



USD 261
HAYSVILLE SCHOOLS

TO: Haysville Board of Education
FR: Dr. Clint Schutte, Assistant Superintendent of Business/Finance
DA: January 28, 2019
RE: Facility Review

History / Relevance: The facility review committee was formed to evaluate the condition of district facilities and to monitor the capacity based on growth. In 2014 the committee worked with the Kansas Association of School Boards to develop the Haysville USD 261 K-12 Enrollment Projections Report. We used current census data, birth projections, and Sedgwick County Population Change to update this report (see attached). The results from this report combined with current capacity were used to evaluate classroom needs at each level. Taking into account proposed expansions of housing within the district boundaries, we've found that the High School and Middle Schools have sufficient capacity for the foreseeable future. The elementary schools have an additional factor with Board of Education Student Teacher ratios. These guidelines and the projected growth indicate we will be facing a capacity issue about the third to fifth year out.

What: We are asking for a resolution to increase the number of teachers at both Prairie and Nelson Elementary Schools. This will allow us to have four sections at each grade level and thus increasing the capacity at each building. We would also like to make a small adjustment to the boundaries at the elementary level. While this adjustment is very minor it will help with offsetting a potential increase at Prairie Elementary School.

Why: At the current projections the first option will be sufficient for a few years. These estimates in student growth are not a certainty. We also have additional options if the student growth exceeds current estimates. Those options include repurposing the Old Tri-City Building and the Eastern End of the Administration Building. This second option will involve a complete re-distribution of elementary school boundaries. The third option is to seek funding to build an addition elementary school. This option also includes the re-distribution of Elementary School Boundaries.

Where: Boundary changes and additional staff will effect Prairie and Nelson Elementary Schools.

When: The new staff and boundary change will be in effect for the 2019-2020 school year. We will continue to work on and evaluate the second and third options.

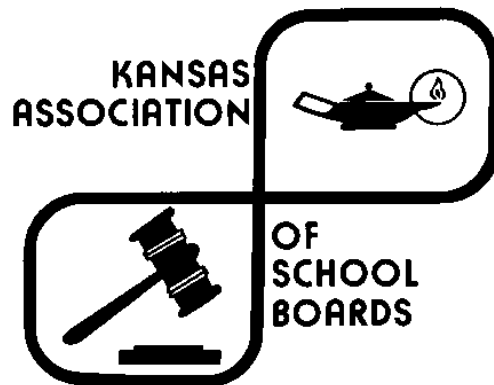
How: A resolutions authorizing the additional staff and boundary changes.

Who: Dr. Clint Schutte Assistant Superintendent for Business & Finance, Chris Long Director of Transportation, Dr. David Engelking Principal Prairie Elementary School, Mike Mitchener Principal Nelson Elementary, Dr. Mike Clagg Assistant Superintendent for human Resources

How Much: The cost for additional staff is estimated to be between \$180,000 and \$200,000.

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Haysville USD 261 K-12 Enrollment Projection Report



Jim Hays, KASB Research Specialist

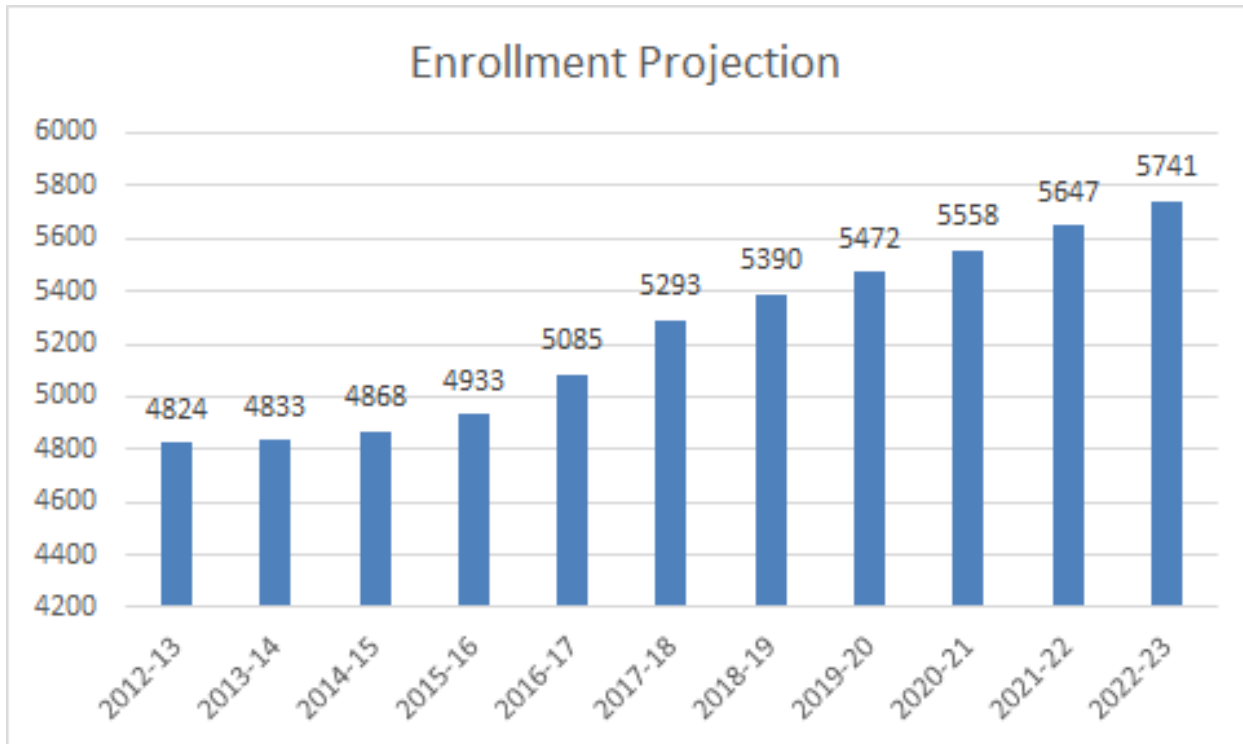
April 8, 2014

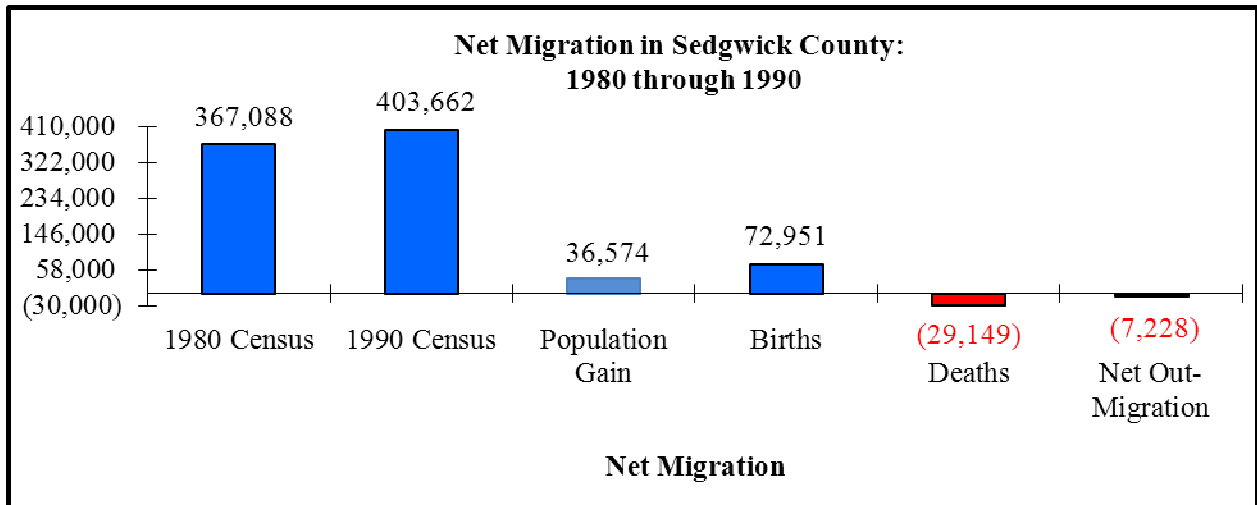
**K – 12 Enrollment Projection
Haysville USD 261
January 28, 2019**

Dr. Clint Schutte, Assistant Superintendent for Business & Finance

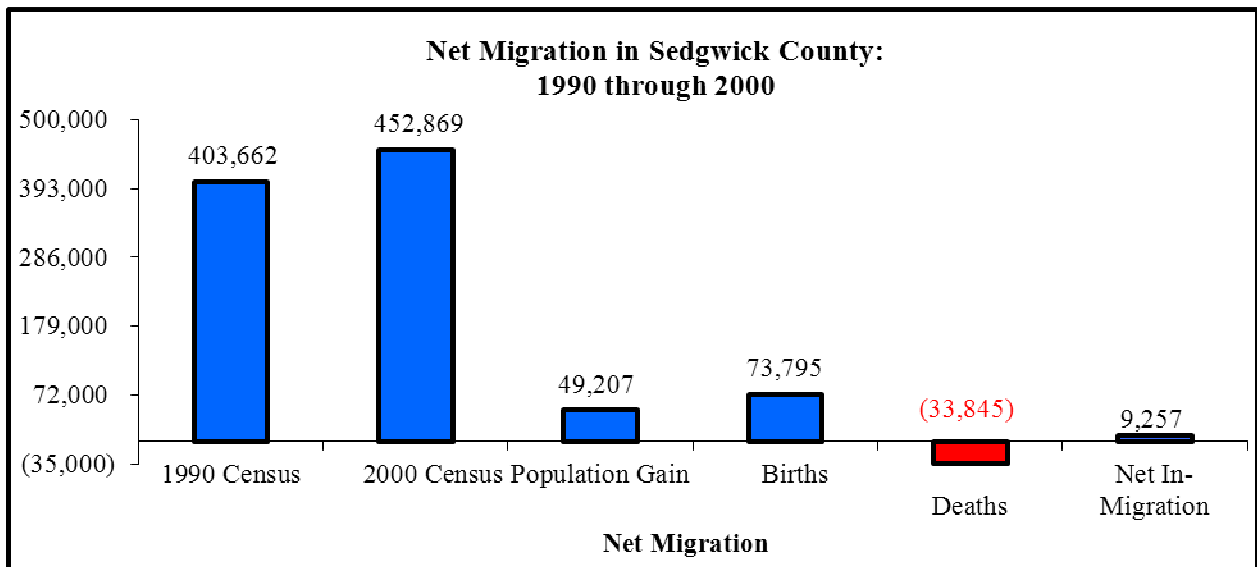
Report Summary

Unlike the vast majority of Kansas' 105 counties, Sedgwick County is growing. Kansans are coming to the county to live, and people from outside Kansas are coming here as well. In another generation, almost half the population of Kansas will reside in just two counties; Sedgwick and Johnson. Steady birth rates also contribute to a projection of growth in total enrollment in the K-12 system of Haysville USD 261. Once the district offers all-day kindergarten, these totals will be even higher. Campus High School has total enrollments, and individual class enrollments, on the immediate horizon which exceed any recent amounts.

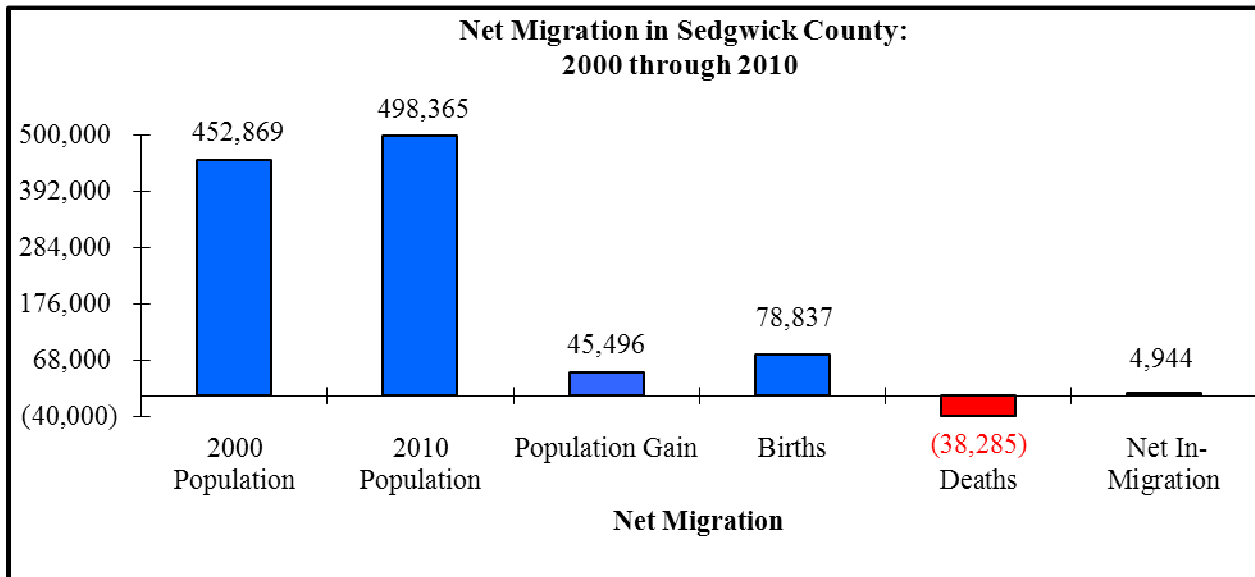




By the 1990s, a major factor in Kansas population was the growth in Hispanic Kansans, and to the extent that this increase in numbers in Segwick County represented people who were not born here, then net in-migration of population was happening. Population grew from 1990 to 2000 by 49,207 persons, but the excess of births over deaths was only 39,950, so 9,257 more people moved into Segwick County during the decade than moved out.

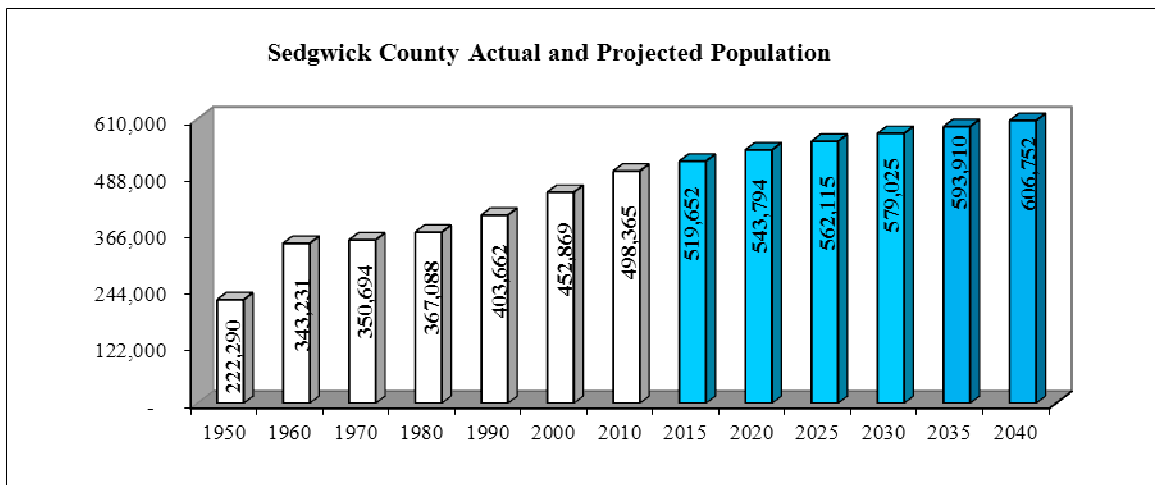


The trend of greater population gain than the excess of births over deaths continued in the decade between 2000 and 2010. Unlike the vast majority of Kansas counties, people want to live in Sedgwick County.



Projection of Future Population Change

Population projections for Kansas, by county, are prepared by the US Census bureau and by the Center for Economic Development and Business Research at Wichita State University.¹ These projections show an optimistic 13.5% growth in total state population from 2000 to 2040, much of that attributable to a projected 21.7% growth forecast for the state's second largest county; Sedgwick. Johnson County is forecast to be over 850,000 in population, a 56.3% growth rate. By 2040 those two counties will be home to 45% of Kansas' population. In the 2010 census, those two counties included 37% of Kansas' population. In the 2000 Census, those two counties included 34% of Kansas' population.



¹ Wichita State University, Center for Economic Development and Business Research, <http://webs.wichita.edu/?u=CEDBR&p=/Data/Demo/>

| | 2000 population | 2012 Population | 2040 Population |
|----------------|--------------------|--------------------|--------------------|
| Johnson | 16.8% | 19.4% | 26.3% |
| Sedgwick | 16.8% | 17.5% | 18.7% |
| Shawnee | 6.3% | 6.2% | 5.9% |
| Wyandotte | 5.9% | 5.5% | 4.6% |
| Douglas | 3.7% | 3.9% | 4.7% |
| rest of state* | 50.5% | 47.5% | 39.8% |
| | 100.0% | 100.0% | 100.0% |

*100
Counties

It may seem a board of education can do little to stem a tide of net out-migration in a community, or to increase net in-migration. Economic forces appear out of your control. However, access to education and health care, at acceptable levels of quality and quantity, are the two key elements for population mobility in rural counties in Kansas. Policy makers should keep those factors foremost in their minds as they ponder the question of just who wants to live in Kansas, especially in our non-urban counties, and how can we get them to want to live here?²

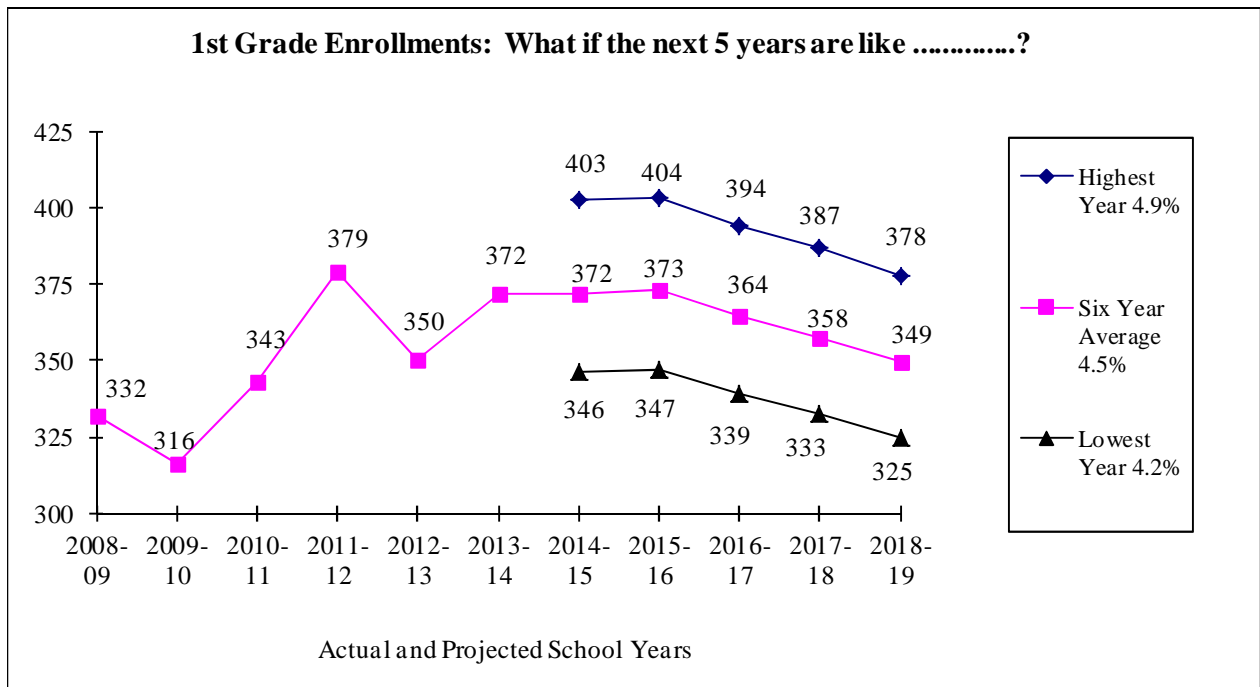


² Note: All of the population information, estimates and projections in this section come from materials published by the US Bureau of the Census, and reported in the "Kansas Statistical Abstract 2012" 47th Edition, September 2013 by the Institute for Policy and Social Research, The University of Kansas.

births is 4.9% (Fall 2011); the lowest is 4.2% (Fall 2009) and the mean or average is 4.5% for the six years.

The average of 4.5% of resident live births results in the projected first grade enrollments above. Using the lowest annual rate of 4.2% and the highest annual rate of 4.9% we can calculate the possible range within which foreseeable first grade enrollments will fall over the next five years.

Put another way, we can answer the question; “What will first grade enrollments be if the future is more like the lowest year, of the six years, than it is the average?” And, “What will first grade enrollments be if the future is more like the highest year, of the six years, than it is the average?”



For purposes of this projection we will use the six year average, but the Board should keep in mind that this may not represent the total potential for first grade enrollments. If first grade enrollments actually exceed this projection, it is not likely that future first grades will exceed 400 students.

These first grade enrollments, for the five school years beginning with 2014-15, form the basis for the total enrollment projections for the district. The rest of the students involved in the five year enrollment projection are located somewhere other than first grade, and the projections of their total numbers are arrived at using a “co-hort survival technique” which is explained more fully in the next section of the report.

Co-hort Survival Ratios; Calculations of Grade-to-Grade Retention

This enrollment forecasting technique relies on what statisticians call a “co-hort survival” method. The theory behind this type of projection is that relationships exist between the transition points in public school enrollment; students leave one grade and progress to another. If more students are enrolled in one grade one year than were enrolled in the previous grade the previous year, then students must have moved into the district. If the reverse is happening, if fewer students enroll, then students must be either moving out of the district or dropping out of public school.

The actual headcount enrollments for the district for the previous six years were analyzed and a “survival ratio” was calculated for each grade for each year. Then the ratios for each grade were averaged over the six year period. That average, or “mean ratio”, is then used to calculate the projected enrollments beyond first grade for the following five years.

The table below shows the actual headcount enrollments for the district for the past six years, and the ratios calculated for each grade each year, as well as the average or “mean ratio” for the six years:

| | 2008- 09 | ratio | 2009- 10 | ratio | 2010- 11 | ratio | 2011- 12 | ratio | 2012- 13 | ratio | 2013- 14 | Average Ratio |
|------------------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|------------------|
| Kindergarten | 163 | | 173 | | 203 | | 186 | | 206 | | 196 | |
| 1st grade | 1-K ratio | 51.4% | 316 | 50.4% | 343 | 53.6% | 379 | 53.1% | 350 | 55.4% | 372 | 52.8% |
| 2nd grade | 1-2 ratio | 103.6% | 344 | 100.3% | 317 | 97.7% | 335 | 104.7% | 397 | 106.0% | 371 | 102.5% |
| 3rd grade | 2-3 ratio | 98.8% | 335 | 105.8% | 364 | 106.9% | 339 | 103.0% | 345 | 99.2% | 394 | 102.8% |
| 4th grade | 3-4 ratio | 96.9% | 349 | 109.9% | 368 | 101.4% | 369 | 100.0% | 339 | 96.8% | 334 | 101.0% |
| 5th grade | 4-5 ratio | 101.6% | 376 | 105.7% | 369 | 103.5% | 381 | 101.9% | 376 | 99.1% | 336 | 102.4% |
| 6th grade | 5-6 ratio | 113.5% | 387 | 117.0% | 440 | 105.1% | 388 | 110.5% | 421 | 109.3% | 411 | 111.1% |
| 7th grade | 6-7 ratio | 105.6% | 395 | 104.9% | 406 | 98.0% | 431 | 108.8% | 422 | 103.3% | 435 | 104.1% |
| 8th grade | 7-8 ratio | 103.8% | 408 | 100.8% | 398 | 98.5% | 400 | 101.4% | 437 | 100.9% | 426 | 101.1% |
| 9th grade | 8-9 ratio | 109.7% | 406 | 108.1% | 441 | 109.5% | 436 | 103.5% | 414 | 99.1% | 433 | 106.0% |
| 10th grade | 9-10 ratio | 94.6% | 387 | 94.3% | 383 | 88.2% | 389 | 89.7% | 391 | 90.8% | 376 | 91.5% |
| 11th grade | 10-11 ratio | 92.5% | 371 | 96.9% | 375 | 90.1% | 345 | 99.7% | 388 | 92.1% | 360 | 94.3% |
| 12th grade | 11-12 ratio | 93.6% | 349 | 99.7% | 370 | 99.2% | 372 | 98.0% | 338 | 100.3% | 389 | 98.1% |
| Total Enrollment | 4,565 | | 4,596 | | 4,777 | | 4,750 | | 4,824 | | 4,833 | |

As the above results are analyzed, keep in mind that a retention ratio greater than 100% means that more students enrolled in a grade than were enrolled in the next lowest grade the previous year. A “mean ratio” for the entire six year period of greater than 100% means that some substantial movement into the district is occurring, and a ratio of less than 100% means just the opposite.

Because kindergarten enrollment is less certain, first grade enrollment is used as the basis of this technique and kindergarten “survival ratios” are calculated backwards. That is, the relationship analyzed is that of actual first grade enrollment with actual kindergarten enrollment the **previous** year. Therefore, if the K-1 survival ratio is greater than 100%, then more children were in kindergarten than later enrolled in first grade. If the K-1 ratio is less than 100%, then fewer children were in kindergarten than later enrolled in first grade.

Projected Enrollment

The mean ratios calculated for each grade in the district are multiplied by the enrollments for the last actual year of data to determine the grade totals for next year. Then those multiplications are repeated four more times, each year using the same average ratios determined earlier. The grade totals thereby derived are then totaled for the district, and those totals are displayed on the graph which began this report.

The following table shows the projected enrollment figures for each year, for each grade:

| | Average Ratio | 2018-19 | 2019-20 | 2020-21 | 2021-22 | 2022-23 |
|-------------------------|----------------------|----------------|----------------|----------------|----------------|----------------|
| Kindergarten | | 370.0 | 355.3 | 341.2 | 327.6 | 314.6 |
| | 96.02% | | | | | |
| First | | 423.0 | 435.9 | 449.3 | 463.0 | 477.2 |
| | 103.06% | | | | | |
| Second | | 372.0 | 371.5 | 371.0 | 370.4 | 369.9 |
| | 99.86% | | | | | |
| Third | | 393.0 | 399.1 | 405.4 | 411.7 | 418.1 |
| | 101.56% | | | | | |
| Fourth | | 409.0 | 415.7 | 422.4 | 429.3 | 436.3 |
| | 101.63% | | | | | |
| Fifth | | 400.0 | 416.0 | 432.7 | 450.0 | 468.0 |
| | 104.00% | | | | | |
| Sixth | | 427.4 | 441.5 | 456.1 | 471.2 | 486.8 |
| | 103.31% | | | | | |
| Seventh | | 455.1 | 460.3 | 465.5 | 470.8 | 476.1 |
| | 101.14% | | | | | |
| Eighth | | 454.7 | 461.6 | 468.6 | 475.7 | 482.9 |
| | 101.52% | | | | | |
| Ninth | | 434.7 | 427.1 | 419.6 | 412.2 | 405.0 |
| | 98.24% | | | | | |
| Tenth | | 413.0 | 419.7 | 426.4 | 433.3 | 440.3 |
| | 101.61% | | | | | |
| Eleventh | | 425.1 | 440.0 | 455.4 | 471.4 | 487.9 |
| | 103.50% | | | | | |
| Twelfth | | 413.4 | 428.7 | 444.6 | 461.0 | 478.1 |
| | 103.70% | | | | | |
| Total Enrollment | | 5390.4 | 5472.4 | 5558.1 | 5647.7 | 5741.2 |

Dividing these projections by building levels shows how the steady growth in Sedgwick County will slowly increase the enrollment in Haysville USD 261. Some of the largest classes ever at Campus High School are on the immediate horizon.

Conclusion

Cohort survival ratios are used frequently as an enrollment forecasting technique because they offer both a short term and a long term perspective. We have chosen to use an average of six years of (cohort survival ratios) information about Haysville USD 261. We could have used only the most recent year, or two. Because migration patterns and attrition (retention ratios more than 100% in the elementary grades and less than 100% in the 10th grade) are factors influencing enrollment change in this district, and because migration patterns can change relatively quickly, the possibility exists that these projections understate what will be actual elementary enrollment.

No single enrollment forecast can answer all questions or always be precisely accurate. This caution is not intended to reduce the Board's confidence in this method. With the kind of migration patterns and birth rate data affecting this district, a cohort survival ratio appears ideally suited to forecast changes in total enrollment of the district. However, this report should become only part of a total planning effort, and not the sole factor upon which resource allocation decisions are made.

