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# RESEARCH BRIEF

**Research Services** 

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### ENROLLMENT PROJECTIONS FOR PRESENTATION AND DISCUSSION: 2006-07 PUPIL POPULATION ESTIMATING CONFERENCE

#### At A Glance

The 2006-07 projected enrollment offered by Research Services continues the decline in student enrollment evident in the district over the past four school years. The district's student enrollment is projected to decline by 1.2 percent (4,305 students) from 2005-06 to 2006-07.

Research Services calculates enrollment projections on an annual basis. These projections are presented each year at the district's Pupil Population Estimating Conference. For this year's projections, two years of trend data (2004-05 and 2005-06) were used to project student enrollment for 2006-07. Projections are provided by individual grade level and for the district's total Pre-K through grade 12 enrollment.

#### METHOD

The projections provided include student enrollment in grades Pre-K to 12 covered by the Florida Education Finance Program (FEFP). Projections include programs such as alternative education and Exceptional Student Education (ESE). However, Non-FEFP funded enrollment such as specially funded Pre-K programs (e.g. State Intervention, Title I, and Head Start) and adult vocational enrollment are not considered in these projections.

The methodology used for projecting enrollments for 2006-07 is a cohort survival technique. Previous projections have utilized weighted cohort survival and linear regression approaches. Because these methods have not demonstrated greater success in prediction, they were dropped from consideration. The cohort survival method uses the proportion of increase or decrease in enrollment between any two grades (or between years for predicting Kindergarten and Pre-kindergarten enrollments).

For example, if 100 students enrolled in grade one in 2004-05 and 104 students enrolled in grade two in 2005-06, the proportion of survival would have been 1.04. Such ratios are calculated between each pair of grades, over several years, and averaged. The strength of the cohort survival technique lies in the fact that each ratio encompasses collectively many of the variables that might possibly account for an increase or decrease in the size of a grade cohort as it moves on to the next grade. To project grade enrollments for 2006-07, the ratios thus determined are applied to the present enrollment statistics. Projected total enrollment is simply the sum of projected enrollments for each grade level.

#### RESULTS

The district membership is predicted to be 351,764 students for 2006-07. This is 4,305 students or 1.2% less than the 2005-06 actual enrollment of 356,069. This projection indicates that the decrease in student enrollment that began in 2002-03 will continue into the 2006-07 school year. The projected decrease in enrollment is not as large as the original decrease experienced from 2001-02 to 2002-03; however, the district's rate of decline has increased since 2004-05 (Table 1).

	# of Students	% Decrease
From 2001-02 to 2002-03	-5,018	-1.4%
From 2002-03 to 2003-04	-2,216	-0.6%
From 2003-04 to 2004-05	-3,046	-0.8%
From 2004-05 to 2005-06	-4,161	-1.2%
From 2005-06 to Projected 2006-07	-4,305	-1.2%

#### Table 1 M-DCPS Enrollment Decline

The largest predicted grade-level changes anticipated for 2006-07 are an increase in sixth grade students (+4,275 or 18.1%) and a decrease in seventh grade students (-4,650 or 16.5%) (Table 2 see page 4). An "enrollment bubble" has developed from the large number of students retained in third grade as a result of not scoring at Level 2 or higher on the FCAT Reading Test. This mandate began in 2002-03 and affected approximately 6,300 students constituting an increase of some 700% over the number of students retained in third grade the previous year. As a result, the smaller cohort of third grade students promoted in 2002-03 will yield a smaller seventh grade class in 2006-07; the year the cohort would be enrolled in seventh grade.

In contrast, the large number of students retained in third grade during 2002-03 will yield a larger sixth grade class in 2006-07 since the previously retained students will be combined with other students progressing normally through grades three to six. Although fewer third grade students have been retained subsequent to 2002-03 or the first year the new FCAT standards went into effect, this condition can be expected to continue until the 2002-03 third grade cohort graduate from high school.

Predictions by individual grade level show that enrollment is expected to decline at Pre-K and grades 2, 4, 5, and 7 through 10. It is anticipated that enrollment will increase at Kindergarten and grades 1, 3, 6, 11, and 12.

For the reader's information, birth data used to project kindergarten enrollment include births from September 2000 to August 2001. The data used for the 2006-07 kindergarten projections can be found in Table 3 (see page 4).

In conclusion, the 2006-07 projected enrollment offered by Research Services continues the decline in student enrollment evident in the district over the past four school years. Predictions by individual grade level show that enrollment is projected to decline at Pre-K and grades 2, 4, 5, and 7 through 10 and to increase at Kindergarten and grades 1, 3, 6, 11, and 12.

#### CAVEATS

The projections provided in this report are almost wholly driven by a very limited amount of historical data. However, there are a great many external influences, mostly defying measurement, that can have profound effects on future enrollment. A listing of the potential areas of outside influence on enrollment would include, but is not limited to, the following: the Florida Legislature actions, changes in FDOE policies, increase in school choice options, the influence of external scholarship programs, changes in immigration policy, economic contingencies, international political climates, and potential natural disasters. All of these influences, and many more unforeseeable issues, can have large-scale consequences on district enrollment figures.

The projections provided represent the best estimate of the Research Services staff using the methodology herein. It should be noted that the final districtwide enrollment projection for 2006-07, agreed upon at the District cross-function Pupil Population Estimating Conference conducted on November 29, 2005, was 353,250, a variance of 1,486 from the 351,764 enrollment projection provided by Research Services.

Table 2Enrollment Projections 2006-07

	2004-05	2005-06	Survival Rate 05-06 / 04-05	Projected 2006-07	Changes 2005-06	Predicted Changes 2006-07
Pre-K*	1,929	1,902		1,875	-27	-27
Kindergarten**	26,033	26,445		26,684	412	239
First	27,624	26,994	1.037	27,421	-630	427
Second	27,045	27,189	0.984	26,569	144	-620
Third	30,603	29,475	1.090	29,632	-1,128	157
Fourth	26,919	26,462	0.865	25,487	-457	-975
Fifth	22,841	26,976	1.002	26,518	4,135	-458
Sixth	28,289	23,613	1.034	27,888	-4,676	4,275
Seventh	28,931	28,129	0.994	23,479	-802	-4,650
Eighth	29,682	27,886	0.964	27,113	-1,796	-773
Ninth	35,890	32,894	1.108	30,904	-2,996	-1,990
Tenth	29,282	31,315	0.873	28,701	2,033	-2,614
Eleventh	24,160	25,227	0.862	26,978	1,067	1,751
Twelfth	21,002	21,562	0.892	22,514	560	952
Total	360,230	356,069		351,764	 -4161	-4,305

\* Does not include non-FEFP Pre-K enrollment.

\*\* Based on birth data from September 2000 to August 2001 of 32,404 and a weighted survival rate to kindergarten.

## Table 3Birth Data Used for 2006-07 Projections

	2004-05	2005-06	2006-07
Kindergarten	26,033	26,445	26,684
Births 98-99 to 00-01	31,167	32,345	32,404
Survival	0.835274	0.817592	0.823486
FEFP Pre-K	1,929	1,902	1,875
		0.986003	
Non-FEFP Pre-K	5,554	5,481	5,409
		0.986856	
Total Pre-K	7,483	7,383	7,284