SCHOOL ACCREDITATION REQUIREMENTS
vs.
FINANCIAL SUPPORT

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FOREWORD

Over the past twenty-five years the Commonwealth of Kentucky has worked diligently to improve its public education system. Increased funding through a state Foundation Program has made improvement in the instructional program possible, and this improvement is reflected in higher student achievement.

As a means of improving the educational programs in the schools, the Board of Education has made accreditation standards more stringent. Many of the changes in the standards require additional personnel, whose positions are funded through administrative and special instructional (ASIS) units, a funding formula of the Foundation Program. While the number of ASIS units required for accreditation has increased, however, the method by which local school districts generate these units has not changed substantially over the years.

Superintendents of small school districts contend that their districts are often placed in severe financial difficulty by the necessity of using local funds to staff the positions required for accreditation. In response to this concern, the Senate of the 1980 General Assembly adopted Senate Resolution 77, which directed the Legislative Research Commission to study the Foundation Program unit allocation system in small school districts in relation to their efforts to attain a "standard" accreditation rating.

Conclusions and recommendations on the allotment of ASIS units and on the school accreditation system are included in the report. It is hoped that they will be helpful to members of the General Assembly and other groups in the educational community as they continue to strive to improve public education in Kentucky.

This report was prepared by Sam Sears and Sandra Deaton, with computer programming assistance from Jim Peyton, Pat Ingram and Susan Harding. The manuscript was edited by Charles Bush and typed by Pat Heightchew.

Department of Education personnel have been most helpful in providing information and assistance in the course of this study.

Vic Hellard, Jr.
Director

The Capitol
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SUMMARY

Senate Resolution 77 of the 1980 regular session of the General Assembly directed the Legislative Research Commission to study the Foundation Program unit allocation system in relation to small school districts' efforts to meet the "standard" accreditation rating requirements established by the State Board of Education. The resolution also directed the study to determine the financial impact on these districts of their efforts to attain a "standard" rating.

The researchers reviewed accreditation standards and Foundation Program unit allotment formulas in effect shortly after the Foundation Program statutes were enacted in 1954 and compared them with those in effect in the 1979-80 school year. Since the resolution did not define "small school district," the study design called: (1) for the development of measures to determine the extent to which the Foundation Program was providing sufficient units for all school districts in the state to meet the requirements for a "standard" accreditation rating, and (2) for determining the financial impact on all districts resulting from their efforts to satisfy those requirements.

The findings of the study support the following conclusions:

- The Foundation Program is only partially effective in allotting districts sufficient ASIS units to meet the Board's accreditation requirements, allotting, on the average, 75.5 percent of the number of units needed.

- The Foundation Program tends to be less efficient in providing smaller school districts with sufficient ASIS units to meet accreditation requirements than it is for larger districts.

- The ratio of required to allotted ASIS units tends to be lower in districts with smaller average school enrollments, district enrollments, and numbers of schools than in districts with larger enrollments and numbers of schools.

- The financial impact on school districts of having to staff additional ASIS units to meet accreditation requirements tends to be greater for districts with smaller average school enrollments, district enrollments, and numbers of schools than for districts with larger enrollments and numbers of schools.

- Accreditation standards have become increasingly more stringent from the 1950's to the present, while the Foundation Program allotment formula for calculating the units most closely associated with attaining a "standard" rating, the Administrative and Special Instructional Services (ASIS) unit, has undergone only slight revisions, which have not significantly increased the number of units allotted to a district.

- There never has been any special provision in the Foundation Program statutes for increasing the number of ASIS units for small school districts.

- The language in the State Board of Education's publication, "Standards for Accrediting Kentucky Schools," is vague and generally permissive

regarding the ASIS unit positions required for a district to achieve accreditation. But though the language is permissive, the Department of Education staff, when making accreditation visits to districts, applies the standards as if they were mandatory.

- There are no accreditation requirements for schools with less than eight teachers or for special schools.

Recommendations based on the assumption that the ASIS units presently required for accreditation represent minimum standards necessary for a basic quality program:

- The procedures for allocating ASIS units should be adjusted to provide districts with more units, to give them greater assistance in meeting accreditation requirements.

- Any alterations made in the ASIS unit allotment formula should provide smaller school districts with a proportionately larger number of units than would be provided for larger districts.

Recommendation based on the assumption that a basic quality program could be operated with fewer ASIS units than are presently required:

- Accreditation standards could be developed which require fewer ASIS units than are presently required, with standards being less stringent for smaller school districts.

Recommendations based on the conclusions reached from an overall analysis of the accreditation standards:

- The State Department of Education document, "Standards for Accrediting Kentucky Schools," should be rewritten so that requirements and exceptions to the requirements are as specific as possible.

- The standards should be rewritten so that the number of ASIS units required for accreditation is very explicit for all positions of required staffing.

- The specific accreditation requirements should be put into the usual regulation form for review and approval.

- If the State Board of Education continues to establish minimum accreditation requirements in terms of ASIS units and if the Foundation Program is purported to allot units for a basic educational program, then efforts should be made to insure that the number of ASIS units allotted will more closely correspond to the number of units required by the standards.

CHAPTER I

INTRODUCTION

The constitution of the Commonwealth of Kentucky establishes education as a state function by requiring the General Assembly to provide for an efficient system of common schools throughout the state. In 1954, the General Assembly enacted the Foundation Program Law to provide for the distribution of state education funds in a manner which would assure a basic level of education for each child in the state. The law did not prevent any local school district from providing educational programs and facilities beyond the minimum level.

The distribution formula was designed to include calculations for several types of personnel needed to maintain a basic program at each local school district. A classroom unit, the unit of measure for the program, is allotted for basic units, vocational units, special education units, administrative and special instructional service (ASIS) units, general supervisory units, pupil personnel units, and growth factor units. The General Assembly amended the law in 1976 and 1978 to include units for kindergarten and superintendents, respectively.

The basic, vocational, special education and kindergarten units provide the foundation of the instructional program. The basic units provide financial support for most of the state's elementary and secondary classroom teachers and are calculated on a 27:1 pupil-teacher ratio (except for slight differences allowed for the calculation of teachers in isolated schools). Typically, a school district receives one basic classroom unit for each twenty-seven children in the prior year's average daily attendance.

Administrative and special instructional services (ASIS) units are allotted to provide funds for administrative personnel, personnel necessary for specialized instructional programs, such as art and physical education, and support personnel, such as librarians and counselors. The Foundation Program was designed to allot one ASIS unit for each eight basic, vocational, special education, and growth factor units. Over the years growth factor units were removed from the formula and kindergarten units were included. With the exception of the superintendent's position, which was required, the law did not specify which types of personnel positions should receive priority staffing with ASIS units.

After the passage of the Foundation Program, educators and consumers became concerned with improving accreditation standards, so that there would be an evaluation process to determine that a minimum educational program was being offered. These changes in accreditation have increased the need for more administrative and special instructional personnel.

Accreditation Standards

Accreditation of Kentucky high schools began in 1869. The University of Kentucky, in order that it might determine the readiness of students desiring to enter the University, without entrance examinations, established accreditation conditions for the state's high schools. In time, the standards established by the University were accepted as a basis for student admission by

other Kentucky institutions of higher education.

As time went on, the process became more involved. The Kentucky Association of Colleges and University established a Commission on Secondary Schools whose function was to meet annually and review for approval applications of secondary schools seeking accreditation. The primary purpose of accreditation was still to allow graduates of approved schools to enter college without entrance examinations. In 1934, the State Board of Education was given the legal authority for classifying and accrediting high schools. The Commission on Secondary Schools of the Kentucky Association now serves as an advisory body.[1]

In 1957, after the passage of the Foundation Program Law, the State Board of Education authorized the appointment of three advisory committees to review and recommend improvements in the accrediting standards, the program of studies and the course of study for the total school program. After many months of study, the committees' recommendations were submitted to the State Board of Education, and approved for implementation for the 1959-60 school year. There were several changes in the accreditation standards, including the decision to begin to accredit elementary schools. Since that time, accreditation standards have continually been reviewed and revised.[2]

Purpose of Study

A review of accreditation standards which were in effect for the years 1949-1955[3] and the standards for the school year 1979-80[4] revealed that there are presently standards which could require at least sixteen more ASIS positions than would have been required when the formula for allotting the units was designed in 1954. The 1949-1955 standards did not include any requirements for elementary and middle schools, or junior high schools (unless they were a part of a six-year high school). The secondary school standards required a principal, who was permitted to teach twenty periods per week, and a librarian, whose time allotment was based on higher staff/pupil ratio than the present ratio. The standards contained suggested course offerings, which included the special instructional services, such as fine arts and physical education, but the language of the standards did not make them mandatory. The Carnegie Unit requirement for graduation was sixteen units, rather than the present eighteen, and there was no minimum number of high school course offerings required, as there is today.

The following table summarizes the review of the two sets of standards and gives emphasis to the fact that accreditation standards which require personnel funded by ASIS units have increased over the years.

Table 1

Accreditation Requirements

	1949-1955 "B" Class	1979-1980 Standard Rating
Elementary Schools	No Requirements	Principal Librarian Counselor
Middle Schools	No Requirements	Principal Librarian Counselor Art Teacher Music Teacher Physical Education Teacher
Junior High Schools (Grades 7-9)	No Requirements (Unless part of six-year secondary school)	Principal Librarian Counselor 24 Minimum Course Offerings, Including: Art, Music, and Health, Safety and Physical Education
Secondary Schools (Grades 10-12)	Principal* Librarian** Suggested Course Offerings Including: Fine Arts and Physical Education***	Principal Librarian Counselor 27 Minimum Course Offerings, Including: Art, Music, Industrial Arts, and Health, Safety, and Physical Education***

*Permitted to teach twenty periods per week.
**Staff/pupil ratio higher than present - 1/3 time for 0-150 pupils, 1/2 time for 151-300 pupils, 1 full-time for 301-500 pupils.
***1949-1955 publication suggested course offerings but did not require a minimum number; 1980 Regulations require a minimum of 27 course offerings for a 10-12 secondary school and 37 course offerings for Grades 9-12.

"Financing the Public Schools of Kentucky," a 1973 report of a joint study made by the National Educational Finance Project, the Kentucky Department of Education and the citizens of Kentucky, referred to ASIS units" as an add-on device to accommodate additional units which could not be accommodated as a classroom unit," and said that "they have proliferated to the point of absurdity." The report presented data showing that each year since the beginning of the Foundation Program, local school districts have staffed increasingly higher percentages of ASIS units than were allocated, with the different

types of positions increasing from 15 in 1956-57 to 35 in 1970-71. The data were used to emphasize the rapid growth in the ASIS units and the fact that the allocation formula was inadequate.[5]

The overriding recommendation of the study was to change to a pupil-cost unit method of allotting state funds for Kentucky's schools. The new formula would have eliminated the need for ASIS units, as the cost for those services would have been included in the pupil cost.

In October 1977 the steering committee of the Governor's Task Force on Education assigned priority rankings to the many recommendations which came out of the more than thirty subcommittees of the Task Force. Near the top of the list were recommendations for changes in the ASIS unit allocation.[6]

The recommendations were to:

1. Provide one unit for the position of school superintendent;

2. Remove administrative units from the ASIS formula and allocate them on a pupil enrollment basis;

3. Change the ratio of ASIS units from 1:8 to 1:6 and use the increased units for auxiliary roles, which were defined by the Task Force as counselors, social workers, health coordinators, psychometrists and psychologists; and

4. Fund special instructional units differently.

These recommendations came from different subcommittees and were combined as a recommendation for a change in the ASIS allocation formula. Priorities were not established for the individual recommendations.[7]

The General Assembly in 1978 amended the Foundation Program law to provide one unit for a superintendent at each local school district, thereby removing the need to use an ASIS unit for that position. Over the years other slight changes in the formula have included the addition of kindergarten units, which caused an increase in ASIS units, the removal of growth factor units, and the inclusion of deductions on special and vocational units, which decreased the number of ASIS units. Basically, the original formula of one ASIS unit for each eight classroom units has remained the same for over a quarter of a century, though accreditation standards which require ASIS positions have expanded substantially.

Superintendents in small school districts contend that because the Foundation Program formula does not take the size of the school district into consideration, the small districts are often placed in severe financial difficulty, from having to fund personnel positions necessary to meet accreditation standards. Senate Resolution 77 (Appendix I), passed by the 1980 General Assembly, directed the Legislative Research Commission to study the Foundation Program unit allocation system in relation to its application in small school districts, and the effect on small school districts' financial conditions of their efforts to attain a standard accreditation rating.

CHAPTER II

DESIGN OF THE STUDY

Senate Resolution 77 did not define a "small school district" but it was assumed that the legislature meant for purposes of the study, that small school districts are those which do not receive enough ASIS units to meet accreditation standards. Before such districts could be identified, it was necessary to review the accreditation standards and list those personnel requirements for a "standard" accreditation rating which needed to be funded by ASIS units.

The "standard" accreditation rating was selected for review rather than "basic" or "comprehensive" ratings, because it was mentioned in the resolution, it is the minimum level of accreditation for secondary schools, and the majority of elementary schools have a "standard" rating. There have also been indications from past State Board of Education meetings that in the future the "standard" rating will also be the minimum accreditation rating acceptable for elementary schools.

Accreditation Requirements for "Standard" Rating

The Kentucky Department of Education publication, "Standards for Accrediting Kentucky Schools," was examined for the present study to determine the types of ASIS units which are actually required to meet the minimum standard.[8] Though many types of personnel are desirable for a good instructional program, it was decided that, only those positions which were listed as an absolute requirement in the document would be counted as required for the minimum standard. It was difficult to determine the actual requirements because of vagueness and inconsistency of style in the document format. In most cases the standards included such words or phrases as "should" and "it is recommended." Interviews with Department of Education personnel[9] made it apparent that there are areas in the accreditation standards which, though written with permissive language, are, in actual practice, applied as strict requirements. Because it was necessary to determine a reasonable minimum staffing level by which a school district may meet accreditation standards, it was decided to establish such a list of requirements, which would be based on the printed standards as well as the verbal comments of Department of Education personnel. Those positions are principals, librarians, counselors, and art, music, physical education and industrial arts teachers. The number of those positions needed for the "standard" rating by each school district varies, depending on the total enrollment and grade level organization of each individual school.

Principals

Though all levels of schools, elementary, middle and secondary, require principals for a "standard" accreditation rating, the proportion varies with the number of teachers per school. It was difficult to determine the actual number of principals needed per school because of the inconsistencies in the language of the standards document. The document states that an elementary

"school of 8 to 12 full-time teachers shall have a principal who devotes at least half-time to the principalship. Schools with more than 12 teachers should have a full-time principal." The standards for the middle school do not mention schools with less than eight teachers in terms of the principal, but do say that schools with "less than 12 teachers" may have a half-time principal. A full-time principal is required at the secondary school, except for the provision that schools with "fewer than 12 teachers" may have a half-time principal. If interpreted precisely, the phrases "more than 12," "less than 12" and "fewer than 12" means that a full-time principal is required in middle and secondary schools which have 12 or more teachers and in elementary schools which have 13 or more teachers. It was not clear whether middle and secondary schools with less than eight teachers are required to have a principal.[10]

Table 2

Requirements for Principals

	Ratio	Proportion
Elementary	8 to 12 teachers	Shall have at least 1/2 time
	More than 12 teachers	Should have full-time
Middle	Less than 12 teachers	1/2 time
Secondary	Fewer than 12 teachers	1/2 time

Discussions with Department of Education personnel resulted in recommendation of the use of the following formula for determining the number of principals needed for each school at all levels:

Fewer than 8 teachers = 0 principal

8 through 11 teachers = half-time principal

12 or more teachers = full-time principal

This example shows the difficulty local school district personnel have in determining the actual accreditation requirements and it shows a limitation of the study which is discussed below.

Librarians

The accreditation requirements for a "standard" rating in all levels of schools "recommend" a media librarian. The standard at each school level includes a staff-enrollment ratio as shown in the following table:

Table 3

Librarian/Pupil Ratios

Elementary		Middle		Secondary	
Librarian	Enrollment	Librarian	Enrollment	Librarian	Enrollment
1/2	Up to 400	1/2 to 1	Up to 300	1/2 to 1	Up to 250
1	401-800	1	301-800	1	251-800
2	801-1200	2	801-1600	2	801-1600
3	1201-1600	3	1601 and up	3	1601-2400
				4	2401 and up

Even though the standards merely recommend a librarian, Department of Education personnel reported that all schools are required to have a librarian, or a portion of a librarian, before they recommend the school for a "standard" accreditation rating. They also reported that they require the districts to employ librarians according to the enrollment/staff ratio charts, up to one full-time librarian. After one full-time librarian is employed they are more lenient and accept added clerical assistance as enrollment increases, as opposed to requiring additional certified librarians.

Counselors

It was difficult to determine whether counselors are actually required for accreditation. Again the standards recommend a counselor and give staff-enrollment ratios, but Department of Education staff are not as definite about whether a counselor is actually required as they are about librarians. They report that alternative approaches to having a counselor in the school are allowed if counseling services are provided by other methods, such as by contract with another agency or by the use of an itinerant staff person out of the school district's central office. A review for this study of the staffing patterns showed that many schools had at least a portion of a counselor, indicating that having a counselor on the faculty was a typical way of providing counseling services. Therefore, it was decided to include counselors as a requirement.

Courses of Study

The standards document contains the minimum courses of study that secondary schools are required to offer to receive a "standard" accreditation rating. A high school with ninth through twelfth grade is required to offer thirty-seven different courses, including two courses each in art, music and industrial arts, and a minimum of one combined course of health, safety and physical education for every pupil. A school with tenth through twelfth grades only is required to have twenty-seven course offerings, and any ninth grade is required to have ten course offerings.

At the junior high or middle school level, every pupil is required to receive instruction in art, music, and health, safety and physical education. Required instructional time for each of these courses is less in grades below

the ninth grade than at the senior high school level, therefore requiring less of an ASIS unit.

The formulas used to determine the number of ASIS units needed for each of these course requirements are described in Table 4.

Determining the Ratio of Requirements to Allotments

The plan for the present study called for the development of a method to determine whether the Foundation Program is providing sufficient ASIS units for schools to attain the "standard" accreditation rating. Since ASIS unit requirements for accreditation are derived from pupil enrollment and school organizational pattern data (what grades the school contains), it was necessary to develop formulas which, when applied to these data, would yield the minimum number of units required for that rating. Formulas were developed for determining the minimum number of principal, librarian, counselor, art, music, physical education and industrial arts units required for each school in the state for which accreditation is mandated. The formulas are described in Table 4. The pupil enrollment and school organizational pattern data utilized are from the Department of Education report, "School Membership and Organization, 1979-80, Public Schools,"[11] and are as follows:

1. Teachers - the number of teachers by school was used to determine quotas for principals for all schools. All certified pesonnel in the school except principals and assistant principals were included as part of the total number of teachers. This formula was used by the Department of Education.

2. Pupils - the report contained the first month's enrollment by school and grade. Since the number of ASIS units allotted was determined, in large part, by the districts' average daily attendance (ADA), and since no ADA figures by school and grade were available, it was necessary to derive an estimated ADA from the available enrollment data. This was accomplished by determining the average percent difference between the first month's state-wide enrollment figure and the final state-wide ADA figure over the past five years. The average difference between the two figures was an eight percent (8%) decline from enrollment to ADA. This percentage was deducted from each school and grade enrollment to arrive at an adjusted enrollment figure for calculating minimum ASIS accreditation requirements.

    a. Elementary Schools - the total adjusted school enrollment was used to determine the minimum number of librarians and counselors required for each school. Schools with organizational patterns of kindergarten through sixth grade (K-6) or schools with grades K-8 inclusive are classified as elementary schools.

    b. Middle Schools - the total adjusted school enrollment was used in determining minimum accreditation requirements for librarians and counselors, and art, music and physical education teachers. Schools with organizational patterns of grades 5-8 or 6-8 are classified as middle schools.

    c. Junior High Schools - the total adjusted school enrollment was used in determining the number of librarians and counselors

required. Adjusted enrollments by grade were used to determine unit requirements in art, music and physical education, as time requirements for instruction in these subject areas vary according to grade level. Schools with organizational patterns of grades 7 and 8 or grades 7 through 9 were classified as junior high schools.

d. High Schools - the total adjusted school enrollment was used in determining the number of librarians and counselors required. Adjusted enrollments by grade were used to determine requirements in grades 7 and 8 in art, music and physical education and in 9th grade physical education. Schools with any organizational pattern that includes grade 12 and begins with grade 7, 8, 9, 10 or 11 were classified as high schools.

3. Special education pupils in self-contained classes are placed in an "ungraded" category in the Department of Education report. In elementary school, they are included in the total adjusted enrollment for each school because grade level enrollments are not used in determining ASIS requirements. To simplify placement in other organizational patterns the following procedures are utilized:

   a. Middle Schools - all pupils are added to one grade because the formula is applied equally to all grades.

   b. Junior High School - half of the pupils are added to the 7th or 8th grade and half are added to the 9th grade, since requirements are calculated differently for the 7th and 8th grade than for the 9th grade.

   c. High School - in 7th-12th grade high schools half of the pupils are added to the 7th grade and half to the 9th grade; in 9th-12th grade high schools all pupils were added to the 9th grade, because the 9th grade enrollment generated the physical education requirements; and in 10th-12th grade schools, all pupils were added to the 10th grade.

4. Special schools and vocational-technical schools operated by a school district - these schools are included for pupil enrollment and total school calculation purposes but not used in the calculation of required ASIS units, since they are not accredited.

Formulas Utilized in Determining Minimum ASIS Requirements

The minimum ASIS requirements for the "standard" accreditation rating for all schools are discussed in Chapter I. The formulas for converting adjusted enrollment figures and numbers of teachers in various organizational patterns to ASIS units and portions of units are listed in the following table.

Table 4

Formulas Used to Determine Minimum ASIS Requirements for Standard Accreditation Rating

Position	Type of School	Base Data Used	Formula	Minimum ASIS Required
Principal	Elementary, Middle, Junior High and Senior High	Number of Teachers	Fewer than 8 8 - 11 12 and above	0.0 0.5 1.0
Librarian	Elementary	School Enrollment	Up to 400 Above 400	0.1 per 80 1.0
	Middle	School Enrollment	Up to 300 Above 300	0.1 per 60 1.0
	Junior High and Senior High	School Enrollment	Up to 250 Above 250	0.1 per 50 1.0
Counselor	Elementary	School Enrollment	Up to 700 Above 700	0.1 per 140 1.0
	Middle	School Enrollment	Up to 600 Above 600	0.1 per 120 1.0
	Junior High and Senior High	School Enrollment	Up to 300 Above 300	0.1 per 60 1.0
Art and Music Teacher	Elementary	-----	----	No Requirement[a]
	Middle and Junior High Grades 5-8	5th through 8th Grade Enrollment	Number of Pupils ÷ 150 x .3[b]	Varies According to Enrollment
	Junior High and High School Grade 9	Number of Courses Required (1 each)	.2 of Unit Allotted Per Course[c]	.4
	High School Grades 10-12	Number of Courses Required (1 each)	.2 of Unit Allotted Per Course[c]	.4
Physical Education & Health Teacher	Elementary	-----	-----	No Requirement
	Middle and Junior High Grades 5-8	Grade Enrollment	Number of Pupils ÷ 150 x .4[d]	Varies According to Enrollment
Physical Education & Health Teacher	Junior High and High School Grade 9	Grade Enrollment	Number of Pupils ÷ 150[e]	Varies According to Enrollment

Table 4
Continued

Position	Type of School	Base Data Used	Formula	Minimum ASIS Required
Industrial Arts Teacher	High School Grades 10-12	Number of Courses Required (2)	.2 of Unit Allotted Per Course[c]	.4

[a]Accreditation standards for elementary schools do not require teachers to be specifically certified in art, music or physical education. Some training in these areas is required for elementary teaching certification, however.

[b]Art and music guidelines listed in Department of Education publications require that pupils receive a minimum of 90 minutes instruction per week in each and "Standards for Accrediting Kentucky Schools" state that a pupil load per teacher should not exceed 150 per day. Ninety minutes is .3 of a full teacher load of 300 minutes per day and 150 pupils is the recommended maximum pupil load.

[c]Accreditation for the "standard" rating requires that one course each in art and music be taught in grade 9 and in grades 10 through 12 and two courses in industrial arts be taught in grades 10 through 12. One course is .2 of a full teaching day of 5 hours. Therefore, minimum requirements would be .2 of a unit for each course.

[d]Physical education and health program guidelines require that pupils receive a minimum of 120 minutes instruction per week in middle and junior high grades and accreditation standards recommend a maximum pupil load of 150 pupils per day. One hundred-twenty minutes is .4 of a full teacher load of 300 minutes per day.

[e]Physical education and health requirements for high school for the "standard" rating require that one course be offered; it is usually taught in the 9th grade. The number of teaching units required is derived by dividing the recommended pupil load of 150 per day into the number of pupils in the 9th grade.

Use of Formulas in Determining Ratios

The formulas in Table 4 were integrated, for the present study, into a computer program designed to generate the minimum ASIS unit requirements for "standard" accreditation rating for each school in each school district. The data under the section Determining the Ratio of Requirements to Allotments above were entered with the formulas to calculate the minimum ASIS units required for each of the 181 school districts. Final ASIS unit allotments for which each district qualified under the Foundation Program for the 1979-80 school year (from the Department of Education publication, "Calculation of Final Allotments of the Public School Foundation Program Fund, 1979-80" [12]) were then entered. A ratio of minimum ASIS units required to the number of ASIS units actually allotted was generated. This ratio was used to indicate how close the Foundation Program comes to providing enough ASIS units for each district to satisfy standard accreditation requirements. For example if a distrit were allotted 20 units and the minimum number required for accreditation were 20 units, the ratio would be 100, indicating that the Foundation

Program is providing sufficient units to that district for the standard accreditation rating; however, if the allotted number of units were 10 and the minimum number required for accreditation were 20, the ratio would be 50, indicating that the Foundation Program is not providing sufficient units to that district (see Appendices II and III).

Determining the Financial Impact of Attaining the Standard Rating

Senate Resolution 77 also called for determining "the effect on small school districts' financial conditions as a result of their efforts to attain a 'standard' accreditation rating." Since preliminary data indicated that most larger school districts were not allotted sufficient ASIS units to satisfy requirements for the rating either, the study plan included an analysis of the financial impact of all school districts.

The basic measure of the financial impact on a district was the difference between the number of ASIS units required for accreditation and the number of ASIS units allotted under the Foundation Program. This difference represented those units which a school district had to staff at local district expense and therefore constituted a drain on their finances.

The relative financial impact on any one district was derived from the following data and calculation:

1. Difference between the number of ASIS units required for accreditation and the number of units allotted by the Foundation Program.

2. Average cost of an ASIS unit for the 1979-80 school year.

3. Total expenditures for current expenses in each district in the 1979-80 school year.

4. The total number of deficit units multiplied by the average cost of a unit and divided by the total expenditures for current expenses yielded a percentage which represented the relative effect on any one district.

Delimitations of the Study

The results of these computer applications for determining the ratio of required to allotted ASIS units and the financial impact on each school district contain slight errors, due to a lack of precise data in some areas. The limitations thus imposed are as follows:

1. The difference between accreditation requirements specified in the language of the "Standards for Accrediting Kentucky Schools" publication and the somewhat flexible interpretation of the standards actually applied by accreditation teams and recommended by the Department of Education, Division of Accreditation and Program Audit staff. The more flexible interpretations were used here because they are the requirements most often used in actual practice. Since flexibility exists, there is no guarantee that the standards will be

applied equally in all situations. Therefore, there is the possibility of error in any calculation of requirements based on a general practice fixed number.

2. The application of the 8% reduction factor to each school and grade level's first month of the year enrollment. This factor was derived from state-wide first month enrollment data and state-wide end of year ADA data and applied to individual school enrollment data. Though this factor probably does reflect an accurate state-wide reduction, its application to individual school data may produce slight errors in unit calculation.

3. The allotment of .2 of a unit per required course offering as a minimum requirement for industrial arts in grades 10 through 12. Accreditation standards permit a high school to omit industrial arts courses if provisions are made at a vocational school for students who elect to take courses in this area. Such courses are taught by vocational teachers who are not funded by ASIS units. Application of the formula in each individual high school increases the number of units required for accreditation in those schools satisfying the requirement through the use of vocational schools and thus decreases that district's ratio. These decreases are very slight and do not effect the overall outcome of the study, but they do represent a small error factor.

4. The distribution of ungraded special education pupils among middle, junior high and high school grades. The only logical method of accurately assigning these pupils to grade levels would be by age, and since this information is not available, they were placed in grades arbitrarily, as outlined in point 3 above, under the section Determining the Ratio... . This method obviously produces slight errors in determining units required.

5. The use of an average unit cost in calculating financial impact. The amount of Foundation Program funds a district receives for any one ASIS unit varies, because some units contain amounts for extended employment, in addition to amounts for salary, current expenses and capital outlay, and salary costs also vary according to the degree and experience of the person staffing the unit. These factors make it impossible to determine the exact amount any one unit would cost. Therefore, an average unit cost figure was used in calculating financial impact. The use of an average cost figure produces some degree of error in the calculation but the direction of the error cannot be predicted. The probability of a large error in any one district is remote and the overall results of the study should not be affected.

The above limitations may cause slight errors in any one district's ratio. However, as pointed out previously, the overall results of the study should not be altered appreciably as a result.

Treatment of Data

The following are the mathematical and statistical treatments applied to the data in order to determine whether the Foundation Program unit allotment formula has been providing school districts sufficient ASIS units to attain the standard rating, to determine the factors which had the greatest influence on the variations in ratios and to determine whether the financial impact of attaining the standard rating is greater for small districts than for larger districts.

1. Ratio determination - the computer program simply applied the formulas listed in Table 4 above to the data preceding it; the resulting calculation represented a derived ratio of requirements to allotments.

2. District enrollment as related to average ratios - district enrollments, grouped by increments, and average ratios for each group were calculated to determine whether ratios increased as enrollments increased. This illustrated the relationship between ratios and district enrollment.

3. School size as related to ratios - districts were grouped according to average school sizes, in increments of 100, and average ratios for each group were calculated to determine whether ratios increased as school size increased. This illustrated the relationship between school size and ratios.

4. Correlation - five independent variables which logically could be associated with the dependent variable, or variable to be explained, were correlated with the dependent variable, the district ratio, to illustrate their relationships separately. The independent variables selected were: (a) district enrollment; (b) average school enrollment; (c) number of schools; (d) number of middle and junior high schools; and (e) percentage of vocational, exceptional and kindergarten units of the total number of units allotted a school district. Correlations were also run to determine the relationships between percentages representing financial impact and district enrollments, average school enrollments, and number of schools.

5. Multiple regression analysis - to determine the efficiency of the independent variables as predictors of the dependent variable, district ratio, the data were processed in a regression analysis.

6. Percentages representing financial impact as related to district enrollment - district enrollments in increments of 1000 and average percentages for each increment were calculated to determine whether percentages increased or decreased as enrollments increased. This illustrates the relationship between percentages and district enrollments.

In addition to the above treatment of the data, groups of districts having common variables were studied in order to determine their similarities and dissimilarities in terms of their variation in ratios. Four groups were studied: (1) districts with small pupil enrollments; (2) districts with average size enrollments; (3) districts with large enrollments; and (4) districts which have ratios of over 100.

In summary, this chapter contains an outline and discussion of the study design, which includes data selection, required standards, procedures for determining ratios of requirements to allotments, procedures for determining fiscal impact, methods of statistical analysis and procedures for interpreting data by inspection. Chapters III and IV present "Data Analysis and Interpretation" and "Conclusions and Recommendations" of the study.

CHAPTER III

DATA ANALYSIS AND INTERPRETATION

The study design outlined in Chapter II called for the development of a ratio of ASIS units required for the "standard" accreditation rating to the number of ASIS units actually allotted under the Foundation Program for each district. This derived ratio, explained in Chapter II, gives an indication of the extent to which the Foundation Program is providing sufficient units for accreditation.

Variables which could be logically associated with variation in the ratio and which could be quantified were selected for analysis. They are school district enrollment, average school enrollment within each district, number of schools in each district, number of middle and junior high schools in each district, and percentage of vocational, exceptional and kindergarten units of the total number of units in a district. These factors were tested for their effect on the ratio through a multiple regression equation and individual correlations. Tables using arithmetic means to illustrate significant correlations and to further clarify these relationships were constructed.

The financial impact on school districts of having to staff additional ASIS units beyond those allotted by the Foundation Program in order to attain the "standard" accreditation rating was also calculated. The local school district's cost for staffing these additional units as a percent of each district's expenditures for current operating expenses was used as the measure of financial impact on a district. Correlations between percents representing financial impact and school district enrollment, average school enrollment and number of schools in a district were run to determine whether relationships exist between these variables. Tables using arithmetic means of percents and district enrollments, average school enrollments and number of schools further clarify these relationships.

Ratio Analysis

Number of Districts in Ratio Ranges

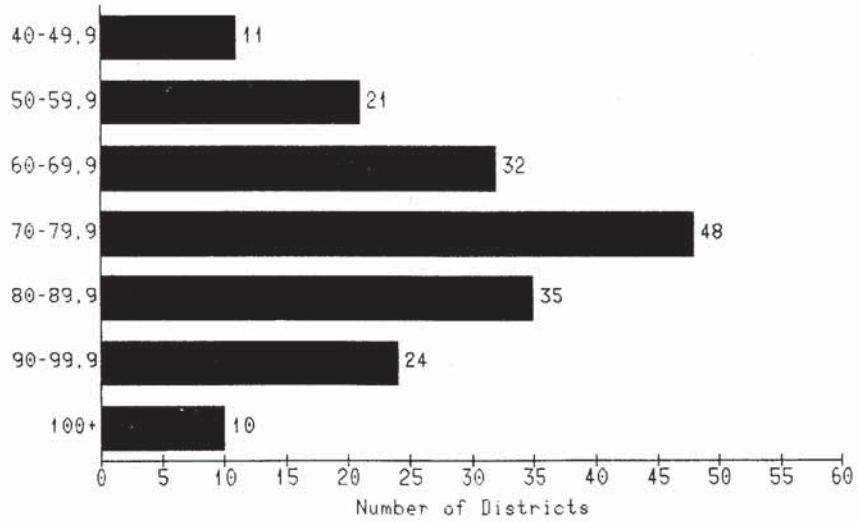
Table 5 and Chart 1 compare the ratio changes in increments of 10 with the number of districts falling within each range and illustrates the extent to which the Foundation Program provides districts sufficient ASIS units to meet "standard" accreditation requirements. The median ratio of required to allotted ASIS units is 75.5. On the average, the program's efficiency rating in this area is, therefore, 75.5%. It is, of course, lower in half the districts and higher in the other half. The data indicates that the program does not efficiently allot ASIS units needed to meet accreditation requirements.

Table 5

Number of Districts in Ratio Ranges

Ratio Range	Number of Districts	Percentage of Districts
40-49.9	11	6.1
50-59.9	21	11.6
60-69.9	32	17.7
70-79.9	48	26.5
80-89.9	35	19.3
90-99.9	24	13.3
100+	10	5.5
Median 75.5	181	100.0

Chart 1
Number of Districts in Ratio Ranges



Multiple Regression Analysis

In order to determine the efficiency of the five independent variables as predictors of the ratio of required to allotted ASIS units, the data were processed in a multiple regression analysis. This analysis measures the percentage of the ratio which each individual independent variable explains. The results of the analysis show that the five independent variables explain 36.8% of the variation in ratio. Individual percentages are as follows: (1) school district enrollment, 3.2%; (2) number of schools, 6.3%; (3) number of middle and junior high schools, 1.0%; (4) average school enrollment within a dis-

trict, 25.5%; and (5) percentage vocational and exceptional units represent of the total number of units allotted a district, .8%. The variable which explains the largest percentage of the variation in ratio, then, is average school enrollment within a district. School district enrollment and number of schools in a district together explain 9.5% of the variation in ratio. These three variables, all very closely related to size, explain much of the variation in ratio. In other words, school districts with smaller average school enrollments, smaller district enrollment and smaller number of schools tend to have lower ratios of required to allotted ASIS units than do larger districts. This circumstance shows that the Foundation Program is presently not as efficient in providing smaller districts with sufficient ASIS units to meet "standard" accreditation requirements as it is larger districts.

Correlations

Another method of illustrating these relationships is by inspecting the individual correlations between the significant independent variables and the dependent variable, ratio. Three of these correlations were significant at less than the .01 level; that is, such correlations would have occurred less than once in 100 trials by chance: (1) average school enrollment, .49; (2) district enrollment, .26; and (3) number of schools in a district, .27. While it is obvious that these three variables are interrelated, and we already know from the multiple regression analysis that average school size is by far the strongest predictor, an examination of these individual relationships helps to clarify further how ratio increases as these variables increase. Table 6 and Chart 2 compares average school sizes in increments of 100 pupils and average ratios for districts falling within each range. It demonstrates that as the average school size in a district increases, the ratio tends to increase.

Table 6

Average School Size and Ratio

Number of Districts	Average School Enrollment Range	Average Ratio
8	100-199	52.1
24	200-299	63.0
60	300-399	74.5
49	400-499	78.5
26	500-599	84.4
9	600-699	83.2
5	700+	88.9
181		

Chart 2
Average School Size and Average Ratio

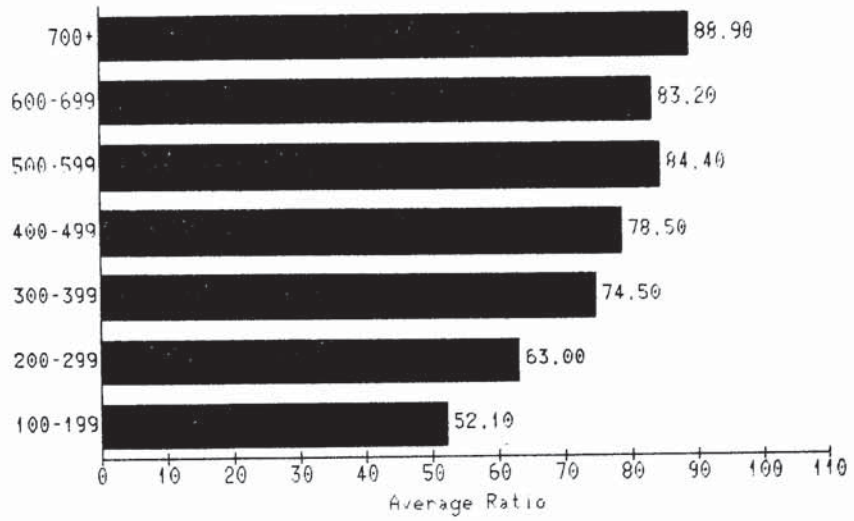


Table 7 and Chart 3 compare total district enrollments in increments of 1000 pupils and average ratios for districts falling within each range. It demonstrates that as total district enrollment increases, the ratio tends to increase.

Table 7

District Enrollment and Ratio

Number of Districts	District Enrollment Range	Average Ratio
38	0- 999	57.0
42	1000-1999	72.3
41	2000-2999	79.1
18	3000-3999	84.7
15	4000-4999	84.6
9	5000-5999	91.9
3	6000-6999	79.2
6	7000-7999	91.5
2	8000-8999	84.1
2	9000-9999	87.1
5	10,000+	89.5
181		

Chart 3
District Enrollment and Average Ratio

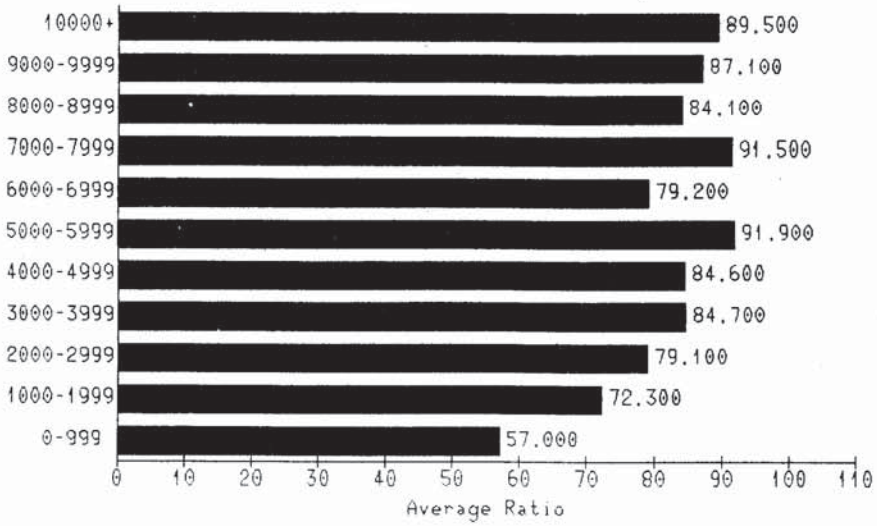


Table 8 and Chart 4 compare ratio ranges in increments of 10 and average number of schools for districts falling within each range. It shows that as the average number of schools in a district increases, the ratio tends to increase.

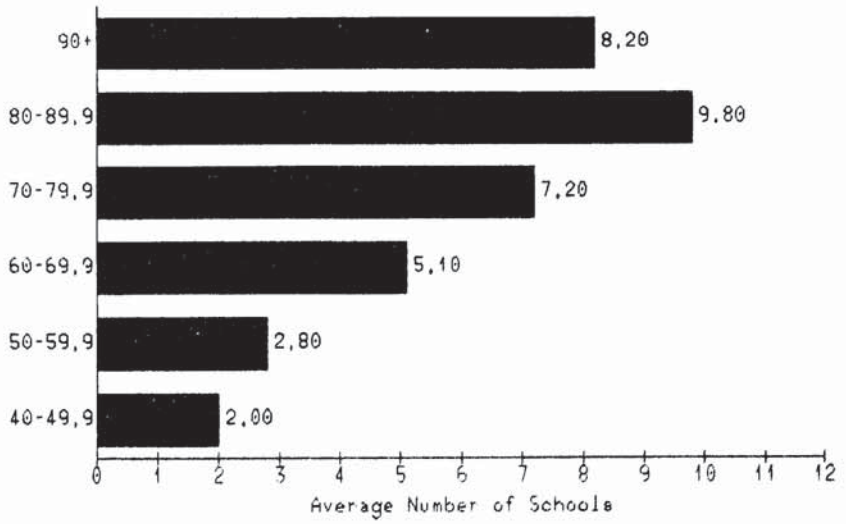
Table 8

Average Number of Schools and Ratio

Number of Districts	Average Number of Schools	Ratio Range
11	2.0	40-49.9
21	2.8	50-59.9
32	5.1	60-69.9
48	7.2	70-79.9
35	9.8	80-89.9
32	8.2*	90+
179		

*Jefferson and Fayette Counties omitted (average increases to 14.2 when included)

Chart 4
Average Number of Schools and Ratio



Tables 7 and 8 show a distinct positive relationship between district enrollment and average number of schools in each district and ratio. However, as has been pointed out previously, average school size or enrollment, Table 6, is the strongest predictor of ratio and has the strongest relationship or correlation to ratio. These three variables are highly interrelated; for example, on the average, a school district would most likely have a large total enrollment if its average school enrollment were large. Similarly, in order for a district to have a large number of schools, its enrollment and average school size are likely high.

Even though there is a high degree of interrelation, the tables show that districts with smaller enrollments, smaller average school enrollments and smaller number of schools tend to have smaller ratios and larger districts tend to have larger ratios. The tables illustrate further the conclusions reached in the multiple regression analysis: the Foundation Program is not as efficient in providing smaller school districts with ASIS units required to meet "standard" accreditation requirements as it is for larger districts.

Variables related to district size, average school enrollment, district enrollment and number of schools in a district explain just over one-third of ratio variation. Other factors or variables may cause ratios to vary in any one district but do not necessarily affect variation in ratio on a state-wide basis. The in-depth analysis of groups of districts having common characteristics which follows later in this chapter provides additional insight into other causes of ratio variation.

Financial Impact Analysis

Correlations

Following the procedures outlined in Chapter II, a percentage representing financial impact as a result of meeting accreditation standards was

calculated for each district. This percentage represented the amount of local district general funds a district had to expend in order to staff additional units beyond those allotted by the Foundation Program to attain the "standard" accreditation rating. In order to determine how the percentages were related to average school enrollment, district enrollment and number of schools in a district, correlations between the variables were run. The results of these correlations were as follows: (1) percentage and average school enrollment, -.51; (2) percentage and district enrollment, -.26; and (3) percentage and number of schools in a district, -.26. These negative correlations showed that as enrollments and numbers of schools tended to increase, percentages tended to decrease, indicating that the financial impact on school districts of complying with accreditation requirements tended to be greater for smaller districts than for larger districts. The following tables help to clarify these relationships.

Table 9 and Chart 5 compare average school enrollments in increments of 100 with average percentages of those districts falling within each range and illustrates that as school enrollments increase, percentages tend to decrease.

Table 9

Average School Enrollment and Financial Impact Percentage

Number of Districts	Average School Enrollment	Average Percentage
8	100-199	6.7
24	200-299	4.8
60	300-399	2.8
49	400-499	2.3
26	500-599	1.7
9	600-699	1.6
5	700+	1.2
181		

Chart 5
Average School Enrollment and Financial Impact Percentage

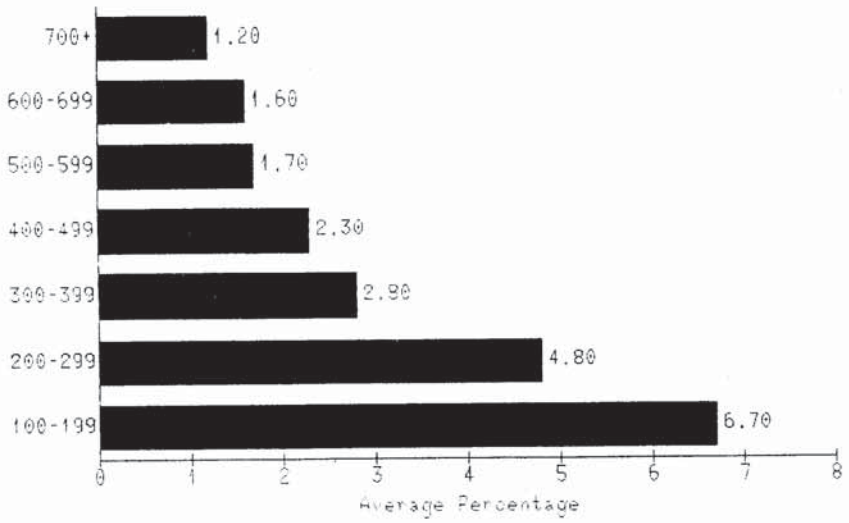


Table 10 and Chart 6 compare district enrollment in increments of 1000 with average percentages of those districts falling within each range and illustrates that as enrollment increases, percentages tend to decrease.

Table 10

District Enrollment and Financial Impact Percentage

Number of Districts	District Enrollment Range	Average Percentage
38	0- 999	5.7
42	1000-1999	3.0
41	2000-2999	2.1
18	3000-3999	1.6
15	4000-4999	1.6
9	5000-5999	.9
3	6000-6999	2.1
6	7000-7999	.8
2	8000-8999	1.5
2	9000-9999	1.1
5	10,000+	.9

Chart 6
District Enrollment and Financial Impact Percentage

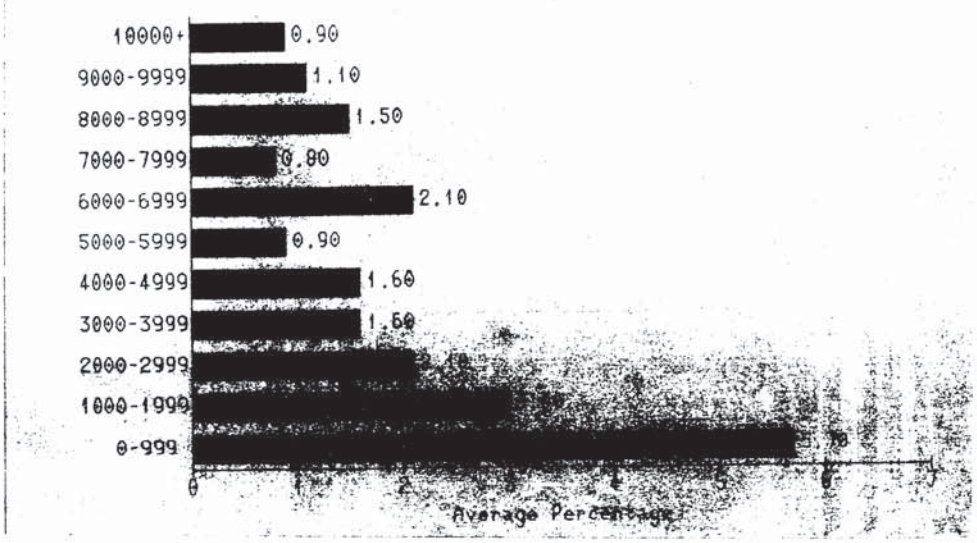


Table 11 and Chart 7 compare percentage ranges in increments and the average number of schools of districts falling within each range and illustrates that as percentage ranges increase, the average number of schools tends to decrease.

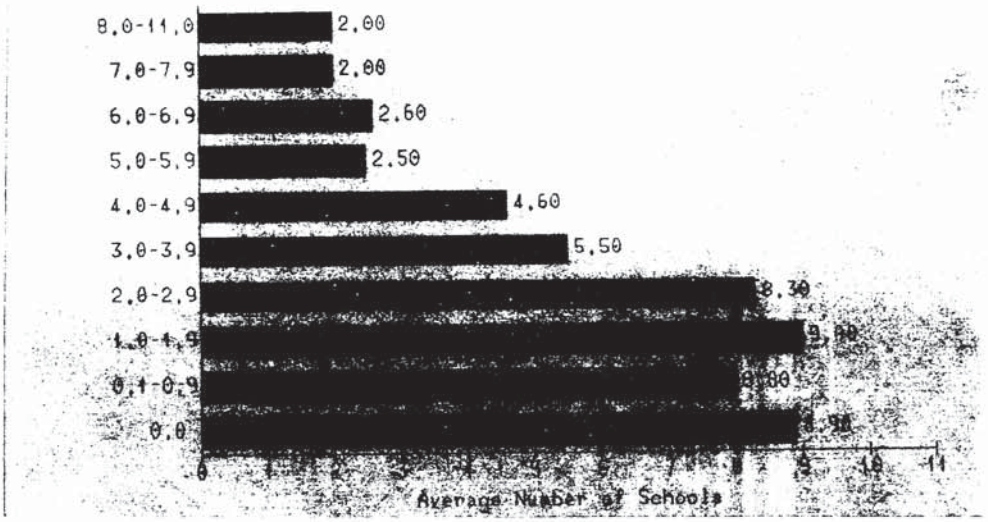
Table 11

Number of Schools and Financial Impact Percentage

Number of Districts	Percentage Range	Number of Schools
10	0.0	8.9
27*	0.1-0.9	8.0*
33	1.0-1.9	9.0
34	2.0-2.9	8.3
34	3.0-3.9	5.5
11	4.0-4.9	4.6
13	5.0-5.9	2.5
8	6.0-6.9	2.6
4	7.0-7.9	2.0
5	8.0-11.0	2.0
179		

*Jefferson and Fayette Counties omitted (average increases to 15.0 when included)

Chart 7
Number of Schools and Financial Impact Percentage



Tables 9, 10, and 11 clarify the correlation data and show graphically the relationships between district enrollments, average school enrollments and numbers of schools and percentages. The relationships are not perfect; that is, percentages in every district do not increase as enrollment and number of schools data decrease, but the tables and correlations do signify a strong tendency for this to occur, strong enough to demonstrate that the effect on small school districts' financial condition is more pronounced than on larger districts.

In summary, the multiple regression analysis and independent variable correlations related to ratio of required to allotted ASIS units and the percentages representing financial impact show that districts with smaller enrollments, average school enrollments and numbers of schools tend to have lower ratios and higher percentages than do larger districts. These data indicate that the Foundation Program tends to be less efficient in allotting ASIS units to smaller districts than to larger districts and that the financial impact of meeting accreditation requirements is greater for smaller districts than for larger districts.

An in-depth analysis of groups of districts to determine how the independent variables and other variables specifically affect individual districts' ratio of required to allotted ASIS units follows. The groups analyzed are the ten smallest districts, ten average size districts, the ten largest districts and the ten districts whose allotted number of ASIS units is sufficient to meet "standard" accreditation requirements.

Smallest Districts

The ten districts with the smallest enrollments were analyzed. Table 12 shows a summary of the data which were generated for those districts.

Table 12

Summary Data for Smallest Districts

District Number	Ratio	Adjusted District Enrollment	Number of Schools	Middle & Junior High Schools	Average School Enrollment
537	77.8	150	1	0	150
586	100.0	210	1	0	210
356	48.6	259	2	0	129
6	42.4	277	2	1	138
524	75.0	278	1	0	278
149	94.1	301	1	0	301
13	43.2	328	2	0	164
132	57.9	355	2	0	177
272	40.0	357	2	0	178
533	52.2	367	2	0	183
Group Average	63.1	288	1.6		191

Within the group the ratio ranged from 40-100, with an average ratio of 63.1. The one district with a ratio of 100 had only one school, with a K-8 grade organizational pattern and only eleven teachers. Therefore that district's ASIS requirements were five-tenths principal, three-tenths librarian, and two-tenths counselor. These requirements totaled the one ASIS unit which was allotted to that district. When that exceptional district was removed from the group, the average ratio of the other nine districts was 59. The other three K-8 districts in the group did not generate enough ASIS units to meet the requirements either because (1) the enrollment was smaller than that of the exceptional district and they did not generate the same amount of units, or (2) the enrollment was larger, requiring more teachers, which in turn increased the unit requirement for principal to one full-time.

The districts in the group had either one or two schools. The four districts with one school had a K-8 organizational pattern. Their ratio range was 75-100, with an average of 86.7. With a K-8 organizational pattern those districts were required to have principals, librarians, and counselors but were not required to use ASIS units for any of the instructional areas, such as art, music, and physical education.

With one exception, the districts did not have middle and junior high schools. The one which had a 7-9 junior high school did not have a 10-12 program. In that district the junior high school did not increase the requirements any more than a secondary school would have.

The average school population for the districts ranged from 129 to 301, with an average for the group of 191. There were no schools with less than eight teachers or in the special category which did not require accreditation. There were thus no schools in which the pupils generated ASIS units which were not required to be used in that school, and consequently allowing that they be used to help lessen the burden of the heavier requirements in other schools.

A review of the accreditation ratings of the schools in the group, as reported in the Department of Education report, "School Membership and Organization, 1979-80, Public Schools," revealed that 75 percent of the schools had standard ratings, six percent had basic ratings, and 19 percent had provisional ratings. There were no schools which had a comprehensive rating.

The districts in the group were allotted 61 percent of the ASIS units required for minimum accreditation standards but staffed three percent more than the minimum requirement. This group had the smallest enrollment and the smallest average size schools. It had no schools exempt from accreditation requirements. It therefore had the lowest average ratio.

Average Size Districts

Eighty-three of the 181 districts had enrollments in the 1000 to 2999 range. The ten districts in the middle of that enrollment group were selected and analyzed. Their enrollments ranged from 1930 to 2095, with an average enrollment of 1998. Table 13 shows the summary data generated for those districts.

Table 13

Summary Data for Average Size Districts

District Number	Ratio	Adjusted District Enrollment	Number of Schools	Middle & Junior High Schools	Average School Enrollment
575	81.2	1930	6	1	321
555	78.2	1935	3	1	645
446	71.1	1943	3	1	647
421	93.5	1952	2	0	976
405	86.1	1971	5	0	394
152	65.8	2022	5	1	404
536	72.0	2028	6	1	338
75	89.3	2029	6	0	338
143	72.2	2079	5	1	415
551	90.4	2095	7	0	299
Group Average	80.0	1998	4.8	.6	478

Within the group the ratio ranged from 65.8 to 90.4, with an average ratio of 80. The number of schools in the districts ranged from two to seven, an average of 4.8 schools per district.

Six of the ten districts had one middle or junior high school, which comprised 12.5 percent of the total schools in the district. Though the existence of middle and junior high schools did not have a strong correlation with the independent variable when the statistical analysis was done, their existence did appear to have a significant relationship in individual districts. To determine the importance of that variable in this group, the ASIS requirements were calculated on the assumption that the middle or junior high schools did not exist in those districts. For purposes of the calculation, the pupils in grades five through eight were added to an elementary school and the pupils in the ninth grade were added to a high school. Table 14 shows the requirements and ratio without middle and junior high schools. All other data were unchanged.

Table 14

Comparison of Average Size Districts
With and Without Middle and Junior High Schools

District Number	Middle & Jr. High Schools	ASIS Allotted	WITH MIDDLE & JR. HIGH SCHOOLS		WITHOUT MIDDLE & JR. HIGH SCHOOLS	
			Requirements	Ratio	Requirements	Ratio
575	1	10.8	13.3	81.2	11.1	97.3
555	1	11.1	14.2	78.2	8.4	132.1
446	1	9.1	12.8	71.1	7.4	123.0
421	0	10.1	10.8	93.5	10.8	93.5
405	0	10.5	12.2	86.1	12.2	86.1
152	1	10.4	15.8	65.8	11.2	92.9
536	1	10.8	15.0	72.0	11.6	93.1
75	0	10.8	12.1	89.3	12.1	89.3
143	1	11.7	16.2	72.2	11.4	102.6
551	0	11.3	12.5	90.4	12.5	90.4
			134.9	80.0 (Avg.)	108.7	100.0 (Avg.)

This calculation increased the ratio range of the group from 65.8 - 90.4 to 86.1 - 132.1 and increased the average ratio from 80 to 100. By not having

middle and junior high school accreditation requirements the total ASIS requirements for the group decreased from 134.9 to 108.7, a total of 26.2.

The average school size for the districts in the group ranged from 299 to 976, with an average size of 478. Twelve percent of the schools did not require accreditation because they either had less than eight teachers, or were special schools. Those schools had a total enrollment of 492, which generated approximately two ASIS units, units which did not have to be used to meet accreditation standards. The ASIS units generated by the students in the special schools are slight but they do make a difference when students are not used in the calculation of the requirements. For example, two districts in this group were very similar in enrollment and types of schools, except that one had a special school, generated four-tenths more of an ASIS unit because of the special school, had eight-tenths less of an ASIS unit requirement, and had a higher ratio. The following table compares the two districts.

Table 15

Effect of Special Schools on Ratio

	District 152	District 536
Enrollment	2022	2038
Elementary schools	3	3
Junior high schools	1	1
High schools	1	1
Special schools	-	1*
ASIS allotted	10.4	10.8
ASIS required	15.8**	15
Ratio	65.8	72

*117 pupils enrolled.
**Required .2 librarian, .5 counselor, and .1 physical education more, because pupils were in schools requiring accreditation.

Accreditation ratings for the average size group were higher than for the group of small districts. Twenty-one percent had a comprehensive rating, 63 percent had a standard rating, 4 percent had a basic rating and 12 percent did not require accreditation.

The districts in the group were allotted 79 percent of the ASIS units required for minimum accreditation standards but staffed 50 percent more than the minimum requirements.

Largest Districts

Finally, the ten districts with the largest enrollments were analyzed. In a separate calculation the three largest districts were eliminated, since they were substantially larger than the other seven districts. Both sets of information are discussed, though removing the three districts did not create a significant difference in the average ratio of the two groups. Table 16 shows the summary data used for the ten largest districts.

Table 16

Summary Data for Largest Districts

District Number	Ratio	Adjusted District Enrollment	Number of Schools	Middle & Junior High Schools	Average School Enrollment
265	80.1	7,970	19	1	419
145	86.8	8,305	18	2	461
175	81.3	8,919	25	0	356
115	88.8	9,425	18	3	523
231	85.3	9,715	18	3	539
291	94.3	10,189	19	3	536
71	85.2	10,580	15	4	705
491	77.9	15,146	34	3	445
165	93.9	29,325	47	10	623
275	96.2	95,211	173	21	550
Group Avg.	87.0	20,479	38.6	5	516

The enrollments in the group ranged from 7,970 to 95,211, the average enrollment being 20,479. In the group of seven remaining, once the three largest districts were removed, the enrollment range was 7,970 to 9,715, an average of 9,300. Within the total group of ten the ratio ranged from 77.9 to 96.2, averaging 87. The average decreased one point when the three large districts were removed.

The number of schools ranged from 15 to 173, with an average of 38.6; without the three largest districts the range was 15 to 25, an average of nineteen schools.

Fifty of the schools (thirteen percent) were middle and junior high schools. The ASIS requirements were not recalculated, as they were for the average-size district group, but it is assumed that the same changes in ratio would take place, again showing that the middle and junior high schools require a large number of ASIS units and will reduce a district's ratio.

The average school population for the ten districts in the group was 516, ranging from 356 to 705. Twelve percent of the schools in the group did not require accreditation. Accreditation ratings were slightly higher than those of the previous group. Twenty-nine percent had a comprehensive rating, 57 percent had a standard rating, one percent had a basic rating, one percent had a provisional rating, and 12 percent did not require accreditation.

The districts in the group were allotted 91.7 percent of the ASIS units required for minimum accreditation standards but staffed 69 percent more than the minimum requirement.

Districts Generating Enough Units to Meet Accreditation Requirements

Ninety-four and one-half percent of all the districts examined did not generate enough ASIS units to meet the minimum accreditation requirements. In an effort to determine why 5.5 percent, or ten districts, did have a ratio of 100 or above, those districts were analyzed individually and as a group. Table 17 show the summary data for those districts.

Table 17

Districts with 100+ Ratio

District Number	Ratio	District Enrollment	Number of Schools	Middle & Jr. High Schools	Average School Enrollment
586	100.0	210	1	0	210
221	101.9	4382	12	0	365
311	102.5	7187	14	1	513
452	102.7	3443	8	1	430
571	103.4	7053	12	0	587
511	106.5	3005	6	0	500
125	109.0	5043	10	0	504
65	110.1	2501	7	0	357
285	110.2	4160	7	0	594
134	114.1	5943	12	0	495
Group Avg.	106.0	4293	8.8	.2	456

Within the group the ratio ranged from 100 to 114.1, an average of 106. The enrollment ranged from 210 to 7187, averaging 4293. Ninety-three percent of all the school districts are in that range, with only one district smaller and twelve districts larger. There is at least one district in six different enrollment groups, as displayed in Table 7, indicating that these districts are unusual in their enrollment groups. There is not an increase in ratio with the increase of enrollment in this group, as is the overall tendency.

The number of schools ranged from one to fourteen, with an average of 8.8, and the average school size was 456. Of the eighty-nine schools in the group, only 2.2 percent were middle or junior high schools. With two excep-

tions, the districts in the group were organized on an elementary-secondary pattern (K-8th grade, 9th-12th grade), so that there were no ASIS requirements for the seventh and eighth grades. One district did not have a secondary school, one had two secondary schools, and the other eight districts had only one senior high school. Excluding the one district without a senior high school, the average number of high schools per district in the group is 1.1; the average enrollment is 1267. The average number of high schools per district state-wide is 1.3, with an average enrollment of 681, when the five districts without high schools and Jefferson County, with twenty-five high schools and an average enrollment of 1370, are excluded.

Nine percent of the schools in the group did not require accreditation, thus giving the group the kind of slight advantage discussed previously.

In comparing the ten districts with the other 171 districts it is evident that they were able to generate enough ASIS units to meet minimum accreditation requirements because, in addition to being in the higher than average range on each of the variables discussed in earlier sections, other contributing variables generated slight increases in the ratios. Those variables were the elementary-secondary organizational pattern, the larger than average size high schools, a low percentage of middle and junior high schools, and a higher than average percent of schools which did not require accreditation.

The ten districts with a ratio of 100 or higher were each unusual in their size group. The data as discussed in this chapter shows that the Foundation Program is not efficiently providing ASIS units at the level needed to meet minimum accreditation requirements and only did so for these districts because they are anomalies, and the variables for each of these districts meshed in an atypical manner.

CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The present study necessitated a thorough review of the Department of Education's accreditation requirements, both past and present. It also required a comprehensive analysis of each school district's ASIS unit allotment for the 1979-80 school year, how each district stood in terms of meeting accreditation standards, and its school organizational structure. The analysis of each enrollment and organizational structure variable which contributed to the variation in the district's ability to generate enough ASIS units to meet accreditation standards is discussed above. The conclusions from these analyses are discussed in this chapter.

The accreditation requirements which were in effect at the time the Foundation Program Law was passed by the General Assembly were reviewed, as were the law and its amendments. Those reviews disclosed the following:

1. When the Foundation Program Law was passed in 1954, elementary, middle and junior high schools were not accredited and therefore not required to use ASIS units to meet accreditation standards. In 1959 accreditation standards were applied to all levels of schools, except those with less than eight teachers. The present accreditation standards, therefore, substantially increase the number of ASIS units needed over the number allotted by the Foundation Program formula, which has not kept pace with the Board's accreditation standards.

2. In the 1949-55 standards, the only two ASIS positions secondary schools were required to fill were principals and librarians, and those were on a much lower staff/time or staff/pupil ratio than they are at the present time. Secondary schools are now required to staff full-time principals, a higher proportion of librarians, plus counselors, physical education, art, music and industrial arts teachers.

3. The 1949-55 accreditation publication included suggested course offerings, most of which are the same as the courses required at the present time. There was not a minimum number of course offerings required, such as the thirty-seven presently required for a school with ninth through twelfth grades.

4. In a school district of one elementary, one junior high and one secondary school, a minimum of sixteen more ASIS personnel positions would be required to meet standard accreditation ratio requirements at the present time than would have been required in 1954.

5. The formula for allotting ASIS units in the Foundation Program Law was on a 8:1 ratio and has not been changed to keep up with the increased accreditation requirement over the years.

6. The number of types of positions staffed by ASIS units has doubled since the passage of the Foundation Program Law. The unit for school district superintendent is the only unit which has been removed from

the ASIS formula.

7. The Foundation Program Law included a special formula for allotting classroom units for isolated schools, in the event that they would not have the average daily attendance required to generate enough units to support themselves. However, there has never been a similar provision for small school districts based on enrollment. Nor do the accreditation standards have separate requirements for small school districts. A high school with three hundred pupils is required to have thirty-seven different courses, the same as a high school with one thousand pupils.

8. The accreditation standards implemented for the 1959-60 school year included requirements for the accreditation of elementary schools, except for those which had less than eight teachers. It was the belief of the committee that developed the standards that it would be an enormous task for school districts to prepare their elementary schools for accreditation and that considering schools of less than eight teachers at that time would be too difficult. Schools with less than eight teachers (six percent of the schools in the state) are still not required to meet accreditation standards. Nor are special schools and vocational schools.

9. The 1949-55 "Standards" did not have specific requirements for middle and junior high schools. After the passage of the Foundation Program junior high school requirements were included. The recent trend in school organization is reflected by the present standards document, which has a separate section on middle schools but none on junior high schools. The section includes a statement that middle schools with two grades should be expanded to include another grade as soon as possible and that the preferred middle school includes grades 6-8. The tenor of the document strongly encourages districts to move toward an organizational structure which includes middle schools.

The individual analysis of districts, Chapter III, shows that a district with middle and junior high schools is required to use more ASIS units to meet minimum accreditation standards than districts which do not have them. It is also true that placing fifth and sixth grades in middle schools is more expensive to a district than the elementary (K-6) - junior high (7-9) organization, because the fifth and sixth grade enrollment in the middle school would require additional ASIS units.

It was necessary, for the present study to review accreditation requirements, to determine which personnel positions funded by ASIS units were required, so a formula could be developed to measure the financial burden on local school districts. During the review it quickly became apparent that there are several areas in the accreditation standards which warrant changes:

1. The accreditation standards document has passages of vague and often contradictory language, which cause great confusion for the reader who must follow the document as a guide to meeting accreditation standards. The separate sections on elementary, middle, and secondary school accreditation each appear to be separate documents and often include statements in one which should be in all three. For example, the elementary school section includes a statement that "Programs for exceptional children, including the gifted and talented, shall be provided".[13] No such statement is included in

the middle and secondary school sections. It could therefore be assumed that middle and secondary schools may become accredited without having programs for exceptional children.

2. According to the document, most of the standards are permissive. However, our conversations with Department of Education personnel revealed that even though the standards are written as permissive and adopted as Kentucky Administrative Regulations, they are applied stringently. The reverse is also true, in that requirements may be waived if an alternative exists. The standards do not delineate the requirements which may be altered.

3. The document does not include all of the requirements for accreditation, but is supplemented by other Department of Education publications, such as specific program guidelines.

4. Administrative regulation 704 KAR 10:022 incorporates the document by reference and therefore the regulation consists of two brief summary paragraphs. Administrative review procedure is the same whether the regulations are submitted in detail or are incorporated by reference material, but it is possible that regulations are not scrutinized as carefully by the public, or by other reviewers, when they are incorporated by reference material. It is also evident that they are not developed with the same precision as they would be if they were done in the standard regulation form. The lack of specific language leaves room for wide interpretation when the standards are applied at the local school level.

The statistical analysis of data involving ratio of required to allotted ASIS units and percentages representing financial impact on districts and enrollment and school organizational factors (Chapter 3) provide support for the following conclusions:

1. The Foundation Program provides school districts, on the average, 75.5 percent of the number of ASIS units needed to meet "standard" accreditation requirements. One-half of the districts receive from 40 to 75.5 percent support and one-half receive from 75.5 to 100+ percent support. The program, then, is only partially effective in providing the required number of ASIS units.

2. The best predictor of a district's ratio of required to allotted ASIS units was average school enrollment.

3. The ratio of required to allotted ASIS units tends to be lower in districts with smaller average school enrollments, district enrollments, and numbers of schools than in districts with larger enrollments and numbers of schools.

4. The financial impact on school districts of staffing additional ASIS units required to meet "standard" accreditation requirements tends to be greater for districts with smaller average school enrollments, district enrollments, and numbers of schools than for districts with larger enrollments and numbers of schools.

5. The Foundation Program tends to be less efficient in providing smaller districts with sufficient ASIS units to meet "standard" accreditation requirements than it is for larger districts.

6. The State Board of Education has established the "standard" accreditation rating as the minimum requirement for secondary school programs and has indicated its intention to require elementary schools to meet the same requirements in the near future. The results of the study show that the Foundation Program does not provide most school districts, especially those with smaller enrollments, with sufficient ASIS units to meet "standard" requirements. This situation raises questions as to the intent of Section 183 of Kentucky's Constitution, the legislative intent of the Foundation Program statutes and the State Board of Education's mandate in KRS 156.160 to establish accreditation requirements for all schools.

   Section 183 of the Constitution says that "the General Assembly shall, by appropriate legislation, provide for an efficient system of common schools throughout the state." The legislative intent of the Foundation Program is "to assure substantially equal public school educational opportunities...for those in attendance in the public schools of the Commonwealth, but not to limit nor to prevent any school district from providing educational services and facilities beyond those assured by the Foundation Program.... KRS 157.310 to 157.440 and subsection (2) of KRS 157.990, shall be interpreted as a measure to provide for an efficient system of public schools throughout the Commonwealth, as prescribed by Section 183 of the Constitution of Kentucky..." (KRS 157.315). KRS 156.160 requires that "the State Board of Education shall adopt rules and regulations relating to ...grading, classifying and accrediting all common schools ...".

   It is assumed that the current minimum accreditation standards of the State Board of Education reflect, to some degree, the board's interpretation of an "efficient system of public schools." It is further assumed that the Foundation Program is the means by which the legislature intends "to assure substantial equal public school educational opportunities" for Kentucky's children and youth. This study indicates, however, that these approaches discriminate to a considerable extent against small school districts and to a lesser extent against other school districts.

   This observation raises some questions for consideration.

a. Was it the intent of the legislature in enacting the original Foundation Program statutes to provide a funding allocation system which would discriminate against some school districts?

b. Is the legislature aware that over a period of time the State Board of Education has established minimum accreditation standards which exceed the capability of the Foundation Program to provide districts with the units necessary to meet those standards?

c. Should the State Board be required to take into consideration the fiscal impact of accreditation standards before they are adopted?

d. Should the Foundation Program statutes be amended to require, within reasonable limits based on selected criteria, that State Board of Education minimum accreditation requirements not exceed those units allotted through the program?

Recommendations

Recommendations based on statistical analysis of data related to ratio of required to allotted ASIS units and percentages representing financial impact follow:

1. The formula for allotting ASIS units should be adjusted so that sufficient units would be provided districts to enable them to more nearly meet minimum accreditation requirements. Even though average school enrollment explains a large part of the variation in ratio, changes in the allotment formula should consider total district enrollment, since a district with a relatively small total enrollment may have no choice but to operate relatively small schools, while a district with a larger total enrollment would have much more capability of increasing individual school enrollments. Several possible alterations in the formula follow; they assume that the ASIS units presently required for accreditation are necessary to a quality program:

    a. Districts could be grouped according to the total number of instructional units used to determine the number of ASIS units allotted, and each group could use a different divisor to arrive at the number of ASIS units allotted, with smaller districts having a smaller divisor and larger districts a larger divisor. Smaller districts would receive a proportionately larger number of units.

    b. ASIS units which directly involve classroom instruction could be removed from the ASIS category and transferred to the basic category and appropriate adjustments made in ADA requirements for basic unit allotment and in the formula for allotting those units remaining in the category. ADA requirements for generating basic units and total unit requirements for generating ASIS units would need to be lower in smaller districts than in larger districts.

    c. Districts could be categorized according to the total number of instructional units used to determine ASIS units and each category could be allotted a fixed minimum number of ASIS units which the district would receive, with smaller districts receiving a proportionately larger fixed number of units than larger districts.

    d. ASIS units which are directly involved in classroom instruction could be removed from the ASIS category and allotted as special instructional units using a separate formula calculation; the formula for allotting the units remaining in the ASIS category would have to be adjusted accordingly. Both formulas would allot smaller districts a proportionately larger number of each type of unit than larger districts.

2. Less stringent accreditation requirements could be developed for smaller school districts. This approach would assume that a quality program could be maintained which had fewer requirements for ASIS units. For example, the course offering requirements could be reduced for junior high and high schools, or the requirements for principals, librarians, or counselors could be reduced in smaller schools.

Recommendations based on overall analysis of the accreditation standards are as follows:

1. Standards should be rewritten so that the number of ASIS units required for accreditation is very explicit for all positions of required staffing.

2. The standards document should be rewritten in a format which is easier to use as a resource document, is less repetitious, and is inclusive of all material which affects the accreditation process.

3. Requirements, and exceptions to requirements in the revised document should be precise and specific.

4. The specific accreditation requirements should be put into the usual regulation form for review, approval and filing, rather than incorporating the contents of the document by reference.

5. If the State Board of Education continues to establish minimum accreditation requirements related to ASIS units, and the Foundation Program is supposed to allot units for a minimum educational program, the number of ASIS units allotted should more closely correspond to the number of units required by the standards.

6. Accreditation standards should be established for schools for which no standards now exist (special schools, schools with less than eight teachers and vocational schools).

FOOTNOTES

1. Standards for Accrediting Kentucky Schools, Kentucky Department of Education, Frankfort, Kentucky, 1980.

2. Accrediting Standards for Kentucky Elementary and Secondary Schools, Kentucky Department of Education, Frankfort, Kentucky, 1959.

3. The Twelve Grade Program of Studies and Standards for Accrediting High Schools, Kentucky Department of Education, Vol. 21, No. 1 (1953-54).

4. Department of Education, "Standards," 1980.

5. Kern Alexander and K. Forbis Jordan, Editors, Financing the Public Schools of Kentucky, National Educational Finance Project and the Kentucky Department of Education, Frankfort, Kentucky, 1973.

6. Governor's Task Force on Education, Steering Committee, "Recommendations as Prioritized," (Frankfort, Ky., 1977) pp. 1-2.

7. Governor's Conference on Education, Subcommittee Reports and Recommendations, (Frankfort, Ky., 1977) pp. 1-4.

8. Department of Education, "Standards," 1980.

9. Interview with Armand Biscontini, Director, and Robert Elder, Unit Director, Division of Accreditation and Program Audit, Kentucky Department of Education, 11 June 1980.

10. Department of Education, "Standards," 1980.

11. School Membership and Organization - 1979-80 Public Schools, (Computer generated report, SKO 40R, Kentucky Department of Education), 1980.

12. Calculation for Final Allotments of the Public School Foundation Program Fund 1979-80, Kentucky Department of Education, Vol. XXIV, No. 2, (1980).

13. Department of Education, "Standards," 1980, p. 2.

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Division of Program Development. Approved Guidelines for Music Education. Department of Education, Frankfort.

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APPENDICES

I. Senate Resolution No. 77

II. Example of Computer Print-Out Showing Minimum ASIS Units Needed to Acquire Standard Accreditation Rating

III. Computer Print-Out Showing Ratio of Allotted to Required ASIS Units for 181 School Districts

IV. Computer Print-Out Showing What Percentage the Cost of Additional ASIS Units Required for Accreditation is of the Total "Current Expenses" Expenditures

IN SENATE

REGULAR SESSION 1980

Senate Resolution No. 77

April 1, 1980

Senator Clyde Middleton introduced the following resolution which was ordered to be printed.

A RESOLUTION directing the Legislative Research Commission to conduct a study of state Foundation Program support of small school district educational programs.

WHEREAS, the Foundation Program provides funds for school district programs and staff without regard to school district size; and

WHEREAS, in many small school districts the Foundation Program formula does not provide enough units for programs and staff required to attain a standard accreditation rating; and

WHEREAS, the standard accreditation rating indicates a level of program offerings which is considered to provide pupils broad, well-rounded educational opportunities; and

WHEREAS, small districts are often placed in severe financial difficulty as a result of using local funds to staff positions required by a standard rating; and

WHEREAS, it should be the responsibility of the state to provide sufficient funds for units required by a standard accreditation rating;

NOW, THEREFORE,

Be it resolved by the Senate of the General Assembly of the Commonwealth of Kentucky:

Section 1. That the Legislative Research Commission through the Interim Joint Committee on Education is directed to study the Foundation Program unit allocation system with relation to its application in small school districts and the effect on small school districts' financial conditions as a result of their efforts to attain a standard accreditation rating.

MINIMUM ASIS UNITS NEEDED TO ACQUIRE STANDARD ACCREDITATION RATING

<<< DISTRICT 452 >>>

SCH	TYPE	TCHRS	ENROL	5TH	6TH	7TH	8TH	9TH	10TH	11TH	12TH
10	1	35.2	481								
20	1	57.2	929								
40	1	19	326								
67	1	11.1	195								
68	4	3	36			0	0	7	18	8	3
70	4	63.5	930			0	0	390	248	169	123
80	2	38.7	535	0	0	308	227				
100	5	8	11								
TOTAL		235.7	3443	0	0	308	227	397	266	177	126

DIST	SCH	TYPE	PRIN	LIBR	CSLR	ART	MUS	PE	IA	TOTAL
452	10	1	1.0	1.0	0.4	0.0	0.0	0.0	0.0	2.4
452	20	1	1.0	1.0	1.0	0.0	0.0	0.0	0.0	3.0
452	40	1	1.0	0.5	0.3	0.0	0.0	0.0	0.0	1.8
452	67	1	0.5	0.3	0.2	0.0	0.0	0.0	0.0	1.0
452	68	4	0.0	0.1	0.1	0.4	0.4	0.0	0.4	1.4
452	70	4	1.0	1.0	1.0	0.4	0.4	2.6	0.4	6.8
452	80	2	1.0	1.0	0.5	1.1	1.1	1.4	0.0	6.1
452	100	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DISTRICT TOTALS			5.5	4.9	3.5	1.9	1.9	4.0	0.8	22.5

ASIS ALLOTTED 23.1
ASIS REQUIRED 22.5

<<< DISTRICT 455 >>>

SCH	TYPE	TCHRS	ENROL	5TH	6TH	7TH	8TH	9TH	10TH	11TH	12TH
20	1	49	846								
30	4	23	377			0	0	141	83	65	88
TOTAL		72	1240	0	17	0	0	141	83	65	88

DIST	SCH	TYPE	PRIN	LIBR	CSLR	ART	MUS	PE	IA	TOTAL
455	20	1	1.0	1.0	1.0	0.0	0.0	0.0	0.0	3.0
455	30	4	1.0	1.0	1.0	0.4	0.4	0.9	0.4	5.1
DISTRICT TOTALS			2.0	2.0	2.0	0.4	0.4	0.9	0.4	8.1

ASIS ALLOTTED 6.6
ASIS REQUIRED 8.1

THIS DISTRICT IS 1.5 UNITS SHORT!!!

RATIO OF ALLOTTED TO REQUIRED ASIS UNITS

DISTRICT	RATIO	ENROL'T	TOT SCH	MID+JR	AV SIZE
1	68.6	2,728	7	1	389
5	72.6	2,357	6	1	392
6	42.4	277	2	1	138
11	65.8	2,425	6	1	404
12	86.6	4,156	11	1	377
13	43.2	328	2	0	164
15	66.7	1,674	7	1	239
16	43.1	422	2	0	211
17	70.0	1,381	3	1	460
21	98.2	3,149	8	0	393
25	78.9	1,840	4	0	460
26	51.5	635	2	0	317
31	79.2	4,540	14	0	324
32	70.9	1,068	2	0	534
34	74.7	1,034	2	0	517
35	81.9	7,932	16	4	495
41	75.6	2,328	7	1	332
42	93.5	3,554	8	1	444
45	85.2	4,754	11	2	432
51	93.6	2,532	6	0	422
55	67.0	1,117	4	0	279
61	81.5	3,134	8	1	391
65	110.1	2,501	7	0	357
71	85.2	10,580	15	4	705
72	51.9	460	2	0	230
75	89.3	2,029	6	0	338
81	72.8	2,302	5	1	460
85	78.5	2,742	5	1	548
91	83.2	4,280	8	2	535
92	60.2	1,229	3	1	409
95	63.3	969	3	1	323
101	69.2	1,746	4	1	436
105	92.1	5,047	12	0	420
111	72.3	2,743	9	1	304
113	57.3	952	2	0	476
114	58.2	869	2	0	434
115	88.8	9,425	18	3	523
121	87.1	5,252	12	2	437
125	109.0	5,043	10	0	504
131	81.4	1,631	4	0	407
132	57.9	355	2	0	177
133	68.5	1,678	5	1	335
134	114.1	5,943	12	0	495
135	66.4	1,592	7	1	227
141	68.4	1,194	4	0	298
143	72.2	2,079	5	1	415
145	86.8	8,305	18	2	461
146	51.4	686	3	0	228
147	77.1	1,327	2	0	663
149	94.1	301	1	0	301
151	72.1	1,856	5	1	371
152	65.8	2,022	5	1	404
155	70.0	1,319	4	0	329
156	46.4	522	2	0	261
157	81.0	2,509	6	1	418
161	73.7	2,986	7	1	426
162	59.5	918	3	0	306
165	93.9	29,325	47	10	623
171	74.4	2,345	7	1	335

175	81.3	8,919	25	0	356
176	93.6	2,134	4	0	533
177	56.9	772	2	0	386
181	90.4	6,105	10	2	610
185	53.3	1,163	4	1	290
186	49.1	618	2	0	309
191	56.5	991	3	0	330
195	78.2	1,737	5	0	347
197	69.1	2,358	6	1	393
201	66.5	2,160	6	1	360
205	62.7	3,753	13	0	288
211	96.1	3,780	6	1	630
215	95.4	1,864	4	0	466
221	101.9	4,382	12	0	365
223	58.4	858	2	0	429
225	58.4	1,598	5	1	319
231	85.3	9,715	18	3	539
235	90.2	7,089	21	0	337
236	60.2	977	2	0	488
241	92.4	2,737	6	1	456
242	68.2	1,078	3	0	359
245	80.3	2,378	6	0	396
246	71.9	1,153	3	0	384
251	90.7	7,515	17	2	442
255	65.6	1,897	5	1	379
261	67.1	1,088	2	0	544
265	80.1	7,970	19	1	419
271	91.7	2,257	6	0	376
272	40.0	357	2	0	178
275	96.2	95,211	173	21	550
276	57.1	868	4	1	217
281	90.0	4,486	6	1	747
285	110.2	4,160	7	0	594
291	94.3	10,189	19	3	536
295	75.6	3,824	14	1	273
301	86.5	5,322	11	0	483
305	78.4	2,115	5	1	423
311	102.5	7,187	14	1	513
315	71.7	2,776	5	1	555
321	65.3	1,399	5	1	279
325	79.9	3,235	9	0	359
331	69.4	4,967	15	1	331
335	77.3	2,895	7	0	413
341	98.5	3,847	9	0	427
345	87.8	1,621	6	0	270
351	61.4	2,820	10	0	282
354	57.3	891	2	0	445
356	48.6	259	2	0	129
361	63.4	913	2	0	456
365	82.9	5,609	10	2	560
371	82.2	2,763	7	0	394
375	79.0	3,400	10	2	340
381	75.9	4,467	10	3	446
385	78.3	3,054	9	1	339
391	97.5	2,234	4	0	558
392	74.5	1,898	5	1	379
393	51.2	860	3	1	286
395	76.1	6,340	13	3	487
401	70.4	3,500	8	2	437
405	86.1	1,971	5	0	394

411	86.7	3,320	10	1	332
415	60.7	1,020	3	0	340
421	93.5	1,952	2	0	976
425	83.2	1,601	4	0	400
426	74.6	2,419	4	1	604
431	69.9	2,224	6	0	370
435	91.3	4,004	5	1	800
436	63.5	666	2	0	333
441	71.6	2,172	8	1	271
445	67.4	4,546	11	0	413
446	71.1	1,943	3	1	647
451	76.4	3,602	11	3	327
452	102.7	3,443	8	1	430
455	81.5	1,240	2	0	620
461	79.5	4,232	13	1	325
465	86.5	5,389	8	2	673
471	84.4	1,485	2	0	742
472	89.1	5,190	13	3	399
475	58.4	1,062	2	0	531
476	87.9	4,030	10	2	403
477	61.1	707	2	0	353
478	64.9	1,675	3	1	558
481	79.9	2,326	4	1	581
485	80.2	5,954	15	0	396
491	77.9	15,146	34	0	445
492	63.6	1,140	2	0	570
493	47.3	488	2	0	244
495	63.1	2,278	5	1	455
496	60.9	787	2	0	393
501	71.1	6,327	15	0	421
502	57.5	814	3	0	271
504	54.7	779	4	1	194
505	46.3	413	2	0	206
511	106.5	3,005	6	0	500
515	89.9	2,693	8	0	336
521	97.1	2,487	6	0	414
522	75.4	3,034	6	1	505
523	65.6	1,506	3	1	502
524	75.0	278	1	0	278
525	75.8	3,869	9	2	429
531	81.8	4,315	9	2	479
533	52.2	367	2	0	183
535	88.5	2,849	5	1	569
536	72.0	2,028	6	1	338
537	77.8	150	1	0	150
541	81.0	1,180	2	0	590
545	77.8	2,388	5	1	477
551	90.4	2,095	7	0	299
555	78.2	1,935	3	1	645
561	50.4	1,243	4	1	310
565	70.1	2,960	7	3	422
567	52.1	712	2	0	356
571	103.4	7,053	12	0	587
575	81.2	1,930	6	1	321
581	79.7	2,742	8	1	342
585	90.8	2,137	6	0	356
586	100.0	210	1	0	210
591	79.6	4,268	14	1	304
592	49.4	781	2	0	390
593	48.1	482	2	0	241
595	73.5	1,296	4	0	324
601	88.1	3,349	8	1	418

COST OF ADDITIONAL ASIS UNITS REQUIRED FOR ACCREDITATION
AS A PERCENT OF TOTAL CURRENT EXPENSES EXPENDITURES

DISTRICT	ENROL'T	AV SIZE	RATIO	UNITS SHORT	COST OF UNITS	PERCENT
1	2	3	4	5	6	7
537	150	150.0	77.8	0.2	3,407	1.6
586	210	210.0	100.0	0.0	0	0.0
356	259	129.0	48.6	1.8	30,665	6.2
006	277	138.0	42.4	1.9	32,368	5.4
524	278	278.0	75.0	0.4	6,814	3.1
149	301	301.0	94.1	0.1	1,704	0.5
013	328	164.0	43.2	2.5	42,590	10.5
132	355	177.0	57.9	1.6	27,258	5.9
272	357	178.0	40.0	2.7	45,997	11.0
533	367	183.0	52.2	2.2	37,479	7.4
505	413	206.0	46.3	2.9	49,404	8.9
016	422	211.0	43.1	2.9	49,404	9.1
072	460	230.0	51.9	2.6	44,294	7.7
593	482	241.0	48.1	2.7	45,997	6.5
493	488	244.0	47.3	2.9	49,404	8.5
156	522	261.0	46.4	3.0	51,108	7.7
186	618	309.0	49.1	2.9	49,404	6.6
026	635	317.0	51.5	3.3	56,219	6.3
436	666	333.0	63.5	1.9	32,368	4.5
146	686	228.0	51.4	3.4	57,922	5.5
477	707	353.0	61.1	2.8	47,701	3.8
567	712	356.0	52.1	3.4	57,922	4.9
177	773	386.0	56.9	3.1	52,812	4.3
504	779	194.0	54.7	3.9	66,440	5.4
592	781	390.0	49.4	3.9	66,440	7.9
496	787	393.0	60.9	2.7	45,997	5.0
502	814	271.0	57.5	3.1	52,812	4.8
223	858	429.0	58.4	3.2	54,515	5.3
393	860	286.0	51.2	4.2	71,551	6.6
276	868	217.0	57.1	3.3	56,219	5.7
114	869	434.0	58.2	3.3	56,219	6.2
354	891	445.0	57.3	3.5	59,626	5.7
162	918	306.0	59.5	3.2	54,515	4.8
113	952	476.0	57.3	3.5	59,626	5.4
361	963	456.0	63.4	3.0	51,108	3.9
095	969	323.0	63.3	3.3	56,219	4.3
236	977	488.0	60.2	3.3	56,219	5.0
191	991	330.0	56.5	3.7	63,033	5.6
415	1,020	340.0	60.7	3.3	56,219	5.3
034	1,034	517.0	74.7	2.1	35,776	2.1
475	1,062	531.0	58.4	3.7	63,033	5.4
032	1,068	534.0	70.9	2.5	42,590	3.0
242	1,078	359.0	68.2	2.8	47,701	3.5
261	1,088	544.0	67.1	2.8	47,701	3.4
055	1,117	279.0	67.0	3.0	51,108	3.5
492	1,140	570.0	63.6	3.2	54,515	3.7
246	1,153	384.0	71.9	2.5	42,590	3.0
185	1,163	290.0	53.3	5.7	97,105	6.3
541	1,180	590.0	81.0	1.5	25,554	1.7
141	1,194	298.0	68.4	3.0	51,108	3.5
092	1,229	409.0	60.2	4.5	76,662	4.8
455	1,240	620.0	81.5	1.5	25,554	1.7
561	1,243	310.0	50.4	6.2	105,623	6.7
595	1,296	324.0	73.5	2.6	44,294	2.7
155	1,319	329.0	70.0	3.0	51,108	3.1

147	1,327	663.0	77.1	2.2	37,479	2.3
017	1,381	460.0	70.0	3.6	61,330	2.9
321	1,399	279.0	65.3	4.3	73,255	4.1
471	1,485	742.0	84.4	1.5	25,554	1.3
523	1,506	502.0	65.6	4.4	74,958	3.8
135	1,592	227.0	66.4	4.3	73,255	3.6
225	1,598	319.0	58.4	5.7	97,105	3.9
425	1,601	400.0	83.2	1.8	30,665	1.6
345	1,621	270.0	87.8	1.2	20,443	1.0
131	1,631	407.0	81.4	2.1	35,776	1.6
015	1,674	239.0	66.7	4.5	76,662	3.3
478	1,675	558.0	64.9	3.9	66,440	3.9
133	1,678	335.0	68.5	4.0	68,144	3.6
195	1,737	347.0	78.2	2.6	44,294	2.0
101	1,746	436.0	69.2	4.5	76,662	3.3
025	1,840	460.0	78.9	2.6	44,294	2.0
151	1,856	371.0	72.1	3.6	61,330	3.0
215	1,864	466.0	95.4	0.5	8,518	0.4
255	1,897	379.0	65.6	5.2	88,587	3.6
392	1,898	379.0	74.5	3.7	63,033	2.7
575	1,930	321.0	81.2	2.5	42,590	1.8
555	1,935	645.0	78.2	3.1	52,812	1.9
446	1,943	647.0	71.1	3.7	63,033	3.0
421	1,952	976.0	93.5	0.7	11,925	0.6
405	1,971	394.0	86.1	1.7	28,961	1.2
152	2,022	404.0	65.8	5.4	91,994	2.9
536	2,028	338.0	72.0	4.2	71,551	2.3
075	2,029	338.0	89.3	1.3	22,147	0.9
143	2,079	415.0	72.2	4.5	76,662	2.6
551	2,095	299.0	90.4	1.2	20,443	0.8
305	2,115	423.0	78.4	3.3	56,219	2.1
176	2,134	533.0	93.6	0.8	13,629	0.4
585	2,137	356.0	90.8	1.2	20,443	0.8
201	2,160	360.0	66.5	5.5	93,698	3.6
441	2,172	271.0	71.6	4.8	81,773	3.0
431	2,224	370.0	69.9	5.5	93,698	3.2
391	2,234	558.0	97.5	0.3	5,111	0.2
271	2,257	376.0	91.7	1.1	18,740	0.7
495	2,278	455.0	63.1	6.5	110,734	4.6
081	2,302	460.0	72.8	4.6	78,366	2.7
481	2,326	581.0	79.9	3.1	52,812	1.9
041	2,328	332.0	75.6	4.4	74,958	2.2
171	2,345	335.0	74.4	4.3	73,255	2.4
005	2,357	392.0	72.6	4.8	81,773	2.8
197	2,358	393.0	69.1	5.5	93,698	3.3
245	2,378	396.0	80.3	3.0	51,108	1.8
545	2,388	477.0	77.8	3.8	64,737	2.2
426	2,419	604.0	74.6	4.3	73,255	2.6
011	2,425	404.0	65.8	6.4	109,030	3.9
521	2,487	414.0	97.1	0.4	6,814	0.2
065	2,501	357.0	110.1	0.0	0	0.0
157	2,509	418.0	81.0	3.4	57,922	1.7
051	2,532	422.0	93.6	0.9	15,332	0.5
515	2,693	336.0	89.9	1.6	27,258	0.8
001	2,728	389.0	68.6	6.1	103,920	3.5
241	2,737	456.0	92.4	1.4	23,850	0.7
581	2,742	342.0	79.7	3.6	61,330	2.0
085	2,742	548.0	78.5	3.9	66,440	1.9
111	2,743	304.0	72.3	5.4	91,994	3.3
371	2,763	394.0	82.2	2.9	49,404	1.7
315	2,776	555.0	71.7	5.3	90,291	3.0
351	2,820	282.0	61.4	9.6	163,546	4.8
535	2,849	569.0	88.5	2.1	35,776	0.9
335	2,895	413.0	77.3	4.4	74,958	2.2
565	2,960	422.0	70.1	6.7	114,141	3.0
161	2,986	426.0	73.7	5.6	95,402	2.7

511	3,005	500.0	106.5	0.0	0	0.0
522	3,034	505.0	75.4	4.9	83,476	2.4
385	3,054	339.0	78.3	4.1	69,848	2.2
061	3,134	391.0	81.5	3.9	66,440	1.9
021	3,149	393.0	98.2	0.3	5,111	0.1
325	3,235	359.0	79.9	4.1	69,848	2.1
411	3,320	332.0	86.7	2.7	45,997	1.1
601	3,349	418.0	88.1	2.5	42,590	1.0
375	3,400	340.0	79.0	5.0	85,180	2.0
452	3,443	430.0	102.7	0.0	0	0.0
401	3,500	437.0	70.4	7.3	124,363	3.3
042	3,554	444.0	93.5	1.4	23,850	0.4
451	3,602	327.0	76.4	6.1	103,920	2.2
205	3,753	288.0	62.7	12.4	211,246	4.8
211	3,780	630.0	96.1	0.8	13,629	0.3
295	3,824	273.0	75.6	6.2	105,623	2.4
341	3,847	427.0	98.5	0.3	5,111	0.1
525	3,869	429.0	75.8	6.4	109,030	2.3
435	4,004	800.0	91.3	2.0	34,072	0.7
476	4,030	403.0	87.9	3.4	57,922	0.9
012	4,156	377.0	86.6	3.5	59,626	1.1
285	4,160	594.0	110.2	0.0	0	0.0
461	4,232	325.0	79.5	5.6	95,402	2.0
591	4,268	304.0	79.6	5.8	98,809	2.2
091	4,280	535.0	83.2	4.6	78,366	1.3
531	4,315	479.0	81.8	5.0	85,180	1.7
221	4,382	365.0	101.9	0.0	0	0.0
381	4,467	446.0	75.8	7.7	131,177	2.5
281	4,486	747.0	90.0	2.5	42,590	0.9
031	4,540	324.0	79.2	5.9	100,512	2.2
445	4,546	413.0	67.4	11.1	189,100	3.4
045	4,754	432.0	85.2	4.5	76,662	1.3
331	4,967	331.0	69.4	11.3	192,507	3.5
125	5,043	504.0	109.0	0.0	0	0.0
105	5,047	420.0	92.1	2.2	37,479	0.6
472	5,190	399.0	89.1	3.8	64,737	0.7
121	5,252	437.0	87.1	4.2	71,551	1.1
301	5,322	483.0	86.5	4.2	71,551	1.2
465	5,389	673.0	86.5	4.4	74,958	1.0
365	5,609	560.0	82.9	5.9	100,512	1.6
134	5,943	495.0	114.1	0.0	0	0.0
485	5,954	396.0	80.2	7.3	124,363	2.0
181	6,105	610.0	90.4	3.4	57,922	0.8
501	6,327	421.0	71.1	13.2	224,875	3.3
395	6,340	487.0	76.1	10.6	180,582	2.2
571	7,053	587.0	103.4	0.0	0	0.0
235	7,089	337.0	90.2	4.0	68,144	0.9
311	7,187	513.0	102.5	0.0	0	0.0
251	7,515	442.0	90.7	4.0	68,144	0.7
035	7,932	495.0	81.9	8.8	149,917	1.4
265	7,970	419.0	80.1	10.3	175,471	1.7
145	8,305	461.0	86.8	6.7	114,141	1.0
175	8,919	356.0	81.3	10.1	172,064	1.9
115	9,425	523.0	88.8	6.4	109,030	1.0
231	9,715	539.0	85.3	8.6	146,510	1.2
291	10,189	536.0	94.3	3.2	54,515	0.4
071	10,580	705.0	85.2	9.1	155,028	1.4
491	15,146	445.0	77.9	21.4	364,570	2.1
165	29,325	623.0	93.9	10.3	175,471	0.4
275	95,211	550.0	96.2	21.7	369,681	0.2