



RESEARCH BRIEF

Research Services

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Enrollment Projections for Presentation & Discussion: 2010-11 Pupil Population Estimating Conference

At A Glance

The 2010-11 projected enrollment offered by Research Services represents a small increase in student enrollment. The District's student enrollment is projected to be 341,324 in 2010-11, an increase of 0.3 percent (1,077 students) from 2009-10. A slight increase in the District's 2009-10 student enrollment reversed a seven year decline.

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 (2008-09 and 2009-10) were used to project student enrollment for 2010-11. 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). Charter schools are also included in the projections. However, non-FEFP funded enrollment such as specially funded pre-K programs (e.g., State Intervention, Title I, and Head Start), adult vocational enrollment, and students receiving McKay Scholarships are not considered in these projections.

The methodology used for projecting enrollments for 2010-11 is a cohort survival technique. 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 2008-09 and 104 students enrolled in grade two in 2009-10, the proportion of survival would have been 1.04 (104 percent). 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 2010-11, the ratios thus determined were applied to the present enrollment statistics. Projected total enrollment is simply the sum of projected enrollments for each grade level.

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RESULTS

M-DCPS' enrollment increased in 2009-10 for the first time since the 2002-03 school year. Research Services predicts that this increase will continue, albeit slowly, into the 2010-11 school year. The District's 2010-11 membership is projected to be 341,324 students, a 0.3 percent increase over the 2009-10 membership.

Table 1. M-DCPS Enrollment Trends

Annual Comparison	# of Students	% Change
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 2006-07	-8,097	-2.3%
From 2006-07 to 2007-08	-5,522	-1.6%
From 2007-08 to 2008-09	-2,590	-0.8%
From 2008-09 to 2009-10	+387	+0.1%
From 2009-10 to Projected 2010-11	+1,077	+0.3%

In Table 2, predictions by individual grade level show that enrollment is expected to increase at pre-kindergarten and grades 1, 3, 6, 8-10, and 12. It is anticipated that enrollment will decline at all other grade levels.

Table 2. Enrollment Projections 2010-11

	2008-09	2009-10	2009-10/ 2008-09	Projected 2010-11	Changes 2009-10	Projected changes 2010-11
Pre-K*	1,831	1,872		1,914	41	42
Kindergarten**	24,249	24,387		24,354	138	-33
First	25,583	25,320	1.044	25,464	-263	144
Second	26,044	26,067	1.019	25,799	23	-268
Third	28,014	27,786	1.067	27,811	-228	25
Fourth	26,080	26,058	0.930	25,846	-22	-212
Fifth	26,046	26,552	1.018	26,530	506	-22
Sixth	26,704	26,688	1.025	27,206	-16	518
Seventh	26,586	27,029	1.012	27,013	443	-16
Eighth	26,286	26,729	1.005	27,174	443	445
Ninth	25,988	28,081	1.068	28,554	2,093	473
Tenth	28,792	25,327	0.975	27,367	-3,465	2,040
Eleventh	24,368	25,433	0.883	22,372	1,065	-3,061
Twelfth	23,289	22,918	0.940	23,920	-371	1,002
Total	339,860	340,247		341,324	387	1,077

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

** Based on birth data from September 2004 to August 2005 of 32,172 and a weighted survival rate to kindergarten.

The largest predicted grade level changes anticipated for 2010-11 are an increase in tenth grade students (+2,040 or 8.1 percent) and a decrease in eleventh grade students (-3,061 or 12.0 percent) (Table 2). An “enrollment bubble” has developed from the large number of students retained in third grade as a result of not scoring at Achievement Level 2 or higher on the FCAT Reading. This mandate began in 2002-03 and affected approximately 6,300 students, constituting an increase of some 700 percent 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 eleventh grade class in 2010-11 (the year most of the retained students will be enrolled in tenth grade).

Table 3. Birth Data Used for 2010-11 Projections

Data Element	Actual		Projected 2010-11
	2008-09	2009-10	
Kindergarten	24,249	24,387	24,354
Births 2002-03 to 2004-05	32,209	32,128	32,172
Survival	0.752864	0.759058	0.756993
FEFP Pre-K	1,831	1,872 1.022392	1,914
non-FEFP Pre-K	5,290	5,209 0.984688	5,129
Total Pre-K	7,121	7,081	7,043

Table 3 provides the birth data and pre-kindergarten and kindergarten enrollment data used for the 2010-11 projections.

Figure 1 compares the projections offered by Research Services with the actual M-DCPS student enrollment for the 2009-10 school year. The blue line represents the actual M-DCPS membership (excluding pre-kindergarten) and the red line represents Research Services' projections. One can see that Research Services' projected values are very similar to the actual values at almost every grade level, with larger differences noted at grades 9 and 11.

Figure 1. Comparison of Research Services Enrollment Projections and Actual M-DCPS Enrollment by Grade Level, 2009-10

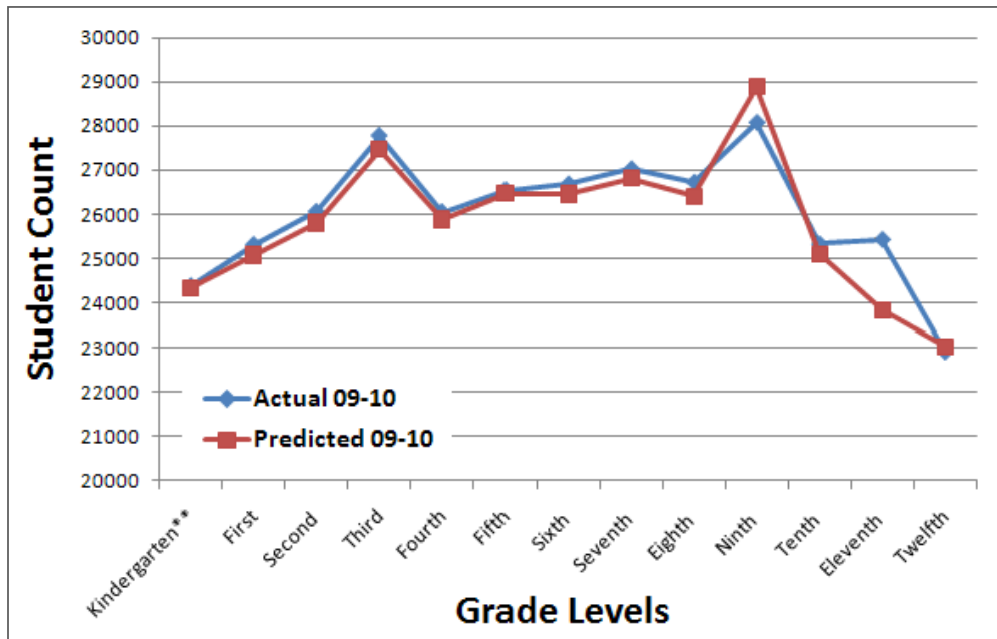


Table 4. Comparison of Research Services Enrollment Projections and Actual M-DCPS Enrollment, by Grade Level, 2009-10

	Actual 09-10	Predicted 09-10	Percent Off
Kindergarten	24,387	24,320	-0.3%
First	25,320	25,073	-1.0%
Second	26,067	25,796	-1.1%
Third	27,786	27,474	-1.1%
Fourth	26,058	25,880	-0.7%
Fifth	26,552	26,459	-0.4%
Sixth	26,688	26,447	-0.9%
Seventh	27,029	26,806	-0.8%
Eighth	26,729	26,406	-1.2%
Ninth	28,081	28,881	2.8%
Tenth	25,327	25,096	-0.9%
Eleventh	25,433	23,836	-6.7%
Twelfth	22,918	23,024	0.5%
Total	338,375	335,498	0.9%

Table 4 provides a breakdown of the difference between actual and projected enrollments by grade level. Across all grade levels, Research Services' projections underestimated 2009-10 M-DCPS student enrollment by less than one percent. Analysis of projections by grade level indicates that the projections underestimated 2009-10 student enrollment by anywhere from 0.3 percent to 1.2 percent at grades 1-8, 10, and 12. However, grade 9 enrollment was overestimated by 2.8 percent and grade 11 enrollment was underestimated by 6.7 percent.

As illustrated in Figure 2 and Table 5, when projections and actual enrollment are combined for grade levels 9-12, the large differences are no longer apparent. That is, the relationship between actual and predicted enrollment follow a pattern similar to that at all other grade levels, suggesting that students are moving between grade levels,

but not in and out of the District. It is also apparent that the projections, based on previous enrollment trends, consistently underestimated the actual enrollment by approximately one percent across all grade levels.

Figure 2. Comparison of Research Services Enrollment Projections and Actual M-DCPS Enrollment, Grades 9-12 Combined, 2009-10

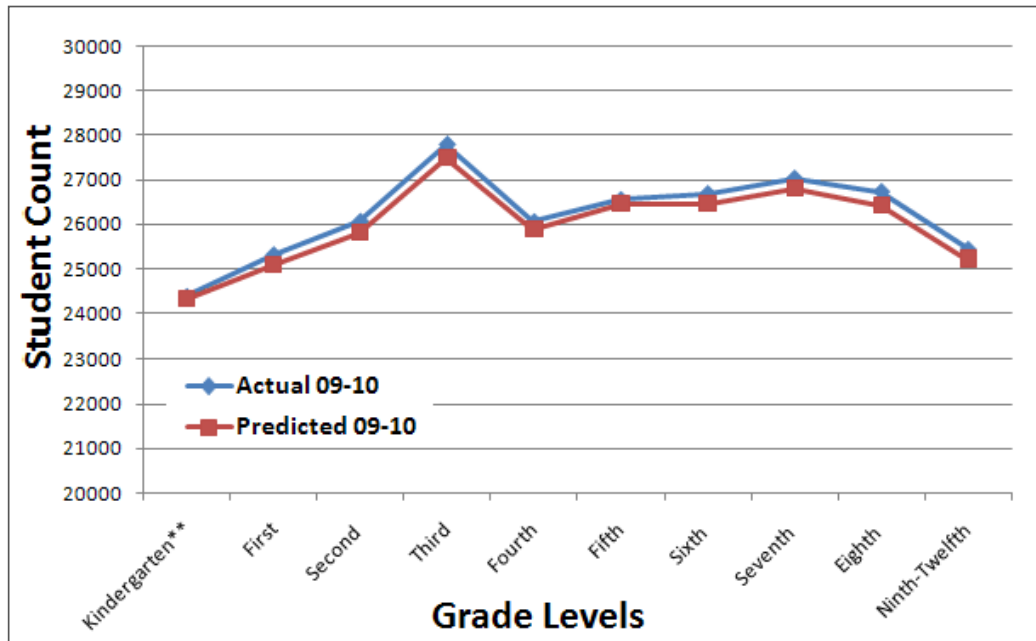


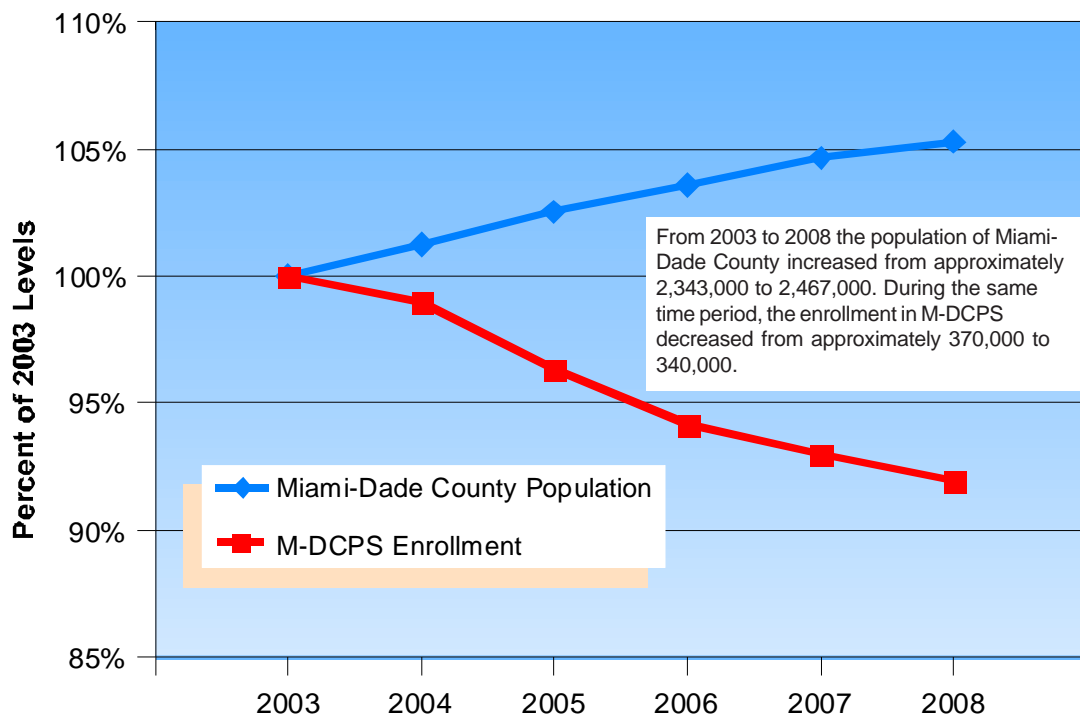
Table 5. Comparison of Research Services
Enrollment Projections and Actual M-DCPS
Enrollment, Grades 9-12 Combined, 2009-10

	Actual 09-10	Predicted 09-10	Percent Off
Kindergarten	24,387	24,320	-0.3%
First	25,320	25,073	-1.0%
Second	26,067	25,796	-1.1%
Third	27,786	27,474	-1.1%
Fourth	26,058	25,880	-0.7%
Fifth	26,552	26,459	-0.4%
Sixth	26,688	26,447	-0.9%
Seventh	27,029	26,806	-0.8%
Eighth	26,729	26,406	-1.2%
Ninth-Twelfth Avg.	25,440	25,209	-0.9%
Total	338,375	335,498	-0.9%

COUNTY AND DISTRICTWIDE TRENDS

While M-DCPS' student enrollment declined over seven school years (from 2002-03 to 2008-09), and then increased slightly in 2009-10, Miami-Dade County's population increased slowly over this same time period. From 2003 to 2008, for example, the county's population increased by 5.3 percent (Figure 3). Miami-Dade County's resident births have remained fairly stable over this time period. From 2003-04 (representing children who were eligible to enter M-DCPS in 2009-10) to 2004-05 (representing children who will be eligible to enter M-DCPS in 2010-11), resident births increased by only one-tenth of a percent (0.1 percent).

Figure 3. Comparison of Miami-Dade County



Over the last two years for which data are available (2007-08 and 2008-09), private school enrollment throughout Miami-Dade County has declined. Fewer of the county's students entered private school during the 2008-09 school year compared to the previous year, representing a 4.2 percent decrease in the number of Miami-Dade County children attending private school. The state of Florida overall also experienced a 4.2 percent decrease in private school enrollment from 2007-08 to 2008-09.

Conversely, the county has seen an increase in the number of students entering M-DCPS from private schools or home schooling. Over the last five years (2004 to 2008), the number of children entering M-DCPS from private or home schooling increased by 22.5 percent.

Over a five year period (2004 to 2008), M-DCPS experienced a 27.2 percent decrease in students entering M-DCPS from other areas of the United States. Students entering M-DCPS from other countries, on the other hand, decreased by only 4.0 percent from 2004 to 2008, but increased by 2.8 percent from 2007 to 2008.

CONCLUSION

M-DCPS' student enrollment is projected to increase slightly from 2009-10 to 2010-11. During the 2009-10 school year, a slight increase in enrollment reversed a seven year decline. Research Services projects that this increase will continue in the 2010-11 school year. Enrollment predictions by individual grade level show that enrollment is projected to increase at pre-kindergarten and grades 1, 3, 6, 8-10, and 12, and decline at all other grade levels.

CAVEATS

The projections provided in this report represent the best estimates of the Research Services staff using the methodology herein. The projections are almost wholly driven by a very limited amount of historical data. There are a great many external influences, mostly defying measurement, that can have profound effects on future enrollment. Potential areas of outside influence on enrollment include, but are not limited to, the following: Florida Legislature actions, changes in FLDOE policies, an 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.