

Study of Community and Student Demographics For Middlebury Community Schools

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INTRODUCTION

In the summer of 2004 the Board of School Trustees of the Middlebury Community Schools authorized a study of the community and student demographics for the school corporation. The demographic study was directed by Dr. Robert L. Boyd, Department of Educational Leadership, Indiana State University, Terre Haute, Indiana to include the following:

PURPOSES OF THE STUDY

- A. An analysis of community demographics as they relate to community growth and the economic viability of the community.
- B. An analysis of the student population trends in the school community based on both school enrollment history and resident live birth data.

The data collection and analysis for the study was conducted by Dr. Robert L. Boyd. His work and analysis were greatly enhanced by the data support given to the study by the central and building level administrative and clerical staffs of the corporation.

THE COMMUNITY AND SCHOOL CORPORATION DEMOGRAPHICS

Enrollment projections are very important in the planning process for any school system. However, projecting school enrollments is always subject to many variables that might modify apparent trends. National trends often apply to specific geographic areas and should be carefully analyzed before incorporation into a local study.

A number of important considerations should be taken into account when reviewing past, current and future enrollments of a school corporation. The public schools of any community are a reflection of the understanding of the people who they serve. The geography, population trends, socio-economic status, and work opportunities in the

community will influence the type of educational programs to be offered by the schools. For this reason, a description of the more significant of these factors is essential in developing a perspective for the study of a school system.

In some instances these community factors may act as an inhibiting influence on the development of the highest possible quality of education. Such factors as a lack of understanding of the vital role education plays in the lives of today's citizens and a lack of resources to pay the price for quality education can inhibit the development of a sound educational program. The schools of a corporation have their own unique problems, which are the result of changes in population, in the nature of the school children, the social, cultural, and economic life of the area and the changes that occur in school programs.

There are, however, other factors of a national scope that must be considered in planning and executing an educational program that meets the needs of the future citizens of our society. To the best of its ability, a modern school system must translate the demands of our times into experiences that equip students to live in a society that emphasizes change, mobility, and adaptability. Technological advances are creating a rapidly changing employment picture. The U.S. Department of Labor has estimated that these advances in technology will force some people to change the nature of their employment ten or more times during their lifetime.

While statistical summaries of any community can be misleading, they can provide prompts for thinking about the community and the role that a quality educational system does play in the viability of that community. In this regard, it is noted that according to the Federal Bureau of the Census, 182,791 people lived in Elkhart County, Indiana in 2000. Jefferson, Middlebury and York Townships of Elkhart County make up the Middlebury

Community Schools (MCS). In Elkhart County in 2000, nearly 36 percent of the population was under 19 years of age, while 10.7 percent was 60 or over. The under 19 percentage was significantly higher than state of Indiana percentage of 25.9, while the over 60 percentage was significantly lower than the state of Indiana percentage of 16.3. The median age for Elkhart County was 33.0 compared to a statewide median age of 35.2. Thus, the general population of the county is a considerably younger than the state average.

In 2000, 75.7 percent of the county population had a high school diploma compared to 82.1 percent statewide, while just 15.5 percent of the residents had four or more years of college compared to 19.4 percent statewide. While there are cultural explanations for some of this large difference, the fact remains that Elkhart County residents are undereducated compared to the rest of the state of Indiana.

In 2000 the county's median household income was \$44,478 or about \$2,911 more than state average, while per capita income was \$20,250 or almost \$147 below state average. This indicates an emerging bimodel population between rich and poor with less of a middle class population than might be the case across Indiana. Further, the income differences demonstrate the impact of both adults in the household being gainfully employed. The county had 141,059 employed workers with a May 2004 unemployment rate of only 3.9 percent compared to 5.0 percent statewide.

Thus, the population is much younger, less educated, earning more money per household but with a lower unemployment rate than the rest of the state. The county reflects a bimodel population in terms of education, household earnings and employment.

Other statistics of note from the 2000 census were as follows:

Figure 1

Selected Demographic Comparisons for Elkhart County and State of Indiana

	Elkhart County	State or, County v State
*Total Population 1990	156,198	5,544,156
*Total Population 2002	185,972	6,156,913
*Total Population 2010 EST.	189,772	6,417,198
*Preschool (age 0-4)	14,800	8.1/7.0%
*School Age (age 5-17)	37,999	20.8/18.9%
*Adults (age 18-64)	543,171	63.1/61.7%
*Older (age 65+)	19,841	10.9/12.4%
*K-12 School enrollment, 2001/2002	176,015	1 of 92
*Median Age	33.0	35.2
*Married couples with children	17,592	26.6/23.8%
*Married without children	19,981	30.2/29.8%
*Single Parents	6,475	9.8/9.1%
*Residents high school graduates	75.7%	82.1%
*Residents four years or more college	15.5%	19.4%
*Median household income (2000)	\$44,478	\$41,567
*Per capita income (2001)	\$26,050	\$27,522
*Median Value Home (2000)	\$98,100	94,300
*Residential bldg permits, (2003)	1,175	
*Residential bldg permits single family	1,036	
*Total resident labor force (2003)	98,760	3,187,734
*Employed	94,150	3,024,367
*Unemployed	4,610	163,367
*Unemployment rate (May, 2004)	3.9%	5.0%

*Employed workers, 2002, totaled 141,059 in Elkhart County

	County Number	County %
Non-farm	139,225	98.7
Private	131,055	92.9
Accommodation, Food Service	6,695	4.7
Arts, Entertainment, Recreation	1,231	0.9
Construction	6,770	4.8
Health Care, Social Service	9,814	7.0
Information	1,170	0.8
Manufacturing	57,351	40.7
Professional, Tech Services	3,737	2.6
Retail Trade	13,353	9.5
Transportation, Warehousing	3,738	2.6
Wholesale Trade	6,164	4.4
Other	20,750	14.7
*Workers come into Elkhart County from: St Joseph, Michigan, Kosciusko, Lagrange and Marshall Counties		
*Workers go out of Elkhart County to: St Joseph, Lagrange, Kosciusko and Marshall Counties and Michigan		

The County seat of Elkhart County is Elkhart, Indiana. Interstate highways 80 and 90 as well as United States highways 20, 33, and 6 service Elkhart County. State highways 13, 15 and 19 traverse Elkhart County from north to south. The residents of Elkhart County are most typically employed in their county of residency with some going to St. Joseph, Lagrange, Kosciusko and Marshall counties and to the state of Michigan to work. Elkhart County is a net importer of employed workers. In 2001 some 94,150 residents of Elkhart County were in the labor force. The area tends to very directly reflect the state of the manufacturing, retail trade, and service economy of northern Indiana.

Total population growth in the United States has decelerated in the past two decades. This trend has been applicable to Indiana and other mid-western states especially in the decades of the 1980's and 1990's, but has not been the case in Elkhart County for the decades of the 1980's and 1990's. Table 1.1 presents United States Census data relative to the population of Elkhart County for the past three decades. An increase of 56,443 people or 44.7 percent in total population in Elkhart County may be noted from the data presented in Table 1.1 for the three decades from 1970 to 2000. It, is noted that

Table 1.1

Census Date for Elkhart County, 1970-2000

Year	1970	1980	1990	2000
Population	126,348	137,330	156,198	182,791

Source: Federal Bureau of Census, 2000

Elkhart County experienced a substantial increase in the 1980's of some 18,868 people as well as an additional significant increase of 26,593 people during the decade of the 1990's.

Table 1.2 presents the total population of the political subdivisions of Elkhart County from 1970 to 2000 to demonstrate where the population changes have occurred

Table 1.2

**Total Population of Political Subdivisions of Elkhart County
For 1970-2000 With Number and Percent of Change Since 1970**

Townships	1970	1980	1990	2000	# Change	%Change
Baugo	5,982	6,097	6,640	7,646	1,664	27.8
Benton	1,354	1,479	1,762	2,342	988	73.0
Cleveland	5,027	6,547	7,843	9,729	4,702	93.5
Clinton	2,478	2,918	3,735	4,153	1,675	67.6
Concord	47,192	46,214	49,126	55,377	8,185	17.3
Elkhart	21,399	23,202	27,995	33,986	12,587	58.8
Harrison	2,175	2,421	2,693	2,885	710	32.6
Jackson	2,416	2,642	3,232	3,409	993	41.1
Jefferson*	2,360	3,687	4,604	6,545	4,185	177.3
Locke	2,834	3,137	3,881	4,200	1,366	48.2
Middlebury*	3,453	4,604	5,770	7,028	3,575	103.5
Olive	2,081	2,398	2,895	2,847	766	36.8
Osolo	18,309	20,115	22,452	26,369	8,060	44.0
Union	4,283	4,872	5,487	5,827	1,544	36.0
Washington	3,535	4,681	5,136	7,019	3,484	98.6
York*	1,471	2,316	2,947	3,429	1,958	133.1
TOTALS	126,348	137,330	156,198	182,791	56,443	44.7

Sources: Bureau of Census, 1970-2000

*Middlebury Community Schools

within the county. From a percentage growth standpoint the three townships that make up the MCS, Jefferson, Middlebury and York, far out-gained the other 13 townships in Elkhart County. However, from a number growth standpoint, Elkhart, Concord and

Osolo townships lead the county in terms of population growth. In 1970 the three townships of the MCS held 5.7 percent of the county population. By 2000 the three townships held 9.3 percent of the county population. The total growth in population for the county from 1970 to 2000 equaled 56,443 people with 9,718 or 17.2 percent of that growth in the three townships of the MCS. Thus, the three townships collectively are a leader in general population growth during the time period examined with 9.3 percent of the population but capturing 17.2 percent of the growth. During the period 1970 to 2000 Indiana's total population grew from 5,195,392 to 6,080,485 for an increase of 885,093 or 17 percent, while Elkhart County, in total, was increasing by 44.7 percent from 126,348 to 182,791. In 2000 Elkhart County was the sixth largest county in Indiana in terms of total population.

The Indiana Business Research Center projects Elkhart County will grow from 182,791 to 206,363 or by 23,572 or 12.9 percent during the first two decades of the 21st Century, while their projection for growth for all of Indiana is just 5.2 percent.

Table 1.3 shows the projected population by age cohort groups for Elkhart County for the years 2005, 2010, 2015, 2020 and 2025. It is noted that while the total population

Table 1.3

**Projected Population by Age Cohorts, 2005, 2010, 2015, 2020, and 2025
For Elkhart County, Indiana**

YEAR	Age 0-4	Age 5-19	Age 20-24	Age 25-44	Age 45-64	Age 65+	TOTAL
2005	15,596	42,449	12,368	53,468	41,255	19,328	184,464
2010	16,098	43,231	12,428	52,804	44,836	20,375	189,772
2015	16,563	44,808	12,456	53,252	46,449	23,036	196,564
2020	17,056	46,222	12,739	54,097	47,429	26,820	206,363
2025	17,780	47,683	13,129	55,360	48,248	30,790	212,990
% change	14.0%	12.3%	6.1%	3.5%	17.0%	59.3%	15.5%

Source: Indiana Business Research Center

is projected to increase from 184,464 in 2005 to 212,990 in 2025, an increase of 15.5 percent, the age 5-19 school age cohort is expect to increase by only 12.3 percent, while

the age 0-4 preschool cohort is projected to grow by 14.0 percent. Clearly the older age cohorts will increase in number more dramatically than the younger age cohorts in future decades with the 65 and older cohort expected to increase by 59.3 percent.

The median age in Elkhart County in 2000 was 33.0 years of age. The median age for the county is projected to be 33.2 in 2005, 33.6 in 2010, 34.1 in 2015, 34.5 in 2020 and 34.8 by 2025. This compared to Indiana's 2000 median age of 35.2 projected to be 38.6 by 2025.

There is some speculation that Elkhart County may continue to increase its rate of growth in population into the first decades of 2000. The Federal Bureau of the Census projects Elkhart County to increase in population to 206,363 or 30,199 people for a 16.5 percent increase by 2020, while the state of Indiana is expected to increase just 5.2 percent during the same period.

Economic strength in northern Indiana during the current statewide and national downturns in economic strength may contribute positively to total county population totals. Such is reflected in the primary and secondary housing markets to date. Elkhart County issued 1,175 residential building permits in 2003 including a total of 1,036 single-family residential building permits. Nationally, the current economic downturn is just now beginning to be reflected in new home starts and sales of existing homes. This is due primarily to the current low mortgage interest rates available to home buyers.

How general population change relates to student population change in Jefferson, Middlebury and York Townships and Elkhart County school corporations is examined in Table 1.4 below. Table 1.4 demonstrates that the MCS in 1999 enrolled 10.7 percent of the public school student population for an area consisting of Jefferson, Middlebury and York Townships and its neighboring school corporations. By 2003 that percentage for MCS had increased to 11.0 percent of the population of the total area as the corporation gained 261 students. The total public school population increase for Jefferson, Middlebury and York Townships and its neighboring school corporations during this period was 1,471 students, 17.7 percent of which is accounted for in the Middlebury Community Schools.

Table 1.4

**Student Population of MCS and Neighboring School Corporations
And Percent of Total Comparison Group Student Population, 1999 and 2003**

School Corp.	1999 Students	% Of Area	2003 Students	% Of Area
Fairfield Community Schools	1,932	5.9	2,070	6.1
Middlebury Community Schools	3,472	10.7	3,733	11.0
Baugo Community Schools	1,678	5.2	1,765	5.2
Concord Community Schools	4,324	13.3	4,452	13.1
Wa-Ne Community Schools	2,994	9.2	3,050	9.0
Elkhart Community Schools	12,699	39.1	13,084	38.5
Goshen Community Schools	5,419	16.7	5,835	17.2
Total	32,518		33,989	

All of the seven school corporations in the comparison group grew in total student population. However, the growth in Goshen, Fairfield and Middlebury were the leaders in the area in student population growth. Total public school student population for the state of Indiana grew from 986,860 to 1,001,808 or just 1.5 percent during this same period. The MCS increased by 261 students or 7.52 percent from 1999 to 2003.

Total population growth within an area does not necessarily mean increased enrollment in the schools. However, in terms of the relationship of quality schools to community growth, there is considerable evidence that, where people and industries have a choice, they frequently locate in terms of the quality or reputation of the school program. The prime concern of the citizens of the Elkhart County school corporations must be the ways in which they can develop educational systems which will continue to provide general knowledge, cultural understandings, social values and attitudes, and basic skills that will make students successful citizens in a dynamic, democratic society. In so doing, the viability of the community, and, therefore, the viability of the school corporations will be greatly enhanced.

**JEFFERSON, MIDDLEBURY AND YORK TOWNSHIPS GENERAL
POPULATION CHARACTERISTICS**

Table 1.5 presents a profile of general demographic characteristics for Jefferson, Middlebury and York Townships combined, all of Elkhart County and the state of Indiana.

Table 1.5

**Profile of General Demographic Characteristics for
Jefferson, Middlebury and York Townships, Elkhart County and Indiana,
2000 Census**

General Demographic Characteristic	Jefferson, Middlebury and York Townships	Elkhart County	State of Indiana
Total Population	17,002(9.3%)	182,791	6,080,485
Population Under 5	1,371(8.1%)	14,800(8.1%)	7.0%
Population Under 19	6,129(36.0%)	57,913(31.6%)	25.9%
Population Over 60	1,812(10.7%)	26,247(14.4%)	16.3%
Born In Indiana	68.5%	64.5%	69.3%
Median Age	Jefferson 33.4 Middlebury 30.4 York 34.8	33.0	35.2
White Population	16,492(97.0%)	157,931(86.4%)	87.5%
African-American	43(0.25%)	9,551(5.2%)	8.4%
Hispanic-Latino	215(1.3%)	16,300(8.9%)	3.5%
Households With Children Under 18	3,589(46.9%)	24,067(36.4%)	32.9%
Average Family Size	3.38	3.18	3.05

It is noted, from Table 1.5 that 68.5 percent of the population of the MCS was born in Indiana compared to 64.5 percent for the entire county and 69.3 for the state. This is the result of the net in-migration discussed earlier and reflects the fact that the increase in population is from out of state as well as within-state and within-county in-migration. Residents of Jefferson, Middlebury and York Townships tend to be life long residents of Indiana. Such a limited diversity in population is very often a signal for a preference for the quality of life of the community, enhanced pride in the community and a willingness to invest in the future of the institutions of the community by community members. The median age in the MCS at 32.2 years compared to the county's 33.0 and the state's 35.2 years of age indicates a significantly younger population in the MCS than is generally found in the county and the state. The population of the school corporation is clearly more white than the county and the state.

Jefferson, Middlebury and York Townships have a larger percentage of households with children under 18 than the rest of the county and the state, 46.9 percent compared to 36.4 percent and 32.9 percent respectively. Thus, the population growth in

the MCS includes a greater number of younger families with school age children than the rest of the area. The average family size in the MCS is greater than both the county and the state of Indiana at 3.38 persons per family.

As shown in Table 1.5 Continued below, total housing units in Jefferson,

General Demographic Characteristic	Jefferson, Middlebury and York Townships	Elkhart County	State of Indiana
Total Housing Units	5,745(8.2%)	69,791	2,532,319
Housing Units Built Since 1990	1,875(32.6%)	13,940(20.0%)	17.3%
Housing Units Built Since 1995	1,092(19.0%)	8,178(11.7%)	10.3%
Same House Since 1995	53.7%	51.3%	55.0%
Different House/Same County Since 1995	30.7%	30.8%	25.5%
Different House/Different State Since 1995	9.3%	6.1%	8.0%
Renter Occupied Housing Units	627(11.4%)	18,385(27.8%)	28.6%

Middlebury and York Townships in 2000 was 5,745 with 32.6 percent built since 1990 and a full 19.0 percent built since 1995. Nearly 53.7 percent of Jefferson, Middlebury and York Townships residents are in the same home they were in 1995.

Some 30.7 percent are in a different house in Elkhart County than in 1995. A full 9.3 percent of the population of the townships migrated from out of state to the MCS since 1995 compared with 6.1 percent countywide and 8.0 percent statewide. Residents of the townships are far more likely to own housing rather than rent when compared to the population across the county and the state of Indiana.

As shown below, in terms of labor force statistics, MCS females are employed at a rate much greater than what is found across the county and the state. Also, females from the townships with children under six years of age are as likely to be fully employed consistent with both the county and state percentages.

The workforce of Jefferson, Middlebury and York Townships is more heavily employed in management and professional, sales/office, and construction/maintenance and production, or “blue collar” areas of the economy, than is generally found in the

county. The residents are less employed in the service related areas of employment than is true in the county or the state.

Jefferson, Middlebury and York Townships' population is far more affluent economically than is generally the case in Indiana and Elkhart County in terms of median household income. Jefferson, Middlebury and York Townships' median household income is \$11,837 per year greater than the state and \$8,926 greater than the county median household income. On a per capita basis, however, the townships exceed the county and state medians by just \$863 and \$716 respectively. Thus, the figures reflect the two adults working, "blue collar" nature of the households of the community. Fifty-nine point four percent of Indiana households have a median household income under \$50,000 while only 37.0 percent of Jefferson, Middlebury and York Townships households are under \$50,000. In Elkhart County, 56.9 percent of the households are under \$50,000. In Indiana, 10.2 percent of the families with children under 18 are at or below the poverty line, while just 4.4 percent of the Jefferson, Middlebury and York Townships' population is at or below the poverty line. Some 8.8 percent of the county households, twice the MCS rate are at or below the poverty line. This increases for families with children under five years of age in the county and in Indiana, but not significantly in Jefferson, Middlebury and York Townships. In Indiana, 13.7 percent of the families with children under five are at or below poverty levels, while in Jefferson, Middlebury and York Townships 6.5 percent and in the county 12.3 percent of families with children under five are at or below poverty status. Lastly, it is noted that in the families of the MCS with no husband present, 12.0 percent are considered poverty families while 23.4 percent of the state and 23.3 percent of the county's families where no husband is present were considered poverty families by the 2000 census. Thus, in the MCS, families living at or below the poverty level are far less numerous than would be the case in the county and in the state of Indiana.

Table 1.5 Continued

General Demographic Characteristic	Jefferson, Middlebury and York Townships	Elkhart County	State of Indiana
Females 16 + In Labor Force	69.0%	62.8%	60.0%
Females With Children Under Six All Parents in Labor Force	62.5%	62.7%	62.5%
Occupations:			
Management/Professional and Related	24.4%	23.8%	28.7%
Service	10.9%	11.0%	14.2%
Sales/Office	24.1%	23.4%	25.3%
Construction/Maintenance	10.5%	8.7%	10.0%
Production	29.5%	32.7%	21.4%
Median Household Income	Jefferson \$53,739 Middlebury \$54,955 York \$49,634	\$44,478	\$41,567
Median Household Income Less Than \$50,000	37.0%	56.9%	59.4%
Per Capita Income	\$21,113	\$20,250	\$20,397
Poverty Status For Families With Child Under 18	4.4%	8.8%	10.2%
Poverty Status For Families With Child Under 5	5.4%	12.3%	13.7%
Poverty Families No Husband Present	12.0%	23.3%	23.4%

Housing values is another important measure in determining the impact of changing population on school enrollments. Generally the higher price of the home, the less younger, school aged children the occupants will have. In Indiana 55.3 percent of the homes are valued under \$100,000. In MCS just 26.4 percent are valued under \$100,000 and 52.2 percent in the county. In Indiana, 36.4 percent of the homes are valued between \$100,000 and \$200,000, while in the MCS 60.9 percent are in this range. For Elkhart County 40.5 percent of the homes are valued between \$100,000 and \$200,000. Elkhart County has 7.3 percent of its homes valued over \$200,000, while for

Table 1.5 Continued

General Demographic Characteristic	Jefferson, Middlebury and York Townships	Elkhart County	State of Indiana
Housing Value Under \$100,000	26.4%	52.2%	55.3%
Housing Value \$100,000-200,000	60.9%	40.5%	36.4%
Housing Value Above \$200,000	12.7%	7.3%	8.3%

the MCS that percentage is 12.7 percent while the state is 8.3 percent.

The nature of the population for Jefferson, Middlebury and York Townships is clearly younger, less educated, more fully employed, making more money per household through two working parents and living in more expensive homes than is generally the case in the state of Indiana. The MCS reflects little diversity in their population.

The people who make up the economic and family profiles represented by such data as presented in Table 1.5 tend to have high expectations for their children and thus high expectations for their public schools. As MCS plans for its future in terms of needed facilities and the breadth and depth of its curricular and extra-curricular programs it will indeed need to consider the social and cultural nature of its population.

ENROLLMENT PROJECTIONS

Several assumptions must be made and considerations set forth before projecting enrollments can be attempted. The following assumptions have been made in this study and if they do not hold true the enrollment projections could be altered. These assumptions are:

1. The legal age for attending schools in Indiana will remain the same;
2. The percentage of children now attending public schools will remain at the present level;
3. The school corporation boundaries will remain as they are at present;
4. The students will progress through the grade levels at about the same retention rate as at present;
5. The dropout rate will remain about the same;
6. The current pattern of enrollment increases and decreases will remain the same.

The enrollment history of the MCS by grade groupings, as presented in Table 1.6 below, indicates a continuing steady increase in total student population from 1994 to 2004. This increase during the ten-year period yields a total student population from 1994 to 2004 that is 804 students more in 2004 compared to 1994 totals. Over this ten-year history, the enrollment has ranged from a low of 3,054 in 1994 to a high of 3,858 in the current school year, a range of 804 students. The elementary, kindergarten through grade five, has ranged from 1,436 in 1994 to 1,743 in 2004. Grades six through eight have ranged from 729 in 1994 to 947 in 2001. The high school's range over the period has been from a low of 846 in 1994 to a high of 1,192 in 2004. The steady year-to-year increase in total student population has held for each of the past ten years and cuts equally across the elementary and middle school grade configuration of the school corporation. The high school increase of 346 students over the past ten years is more a function of student persistence rates from grade to grade than it is increased enrollment a fact that will be explored later in the study. Of further note is the fact that per grade averages for kindergarten through grade five have increased from an average of 239 students per grade in 1994 to 291 students per grade in 2004 an increase of 52 students per grade. It is noted that for each of the ten years presented, the MCS enrolled far more kindergarten students than were enrolled the same year as seniors. This is a pattern experienced in many growing school corporations in the state and could be an indication of total student population increase over an extended period if secondary continuation rates persist. During the past ten-year period, 2,528 students were enrolled in kindergarten compared to 2,189 seniors that exited the school corporation, a difference of 339 students.

Table 1.6

**Middlebury Community Schools Corporation-wide Enrollments
By Grade Level and Grade Configuration, 1994-2004**

Grade	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Kdg	246	273	221	232	248	251	229	269	257	271	277
1	246	281	299	233	238	276	280	238	262	282	294
2	256	254	279	301	246	258	296	281	251	269	291
3	238	277	270	289	309	260	254	296	282	283	278
4	220	261	285	272	310	311	266	258	298	299	294
5	230	232	269	288	280	319	336	276	274	317	309
Total	1436	1578	1623	1615	1631	1675	1661	1618	1624	1721	1743
Avg. Per Grade	239	263	271	269	272	279	277	270	271	287	291
6	239	250	234	265	284	287	325	324	285	280	322
7	274	257	252	246	285	282	289	325	332	294	290
8	216	267	244	272	248	290	296	298	329	337	309
Total	729	774	730	783	817	859	910	947	946	911	921
Avg. Per Grade	243	258	243	261	272	286	303	316	315	304	307
9	221	222	246	224	269	232	267	286	291	304	332
10	208	215	208	241	226	244	229	255	277	292	308
11	206	218	220	190	232	215	234	220	260	264	290
12	211	198	201	214	192	218	197	230	218	259	262
Total	846	853	875	869	919	909	927	991	1046	1119	1192
Avg. Per Grade	212	213	219	217	230	227	232	248	262	280	298
Other	43	49	45	49	59	65	63	53	57	15	2
Corp Total	3054	3254	3273	3316	3426	3508	3561	3609	3673	3766	3858
Avg. Per Grade	232	247	248	251	259	265	269	274	278	289	297
Year # Change		200	19	43	110	82	53	48	64	93	92
Year% Change		6.5	0.6	1.3	3.3	2.4	1.5	1.3	1.8	2.5	2.4

Of further note is the fact that while the grades kindergarten through five enrollments averaged 239 students per grade in 1994 and 291 per grade in 2004, grades six through eight averaged 243 in 1994 and 307 in 2004. High school grades nine through twelve averaged 212 in 1994 and 298 in 2004. Thus, the middle school cohort groups are averaging slightly greater numbers of students per grade than the older high school cohort groups they will replace, while the elementary cohorts are slightly smaller. Both comparisons are indicators of total student population increases into the future.

Information presented in Table 1.6 indicated that the total school corporation enrollment increased 804 students from 1994 to 2004. This view of the historical data

suggests that the total population increase has been spread fairly evenly across all grade levels in the school corporation. Thus, again, we can project a continuing increase in total enrollment in the near term future of the school corporation unless out-migration patterns develop or live birth rates decrease.

An important aspect of a school survey is an estimate of future enrollments. Irrespective of what modifications in facilities or programs are contemplated, inevitably the corporation must respond to the number of pupils to be served. Generally in an area with a relatively stable population, future enrollments can be predicted with a fair degree of accuracy. After giving due attention to factors which influence public school enrollment such as community growth or decline, birth rates, age and grade composition of the pupil population, the progress of pupils through school, housing patterns and availability, projection of future enrollment can be made with a fair degree of confidence.

Three distinct techniques may be used for forecasting total school system enrollment levels. The basic rationale of each technique is described briefly.

The cohort survival technique is the method that is generally used as a short-range tool. It is based on the calculation of a series of survival rates, each of which indicates the fraction of students in one grade in a given year that "survive" to the next grade in the next year. The survival rates will thus encompass all the individual factors influencing enrollments, such as migration and retention rates. Enrollments in the initial grade are estimated independently on the basis of past birth rate data. This technique may be particularly appropriate for school districts where the principal source of uncertainty as to future enrollment levels can be attributed to changes in birth rate or the age distribution of the population, and where other factors such as migration rates are expected to remain stable or continue to change at the same rate as they have in the past.

A second technique is entitled time trend projections. This method also lumps the effect of individual phenomena together and simply extrapolates the specific enrollment trend. An advantage of this technique is that the user is allowed considerable freedom in the selection of an appropriate trend curve. Therefore, the projections are not entirely constrained to an exact replication of past trends, but reflect the user's perception of the most likely pattern of future enrollments.

A third technique is the ratio method. Forecasts derived using this technique are based upon currently available projections of trends for some larger region of which the local school district is a part. In general, larger regional forecasts are more reliable than forecasts for a small geographic area. Thus, if the relationship between the larger area and the local school system is reasonably stable, this technique may be useful in deriving longer-range forecasts.

Of the three enrollment forecasting techniques only the cohort technique specifically derives estimates of enrollments by grade.

The cohort survival or grade progression technique is the most commonly used enrollment forecasting method. The data requirements are not extensive and the necessary computations are relatively simple and straightforward.

Even when population growth occurs, it does not necessarily imply increased enrollment in schools. New businesses might add to the economic base, but have little impact on school enrollments. A spurt of residential building does not mean that homes will be occupied by families with school age children. Mobile homes, light industry, apartment complexes, retirement facilities or commercial ventures all may affect the population and school officials need to periodically assess the nature of these variables within their corporation.

There is a trend of reduced family size couples with delayed families or families with no children. As a result more housing units are needed to yield the same number of school age children. Table 1.7 shows the number of live births in Elkhart County each year from 1988 through 2005 and the number of Kindergarten students entering MCS five years later. An average percentage was derived by dividing the number of kindergarten enrollees from 1994 to 1997 (972) by the total number of live births from 1989 to 1992 (10,731). This indicates that an average of 9.06 percent of the yearly resident live births entered MCS' kindergarten five years later. Performing the same operation on kindergarten enrollees from 1998 through 2002 (1,254), divided by resident live births from 1993 through 1997 (13,842), provides an historical percentage of 9.06 percent for this period. Thus, while Elkhart County resident live births were increasing slightly from an average of 2,690 per year to 2,768 Jefferson, Middlebury and York Townships' share of those live births remained virtually the same at 9.06 percent.

Table 1.7

**Number of Live Births in Elkhart County from 1988 through 2005
And Number of Students Entering MCS Kindergarten Five Years Later**

Year	Elkhart County Resident Live Births	Year	Kindergarten Enrollment MCS	% of Live Births as Kdg Enrollment
1988	2,720	1993		
1989	2,761	1994	246	8.90
1990	2,712	1995	273	10.07
1991	2,634	1996	221	8.39
1992	2,624	1997	232	8.84
Total/Average	13,451/2,690		972/243	9.06
1993	2,723	1998	248	9.11
1994	2,692	1999	251	9.32
1995	2,736	2000	229	8.37
1996	2,720	2001	269	9.89
1997	2,971	2002	257	8.65
Total/Average	13,842/2,768		1254/251	9.06
1998	2,996	2003	271	9.05
1999	3,143	2004	277	8.81
2000	3,315	2005	300*	9.06**
2001	3,125	2006	283*	9.06**
2002	3,005	2007	272*	9.06**
Total/Average	15,584/3,117			
2003	3,191	2008	289*	9.06**
2004	3,159***	2009	286*	9.06**
2005	3,159***	2010	286*	9.06**

*9.06 Percent of 3,315 for 2005, 3,125 for 2006, 3,005 for 2007, 3,191 for 2008 and 3,159 for 2009 and beyond.

** Historical average.

*** Past four year average.

Further, however, while resident live births in recent years have increased to an average of 3,159 annually the MCS kindergarten enrollment as a percent of those resident live births five years later has declined slightly. In 2003 the percentage of resident live births enrolling in the MCS kindergarten was 9.05 percent and in 2004 it was just 8.81 percent. This is an indication that the recent acceleration of housing development in Jefferson,

Middlebury and York Townships is not attracting the number of young families with pre school aged children that it has in previous years.

The total county resident live births per year increased year to year from 1988 to 1998. Beginning in 1999 the rate of yearly increase has accelerated. This is not the usual pattern to be found when economic conditions are weak. Resident live births fluctuate with the general economic conditions as young parents delay child bearing for stronger economic times. However, the impact of this is being felt less severely in Jefferson, Middlebury and York Townships than in other areas of Indiana. Taken together, the recent years increasing resident live birth rate with steady to decreasing percentages of those enrolling in MCS kindergarten five years later represents a continuing increasing trend line for total student population but should be carefully monitored by the school corporation.

By applying an average percentage to the number of resident live births from 2000 through 2005, in this case 9.06 percent, projections of kindergarten enrollments for 2005 through 2010 and beyond can be computed as shown in Table 1.7. The average number of kindergarten enrollees for the MCS from 1994 to 1998 was 243 per year. The kindergarten enrollees for 1998 through 2002 averaged 251 per year. Projections for 2005 through 2010 are 300, 283, 272, 289, and 286 respectively based on 9.06 percent of resident live births. If this projection holds true it would represent an increase from recent years kindergarten enrollment averages over the short term.

Table 1.8 presents the projected kindergarten enrollment using Resident Live Birth data and based on the past five and ten years of history. The past five year

Table 1.8

Kindergarten Enrollment Projected by Birth Data and by Historical Data for Middlebury Community Schools 2004-05 through 2009-10

Year	Birth Data	5 Years History	10 Years History
2004-05	300	261	253
2005-06	283	261	253
2006-07	272	261	253
2007-08	289	261	253
2008-09	286	261	253
2009-10	286	261	253

historical average projects 261 kindergarten students per year, the past ten years projects 253 kindergarten students per year, while birth data projects an average over the next five years of 286 students.

The figures in Table 1.8 reflect significant variation in kindergarten enrollment that occurred when projecting enrollment based on the two different methods. This is due in large measure to the effect of the increase in resident live birth rates for Jefferson, Middlebury and York Townships and net in-migration experienced by the corporation. Typically, actual enrollment has been found to be somewhere between the two methods of projecting future enrollment and may be the case here. It is clear, however, that should the state of Indiana and the MCS adopt an all day everyday kindergarten enrollment, the total kindergarten enrollees will increase from these projections as more parents will likely opt for public school kindergarten over current use of private day care programs.

Clearly, projecting future enrollments solely on one of the two methods described here would likely not be as accurate as some compromise method between the two extremes. However, given the in-migration experienced by the school corporation, together with the increase in the percentage of county resident live births attending Jefferson, Middlebury and York Townships, this study projected future enrollments based on an average of 9.06 percent of the projected resident live births enrolling in kindergarten each year through 2010.

The school corporation has experienced steady increases in total enrollment over the past several years. Obviously the condition of the northern Indiana area economy, the employment opportunities in the area, and the availability of reasonably priced housing and continuing low interest rates for housing will play a major role in determining the accuracy of any enrollment projections.

Because of the discrepancies in enrollment projections encountered by the study, a decision was made to detail future enrollment projections on the basis of a combination of birth rates, using average resident live birth data over the past four years and three-year enrollment history data or “continuation rates” as the basis for the enrollment projections. The survey is under the opinion that birth data alone may reflect a somewhat lower than actual future enrollment; and, in all probability, history data alone would provide an extremely low estimate of enrollment for the school corporation.

The continuation rate is a ratio between the numbers of pupils at one grade level succeeding to the next grade level the next year. For example, if in the 2002-03 school year there were 251 students in grade two and the following school year, the 2003-04 school year, there were 283 students in grade three, that would reflect a continuation rate of 112.7 percent signaling a gain of 12.7 percent. If in 1999-00 there were 244 students in grade ten while in the 2000-01 school year there were 234 students in grade eleven that would be a continuation rate of 95.9 percent signaling a loss of 4.1 percent. These factors are influenced by migration in and out of the school district as well as retention policy or fluctuations in non-public school enrollments.

Table 1.9 presents the average continuation rate by grade level for the MCS for the period 2001-02 through 2004-05 together with the per grade average continuation rates for the past ten, five and three year periods. The continuation rate can serve as an indicator of the relative stability of enrollments over time. A factor of 99 percent to 101 percent would reflect stable enrollment. Corporation-wide factors below 99 percent would reflect a decreasing student population, and an increasing population would be apparent if factors over 101 percent prevailed over a period of time. The MCS system average of 102.1 for the past three years reflects the steady increasing enrollment experienced by the school corporation during that period of time. The elementary average shows a net in-migration of 4.6 percent, while the middle school's net in-migration is 2.7 percent. However, the high school has a net out-migration of 1.5 percent.

Table 1.9

Average Continuation Rates 2000-01 Through 2004-05 by Grade Level for Middlebury Community Schools with Ten, Five and Three Year Averages

Grade	00-01	01-02	02-03	03-04	04-05	10yr. Ave.	5yr. Ave.	3yr. Ave.
K								
1	111.6	103.9	97.4	109.2	108.5	107.4	106.2	105.0
2	107.2	100.4	105.5	102.3	103.2	103.6	103.2	103.7
3	98.4	100.0	100.4	112.7	109.3	104.1	103.0	105.5
4	102.3	101.6	100.7	106.0	103.9	103.6	102.9	103.5
5	108.0	103.8	106.2	106.4	103.3	104.3	105.5	105.3
Ele Ave	105.5	101.9	102.0	107.33	104.4	104.6	104.2	104.6
6	101.9	96.4	103.3	102.2	101.6	101.5	101.1	102.4
7	100.7	100.0	102.5	103.2	103.6	103.0	102.0	103.1
8	105.0	103.1	101.2	101.5	105.1	103.1	104.5	102.6
MS Ave	102.5	99.8	102.3	102.3	103.4	102.5	102.5	102.7
9	92.1	96.6	97.7	92.4	98.5	96.1	95.5	96.2
10	98.7	95.5	96.9	100.3	101.3	97.3	98.5	99.5
11	95.9	96.1	102.0	95.3	99.3	97.8	97.7	98.9
12	91.6	98.3	99.1	99.6	99.2	96.9	97.6	99.3
HS Ave	94.6	96.6	98.9	96.4	99.6	97.0	97.3	98.5
Corp Ave	101.1	99.6	101.6	102.6	102.6	101.6	101.5	102.1

If we track high school students from grade nine to grade twelve, net in and out migration, we find that the combined loss of students from grade nine to twelve is about 10.7 percent. Thus, for every 100 ninth graders we can project 89 of them will still be in the system, (again, net in and out migration) by the time they are seniors. The total population over age 25 in Indiana shows approximately 82 percent with a high school diploma. Historically, the MCS is graduating approximately 90 percent of its high school students. Any increase in the continuation rates for grades nine, ten, eleven and twelve could make a significant difference in the total student population for the corporation.

The state of Indiana has mandated increased graduation requirements and increased exit-testing programs. The impact of these new requirements is speculation, however some concern has been expressed about the possible increase in student drop out

rates as a result of these changes. It should be noted that change in drop out rates would impact on grades nine through twelve and not in grades kindergarten through eight.

Attempting to assess future enrollment figures is difficult at best. As has been pointed out many factors can influence future student populations and projecting is not exact science utilizing any available data. If we looked at both the birth rate and historical data in projecting elementary (K-5), middle school (6-8) and high school (9-12) separately we would project with some measure of confidence that a continuing increase in total student population is defensible for the MCS.

Table 1.10 shows the projected enrollment for the MCS for 2004 through 2011 using resident live birth rates and three-year continuation rates. This seven-year projection shows the elementary population increasing from 1,743 to 1,906 a 163 student or a 9.4 percent increase. The middle school is expected to increase from 921 to 1,131 a 210 student or 22.8 percent increase. The high school grades (nine through twelve) are projected to increase from 1,192 to 1,286 a 94 student or 7.9 percent. Taken together the projection shows a 467 student or 12.1 percent increase between now and 2011 when nearly 4,323 students are expected in the corporation. Clearly, the school corporation should continue the steady increase in total student enrollment that has been its recent history.

Table 1.10

**Middlebury Community Schools
Corporation-wide Enrollments Projected by
Birth Rates and Five Year Continuation Rates
by Grade Level, 2004-2011**

Grade	2004	2005	2006	2007	2008	2009	2010	2011
K	277	300	283	272	289	286	286	286
1	294	291	315	297	286	303	300	300
2	291	305	302	327	308	297	314	311
3	278	307	322	319	345	325	313	331
4	294	288	318	333	330	357	336	324
5	307	310	303	335	351	347	376	354
Ele Total	1743	1811	1843	1883	1909	1915	1925	1906
Per grade Average	291	302	307	314	318	319	321	318
6	322	314	317	310	343	359	355	385
7	290	332	324	327	320	354	370	366
8	309	298	341	332	336	328	363	380
MS Total	921	944	982	969	999	1041	1088	1131
Per Grade Average	307	315	327	313	333	347	363	377
9	332	297	287	328	319	323	316	349
10	308	330	296	286	326	317	321	314
11	290	305	326	293	283	322	314	317
12	262	283	298	318	286	276	314	306
HS Total	1192	1215	1207	1225	1214	1238	1265	1286
Per Grade Average	298	304	302	306	304	310	316	322
Corporate Total	3856	3970	4032	4077	4122	4194	4278	4323
Corporate Average	297	305	310	314	317	323	330	333

Planning over the next decade for educational and instructional space should be based on approximately 2,100 elementary students, 1,300 middle grade students and 1,500 high school students.

**PROJECTED ENROLLMENT FOR EACH ELEMENTARY SCHOOL
2004-05 THROUGH 2009-10**

Table 1.10 presented the projected enrollment by grade and grade configuration for the MCS from the current 2004-05 school year to the 2011-12 school year. Those projections were based on an analysis of resident live birth rates over the past fifteen years and an analysis of the continuation rates for the corporation over the past ten, five and three year periods. The projections showed the elementary, grades kindergarten through grade five, increasing from a current year 1,743 to 1,906 students. That is a projected increase of 163 students.

How the elementary enrollment will be affected in each of the four elementary schools is important to the planning for adequate and modern space for the delivery of educational programs. The follow four tables show the historical enrollment for each of the four elementary schools together with their five-year continuation rate.

JEFFERSON ELEMENTARY SCHOOL

GRADE	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	5 Year Cont.Rate
KDG	72	90	88	91	96	100	
1	106	89	91	91	101	115	111.8
2	77	110	87	96	107	109	106.9
3	97	78	114	86	119	111	106.3
4	86	104	83	121	91	123	105.8
5	97	101	107	86	130	97	107.6
OTHER	8	13	13	16			
TOTAL	543	585	583	587	644	655	107.7

Jefferson Elementary school has increased by 112 students or 20.6 percent over the past five years while the total kindergarten through grade five enrollment in the corporation was increasing by only 68 students or 4.1 percent. The school has demonstrated positive continuation rates across all grade levels of the school.

MIDDLEBURY ELEMENTARY SCHOOL

GRADE	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	5 Year Cont Rate
KDG	81	52	73	69	71	67	
1	63	84	53	62	60	67	94.4
2	74	69	84	57	58	62	102.8
3	71	72	72	80	67	60	103.5
4	88	71	75	65	79	64	97.8
5	85	91	71	81	68	81	103.7
TOTAL	462	439	428	414	403	401	100.4

Middlebury Elementary School has decreased by 61 students over the past five years for a percentage decrease of 13.2 percent. The school has had negative continuation rates at two grade levels and relative flat continuation rates overall.

ORCHARD VIEW ELEMENTARY SCHOOL

GRADE	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	5 Year Cont Rate
KDG	55	44	63	63	68	65	
1	67	59	47	64	74	69	106.9
2	51	73	61	50	62	79	104.5
3	57	54	69	61	51	65	101.4
4	82	57	54	71	68	60	106.4
5	75	88	61	59	79	71	107.9
OTHER	10					2	
TOTAL	397	375	355	368	402	411	105.4

Orchard View Elementary School has increased by 14 students over the past five years and has demonstrated positive continuation rates across all grade levels of the school.

YORK ELEMENTARY SCHOOL

GRADE	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	5 Year Cont Rate
KDG	43	43	45	34	36	45	
1	40	48	47	45	47	43	117.7
2	56	44	49	48	42	41	98.5
3	35	50	41	55	46	42	98.1
4	55	34	46	41	61	47	100.4
5	62	57	37	48	40	60	102.5
OTHER	1						
TOTAL	292	276	265	271	272	278	103.4

York Elementary School has decreased by 14 students or 4.8 percent over the past five years. The school has demonstrated negative continuation rates for two grade levels and shows an unusually high or inflated continuation rate at grade one suggesting that a number of students don't attend kindergarten at York but are enrolling for grade one at the school.

Using the historical continuation rates, the distribution of students at each of the four schools across the grade configuration of the corporation together with the projected kindergarten enrollments generated in this study, the following projected enrollments for each of the four elementary schools were computed. It is noted that all four schools demonstrate some growth but that Jefferson and Orchard View elementary schools will capture the majority of additional elementary students over the short term.

JEFFERSON ELEMENTARY SCHOOL

GRADE	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
KDG	100	107	101	97	103	102
1	115	112	120	113	108	115
2	109	123	120	128	121	115
3	111	116	131	128	136	129
4	123	117	123	139	135	144
5	97	132	126	132	150	145
TOTAL	655	707	721	727	753	750

Jefferson Elementary School is projected to increase from 655 students to 750 students by the 2009-2010 school year. This represents a 95 student or 14.5 percent

increase for the school. The projection demonstrates that Jefferson will capture approximately 58.2 percent of the projected elementary growth in the corporation.

MIDDLEBURY ELEMENTARY SCHOOL

GRADE	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
KDG	67	77	73	70	74	74
1	67	63	73	69	66	70
2	62	69	65	75	71	68
3	60	64	71	67	78	74
4	64	59	63	69	66	76
5	81	66	61	65	72	68
TOTAL	401	398	406	415	427	430

Middlebury Elementary School is projected to increase just 29 students by the 2009-10 school year. This reflects a stable total student population into the short-term future.

ORCHARD VIEW ELEMMENTARY SCHOOL

GRADE	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
KDG	65	73	69	66	71	70
1	69	69	78	74	71	76
2	79	73	72	82	77	74
3	65	80	74	73	83	78
4	60	69	85	79	78	88
5	71	65	74	92	85	84
TOTAL	409	429	452	466	465	470

Orchard View Elementary School is project to increase by 56 students or 13.7 percent by the 2009-10 school year. The 56 student increase represent 34.4 percent of the elementary enrollment increase projected for this study.

YORK ELEMENTARY SCHOOL

GRADE	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
KDG	45	43	40	39	41	41
1	43	53	51	47	46	48
2	41	42	52	50	46	45
3	42	40	41	51	56	52
4	47	42	40	41	50	56
5	60	48	43	41	42	52
TOTAL	278	268	267	269	281	294

York Elementary School is projected to increase just 16 students between now and the 2009-10 school year. This reflects a stable total student population into the short-term future.