Massachusetts School Building Authority

Funding Affordable, Sustainable, and Efficient Schools in Partnership with Local Communities

Enrollment projections prepared for:

South Hadley
Mosier Elementary School
June 24, 2024 Enrollment Meeting

The information herein represents historical enrollment and a projection using the latest data available from the Department of Elementary and Secondary Education, Department of Public Health, U.Mass Donahue Institute, and US Census. While every effort is made to have as accurate a projection as possible using the MSBA's established Enrollment Methodology, the MSBA does not and cannot predict the impact to enrollment of future, unknown events. The MSBA relies on the District to communicate and document any anticipated acute, local changes that may impact enrollment.

Refer to this link for additional information: https://massschoolbuildings.org/index.php/building/prerequisites/enrollment_methodology

Overview

The Massachusetts School Building Authority ("MSBA") works with local communities to create affordable, sustainable, and energy efficient schools across Massachusetts. A critical early component in achieving these objectives begins with an appropriate design enrollment that positions the district to efficiently meet space capacity needs throughout future enrollment variations. Based on an agreed upon design enrollment, the MSBA collaborates with each district and its designer to aggressively pursue strategies to create right-sized facilities that are more affordable to construct and less costly to operate and maintain.

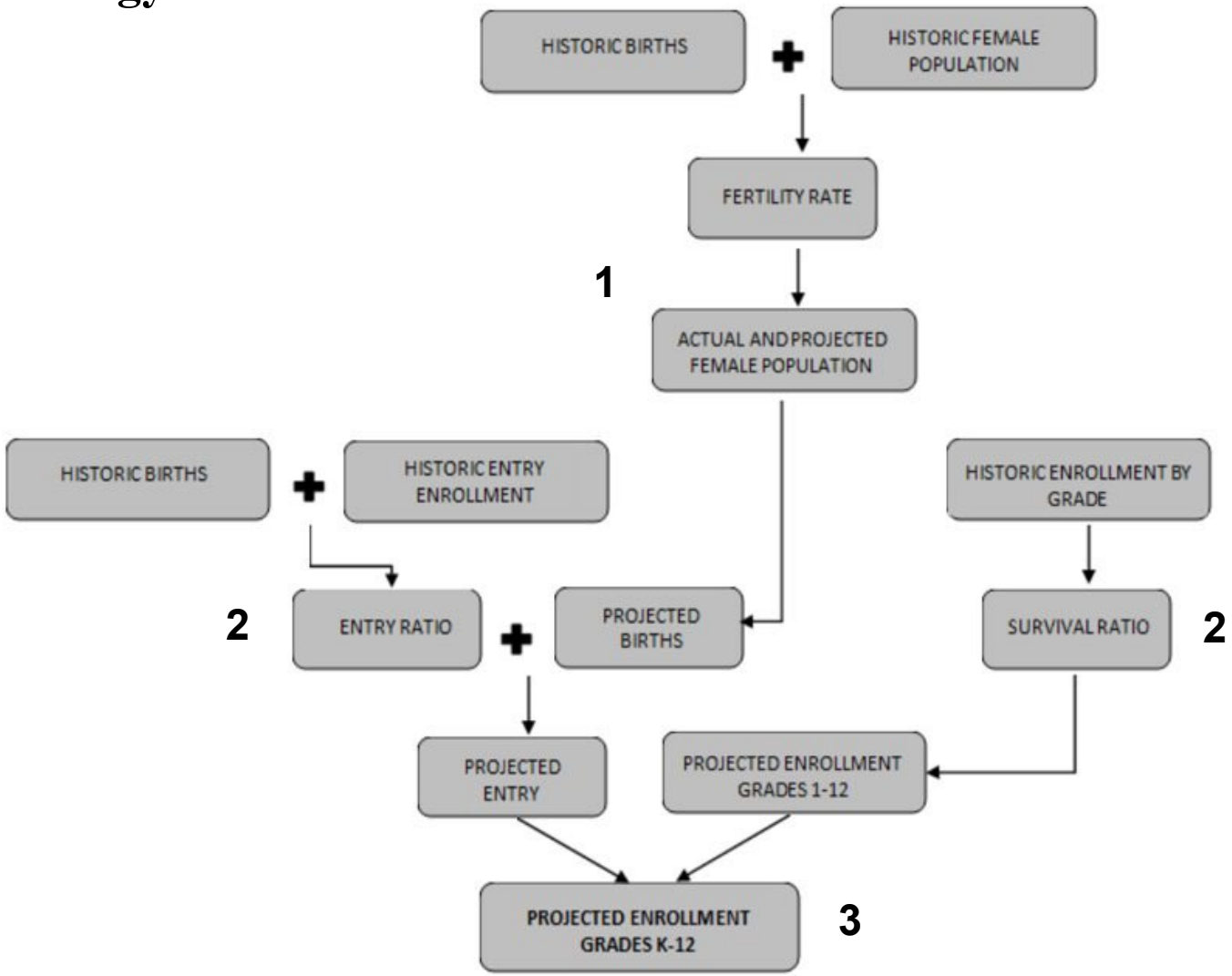
The MSBA, with the assistance of its consultant, developed a data driven enrollment projection methodology based on the modified grade-to-grade cohort survival methodology ("enrollment methodology"). The MSBA's enrollment methodology generates a baseline enrollment projection using historic enrollment data (Department of Elementary and Secondary Education), birth data (Massachusetts Department of Public Health), female population data (US Census Bureau) and female population projections (University of Massachusetts's Donahue Institute, "UMDI") as follows:

- Birth and female population data are used to calculate fertility rates;
- Fertility rates are applied to actual and projected female populations;
- Birth data and Kindergarten enrollment data is used to calculate an average birth-to-kindergarten ratio;
- The birth-to-kindergarten ratio is applied to actual and projected births to generate Kindergarten enrollments;
- Historic enrollment data is used to calculate average grade-to-grade survival ratios (the proportion of students enrolled in one grade and school year to the number of students enrolled in the next grade and school year) to project the number of students in each grade;
- Grade-to-grade survival ratios are applied to actual and projected student enrollments to generate grade 1-12 enrollment projections; and,
- The baseline enrollment is calculated using the 10-year average of projected enrollments for the grades to be considered in the proposed feasibility study.

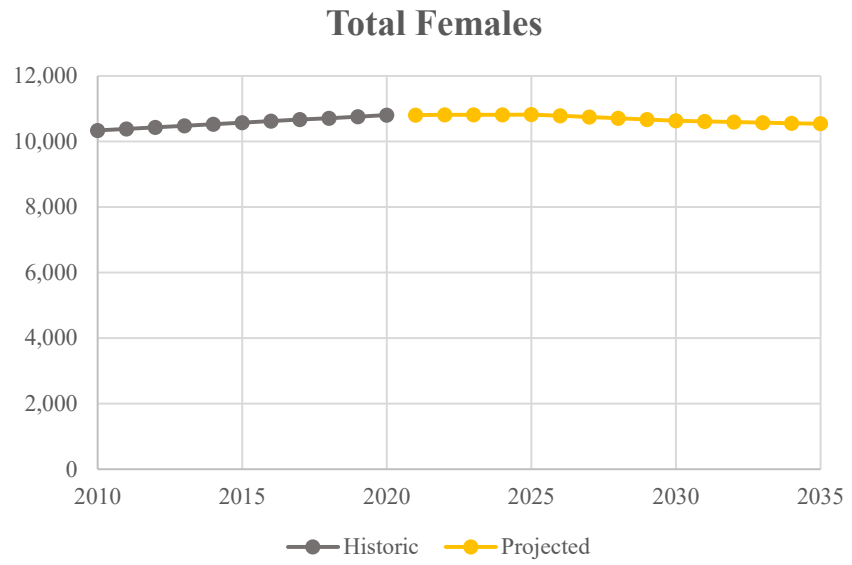
A critical component in setting the design enrollment is an ongoing dialogue with the district throughout the process to understand what they are experiencing in their schools and in their community. Based on district-supplied information, the MSBA generates a baseline enrollment projection using its enrollment methodology. The MSBA and the district meet to share and review the baseline enrollment projection and to further discuss potential grade configurations, school consolidations, housing development and other local factors that the district believes may impact enrollment projections.

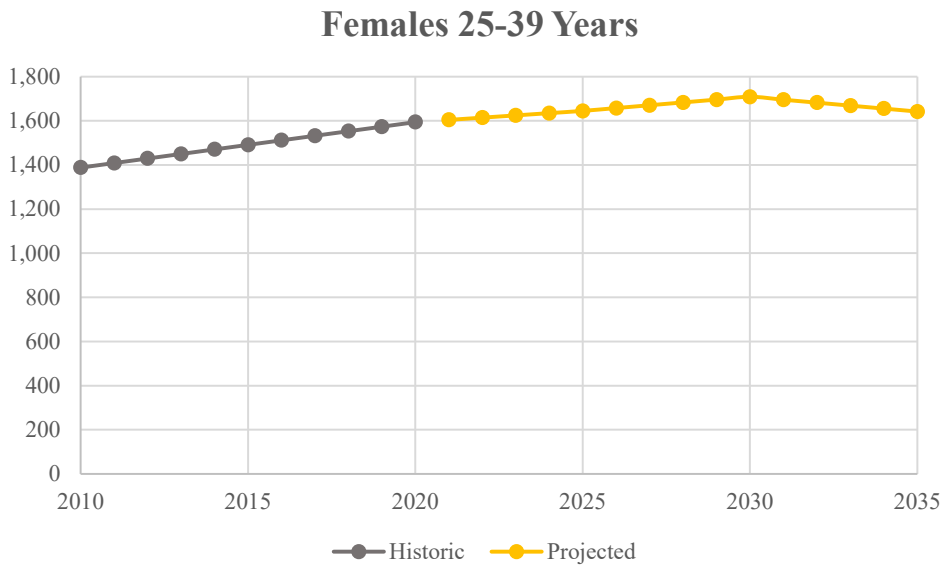
Upon agreement of a design enrollment, the MSBA and the district continue to collaborate to further develop the total square foot of the proposed project as informed by the MSBA's space guidelines and the district's educational program. The MSBA grant will be informed in large part by the eligible square footage of the project which is needed to house the student population generated by the enrollment projection.

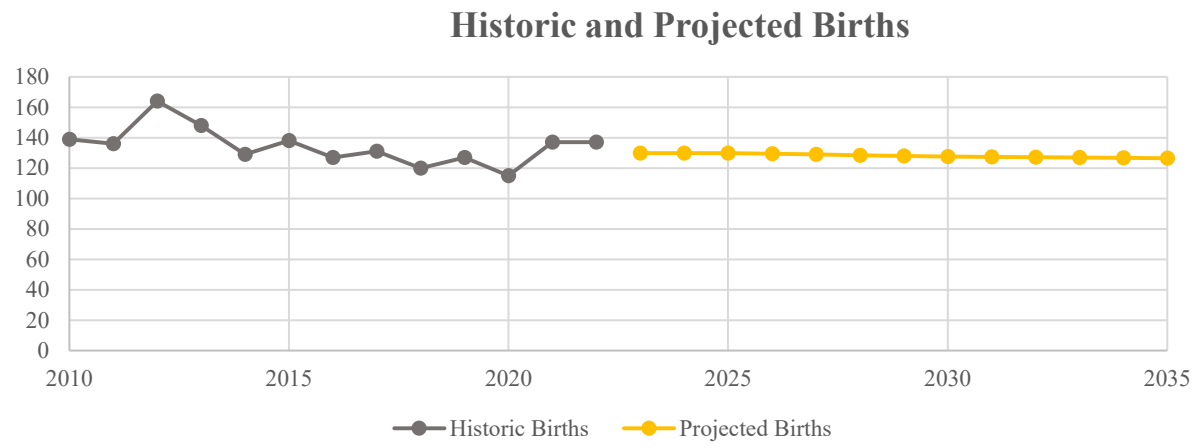
Methodology Overview



Overall female population had been increasing through 2020 and is projected to stabilize then gradually decline through the projection period. The 25-39 Female Age Group had been increasing and is projected continue though 2030 then to decline slightly through 2035. Historic births have trended slightly downward, which is projected to continue.

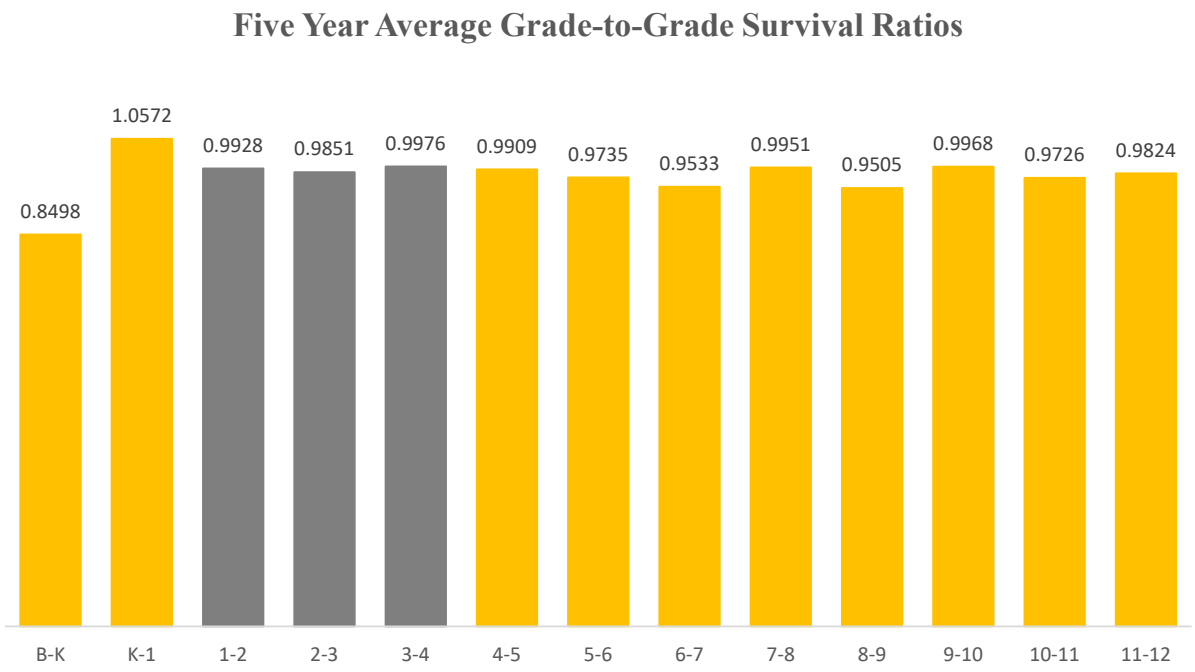






Maternal Age	Average Fertility Rate 2020-2022
10-14 Yrs	0.00%
15-19 Yrs	0.00%
20-24 Yrs	0.97%
25-29 Yrs	5.66%
30-34 Yrs	9.60%
35-39 Yrs	5.77%
40-44 Yrs	0.00%
Total Birth Rate	1.20%

Below is a look at the District's five year average Grade-to-Grade ratios. Ratios above 1.0 indicate an in-migration of students as they transition to the next grade. Ratios below 1.0 indicate an out-migration of students. Review of the ratios for Sough Hadley indicate an overall out-migration of students. Examples of how the MSBA calculated the Birth to Kindergarten ratio as well as Grade-to-Grade survival ratios are at the bottom of the page.



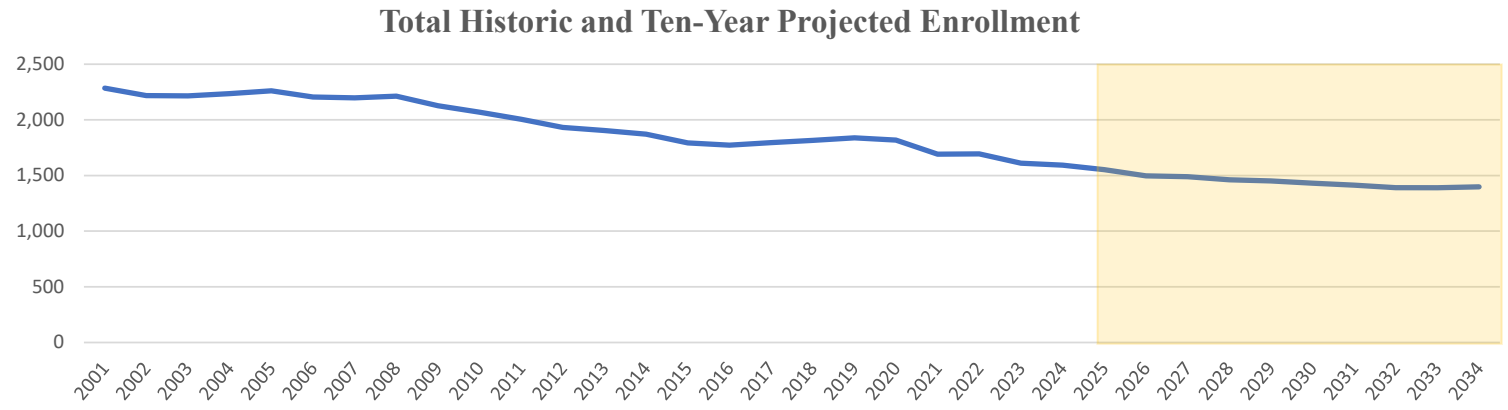
CALCULATING B-K RATIO:

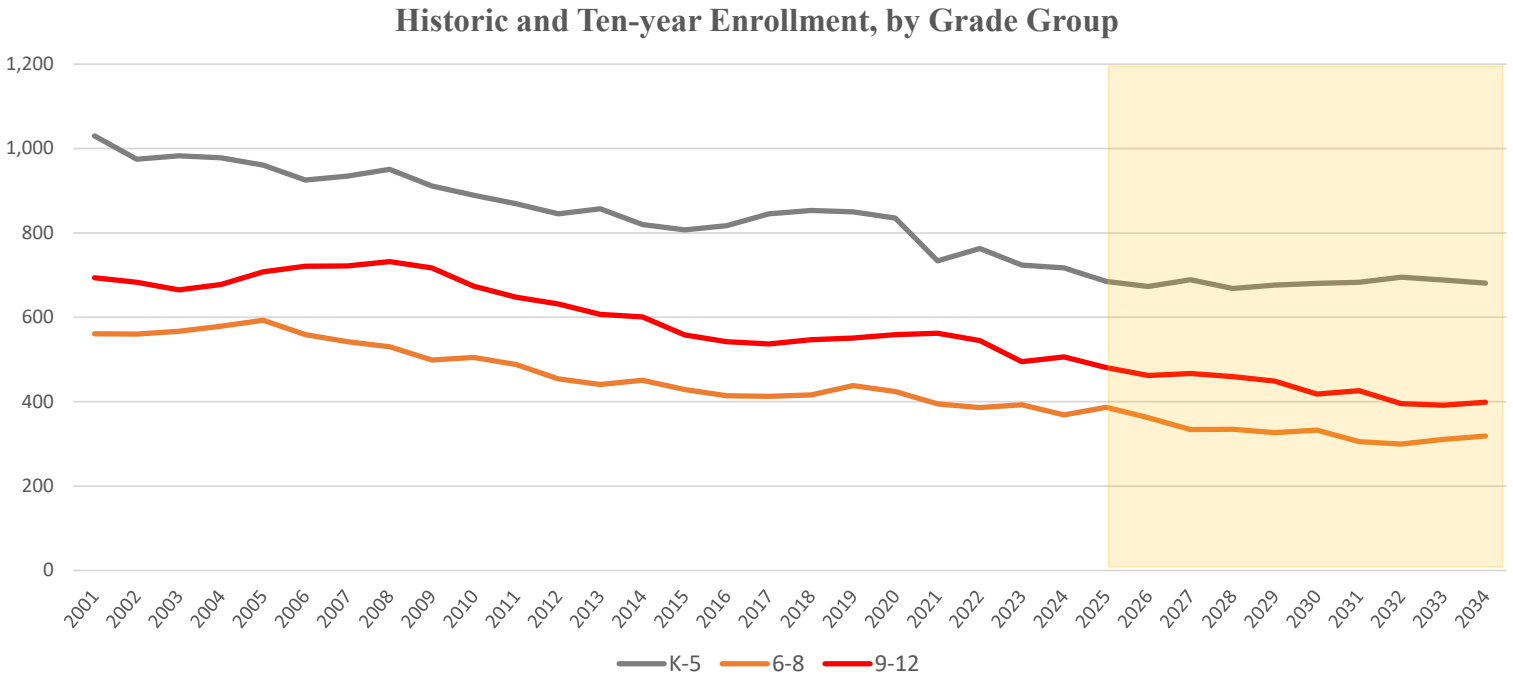
FY24 'actual' K enrollment / 2018 'actual' births	=	106 / 120	=	0.8833	repeat for the prior (4) yrs	avg the (5) yrs together	= 0.8498

CALCULATING GRADE-TO-GRADE SURVIVAL RATIOS, grades K-1 example:

FY24' actual' grade 1 enrollment / FY23'actual' K enrollment	=	109 / 104	=	1.0481	repeat for the prior (4) yrs	avg the (5) yrs together	= 1.0572

South Hadley's total enrollment has trended downward since 2001 which is projected to continue, then stabilize in 2032. Enrollment for grades K-5 followed a similar trajectory but are projected to stabilize. Middle and high school grades are projected to trend downward then stabilize later in the projection period.





The 5-yr averages of the grade-to-grade survival ratios are shown at the top. The unshaded data below presents the District's K-12 enrollment as reported by DESE through FY24 (School Year 2023-24). The shaded area presents the MSBA's base projection by grade for the next ten years. Average enrollments for the 10 projected years are shown at the bottom.

	B-K	K-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
5yr survival:	0.8498	1.0572	0.9928	0.9851	0.9976	0.9909	0.9735	0.9533	0.9951	0.9505	0.9968	0.9726	0.9824

FY	Births (in CY)	K	1	2	3	4	5	6	7	8	9	10	11	12	TTL	K-5	6-8	9-12
2001	159	137	163	169	185	188	188	174	192	195	177	177	185	155	2,285	1,030	561	694
2002	156	133	139	164	163	181	195	192	181	187	167	169	169	178	2,218	975	560	683
2003	121	138	151	154	181	171	188	198	187	182	167	169	165	164	2,215	983	567	665
2004	158	131	161	162	157	184	183	194	198	187	173	180	170	155	2,235	978	579	678
2005	133	124	151	163	168	169	186	193	195	205	192	174	174	168	2,262	961	593	708
2006	140	136	139	163	165	160	162	183	180	196	204	187	171	159	2,205	925	559	721
2007	140	128	145	154	167	171	170	172	183	187	193	197	177	155	2,199	935	542	722
2008	124	161	145	145	157	170	173	176	168	186	184	190	193	165	2,213	951	530	732
2009	134	134	164	147	141	160	165	172	171	156	184	178	176	179	2,127	911	499	717
2010	139	132	137	163	148	145	164	164	167	174	157	178	178	161	2,068	889	505	674
2011	136	139	138	136	166	147	143	162	160	166	164	158	172	154	2,005	869	488	648
2012	164	126	142	130	137	156	154	143	155	156	154	158	156	164	1,931	845	454	632
2013	148	145	126	148	139	143	156	157	128	156	156	154	157	140	1,905	857	441	607
2014	129	118	147	129	143	135	148	156	154	141	146	154	155	146	1,872	820	451	601
2015	138	137	112	146	141	147	124	143	138	148	137	144	139	138	1,794	807	429	558
2016	127	135	141	119	145	132	145	132	140	142	125	138	141	138	1,773	817	414	542
2017	131	148	130	148	123	157	139	139	137	137	140	118	141	138	1,795	845	413	537
2018	120	133	144	138	154	128	156	146	137	133	144	141	123	139	1,816	853	416	547
2019	127	144	139	155	136	143	133	153	139	146	139	146	142	124	1,839	850	438	551
2020	115	126	153	138	148	133	137	130	150	144	138	139	145	137	1,818	835	424	559
2021	137	81	111	148	127	143	124	125	123	147	140	141	135	146	1,691	734	395	562
2022	137	128	96	111	147	131	150	130	133	123	142	131	134	138	1,694	763	386	545
2023	130	104	142	95	108	142	133	145	117	131	105	139	128	123	1,612	724	393	495
2024	130	106	109	144	103	113	142	128	127	114	133	110	135	128	1,592	717	369	506
2025	130	108	112	108	142	103	112	138	122	126	108	133	107	133	1,552	685	387	481
2026	129	98	114	111	107	142	102	109	132	121	120	108	129	105	1,497	673	362	462
2027	129	116	103	113	110	106	140	99	104	131	115	120	105	127	1,490	689	334	467
2028	128	116	123	103	112	109	105	137	94	103	125	115	116	103	1,462	668	334	459
2029	128	110	123	122	101	111	108	103	130	94	98	124	112	114	1,452	676	327	449
2030	128	110	117	122	120	101	110	105	98	129	89	98	121	110	1,431	680	333	418
2031	127	110	117	116	120	120	100	107	101	97	123	89	95	119	1,414	683	305	426
2032	127	110	117	116	114	120	119	97	102	100	92	123	87	94	1,390	695	300	395
2033	127	110	116	116	114	114	119	116	93	102	95	92	119	85	1,390	688	310	392
2034	127	109	116	115	114	114	113	116	110	92	97	95	90	117	1,398	681	318	398

	K	1	2	3	4	5	6	7	8	9	10	11	12				
10 yr projected avg:	110	116	114	115	114	113	113	109	110	106	110	108	111	1,448	682	331	435

Base Enrollment grades 2-4 344 **Base Enrollment grades 1-5** 572

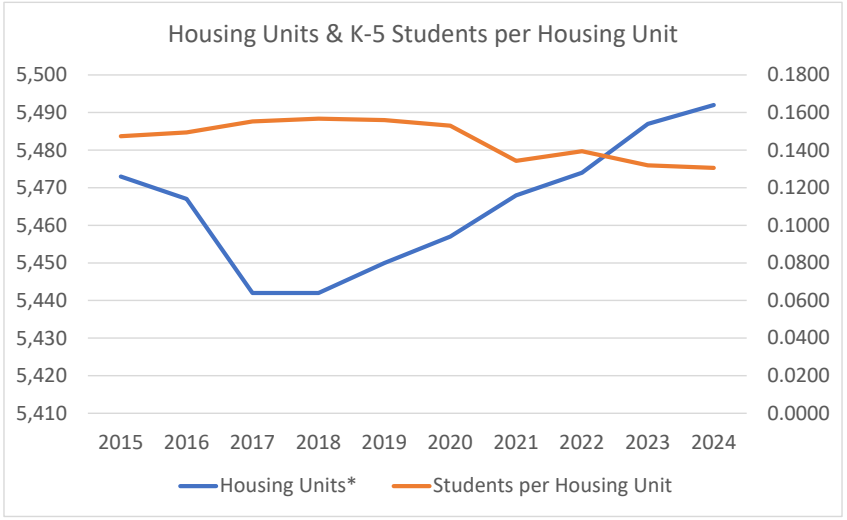
Housing Data from the DOR indicates that the District has averaged 3 new housing units annually over the last 10 years, and 8 annually over the last 5 years. The average number of elementary school students per housing unit was fairly stable through 2020, then declined and appears to be stabilizing.

FY	Single Family 101	Condominiums 102	Miscellaneous Residential 103,109	Two Family 104	Three Family 105	Apartment 111-125	Housing Units*	Change	K-5 Enrollment	Students per Housing Unit
2015	2,713	173	26	1,338	969	254	5,473	9	807	0.1475
2016	2,715	173	26	1,338	960	255	5,467	-6	817	0.1494
2017	2,699	168	26	1,344	951	254	5,442	-25	845	0.1553
2018	2,707	166	25	1,340	948	256	5,442	0	853	0.1567
2019	2,723	167	24	1,336	945	255	5,450	8	850	0.1560
2020	2,730	165	24	1,332	954	252	5,457	7	835	0.1530
2021	2,746	165	23	1,330	951	253	5,468	11	734	0.1342
2022	2,750	164	23	1,332	951	254	5,474	6	763	0.1394
2023	2,753	164	23	1,340	951	256	5,487	13	724	0.1319
2024	2,755	166	23	1,342	951	255	5,492	5	717	0.1306

*Apartments with more than 3 units are counted as 1

Housing Project Description

Development Name	Description; please include a breakdown of the type of units in this development, i.e., 50% single bedroom units, 50% 2+ bedrooms	Estimated Completion Year
Woodlawn Housing Development	60 Units 20: 1 bedroom units, 31 2 bedroom units, 9 3-bedroom units	2026



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Questions / Discussion