To: Dr. Mike Riggle
Board of Education

From: Dr. Kim Ptak

Date: Monday, November 13, 2017

Re: Enrollment Forecast Update

Background

For the last several years, the District has hired demographer Dr. Jerome McKibben to calculate a 10-year population forecast. This forecast has become an important tool for long-range planning and budgeting purposes. Additionally, using October 1st fall housing feeder enrollment data, District administration annually updates its internal enrollment projection using a cohort survival method which is most accurate looking only a few years out.

Dr. Jerome McKibben Population Forecast

The population forecast methodology used by Dr. McKibben assesses the impact of factors such as fertility rates, housing patterns, mortgage rate, mortality rates, census data, migration patterns, unemployment rates and the dynamics of local private schools, while also taking feeder enrollment data into consideration. This comprehensive approach lends itself to increased accuracy in long-term forecasts. The current forecast tracks very closely with the forecast completed in 2013 which was Dr. McKibben's first year working with our data. In 2013 enrollment at GBS was expected to peak in FY19/20 at 3,178 students. The recent forecast is consistent and shows FY 19/20 as the peak year with enrollment of 3,199. Past facility enhancements to accommodate this increased enrollment at GBS include converting a computer lab into two general classrooms, converting a technology office into a general classroom, adding a PLTW classroom, adding a physics lab and creating additional seating in the library.

As shown below, the district-wide forecast shows relatively the same number of students in 10 years as it does today. GBN is forecasted to grow by 174 students or 8.6% over the next 10 years and GBS will reach it's peak of 3,199 in FY20 and gradually decline to 2,953 or 5.6% over the next 10 years.

	District-wide			GBN			GBS		
	10/1/2017	10/1/2016	O/(U)	10/1/2017	10/1/2016	O/(U)	10/1/2017	10/1/2016	O/(U)
FY2018	5,151 actual	5,129	22	2,023 actual	2,023	0	3,128 actual	3,106	22
FY2019	5,199	5,162	37	2,053	2,059	-6	3,146	3,103	43
FY2020	5,256	5,188	69	2,057	2,050	7	3,199	3,138	61
FY2021	5,209	5,107	102	2,032	1,989	43	3,177	3,118	59

FY2022	5,174	5,077	97	2,059	2,007	52	3,115	3,070	45
FY2023	5,172	5,063	109	2,073	2,004	69	3,099	3,059	40
FY2024	5,139	5,020	119	2,095	2,010	85	3,044	3,010	34
FY2025	5,154	5,024	130	2,147	2,063	84	3,007	2,961	46
FY2026	5,185	5,050	135	2,180	2,080	100	3,005	2,970	35
FY2027	5,136	5,021	115	2,182	2,095	87	2,954	2,926	28
FY2028	5,150	n/a	n/a	2,197	n/a	n/a	2,953	n/a	n/a

Glenbrook Cohort Survival Method

The cohort survival method is strictly formula driven and calculates ratios of students as they progress from one grade to the next. The ratios are then used to project future enrollment. The following chart compares the recent projection using 10/1/17 fall housing data with the projection calculated a year ago using 10/1/16 fall housing data. Overall the current GBN projection shows a 1% increase over the next three years, while GBS shows an increase of 2.5% through FY19/20.

	District-wide			**GBN**			**GBS**		
	10/1/2017	**10/1/2016**	**O/(U)**	**10/1/2017**	**10/1/2016**	**O/(U)**	**10/1/2017**	**10/1/2016**	**O/(U)**
FY2018	5,151 actual	5,129 projection	22	2,023 actual	2,030 projection	(7)	3,128 actual	3,099 projection	29
FY2019	5,207	5,153	54	2,059	2,071	(12)	3,148	3,082	66
FY2020	5,269	5,176	93	2,063	2,076	(13)	3,206	3,100	106
FY2021	5,238	n/a	n/a	2,047	n/a	n/a	3,191	n/a	n/a

Comparison of Enrollment Methodologies

The following chart compares the results of the two methodologies for calculating enrollment projections. District-wide, the two methodologies are within .6% of each other over the next three years. On a building level, the two methodologies are within .7%.

	District-wide			**GBN**			**GBS**		
	Cohort Survival	**Pop. Forecast**	**O/(U)**	**Cohort Survival**	**Pop. Forecast**	**O/(U)**	**Cohort Survival**	**Pop. Forecast**	**O/(U)**
FY2019	5,207	5,199	8	2,059	2,053	6	3,148	3,146	2
FY2020	5,269	5,256	13	2,063	2,057	6	3,206	3,199	7
FY2021	5,238	5,209	29	2,047	2,032	15	3,191	3,177	14