

K-12 Enrollment History and Projections Fall 2015

Key Findings

1. The 2015-16 K-12 enrollment of 25,231 is a decrease of 74 students from the 2014-15 K-12 enrollment of 25,305.
2. We project a slight enrollment decrease next year and then a return to slight enrollment increases over the following four years, leading to a projected K-12 enrollment of 25,427 for the 2020-21 school year.

This report contains a brief enrollment history on the Third Friday of September, the first official enrollment count of the year for MMSD, as well as projected enrollments for the next five academic years. This report also contains two appendices, one addressing the historical accuracy of MMSD’s projection methodology and the other reallocations of cross categorical positions after the Third Friday of September enrollment count.

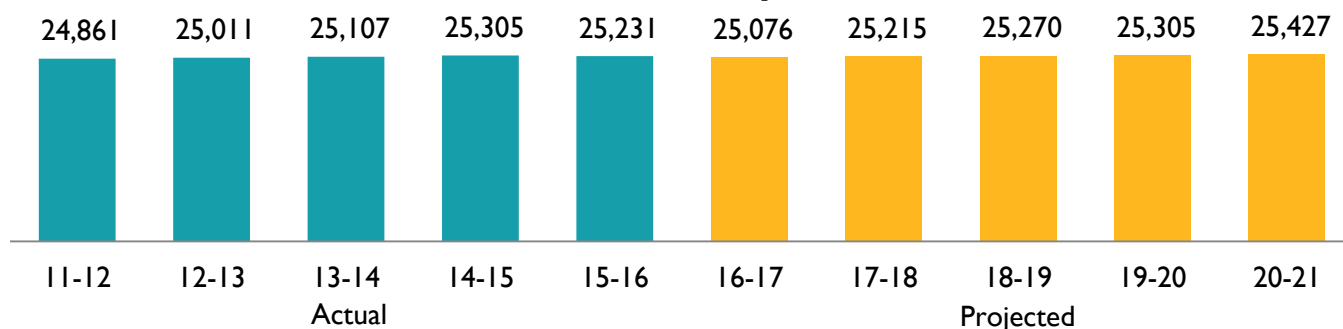
Projection Methodology

Enrollment projections in MMSD are based on historical enrollment trends and persistence rates from grade to grade. Kindergarten classes are projected by comparing local historical births against kindergarten class sizes to determine what percentage of live births we can expect to enroll in MMSD as kindergarteners. Historical births by year at the municipality level come from the Wisconsin Department of Health Services (DHS); at the time of writing this report the most current is for 2013.

Projections do not formally take into account future residential developments. Projecting the number of students who will live in a yet-to-be-built building or residential area is extremely difficult to do with any degree of reliability because it is uncertain how many children will move in, when they will move in and where they will have moved from. New construction does not necessarily mean that MMSD enrollment will increase; instead, students may simply move from other parts of the district. In addition, housing and employment patterns are subject to random and unpredictable variance at small scales, so implying that we can make these kinds of projections reliably would be irresponsible. When future large-scale development in an area is relatively certain this information is used for planning purposes on a case-by-case basis, particularly in conversations around school capacity and long range planning, but we do not adjust projections based on future development.

Projected kindergarteners are assigned to elementary schools based on the current distribution of kindergarteners. Subsequent grades are projected based on historical grade-to-grade persistence rates, with fifth and eighth grade students projected to sixth and ninth grade schools based on the prior year’s pattern of enrolling at each middle and high school during the current year, respectively. This methodology conforms to best practices across school districts according to a 2013 study of enrollment projection methodology conducted for MMSD by Hanover Research. See Appendix A for additional detail about projection accuracy.

K-12 Enrollment History and Forecast



The 2015-16 K-12 enrollment of 25,231 students is a decrease of 74 students (0.3%) from the 2014-15 enrollment of 25,305 students. K-12 enrollment in MMSD has remained relatively flat for the last five years, increasing by fewer than 500 students. We project that MMSD will see a small decrease in enrollment next year and then continue a trend of modest growth for the next several years.



By Grade and Level

Grade	History					Forecast				
	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21
K	2204	2257	2271	2257	2127	2069	2140	2212	2249	2279
1	2198	2171	2176	2107	2154	2035	1980	2048	2116	2152
2	2083	2148	2079	2137	2073	2109	1993	1939	2005	2072
3	1917	2033	2071	2018	2059	2009	2044	1931	1878	1943
4	1896	1861	1990	2009	1951	2002	1953	1987	1877	1826
5	1954	1835	1829	1931	1940	1899	1948	1901	1934	1827
<i>Elementary Total</i>	<i>12252</i>	<i>12305</i>	<i>12416</i>	<i>12459</i>	<i>12304</i>	<i>12123</i>	<i>12058</i>	<i>12016</i>	<i>12060</i>	<i>12100</i>
6	1769	1882	1789	1782	1882	1889	1849	1897	1851	1883
7	1706	1710	1825	1781	1709	1835	1842	1803	1850	1804
8	1664	1710	1719	1807	1753	1699	1824	1831	1792	1839
<i>Middle Total</i>	<i>5139</i>	<i>5302</i>	<i>5333</i>	<i>5370</i>	<i>5344</i>	<i>5423</i>	<i>5515</i>	<i>5531</i>	<i>5492</i>	<i>5526</i>
9	1802	1742	1798	1824	1889	1844	1787	1918	1925	1885
10	1759	1786	1741	1820	1854	1906	1860	1803	1935	1943
11	2102	1967	1974	1905	1824	1987	2042	1993	1932	2074
12	1807	1909	1845	1927	2016	1794	1954	2009	1960	1900
<i>High School Total</i>	<i>7470</i>	<i>7404</i>	<i>7358</i>	<i>7476</i>	<i>7583</i>	<i>7530</i>	<i>7643</i>	<i>7723</i>	<i>7753</i>	<i>7801</i>
Total	24861	25011	25107	25305	25231	25076	25215	25270	25305	25427
<i>Change</i>		<i>150</i>	<i>96</i>	<i>198</i>	<i>-74</i>	<i>-155</i>	<i>140</i>	<i>54</i>	<i>35</i>	<i>122</i>

Birth rates declined from 2007 to 2010 so that the kindergarten class sizes have decreased the last few years. The birth rate then increased during 2011 and 2012 so that we expect to see the kindergarten class sizes increase in the next couple years. Middle and high school enrollments are likely to continue to increase in the short term as the relatively large current elementary school classes progress through MMSD. In addition to the K-12 students listed above, a total of 1,778 students are enrolled in MMSD 4K programs.

By School and Grade

Projections by school and grade begin on page 4. These projections use the same methodology as higher-level projections. However, they are subject to a much higher degree of variability because even a small amount of unanticipated mobility or development can change local enrollments significantly. In addition, these projections are less reliable further into the future. Nonetheless, they can help schools establish plans by grade level and observe the likely progression of unusually large or small classes. Due to rounding and the presence of alternative programs, the sum of projections by school and grade for each year will differ slightly from the overall projections presented above. Several schools that had large increase or decreases in their enrollment when compared to the projection for the 2015-16 school year are Midvale Elementary (6% higher), Olson elementary (11% lower), and Badger Rock Middle (16% lower).

It is important to note that these projections routinely prove to be more accurate than the planning rosters that schools can access via the Data Dashboard in the spring of each school year. These planning rosters include lists of students currently pointed to attend each school based on feeder patterns so schools can learn some basic information about the profile of their incoming students, but they are not enrollment projections. Because of the presence of charter middle schools (Wright, Spring Harbor, Badger Rock) with application processes, to which students are only assigned after they apply and are selected, these planning rosters routinely overestimate the size of incoming sixth grade classes at certain middle schools. Therefore, any large disparities between these projections and planning rosters, particularly at the middle school level, should not be regarded as an error in either system, but rather a reflection of the different purposes of these resources.

District Wide Demographics

	Count of students					Percent of students				
	11-12	12-13	13-14	14-15	15-16	11-12	12-13	13-14	14-15	15-16
<i>Race & ethnicity</i>										
American Indian	89	94	88	89	89	<1%	<1%	<1%	<1%	<1%
Asian	2304	2293	2269	2315	2288	9%	9%	9%	9%	9%
Black or African American	4758	4629	4634	4591	4512	19%	19%	18%	18%	18%
Hispanic or Latino	4447	4607	4814	4978	5163	18%	18%	19%	20%	20%
Pacific Islander	19	18	24	18	16	<1%	<1%	<1%	<1%	<1%
Two or more races	2033	2135	2171	2200	2262	8%	9%	9%	9%	9%
White	11210	11234	11107	11113	10901	45%	45%	44%	44%	43%
<i>Other demographics</i>										
Low-income	11061	11375	11814	12158	12511	44%	45%	47%	48%	50%
ELL	5810	6102	6438	6705	6871	23%	24%	26%	26%	27%
Special Education	3075	3213	3357	3501	3451	12%	13%	13%	14%	14%

Over the past five years the number students and the percent of the student population identifying as Hispanic or Latino or two or more races has grown. Also, the number of students and the percent of the student population identified as low-income or an English Language Learner has increased. We do not produce projections based on demographic characteristics.



SCHOOL	YEAR	KG	1	2	3	4	5	6	7	8	9	10	11	12	Total K-12
ALLIS	2015-16	84	90	72	62	60	64								432
ALLIS	2016-17	82	80	88	70	60	58								439
ALLIS	2017-18	85	78	79	85	68	59								453
ALLIS	2018-19	87	81	77	76	83	66								470
ALLIS	2019-20	89	84	79	74	74	81								481
ALLIS	2020-21	90	85	82	77	72	72								478
CHAVEZ	2015-16	102	103	114	98	96	99								612
CHAVEZ	2016-17	99	98	101	110	95	93								597
CHAVEZ	2017-18	103	95	96	98	107	93								591
CHAVEZ	2018-19	106	98	93	93	95	105								589
CHAVEZ	2019-20	108	101	96	90	90	92								578
CHAVEZ	2020-21	109	103	99	93	88	88								580
CRESTWOOD	2015-16	57	55	69	69	56	69								375
CRESTWOOD	2016-17	55	55	54	67	67	55								352
CRESTWOOD	2017-18	57	53	53	52	65	65								346
CRESTWOOD	2018-19	59	55	52	52	51	63								332
CRESTWOOD	2019-20	60	57	54	50	50	49								321
CRESTWOOD	2020-21	61	58	56	52	49	49								324
ELVEHJEM	2015-16	76	76	71	79	54	91								447
ELVEHJEM	2016-17	74	73	74	69	77	53								419
ELVEHJEM	2017-18	76	71	71	72	67	75								432
ELVEHJEM	2018-19	79	73	69	69	70	65								426
ELVEHJEM	2019-20	80	76	72	67	67	68								430
ELVEHJEM	2020-21	81	77	74	69	65	65								432
EMERSON	2015-16	65	75	62	59	60	57								378
EMERSON	2016-17	63	62	73	60	57	58								375
EMERSON	2017-18	65	61	61	71	58	56								372
EMERSON	2018-19	68	63	59	59	69	57								374
EMERSON	2019-20	69	65	61	57	57	67								377
EMERSON	2020-21	70	66	63	59	56	56								370
FALK	2015-16	58	51	45	45	47	35								281
FALK	2016-17	56	55	50	44	44	46								295
FALK	2017-18	58	54	54	48	42	43								300
FALK	2018-19	60	56	53	53	47	41								310
FALK	2019-20	61	58	55	51	51	46								322
FALK	2020-21	62	59	57	53	50	50								330
FRANKLIN	2015-16	109	117	117											343
FRANKLIN	2016-17	106	104	115											325
FRANKLIN	2017-18	110	101	102											313
FRANKLIN	2018-19	113	105	99											318
FRANKLIN	2019-20	115	108	103											326
FRANKLIN	2020-21	117	110	106											333



SCHOOL	YEAR	KG	1	2	3	4	5	6	7	8	9	10	11	12	Total K-12
GLENDALE	2015-16	83	83	64	76	80	60								446
GLENDALE	2016-17	81	79	81	62	74	78								455
GLENDALE	2017-18	84	77	78	79	60	72								449
GLENDALE	2018-19	86	80	76	75	77	59								452
GLENDALE	2019-20	88	83	78	73	73	75								470
GLENDALE	2020-21	89	84	81	76	71	71								472
GOMPERS	2015-16	45	30	51	41	47	40								254
GOMPERS	2016-17	44	43	29	49	40	46								251
GOMPERS	2017-18	45	42	42	28	48	39								245
GOMPERS	2018-19	47	43	41	41	28	47								246
GOMPERS	2019-20	48	45	42	40	40	27								241
GOMPERS	2020-21	48	46	44	41	39	39								256
HAWTHORNE	2015-16	54	64	65	46	55	60								344
HAWTHORNE	2016-17	53	52	63	63	45	54								328
HAWTHORNE	2017-18	54	50	51	61	61	44								321
HAWTHORNE	2018-19	56	52	49	49	59	60								325
HAWTHORNE	2019-20	57	54	51	48	48	57								315
HAWTHORNE	2020-21	58	55	53	49	46	46								307
HUEGEL	2015-16	81	83	64	88	65	47								428
HUEGEL	2016-17	79	77	81	62	86	63								448
HUEGEL	2017-18	82	75	76	79	60	83								455
HUEGEL	2018-19	84	78	74	74	77	59								445
HUEGEL	2019-20	86	81	76	72	71	75								460
HUEGEL	2020-21	87	82	79	74	70	70								461
KENNEDY	2015-16	79	75	91	100	85	101								531
KENNEDY	2016-17	77	76	73	88	97	83								494
KENNEDY	2017-18	79	74	74	71	86	95								479
KENNEDY	2018-19	82	76	72	72	69	83								455
KENNEDY	2019-20	84	79	74	70	70	67								443
KENNEDY	2020-21	85	80	77	72	68	68								449
LAKE VIEW	2015-16	47	39	44	40	44	49								263
LAKE VIEW	2016-17	46	45	38	43	39	43								253
LAKE VIEW	2017-18	47	44	44	37	41	38								251
LAKE VIEW	2018-19	49	45	43	43	36	40								256
LAKE VIEW	2019-20	50	47	44	42	41	35								259
LAKE VIEW	2020-21	50	48	46	43	40	40								267
LAPHAM	2015-16	64	64	73											201
LAPHAM	2016-17	62	61	63											186
LAPHAM	2017-18	64	60	60											184
LAPHAM	2018-19	67	62	58											186
LAPHAM	2019-20	68	64	60											192
LAPHAM	2020-21	69	65	62											196



SCHOOL	YEAR	KG	1	2	3	4	5	6	7	8	9	10	11	12	Total K-12
LEOPOLD	2015-16	131	119	123	95	106	95								669
LEOPOLD	2016-17	127	125	117	119	92	103								684
LEOPOLD	2017-18	132	122	123	113	116	90								695
LEOPOLD	2018-19	136	126	119	119	110	113								723
LEOPOLD	2019-20	139	130	123	116	116	107								730
LEOPOLD	2020-21	140	133	128	120	112	113								745
LINCOLN	2015-16				126	133	112								371
LINCOLN	2016-17				159	122	129								411
LINCOLN	2017-18				139	154	119								413
LINCOLN	2018-19				149	136	150								435
LINCOLN	2019-20				145	145	132								422
LINCOLN	2020-21				150	141	141								431
LINDBERGH	2015-16	26	36	29	39	41	31								202
LINDBERGH	2016-17	25	25	35	28	38	40								191
LINDBERGH	2017-18	26	24	24	34	27	37								173
LINDBERGH	2018-19	27	25	24	24	33	27								159
LINDBERGH	2019-20	27	26	25	23	23	32								156
LINDBERGH	2020-21	28	26	25	24	22	22								148
LOWELL	2015-16	64	63	53	50	50	64								344
LOWELL	2016-17	62	61	62	51	49	49								334
LOWELL	2017-18	64	60	60	60	50	47								341
LOWELL	2018-19	67	62	58	58	58	49								351
LOWELL	2019-20	68	64	60	57	56	57								361
LOWELL	2020-21	69	65	62	58	55	55								364
MARQUETTE	2015-16				74	68	71								213
MARQUETTE	2016-17				71	72	66								209
MARQUETTE	2017-18				61	69	70								200
MARQUETTE	2018-19				58	59	67								184
MARQUETTE	2019-20				57	56	57								170
MARQUETTE	2020-21				58	55	55								168
MENDOTA	2015-16	56	55	46	46	52	45								300
MENDOTA	2016-17	54	54	54	45	45	51								302
MENDOTA	2017-18	56	52	52	52	43	44								300
MENDOTA	2018-19	58	54	51	51	51	42								307
MENDOTA	2019-20	59	56	53	49	49	49								316
MENDOTA	2020-21	60	57	55	51	48	48								319
MIDVALE	2015-16	164	147	164											475
MIDVALE	2016-17	160	157	144											460
MIDVALE	2017-18	165	153	154											471
MIDVALE	2018-19	171	158	149											478
MIDVALE	2019-20	173	163	155											491
MIDVALE	2020-21	176	166	160											501



SCHOOL	YEAR	KG	1	2	3	4	5	6	7	8	9	10	11	12	Total K-12
MUIR	2015-16	86	64	52	72	65	58								397
MUIR	2016-17	84	82	63	50	70	63								412
MUIR	2017-18	87	80	81	61	49	68								425
MUIR	2018-19	89	83	78	78	59	48								435
MUIR	2019-20	91	86	81	76	76	57								467
MUIR	2020-21	92	87	84	79	74	74								489
NUESTRO MUNDO	2015-16	53	54	54	54	52	47								314
NUESTRO MUNDO	2016-17	54	53	53	52	51	46								308
NUESTRO MUNDO	2017-18	55	51	52	51	51	49								309
NUESTRO MUNDO	2018-19	57	53	50	50	50	50								310
NUESTRO MUNDO	2019-20	58	55	52	49	49	48								310
NUESTRO MUNDO	2020-21	59	56	54	50	47	47								313
OLSON	2015-16	69	71	59	64	66	55								384
OLSON	2016-17	67	66	70	57	62	64								386
OLSON	2017-18	69	64	65	67	56	61								382
OLSON	2018-19	72	66	63	63	65	54								383
OLSON	2019-20	73	69	65	61	61	64								392
OLSON	2020-21	74	70	67	63	59	59								393
ORCH RIDGE	2015-16	47	59	55	58	45	42								306
ORCH RIDGE	2016-17	46	45	58	53	56	44								302
ORCH RIDGE	2017-18	47	44	44	56	52	55								298
ORCH RIDGE	2018-19	49	45	43	43	54	50								284
ORCH RIDGE	2019-20	50	47	44	42	41	53								277
ORCH RIDGE	2020-21	50	48	46	43	40	40								267
RANDALL	2015-16				128	134	131								393
RANDALL	2016-17				113	124	130								368
RANDALL	2017-18				111	110	121								342
RANDALL	2018-19				99	108	107								314
RANDALL	2019-20				96	96	105								297
RANDALL	2020-21				100	94	94								287
SANDBURG	2015-16	66	79	82	62	71	73								433
SANDBURG	2016-17	64	63	77	79	60	69								414
SANDBURG	2017-18	66	61	62	75	77	59								401
SANDBURG	2018-19	69	64	60	60	73	75								400
SANDBURG	2019-20	70	66	62	58	58	71								385
SANDBURG	2020-21	71	67	64	60	57	57								375
SCHENK	2015-16	72	77	66	79	63	72								429
SCHENK	2016-17	70	69	75	64	77	61								416
SCHENK	2017-18	72	67	67	73	62	75								417
SCHENK	2018-19	75	69	66	65	71	61								407
SCHENK	2019-20	76	72	68	64	64	69								412
SCHENK	2020-21	77	73	70	66	62	62								410



SCHOOL	YEAR	KG	1	2	3	4	5	6	7	8	9	10	11	12	Total K-12
SHOREWOOD	2015-16	84	71	74	82	64	51								426
SHOREWOOD	2016-17	82	80	70	72	80	62								445
SHOREWOOD	2017-18	85	78	79	67	70	78								456
SHOREWOOD	2018-19	87	81	77	76	65	68								454
SHOREWOOD	2019-20	89	84	79	74	74	64								464
SHOREWOOD	2020-21	90	85	82	77	72	72								478
STEPHENS	2015-16	81	99	82	89	72	75								498
STEPHENS	2016-17	79	77	97	79	87	70								489
STEPHENS	2017-18	82	75	76	94	77	84								488
STEPHENS	2018-19	84	78	74	74	91	75								476
STEPHENS	2019-20	86	81	76	72	71	89								474
STEPHENS	2020-21	87	82	79	74	70	70								461
THOREAU	2015-16	63	87	66	64	57	82								419
THOREAU	2016-17	61	60	85	64	62	55								388
THOREAU	2017-18	63	59	59	83	62	61								386
THOREAU	2018-19	66	61	57	57	80	61								382
THOREAU	2019-20	67	63	59	56	56	78								378
THOREAU	2020-21	68	64	61	58	54	54								358
VAN HISE	2015-16	61	68	65	74	63	64								395
VAN HISE	2016-17	59	58	67	63	72	61								381
VAN HISE	2017-18	61	57	57	65	61	70								371
VAN HISE	2018-19	63	59	56	55	63	60								355
VAN HISE	2019-20	65	61	58	54	54	61								351
VAN HISE	2020-21	65	62	59	56	52	52								347
BADGER ROCK	2015-16							33	23	17					73
BADGER ROCK	2016-17							40	32	23					95
BADGER ROCK	2017-18							40	39	32					111
BADGER ROCK	2018-19							40	39	39					118
BADGER ROCK	2019-20							40	39	39					118
BADGER ROCK	2020-21							40	39	39					118
BLACK HAWK	2015-16							128	117	120					365
BLACK HAWK	2016-17							138	125	116					379
BLACK HAWK	2017-18							122	134	124					380
BLACK HAWK	2018-19							121	119	133					373
BLACK HAWK	2019-20							109	118	118					345
BLACK HAWK	2020-21							113	106	117					337
CHEROKEE	2015-16							169	121	158					448
CHEROKEE	2016-17							145	165	120					430
CHEROKEE	2017-18							138	141	164					442
CHEROKEE	2018-19							158	134	140					432
CHEROKEE	2019-20							164	154	133					451
CHEROKEE	2020-21							152	159	153					464



SCHOOL	YEAR	KG	1	2	3	4	5	6	7	8	9	10	11	12	Total K-12
HAMILTON	2015-16							322	266	280					868
HAMILTON	2016-17							271	314	264					850
HAMILTON	2017-18							282	264	312					858
HAMILTON	2018-19							263	275	263					800
HAMILTON	2019-20							253	256	273					783
HAMILTON	2020-21							244	247	255					746
JEFFERSON	2015-16							183	181	158					522
JEFFERSON	2016-17							158	178	180					516
JEFFERSON	2017-18							177	154	177					508
JEFFERSON	2018-19							153	172	153					478
JEFFERSON	2019-20							165	150	171					485
JEFFERSON	2020-21							163	161	149					472
O'KEEFFE	2015-16							148	171	151					470
O'KEEFFE	2016-17							127	144	170					442
O'KEEFFE	2017-18							126	124	143					394
O'KEEFFE	2018-19							130	123	123					376
O'KEEFFE	2019-20							128	126	122					377
O'KEEFFE	2020-21							120	125	126					371
SENNETT	2015-16							226	206	216					648
SENNETT	2016-17							230	220	205					655
SENNETT	2017-18							198	224	219					641
SENNETT	2018-19							210	193	223					626
SENNETT	2019-20							224	205	192					621
SENNETT	2020-21							216	218	204					638
SHERMAN MD	2015-16							137	127	150					414
SHERMAN MD	2016-17							155	134	126					415
SHERMAN MD	2017-18							137	151	133					421
SHERMAN MD	2018-19							157	134	150					441
SHERMAN MD	2019-20							163	153	133					449
SHERMAN MD	2020-21							136	158	152					447
SPRING HARBOR MD	2015-16							86	85	79					250
SPRING HARBOR MD	2016-17							74	84	85					243
SPRING HARBOR MD	2017-18							83	72	83					239
SPRING HARBOR MD	2018-19							75	81	72					228
SPRING HARBOR MD	2019-20							78	74	80					232
SPRING HARBOR MD	2020-21							74	76	73					223
TOKI	2015-16							221	185	180					586
TOKI	2016-17							179	215	184					578
TOKI	2017-18							197	174	214					586
TOKI	2018-19							183	192	173					548
TOKI	2019-20							192	178	191					561
TOKI	2020-21							174	187	177					538



SCHOOL	YEAR	KG	1	2	3	4	5	6	7	8	9	10	11	12	Total K-12
WHITEHORSE	2015-16							142	137	155					434
WHITEHORSE	2016-17							131	138	136					406
WHITEHORSE	2017-18							151	128	138					417
WHITEHORSE	2018-19							131	148	127					405
WHITEHORSE	2019-20							124	127	147					398
WHITEHORSE	2020-21							118	121	127					365
WRIGHT	2015-16							87	88	81					256
WRIGHT	2016-17							89	85	87					261
WRIGHT	2017-18							82	87	84					253
WRIGHT	2018-19							98	80	86					264
WRIGHT	2019-20							91	95	80					266
WRIGHT	2020-21							92	89	95					276
EAST	2015-16										435	390	383	377	1585
EAST	2016-17										445	439	418	377	1678
EAST	2017-18										434	449	470	411	1764
EAST	2018-19										439	438	481	463	1820
EAST	2019-20										404	443	469	473	1789
EAST	2020-21										427	408	475	461	1771
LA FOLLETTE	2015-16										386	381	372	375	1514
LA FOLLETTE	2016-17										368	386	421	346	1521
LA FOLLETTE	2017-18										385	368	427	392	1570
LA FOLLETTE	2018-19										376	385	406	397	1564
LA FOLLETTE	2019-20										364	376	425	378	1544
LA FOLLETTE	2020-21										358	364	416	395	1534
MEMORIAL	2015-16										489	488	460	483	1920
MEMORIAL	2016-17										477	489	539	428	1933
MEMORIAL	2017-18										505	477	540	501	2025
MEMORIAL	2018-19										426	505	528	503	1962
MEMORIAL	2019-20										471	426	559	491	1946
MEMORIAL	2020-21										428	471	471	519	1889
WEST	2015-16										571	548	493	504	2116
WEST	2016-17										471	571	606	458	2106
WEST	2017-18										561	471	631	563	2226
WEST	2018-19										487	561	520	587	2155
WEST	2019-20										486	487	620	484	2076
WEST	2020-21										498	486	538	576	2098

Appendix A: Projection Accuracy

As indicated earlier in this report, MMSD’s enrollment projection methodology aligns to best practices across the country. However, we receive regular questions about the accuracy of our projections. In this appendix, we provide a one-time look at projection accuracy to illustrate the effectiveness of our methods.

MMSD and APL K-12 Projections

Prior to the 2012-13 school year, the Research & Program Evaluation Office engaged the Applied Population Lab (APL) at the University of Wisconsin-Madison to conduct district-level K-12 enrollment projections so we could compare the results of their methods against the results of our methods. APL demographers provide enrollment projection services for many districts in Wisconsin using the best available methods, including cohort persistence rates and recent birth data, just as MMSD uses for our in-house projection system. The table below shows the projections provided by APL in 2012 for the past four school years, the projections we produced using our in-house system, and actual enrollment for those years.

	2012-13	2013-14	2014-15	2015-16
APL Projection	25149	25267	25489	25707
MMSD Projection	25126	25141	25217	25209
Actual Enrollment	25010	25107	25298	25231
APL Error	0.6%	0.6%	0.8%	1.9%
MMSD Error	0.5%	0.1%	-0.3%	-0.1%

This table shows that our in-house projection system outperformed the models used by APL for each of the past four years. We provide this information not to critique the APL projections, which were, in aggregate, extremely accurate; instead, we want to illustrate that our systems proved more accurate for the four years in question, never missing overall enrollment by more than one half of one percent.

2014-15 One-Year Projections by Grade

We also chose to examine the projections conducted in the Fall of 2014 and see how accurate they were for the Fall of 2015. The table below includes that information by grade, level, and overall.

	14-15	15-16 Projection	15-16 Actual	Error
K	2257	2083	2127	-2.1%
1	2107	2223	2154	3.2%
2	2137	2065	2073	-0.4%
3	2018	2094	2059	1.7%
4	2009	1980	1951	1.5%
5	1931	1985	1940	2.3%
<i>Elementary Total</i>	<i>12459</i>	<i>12430</i>	<i>12304</i>	<i>1.0%</i>
6	1782	1869	1882	-0.7%
7	1781	1761	1709	3.0%
8	1807	1785	1753	1.8%
<i>Middle Total</i>	<i>5370</i>	<i>5414</i>	<i>5344</i>	<i>1.3%</i>
9	1824	1892	1889	0.2%
10	1820	1824	1854	-1.6%
11	1905	2002	1824	9.8%
12	1927	1772	2016	-12.1%
<i>High School Total</i>	<i>7476</i>	<i>7490</i>	<i>7583</i>	<i>-1.2%</i>
District Total	25305	25334	25231	0.4%

Overall, our projected enrollment was less than one half of one percent too high. Projections by grade varied a little more but were almost always within 3% in either direction. Our biggest errors were in under-projecting grade 12 and over-projecting grade 11, which may be due to a change in practice at the school level of promoting more grade 11 students to grade 12 instead of retaining them. For an additional look at projection accuracy, we went back to the projections conducted in the Fall of 2014 by school and grade for 2015-16 and compared them with actual enrollment. We observed that by school and grade, most projections were highly accurate, with most errors between 0%-3%, corresponding to only a few students in each case.