Pupil Enrollment
Projection Study Report 2019-2023

Presented to Northville Public Schools

December, 2018

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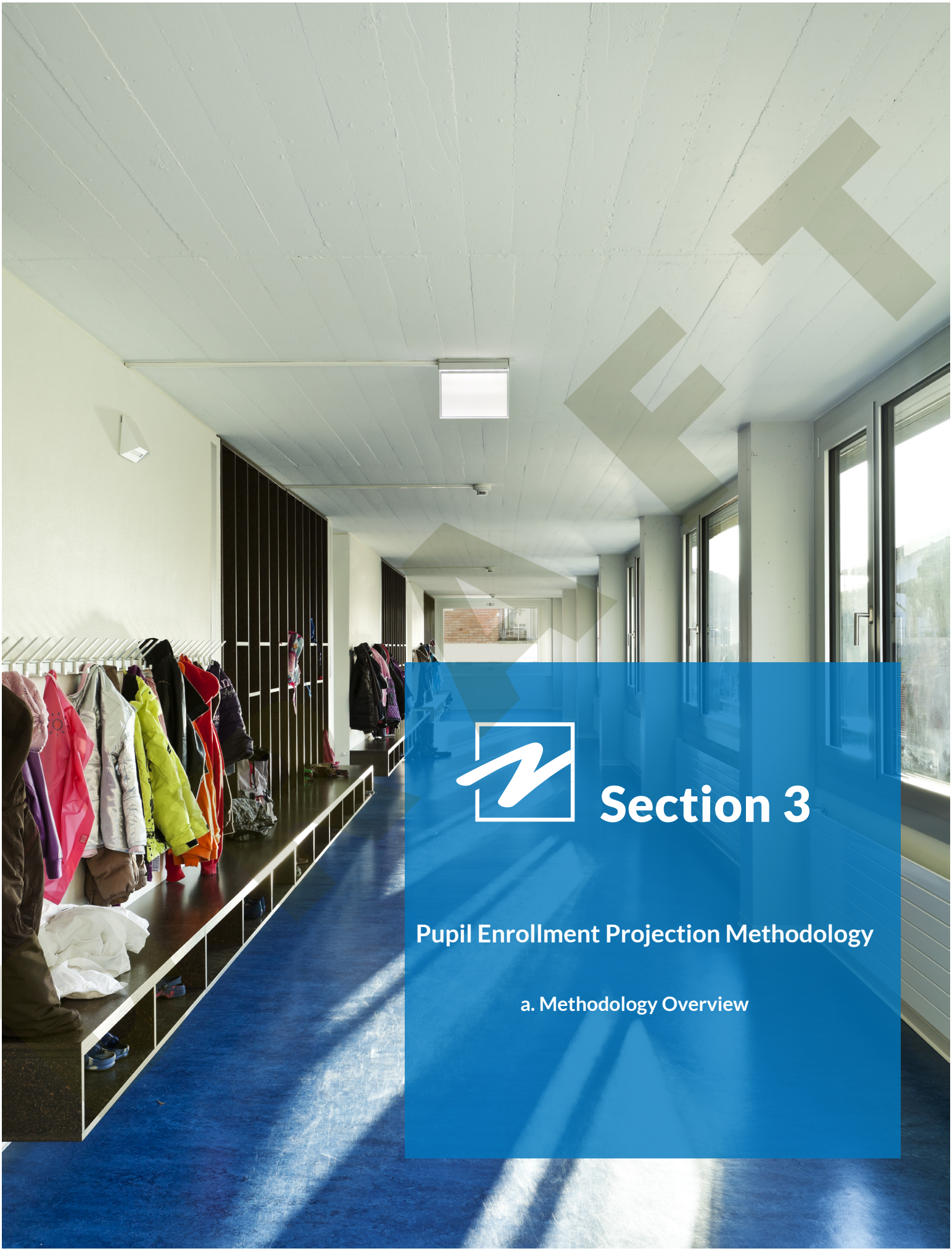

Section 3

Pupil Enrollment Projection Methodology

a. Methodology Overview

Enrollment Projection Overview (District –Wide)

The following glossary provides a better understanding of the meaning and significance of the enclosed enrollment projection study report.

Plante Moran Cresa uses the standard Cohort Survival Method to project enrollments. The Method uses the historical survival ratios of your pupils from grade to grade to project future enrollment trends. The survival ratio compares the number of pupils in a particular grade last year against the number of pupils in the next advanced grade this year. For example, there were 100 first grade pupils last year and 112 second grade pupils this year; the survival ratio for last year's first grade class is 112%. Enrollment trends are then derived from these statistical data.

When projections are based on Full Time Equivalent (FTE) or Head counts as specified on the upper right of the table, the enrollment projections contain only mainstreamed Pre-kindergarten through 12th grade pupils. Special education pupils are included as general education pupils based on percentage of time spent in the general education classrooms (as Full Time Equivalent). Adult participants and special education pupils are not included in the historical data or projections. Historical pupil enrollment data is obtained from the Michigan Department of Education, Form DS-4061, for FTE, or from head counts provided by your school district.

County Births: This line shows the number of resident live births for the past 12 years in the county your school district is located. The live births are used to project by proportion the number of children born in your school district's county who will become pupils in your school district (**K% Birth**). The live births data is obtained from the Michigan Department of Public Health's Office of the State Registrar and Center for Health Statistics. Since the Department of Health cannot reasonably compile all the birth statistics from all counties for a particular year until at the earliest in the fourth quarter of the following year, the current year's number of live birth is therefore estimated.

Historical Data columns show past pupil enrollment history in your school district. These columns list pupil enrollments by grade for the past 6 years plus the current year. The percentages under the pupil enrollment numbers are the survival ratios for the respective grades that year. Please be alert for unusual variations in the survival ratios when reviewing these numbers since they are trend indicators for your school district's pupil enrollment.

Projection applies the survival ratios for the past seven years in a particular grade and extends it out for the next five to ten years. The shaded area represents pupils projected from county live birth statistics. The clear portion represents pupils who are already enrolled in your school district. The enrollment projections do not account for closing or opening of a private or chartered school, consolidation, annexation, or re-zoning of your district in the future. Such out-of-the-ordinary occurrences must be accounted for separately.

Grade Pattern: The second page of the enrollment projection report sums up (compiles) pupil enrollment by grades into groups that corresponding with your school district's grade pattern or building configuration. It is a tool to identify potential facility utilization, for considering future grade pattern changes, and for planning of future school facilities, etc.

If you have questions regarding the enrollment projection report, please call our educational planning staff.

Paul R. Wills, AIA (248) 223-3316

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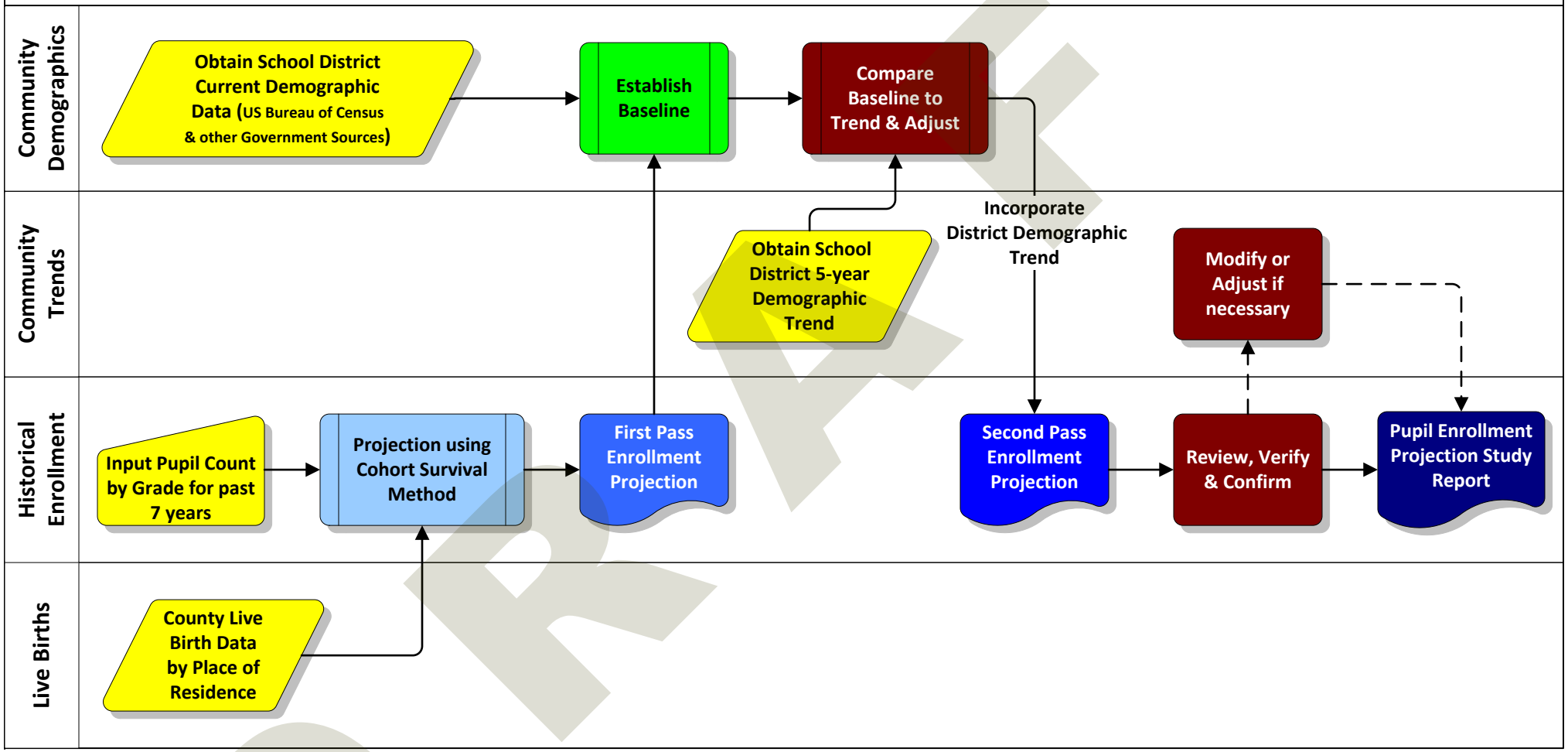
District-wide Pupil Enrollment Projection Methodology



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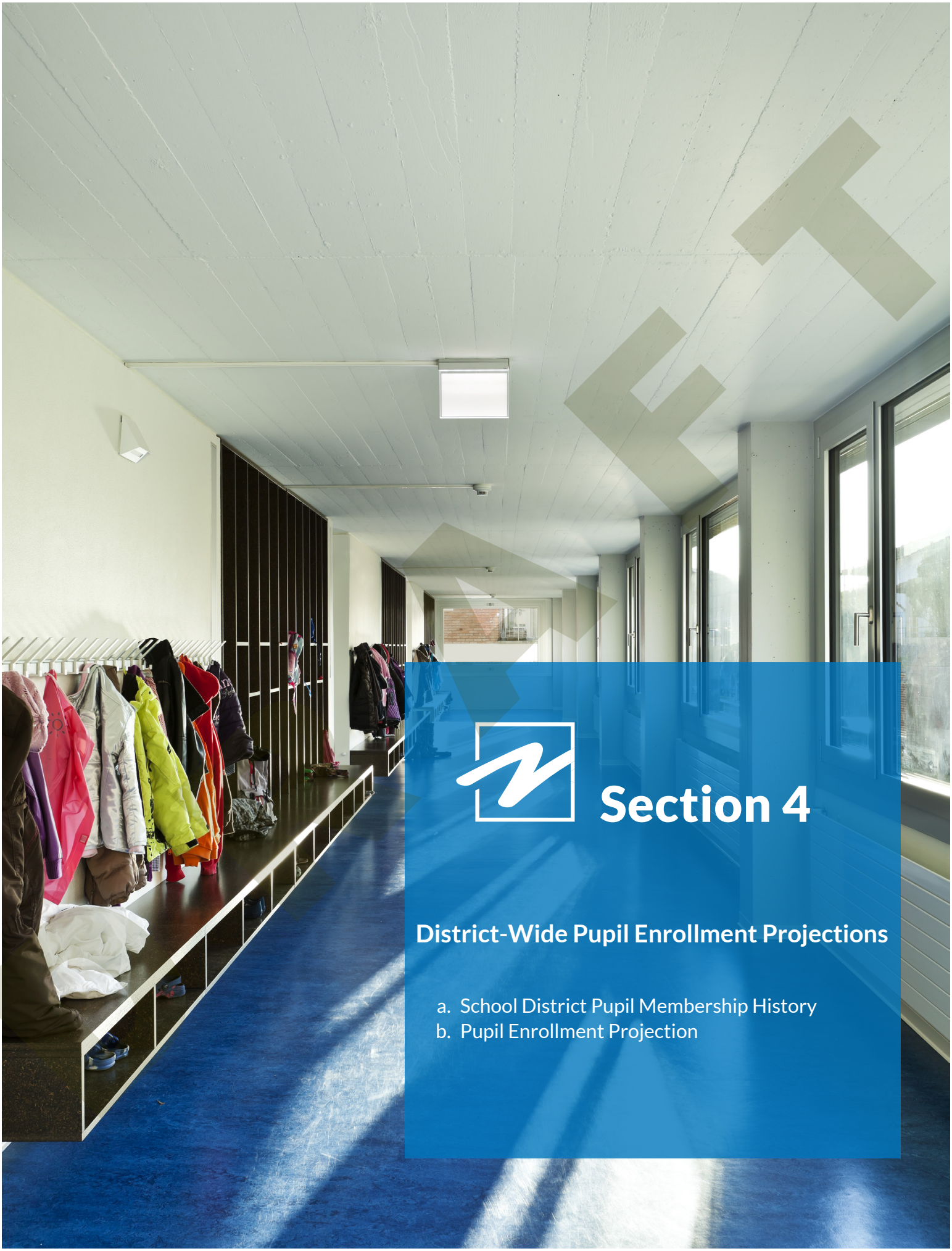

Section 4

District-Wide Pupil Enrollment Projections

a. School District Pupil Membership History
b. Pupil Enrollment Projection

Northville Public Schools

Wayne County, Michigan

K-12 Pupil Membership in General Education (Historical) **Please Indicate:** **FTE** **DISTRICT WIDE (ALL PUPILS)**

	Academic Year EXAMPLE			Academic Year 2011			Academic Year 2012			Academic Year 2013			Academic Year 2014		
Grade	Fall	Spring	Blended*	Fall 2011	Spring 2012	Blended*	Fall 2012	Spring 2013	Blended*	Fall 2013	Spring 2014	Blended*	Fall 2014	Spring 2015	Blended*
K	399.99	400.36	400.03	456.29	458.49	453.54	399.99	406.91	405.84	476.63	479.23	469.66	422.61		428.27
1	392.74	356.00	389.07	495.30	490.36	495.55	517.92	524.29	515.16	442.38	449.41	450.57	495.77		491.13
2	365.44	401.59	369.06	532.45	535.57	529.65	507.44	514.69	510.25	537.54	538.44	535.26	468.01		475.05
3	363.78	364.16	363.82	516.26	525.23	518.01	549.12	548.89	546.73	539.93	538.99	540.83	538.32		538.39
4	405.88	379.90	403.28	538.68	539.76	538.91	540.10	539.82	540.07	566.54	566.18	563.87	543.54		545.80
5	393.37	411.83	395.22	551.97	554.76	550.14	558.64	560.65	558.25	555.88	551.95	556.36	579.23		576.50
6	417.67	400.83	415.99	556.47	557.08	558.53	580.19	587.59	577.88	583.14	582.37	583.59	562.10		564.13
7	456.24	433.70	453.99	587.99	598.05	585.83	570.99	570.61	573.70	589.02	590.83	587.18	592.88		592.68
8	447.58	468.44	449.67	567.97	573.29	568.22	601.73	602.04	598.89	576.07	580.24	578.67	596.65		595.01
9	441.51	463.37	443.70	546.58	550.57	551.38	566.60	562.94	565.00	568.64	569.22	568.07	560.98		561.80
10	466.92	427.62	462.99	594.88	592.71	588.93	553.65	546.89	557.56	574.89	573.79	572.09	568.17		568.73
11	409.34	464.51	414.86	531.83	528.34	527.54	586.82	581.92	580.97	547.09	545.11	550.57	577.30		574.08
12	412.68	402.56	411.67	492.83	485.47	499.94	531.44	531.15	526.84	578.89	573.94	574.12	547.65		550.28
K-12	**5,373.14**	**5,374.87**	**5,373.31**	**6,969.50**	**6,989.68**	**6,966.17**	**7,064.63**	**7,078.39**	**7,057.14**	**7,136.64**	**7,139.70**	**7,130.82**	**7,053.21**		**7,061.86**
SE	53.25	82.75	56.20	343.44	346.90	345.05	343.76	349.30	344.07	315.48	312.71	318.86	302.53		303.55
Total	**5,472.14**	**5,507.60**	**5,475.69**	**7,312.94**	**7,336.58**	**7,311.22**	**7,408.39**	**7,427.69**	**7,401.21**	**7,452.12**	**7,452.41**	**7,449.68**	**7,355.74**		**7,365.41**

	Academic Year 2015			Academic Year 2016			Academic Year 2017			Academic Year 2018			Academic Year 2019 Projected		
Grade	**Fall 2015**	**Spring 2016**	**Blended***	**Fall 2016**	**Spring 2017**	**Blended***	**Fall 2017**	**Spring 2018**	**Blended***	**Fall 2018**	**Spring 2019**	**Blended***	**Fall 2019 Projected**	**Spring 2020**	**Blended***
K	437.38			438.66			377.11			399.69			406.47		
1	462.15			454.83			471.18			399.90			429.08		
2	527.29			480.56			477.58			490.58			421.06		
3	511.01			545.65			508.18			465.44			511.12		
4	571.18			525.45			565.41			521.80			482.33		
5	570.65			577.47			536.85			581.53			538.30		
6	618.21			601.42			600.73			551.00			607.69		
7	592.40			630.41			624.54			612.34			568.48		
8	608.19			596.22			631.15			615.30			619.23		
9	575.96			624.61			596.52			618.46			606.95		
10	572.08			586.84			628.20			614.52			630.36		
11	564.14			574.78			605.14			637.97			621.04		
12	588.15			568.78			581.55			600.83			642.88		
K-12	**7,198.79**			**7,205.68**			**7,204.14**			**7,109.36**			**7,084.97**		
SE	282.60			279.40			277.99			263.94			270.41		
Total	**7,481.39**			**7,485.08**			**7,482.13**			**7,373.30**			**7,355.39**		

Note: * Pupil Blended Count membership (number) is calculated based on 90% of Fall count & 10% of Spring count of a Calendar year.

Source: Office of Pupil Accounting, Northville Public Schools

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ENROLLMENT PROJECTION USING COHORT SURVIVAL METHOD
& Adjusted to Community Demographic Trends

Educational Agency Name: Northville Public Schools
County: Wayne

BASED ON 2018 FALL FTE
DISTRICT WIDE (ALL PUPILS)

Birth Yr	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Births	26,356	25,624	24,647	24,169	23,726	23,109	23,612	23,366	23,486	23,146	23,333	23,322
K% Birth	1.52%	1.86%	1.71%	1.81%	1.85%	1.63%	1.69%	1.74%	1.74%	1.73%	1.71%	1.72%

Year 2017/2018 Number of Live Births is an average based on past 3 years - data that may change.

Anticipated Non-historical Factor: 0.45%

	Historical Data							Projection Data									
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Grade	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
K	400	477	423	437	439	377	400	406	410	401	399	402	N.A.	N.A.	N.A.	N.A.	N.A.
1	518	442	496	462	455	471	400	429	436	440	430	428	431	N.A.	N.A.	N.A.	N.A.
		110.60%	104.02%	109.36%	103.99%	107.41%	106.04%	107.35%	107.35%	107.35%	107.35%	107.35%	107.35%	107.35%	107.35%	107.35%	107.35%
2	507	538	468	527	481	478	491	421	452	459	463	453	450	454	N.A.	N.A.	N.A.
		103.79%	105.79%	106.36%	103.98%	105.00%	104.12%	105.29%	105.29%	105.29%	105.29%	105.29%	105.29%	105.29%	105.29%	105.29%	105.29%
3	549	540	538	511	546	508	465	511	439	471	479	483	472	469	473	N.A.	N.A.
		106.40%	100.15%	109.19%	103.48%	105.75%	97.46%	104.19%	104.19%	104.19%	104.19%	104.19%	104.19%	104.19%	104.19%	104.19%	104.19%
4	540	567	544	571	525	565	522	482	530	455	488	496	500	489	486	490	N.A.
		103.17%	100.67%	106.10%	102.83%	103.62%	102.68%	103.63%	103.63%	103.63%	103.63%	103.63%	103.63%	103.63%	103.63%	103.63%	103.63%
5	559	556	579	571	577	537	582	538	498	546	469	503	512	516	505	502	506
		102.92%	102.24%	104.99%	101.10%	102.17%	102.85%	103.16%	103.16%	103.16%	103.16%	103.16%	103.16%	103.16%	103.16%	103.16%	103.16%
6	580	583	562	618	601	601	551	608	563	520	571	490	526	535	539	527	524
		104.39%	101.12%	106.73%	105.39%	104.03%	102.64%	104.50%	104.50%	104.50%	104.50%	104.50%	104.50%	104.50%	104.50%	104.50%	104.50%
7	571	589	593	592	630	625	612	568	627	580	536	589	506	543	552	556	544
		101.52%	101.67%	105.39%	101.97%	103.84%	101.93%	103.17%	103.17%	103.17%	103.17%	103.17%	103.17%	103.17%	103.17%	103.17%	103.17%
8	602	576	597	608	596	631	615	619	575	634	587	542	596	511	549	558	562
		100.89%	101.30%	102.58%	100.64%	100.12%	98.52%	101.13%	101.13%	101.13%	101.13%	101.13%	101.13%	101.13%	101.13%	101.13%	101.13%
9	567	569	561	576	625	597	618	607	611	567	625	579	535	588	504	541	550
		94.50%	97.38%	96.53%	102.70%	100.05%	97.99%	98.64%	98.64%	98.64%	98.64%	98.64%	98.64%	98.64%	98.64%	98.64%	98.64%
10	554	575	568	572	587	628	615	630	619	623	578	637	590	545	599	514	552
		101.46%	99.92%	101.98%	101.89%	100.57%	103.02%	101.92%	101.92%	101.92%	101.92%	101.92%	101.92%	101.92%	101.92%	101.92%	101.92%
11	587	547	577	564	575	605	638	621	637	625	629	584	644	596	551	605	520
		98.82%	100.42%	99.29%	100.47%	103.12%	101.56%	101.06%	101.06%	101.06%	101.06%	101.06%	101.06%	101.06%	101.06%	101.06%	101.06%
12	531	579	548	588	569	582	601	643	626	642	630	634	589	649	601	555	610
		98.65%	100.10%	101.88%	100.82%	101.18%	99.29%	100.77%	100.77%	100.77%	100.77%	100.77%	100.77%	100.77%	100.77%	100.77%	100.77%
K-12	**7,065**	**7,137**	**7,053**	**7,199**	**7,206**	**7,204**	**7,109**	**7,085**	**7,020**	**6,963**	**6,884**	**6,821**	**N.A.**	**N.A.**	**N.A.**	**N.A.**	**N.A.**
Year-to-Year #Growth:		72	-83	146	7	-2	-95	-24	-65	-58	-79	-64					
Year-to-Year %Growth:		1.02%	-1.17%	2.06%	0.10%	-0.02%	-1.32%	-0.34%	-0.91%	-0.82%	-1.13%	-0.92%					
Spec. Ed	344	315	303	283	279	278	264	270	268	266	263	260					
Totals	**7,408**	**7,452**	**7,356**	**7,481**	**7,485**	**7,482**	**7,373**	**7,355**	**7,288**	**7,229**	**7,147**	**7,081**					

Projections for special education pupils are based on 3-year averaging trend, projections for Pre-K are based on current year trend, neither are affected by community

Note: K-12 General Education Pupil Enrollment history and projections DO NOT include self-contained special education, alternative education or part-time students (in FTE's).

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ENROLLMENT PROJECTION USING COHORT SURVIVAL METHOD

& Adjusted to Community Demographic Trends

Northville Public Schools

BASED ON 2018 FALL FTE

DISTRICT WIDE (ALL PUPILS)

Grade Pattern Compilation

Grade Pattern	Historical Data							Projection Data									
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
K-1	918	919	918	900	893	848	800	836	846	841	829	830	N.A.	N.A.	N.A.	N.A.	N.A.
K-2	1,425	1,457	1,386	1,427	1,374	1,326	1,290	1,257	1,298	1,300	1,292	1,283	N.A.	N.A.	N.A.	N.A.	N.A.
K-3	1,974	1,996	1,925	1,938	1,920	1,834	1,756	1,768	1,737	1,771	1,771	1,765	N.A.	N.A.	N.A.	N.A.	N.A.
K-4	2,515	2,563	2,468	2,509	2,445	2,399	2,277	2,250	2,266	2,225	2,258	2,261	N.A.	N.A.	N.A.	N.A.	N.A.
K-5	3,073	3,119	3,047	3,080	3,023	2,936	2,859	2,788	2,764	2,772	2,727	2,764	N.A.	N.A.	N.A.	N.A.	N.A.
K-6	3,653	3,702	3,610	3,698	3,624	3,537	3,410	3,396	3,326	3,292	3,298	3,255	N.A.	N.A.	N.A.	N.A.	N.A.
1-2	1,025	980	964	989	935	949	890	850	888	899	893	881	882	N.A.	N.A.	N.A.	N.A.
1-3	1,574	1,520	1,502	1,500	1,481	1,457	1,356	1,361	1,327	1,370	1,372	1,363	1,354	N.A.	N.A.	N.A.	N.A.
1-4	2,115	2,086	2,046	2,072	2,006	2,022	1,878	1,844	1,856	1,825	1,860	1,859	1,854	N.A.	N.A.	N.A.	N.A.
1-5	2,673	2,642	2,625	2,642	2,584	2,559	2,459	2,382	2,354	2,371	2,329	2,363	2,366	N.A.	N.A.	N.A.	N.A.
1-6	3,253	3,225	3,187	3,260	3,185	3,160	3,010	2,990	2,917	2,891	2,900	2,853	2,891	N.A.	N.A.	N.A.	N.A.
2-3	1,057	1,077	1,006	1,038	1,026	986	956	932	890	930	942	936	922	924	N.A.	N.A.	N.A.
2-4	1,597	1,644	1,550	1,609	1,552	1,551	1,478	1,415	1,420	1,385	1,430	1,432	1,422	1,413	N.A.	N.A.	N.A.
2-5	2,155	2,200	2,129	2,180	2,129	2,088	2,059	1,953	1,918	1,931	1,899	1,935	1,934	1,929	N.A.	N.A.	N.A.
2-6	2,735	2,783	2,691	2,798	2,731	2,689	2,610	2,560	2,480	2,451	2,470	2,425	2,460	2,463	N.A.	N.A.	N.A.
3-4	1,089	1,106	1,082	1,082	1,071	1,074	987	993	968	925	966	979	972	958	960	N.A.	N.A.
3-5	1,648	1,662	1,661	1,653	1,649	1,610	1,569	1,532	1,466	1,472	1,435	1,482	1,484	1,474	1,464	N.A.	N.A.
3-6	2,228	2,245	2,223	2,271	2,250	2,211	2,120	2,139	2,028	1,992	2,006	1,972	2,010	2,009	2,003	N.A.	N.A.
4-5	1,099	1,122	1,123	1,142	1,103	1,102	1,103	1,021	1,027	1,001	957	999	1,012	1,005	991	992	N.A.
4-6	1,679	1,706	1,685	1,760	1,704	1,703	1,654	1,628	1,590	1,521	1,528	1,489	1,538	1,540	1,530	1,519	N.A.
5-6	1,139	1,139	1,141	1,189	1,179	1,138	1,133	1,146	1,060	1,066	1,040	993	1,038	1,051	1,044	1,029	1,030
5-7	1,710	1,728	1,734	1,781	1,809	1,762	1,745	1,714	1,687	1,647	1,576	1,582	1,543	1,593	1,595	1,585	1,574
5-8	2,312	2,304	2,331	2,389	2,406	2,393	2,360	2,334	2,262	2,281	2,163	2,125	2,139	2,104	2,144	2,143	2,137
6-7	1,151	1,172	1,155	1,211	1,232	1,225	1,163	1,176	1,189	1,100	1,107	1,079	1,031	1,077	1,091	1,083	1,068
6-8	1,753	1,748	1,752	1,819	1,828	1,856	1,779	1,795	1,764	1,734	1,694	1,622	1,627	1,589	1,639	1,641	1,631
7-8	1,173	1,165	1,190	1,201	1,227	1,256	1,228	1,188	1,202	1,214	1,123	1,132	1,101	1,054	1,100	1,114	1,106
7-9	1,739	1,734	1,751	1,777	1,851	1,852	1,846	1,795	1,813	1,781	1,749	1,711	1,636	1,641	1,605	1,655	1,657
7-10	2,293	2,309	2,319	2,349	2,438	2,480	2,461	2,425	2,431	2,404	2,327	2,348	2,227	2,187	2,204	2,169	2,208
7-11	2,880	2,856	2,896	2,913	3,013	3,086	3,099	3,046	3,068	3,029	2,956	2,932	2,871	2,783	2,755	2,775	2,728
7-12	3,411	3,435	3,444	3,501	3,582	3,667	3,699	3,689	3,694	3,671	3,586	3,566	3,459	3,432	3,356	3,330	3,338
8-9	1,168	1,145	1,158	1,184	1,221	1,228	1,234	1,226	1,186	1,201	1,212	1,121	1,131	1,099	1,053	1,099	1,113
8-10	1,722	1,720	1,726	1,756	1,808	1,856	1,848	1,857	1,804	1,824	1,790	1,759	1,721	1,644	1,652	1,613	1,664
8-11	2,309	2,267	2,303	2,320	2,382	2,461	2,486	2,478	2,441	2,449	2,419	2,343	2,365	2,241	2,203	2,218	2,184
8-12	2,840	2,846	2,851	2,909	2,951	3,043	3,087	3,120	3,067	3,091	3,049	2,977	2,954	2,890	2,804	2,774	2,794
9-10	1,120	1,144	1,129	1,148	1,211	1,225	1,233	1,237	1,229	1,190	1,203	1,216	1,125	1,133	1,103	1,055	1,102
9-11	1,707	1,691	1,706	1,712	1,786	1,830	1,871	1,858	1,866	1,815	1,833	1,800	1,769	1,729	1,655	1,661	1,621
9-12	2,239	2,270	2,254	2,300	2,355	2,411	2,472	2,501	2,492	2,457	2,463	2,434	2,358	2,379	2,255	2,216	2,231
10-12	1,672	1,701	1,693	1,724	1,730	1,815	1,853	1,894	1,881	1,890	1,837	1,856	1,823	1,791	1,751	1,675	1,681

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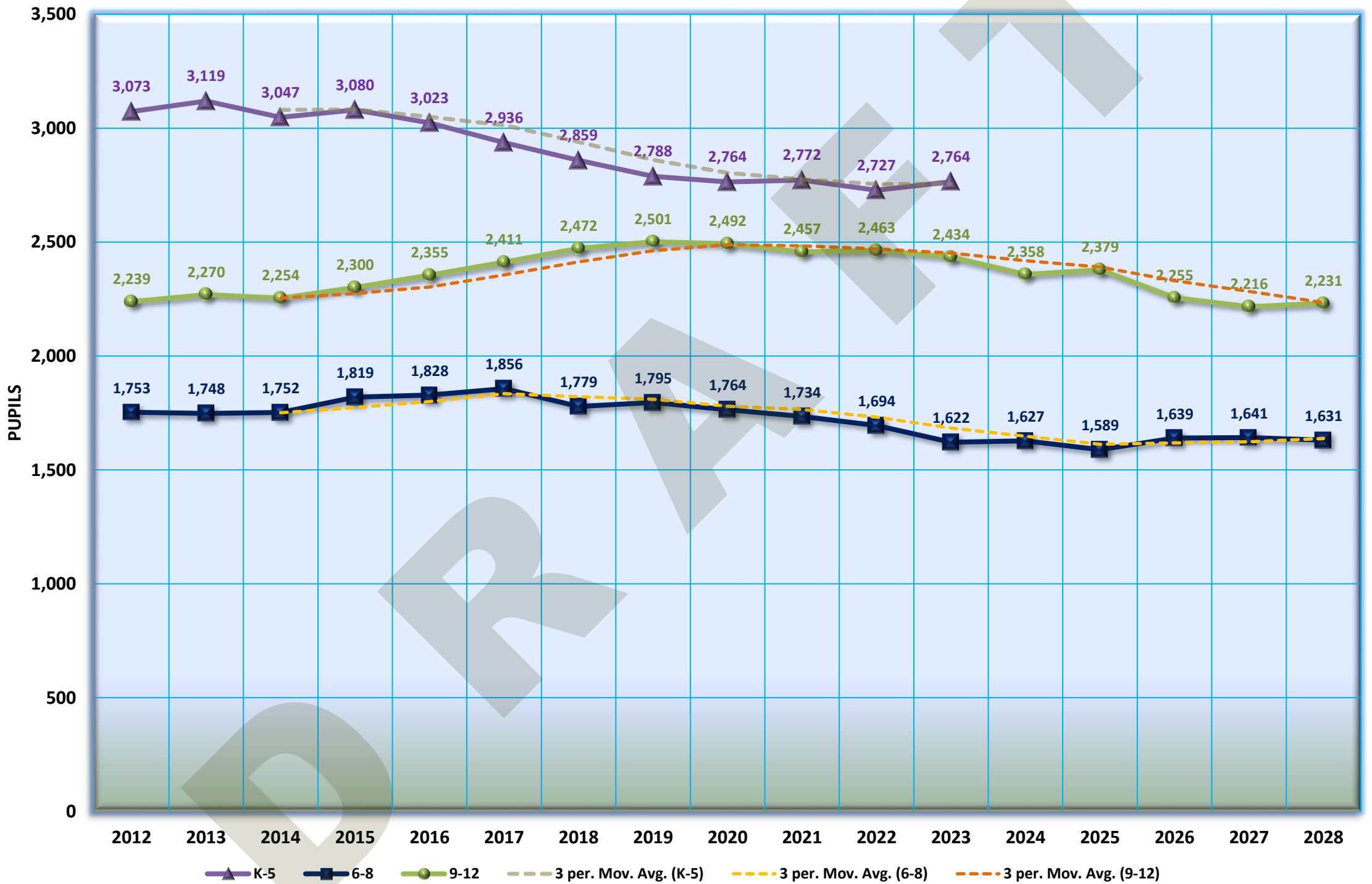
Grade Pattern Compilation



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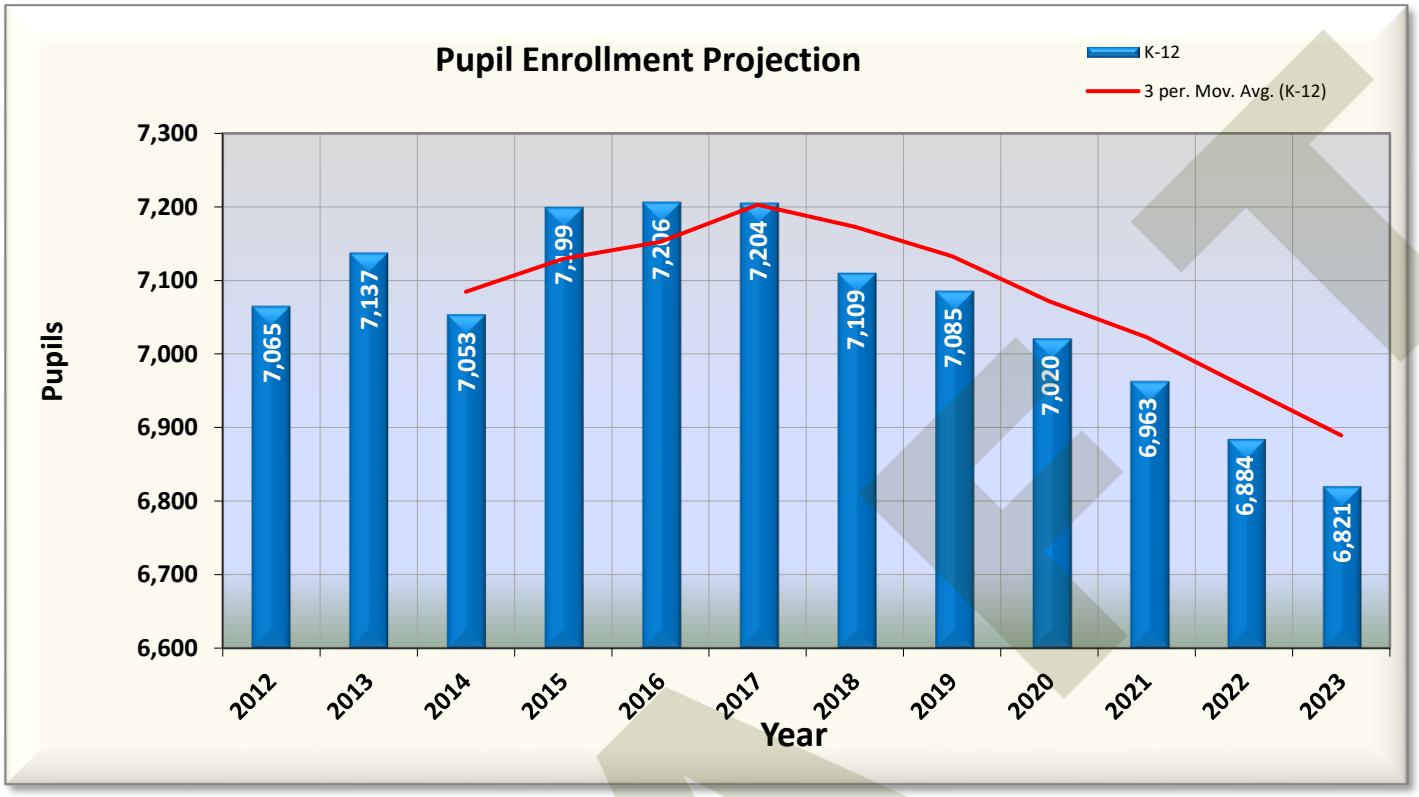

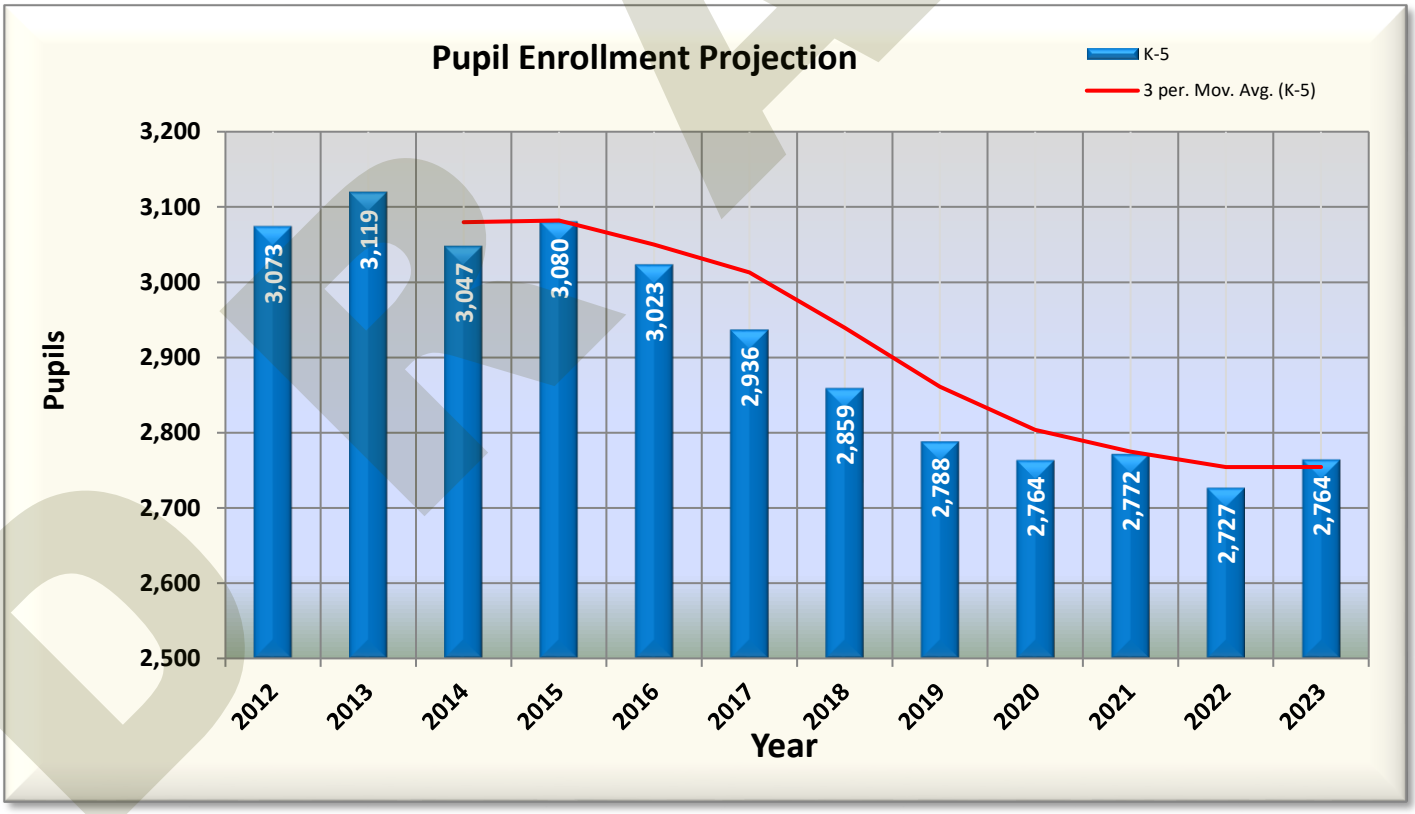

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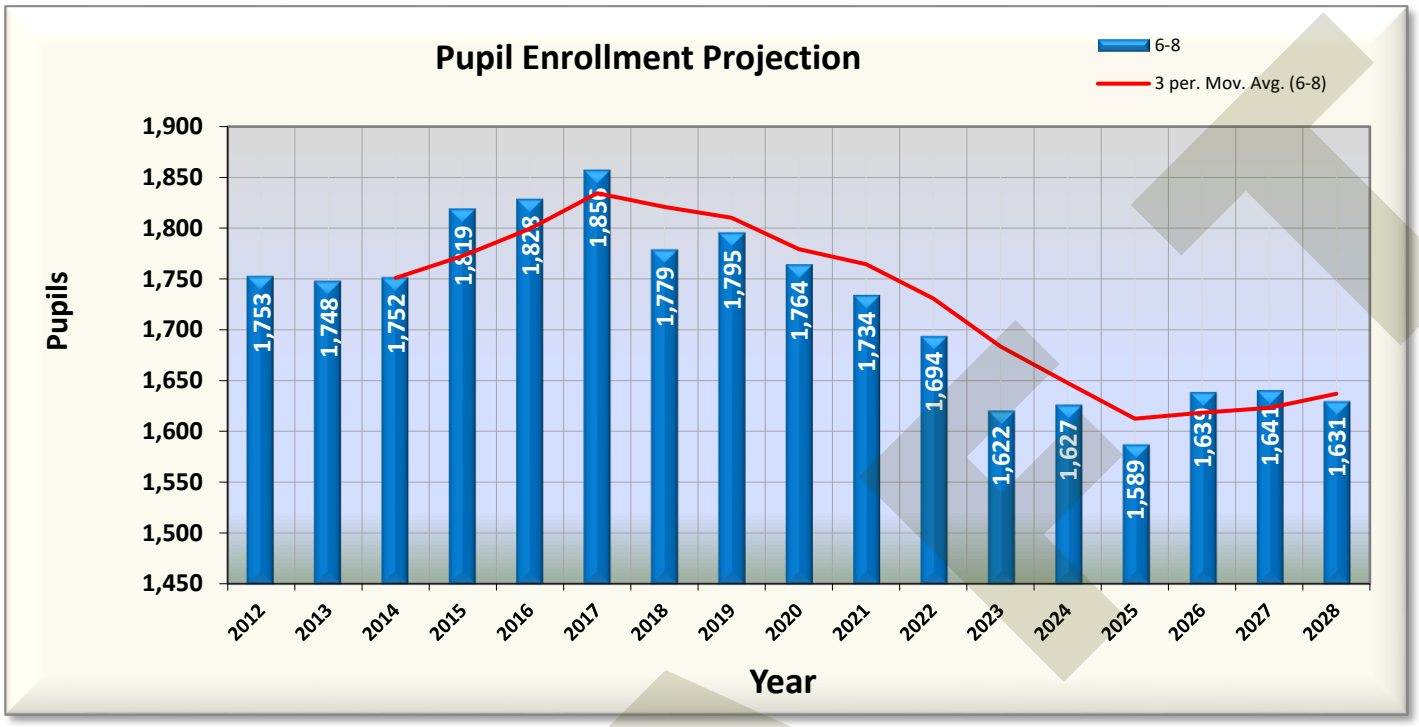

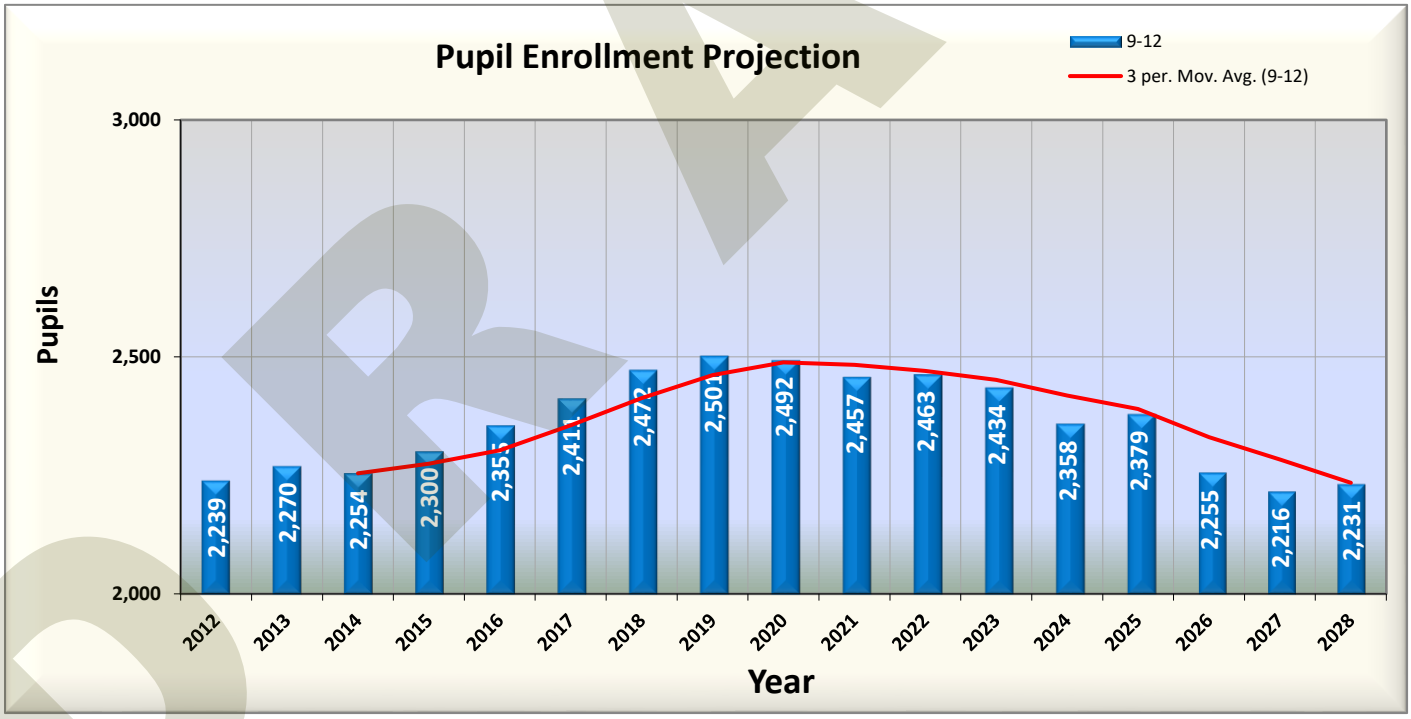

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