

REPORT TO  
THE LEGISLATURE OF THE STATE OF HAWAII

THE LARGE SCHOOL:  
A PRELIMINARY SURVEY OF  
ITS EDUCATIONAL FEASIBILITY  
FOR HAWAII

SUBMITTED BY  
THE AUDITOR OF THE STATE OF HAWAII  
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I. Introduction

The Search for Quality Education

Modern society is a society in flux. The interactions of the various social, economic and technological forces on society will make the world our children inherit vastly different from the world of today.

A strong and historic commitment to the values of education exists among the people of Hawaii. In part, this is based on the awareness of the process of change that is taking place. It is realized that if Hawaii's social and economic future is to be one of progress, excellence in education must be pursued. In addition, it is realized that education is the key for developing our children to their full potential so that they may live fuller, more meaningful and more useful lives. The Board of Education in a policy statement adopted May 19, 1966 and reaffirmed July 21, 1966, stated that "the goal of Hawaii's public school is the maximum intellectual development of all children."

Evidence of this commitment to quality education can be seen in the legislative actions of recent years. Act 174, SLH 1965, which increased the salaries of teachers and education officers, demonstrated public willingness to bear an extra financial cost if it would contribute to the improvement of education. Act 175, SLH 1965, the omnibus education act, has strengthened the administrative powers of the Department of Education and given it greater flexibility. During the 1966 session of the Legislature, the Department of Education was granted a "lump sum" appropriation for its operating budget, thus enabling it to transfer funds between programs in order to best meet the challenges of change.

The committee report for Act 8, SLH 1966, the operating budget, observed that "the key to success lies in education and, moreover, that real progress can be achieved only with quality education which is made available to all."

As a consequence of this concern with and demand for quality education, the people of Hawaii, their elected officials, and professional educators have increasingly directed their attention to the seeking of means towards this end.

### Educational Facilities for an Expanding Enrollment

Hawaii is in the midst of a period of unprecedented population growth. Some 166,000 students are currently enrolled in Hawaii's public school system. By the 1972-73 school year, the farthest projection now available, this total is expected to reach 193,000.<sup>1</sup> As Hawaii's population continues to grow, more and more school facilities will have to be provided in order to keep up with the expanding student enrollment. The population explosion is taking place in Hawaii now. It is an immediate problem, not a distant one.

In order to provide the school facilities that will be required in the future, two major alternatives stand out. New schools will either have to be constructed or existing schools will have to be expanded. Knowing that additional facilities will have to be provided in any event, it behooves us to determine what type of facilities would best meet the needs of the State in terms of its educational objectives.

### The Large School: One Possible Solution to the Educational Demands of Hawaii

The possibilities of the large school, a deliberately expanded educational facility, were brought to public and legislative attention during the 1966 session. At that time, it was proposed that

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<sup>1</sup>Enrollment figures provided by Office of Research, Department of Education.

by creating large schools a more varied and meaningful educational offering can be provided to the students of Hawaii. Legislative interest in the possibilities of the large school was evidenced by the introduction of House Resolution 119 "requesting the Department of Education to investigate the wisdom and feasibility of building larger schools."

As a consequence of the interest generated on the large school and its possibilities, the Department of Education is currently supporting the development of a 5-year master plan for Kailua High School which will incorporate the large school concept.

### Purpose of Report

According to the committee report on Act 8, SLH 1966, the operating budget, the Office of the Auditor was charged with "reviewing the progress or lack of progress of the Department of Education . . . in meeting the policy guidelines of the Legislature . . . and will make such reports to the Legislature as may be necessary."

One of these policy guidelines was the expectation from the Department of Education of a "state educational blueprint which shall integrate manpower, finance, facilities, materials, pedagogy, and organization in a new curriculum design articulated through the entire public school system . . . ." This report is concerned with examining the relevance of large school planning with this statement of legislative intent.

Since no specific large school plan is currently in existence, no statement can be made at this time as to the feasibility of the large school for Hawaii. The plan being developed for Kailua High School, incorporating large school planning, is not anticipated to be completed before the fall of 1967. When it, or any other large school plan is completed and submitted to the legislature for its approval, the bases for assessing the worth of the plan should be clearly defined.

The purpose of this report is to examine the currently available information on the large school--its characteristics, its

educational and other advantages, its shortcomings--in order that meaningful and pertinent standards might be established for evaluating proposals for large schools in Hawaii.

## II. The Large School: Planning for Bigness

### Background

Until recent years, the prevailing opinion among professional educators was that schools should not be allowed to become too big because bigness leads to the impersonalization of education. In a compilation of some eighteen studies conducted between 1956 and 1963 on the relationship of high school size and educational effectiveness, the general consensus of opinion on maximum size was somewhere under 2,000.<sup>2</sup> To be sure, schools of very large enrollments have existed for long periods of time in many parts of the nation. However, these were largely old and crowded schools in the core areas of the major metropolitan centers which just grew in enrollment as the neighborhoods became more densely populated.

Within the last decade, however, the possibilities of deliberately planned and organized schools of large enrollment have begun to attract the attention of professional educators. Increasing population growth and increasing urbanization have compelled consideration of alternatives other than the traditional dispersed school system.

### Types of Large Schools

The common denominator of the various large schools is indicated by the term "large school" itself. They all have large enrollments running into the thousands. Within this context of size, however, they may vary considerably in terms of organization and scope.

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<sup>2</sup>Grace S. Wright, Enrollment Size and Educational Effectiveness of the High School, U.S. Dept. of Health, Education, and Welfare, Office of Education, Washington, D.C., n.d.

Large schools vary in type from the strictly secondary level institutions to intermediate level schools to complexes spanning the entire educational range from kindergarten through college. Typical of the different kinds of large schools currently being developed are the examples to be seen in Evanston, Illinois, East Orange, New Jersey, and New York City.<sup>3</sup>

A high school for 6,000 students is being developed on a 53-acre site in Evanston. Some 4,300 students are already enrolled there in four semi-independent "halls" each with its own principal.

In a major act of consolidation, the city of East Orange is planning to convert its entire 13-school system into a single large school accommodating 10,000 students from kindergarten through junior college. The new school, when completed, will serve also as an all-year, day and night community center. Construction on this school began in the spring of 1966 and will continue by increments over a 12- to 15-year period.

A third type of large school is under consideration in New York. The plan is to create a number of "middle school" facilities each serving 15,000 students in grades five through eight. Each of these large schools would be organizationally subdivided into smaller schools of 500 to 1,000 pupils.

From these examples, it can be seen that, except for size, the types of large schools existing are many and variegated. It can therefore be asked, what specifically does the large school have to offer educationally that will make it worthy of consideration here in Hawaii?

#### Claimed Advantages of the Large School

The most readily apparent of the large school advantages is the achievement of economies of scale. Having a single large school

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<sup>3</sup> These three examples from "One Campus for All Schools-- Is This Your City's Solution?", U.S. News and World Report, June 14, 1965, 53-56.

instead of a number of smaller conventional schools eliminates the need for duplicating libraries, cafeterias, gymnasiums, etc. It should be kept in mind, however, that the facilities of the large school will necessarily have to be on a larger scale than those of conventional schools.

Certain economies of scale should be assumed to be inherent in the large school. These economies can lead to a reduction of the overall cost of the educational system to the taxpayers. However, while the achievement of monetary savings is an important consideration, our primary attention should be focused on the level or quality of education we are receiving for our money. In other words, we want the maximum return for our educational investment, not just "cheap" education. How, then, can the large school serve to improve the quality of education?

" . . . [I]ncreased size permits variety in the staff and facilities which lead to a richer program for youth."<sup>4</sup> In essence, this statement summarizes the arguments favoring the large school concept. It is argued that with the greater enrollment of the large school a wider curricular offering could be provided. The greater enrollment of the large school can enable the school to offer a wider variety of courses. Greater flexibility is provided in the large school for such innovations as team teaching and ungraded classes. In this way, it is said, the educational offerings of the school can be more closely fitted to the needs and capabilities of the individual students. A more effective utilization of teacher talent can be achieved because teachers can be more readily assigned to classes in their special areas of expertise.

In a large school, it would also be possible to provide more thorough and comprehensive counseling services. Smaller schools often find it infeasible to offer such services beyond a minimal

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<sup>4</sup>Lindley J. Stiles, Lloyd E. McCleary, and Roy C. Turnbaugh, Secondary Education in the United States, Harcourt, Brace and World, Inc., 1962, p. 189.

level. A large school, on the other hand, can economically provide such full-time services to its students.

The economies of scale achieved through the large school can enable such a school to provide a greater and more extensive variety of library books and materials, laboratory equipment, specialized facilities, etc. Since a greater number of students will utilize these things in a large school, the cost per pupil is less as a matter of course.

The claimed educational advantage of the large school concept is not in any innovation or improvement that it introduces per se but rather in the fact that it provides a more flexible environment for the introduction of proposed improvements.

#### Organizing the Large School

The major argument that has been posed against the large school is that it is too impersonal and unwieldy. The relationships between students, between students and faculty, and between faculty and administration are said to become dehumanized in the large school environment.

The decentralization of the large schools into smaller organizational units, as was cited earlier, is an attempt to overcome this particular criticism against the large school. These smaller units, or "halls" as they are often called, are somewhat analogous to the component schools and colleges in a university system. Each of these halls are semi-autonomous in nature with their own administration, faculty and student body. Used jointly by the various halls in the large school are such specialized facilities as laboratories, libraries, shops, and the like. School spirit is generally centered around the individual halls.

In this way, it is argued, the benefits of the large school in terms of expanded services and facilities are combined with



the advantages of the small school in terms of closer personal relationships.<sup>5</sup>

### III. Large Schools for Hawaii?

#### The Criteria for Choice

Various communities around the nation have adopted the large school concept as a solution to their educational needs. It is generally understood just what the large school can and is supposed to do in theory. The question that is posed for Hawaii is: Does the large school concept fill the educational needs of this State? Is the large school feasible for Hawaii?

There does not seem to be much question that in terms of mere physical plants and facilities, large schools can be developed in Hawaii. In this sense, this is just a matter of physical planning and engineering. What is needed, however, is an understanding of the factors involved in determining what educational needs there might exist for large schools in this State.

Before we can make this determination, we must have a set of well-defined educational objectives upon which to base our decision.

These educational objectives serve as the bases for departmental action in implementing the educational policy determinations of the Legislature, the Governor, and the Board of Education. They serve to determine what we need in terms of curricular offerings and act as a measurement of effectiveness of these offerings.

One of the educational policies of the State is the commitment to quality education. This commitment was discussed in the first chapter of this report and can be considered as a major area of intent on the part of the State's educational system.

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<sup>5</sup>For more information on the "hall" type of organization, see Donald J. Leu, Planning Educational Facilities, The Center for Applied Research in Education, Inc., New York, 1965, pp. 4-5, 104-105.

The professional educators of the Department of Education are charged with the responsibility of policy implementation. It is from the department, therefore, that we must expect educational levels of expectations and standards of performance, the educational objectives, to be devised.

Goodlad and Klein have noted some of the questions involved in determining educational objectives:

What should be read by 10 year olds and what should be known about the legal rights of American citizens by 15 year olds, for example, are appropriate concerns for our people. What 10 year olds actually read and what 15 year olds actually know about their legal rights can be determined through assessment . . . and should be of more than passing interest to us all. But setting priorities for the schools with respect to reading legal rights, or anything else is the responsibility of state and local school districts. Failure to set these priorities is to beg the central question of educational intent . . .<sup>6</sup>

It can be said, therefore, that the first order of priority for the Department is to develop comprehensive educational objectives. The Department has demonstrated awareness of this need. The Curriculum Survey Reports, issued by the Department in 1966, indicates the concern of the professional educators in this area. The establishment of the Hawaii Curriculum Center jointly by the Department and the University of Hawaii is another indicator of professional concern. As of yet, however, no comprehensive detailed statements of objectives, specifically in terms of classroom expectations and curriculum content, have been made. We should expect that the professional educators will be developing these statements of objectives and that they will be forthcoming in the near future.

In this way, the State can assess the efficiency and effectiveness of its educational programs and determine where the areas of need lie. Knowing our objectives, we know what output we should

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<sup>6</sup>John I. Goodlad and M. Frances Klein, "What's Happening to Curriculum Development," Nation's Schools, April, 1966. pp. 70-73.

expect from our educational system. From this, we can examine the various factors involved in the educational process--subject matter, methodology, teachers, students, time, resources, facilities, etc.--and see what their optimum "mix" should be in order for us to meet our objectives. This is the avenue for attaining our goal of quality education.

### Difficulties in Decision Making

Inasmuch as comprehensive detailed educational objectives have not as yet been established and defined, it is difficult to accurately assess the feasibility of the large school. For that matter, it is difficult to assess the feasibility of any proposal, recommendation, or innovation without having these objectives as standards.

For example, it is claimed that one of the advantages of the large school is that it permits greater flexibility in class scheduling. Is this good? How much flexibility is really necessary? If it is said that the large school permits greater flexibility in the grouping of students according to ability, it must be remembered that the number of such groupings that can be made is limited. Any proliferation of groups would only reduce the distinction between individual groups to the point of absurdity. If it is said that a greater variety of courses is possible with the increased flexibility of the large school, the question arises as to just how many different courses should be offered. In a large school, there may be enough student interest to justify offering certain esoteric courses but the wisdom of offering these courses would be dependent again on the educational objectives. Flexibility for the sake of flexibility is not enough. Flexibility must exist to serve a definite purpose.

It can be seen therefore that major priority should be given to the development of educational objectives in order that rational educational planning and decision making can be made.

## Factors in Assessing the Large School

While a complete assessment of the large school for Hawaii must await the preparation of a set of objectives, it is still possible at this time to identify and isolate some of the pertinent questions that should be raised and answered. Upon the establishment of these objectives, then, we would proceed to ask the following questions:

1. How does the large school specifically propose to facilitate the meeting of the educational objectives?

This is the first question that comes to mind concerning the large school. If we are to seriously consider adopting the large school concept, we should know what there is about it that is educationally desirable. As was noted earlier in this report, the advantages attributed to the large school concept lie not with the concept itself but, rather, with the innovations and changes that are made possible through it. If the large school is supposed to be beneficial because it facilitates such innovations as ungraded classes, modular scheduling, etc., then these innovations should be investigated to see just how they would contribute to the improvement of education. While we should not be content with the status quo in education and should continually strive for improvement, we should also take care to see that our proposed innovations are valid and effective.

2. Is a large school really necessary to achieve these innovations? Can't some of them be made in schools of existing size?

If some of the proposed educational innovations are indeed found to have merit and are thus desirable to adopt, it is still not certain that large schools are a necessary prerequisite for their adoption. Many of the innovations can be put into effect in the existing schools. While expanding the enrollment and facilities of a school does permit a greater degree of flexibility in some of these innovations, this flexibility is not limitless. There does exist an optimum size beyond which innovation ends and repetition begins. This limiting optimum size should be determined and considered when assessing large school feasibility.

3. What, specifically, can be done in a large school that cannot be done in existing schools?

If there are certain innovations that can be achieved only through the large school, then they should be so identified. They constitute a major factor in the determination of the merits of the large school. If the arguments in support of these innovations as educationally beneficial are sufficiently strong, they would constitute a major justification for the large school.

The most readily apparent advantage of largeness is, of course, the economies of scale. More library books, laboratory equipment, specialized services, etc., can be provided in the large school which would be prohibitively expensive in a smaller school. Here again, of course, is the problem of the determination of optimum size. In addition, the extra resources possible would also have to be justified in terms of the educational objectives.

4. How does the large school compare with some of the other possible educational alternatives in terms of feasibility?

It should be kept in mind that the large school is only one alternative out of many for attaining quality education and meeting the State's educational objectives. The various alternatives, while not necessarily mutually exclusive and often complementary in nature, do pose a question of choice for Hawaii. Should we go into large schools or improve the neighborhood schools? Does the solution to our needs lie with technological innovations such as educational television or teaching machines? What about increasing the utilization of existing facilities by extending the school day and/or the school year?

In order to make an objective and rational decision on the question of large school feasibility, it can be seen that a whole multitude of questions must be resolved.

#### Planning the Large School

If it is determined that the large school does indeed facilitate the meeting of the State's educational objectives,

then the factors of specific school planning must be considered. The question now becomes not whether the large school is feasible but, rather, how it should be developed. Any large school planning that is done should resolve the following questions:

1. Factors relating to site determination:

- a. What is the existing and projected population for the area under consideration? Is a large school realistic in terms of the population base?
- b. Is sufficient land available and at what cost? If the large school is to be developed on the site of an existing school, is the present site adequate? Is there room for growth?
- c. Is the site convenient and accessible for community and other non-school uses of the facilities?
- d. What are the current and projected traffic and transportation patterns around the planned site? Is convenient transportation readily available? Would there be traffic problems during rush hours? If problems exist, they should be resolved.

2. Factors relating to facilities requirements:

- a. What are the construction and maintenance costs of the large school complex? How does this compare with the costs of developing smaller schools?
- b. What would the large school require in terms of parking needs, food facilities needs, library and laboratory facilities needs, etc.? These needs cannot be determined by a simple projection of comparable needs in conventional schools. The expansion of scale introduces new variables in terms of scope and usage which must be considered.

3. Factors relating to school administration:

- a. What grade levels is the large school supposed to accommodate? Elementary? Secondary? K-12? Whatever the choice, what is the rationale behind it?

- b. How would the logistics of scheduling classes for the large school be handled? Is this an area for computer applications?
- c. What would be the staffing requirements in terms of teachers, administrators, and other employees? If innovations such as team teaching are introduced, what would be the resultant effect on the staffing formula?
- d. How would the administrative unwieldiness due to large size be overcome? Would the "hall" system be utilized and, if so, in what form?
- e. How would the depersonalization of student-faculty and student-student relationships in the large school situation be corrected? Would this also involve the "hall" system?

The final determination of large school feasibility for Hawaii can only be accomplished after a detailed examination of the above-cited factors. Any large school plan that may be formulated must be prepared to demonstrate and prove its benefits and to overcome its shortcomings.

#### IV. Conclusion and Summary

The large school is not an easily definable subject. Except for its large size, its characteristics could vary considerably in terms of organization, structure, and educational program. Its size promises the opportunity for improving education through greater flexibility and innovation. Our concern is whether or not this promise is relevant to Hawaii.

Many of the innovations made possible or facilitated by the large school do appear to have educational merit according to the opinions of professional educators. For this reason, the large school concept should be given serious consideration as a possibility for Hawaii.

However, to consider the large school, or any other possible alternative, without first having defined our objectives--what we

precisely want in the way of output from our educational system-- will only avoid the central issue of education, its very reason for existence.

Continued avoidance of the problem of objectives will result in continued lack of clear-cut direction in our educational system. As a consequence, we can never know definitely what we are trying to do and how well we are doing it. Any innovations or changes made under such circumstances would only be tinkering with the central problem rather than fully resolving it. If we are to get quality education in Hawaii, we must be concerned with objectives.

Upon the development of a clearer understanding of what we are trying to achieve through our educational system, we can begin to consider the preparation of a comprehensive and rational plan of action for achieving these objectives. The ultimate determination of the feasibility of the large school depends on how well, in relation to other possible alternatives, it serves in advancing the educational objectives of the State.

Additionally, any large school plan which is made will have to be defensible in terms of its own internal consistency, thoroughness, relevancy, and applicability for the particular situation for which the plan was prepared.

The concept of the large school has raised a number of questions for Hawaii. It should now be our task--with a particular responsibility on the part of the professional educators--to seek the answers to these questions.