

To: Susan M. Swartz, Superintendent of Schools
From: Steven B. Zautner, Enrollment Consultant
Date: December 1, 2022
Re: Enrollment Projections

Executive Summary:

The first step in any school district's long range planning process is determining how many students need to be educated in each grade and building. The way to do that is to implement a data driven enrollment projection model that can provide, within a reasonable margin of error, an accurate multi-year enrollment forecast. That forecast was completed for the 2022-23 school year last May, but has now been updated with actual 2022-23 school year data for a 2023-24 school year projection and beyond.

I have again used the Modified Cohort Survival Method to arrive at these updated projections. This methodology uses historical data showing the "survival rate" of students born within the District's boundaries 5 years prior who "survive" to attend kindergarten, students who attended kindergarten last year who "survive" to attend 1st Grade this year, and so on. The "modified" part of this methodology simply means that multi-year average survival rates are used to smooth out one year anomalies in the data to make the future projections more accurate. It has been found over time that this methodology will typically provide enrollment projections accurate to within +/- 2%. In fact, the 2022-23 projection was accurate to 0.41%, or within 9 students.

As a reminder, this enrollment projection methodology has some limitations that should be considered before these projections are accepted as reasonable and used for planning purposes. First, if there is a significant change in new construction expected within the District during the projection period, this method will not reflect it. For example, if a developer were to begin construction on a new development of 100 new 4 bedroom homes, it could reasonably be expected that those new homes could provide as many as 200 new students for the District. However, this new development would not be picked up in the prior data used to project enrollment going forward. For that reason, it is a good idea to maintain an open line of communication with the municipalities within the District's boundaries to know about any future planned development in advance. I have not included any consideration for new construction in this projection. Second, enrollment can be effected by the opening or closing of new Charter or Private Schools in or near the District. If parents have other options, the rate that they exercise those options will influence District enrollment. Third, a significant change in program can also alter enrollment trends. One example of this would be if a public school were to change from a half-day to a full-day kindergarten program. This change might persuade more parents to send their children to the local public elementary school instead of to a private school full-day program. And lastly, as has been seen over the past few school years, a global pandemic that prevents normal school operations can also affect school District enrollments. Globally, Parents made decisions about where to send their children to school based on factors that had not previously been part of their decision making process. As public schools returns to something resembling "normal" operations post pandemic, enrollment may be further affected.

In November, I was provided with 2022-23 school year BEDS enrollment data. I attained birth data for the Scotia-Glenville Central School District from the Bureau of Biometrics of the NYS Department of Health. District specific birth data became available in 2007 for the 2002 calendar year and subsequent years. This District specific birth data shows an average of 171 live births from 2010 through 2019 (the most recent 10 years of available data), with annual data falling in a narrow band from a low of 149 live births in 2019 to a high of 190 live births in 2012. Data after 2019 is still not yet available from New York State, so the Trend function of Microsoft Excel was used to estimate birth data for 2020 through 2028 to complete the 10 year forecast. For this reason, the level of confidence in the accuracy of the forecast declines the farther out into the future we look.

Birth Data for Scotia-Glenville Central Schools

2006	190
2007	175
2008	172
2009	173
2010	183
2011	160
2012	190
2013	168
2014	150
2015	184
2016	171
2017	173
2018	183
2019	149
2020	Not available yet
2021	Not available yet

Projected Enrollment

<u>Year</u>	<u>K-5</u>	<u>6-8</u>	<u>9-12</u>	<u>Total</u>	<u>Diff.</u>	<u>% Diff.</u>
2023-24	963	507	727	2197	-15	-0.68%
2024-25	923	504	712	2139	-58	-2.69%
2025-26	938	512	677	2127	-12	-0.56%
2026-27	941	471	676	2088	-39	-1.83%
2027-28	932	467	684	2083	-5	-0.24%
2028-29	939	463	657	2059	-24	-1.15%
2029-30	922	494	640	2056	-3	-0.15%
2030-31	945	458	642	2045	-11	-0.54%
3031-32	923	477	618	2018	-27	-1.32%
3032-33	946	450	627	2023	+5	-0.25%

Comparison of 2022-23 Projections and 2022-23 Actual Enrollments

The projections completed last May for 2022-23 predicted total District enrollment of 2,221 students. Actual enrollment was 2,212 students, 9 fewer than forecast. This difference breaks down as follows: Grades K-5 enrollment was 972 students, exactly what was predicted. Grades 6-8 enrollment was 504 students, 8 more than were projected. Grades 9-12 enrollment was 736 students, 17 fewer than projected.

The updated enrollment projection predicts that total district enrollment in 2023-24 will decrease by 15 students from 2,212 in the 2022-23 school year to 2,197, as the smallest graduating class in more than 10 years leaves and a relatively large Kindergarten group enters. Under the current projections, K-5 enrollment will decrease by 9 students to 963 students, Grade 6-8 enrollment will increase by 3 students to 507 students, and Grade 9-12 enrollment will decrease by 9 students to 727 students.

As can be seen in the chart, K-5 enrollment is projected to stay within the range of 922 and 963 students through the 2032-33 school year. Grade 6-8 enrollment is projected to remain above 500 students until 2025-26, then decline to only 450 students by 2032-33. Grades 9-12 projected enrollment is projected to decline significantly over the next ten years to only 627 students by 2032-33. Total District enrollment is projected to drop from the current enrollment of 2,212 students to 2,023 students by the 2032-33 school year, a decline of nearly 200 students.

Since the 2011-12 school year, total District enrollment has fallen from 2,677 to 2,212 in 2022-23. The overall decline of 465 students (decrease of 17.37%) was made up of a decrease of 220 students (decrease of 19.7%) at the Grades K-5 level, a Grades 5-8 enrollment decline of 97 students (decrease of 16.1%), and a Grades 9-12 decline of 148 students (decrease of 16.7%). In 2020-21, a decline of 85 students occurred, but most of that decline (63 students) took place at the Grade K-5 level. This is similar to what many suburban districts experienced in the 2020-21, as the COVID-19 global pandemic forced parents of young children to make decisions on their child's education based on new factors, such as their level of comfort with masking and social distancing, their ability to work from home, their child's ability to participate in remote learning, and their lack of reliable daycare options. The 2021-22 school year data showed a much smaller decline of only 17 students District-wide. 2022-23 enrollment showed an increase of 15 students at the Grades K-5 level (students returning from home schooling?), a decline of 26 students in Grades 6-8, and a drop of 46 students in Grades 9-12.

CC: Karen Swain, Assistant Superintendent for Curriculum and Instruction
Andrew M. Giaquinto, Assistant Superintendent for Business

Attachments:

Enrollment Report and Projections Spreadsheet
Elementary Enrollment by School and Grade

Scotia-Glenville Central School District
Enrollment Report and Projections
Modified Cohort Survival Projection Method
Prepared by Steven Zautner

	Birth Data		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor		Survivor	
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