

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

Date of Board Meeting: February 23, 2009

Subject: Enrollment Projections 2009-2010

Administrator Responsible:

Name: Ruben Reyes

Position: Associate Superintendent for Operations

Purpose of Agenda Item:

Information only **Action needed** **Report**

Additional Information and/or Backup:

Please see attached Enrollment Projection Report.

Enrollment Projection Report

2009-2010

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Energy Management
Operations Division*

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Executive Summary

The Energy Management Department was given the task of producing the yearly enrollment projections for planning, budget and Human Resource purposes.

- Enrollment Projection Summary

	Current Enrollment (HR)	Projection for 2009-2010	Projected-Current
Elementary	16,985	17,067	+82
Middle	6,724	6,818	+94
High	8,683	8,719	+36
Total	32,392	32,604	+212

- Student enrollment on October 7th 2008 as reported by each campus to the central office was used as the current enrollment for the year 2008-2009.
- Preliminary enrollment was projected using the 3-year average Cohort Survival Ratio.
- Pre-K and KG numbers were forecasted using the resident birth data from four and five years prior
- The following factors were taken into consideration to project enrollment for the next year
 - Economic Factors
 - New housing developments
 - Changes to existing housing
 - Administrative or Policy changes taking effect next year
 - Campus Leader input
- The economic situation affecting housing markets and credit availability has significantly impacted this year's enrollment and continues to be a variable factor in projecting next year's enrollment.
- Any projection will naturally include some margin of error. Known sources of variance are listed

Information Sources

Historical enrollment information was obtained from the Human Resource office and from SASI. Current enrollment data for October 7th 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. Information regarding private school enrollments was obtained from the Communications Office and by direct communication with each campus.

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.

Factors Affecting Enrollment

This section lists the variables that impacted the current year's enrollment. It is expected that some of these factors will impact the 2009-2010 year.

Economic Factors

The recent fears of an economic downturn, fueled by the housing market troubles, credit crunch and bank failures has significantly affected enrollment. Last year, it was expected that some families with secondary school aged children would purchase homes within Cy-Fair and Katy districts; therefore the projection for secondary campuses was relatively low. However, the credit crunch and economic uncertainties have caused a large number of families to stay in the district and defer new home purchases. This has caused the actual secondary enrollment to be higher than anticipated. The majority of economic analysts agree that the economic and credit situation will continue through most of 2009 and may start to improve in the fall, even with the stimulus package currently being proposed.

Another expected outcome of the economic situation is that a large number of families who intended to stay in private schools this year may have made the decision to move to public school for financial reasons. However, a telephone survey of the local private schools conducted in January 2009, summarized on page 10, does not support this expectation.

Although Houston has not experienced as high of a foreclosure rate as the rest of the country, there has been a rise in foreclosures this year compared to average, particularly in new development areas. Families displaced through foreclosures may have moved back in with family members owning homes in the Spring Branch area, or into apartments within the attendance boundary. Data collected from HAR.com and TEA websites shows a higher incidence of home foreclosures in surrounding districts compared to district enrollment, but a lower foreclosure rate in Spring Branch. This could suggest that the Spring Branch community was less affected by the economic uncertainty, and families are less likely to leave the district.

Administrative Decisions and Feedback

This year, some classes were moved from one campus to another based on space or program concerns. Every effort was made to adjust for administrative changes before the projections were finalized last year but some changes may have been made mid-year and were not accounted for in the projection process. This year, there was increased communication with Human Resources and with district level administrators to stay current on approved class moves and boundary adjustments.

Local knowledge of the community and current neighborhood events are very valuable indicators of future enrollment changes. Campus leaders were given opportunities to provide feedback on their enrollment projections as they are more in tune with the micro-community they serve.

Cyclical Factors

Some neighborhoods experience a natural cycle of decline and growth in the number of families with school aged children. This causes a similar pattern in school enrollment. It is very likely that we are experiencing an upturn in enrollment due to this cyclical pattern. The margin of error due to this factor is minimized by virtue of using average ratios instead of regression analysis.

Stay in School Programs

Over the past few years, the district has strenuously applied a 5 year improvement plan which focuses on student achievement, staff development and engaging students. It is possible that part of the increase in cohort survival ratios is due to the effects of these programs that encourage students to stay in school. A review of the total weekly enrollment over the course of the past 36 months supports this suggestion.

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 has been factored into the projections for next year and will be studied to determine the level of impact on enrollment over the long term.

Housing Developments

There are some large multi family and single family housing developments currently underway in the district. However the high price ranges of these units do not favor large families with school aged children. Several of the housing developments that were started 2 years ago have yet to be completed due to slow sales. The new developments are not expected to generate a large volume of additional students, although we can expect a small increase from new homes purchased over a year ago.

Discussion of 2009-2010 Projections

	Current Enrollment (HR)	Projection for 2009-2010	Projected-Current
Elementary	16,985	17,067	+82
Middle	6,724	6,818	+94
High	8,683	8,719	+36
Total	32,392	32,604	+212

The total number of students is expected to increase by 212 students or 0.65 %. This increase is expected to come from all levels, particularly secondary school campuses. The main reason for the increase is the current economic and housing situation.

Although the real estate market favors buyers, the reluctance of banks to lend for home mortgages means fewer families are able to purchase homes, even at discounted prices. While the trend in previous years has been for families living in local apartments to purchase homes in the Cypress Fairbanks or Katy areas, many families have deferred large purchases this year, and are expected to remain in apartments until they are able to meet the stricter lending conditions. This has certainly affected enrollment in secondary campuses this year, and is expected to impact

next year as well. Future economic stimulus packages may reverse this trend, but their impact is not expected to take effect until the end of 2009, into 2010.

Twenty out of twenty-six local private schools responded to a telephone survey regarding their current and projected enrollment numbers. 85% said their enrollment numbers this year were higher than the previous year, and 15% experienced lower enrollment. 15% expected enrollment to increase for next year, and 70% expected it to remain the same as this year. The remaining 15% expected enrollment to drop next year. These results suggest that there will not be a large movement of students from private school into public school, although we can expect a slight increase in some areas.

Several administrative changes regarding class moves and new development zoning have been taken into account. The number of student transfer requests is expected to increase next year, however it is expected that district policies regarding transfer caps will remain unchanged.

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:

- Improvements in the economy will stimulate home purchases and may result in a decrease in enrollment
- Database extraction errors resulting in incorrect Socio Economic Status coding
- Incomplete coding of bilingual program participants in PK and KG grade levels
- Minor errors in student address data – incorrect street spelling/zip codes, duplicate grid codes, 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.

Enrollment Projection Summary - Using October 7th 2008 Data from HR

Rev.: Feb 02 2009

Code	School	2008-2009 Projections	2008-2009 Actual	2008-2009 Actual-Proj	2009-2010 Projections	2009-2010 Proj - 2008-2009 Actual	2009-2010 Proj - 2008-2009 Proj
		A	B	B - A	D	D - B	D - A
1	Memorial	2179	2210	31	2223	13	44
3	Spring Woods	1874	1899	25	1912	13	38
5	Northbrook	1771	1876	105	1882	6	111
6	Stratford	1897	1931	34	1910	-21	13
12	School of Choice	255	196	-59	197	1	-58
15	WAIS High	550	571	21	595	24	45
High Total		8526	8683	157	8719	36	193
14	WAIS Middle	401	400	-1	398	-2	-3
41	Landrum	691	726	35	731	5	40
42	Memorial	1149	1149	0	1191	42	42
43	Spring Branch	1006	1031	25	1062	31	56
44	Spring Woods	895	842	-53	849	7	-46
45	Spring Forest	780	849	69	877	28	97
46	Spring Oaks	800	809	9	786	-23	-14
47	Northbrook	557	548	-9	552	4	-5
48	Cornerstone	373	370	-3	372	2	-1
Middle Total		6652	6724	72	6818	94	166
Secondary Total		15178	15407	229	15537	130	359
101	Bendwood	40	41	1	42	1	2
102	Bunker Hill	641	637	-4	642	5	1
103	Edgewood	781	706	-75	678	-28	-103
104	Frostwood	703	710	7	712	2	9
105	Hollibrook	775	744	-31	757	13	-18
106	Housman	554	580	26	577	-3	23
107	Hunters Creek	695	700	5	673	-27	-22
108	Meadow Wood	446	407	-39	413	6	-33
109	Memorial Drive	448	429	-19	447	18	-1
110	Pine Shadows	683	659	-24	657	-2	-26
111	Ridgecrest	745	779	34	803	24	58
112	Rummel Creek	755	749	-6	760	11	5
113	Shadow Oaks	698	735	37	731	-4	33
114	Spring Branch	575	560	-15	561	1	-14
115	Valley Oaks	565	573	8	556	-17	-9
116	Westwood	596	587	-9	596	9	0
117	Woodview	665	668	3	680	12	15
118	Wilchester	590	594	4	602	8	12
119	Sherwood	379	404	25	424	20	45
120	Spring Shadows	742	686	-56	677	-9	-65
121	Nottingham	496	534	38	530	-4	34
122	Terrace	583	538	-45	531	-7	-52
123	Thornwood	491	478	-13	464	-14	-27
124	Cedar Brook	707	797	90	850	53	143
125	Treasure Forest	661	640	-21	658	18	-3
126	Buffalo Creek	634	644	10	660	16	26
128	Wildcat Way	245	285	40	257	-28	12
129	Panda Path	134	172	38	161	-11	27
130	Lion Lane	338	347	9	337	-10	-1
131	Bear Blvd	297	268	-29	301	33	4
132	Tiger Trail	320	334	14	330	-4	10
Elementary Total		16982	16985	3	17067	82	85
Total		32160	32392	232	32604	212	444

Grade Projections for 2009-2010 Using October 7th 2008 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	611	534	525	553	2223
3	Spring Woods High	0	0	0	0	0	0	0	0	0	0	0	619	422	434	437	1912
5	Northbrook High	0	0	0	0	0	0	0	0	0	0	0	610	470	449	353	1882
6	Stratford High	0	0	0	0	0	0	0	0	0	0	0	525	470	452	463	1910
12	School of Choice	0	0	0	0	0	0	0	0	0	0	27	42	33	39	56	197
14	Westchester Academy Middle	0	0	0	0	0	0	0	0	131	138	129	0	0	0	0	398
15	Westchester Academy High	0	0	0	0	0	0	0	0	0	0	0	151	146	148	150	595
41	Landrum Middle	0	0	0	0	0	0	0	0	245	245	241	0	0	0	0	731
42	Memorial Middle	0	0	0	0	0	0	0	0	416	383	392	0	0	0	0	1191
43	Spring Branch Middle	0	0	0	0	0	0	0	0	359	361	342	0	0	0	0	1062
44	Spring Woods Middle	0	0	0	0	0	0	0	0	281	270	298	0	0	0	0	849
45	Spring Forest Middle	0	0	0	0	0	0	0	0	291	284	302	0	0	0	0	877
46	Spring Oaks Middle	0	0	0	0	0	0	0	0	265	272	249	0	0	0	0	786
47	Northbrook Middle	0	0	0	0	0	0	0	0	193	171	188	0	0	0	0	552
48	Cornerstone Academy	0	0	0	0	0	0	0	0	127	126	119	0	0	0	0	372
101	Bendwood	5	21	7	5	4	0	0	0	0	0	0	0	0	0	0	42
102	Bunker Hill Elementary	0	0	88	98	96	122	113	125	0	0	0	0	0	0	0	642
103	Edgewood Elementary	8	54	105	94	119	105	95	98	0	0	0	0	0	0	0	678
104	Frostwood Elementary	0	0	91	102	126	131	134	128	0	0	0	0	0	0	0	712
105	Hollibrook Elementary	9	43	119	140	120	111	121	94	0	0	0	0	0	0	0	757
106	Housman Elementary	9	0	102	98	100	90	89	89	0	0	0	0	0	0	0	577
107	Hunters Creek Elementary	6	0	97	111	114	122	122	101	0	0	0	0	0	0	0	673
108	Meadow Wood Elementary	7	22	67	68	69	56	55	69	0	0	0	0	0	0	0	413
109	Memorial Drive Elementary	6	22	60	62	78	78	72	69	0	0	0	0	0	0	0	447
110	Pine Shadows Elementary	4	0	116	110	122	111	103	91	0	0	0	0	0	0	0	657
111	Ridgecrest Elementary	4	0	149	173	133	117	114	113	0	0	0	0	0	0	0	803
112	Rummel Creek Elementary	12	53	99	116	123	115	132	110	0	0	0	0	0	0	0	760
113	Shadow Oaks Elementary	22	60	111	133	93	116	100	96	0	0	0	0	0	0	0	731
114	Spring Branch Elementary	13	49	88	92	81	77	83	78	0	0	0	0	0	0	0	561
115	Valley Oaks Elementary	4	42	93	96	85	75	84	77	0	0	0	0	0	0	0	556
116	Westwood Elementary	0	0	96	95	94	106	103	102	0	0	0	0	0	0	0	596
117	Woodview Elementary	5	42	113	110	108	124	96	82	0	0	0	0	0	0	0	680
118	Wilchester Elementary	9	38	83	96	94	101	87	94	0	0	0	0	0	0	0	602
119	Sherwood Elementary	2	38	63	93	55	57	67	49	0	0	0	0	0	0	0	424
120	Spring Shadows Elementary	4	0	117	130	115	109	99	103	0	0	0	0	0	0	0	677
121	Nottingham Elementary	0	20	67	93	98	90	66	96	0	0	0	0	0	0	0	530
122	Terrace Elementary	11	0	85	83	83	98	86	85	0	0	0	0	0	0	0	531
123	Thornwood Elementary	0	22	68	81	86	72	55	80	0	0	0	0	0	0	0	464
124	Cedar Brook Elementary	0	46	139	158	146	139	124	98	0	0	0	0	0	0	0	850
125	Treasure Forest Elementary	0	0	118	110	110	126	93	101	0	0	0	0	0	0	0	658
126	Buffalo Creek Elementary	20	0	99	129	96	111	96	109	0	0	0	0	0	0	0	660
128	Wildcat Way School	0	257	0	0	0	0	0	0	0	0	0	0	0	0	0	257
129	Panda Path School	0	161	0	0	0	0	0	0	0	0	0	0	0	0	0	161
130	Lion Lane School	0	337	0	0	0	0	0	0	0	0	0	0	0	0	0	337
131	Bear Blvd. School	0	301	0	0	0	0	0	0	0	0	0	0	0	0	0	301
132	Tiger Trail School	0	330	0	0	0	0	0	0	0	0	0	0	0	0	0	330
District Total		160	1958	2440	2676	2548	2559	2389	2337	2308	2250	2287	2558	2075	2047	2012	32604

Local Area Private School Survey Results

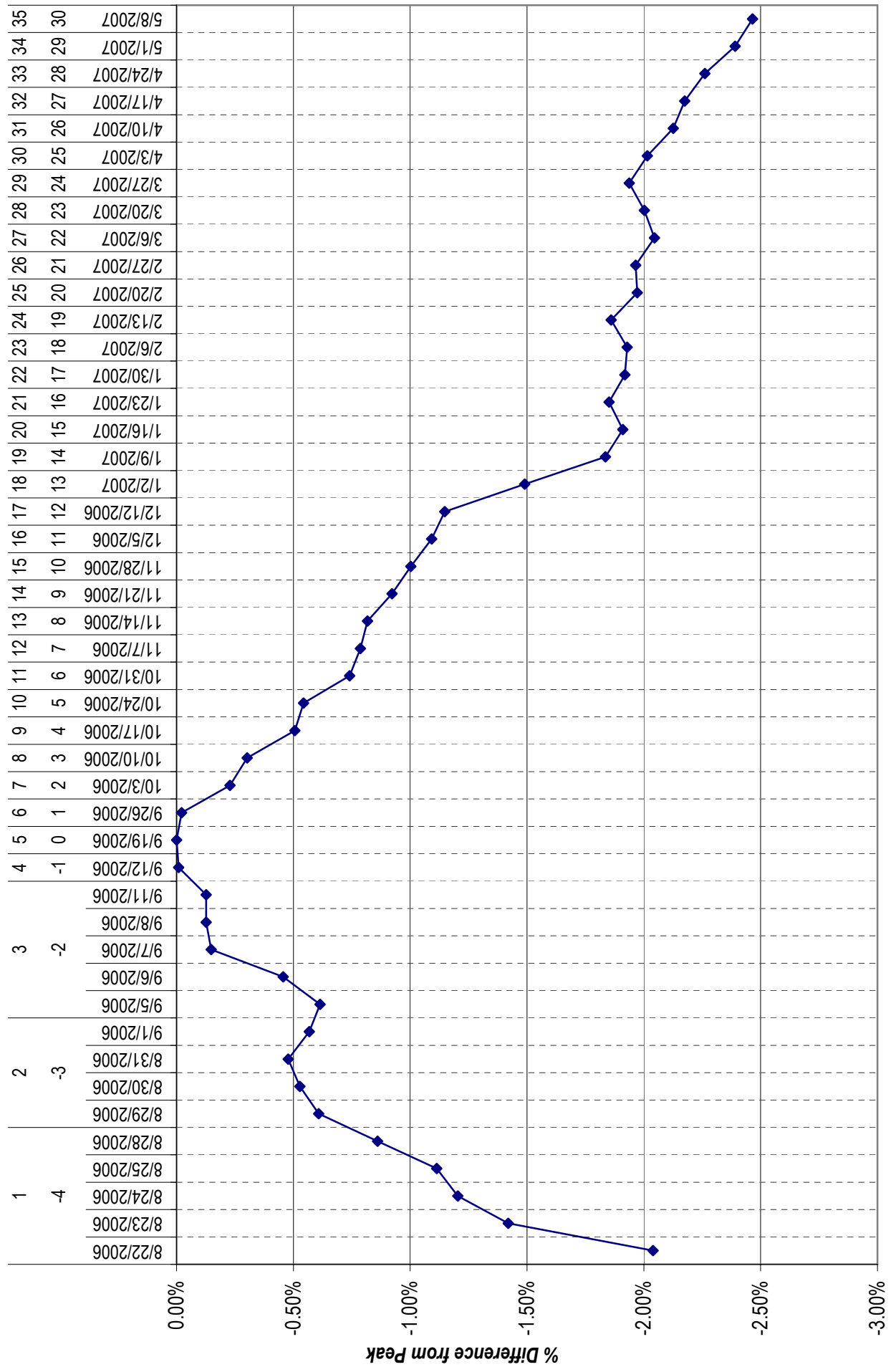
School	2007-2008 Enrollment	2008-2009 Enrollment	Projected 2009-2010		0809 Status	2009 Proj
Awty International	956	1182	1182		HIGHER	SAME
Central Christian Academy	105	90	90		LOWER	SAME
Clay Rd Baptist School	170	175	220		HIGHER	HIGHER
Duchesne Academy	671	650	650		LOWER	SAME
First Baptist Academy	309	315	315		HIGHER	SAME
Houston Christian Academy	455	475	500		HIGHER	HIGHER
ILM Academy	18	24	24		HIGHER	SAME
Japanese Educ Inst of Houston	295	344	344		HIGHER	SAME
Kinkaid	1,357	1,365	1,365		HIGHER	SAME
Memorial Crème de la Crème	312	417	400		HIGHER	LOWER
Regis Catholic School	175	220	210		HIGHER	LOWER
School of the Woods	368	388	388		HIGHER	SAME
Sherwood Forest Montessori School	55	70	70		HIGHER	SAME
St. Francis Episcopal Day	808	806	796		LOWER	LOWER
St. Jerome Catholic	330	331	331		HIGHER	SAME
St. Mark Lutheran	260	290	290		HIGHER	SAME
The Branch School	57	80	80		HIGHER	SAME
The Monarch School	82	99	99		HIGHER	SAME
Westview School	140	140	140		HIGHER	SAME
Yorkshire Academy	205	220	230		HIGHER	HIGHER
Total	6923	7461	7494			
Emmanuel Episcopal	63				NO INFO	NO INFO
Fair Haven Methodist	95				NO INFO	NO INFO
Holy Spirit Episcopal	340				NO INFO	NO INFO
Houston Achievement Place	18				NO INFO	NO INFO
St. Cecilia	540				NO INFO	NO INFO
The Fay School	280				NO INFO	NO INFO

Summary					
	Higher	Lower	Same	No Info	Total Responses
2008-2009 Enrollment	17	3		6	20
2008-2009 Enrollment %	85%	15%	0%		
2009-2010 Projection	3	3	14	6	20
2009-2010 Projection %	15%	15%	70%		

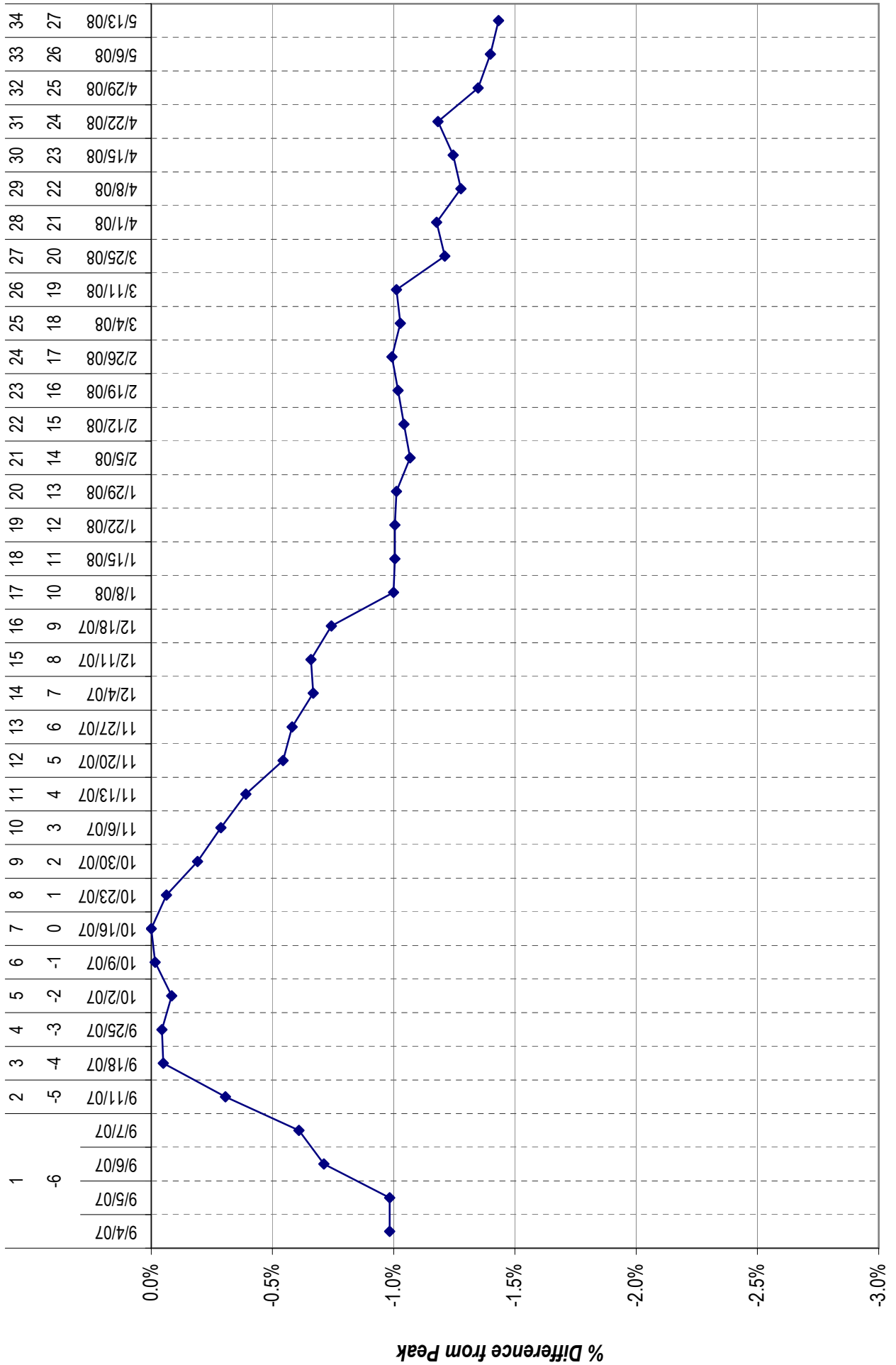
Known Developments in Spring Branch

No.	Development Name	Number of Units	First Open date	2009-2010 Building Status	2009-2010 Complete & Vacant	Housing Type	Low Price Range	High Price Range	Elem	Middle	High	Location
1	Emnora Heights Subdivision	87	Jul-06	4. On Hold	16	Single Family	182,000	230,000	BCE	SWMS	NBHS	On Emnora
2	Villages of Elmview Discount Realtor	14	Nov-06	1. Complete	7	Single Family	129,000	145,000	PSE	SWMS	SWHS	1715 Elmview
3	Tuscan Woods "WaterHill"	31	Dec-06	2. On Schedule	12	Single Family	600,000	715,000	HCE	SBMS	MHS	I-10 (between Voss & Wirt)
4	Aztec Development	9	Feb-07	1. Complete	3	Duplex	224,000	240,000	TFE	LMS	NBHS	Longpoint and Woodvine
5	Oaks At Sherwood Forest	15	Feb-07	1. Complete	6	Patio Homes	224,000	235,000	SWE	SFMS	SHS	1815 Upland
6	Villas at Antoine phase I and phase II	14	Mar-07	4. Phase II on hold	3	Single Family	450,000	550,000	HE	SBMS	MHS	Between I-10 and Westview on 1302 Antoine
7	Woodbend Village	41	Mar-07	1. Complete	11	Cottage homes	180,000	240,000	RCE	LMS	NBHS	Spennick
8	Alexan on Bunker Hill	398	May-07	1. Complete	59	Apartments	1,000	1,800	WVE	SBMS	SWHS	9757 Pine Lake Dr
9	Windsor Court	38	Sep-07	3. Behind Schedule	10	Single Family	590,000	800,000	VOE	SBMS	MHS	Westview & Campbell (across from SBEC)
10	Campbell Courts	12	Sep-07	3. Behind Schedule	1	Patio Homes	390,000	400,000	VOE	SBMS	MHS	Westview & Campbell
11	Hilshire Lakes	100	Nov-07	3. Behind Schedule	24	Single Family	215,000	360,000	BCE	SWMS	NBHS	On Hollister
12	Shadow Springs	70	Dec-07	3. Behind Schedule	12	Single Family	160,000	250,000	PSE	SWMS	SWHS	Next to Pine Shadows on Neuens
13	Campbell Town Homes	15	May-08	3. Behind Schedule	6	Single Family	275,000	400,000	SBE	SBMS	MHS	on Campbell next to SBPD
14	Sherwood Forest	44	Jun-08	3. Behind Schedule	25	Town Homes	175,000	200,000	SWE	SFMS	SHS	Sherwood Forest Dr.
15	Brownstone	35	Jun-08	2. On Schedule	9	Town Homes	810,000	1,000,000	BHE	MMS	SHS	belt 8 and I-10
16	Lovett homes	36	Jun-08	2. On Schedule	10	3 story patio homes	300,000	500,000				N. post oak and I-10
17	The Alexan	402	Feb-09	2. On Schedule	402	Multi-Family	1,200	1,400	HE	SBMS	MHS	7777 Katy Freeway
18	Domain at City Centre	370	Jun-09	2. On Schedule	370	Luxury apartments			BHE	MMS	SHS	belt 8 and I-10
19	The Lofts	250	Jun-09	2. On Schedule	150	Midrise Luxury loft.	1,000	2,500	BHE	MMS	SHS	belt 8 and I-10
TOTAL		3036			1136							

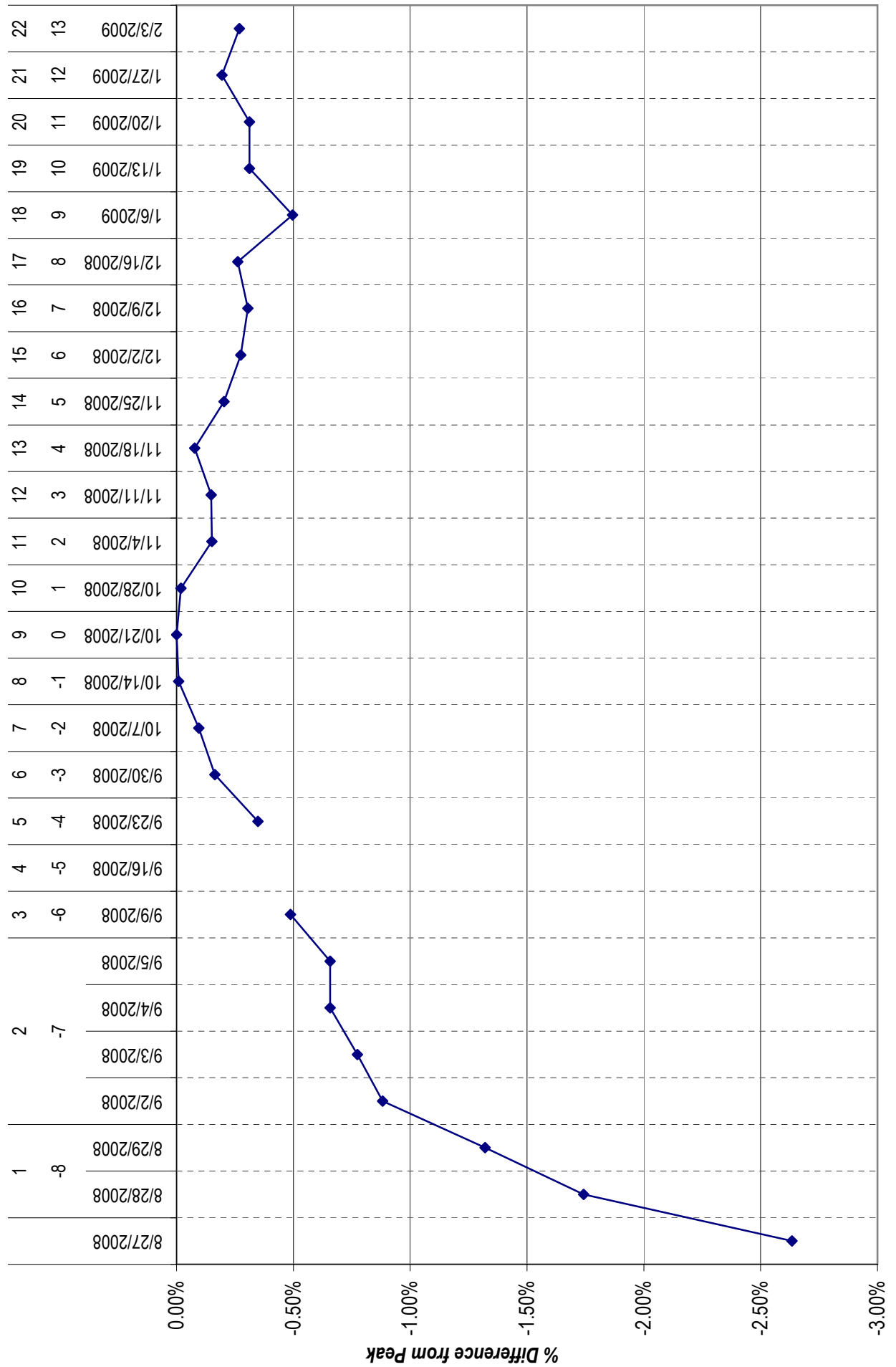
% Drop from Peak Enrollment for 2006-2007



% Drop in Enrollment from Peak for 2007-2008



% Drop from Peak Enrollment for 2008 - 2009



Enrollment Projections 2009-2010

Operations Division

Last Year Review

- Last year's total projection was within 1% of the actual enrollment count in October

■ High School Variance:	+157	or	1.84%
■ Middle School Variance:	+ 72	or	1.08%
■ Elementary School Variance:	+ 3	or	0.02%
■ Total Variance:	+ 232	or	0.72%

Last Year Analysis

- Economic Slowdown and Credit Crunch
 - Families responded by delaying home purchases in neighboring district areas
 - This mostly affected more established families, and would impact secondary campuses
- High foreclosure rate in surrounding district areas
 - Families may have moved out of homes into apartments in SBISD

Enrollment Process Overview

- Data sources include PEIMS and October 2008 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.
- New housing developments were analyzed
- Economic and Real Estate analyses were reviewed
- Local Private Schools were polled regarding their enrollment

Projected Enrollment: 2008-2009

	Current Enrollment (HR)	Projection for 2009-2010	Projected-Current
Elementary	16,985	17,067	+82
Middle	6,724	6,818	+94
High	8,683	8,719	+36
Total	32,392	32,604	+212

Projection Discussion

- Enrollment increase of 212 students or 0.65%
- Main increase expected to come from secondary campuses
- Growth is attributed to the change in economic factors resulting in slower home sales, increased interest in public schools and relative security of the Houston economy

