

Subject: Morris Brandon Task Force for Capacity Expansion - Initial Questions on Demographic Study

Sharron,

Based on our preliminary review of the study, we have serious concerns about the accuracy of the enrollment projections for Morris Brandon. Here are the key issues that we have identified so far:

Item	Study Ref	Issue	Implications
1	P. 57	Actual Morris Brandon enrollment for the 2006-07 school year reflected in the study is materially incorrect (actual was 691, and study shows 370). Actual enrollment by grade is attached.	Enrollment forecast for 2011-2020 is based in part on average survivor (see definition on p. 4 of study) rates for the previous 5 years. If the historical data is incorrect, then the forecast will be also. One needs to look no further than the projected drop in the 2010-2011 Kindergarten cohort (244) to the 2011-12 First Grade projection (212) to conclude that the average survivor rates are materially off.
2	P. 57	Redistricting took effect in the 2009-2010 school year for Morris Brandon. Were average survivor rates calculated on a pro forma basis (as if the redistricting had already occurred)?	Use of non-pro forma survivor rates for school years 2009-2010 and earlier are not necessarily accurate for the current district. An incorrect average survivor rate will result in an incorrect forecast.
3	P. 2 & P. 147	Total fertility rate (TFR) is assumed to be the same (1.78 births per lifetime) for Morris Brandon as it is for the rest of the entire APS district. The age specific fertility rate (ASFR) assumption also appears to be held constant across the entire APS district. Anecdotal data suggests that both the TFR (more children per female) and the ASFR (having children later than average) may differ materially in the Brandon area.	To the extent that the TFR and ASFR are understated, enrollment projections will be understated. If you look at the Brandon district female population in the 25-39 age range, it was at 2,430 in 2005, projected at 2,450 in 2010, and projected at 2,590 in 2015. That leads us to believe that the number of kindergartners will continue to grow through at least 2020. The current projection reflects a peak of 244 K students in 2010-11 that gradually declines to 201 K students in 2019-2020.
4	P.134	Even prior to any adjustment of the age-sex population forecast attributable to item 3 above, the projected decline in Kindergarten enrollment beginning in 2011-2012 is not consistent with the age-sex population forecast for 0-4 and 5-9 year olds in the Brandon district (P.134).	Understated Kindergarten enrollment projections for 2011-2012 and thereafter.
5	P.2, P.57, P.134, P.147	Migration: Population by age data (on p. 134) suggests that empty nesters who move out of the Brandon district are replaced by families with school age children (and/or of peak fertility age) seeking a quality public school. There are very few families with elementary age children who move out of the district.	Migration should be handled properly when accurate average survivor rates are re-calculated. However, we wanted to raise the issue in case there are any migration assumptions at the APS district level that were applied to the Brandon district level.
6	P.19	Due to the high percentage of children in the Morris Brandon district that attend private school and the unlikelihood of an economic recovery in the near term, will the share of students who attend public school continue to increase?	Potential understatement of average survivor rates and projected Kindergarten enrollment.
7	P.19	As the SRT-4 district middle schools and high schools become stronger, it is likely that more parents will chose public elementary schools for their children. In the past many families would apply students to private schools during the elementary years to ensure admittance in the middle school and high school years.	Potential understatement of projected kindergarten enrollment, average survivor rates and projected enrollment for grades 1-5.

Attached is a spreadsheet that contains the historical and projected enrollment numbers included in the study, the actual historical enrollment numbers, recalculated average cohort survivor rates based on a four year average (excluding 2009-2010 due to redistricting) and the following 3 scenarios of projected enrollment:

Scenario 1: Applies recalculated average survivor rates and uses Kindergarten enrollment projections consistent with demographic study.

Scenario 2: Applies recalculated average survivor rates and uses Kindergarten enrollment projections that are constant at the 2010-11 level.

Scenario 3: Applies recalculated average survivor rates and uses Kindergarten enrollment projections reflecting a growth rate of 50% of the 4 year historical average (excluding 2009-10 redistricting year).

While the demographic study projects that enrollment peaks at 1170 next year and then gradually declines to 1,096 by 2019-20, our revised Scenario 2 projection indicates that enrollment peaks at 1,390 in 2015-2016 and remains at that level through the end of the study.

Let us know how you would like to proceed with addressing the issues. We recognize that the 11/11 meeting is for the entire SRT-4 district and that our questions may be too detailed to cover in that forum. We suggest a 30 minute meeting or conference call with the demographers. Please give it some consideration and let us know your thoughts.

Best regards,

Lee

On behalf of the Morris Brandon Task Force for Capacity Expansion

Morris Brandon Elementary School  
Enrollment Projections  
2010 Demographic Study

Enrollment Per Demographic Study															
Grade	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
PK	-	2	3	5	1	-	240	228	223	221	216	211	207	204	201
K	139	74	158	173	208	244	240	240	207	205	203	200	197	195	192
1	119	77	168	166	205	207	212	209	192	190	193	191	188	185	183
2	111	67	145	157	195	197	190	195	182	185	182	185	183	180	178
3	106	54	117	134	166	191	187	181	185	179	175	175	178	176	173
4	90	46	96	94	147	164	185	181	176	179	172	168	168	171	169
5	98	50	89	86	98	140	156	176	172	167	172	168	168	171	169
Total	663	370	776	815	1,020	1,143	1,170	1,170	1,155	1,144	1,141	1,130	1,121	1,111	1,096
Change	n/a	(293)	406	39	205	123	27	-	(15)	(11)	(3)	(11)	(9)	(10)	(15)
% Change	n/a	-44.19%	109.73%	5.03%	25.15%	12.06%	2.36%	0.00%	-1.28%	-0.95%	-0.26%	-0.96%	-0.80%	-0.89%	-1.35%

Enrollment Per Demographic Study, With Adjustments to Actual for 2006-07 and 2010-2011															
Grade	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
PK	-	2	3	5	1	-	240	228	223	221	216	211	207	204	201
K	139	158	158	173	208	246	240	228	207	205	203	200	197	195	192
1	119	141	168	166	205	208	212	209	192	190	193	191	188	185	183
2	111	113	145	157	195	193	190	195	182	185	182	185	183	180	178
3	106	99	117	134	166	192	187	181	185	179	175	175	178	176	173
4	90	97	96	94	147	169	185	181	176	179	172	168	168	171	169
5	98	81	89	86	98	125	156	176	172	167	172	168	168	171	169
Total	663	691	776	815	1,020	1,133	1,170	1,170	1,155	1,144	1,141	1,130	1,121	1,111	1,096
Change	n/a	28	85	39	205	113	37	-	(15)	(11)	(3)	(11)	(9)	(10)	(15)
% Change	n/a	4.22%	12.30%	5.03%	25.15%	11.08%	3.27%	0.00%	-1.28%	-0.95%	-0.26%	-0.96%	-0.80%	-0.89%	-1.35%

Cohort Year to Year Survival Rates (2011 Forward are rates currently reflected in the study)														
Grade	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
K-1	Average**	3.21%	1.44%	6.33%	5.06%	18.50%	-12.92%	-9.21%	-8.07%	-8.14%	-7.41%	-6.64%	-5.80%	-5.88%
First - Second		-3.65%	-5.04%	2.84%	-6.55%	17.47%	-8.02%	-8.13%	-8.21%	-5.85%	-5.91%	-6.00%	-6.09%	-6.15%
Second-Third		-4.10%	-10.81%	3.54%	-7.59%	5.73%	-4.74%	-5.13%	-5.21%	-4.21%	-4.15%	-4.19%	-4.26%	-3.78%
Third - Fourth		-7.34%	-8.49%	-3.03%	-19.66%	9.70%	-3.21%	-2.76%	-3.24%	-3.85%	-3.85%	-3.78%	-3.83%	-3.89%
Fourth - Fifth		-10.91%	-10.00%	-8.25%	-10.42%	4.26%	-4.86%	-4.97%	-5.11%	-3.91%	-4.00%	-4.00%	-3.93%	-3.98%

\*\*4 year average including 2006-07, 2007-08, 2008-09, and 2010-11. 2009-10 is excluded due to redistricting. A more accurate method would be a pro forma approach to 2009-2010 and prior (as if redistricting had occurred).

Scenario #1 - Enrollment Projections Using Revised Average Cohort Survivor Rates and Retaining Study Forecast for Kindergarten															
Grade	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
PK	-	3	5	1	-	-	-	-	-	-	-	-	-	-	-
K	139	158	173	208	246	240	228	228	223	221	216	211	207	204	201
1	119	141	168	205	208	254	248	248	235	230	228	223	218	214	211
2	111	113	145	157	193	200	245	245	239	227	222	220	215	210	206
3	106	99	117	134	166	185	192	192	235	229	217	213	211	206	201
4	90	97	96	94	147	169	178	171	178	217	212	201	197	195	191
5	98	81	89	86	125	151	158	158	153	159	194	189	179	176	174
Total	663	691	776	815	1,020	1,133	1,208	1,243	1,262	1,283	1,289	1,257	1,227	1,204	1,183
Difference From Study Projection					38	73	107	148	127	106	93	87	7.98%	8.40%	7.98%
% Over (Under) Study Projection					3.24%	6.20%	9.30%	12.13%	11.22%	9.44%	8.40%	7.98%			

Scenario #2 - Enrollment Projections Using Revised Average Cohort Survivor Rates and Kindergarten Enrollment Remaining Constant															
Grade	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
PK	-	3	5	1	-	-	-	-	-	-	-	-	-	-	-
K	139	158	173	208	246	246	246	246	246	246	246	246	246	246	246
1	119	141	168	205	208	254	254	254	254	254	254	254	254	254	254
2	111	113	145	157	193	200	245	245	245	245	245	245	245	245	245
3	106	99	117	134	166	185	192	192	235	235	235	235	235	235	235
4	90	97	96	94	147	169	178	171	178	217	217	217	217	217	217
5	98	81	89	86	125	151	158	153	153	159	194	194	194	194	194
Total	663	691	776	815	1,020	1,133	1,214	1,267	1,310	1,355	1,390	1,390	1,390	1,390	1,390
Difference From Study Projection					44	97	155	211	260	269	279	294	26.84%	26.84%	26.84%
% Over (Under) Study Projection					3.75%	8.26%	13.42%	18.46%	23.02%	24.01%	25.12%	26.84%			

Scenario #3 - Enrollment Projections Using Revised Average Cohort Survivor Rates and K Enrollment Growing at 50% of Historical Rate Through 2015															
Grade	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
PK	-	3	5	1	-	-	-	-	-	-	-	-	-	-	-
K	139	158	173	208	246	259	272	286	301	317	317	317	317	317	317
1	119	141	168	205	208	254	267	281	295	311	311	327	327	327	327
2	111	113	145	157	193	200	245	257	271	285	299	315	315	315	315
3	106	99	117	134	166	185	192	235	247	260	273	287	302	302	302
4	90	97	96	94	147	169	178	171	178	217	229	240	253	266	280
5	98	81	89	86	125	151	158	153	159	194	204	214	225	237	237
Total	663	691	776	815	1,020	1,133	1,227	1,306	1,390	1,490	1,594	1,660	1,713	1,752	1,777
Difference From Study Projection					57	136	235	346	453	530	592	641	681	62.14%	62.14%
% Over (Under) Study Projection					4.84%	11.62%	20.33%	30.23%	39.68%	46.90%	52.77%	57.66%	62.14%		