Student Membership History and Forecast

Each year, VDOE collects statistics on the number of students enrolled in public school on September 30th. Student counts are reported by grade assignment. Table 1. shows Fall Membership counts from the past five years and Table 2. shows the forecasted Fall Membership counts for the next five years.

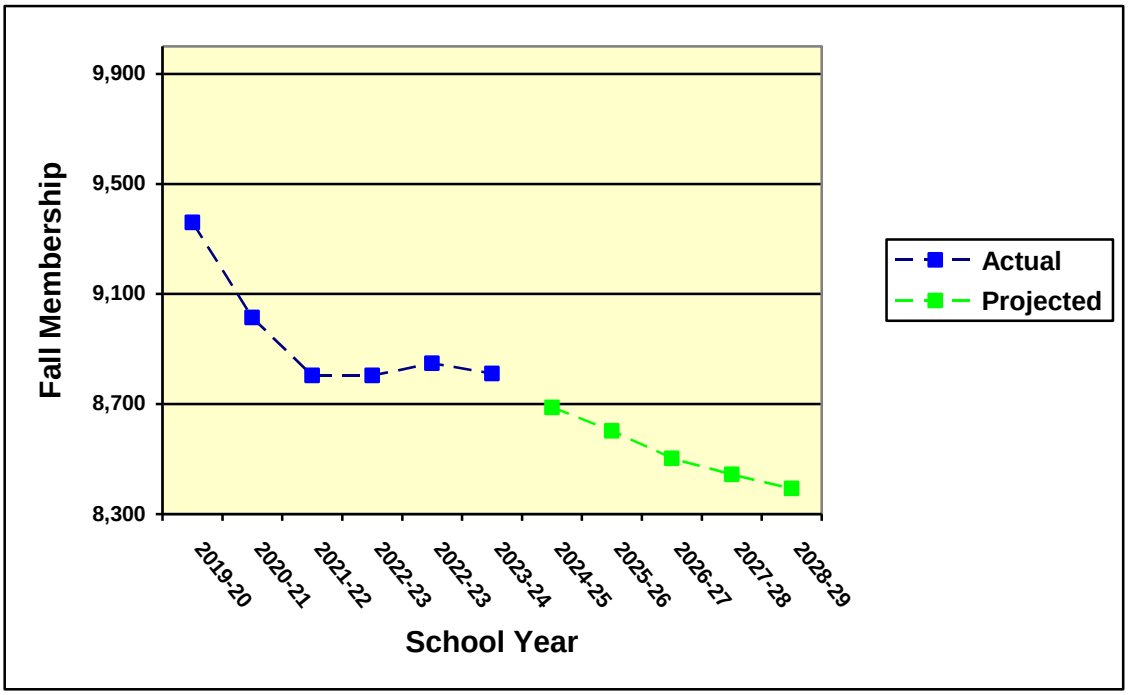
Table 1. 2019-20 to 2023-24 September 30 Fall Membership

School Year	2019-20	2020-21	2021-22	2022-23	2023-24
Fall Membership	9,360	9,014	8,804	8,848	8,811

Table 2. 2024-25 to 2028-29 Forecasted Fall Membership

School Year	2024-25	2025-26	2026-27	2027-28	2028-29
Fall Membership	8,688	8,603	8,502	8,444	8,393

Figure 1. 2019-20 to 2028-29 Fall Membership Forecast



Forecast Methodology

All forecasts are an extrapolation of the past, involve some level of judgment, and inherently contain a range of error. For these reasons, a consistent methodology along with sound judgment is important when creating and evaluating the forecast.

The forecasting methodology used to predict the number of students who will attend Bedford County Public Schools for the next five years is the cohort progression method. The accuracy of this forecasting method will be analyzed and used to monitor and refine the process in the future.

The cohort progression method involves applying an average growth rate over time to the current year's membership by grade level cohort. The calculation is based on birth data, which is used to forecast kindergarten enrollment and student membership by grade. Birth data by place of residence is obtained

from the Virginia Department of Health, Division of Health Statistics (http://www.vdh.state.va.us/healthstats). For Bedford County, the birth data for 2021,2022, and 2023 has not been posted and therefore, the number of births for 2020 was used in membership calculations for 2025-26,2026-27 and 2027-28. The K-12 student membership numbers are obtained from the Virginia Department of Education (VDOE) fall membership (September 30) report (https://www.doe.virginia.gov/data-policy-funding/data-reports/statistics-reports/enrollment-demographics).

The cohort-progression ratio is the number of students in a particular grade divided by the number of students in the previous grade in the previous school year. In other words, it is the rate of students in the cohort being "promoted" to the next grade level. This ratio varies by year and grade level based on families moving in and out of the county, students transferring to different schools within the division, student retention, and other factors. The cohort-progression ratio incorporates all the different factors affecting student enrollment, retention, and promotion in one number.

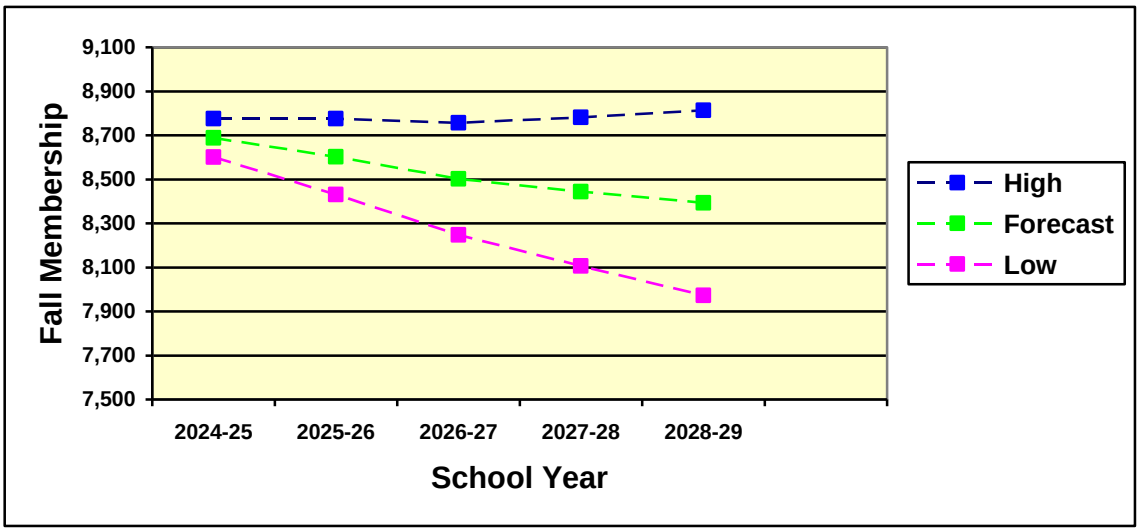
To develop the membership forecast, cohort-progression ratios are calculated between every pair of consecutive grades for the past 10 school years. Mathematical models are then applied to determine the cohort-progression ratio average. The average ratio is applied to the appropriate grade level to project that particular grade forward in time.

Table 3. 2023-24 to 2028-29 Fall Membership by Grade

Year	K	1	2	3	4	5	6	7	8	9	10	11	12	Total
2023-24	629	652	680	599	673	662	648	680	681	721	744	702	740	8,811
2024-25	655	619	659	667	598	672	656	654	688	716	686	709	709	8,688
2025-26	640	644	625	646	666	597	665	662	662	724	692	664	716	8,603
2026-27	640	630	651	613	645	665	591	671	670	696	700	660	670	8,502
2027-28	640	630	636	639	612	644	658	596	679	704	673	667	666	8,444
2028-29	640	630	636	624	637	611	637	664	604	715	681	641	673	8,393

Fluctuating cohort-progression ratios over several years make accurate forecasting difficult. Membership forecast accuracy is based on the accuracy of the selected fall membership ratio average and the accuracy of the forecast from the cohort-progression method. Forecasts also become less accurate with each subsequent year being forecasted. To portray this, the membership forecast with range shows the membership forecast for the following five years with an error range of ±1% the first year and an additional 1% each year thereafter.

Figure 2. 2024-25 to 2028-29 Fall Membership Forecast with Range



Five-Year Membership Forecast by Zone

The same forecast methodology was applied to each school zone in Bedford County. The information provided shows past, present, and projected membership for the Forest Zone, Liberty Zone, and Staunton River Zone.

Forest Zone

Table 4. 2019-20 to 2023-24 September 30 Fall Membership for Forest Zone

School Year	2019-20	2020-21	2021-22	2022-23	2023-24
Fall Membership	4,083	3,955	3,828	3,834	3,847

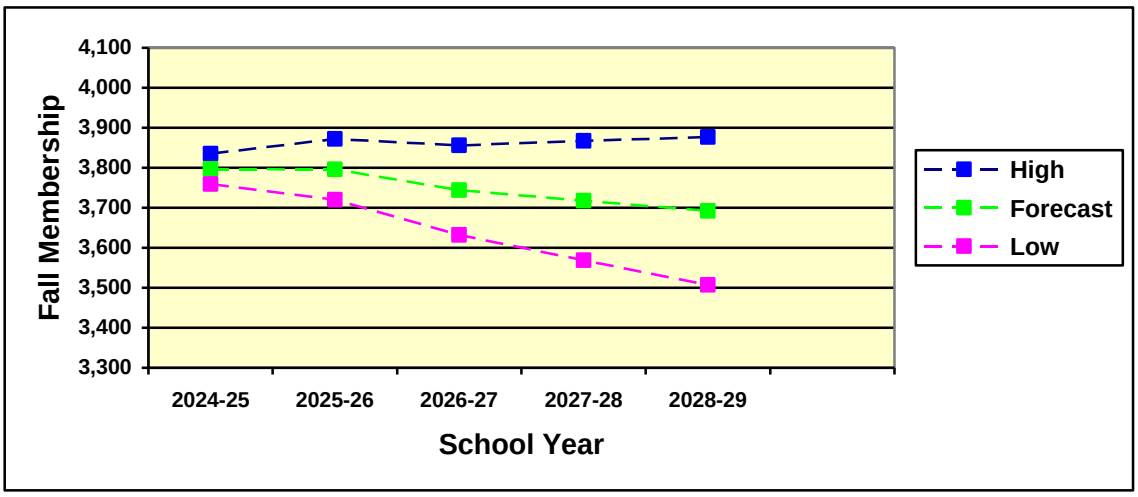
Table 5. 2024-25 to 2028-29 Forest Zone Forecasted Fall Membership

School Year	2024-25	2025-26	2026-27	2027-28	2028-29
Fall Membership	3,797	3,796	3,744	3,718	3,692

Table 6. Forest Zone Membership by Grade 2023-2029

Year	K	1	2	3	4	5	6	7	8	9	10	11	12	Total
2023-24	269	272	293	241	303	268	294	294	302	317	350	293	351	3,847
2024-25	282	272	273	289	241	303	260	302	300	318	317	347	293	3,797
2025-26	275	285	273	269	291	242	294	267	307	316	317	314	346	3,796
2026-27	275	274	288	272	269	290	233	302	272	324	316	314	315	3,744
2027-28	275	279	275	285	269	270	281	240	307	286	324	313	314	3,718
2028-29	275	278	279	271	284	270	261	288	244	324	286	320	313	3,693

Figure 3. 2024-25 to 2028-29 Forest Zone Fall Membership Forecast with Range



Liberty Zone

Table 7. 2019-20 to 2023-24 September 30 Fall Membership for Liberty Zone

School Year	2019-20	2020-21	2021-22	2022-23	2023-24
Fall Membership	2,432	2,330	2,281	2,311	2,337

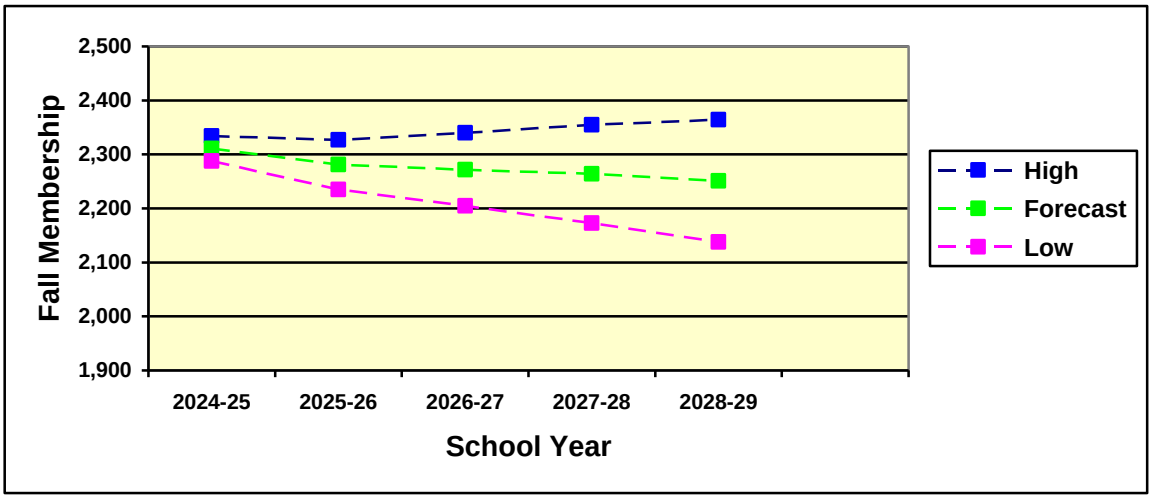
Table 8. 2024-2025 to 2028-29 Liberty Zone Forecasted Fall Membership

School Year	2024-25	2025-26	2026-27	2027-28	2028-29
Fall Membership	2,311	2,281	2,272	2,264	2,251

Table 9. Liberty Zone Membership by Grade 2023-2029

Year	K	1	2	3	4	5	6	7	8	9	10	11	12	Total
2023-24	176	186	181	108	172	180	163	186	186	183	181	181	182	2,337
2024-25	183	167	186	178	179	167	190	161	186	192	177	167	179	2,311
2025-26	179	173	167	183	177	174	176	187	161	190	186	163	165	2,281
2026-27	179	177	171	162	182	172	183	174	187	167	186	171	161	2,272
2027-28	179	169	177	167	163	177	181	181	174	194	161	171	170	2,264
2028-29	179	170	170	174	167	159	187	179	181	180	187	149	170	2,252

Figure 4. 2024-25 to 2028-29 Liberty Zone Fall Membership Forecast with Range



Staunton River Zone

Table 10. 2019-20 to 2023-24 September 30 Fall Membership for Staunton River Zone

School Year	2019-20	2020-21	2021-22	2022-23	2023-24
Fall Membership	2,845	2,729	2,695	2,703	2,627

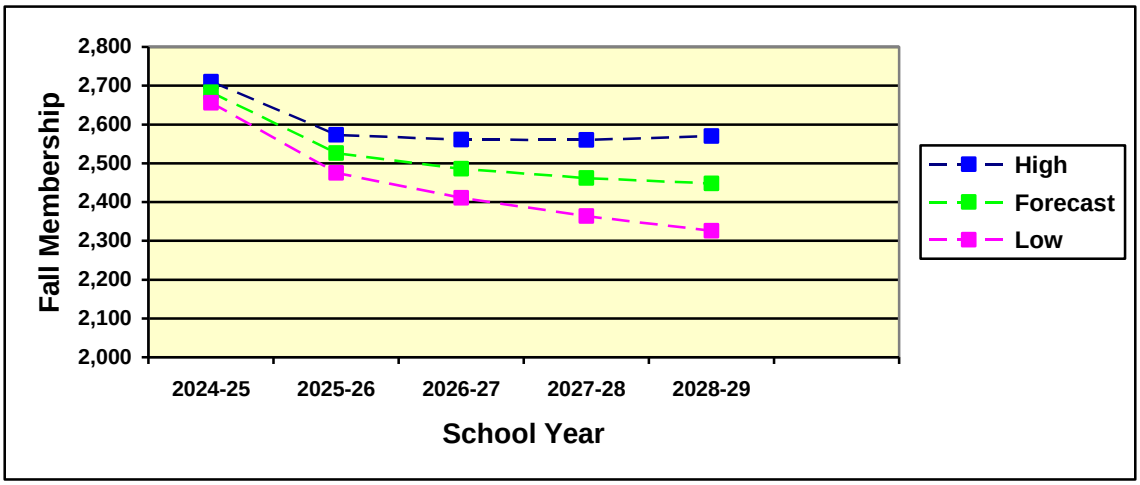
Table 11. 2024-25 to 2028-29 Staunton River Zone Forecasted Fall Membership

School Year	2024-25	2025-26	2026-27	2027-28	2028-29
Fall Membership	2,683	2,526	2,486	2,462	2,448

Table 12. Staunton River Zone Membership by Grade 2023-2029

Year	K	1	2	3	4	5	6	7	8	9	10	11	12	Total
2023-24	184	194	206	178	198	214	191	200	193	221	213	228	207	2,627
2024-25	190	180	200	200	178	202	206	191	202	206	203	195	237	2,683
2025-26	186	186	185	194	200	181	195	208	194	216	189	187	205	2,526
2026-27	186	179	192	179	194	203	175	195	211	205	198	175	194	2,486
2027-28	186	182	184	187	180	197	196	175	198	224	188	183	182	2,462
2028-29	186	182	187	179	186	182	189	197	179	211	206	173	191	2,448

Figure 5. 2023-24 to 2028-29 Staunton River Zone Fall Membership Forecast with Range



School Membership Projections for 2024-25

Table 13. School Membership by Grade 2024-25

School	K	1	2	3	4	5	6	7	8	9	10	11	12	Total
BPS	118	113												231
BES			122	110	118	103								453
BIES	21	18	27	24	20	31								141
BNES	42	38	51	51	54	72								308
FES	60	55	68	67	56	67								373
FMS							298	296	298					892
GES	75	70	83	78	66	78								450
HES	33	33	29	36	31	38								200
JFHS										318	298	331	298	1,245
LHS										195	178	175	183	731
LMS							165	166	187					518
MNES	33	33	30	38	31	25								190
MVES	45	43	38	44	41	40								251
NLA	54	51	52	59	43	41								300
ORES	32	31	22	23	24	33								165
SES	45	43	50	49	50	55								292
SRHS										203	210	203	228	844
SRMS							193	192	203					588
TJES	97	91	87	88	64	89								516
Division	655	619	659	667	598	672	656	654	688	716	686	709	709	8,688

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Capacities in Bedford County Public Schools

Bedford County Public Schools has not traditionally defined nor determined its own operation capacity data. The most recent assessment of operational capacity by EMG Corporation was presented to the School Board on December 13, 2016. An earlier study by Hayes, Seay, Mattern & Mattern, Inc. (HSMM) was completed in January 2002 The HSMM 2002 report describes its methodology for calculating operational capacities for schools as follows:

Elementary Schools

- 20 students for each general education classroom
- 16 students for each special education and preschool classroom

Middle Schools

- 23 students for each "teaching station" (all areas where courses are regularly taught)
- 10 students for each special education classroom
- Total is then multiplied by an 85% "utilization factor"

High Schools

- 25 students for each "teaching station" (all areas where courses are regularly taught)
- 10 students for each special education classroom
- Total is then multiplied by an 75% "utilization factor"

Note that these do NOT include capacity for any temporary buildings located at a school site, nor do either of these methods account for the capacity of "core" spaces/areas such as restrooms, cafeterias, library media center, etc.

The EMG study used a similar methodology but included a Pre-K multiplier along with options for identifying spaces other than the typical classrooms space such art, music, STEAM, and Pre-K rooms that may have differing enrollments which effect a building's capacity.

Capturing the impact of preschool programs in a school's operational capacity is challenging because unlike K-12 programs that are tied to attendance areas, the placement and delivery of preschool programs is somewhat discretionary. The HSMM study does not accurately capture the impact of pre-K programs on school capacity. The EMG study included a methodology to measure the impact of Pre-K programs and staff feels more confident that the EMG capacity for elementary schools is a more accurate measure. EMG capacity is less desirable for measuring middle and high school capacity. To deliver the best measure of capacity, both studies were considered in determining a school's capacity.

Table 14. School Capacities (HSMM 2002& EMG 2016)

School	Capacity
Bedford ES	620
Bedford Primary School	352
Big Island ES	260
Boonsboro ES	380
Forest ES	389
Goodview ES	656
Huddleston ES	249
Moneta ES	258
Montvale ES	330
New London Academy	301
Otter River ES	260
Stewartsville ES	592
Thomas Jefferson ES	656
Liberty MS	700*
Forest MS	1,200*
Staunton River MS	796
Jefferson Forest HS	1,600*
Liberty HS	1,023
Staunton River HS	1,123
Total	11,745

*Capacity according to architectural design

Bedford County Public Schools Projected Enrollment & Capacities

Table 15. Percent Capacity

School	2024-25 Projected Enrollment	Projected Enrollment Pre-K included	Capacity	Percent Capacity K-12	Percent Capacity Pre-K-12
Bedford Elementary	453		620	73%	
Bedford Primary	231	291	352	66%	82%
Big Island Elementary	141		260	54%	
Boonsboro Elementary	308		380	81%	
Forest Elementary	373		389	96%	
Goodview Elementary	450	485	656	69%	74%
Huddleston Elementary	200	215	249	80%	86%
Moneta Elementary	190	220	258	74%	85%
Montvale Elementary	251	271	330	76%	82%
New London Academy	300	330	301	100%	109%
Otter River Elementary	165	180	260	63%	69%
Stewartsville Elementary	292	312	592	49%	53%
Thomas Jefferson Elementary	516	551	656	79%	84%
Forest Middle	892		1,200*	74%	
Liberty Middle	518		700*	74%	
Staunton River Middle	588		796	74%	
Jefferson Forest High	1,245		1,600*	78%	
Liberty High	731		1,023	71%	
Staunton River High	844		1,123	75%	
Total	8,688	8,948	11,745	74%	76%

* Capacity according to architectural design

Percent Capacity is the projected enrollment divided by capacity and does not include any changes to school zones or school zone transfers than may occur due to change in policy.

Highlighted Schools recommended as closed to non-residents and in-county zone transfers for 2024-25.