A STUDY OF THE PROJECTED POPULATION OF THE PIKEVILLE INDEPENDENT SCHOOLS (1976-1985), AND ITS RELATIONSHIP TO SCHOOL FACILITIES

ABSTRACT OF APPLIED PROJECT

An applied project submitted in partial fulfillment of the requirements for the degree of Education Specialist at Morehead State University

by

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Committee Chairman: Dr. Clark Wotherspoon

Professor of Education

Morehead, Kentucky

A STUDY OF THE PROJECTED POPULATION OF THE PIKEVILLE

INDEPENDENT SCHOOLS (1976-1985), AND ITS

RELATIONSHIP TO SCHOOL FACILITIES

Purpose

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The purpose of this study was to determine if the projected population of the city of Pikeville and the anticipated student population of 1985 will be great enough that current facilities will be rendered inadequate.

Procedure

The following procedure was used: 1. A review of the literature on the planning and construction of educational facilities served as a basis for the study.

2. An examination of the census history for Pike County, Pikeville, and the student population of the Pikeville Independent School District.

3. An examination of the economic history of the area and the economic forecast.

4. An examination of the city plan for urban development in relation to the Model City program.

Conclusions

The following conclusions were drawn from the study: 1. The population for the city of Pikeville will increase by 81 percent by the year 1985.

2. The school population for the Pikeville Independent Schools will increase in proportion to the increase to the city population.

3. The current facilities are adequate to house the present school population; however, with projected trends, overcrowding will exist in 1979, with an enrollment of 2,077.8 in 1985.

4. With an enrollment of 2,077.8 in 1985, the Pikeville Independent Schools will have inadequate facilities unless additional ones are constructed.

Recommendations

The following recommendations are made:

1. The Pikeville Independent Board of Education begin to investigate the possibility of constructing a new school facility.

2. A committee of educators and community lay citizens study the student group in need of a new facility.

3. A special committee be appointed by the Board of Education to investigate a method or methods for financing the new structure.

4. A basic assumption of this study, originally begun in October, 1976, was that the industrial and economic expansion in the city of Pikeville during the period, 1976-1985, would render a population increase beyond the capacity of school facilities. However, with the flood of April 4-5, 1977 devastating the area and damaging the current school facilities in excess of one million dollars, it is recommended that further study be conducted to determine direct results of the flood on population trends.

Accepted by:

lark J. Wothers Chairman

APPLIED PROJECT

Warren Parker Tiller, M.A. in Education

Graduate School

Morehead State University

A STUDY OF THE PROJECTED POPULATION OF THE PIKEVILLE INDEPENDENT SCHOOLS (1976-1985), AND ITS RELATIONSHIP TO SCHOOL FACILITIES

APPLIED PROJECT

An applied project submitted in partial fulfillment of the requirements for the degree of Education Specialist at Morehead State University

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Warren Parker Tiller

Committee Chairman: Dr. Clark Wotherspoon

Professor of Education

Morehead, Kentucky

APP. 474THESES 311.21976 T5752

Accepted by the graduate faculty of the School of Education, Morehead State University, in partial fulfillment of the requirements for the Education Specialist Degree in Administration and Supervision

<u>Clark J. Wotherston</u> Director of Applied Project

Applied Project Committee:

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Date 11, 1978

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Chapter 1

INTRODUCTION

During the 1960's and 70's schools of Eastern Kentucky have experienced decreasing enrollments. With enrollment figures determining financing of education and important in long range planning, dramatic changes in population can have immediate and long range lasting effects on facilities and educational programs. On May 29, 1973, Pikeville Independent School District approved a three million dollar bond issue by a vote of 829 to 630. The funds were to be used to construct a new school complex to house students grades 7 - 12, with total capacity of 750. The approved structure was completed and occupied in September 1976.

The city of Pikeville experienced considerable economic growth during the early 70's due mainly to the boom in the coal industry. This prosperity caused an influx of population to a city already over-crowded.

Pikeville is located in extreme eastern Kentucky in Pike County on the Levisa Fork within the heart of the Big Sandy River Valley in the Appalachian Mountains. Pike County was formed in 1821 and named Pike in honor of General Zebulon Pike who was a distinguished soldier of the War of 1812. Pike County is the largest county in Kentucky, covering 782 square miles and is the largest underground bituminous coal producing county in the United States.

In 1884 the mouth of the Lower Chloe Creek was selected and named Pikeville. Today the city is laid out in a narrow strip along the Levisa Fork of the Big Sandy River and has many narrow streets that were built to conserve valuable space within an otherwise mountainous terrain.

In 1966 the city received the National Municipal League Look Magazine All America City Award. Since that time Pikeville has been named All Kentucky City by the Kentucky Chamber of Commerce four times and Model City by the federal government. Pikeville will be known as the "Cut-Through" City as the plan for moving a mountain for a railroad, a river and a highway becomes a reality.¹

Prospects for continued future economic growth in Pikeville are good. Major assets possessed by the city which can broaden its economic base are:

Improved access into and within the city of Pikeville with the completion of the 'Cut-Through' Project, involving the relocation of the river, the railroad, and the highway.

Additional availability of land for expansion of the central business district and public facilities due to the filling of the Levisa Fork of the Big Sandy River and portion of Chloe Creek, maintaining the city as the retail and service center for the area.

Additional availability of land within the present city limits for residential development located in Cedar Creek, Poor Farm Hollow and Road Fork as a result of fill from the 'Cut-Through' Project.

Availability of land suitable for industrial development adjacent to the city of Pikeville, including Island Creek and the Douglas Waste Area.

¹Statement by William Hambley, Mayor, in a personal interview, Pikeville, Kentucky, March 12, 1977. Total employment is expected to grow with mining, serviceretail trade, manufacturing and construction industries as a major source of employment.²

Employment will dramatically increase in Pikeville through 1990 with approximately 7,500 additional jobs being provided as a result of the development of the River-Fill Project Area. A mall will be built on the filled area to provide 1,200,000 square feet of retail floor area and 300,00 square feet of floor area for service establishments.³

THE PROBLEM STATEMENT

The general problem to which this study was directed was an examination of the existing (1976) physical facilities of the Pikeville Independent Schools and a determination of their adequacy to house the student population of 1985.

In order to analyze this general problem, the following subproblems were identified:

Question 1. Are facilities adequate to house current student enrol1ment?

Question 2. Will current facilities be adequate to house the student population of 1985?

The plan of this study was to obtain student population growth figures for the city of Pikeville, to draw conclusions as to student growth during the 1976-1985 period, and to determine what new facilities should be built, if any.

²William C. Hambley, "Human Resource Development Through Participation" (unpublished Working Paper for Pikeville Model Cities Programs: Model Cities Agency, Pikeville, Kentucky, 1968), pp. 14-26.

PURPOSE

The purpose of this study was to determine if the projected population of the city of Pikeville and the anticipated student population of 1985 will be great enough that current facilities will be rendered inadequate.

Currently the Pikeville Elementary School with an enrollment of 659 is housed in a facility with a total capacity of 750. Pikeville High School occupied in the fall of 1976 enrolls 610 with a total capacity of 750.

SIGNIFICANCE

School systems have the obligation to utilize sound business practices in managing the tax payers' money. Consideration must be given to the rapidly increasing construction costs. Studies should be made to project population growth which would, of course, have an effect on school housing.⁴

DEFINITIONS OF TERMS USED

Many of the terms used in this study needed no explanation. Others were explained as used; however, careful definition of six terms seemed appropriate for the study.

⁴Benjamin Handler, <u>Economic Planning for Better Schools</u> (Ann Arbor: University of Michigan, 1960), p. 134.

Population Trend

The growth, decline, or constant number of a designated population has over a definite period.

Natural Increase

The increase of population by greater births than deaths.

Birth Rate

The number of births occuring during a stated interval of time per 1,000 population.

Death Rate

The number of deaths occuring during a stated interval of time per 1,000 population.

Annexation

The acquisition of additional land plus population by a munici-

Migration

The in-movement by people, added to the existing population.

LIMITATIONS OF THE STUDY

This study was limited to the census records of the past and the economic projections of the city of Pikeville and surrounding area. Actually, who can say what will be desirable in school building for that matter--ten, twenty, thirty, or forty years from now? Therefore, all that one can do is project building needs on the basis of what seems presently to be developing trends in population of the Pikeville Independent School District. Both the present and the future have to be considered carefully and the best judgments available applied to the end that the present generation of children in Pikeville, as well as those yet to come, may be provided with the best opportunities for an adequate education that the district can afford.⁵

HYPOTHES IS

The population of the city of Pikeville, Kentucky, will not increase significantly during the ten year period 1976-1985, and, therefore, the present school facilities built to house 1500 students with current enrollment of 1300 will be adequate in 1985.

PROCEDURES

Procedures used in this study were as follows:

1. The census history for Pike County, Pikeville and the student population of the Pikeville Independent School District were examined.

2. The economic history of the area and the economic forecast were examined.

3. The city plan for urban development in relation to the Model City program was examined.

4. On the basis of the information gathered, suggestions concerning facility development were made to the Board of Education.

⁵American Association of School Administrators, <u>Planning</u> <u>America's School Buildings</u> (Washington, D. C.: The Association, 1960), p. 75.

Chapter 2

REVIEW OF THE LITERATURE

This review has three major purposes. The first is to review some of the major general works that were basic to the planning and construction of educational facilities. The second is to review briefly the most recent research studies dealing specifically with planning of educational facilities. And, the third is to place this study in its proper relationship with the existing literature.

A review of the literature in the area of school population leads one to several comprehensive and detailed studies for planning educational facilities. Usually these will include an emphasis on educational programs which facilities must accommodate.⁶ The importance of human resources, (student population), whether growing, declining, relocating within the district, or in the planning process is described as are the broad steps necessary to logically plan, construct, and occupy new facilities.

These studies make an effort to answer the following typical questions: To what extent should school boards consider rehabilitation, remodeling, and modernization in the planning for additional student population.⁷ How can an accurate projection of population be conducted

⁶John H. Herrick and others, <u>From School Program to School</u> <u>Plant: A Discussion of Problems of Planning School Buildings</u> (New York: Henry Holt and Company, 1956), p. 10.

⁷Bureau of School Service, <u>School Plants of Warren County</u> (Lexington, Kentucky: College of Education, University of Kentucky, March, 1965), p. 3.

with the many fluid variables at hand? How can school systems adapt to accommodate the changing population? These studies usually begin with an overview of general design for population surveys, discussion of obsolete school buildings, to estimation of future enrollment, to development of educational specifications, to selection of the school architect, and to the financing of building programs.⁸ The research usually concludes with some type of prediction on future development in school facility need and planning.⁹

In 1972 the Center for the Advanced Study of Educational Administration developed an educational planning manual. The manual provides comprehensive models for planning and their illustrative implementations.¹⁰

Also, in 1973 Ronald K. Higgins and M. J. Conrad published a report on a base data system designed for comprehensive educational planning at the local school district level. The report defines comprehensive educational planning as a continuous process of (1) establishing goals, (2) gathering data, (3) forming and assessing alternative means of goal achievement, and (4) making decisions about

⁸Ibid.

⁹C. W. McGuffey, <u>Systematic Planning for Educational Facilities</u> (Chicago: Chicago Public Schools, 1973), p. 23.

¹⁰Center for the Advanced Study of Educational Administration, <u>SPECS: School Planning, Evaluation and Communication System</u> (Eugene, Oregon: General Learning Corporation, 1972), pp. 86-92.

these alternatives. A comprehensive planning model is displayed along with a discussion of levels of educational planning.¹¹

A series of rather sophisticated articles relating to futuring and planning techniques in education were edited by Stephen P. Hencley and James R. Yates in 1974. The articles provide acquaintance with recent developments in the area of educational futures and their environments and a glossary of futuring and simulation and information for using probability techniques and random numbers in futuring techniques.¹²

The survey team of the Bureau of School Services for the University of Kentucky has conducted numerous surveys for local school systems to determine facility needs. Among the long list of such surveys are: School Plants of Warren County, Harlan County Schools have Problems, and School Plants of Leslie County. The reports of the survey team are a mixture of judgments with facts. It includes frank editorial opinion. The survey team within the Bureau of School Service has some strong convictions about guiding principles in school reorganization, but it does not conceive that there is only one way to apply those principles.¹³

Data concerning future enrollments are essential for long range planning. A variety of methods have been devised for obtaining such

¹¹K. Ronald Higgins and M. J. Conrad, <u>A Data System for Compre-</u> <u>hensive Planning in Education</u> (Columbus, Ohio: Project Simu-school, September, 1973), pp. 16-19.

¹²Stephen P. Hencley and James R. Yates, eds., <u>Futurism in</u> <u>Education: Methodologies</u> (Berkeley, California: McCutchan, 1974), p. 36.

¹³Bureau of School Service, op. cit., p. 24.

projections. One of the most commonly used techniques for projection enrollments is the "Sum of Least Squares" procedure.¹⁴ This simple statistical technique utilizes linear regression to obtain a "straightline" projection of future enrollment.

It should be remembered that the enrollment projections obtained using the "Sum of Least Squares" method are based <u>only</u> on past enrollment figures and yield nothing more than a "straight-line projection." The projections obtained by this procedure will be accurate only under extremely stable conditions. For this reason projections of this type should be used only as starting points for more accurate calculations.

Holding power, retention rate, and potential growth as a result of industrial expansion, are the major factors which should be used to refine the enrollment projection obtained through the use of the "Sum of Least Squares" technique.

As a result of the projected economic boom in the coal industry during the next ten years the "Sum of Least Squares" technique would be rendered inadequate in that the population trends of the past ten years were fluctuating.

¹⁴W. James Popham and Kenneth A. Sirotnik, <u>Educational Statis-</u> <u>tics: Use and Interpretation</u> (2d ed. New York: Harper and Row, 1973), p. 97.

Chapter 3

PROCEDURES OF THE STUDY

The following procedures were used in the study: (1) examination of the census history for Pike County, Pikeville and the student population of the Pikeville Independent School District; (2) examination of the economic history of the area and the economic forecast; and (3) examination of the city plan for urban development and the relationship to the Model City Program.

As illustrated by Table 1, page 12, the population of Pikeville has continually increased since 1910 with the exception of a period between 1950 and 1960. Pikeville's municipal population from 1,280 in 1910 to 5,205 in 1970, or about 307 percent in a sixty-year period. This compares to a 93 percent rate of increase experienced by Pike County for the same period. The largest increase in Pikeville's population ocurred between 1910 and 1930 when an average growth rate per decade was 62 percent. Between 1930 and 1950 the growth rate was uniform at an average rate of approximately 23 percent per decade.¹⁵

Between 1950 and 1970 the growth rate diminished in considerable proportion based on the U.S. Census Report. The growth rate declined 7.8 percent between 1950 and 1960; however, the growth rate began to increase between 1960 and 1970 at 9.5 percent in the decade.

¹⁵U. S. Bureau of the Census, <u>Census of Population: 1970</u>, <u>Vol. I, Characteristics of the Population</u>, Part 19, Kentucky (Washington, D. C.: U. S. Government Printing Office, 1973), p. 360.

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| | | _ | _ |

| | Year | Pike County Population | Percent Change | Pikeville Population | Percent Change | Percent of County Population |
|---|------|---------------------------|-------------------|-------------------------|-------------------|---------------------------------|
| | 1910 | 31,679 | - | 1,280 | - | 4.0 |
| | 1920 | 49,497 | +56.2 | 2,110 | +64.8 | 4.3 |
| | 1930 | 63,267 | +27.8 | 3,396 | +60.9 | 5.4 |
| | 1940 | 71,122 | +12.4 | 4,185 | +23.2 | 5.9 |
| | 1950 | 81,154 | +14.1 | 5,154 | +23.2 | 6.4 |
| | 1960 | 68,264 | -15.9 | 4,754 | - 7.8 | 7.0 |
| , | 1970 | 61,059 | -10.6 | 5,205 | + 9.5 | 8.5 |
| | 1973 | 65,922 | + 7.9 | 5,329 | + 2.4 | 8.1 |
| | 1976 | 70,000 | +14.6 | 5,475 | + 2.7 | 7.8 |

Population Trends 1910-1976 Pikeville and Pike County, Kentucky

Source: U. S. Census of Population

Oct. • •

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Population growth is continuing to rise based on the United States Department of Commerce 1973 population estimates of 5,329 persons for Pikeville.¹⁶ October 1, 1976 estimates give Pikeville a population of approximately 5,475 persons.¹⁷

FACTORS INFLUENCING GROWTH

Three factors affecting growth in a community are: (1) Natural increase (more births than deaths); (2) Migration (movement into or away from a community); and (3) annexation.¹⁸

Natural Increase:

The most common indicator for measuring reproduction and mortality are birth and death rates. Although resident birth and death records are not readily available for Pikeville, such information is available on a county basis, and a study of this information for Pike County permits assumptions to be made for Pikeville regarding future population growth. The birth rate is the number of births occurring during a stated interval of time per 1,000 people. The death rate is the number of deaths occurring during a stated interval of time per 1,000 people.

16_{Ibid}.

¹⁷U. S. Bureau of the Census, <u>Statistical Abstracts of the</u> <u>United States: 1976</u> (97th ed. Washington, D. C.: U. S. Government Printing Office, 1976), p. 40.

¹⁸Harold W.Boles, <u>Step By Step to Better School Facilities</u> (New York: Holt, Rinehart, and Winston, 1965), p. 23.

Table 2

Birth and Death Rates for Pike County

| · | 1960 | 1970 | 1975 |
|-------------|------|------|------|
| Birth Rates | 23.9 | 19.8 | 17.8 |
| Death Rates | 7.0 | 8.4 | 8.6 |

Source: Annual Kentucky Vital Statistics Report

It can be seen from the above figures that Pike County and, assuming Pikeville, have experienced a gradual decline in the birth rate, and this has been accompanied by an increase in the death rate. There are two principal factors which account for the decrease in the birth rate. First, Table 3, page 15, indicates that there has been an increase in the number of persons in the older, non-childbearing age group; and second, most of the out-migration between 1960 and 1970 occurred among the younger childbearing groups. Also, the general trend of the 70's nationwide is for smaller families. The increase in the number of persons in the older age groups also account for the rise in the death rate. The birth and death rates have leveled off substantially in the 1970's due to the increase in population that is occurring in Pike County due to immigration as compared to the reverse trend in population during the 1960's.

Migration:

From United States Census population figures it can be seen that Pike County as a whole has experienced out-migration during the period between 1950 and 1970. Pike County's growth rate declined 10.6

| Tab | le | 3 |
|-----|----|---|
| | | |

| Population | Composit | ion h | by / | Age | and | Sex | |
|------------|----------|-------|------|-----|-----|-----|--|
| Pi | keville, | Kent | tucl | ky | | | |

| Age Group_ | | | 1960 | | | | 1970 | | Per | cent Inc | rease |
|------------|------------------|---------|-------|---------|-------|---------|-------|---------|-------|-----------|-------|
| | M | ale | Fe | male | Ma | ale | Fen | ale | | 1960-1970 | |
| | No. | Percent | No. | Percent | No. | Percent | No. | Percent | Male | Female | |
| Under 5 | 225 | 10.3 | 217 | 8.4 | 169 | 8.1 | 169 | 6.8 | -24.8 | -22.1 | -23.5 |
| 5-9 | 212 | 9.7 | 232 | 9.0 | 165 | 7.9 | 160 | 6.5 | -22.2 | -31.0 | -26.8 |
| 10-14 | 227 | 10.4 | 239 | 9.3 | 178 | 8.5 | 201 | 8.1 | -21.6 | -15.9 | -18.7 |
| 15-19 | 210 | 9.6 | 292 | 11.3 | 221 | 10.5 | 263 | 10.6 | + 5.2 | - 9.9 | - 3.6 |
| 20-24 | 169 | 7.8 | 214 | 8.3 | 283 | 13.5 | 309 | 12.5 | +67.5 | +14.4 | +54.6 |
| 25-29 | 137 | 6.3 | 169 | 6.6 | 115 | 5.5 | 128 | 5.2 | -16.1 | -24.3 | -20.6 |
| 30-34 | 146 | 6.7 | 174 | 6.8 | 92 | 4.4 | 123 | 5.0 | -37.0 | -29.3 | -32.8 |
| 35-39 | 163 | 7.5 | 187 | 7.3 | 109 | 5.2 | 137 | 5.5 | -33.1 | -26.7 | -29.7 |
| 40-44 | [`] 143 | 6.6 | 161 | 6.3 | 120 | 5.7 | 164 | 6.6 | -16.1 | + 1.9 | - 6.8 |
| 45-49 | 122 | 5.6 | 155 | 6.0 | 141 | 6.7 | 154 | 6.2 | +15.6 | 6 | + 6.5 |
| 50-54 | 96 | 4.4 | 106 | 4.1 | 118 | 5.6 | 120 | 4.8 | +22.9 | +13.2 | +17.8 |
| 55-59 | 87 | 4.0 | 112 | 4.4 | 97 | 4.6 | 133 | 5.4 | +11.5 | +18.8 | +17.0 |
| 50-64 | 78 | 3.5 | 106 | 4.1 | 84 | 4.0 | 112 | 4.5 | + 7.6 | + 5.7 | + 6.5 |
| 55-69 | 58 | 2.7 | 86 | 3.3 | 69 | 3.3 | 96 | 3.9 | +19.0 | +11.6 | +14.6 |
| 70-74 | 50 | 2.3 | 57 | 2.2 | 54 | 2.6 | 92 | 3.7 | + 8.0 | +61.4 | +14.0 |
| 75 & over | 56 | 2.6 | 68 | 2.6 | 83 | 3.9 | 117 | 4.7 | +48.2 | +72.1 | +50.5 |
| otal | 2,179 | 100.0 | 2,575 | 100.0 | 2,098 | 100.0 2 | 2.478 | 100.0 | 5 | | |

Source: U. S. Census of Population

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percent between 1960 and 1970 with its population decreasing from 81,154 in 1950 to 61,059 in 1970.¹⁹ This out-migration was attributed to coal mining depression of the 50's and people generally moving out of the area to find other jobs in northern cities. This exodus is revealed in decreased student enrollments as indicated in Table 4, page 17.

However, the trend in migration has reversed itself with population increasing in Pike County since 1970. Based on United States Department of Commerce 1973 estimates the population of Pike County is 65,922 with the 1975 population being approximately 69,000. This can be attributed to the growth of the coal industry and the development of retail outlets in the 70's.

Annexation:

Pikeville annexed considerable area during the 1960's including such areas in the city as the Pauley Area, Ferguson Creek Area, Lower Chloe Creek Area and the area along U. S. 119 from Harold's Branch southward to Island Creek.²⁰ The effect of this annexation program on the population showed up in the increase recorded between 1960 and 1970. While Pike County lost population through out-migration during this period, the city of Pikeville increased its population through annexation. The overall effect on the city's population was minimal because most of the land annexed was undeveloped mountainous terrain with population areas being located only along the traffic arteries;

¹⁹Bureau of the Census, op. cit., p. 46.

²⁰Hambley, op. cit., pp. 68-70.

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|--------------|----|------------|-----|-----|-----|-------------|-------------|-----|-----|--------------|-----|----|----------------|------|--|
| Year | K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | 9 | 10 | 11 | 12 | GT | |
| 67-68 | х | 129 | 113 | 115 | 118 | 1 31 | 121 | 120 | 102 | 100 | 94 | 82 | 96 | 1321 | |
| 68-69 | x | 135 | 11 | 109 | 113 | 138 | 125 | 121 | 116 | 106 | 92 | 91 | ⁷ 5 | 1332 | |
| 69-70 | x | 110 | 117 | 115 | 109 | 109 | 135 | 122 | 97_ | <u>,</u> 106 | 82 | 79 | 81 | 1262 | |
| 70-71 | х | 101 | 113 | 100 | 119 | 99 | 111 | 143 | 115 | 96 | 94 | 80 | 72 | 1272 | |
| 71-72 | х | 91 | 96 | 112 | 103 | 113 | 99 | 124 | 115 | 112 | 86 | 85 | 74 | 1228 | |
| 72-73 | х | 87 | 99 | 88 | 113 | 94 | 110 | 113 | 115 | 113 | 94 | 80 | 75 | 1193 | |
| 73-74 | х | 98 | 88 | 103 | 85 | 111 | 96 | 125 | 91 | 111 | 105 | 82 | 75 | 1182 | |
| 74-75 | 55 | 81 | 103 | 93 | 102 | 95 | 110 | 97 | 104 | 92 | 108 | 97 | 80 | 1218 | |
| 75-76 | 74 | 79 | 89 | 106 | 99 | 105 | 103 | 121 | 112 | 98 | 87 | 87 | 79 | 1239 | |
| <u>76-77</u> | 80 | <u> </u> | 83 | 88 | 104 | 100 | <u>1</u> 07 | 123 | 125 | 103 | 85 | 87 | 87 | 1265 | |

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Pikeville Independent Schools End-of-Year Enrollment 1967-1977

Source: Pupil Accounting Records, Pikeville Independent Schools, Director of Pupil Personnel -1-1

however, the population annexed was significant enough to show Pikeville with a 9.5 percent increase in population between 1960 and 1970.

Pikeville has likely experienced its latest growth through its annexation program and the in-migration that has occurred in Pike County from 1970-1976. Natural increase has affected Pikeville's growth to a lesser extent due to the decrease in birth rate and the increase in the death rate. Under present conditions Pikeville's growth will primarily depend on the availability of land within the present city limits for residential development. Opportunity for new residential development does exist with the Cedar Creek, Poor Farm Hollow West, and the Road Fork Area being primary areas for future residential development being made available under the City's Model City Program and Community Development Program.

Public housing will account for an increase of 588 households in the city of Pikeville during the period 1976-1980. Of the 588, 348 will be designated for families with school age children.²¹

In addition to public housing, thirty-five acres of "fill" land will be made available for private residential housing to be subdivided to allow eight house sites per acre, or a total of 280 sites for family housing.²²

Estimates foresee an 81 percent increase in Pikeville's population from 1976 to 1985, but the rate of growth will primarily depend upon availability of land for residential development.²³

21_{Ibid.} 22_{Ibid.}
23_{Bureau} of the Census, loc. cit.

Chapter 4

FINDINGS

The general problem to which this study was directed is the growth in student population for the city of Pikeville and the relationship of available school facilities to house the student population in 1985.

The first important central question of this study concerned the over-all population growth. The hypothesis on this question is: The population of the city of Pikeville, Kentucky will not increase significantly during the ten year period 1976-1985 and, therefore, the present school facilities built to house 1500 students with current enrollment of 1300 will be adequate in 1985.

Estimates by the Department of Commerce foresee an 81 percent increase in population from 1976 to 1985, with the 1985 population being 9,900. Table 5, page 20, shows graduated 81 percent population growth in the student population of the Pikeville City Schools through 1985.

Currently the Pikeville Elementary School with an enrollment of 659 is housed in a facility with a total capacity of 750. Pikeville High School occupied in the fall of 1976 currently enrolls 610 with a total capacity of 750. Table 5 indicates that with an average of 8.1 percent increase per year the total capacity of both facilities will be reached in 1979, and an enrollment of 2,077.8 in 1985. Therefore, according to the Department of Commerce estimates, the original hypothesis of this study is false and the findings indicate that the student

| Table 5 | Ta | ь | 16 | e | 5 |
|---------|----|---|----|---|---|
|---------|----|---|----|---|---|

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| Pikeville Independent Schools |
|-------------------------------|
| End-of-Year Enrollment |
| Projection to 1984-1985 |
| - |
| |

| Year | <u>_ K</u> | 1 | 2 | 3 | · 4 | 5 | 6 | 7 | 88 | 9 | 10 | | 12 | GT |
|----------------|------------|-------|--------------|-------|-------|-------|-------|-------|-------|-------|-------|---------------|-------|-----|
| 76-77 | 79 | 100 | 81 | 88 | 104 | 103 | 115 | 123 | 119 | 97 | 84 | 85 | 85 | 126 |
| 77-78 | 85.3 | 108.1 | 87.5 | 95.1 | 112.4 | 111.3 | 124.3 | 132.9 | 128.6 | 104.9 | 92.8 | 91.8 | 91.8 | 136 |
| 78 - 79 | 91.6 | 116.2 | 94. 0 | 102.2 | 121.1 | 119.6 | 133.6 | 142.8 | 138.2 | 112.8 | 97.6 | 98.6 | 98.6 | 146 |
| 79-80 | 97.9 | 124.3 | 100.5 | 109.3 | 129.6 | 127.9 | 142.9 | 152.7 | 142.8 | 120.7 | 104.4 | 105.4 | 105.4 | 150 |
| 80-81 | 104.2 | 132.4 | 107.0 | 116.1 | 138.0 | 136.2 | 152.2 | 162.6 | 157.4 | 128.6 | 111.2 | 1 12.2 | 112.2 | 167 |
| 81-82 | 110.5 | 140.5 | 113.5 | 123.5 | 146.4 | 144.5 | 161.5 | 172.5 | 167.0 | 136.5 | 118.0 | 119.0 | 119.0 | 17 |
| 82-83 | 116.8 | 148.6 | 120.0 | 130.6 | 154.8 | 152.8 | 170.8 | 182.4 | 176.6 | 144.4 | 124.8 | 125.0 | 125.0 | 18 |
| 83-84 | 123.1 | 156.7 | 126.5 | 137.7 | 163.2 | 161.1 | 180.1 | 192.3 | 186.2 | 152.3 | 131.6 | 132.6 | 132.6 | 19 |
| 84-85 | 129.4 | 164.8 | 133.0 | 144.8 | 171.6 | 169.4 | 189.4 | 202.2 | 195.8 | 160.2 | 138.4 | 139.4 | 139.4 | 201 |

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population for the city of Pikeville will increase to the point that current facilities will be inadequate to house the 1985 student population.

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

SUMMARY

The general problem to which this study was directed is the growth in population for the city of Pikeville and the relationship of available school facilities to house the population through 1985.

In order to analyze this general problem, answers were sought to the following questions:

- 1. Are facilities in the Pikeville Independent Schools adequate to house current student enrollment?
- 2. Will current facilities be adequate to house the student population of 1985?

The data for this study were collected from school census records of the Pikeville City Schools from 1966 to 1976. School district population figures and county population figures were gathered from the Bureau of Census, the Kentucky Department of Commerce, and the United States Department of Commerce.

The Bureau of School Service of the University of Kentucky has developed a method for obtaining the enrollment projection using the "Sum of Least Squares" was recommended. However, the recent economic boom in the coal industry and continued anticipated growth rendered inadequate the "Least Squares" technique which uses a "straight-line projection."

The Pikeville Model Cities program has as a major project the "Mountain Cut-Through Project" and the "River-Fill Project" which will render 400 additional acres for commercial and residential development accounting for the anticipated growth during the projection period.

CONCLUSIONS

Conclusions reached from this study were as follows:

1. The population for the city of Pikeville will increase by 81 percent by the year 1985.

2. The school population for the Pikeville Independent Schools will increase in proportion to the increase to the city population.

3. The current facilities are adequate to house the present school population; however, with projected trends, overcrowding will exist in 1979, with an enrollment of 2,077.8 in 1985.

4. With an enrollment of 2,077.8 in 1985, the Pikeville Independent Schools will have inadequate facilities unless additional ones are constructed.

RECOMMENDATIONS

The following recommendations are suggested for utilization of the study and for further research in the area of population projection for Pikeville Independent Schools:

1. If population trends are continued over the next two years, then it is recommended that the Pikeville Independent Board of Education begin to investigate the possibility of constructing a new school facility. 2. If population trends continue as projected in this study, then it is recommended that a committee of educators and community lay citizens study the student group in need of a new facility.

3. If population trends continue and the construction of a new facility becomes necessary, then it is recommended that a special committee be appointed by the Board of Education to investigate a method or methods for financing the new structure.

4. A basic assumption of this study which was originally begun in October, 1976 was that the industrial and economic expansion in the City of Pikeville during the next ten years would render a population increase beyond the capacity of current school facilities. However, with the flood of April 4-5, 1977 devastating the area and damaging the current school facilities in excess of one million dollars, it is recommended that further study on population be conducted to determine trends that may be a direct result of the flood.

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