

**Spring Branch Independent School District
Agenda Item Information**

Date of Board Meeting: February 22, 2010

Subject: Request for Approval of the 2010-2011 Enrollment Projections

Administrator Responsible:

Name: Ruben Reyes

Position: Associate Superintendent for Operations

Purpose of Agenda Item: Action

ADDITIONAL INFORMATION AND/OR BACK-UP:

Please see attached report.

Enrollment Projections 2010-2011

Enrollment Projections 2010-2011

Operations Division

Current Year Review

- The current year's actual enrollment was within 0.3% of projected enrollment

■ High School Variance:	+ 48	or	0.55%
■ Middle School Variance:	- 45	or	-0.66%
■ Elementary School Variance:	- 95	or	-0.56%
■ Total Variance:	- 92	or	-0.28%

Enrollment Projections 2010-2011

Current Year Analysis

- Economic Factors
 - Slow down in construction activity meant relocation for some families dependent on trades work
 - Favorable interest rates and tax incentives allowed younger families to purchase a home

Enrollment Process Overview

- Data sources include PEIMS and October 2009 snapshot data from SASI and HR
- Preliminary projections generated using the Cohort Survival Ratio method.
- Principals were invited to provide feedback on local trends, neighborhood turnover etc.
- Projections finalized

Enrollment Projections 2010-2011

Factors considered

- Housing Developments
 - No significant new projects
- Multi Family Housing vacancies
 - Capacity for population growth
- Construction Industry Recovery
 - Currently slow; expected to pick up in 2011
- Houston Job Growth
 - Job growth typically lag economic recovery

Projected Enrollment: 2010-2011

	Current Enrollment (HR)	Projection for 2010-2011	Projected-Current
Elementary	16,972	17,049	+77
Middle	6,773	6,803	+30
High	8,767	8,776	+ 9
Total	32,512	32,628	+116

Enrollment Projections 2010-2011

Expectations

- Expect an enrollment increase similar to previous year, + 0.36%
- Growth is attributed to the change in economic factors resulting in increased job growth, low cost of living and relative health of the Houston economy
- Main increase expected to come from elementary campuses as economy improves

Questions?

Final Enrollment Projection Report

2010-2011

*Rebecca Cordeiro de Peredo
Energy Management
Operations Division*

Table of Contents

<i>Executive Summary</i>	3
<i>Information Sources</i>	4
<i>Methodology</i>	4
<i>Degree of Variance</i>	4
<i>Factors Affecting Enrollment</i>	5
<i>Discussion of 2010-2011 Enrollment Projections</i>	7

Reports

<i>Enrollment Projection Summary</i>	8
<i>2010-2011 Grade Projections</i>	9
<i>Five Year Historical Enrollment Table</i>	10
<i>Five Year Historical Enrollment Chart</i>	11
<i>Weekly Change in enrollment 2008-2009</i>	12
<i>Weekly Change in enrollment 2009-2010</i>	13

Executive Summary

The goal of the Energy Management Department is to forecast the yearly student enrollment within 1 % of accuracy for planning, budget and Human Resource purposes. This report contains the projected enrollment for the year 2010-2011 which will be used in staffing and budget allocations.

- 2009-2010 Projection Review

Enrollment projection for this year was within 0.3% of actual enrollment for the district overall and within 0.7% across school types.

Type	Projected	Actual	Variance	% Variance
Elementary	17,067	16,972	-95	-0.56 %
Middle	6,818	6,773	-45	-0.66 %
High	8,719	8,767	48	0.55 %
District	32,604	32,512	-92	-0.28 %

District variance is attributed to:

- Response to favorable interest rates and the housing tax credit offered for the 2009 tax year to first time home buyers.
- Construction slowdown in the Houston area which may have caused families who rely on steady construction work to relocate

- Enrollment Projection Summary

	2010 Peak Enrollment (HR)	Projection for 2010-2011	Projected - Current
Elementary	16,972	17,049	+ 77
Middle	6,773	6,803	+ 30
High	8,767	8,776	+ 9
Total	32,512	32,628	+ 116

- Student enrollment on October 20th 2009 (Peak Data), as reported by each campus to the central office was used as the current enrollment for the year 2009-2010.
- The following factors were evaluated during the projection process
 - Economic Factors including
 - Housing
 - Private Schools
 - Houston’s economic recovery
 - Administrative or Policy changes taking effect next year
 - Campus Leader input
- Any projection will naturally include some margin of error. Known sources of variance are listed in this report

Information Sources

Historical enrollment information was obtained from the Human Resource office and from SASI. Current enrollment data for October 20th as reported by individual campuses was obtained from Human Resources. Census data for recorded births in the district zip codes was obtained from the Texas Department of State Health Services.

Methodology

The Cohort Survival Ratio method was used to create the preliminary forecast numbers. The Cohort Survival Ratio (CSR) is an enrollment projection method which compares the number of students in a particular grade to the number of students in the previous grade during the previous year, and is represented in the following formula:

$$CSR = \frac{E_{g,y}}{E_{(g-1),(y-1)}}$$

Where E = Enrollment
 g = Grade
 y = Year

The CSR method is a simple yet effective way of forecasting enrollment in a district that is not experiencing major changes year to year as the formula builds in the normal student movements in and out at a grade, campus or district level.

The ratio indicates whether a change in the number of students is indicative of enrollment that is stable, increasing, or decreasing. A ratio of one indicates stable enrollment, less than one indicates declining enrollment, while greater than one indicates increasing enrollment.

The average Cohort Survival Ratio was computed for the previous 3 years for each grade progression in order to minimize the effect of an aberrant year. This average ratio was applied to current years' enrollment to forecast enrollment for next year.

In order to plan for Pre-Kindergarten and Kindergarten enrollment, the number of births in the district 4 years and 5 years ago respectively is used in place of the previous grade.

Degree of Variance

As with all projections, there exists a margin of error in enrollment forecasting. The following list includes potential reasons for deviation from projections:

- Database extraction errors resulting in record duplication
- Minor errors in student address data – incorrect street spelling/zip codes, duplicate gridcodes, next school assignments
- Tract information in student data not updated when changes to their address occur
- Rounding errors

Energy Management has worked closely with the relevant departments to minimize errors in the underlying data in order to minimize the overall margin of variance.

Factors Affecting Enrollment

This section lists some reasons for the difference between projected and actual peak enrollment as of October 20th 2009 as well as the factors that were considered while developing enrollment projections for the 2010-2011 year.

Single Family Housing

The state of the economy has impacted families significantly over the past 2 years. Last year, there was a severe credit crunch and employment uncertainty which forced many families to postpone their purchase of a new home. This year, the housing industry is beginning to recover based on information from the National Association of Realtors. Although home buying levels are not back up to historical norms, there is evidence that the favorable interest rates coupled with a government issued tax credit of up to \$8000 for qualifying home buyers has spurred home purchases particularly in younger families. This is consistent with the lower than expected number of elementary students, as families this year are purchasing homes earlier than they would have had there not been such a favorable financial incentive.

Home loan credit has tightened significantly compared to 2008, and tightened further since late 2009. Successful loan applicants are those with good to excellent credit who are able to pay a higher percentage of cash upfront - typically more established families, such as ones with secondary school aged children. In addition, the extension of the first time home buyer's credit to current home owners is expected to increase the number of homes purchased before the April 2010 deadline.

Multi-Family Housing

Many older apartments in the SBISD area sustained significant damage during the Hurricane Ike in 2008. This has resulted in families relocating due to apartment unit closures or poor living conditions. Newly renovated apartments and apartments advertising favorable move in specials, such as those in the Northbrook Middle School attendance area, have had much success in increasing occupancy. This inference is based on grid code population changes, occupancy rate information and visual observation.

A phone survey of 95 SBISD area apartment complexes was conducted in November 2009. 41% of those surveyed had occupancy rates of 85% or less, where their normal occupancy rate is 95%. As these apartments begin to advertise summer move in specials this year, some growth is to be expected from this excess capacity, however they are not expected to fill up to previous years' levels until economic conditions improve. One of the key drivers of the Houston economy (aside from petroleum and energy products) is the construction industry.

Construction

An in depth study of unexpected changes in grid code population showed a correlation between lower campus enrollment and lower occupancy in apartment complexes with rents below \$600. It is also noted that Houston's construction industry suffered a major slow down in new projects last year and has yet to recover. It follows that highly mobile families who rely on construction trades work would relocate to other cities where there are more opportunities. It is submitted that some of the variance between 2009-2010 projections and actual enrollment

for this year is due to the construction slow down and subsequent relocation of impacted families.

Although some recovery will be observed in 2010 in certain sectors of the construction industry (such as public facility renovations etc), construction in Houston is not expected to ramp back up significantly until 2011.

Private Schools

A telephone survey of 20 private schools was conducted in October 2009 to assess their enrollment numbers in relation to previous years' enrollment, and to assess their expectations for next year. 18 schools reported enrollments similar or higher than the previous year, and expected to remain at the same enrollment level for the next school year.

It is expected that SBISD will not see a major influx of students from private schools although we can expect some campuses to see a higher than normal number of enrollees as the slowing economy affects some mid to higher income families.

Administrative Decisions

A higher number of classes were moved from one campus to another based on space or program concerns this year compared to last year. Every effort was made to adjust for administrative changes before the projections were finalized, however some changes were made mid-year and were not considered in the projection process.

Other factors that could affect enrollment are changes to transfer policies and new subdivisions that develop along internal boundary lines. The effects of all of these factors can be minimized through more effective communication with relevant departments.

Cyclical Factors

Some neighborhoods experience a natural cycle of declining enrollment followed by increasing enrollment as turnover is experienced. It is very likely that we are experiencing a directional change in trends. The margin of error due to this factor is minimized by virtue of using average ratios instead of regression analysis.

Demographic Changes

Future enrollment is impacted by changes in the socio-economic status of the surrounding community. Over the past few years, the trend in housing developments within the Spring Branch area has been toward higher end homes and luxury apartments, attracting higher income families. Data suggests that higher income families tend to have fewer children, and are more likely to consider private school. This effect will be studied over a period of years to determine the level of impact on future enrollment.

Discussion of 2010-2011 Enrollment Projections

	2010 Peak Enrollment (HR)	Projection for 2010-2011	Projected - Current
Elementary	16,972	17,049	+ 77
Middle	6,773	6,803	+ 30
High	8,767	8,776	+ 9
Total	32,512	32,628	+ 116

Next year, student enrollment is expected to increase at the same rate as last year, 0.36%, or 116 students overall.

Over the past 5 years, the increase in student enrollment has been largely driven by steady increases in the number elementary school students. This year, for the first time in 5 years, the elementary enrollment did not increase at the same rate. This departure from the 5 year norm may be a temporary slowdown correlating with the slowdown in the construction industry. The Houston economy has not been hit as hard as other major cities, and is expected to recover steadily throughout 2010.

At the time of this printing, there is still much uncertainty regarding the recovery rate of the US economy and the recovery of specific industries within Houston. The enrollment projections presented are the most likely outcome based on the factors detailed in preceding sections of this report.

Enrollment Projection Summary - Using October 20 2009 Data from HR

Rev.: Jan 15th 2010

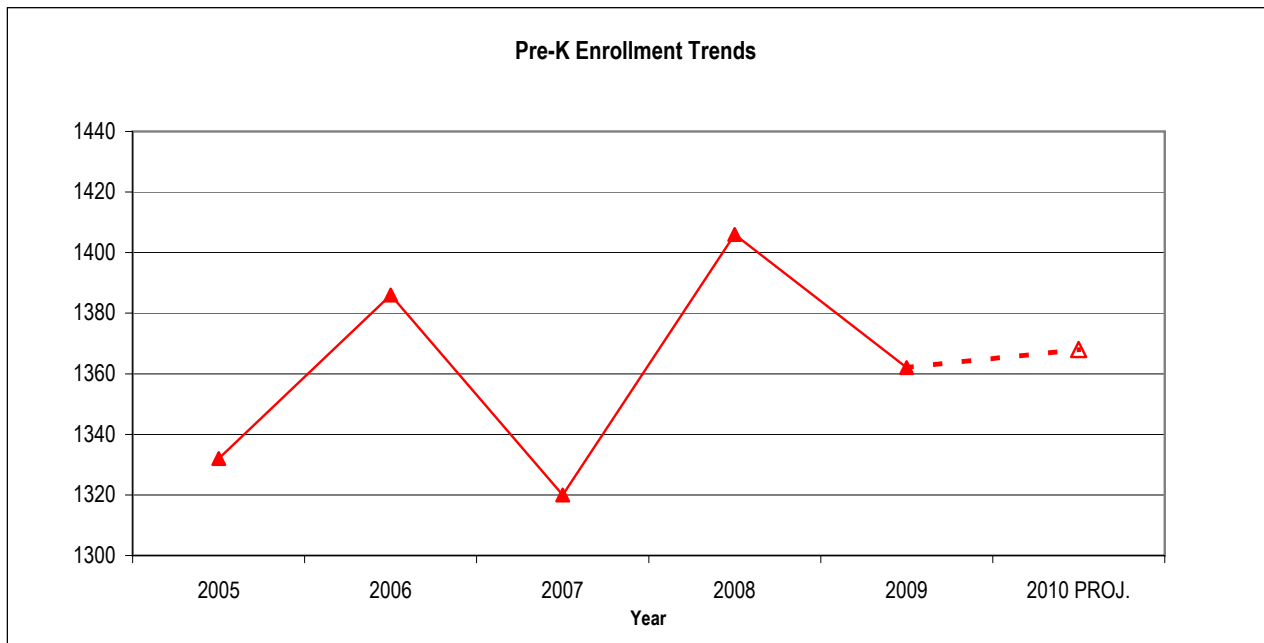
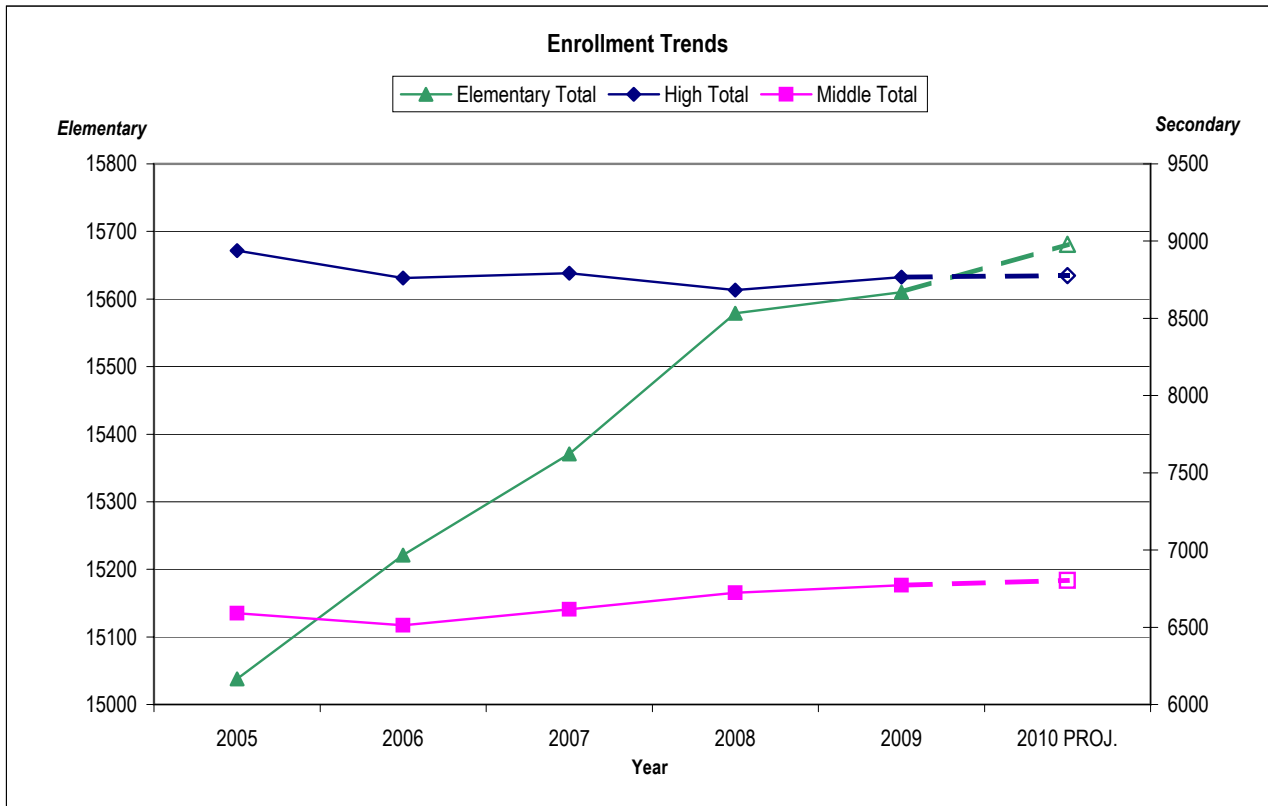
Code	School	2009-2010 Projections	2009-2010 Actual <i>Peak 10/20/09</i>	2009-2010 Actual-Proj	2010-2011 Projections	2010-2011 Proj - 2009-2010 Actual	2010-2011 Proj - 2009-2010 Proj
		A	B	B - A	D	D - B	D - A
1	Memorial	2223	2274	51	2292	18	69
3	Spring Woods	1912	1928	16	1904	-24	-8
5	Northbrook	1882	1910	28	1932	22	50
6	Stratford	1910	1943	33	1933	-10	23
12	School of Choice	197	119	-78	118	-1	-79
15	WAIS High	595	593	-2	597	4	2
High Total		8719	8767	48	8776	9	57
14	WAIS Middle	398	409	11	414	5	16
41	Landrum	731	712	-19	694	-18	-37
42	Memorial	1191	1163	-28	1184	21	-7
43	Spring Branch	1062	1061	-1	1054	-7	-8
44	Spring Woods	849	826	-23	831	5	-18
45	Spring Forest	877	854	-23	860	6	-17
46	Spring Oaks	786	769	-17	771	2	-15
47	Northbrook	552	600	48	615	15	63
48	Cornerstone	372	379	7	380	1	8
Middle Total		6818	6773	-45	6803	30	-15
Secondary Total		15537	15540	3	15579	39	42
101	Bendwood	42	43	1	45	2	3
102	Bunker Hill	642	647	5	629	-18	-13
103	Edgewood	678	718	40	697	-21	19
104	Frostwood	712	721	9	727	6	15
105	Hollibrook	757	715	-42	751	36	-6
106	Housman	577	550	-27	549	-1	-28
107	Hunters Creek	673	629	-44	635	6	-38
108	Meadow Wood	413	464	51	462	-2	49
109	Memorial Drive	447	438	-9	442	4	-5
110	Pine Shadows	657	684	27	686	2	29
111	Ridgecrest	803	774	-29	777	3	-26
112	Rummel Creek	760	706	-54	715	9	-45
113	Shadow Oaks	731	681	-50	674	-7	-57
114	Spring Branch	561	554	-7	551	-3	-10
115	Valley Oaks	556	591	35	599	8	43
116	Westwood	596	641	45	652	11	56
117	Woodview	680	631	-49	624	-7	-56
118	Wilchester	602	607	5	617	10	15
119	Sherwood	424	369	-55	375	6	-49
120	Spring Shadows	677	701	24	689	-12	12
121	Nottingham	530	518	-12	523	5	-7
122	Terrace	531	553	22	549	-4	18
123	Thornwood	464	442	-22	439	-3	-25
124	Cedar Brook	850	849	-1	865	16	15
125	Treasure Forest	658	700	42	706	6	48
126	Buffalo Creek	660	684	24	703	19	43
128	Wildcat Way	257	315	58	304	-11	47
129	Panda Path	161	115	-46	120	5	-41
130	Lion Lane	337	306	-31	316	10	-21
131	Bear Blvd	301	282	-19	289	7	-12
132	Tiger Trail	330	344	14	339	-5	9
Elementary Total		17067	16972	-95	17049	77	-18
Total		32604	32512	-92	32628	116	24

Grade Projections for 2010-2011 Using October 20 2009 data from HR																	
Code	Campus	SPED	PK	KG	1ST	2ND	3RD	4TH	5TH	6th	7th	8th	9th	10th	11th	12th	Total
1	Memorial High	0	0	0	0	0	0	0	0	0	0	0	628	583	558	523	2292
3	Spring Woods High	0	0	0	0	0	0	0	0	0	0	0	577	488	417	422	1904
5	Northbrook High	0	0	0	0	0	0	0	0	0	0	0	631	475	412	414	1932
6	Stratford High	0	0	0	0	0	0	0	0	0	0	0	531	480	468	454	1933
12	School of Choice	0	0	0	0	0	0	0	0	0	0	0	36	20	28	34	118
15	Westchester Academy High	0	0	0	0	0	0	0	0	0	0	0	146	147	151	153	597
14	Westchester Academy Middle	0	0	0	0	0	0	0	0	136	147	131	0	0	0	0	414
41	Landrum Middle	0	0	0	0	0	0	0	0	235	244	215	0	0	0	0	694
42	Memorial Middle	0	0	0	0	0	0	0	0	403	401	380	0	0	0	0	1184
43	Spring Branch Middle	0	0	0	0	0	0	0	0	352	362	340	0	0	0	0	1054
44	Spring Woods Middle	0	0	0	0	0	0	0	0	279	275	277	0	0	0	0	831
45	Spring Forest Middle	0	0	0	0	0	0	0	0	269	290	301	0	0	0	0	860
46	Spring Oaks Middle	0	0	0	0	0	0	0	0	263	250	258	0	0	0	0	771
47	Northbrook Middle	0	0	0	0	0	0	0	0	215	218	182	0	0	0	0	615
48	Cornerstone Academy	0	0	0	0	0	0	0	0	126	132	122	0	0	0	0	380
101	Bendwood	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
102	Bunker Hill Elementary	0	0	81	90	119	96	125	118	0	0	0	0	0	0	0	629
103	Edgewood Elementary	13	60	100	103	102	109	105	105	0	0	0	0	0	0	0	697
104	Frostwood Elementary	0	0	96	115	108	138	131	139	0	0	0	0	0	0	0	727
105	Hollibrook Elementary	9	43	127	137	115	113	113	94	0	0	0	0	0	0	0	751
106	Housman Elementary	10	0	93	97	80	97	97	75	0	0	0	0	0	0	0	549
107	Hunters Creek Elementary	7	0	85	90	111	112	114	116	0	0	0	0	0	0	0	635
108	Meadow Wood Elementary	10	22	71	77	73	78	68	63	0	0	0	0	0	0	0	462
109	Memorial Drive Elementary	4	22	46	50	75	80	80	85	0	0	0	0	0	0	0	442
110	Pine Shadows Elementary	4	0	120	134	93	130	105	100	0	0	0	0	0	0	0	686
111	Ridgecrest Elementary	1	0	138	165	143	124	98	108	0	0	0	0	0	0	0	777
112	Rummel Creek Elementary	8	43	91	92	112	131	112	126	0	0	0	0	0	0	0	715
113	Shadow Oaks Elementary	21	62	107	98	114	96	86	90	0	0	0	0	0	0	0	674
114	Spring Branch Elementary	10	42	84	89	80	93	75	78	0	0	0	0	0	0	0	551
115	Valley Oaks Elementary	4	38	91	96	99	95	79	97	0	0	0	0	0	0	0	599
116	Westwood Elementary	0	0	93	124	116	105	109	105	0	0	0	0	0	0	0	652
117	Woodview Elementary	5	44	107	112	89	86	105	76	0	0	0	0	0	0	0	624
118	Wilchester Elementary	9	41	90	108	94	89	103	83	0	0	0	0	0	0	0	617
119	Sherwood Elementary	8	34	61	68	60	46	54	44	0	0	0	0	0	0	0	375
120	Spring Shadows Elementary	7	0	118	121	124	108	112	99	0	0	0	0	0	0	0	689
121	Nottingham Elementary	0	22	72	101	80	77	102	69	0	0	0	0	0	0	0	523
122	Terrace Elementary	10	0	79	93	85	87	105	90	0	0	0	0	0	0	0	549
123	Thornwood Elementary	0	22	67	84	74	62	75	55	0	0	0	0	0	0	0	439
124	Cedar Brook Elementary	0	65	149	155	142	129	122	103	0	0	0	0	0	0	0	865
125	Treasure Forest Elementary	3	0	113	145	125	99	121	100	0	0	0	0	0	0	0	706
126	Buffalo Creek Elementary	16	0	103	126	124	116	114	104	0	0	0	0	0	0	0	703
128	Wildcat Way School	0	304	0	0	0	0	0	0	0	0	0	0	0	0	0	304
129	Panda Path School	0	120	0	0	0	0	0	0	0	0	0	0	0	0	0	120
130	Lion Lane School	0	316	0	0	0	0	0	0	0	0	0	0	0	0	0	316
131	Bear Blvd. School	0	289	0	0	0	0	0	0	0	0	0	0	0	0	0	289
132	Tiger Trail School	0	339	0	0	0	0	0	0	0	0	0	0	0	0	0	339
District Total		204	1928	2382	2670	2537	2496	2510	2322	2278	2319	2206	2549	2193	2034	2000	32,628

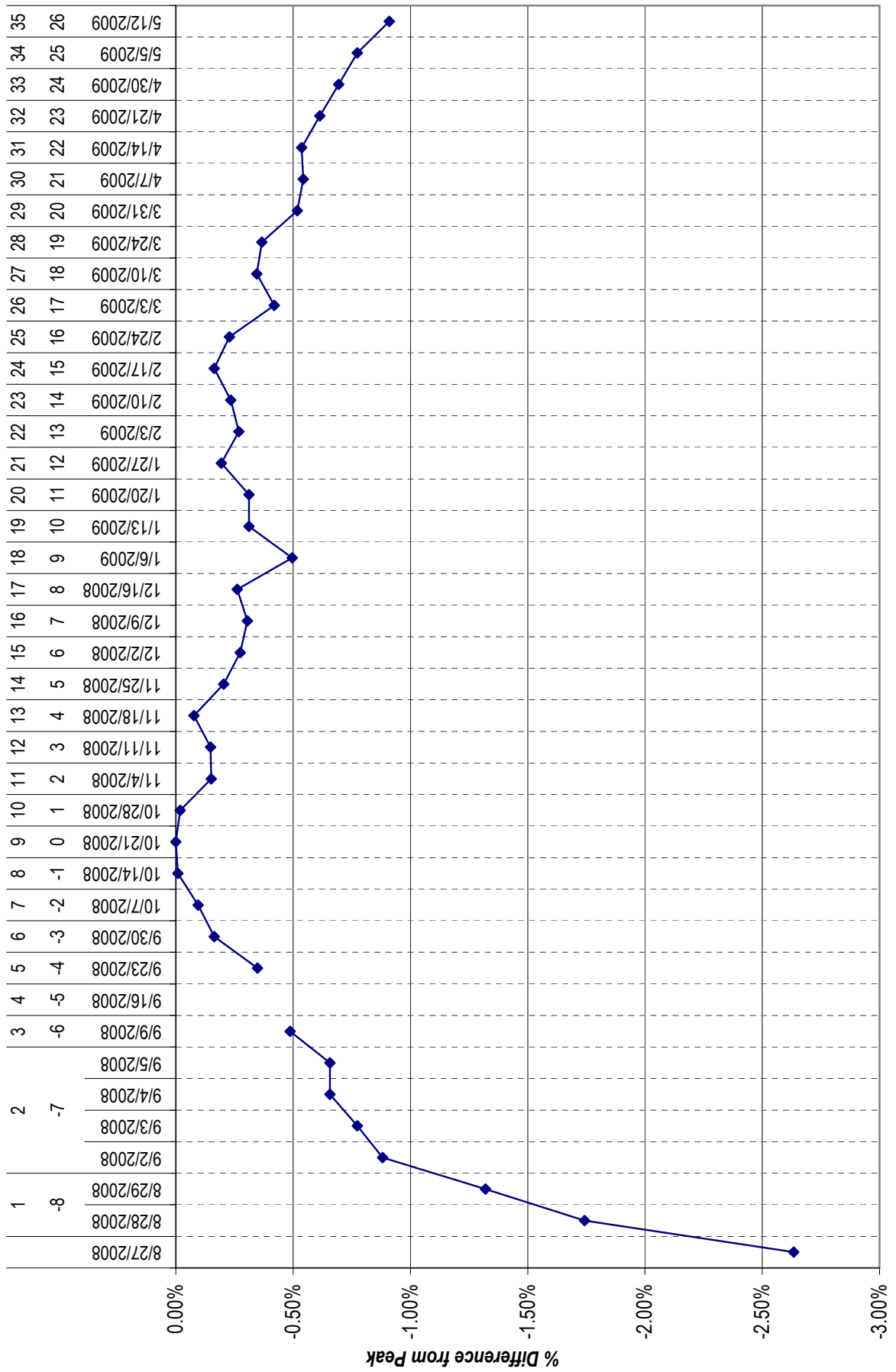
Five Year Enrollment History

Code	Campus	2005	2006	2007	2008	2009	2010 PROJ.
1	Memorial High	2276	2245	2243	2210	2274	2292
3	Spring Woods High	2078	2006	1942	1899	1928	1904
5	Northbrook High	1996	1793	1876	1876	1910	1932
6	Stratford High	1978	1953	1930	1931	1943	1933
12	School of Choice	184	285	241	196	119	118
15	Westchester Academy High	427	479	561	571	593	597
	High Total	8939	8761	8793	8683	8767	8776
14	Westchester Academy Middle	396	381	394	400	409	414
41	Landrum Middle	684	688	663	726	712	694
42	Memorial Middle	1035	1080	1120	1149	1163	1184
43	Spring Branch Middle	993	995	1016	1031	1061	1054
44	Spring Woods Middle	808	824	865	842	826	831
45	Spring Forest Middle	873	806	808	849	854	860
46	Spring Oaks Middle	785	815	793	809	769	771
47	Northbrook Middle	655	556	582	548	600	615
48	Cornerstone Academy	361	367	375	370	379	380
	Middle Total	6590	6512	6616	6724	6773	6803
101	Bendwood	56	56	39	41	43	45
102	Bunker Hill Elementary	614	654	639	637	647	629
103	Edgewood Elementary	764	797	805	706	718	697
104	Frostwood Elementary	632	636	664	710	721	727
105	Hollibrook Elementary	762	701	793	744	715	751
106	Housman Elementary	605	543	574	580	550	549
107	Hunters Creek Elementary	642	675	672	700	629	635
108	Meadow Wood Elementary	416	437	437	407	464	462
109	Memorial Drive Elementary	428	453	433	429	438	442
110	Pine Shadows Elementary	642	633	670	659	684	686
111	Ridgecrest Elementary	755	758	745	779	774	777
112	Rummel Creek Elementary	635	692	725	749	706	715
113	Shadow Oaks Elementary	734	724	717	735	681	674
114	Spring Branch Elementary	571	590	574	560	554	551
115	Valley Oaks Elementary	645	613	581	573	591	599
116	Westwood Elementary	571	582	572	587	641	652
117	Woodview Elementary	640	704	652	668	631	624
118	Wilchester Elementary	531	577	561	594	607	617
119	Sherwood Elementary	309	327	342	404	369	375
120	Spring Shadows Elementary	670	658	732	686	701	689
121	Nottingham Elementary	510	528	484	534	518	523
122	Terrace Elementary	648	560	578	538	553	549
123	Thornwood Elementary	501	503	463	478	442	439
124	Cedar Brook Elementary	556	549	632	797	849	865
125	Treasure Forest Elementary	586	649	655	640	700	706
126	Buffalo Creek Elementary	615	622	632	644	684	703
	Elementary Total	15038	15221	15371	15579	15610	15681
128	Wildcat Way School	243	270	238	285	315	304
129	Panda Path School	145	140	132	172	115	120
130	Lion Lane School	334	342	334	347	306	316
131	Bear Blvd. School	298	299	302	268	282	289
132	Tiger Trail School	312	335	314	334	344	339
	PreK Total	1332	1386	1320	1406	1362	1368
	Grand Total	31899	31880	32100	32392	32512	32628
			-0.06%	0.69%	0.91%	0.37%	0.36%

Five Year Enrollment History



% Drop from Peak Enrollment for 2008 - 2009



% Drop from Peak Enrollment for 2009 - 2010

