions, or the child with specific learning disabilities to cite but a few examples.

#### PROVISION OF PROFESSIONAL PERSONNEL

No educational program can function effectively without the provision of a sufficient number of highly trained, competent professional personnel. Typically, consideration of the problems associated with professional personnel includes such concerns as the preparation of teachers, the recruitment and retention of teachers in view of the crucial perennial teacher shortage, teacher assignments, teacher salaries, and the in-service training of teachers.

A problem related to the size of enrollment of a school district and one which has a direct bearing on the quality of an educational program is that of the assignment of professional personnel to full-time teaching assignments in their major area of preparation. A number of studies have shown that the assignment of high school teachers to their major area of preparation is directly related to the size of the enrollment of the high school. Only the larger high schools are able to meet this objective.

Another aspect of the topic of professional personnel as it relates to possible shortcomings of local school districts is that of the professional development of personnel while in employment. Iowa school districts, for example, typically expend few resources for the continuous development or in-service training of their professional personnel. The continuing development of staff personnel should be one of the most vital concerns of local school districts. This is so because of the key role played by the professional staff in a quality educational program. Further, the salaries of professional members typically constitute approximately three-fourths or more of the total expenditures of local school districts. The need to protect and develop this investment in human resources is critical.

However, a survey by the Iowa Center for Research in School Administration conducted in 1965 showed that the 138 responding school districts which made up 30.1 per cent of the school districts in the state and enrolled 55.2 per cent of the total state enrollment expended in direct in-service training in the 1964-65 school year an average of only \$1.50 for each thousand dollars of total operating costs. This amounted to 71.4 cents per pupil annually, a pitifully small investment in manpower development.

## INADEQUATE FINANCIAL RESOURCES

The financial ability of a local school district is clearly related to the quality of the educational program of the district, the special services the district can provide its students, personnel factors, salaries paid, and the provision of physical facilities to house the educational program. Indeed nearly all aspects of public education, elementary and secondary, are related to financial support.

The ability of local school districts in most of the states represented at this conference to support many educational programs and services adequately has been severely restricted because of a preponderant dependence on the local property tax for the great majority of financial support.

In view of the concern of educators for securing adequate financial resources and the competition, not only within education, but generally for the tax dollar, the question of economy and best use of available resources is crucial. Recognition of the fact that over three-fourths of the local school districts in Iowa in the 1966-67 school year had fewer than 1,500 students, for example, raise serious questions concerning the economic and efficient functioning of these units in the provision of quality educational programs and services, many of which have been shown to require larger student populations.

## THE NEED FOR A NEW TYPE OF REGIONAL EDUCATIONAL SERVICE AGENCIES

The foregoing observations suggest that substantial educational deficiencies exist in the several states at the present time.

Some of these are attributable to the small enrollment size of the majority of local administrative units, making it impossible for these units to provide even basic programs and services. Thus, these districts must receive assistance in order to provide even a minimal educational program for their students. Efforts by these units, as presently structured, to increase the comprehensiveness of their programs even if this could be achieved in the face of limitations of financial and human resources, would prove to be inefficient and uneconomical use of the educational resources of many states.

The larger school districts in the several states also have service needs, although differing somewhat from those of small school districts, which are not most efficiently and effectively met on an individual district basis.

Recognizing the needs of local school districts to receive assistance from an outside agency, questions concerning the nature of this agency arise.

In most states having a three-echelon structure, the most obvious agency to consider is the middle echelon unit. The middle unit of a three-echelon state system appears to be the most desirable agency to serve in this crucial role. This is true because of its place between the two other levels of school government making it close enough to local school districts to be aware of and responsive to local needs and yet broadly enough conceived to provide needed services. However, as presently structured in most states, the middle unit of school administration is wholly unable to fill this role.

If the middle unit in most states is to legitimately hold its place in the state system of public education, it must undergo pronounced changes in its structure and philosophy.

The necessary adaptations must begin with the creation of regional service units of sufficient enrollment and financial resources in order to be able to plan comprehensive programs and services in response to the needs of local school districts, large and small, within its constituency, and attract qualified personnel to implement these services at a high level of competency.

In view of the unequal educational opportunities in most states and the increasing demands placed on education by a changing society, the need for this adaptation is urgent.

### PART III

#### CHARACTERISTICS OF STRONG REGIONAL EDUCATION SERVICE AGENCIES

Organizational patterns are a means to an end. Therefore, there probably is no "best" design, or "optimal" structure for a regional educational service agency. In that state school systems differ in certain fundamental respects and the circumstances in which educational programs are provided differ widely, variations in the organization, administration, and operation of regional educational service agencies will undoubtedly be necessary, indeed wholesome, both within individual states and between states.

In spite of the need for variation and organizational flexibility, certain characteristics of strong regional educational service agencies can be identified. These relate to the following five broad topics:

1. Area or service base.
2. Program mix.
3. Financial base
4. Staffing patterns.
5. Legislative structure

I would like to single out some of the more desirable characteristics of regional educational service agencies utilizing the foregoing topics.

The characteristics, or criteria, to be identified are based on one or both of the following:

1. A comprehensive review of the literature.
2. Visitations to outstanding Intermediate Units, or regional educational service agencies in all parts of the nation.

#### AREA OR SERVICE BASE

The criterion concerning the area to be included in an intermediate unit is illustrative of a broad guideline which has some degree of appropriateness in many situations. For example, most authorities seem to agree that a multi-county or regional base for the middle echelon agency is dictated by modern needs and conditions. Further, agreement is apparent that the boundaries of the intermediate unit should be coterminous with logical combinations of local school districts. It is generally recognized that there is no necessity for these boundaries to be related to the traditional political counties.

Generally stated, the size criterion is concerned with both total geographic area and population within the service district. Thus, area standards will usually state that the territory embraced by the intermediate district should be sufficient (1) to provide challenging opportunities for educational leadership, (2) to have well-prepared professional personnel to carry out a variety of needed special service programs, and (3) to provide a maximum offering of programs and services so that present and future needs can be met. Writers hasten to point out that the intermediate constituency should not cover an excessively large area in terms of geographic region and/or population. Accessibility to services is considered an important factor, and the unit must be small enough for adequate communication, coordination, and sensitivity to specific local needs.

An area sufficiently large in terms of resources and people is a requisite for quality and effectiveness of operation. However, "reasonable limits" and extenuating factors,

such as a large geographic area or lack of population, cannot be overlooked. Adequacy of the total area, or proper provisions to overcome district structural limitations, must be met if the potential for operational efficiency is to be assumed.

Recent recommendations concerning pupil populations within a single intermediate district range from Michigan's 1962 minimal standards of 5,000 pupils to a suggested 125,000 in New York. In between these two extremes, 10,000 is the enrollment figure cited for Nebraska; 20,000, Washington; 25,000, Wisconsin, and a 1967 publication of the National Education Association cited a minimum enrollment base of 50,000. The recently completed Iowa study recommends a minimum enrollment base of 30,000.

Several qualifications regarding the intermediate district size usually accompany enrollment criterion. These qualifications include a maximum driving time of one hour from the intermediate office to any local district attendance center in the intermediate corporation, a maximum radius of 50 to 60 miles, and an optimum intermediate district area based on a natural socio-economic community.

### PROGRAM MIX

Among the generally accepted standards for Intermediate Unit operation is the statement that "the basic orientation (responsibility) of the intermediate school district should be to the local districts in the intermediate district area." Acceptance of this criterion is tantamount to acceptance of the idea that the Intermediate Unit's primary emphasis should be service to local school districts. Stated in slightly different terms, some writers have noted that the Intermediate Unit's responsibility should be generally limited to those functions desired by local school districts.

Middle echelon programs and/or services do and of necessity should vary greatly from area to area and state to state. Flexibility is essential and all programs undertaken should be adapted to specific needs of the service area. Consequently, in each state and in specific areas of individual states, a determination and clarification of intermediate role and function is required.

In order to insure the flexibility which is a mark of an effective and responsive intermediate service operation, flexible characteristics must be built into the system. Thus, both in structure and functions the effective Intermediate Unit must be sufficiently flexible to adapt to changing educational needs. As local districts become larger through reorganization, unification, or population increases, their service needs change. The intermediate agency should be flexible enough to discontinue services and add others which changing conditions necessitate.

### FINANCIAL BASE

If the service agency is to be an integral part of the state's total system of public education, its financial resources must be as definite and reliable as those for the other levels of school government.

District tax funds, state assistance, and local district reimbursements based on contractual agreements are usually listed as the three principal sources of support for the middle echelon educational service agency. Additional financing often comes from federal grants, other special grants, and occasional gifts or bequests.

The six most commonly recommended characteristics of desirable Intermediate Unit financing are (1) fiscal integrity, (2) fiscal independence, (3) independent tax levying powers, (4) a right to enter into contracts, (5) authority to incur bonded indebtedness, and (6) eligibility to receive state financial assistance based upon the state-aid-to-education formula.

Isenberg is among the many writers who have noted that the services of the Intermediate Unit should be of a highly specialized nature.<sup>1</sup> The relationship of specialized intermediate services which are non-duplicating, complementary, and supplementary in character, to staffing considerations is obvious. If the intermediate agency is to function as an integral part of the tri-level state educational team, it must preservice what has been described as its "institutional integrity."<sup>2</sup> Therefore, the quality of the intermediate staff becomes a key factor in the total operation. It is in the realm of "institutional integrity," then, that the necessity for quality personnel becomes particularly important.

Emerson reinforced this concept when he stated:

Mature intermediate districts are constituted on a horizontal team basis to operate within their constituencies. The clinical team, the team of Ph.S. instructional specialists, the research team, the special education team, and the data processing team--all are staffed with highly specialized and highly qualified people, all are available to attack specialized tasks within their constituency. They are effective. Their services are in demand.<sup>3</sup>

It is therefore recognized that highly trained, specialized personnel operating within a discrete division of labor are required in an effective Intermediate Unit. In the more effective operations observed, highly trained practitioners were allowed to specialize in their specific area of preparation and specialty. By means of this discrete specialization of functions, a few regional educational service agencies are able to offer the very best in the way of sophisticated practice that technology and educational and para-educational disciplines have to offer. These units have been able to assemble specialized staffs of recognized quality who are in great demand by constituent local districts.

In attempts to secure a highly qualified professional staff, some Intermediate Units observed have fostered relationships with institutions of higher education. Typically, these relationships involve the employment of Intermediate Unit personnel by the institution of higher education on a part-time basis. This practice, which is generally promoted by the Intermediate Unit, has a number of advantages for both bodies. For the Intermediate Unit, the major advantages of such arrangements are that (1) personnel gain valuable teaching experience, (2) personnel are provided with opportunities for contact with professional colleagues, (3) personnel are stimulated toward professional growth, and (4) channels of communication are established for other types of coordination and cooperation.

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<sup>1</sup>National Education Association, Department of Rural Education, Regional Educational Service Agency Prototypes, (Washington: National Education Association, January, 1967), p. 76.

<sup>2</sup>Ibid., p. 76

<sup>3</sup>William J. Emerson, "The Intermediate School District--Middle Echelon of a Three-Echelon State System of Schools", a paper presented to the National Conference of Professors of Educational Administration, Arcata, California, August, 1965, p. 3.

## LEGISLATIVE STRUCTURE

Examination of the literature and observation of operating units shows that, in reference to the middle echelon of school government, wide variations in legislative provision exist between the several states.

Rather than identify specific characteristics of strong regional service agencies with regard to legislative structure, I would like to change the format somewhat and list some of the more common legislative weaknesses in Intermediate Unit structure in the several states. These are:

1. Lack of flexibility needed for functional and organizational changes.
2. Lack of legal provisions for intermediate district reorganization on a regional basis.
3. Lack of recognition as a full partner in the state's educational system. Particularly evident are many violations of financial support criteria resulting in the revenue sources of the Intermediate Unit not being as definite or reliable as those provided for the local and state echelons.
4. Specific lack of fiscal integrity and independence, including taxing powers, for some intermediate district boards of education.
5. Lack of a total approach to the systematic reorganization of all educational echelons.
6. Lack of organization within an overall framework with some delegation of responsibility to intermediate boards for a degree of administrative and program and service determination. Especially critical are those legislative provisions which do not call for a popularly elected board and/or a policy-making board with the authority to appoint its chief executive officer.
7. Lack of authority to incur bonded indebtedness and to hold title to real property.

### IV

#### THE ROLE AND FUNCTION OF REGIONAL EDUCATIONAL SERVICE AGENCIES

The proposed role and function of regional educational service agencies are not easy to classify into discreet categories. For purposes of identifying the recommended major areas of concern of these units, the diverse program and services envisioned for these units are classified into three major categories; articulative functions, coordinative functions, and supplemental service functions.<sup>1</sup>

A brief description of each category and illustrative examples of the wide range of possible programs and services within each category follows.

#### ARTICULATIVE FUNCTIONS

The regional educational service agency should perform a number of regulatory and ministerial functions for the state education agency. In this sense it localizes state school system operations and at the same time represents and interprets local educational needs at the state level. By performing these liaison functions, the

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<sup>1</sup>A large number of taxonomies are currently in use in classifying programs and services of intermediate units. The system used in this report was perfected by Alvin E. Rhodes in his excellent monograph: "Better Education Through Effective Intermediate Units." Department of Rural Education, National Education Association, Washington, D. C., 1963.

regional educational service agency serves a vital role in the vertical and horizontal development and implementation of statewide educational planning, and the administration of the state school system.

COORDINATIVE FUNCTIONS

The regional educational service agency in its coordinative role should provide one of its major contributions to its constituent local school districts and to the state system of education. By coordinating the work of local school districts, it serves a vital leadership role in the improvement of education. This will usually be done by assisting local school districts in working together to solve their common problems and needs.

In addition, these coordinative functions help protect the local control and the independence of local school districts in that coordinative functions are provided among and for school districts rather than the regional educational service agency assuming primary responsibility for them.

SUPPLEMENTARY SERVICE FUNCTIONS

The regional educational service agency, in its supplemental service role, complements the role of local school districts by providing direct educational services to them which they are unable to provide efficiently, effectively, or economically by themselves. Generally, these direct services are the type that local school districts would provide but are unable to do so because of limited student population, financial resources, personnel, or other factors.

The provision of these direct services also protects local control, and of great importance, helps to equalize and extend quality educational opportunities to all children, regardless of birthright or place of residency. It does not necessarily follow that the provision of these direct services to smaller, marginal school districts will perpetuate such districts and serve as an obstacle to the creation of administrative units of adequate size. Rather, there is sufficient empirical support that a strong regional educational service agency will promote, not retard, local school district reorganization, particularly when other complementary legal incentives for school district reorganization exist.

ILLUSTRATIVE EXAMPLES OF PROGRAMS AND SERVICES

The potential programs and services of regional service units are many. For purposes of illustration, programs and services found in exemplary units have been arbitrarily classified into the following five categories: (1) Administrative and Staff Personnel; (2) Instructional; (3) Student Personnel; (4) Special Education; and (5) Research and Development.

A. Administrative and Staff Personnel Programs and Services

A large number of administrative and staff personnel programs and services are required in the effective operation of an educational institution. Illustrative examples include:

1. Administrative and business management consultant services.
2. In-service programs for members of boards of education and board secretaries and treasurers.
3. School building site consultant services.
4. School district reorganization consultant services.
5. Data processing services.

6. Public information services.
7. Cooperative purchasing programs.
8. In-service programs for classroom teachers, specialists, supervisors, consultants, and administrators.
9. In-service programs for non-certificated personnel including transportation, food services, maintenance and custodial, secretarial and clerical, and other supportive personnel.
10. Substitute teacher services.
11. Services for the state education agency.
12. Coordinative activities with other health, welfare, and social agencies in the public and private sectors, and other governmental subdivisions.

B. Instructional Programs and Services.

It is in the area of instructional programs and services that regional educational service agencies can make their greatest contribution. This is its raison d'etre.

Illustrative examples include:

1. Educational media center.
2. Elementary and secondary curriculum consultant services.
3. Outdoor education programs.
4. Remedial instruction programs and services.
5. Health consultant programs and services.
6. Testing programs and services.
7. Institutionalized childrens' educational programs.

C. Student Personnel Programs and Services

Student personnel services has become a highly specialized area in recent years. The contributions of comprehensive student personnel services to an educational program are well recognized. Illustrative examples include:

1. Consultant services for student personnel programs.
2. In-service programs for guidance counselors and other professional personnel.
3. Other student personnel programs and services including graduate follow-up studies and drop-out studies.

D. Special Education Programs and Services

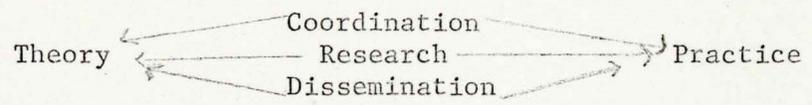
As part of its commitment to assist constituent local school districts in providing the best educational program possible for all children, RESA Units have a major responsibility in the education of exceptional children. Illustrative examples include:

1. Programs for trainable retarded children.
2. Work-study programs.
3. Programs for emotionally disturbed children.
4. Psychological and psychiatric services.
5. Programs for physically handicapped children and children with special health problems.
6. Programs for exceptional children of pre-school age.
7. Homebound instruction programs.
8. Programs for gifted children.
9. Programs for partially-sighted and blind children.
10. Programs for hard-of-hearing and deaf children.
11. Programs for speech handicapped children.
12. School social work services.
13. Programs for children with specific learning disabilities.
14. Providing coordinative and cooperative efforts for the many health, welfare, and social agencies in the public and private sectors.

E. Research and Development Programs and Services

Educational research is a main form of investing in the educational process. Yet few school districts are able to engage in necessary research and development programs. While colleges and universities and professional organizations do contribute greatly to educational research, it is recognized that a definite lag exists in the implementation of the findings of this research.

It is in the area of research and development that RESA Units can make a major contribution. The role of a RESA Unit is visualized as follows:



The agency is in a key position to develop theory into practice, to conduct action research in the examination of current educational practices, and to coordinate and disseminate the finding of research. This will prove to be a major contribution to education and exemplifies the regional educational service agency's vital role in the state system of education.

Illustrative examples include:

1. Budget analysis and cost studies.
2. Long-range financial planning.
3. Community surveys.
4. Enrollment studies.
5. Pilot projects in various curricular areas.
6. Evaluation of instructional materials.
7. Development of local school district and regional norms for standardized tests.
8. Evaluation of various types of organizational and grouping practices.

The above listings of illustrative examples in each of the five categories should not be considered as complete. Rather, they are intended to show the nature and scope of potential programs and services which might result from careful study and analysis of a given area.

V

MAJOR BENEFITS RESULTING FROM THE ESTABLISHMENT OF A STATEWIDE NETWORK OF REGIONAL EDUCATIONAL SERVICE AGENCIES

If a network of regional educational service agencies is developed in most states and if these units are allowed to function without basic structural deficiencies, several major benefits to state systems of education will result. These new units of school government can:

1. Protect and promote local control and local determination in public education.
2. Equalize and extend educational opportunities.
3. Assure economical and efficient operation of many educational programs.
4. Improve the quality of many educational programs.
5. Provide a needed change agent in education.
6. Promote the restructuring of school government consistent with developments in the public and private sectors.
7. Improve the coordination of local, regional, and statewide educational planning.

It is not my purpose today to discuss each of the above major benefits in great detail. Time would not permit this. Rather, I must only touch upon the benefits. Some of these, it is to be noted, were implicit in the previous discussions of the needs of local school districts and the characteristics of strong regional educational service agencies.

Before proceeding with this discussion of major benefits, it is well to remind ourselves at this point that the one test against which any plan, arrangement, or reconfiguration of school government must ultimately be judged is simply--"What does it do for the child in the classroom?"

#### PROTECT AND PROMOTE LOCAL CONTROL AND LOCAL DETERMINATION IN PUBLIC EDUCATION

Local control and local determination are important and cherished features of the American public school system. Many observers hold that these characteristics, although at present undergoing profound reassessment and redefinition, indeed profound change, are still of such import that they need to be guarded and preserved at all costs. Even should one disagree with this position, the political realities are such that local control of education, however defined and evaluated, will continue to be a critical concern of many.

The regional educational service agency is basically a local agency. While it performs certain ministerial and regulatory duties for the state education agency, it aids in adapting these to local needs and local circumstances.

Further, the regional educational service agency, by equalizing and extending educational opportunities through its programs and services for constituent local school districts, makes these districts stronger units while retaining maximum policy determination at the local level.

#### EQUALIZE AND EXTEND EDUCATIONAL OPPORTUNITIES

A second major benefit to be derived from the establishment of a strong network of regional educational service agencies is that such a network can help to equalize and extend educational opportunities for all children.

The provision of programs and services to constituent local school districts, who, because of limited student population, limited financial resources, and/or lack of specialized professional personnel, are unable to provide an adequate program will serve to equalize educational opportunity for all children regardless of birthright. The "accident of birth" is perhaps more basic in education than in any other single area of human activity. It must be removed as a serious problem in education.

Further, the shortcomings of instructional programs in many schools are recognized. The regional educational service agency through the provision of supplementary programs and services can help to extend the educational programs of local school districts. Related to this is the recognition that not all children benefit most by the same educational program. Some children need more instructional attention than others in grades K-12. In addition, many school children require special types of instructional programs in order to receive "an equal educational opportunity." The regional educational service agency through its supplemental and consultative programs and services can help local school districts to provide the "best" educational program for each child.

#### ASSURE ECONOMICAL AND EFFICIENT OPERATION OF MANY EDUCATIONAL PROGRAMS

A third major benefit which can be realized through the establishment of multi-county regional educational service agencies is the more economical and efficient operation of many educational programs and services on a larger scale. Exemplary of

the types of programs which are best suited to the regional approach are many administrative and business management functions, such as joint purchasing and data processing, in-service programs for professional and non-certificated personnel, and many programs for exceptional children. The profession, in view of the severe competition for financial resources, can no longer ignore "economics of scale" which have application for education. Nor can the profession fail to implement procedures which promote the more efficient utilization of human and financial resources in face of demands for more comprehensive educational programs.

#### IMPROVE THE QUALITY OF MANY EDUCATIONAL PROGRAMS

A fourth major benefit which can result from the establishment of regional educational service agencies is the improvement of the quality of many educational programs. The regional agency, operating on a broader base, serving a larger student population, and having greater financial assets will be able to attract highly qualified personnel to serve in consultative as well as functional roles in assisting constituent local school districts, both large and small, to improve the quality of their educational programs through the provision of needed programs and services to both.

#### PROVIDE A NEEDED CHANGE AGENT IN EDUCATION

Another major benefit which can result from the establishment of regional educational service agencies relates to organizational theory. A state school system is in need of a unit which is free from the inhibiting restrictions which accompany an organization with narrow focus, a unit which is free from the inadequacies of finance, personnel, and time, and free from the encumbrances of custom which impede innovative effort.

So, too, is education in desperate need of a structured, systematic vehicle to implement change. This will require, among other things, a planned means whereby an organizational unit in the state system of education is in both a strategic position and is capable of assessing and evaluating developments in all sectors of society, and, at the same time, is flexible enough to adapt its program to needed change. Local school district officials, by the very nature of the organization they administer, must devote a disproportionate amount of time and energy to "maintaining the organization." The state education agency tends to be similarly restricted. It appears that the regional educational service agency has the necessary organizational features to play a significant role in promoting change in a state system of education.

The limited research on innovation in education which has been conducted has not yet established all of the conditions necessary for the stimulation of change. More is known, however, about the elements in an educational institution which tend to inhibit change. These elements include traditionalism, accepting the status quo, educational bureaucracy, insufficient financial resources, insufficient number and quality of personnel, insufficient time, and community apathy or resistance.

It cannot be guaranteed that the regional educational service agency can overcome these elements and serve successfully as a needed change agent. However, it appears that the structural characteristics of these units can do much to minimize many of the elements which are known to inhibit change.

#### PROMOTE THE RESTRUCTURING OF SCHOOL GOVERNMENT CONSISTENT WITH DEVELOPMENTS IN THE PUBLIC AND PRIVATE SECTORS

Educational concerns do not exist in a vacuum. Thus, they must reflect developments in other areas of human activity. Since education is dependent upon public support and understanding and since it serves a common clientele with other public and private

agencies, it is important that the restructuring of school government be consistent with discernible trends in the public and private sectors. Further, this is true because many problems of education are not confined to the classroom, the local school district, or even the region. They are affected by socio-economic and political developments in the state and nation as well.

A number of discernible trends in the public and private sectors are apparent which must be reflected in the reconfiguration of school government. Several of the more significant trends which relate to the restructuring of the middle echelon unit of school government in Iowa and in many other states are:

1. The area function concept which approaches economic planning and development and the solution of socio-economic problems on a regional basis. In Iowa, economists have developed the implementation of this concept around the state's major cities, advocating that economic planning and development be initiated around these core cities.
2. Sociologists in many states are similarly advocating that the provision of many social and health services be carried out utilizing the same center-city concept. A number of Iowa's governmental, social, health, and mental health agencies have redesigned their state organizations, incorporating one or more features of the center-city concept. There is evidence of considerable public support for these developments.
3. In school government, the newly created area community college, area vocational-technical districts give recognition to the center-city concept. Further, the State Board of Public Instruction has also utilized area education districts in the development and implementation of state planning for Titles II, III, and VI of the Elementary and Secondary Act of 1965.
4. Iowa, which has been considered largely a rural state, will have by 1980, according to nearly all population projections, over 50 per cent of its people concentrated in approximately ten standard metropolitan statistical areas. This trend exists in many states.
5. In the broader spectrum of government, political scientists and public administrators have for many years advocated the broader approach to the provision of public services and the solution of governmental problems. This has taken a number of forms, among which are numerous proposals for the reorganization of county government to encompass a broader area in order to provide services more efficiently, effectively, and economically. Consistent with this, Iowa now has permissive legislation allowing the creation of regional hospitals and penal institutions.
6. A number of federal programs, both within and outside of the Office of Education, encourage, and in many cases prescribe, that programs embrace the "area or regional concept." Examples of the latter include many conservation programs, flood control programs, mental health programs, highway improvement programs, metropolitan planning programs, and urban and rural planning programs.
7. Recent interest in intergovernmental relations on the federal-state, interstate, state-local, and inter-local levels is increasing. Legislation in many states, including Iowa, permits, and in fact, encourages joint planning by governmental subdivisions, joint exercise of governmental powers, and joint employment of personnel. This trend is based in large part on the recognition that planning and implementation of programs are in many cases directed toward identical services, purposes, and achievements, and that cooperation and coordination among and between governmental agencies is essential.
8. The increasing need for specialization is evident in many areas of society. Similarly increased specialization on the part of personnel in education is required, due to the growing complexity of educational tasks.

#### IMPROVE THE COORDINATION OF LOCAL, REGIONAL, AND STATEWIDE EDUCATIONAL PLANNING

A final major benefit resulting from the establishment of regional educational service agencies is the improved coordination of educational planning on the local, regional,

and statewide levels.

On the local plane, the regional agency can assist local school districts, through the provision of consultative and supportive services, in long-range planning and program development with the assurance that needed programs and services will be available on a consistent and continuous basis.

Regional educational planning can be facilitated through research and development, planning, and coordinative efforts by the regional educational service agency for the local school districts within its constituency. Further, the regional unit is in an ideal position to bring about cooperation and coordination with other governmental subdivisions and quasi-governmental agencies within a region principally because it is less restricted by existing political boundaries or other "artificial" constraints.

Regional educational service agencies will greatly assist statewide educational planning in that these units will provide the state educational agency with a small number of "local" agencies which can serve in a communicative capacity to the state agency because of their closeness to local school districts and their resulting awareness of need. Further, these agencies can serve in a coordinative capacity for the implementation of long-range statewide planning because of their consultative and supplementary service role to local school districts.

## VI

### ALTERNATIVE APPROACHES FOR THE IMPROVEMENT OF EDUCATION

It is to be recognized that there are a number of other alternatives for the improvement of a state system of public education which are available to decision-makers in the several states. The major alternatives appear to be the following:

1. To encourage the formation of larger local school districts.
2. To encourage cooperative agreements between local administrative units.
3. To decentralize the state education agency and create regional administrative and service branches throughout the state.
4. To assign the responsibility for providing services to local school districts to post high school institutions.

Each of these approaches is currently in practice to some degree in a number of states. Each, to be certain, has a number of arguments in its favor. However, each has a number of basic philosophical or structural disadvantages which outweigh the advantages of their use individually or collectively in most states.

#### ENCOURAGE THE DEVELOPMENT OF LARGER LOCAL SCHOOL DISTRICTS

Most states have made great strides in the past in reducing the number of small, marginal high school districts, and, in general, improving the legal structure of local school district organization. Past efforts in this regard are to be lauded. Further, the continuous efforts of state education agencies and other organizations and individuals to create more adequate local administrative units are to be supported by all educational interests.

However, the creation of local school districts of the size required to provide a quality educational program faces serious obstacles. The feasibility of establishing administrative units with minimum enrollments of 5,000 to 10,000 students is questionable. The geographic and demographic characteristics of many states make such efforts questionable from both a practical and philosophical standpoint. Even if this were possible, there would still exist a need for a service agency to provide a number of programs and

services to local units who could not provide such services as economically, efficiently, or effectively as could be done by a service agency.

#### ENCOURAGE COOPERATION BETWEEN LOCAL UNITS

Another major alternative available to decision-makers is the encouragement of cooperative agreements between local school districts. This approach, which could be promoted through legislative, financial, or other incentives, could take one of two major forms, or a combination of both. The smaller districts in a state could be encouraged to cooperate with other small districts for the provision of needed educational programs, or smaller units could enter into cooperative agreements with neighboring larger districts.

This approach is at best a stop-gap measure toward the regional concept. It is vulnerable to changes in personnel or changes in the commitment of administrative and policy-making bodies in the units involved. Such agreements would typically be subject to annual negotiation or would lack other vital features necessary to long-range educational planning.

Such cooperative activities would in many cases require agreements between many school districts in order to secure the necessary enrollment or financial base. The coordinative efforts to initiate, maintain, and improve such agreements of this temporary nature appears to be a serious obstacle.

#### DECENTRALIZE THE STATE EDUCATION AGENCY

A third major alternative to the provision of programs and services to local school districts is the decentralization of the state educational agency by creating regional administrative and service branches in various geographic regions of a state.

This plan would tend to create an environment in which the ministerial and regulatory functions of such service agencies would tend to dominate. To be certain, these functions are crucial in the administration of a state system of education. However, in the unit designed to provide services to local school districts, these functions should be secondary and if allowed to dominate would tend to lessen the effectiveness of the service role, and, in addition, tend to weaken the important educational considerations of local determination and local control.

Further, this plan would require a large number of professional personnel in the state agency, a seemingly undesirable and unnecessary centralization of staff.

Also, the greatly increased involvement of the state agency in the service function would lessen its ability to continue to perform the important role of educational leadership, coordination, and long-range planning so vital to the state system of education.

#### PROVIDE SERVICES THROUGH POST HIGH SCHOOL INSTITUTIONS

A Final major alternative to the provision of needed educational programs and services to local school districts is to provide these services through post high school educational institutions, such as, area community college, area vocational-technical schools, public four-year colleges and universities, or some combination of both.

Although these agencies do have important roles to perform for public elementary and secondary education most states, these are essentially consultative in nature. The primary role of post high school institutions is the provision of educational programs for the post high school age population of a state. For them to dissipate their human and financial resources

resources and undertake still another vital role would tend to weaken their existing commitments. Further, it is questionable whether or not personnel and policy-making boards can reasonably be expected to be competent in such diverse planes as would be required.

## VII

### THE FUTURE OF THE REGIONAL EDUCATIONAL SERVICE AGENCY

I would like to conclude my remarks by commenting on the future of the regional educational service agency. I feel it has a bright future principally for these reasons:

1. It is the most feasible approach, at this point in history and in the foreseeable future, of overcoming existing inadequacies and of providing equal educational opportunities for all, regardless of birthright, and of protecting local control and local determination, important features of the American public school system.
2. It is an improvement in the structure of a state system of education, a necessary prerequisite to the implementation of many needed innovations in public elementary and secondary education.
3. It permits greater efficiency and economy in the provision of many educational programs and services.
4. It is consistent and compatible with a number of major discernible trends in both the public and private sectors toward the area approach, and developments in inter-governmental relations.
5. It is supported by recent legislation or interest in many states in all parts of the country.
6. It has the support of a number of professional organizations and agencies. Among these is the American Association of School Administrators which in 1967 adopted a resolution supporting the Intermediate Unit; the strongest position, in my opinion, which this organization has ever taken in its support.

The regional service agency in its newly emerging form is a product of efforts to meet new needs in education. Its benefits have been demonstrated in many parts of the United States.

If the RESA Unit is to meet its potential it must be developed, or restructured where it now exists, around educational purposes rather than political logic and/or expediency. As indicated previously, the RESA concept, although not universally recognized, is one of the biggest movements in education in this country today. Its stay in court has ended. All that remains now is for the profession to recognize its potential and support its development.

SELECTED CHARACTERISTICS  
OF EMERGING INTERMEDIATE UNITS OF  
SCHOOL ADMINISTRATION

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PREPARED FOR  
THE NOVEMBER 28-29, 1967, CONFERENCE  
"MEETING THE NEEDS OF YOUTH"

THE GREAT PLAINS SCHOOL DISTRICT ORGANIZATION PROJECT

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## SELECTED CHARACTERISTICS OF EMERGING IN

State	Year Estab- lished	Name of Unit	Minimum Pupil Numbers	Purpose of the Unit	Governing Body
Colorado	1965	Board of Cooperative Services	8,000 <sup>1</sup>	To provide special services desired by member school Districts	A 5-9 member board selected by and from membership of cooperatin boards for terms same as those held on <sup>2</sup> local boards
Iowa	1965	Joint County Systems	No specific number required	Administrative duties and servcies which individual school districts cannot efficiently or economically provide by themselves	A seven member joint board of six from specified election areas and one member at large elected by the people for 6 year terms
Michigan	1962	Inter- mediate School District	5,000	Special education programs and consultative and technical services to member school districts	A 5-7 member board chosen by one member from each cooperating board for 6 year terms
Nebraska	1965	Educational Service Unit	10,000 used as a guide	Supplementary educational services for member school districts	A board composed of one member from each county plus four member at large are chosen by the electors for four year terms
New York	1948	Board of Cooperative Educational Services	No specific number required	Specialized education services and programs for member school districts	A board of five members electe members of cooperating boards for five year terms
Texas	1965	Education Service Centers	50,000	To develop, provide and make available to partici- pating school districts a program of specialized services including educa- tional media and long range planning	A board of five or seven members appointed by a joint Committee representing all school districts which are members of the Center
Washington	1965	Inter- mediate District	20,000	Services to member school districts	A board of five members chosen by the electors in special board membe districts for four year terms
Wisconsin	1965	Cooperative Educational Service Agency	25,000	To render special services identified by member school districts as being desirable	A board not to exceed eleven members, composed of one repre- sentative from each cooperating school district. Local boards desig- nate their delegate to the agency board for terms agreed upon by each agency

<sup>1</sup> Boards of Education of any two or more school districts organized under the school district reorganization Act of 1949 or school district organ

<sup>2</sup> Each cooperating board of education is guaranteed membership on the Board of Cooperative Services.

<sup>3</sup> Ten units operate as originally planned. In elections held in the Fall of 1966, eighteen counties voted to exclude participation in the new ser  
included in the service unit by the legislation.

<sup>1</sup> Limited to those States where changed intermediate unit programs were actually operative. Others in which a changed structural organizati

**INTERMEDIATE UNITS OF SCHOOL ADMINISTRATION<sup>1</sup>**

Chief Administrative Officer	Financial Support	Territory Included In Unit	Number of Units
Board appoints Chief Executive Officer	Receives operating funds from the cooperating districts; is authorized to receive State and Federal funds	Two or more school districts, more or less than single county in area	Eleven Units have been formed
Board appoints a superintendent for the multi-county area	Tax levy plus the authorization to apply for, accept, and spend State and Federal funds for educational programs	Two consist of two counties each and one is a four county area	Three such districts
Board appoints a superintendent	Tax levy, contracts with cooperating districts, state funds	County and multi-county in area. Range is one to five counties in area	46 single county, 8 two county, 4 three county, 1 four county, 1 five county
Board appoints a Director of Educational Services	Tax levy, contracts with cooperating districts, may receive State and Federal funds	Multi-county range is two to nine counties in area. From 1,464 to 8,891 sq. miles in area	Nineteen units in the State. Three of these are larger in geographic area than the combined States of Rhode Island, Delaware and Massachusetts <sup>a</sup>
Boards appoints a District Superintendent	State funds and contracts with cooperating school districts	County, or more or less than a single county	There are 68 BOCES units in the State
Board of Directors appoints an Executive Director	State funds and matching funds from school districts which are members of the center. Also utilized Title III, ESEA funds	All centers serve multi-county area. Range is from two counties to 26 counties in area	There are 20 such centers in the State
Superintendent is chosen by the electors of the intermediate district	Funds authorized by county commissioners, contracts with cooperating school districts	County or multi-county in area. One is a single county area and four are multi-county areas	Five of fifteen proposed districts have been created
Board appoints an Agency Coordinator	State aid and contracts with cooperating school districts	Multi-county and the areas often cut across geographic county lines	Enrollments ranged from 17,390 to 190,218 pupils in grades K-12. Nineteen agencies have been formed covering entire State

<sup>a</sup> An Act of 1957 may form a board of cooperative services irrespective of this number.

units. These counties were located in 9 different service units. Several service units operate with only a part of the number of counties originally

being considered include California, Ohio, Oregon and Pennsylvania.

STATE LIBRARY OF IOWA

Date	Description	Amount	Balance
1890	To balance	100.00	100.00
1891	By interest	5.00	105.00
1892	By interest	5.00	110.00
1893	By interest	5.00	115.00
1894	By interest	5.00	120.00
1895	By interest	5.00	125.00
1896	By interest	5.00	130.00
1897	By interest	5.00	135.00
1898	By interest	5.00	140.00

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