



# RESEARCH BRIEF

## Research Services

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### **Miami-Dade County Public Schools: 2017-2018 Student Performance in the International Baccalaureate Program**

#### **Results at a Glance**

This Research Brief summarizes the performance of Miami-Dade County Public Schools (M-DCPS) students participating in the International Baccalaureate (IB) program. The IB program was offered at six M-DCPS high schools in 2017-2018. Over 3,000 examinations were taken by M-DCPS students in 27 subject areas in 2017-2018. The number of IB examinations taken in M-DCPS decreased by eight percentage points from 2016-2017 to 2017-2018. The District's Hispanic students took 68% of all IB examinations in 2017-2018. From 2016-2017 to 2017-2018, the percentage of examinations taken by Hispanic and Black students increased, the percentage of examinations taken by White students decreased, and the percentage of examinations taken by students classified as "Other" (Alaskan Native, American Indian, Asian, Pacific Islander, and Multiracial categories) remained stable. Overall, the percentage of IB examinations receiving passing scores remained stable at 80% from 2016-2017 to 2017-2018. At the conclusion of the 2017-2018 school year, 77% of eligible M-DCPS students received IB diplomas, an increase of six percentage points from 2016-2017.

The International Baccalaureate (IB) program is a rigorous pre-university curriculum and examination program that emphasizes the development of students' intellectual, personal, emotional, and social skills. The IB program provides students with a broad general education, while offering specialization based on students' interests and plans. The IB program is recognized at colleges and universities throughout the United States and worldwide.

Three IB programs span the years from kindergarten to pre-university. The programs can be offered individually (the Primary Years Program for students aged 3-12, the Middle Years Program for students aged 11-16, and the IB Diploma Program for students aged 16-19) or as a continuum. A fourth program, the Career-Related Program, is designed to address the needs of students aged 16-19 who are engaged in career-related education. This report focuses on the IB Diploma Program that is offered at M-DCPS senior high schools.

The IB Diploma Program (DP) is a two-year liberal arts curriculum designed to promote understanding of global citizenship. The program encourages students to become critical and compassionate thinkers and informed participants in local and world affairs. The DP curriculum is made up of the three core elements and six subject groups. The three core elements are:

- The Theory of Knowledge course, assessed through an oral presentation and a 1,600 word essay, encourages students to reflect on the nature of learning and different kinds of knowledge;
- The extended essay, an independent, self-directed research project, culminates in a 4,000-word paper; and
- A Creativity, Action, Service (CAS) component requires students to take part in a range of experiences and at least one project.

The six subject groups are:

- Studies in language and literature;
- Language acquisition;
- Individuals and societies;
- Sciences;
- Mathematics; and
- The arts.

Students may study an additional sciences, individuals and societies, or languages course, instead of a course in the arts. Students take some subjects at higher level (HL) and some at standard level (SL). Each student takes three to four subjects at HL and the remaining subjects at SL. Students taking courses at HL are expected to demonstrate a greater body of knowledge, understanding, and skills.

Descriptions of courses in the first two subject groups are provided below.

- Studies in language and literature courses are as follows:
  - Language A: Literature – These courses introduce students to the analysis of literary texts. Courses are available in 55 languages.
  - Language A: Language and Literature – These courses introduce the critical study and interpretation of written and spoken texts from a wide range of literary and non-literary genres. Courses are available in 17 languages.
  - Literature and Performance – These courses explore the relationship between literature and theatre. Courses are automatically available in English, and by special request in Spanish and French.
- Language acquisition courses are as follows:
  - Language Ab Initio – These courses are for beginners (students who have little or no previous experience of learning the language they have chosen).

- Language B – These courses are intended for students who have some previous experience of learning the language.
- Classical Languages (Latin or Classical Greek) – These courses provide opportunities for students to study the language, literature, and culture of ancient Rome or Greece.

Students in the IB Diploma Program take written examinations in each subject. These examinations assess the extent to which students have mastered advanced academic skills such as analyzing and presenting information; evaluating and constructing arguments; and solving problems creatively. Basic skills are also assessed, including retaining knowledge, understanding key concepts, and applying standard methods. Examinations are scored on a scale of 1 to 7 for each subject, with 7 being highest. A score of 4 is considered a passing score on an IB examination. Students must earn a total of 24 points on their six IB examinations in order to receive the IB diploma, subject to certain minimum levels of performance across all components of the program and satisfactory completion of the CAS requirement. Students can also be awarded up to three additional points toward the overall diploma score for their combined results on the Theory of Knowledge course and the extended essay.

Six M-DCPS high schools offered the IB program and administered the corresponding IB examinations during the 2017-2018 school year: Coral Gables Senior, Coral Reef Senior, John A. Ferguson Senior, Miami Beach Senior, North Miami Senior, and South Dade Senior. This Research Brief includes 2016-2017 and 2017-2018 data on these six M-DCPS schools. Tables included in this report provide data on the number of IB examinations taken and the percentage of examinations receiving passing scores by subject area across all six M-DCPS IB schools, by school across all subject areas, and by school and ethnicity across all subject areas. The number and percentage of participating students earning diplomas in the District and at each IB school are also provided. The reader should note that results are not reported if fewer than 10 examinations were taken.

### **Participation in Examinations**

- In 2017-2018, M-DCPS students took 3,108 IB examinations. The number of examinations taken by M-DCPS students decreased by eight percentage points from 2016-2017 to 2017-2018.
- M-DCPS students took IB examinations in 27 subject areas in 2017-2018. Overall, the most IB examinations were taken in Biology, English Literature, History, and Spanish B in 2017-2018. Over one-half (54%) of IB examinations taken by M-DCPS students were taken in these four subject areas.
- The greatest number of IB examinations were taken at Coral Gables Senior and Coral Reef Senior in 2017-2018 (908 and 892 examinations, respectively).
- From 2016-2017 to 2017-2018, the number of IB examinations taken increased at two of the six M-DCPS IB schools: Coral Gables Senior (a 9% increase in examinations taken)

and South Dade Senior (a 16% increase in examinations taken). The number of IB examinations taken at the other four M-DCPS IB schools decreased.

- The District's Hispanic students took 68% of all IB examinations in 2017-2018. White students took 17% of IB examinations, Black students took 10%, and students classified as "Other" (Alaskan Native, American Indian, Asian, Pacific Islander, and Multiracial categories) took 6%.
- From 2016-2017 to 2017-2018, the percentage of examinations taken by Hispanic and Black students increased (by 3% and 1%, respectively); the percentage of examinations taken by White students decreased by 3%; and the percentage of examinations taken by students classified as "Other" remained stable.

### **Examination Results**

- Overall, the percentage of IB examinations receiving passing scores in M-DCPS remained stable at 80% from 2016-2017 to 2017-2018.
- The 2017-2018 subject areas in which the highest percentages of M-DCPS IB examinations received passing scores were English Literature, French B, History, Social and Cultural Anthropology, and Spanish B. The subject areas in which the lowest percentages of IB examinations received passing scores were Philosophy and Sports, Exercise, and Health Science.
- Coral Reef Senior and Miami Beach Senior had the highest percentages of IB examinations receiving passing scores (91% and 88%, respectively) in 2017-2018.
- From 2016-2017 to 2017-2018, the percentage of examinations receiving passing scores increased at four M-DCPS IB schools and decreased at two schools. The largest increase in the percentage of examinations receiving passing scores was at Miami Beach Senior (a 6 percentage point increase). South Dade Senior had the largest decrease in the percentage of examinations receiving passing scores (a 21 percentage point decrease).
- In 2017-2018, 83% of IB examinations taken by M-DCPS White students, 81% of examinations taken by Hispanic students, 63% of examinations taken by Black students, and 87% of examinations taken by students classified as "Other" received passing scores.
- From 2016-2017 to 2017-2018, the percentage of examinations receiving passing scores increased by one percentage point for White students, decreased by one percentage point for Black students, and remained stable for Hispanic students and students classified as "Other."

### **Diploma Results**

- Grade 12 students who were enrolled in the IB program, met all program requirements, and took the required examinations were eligible to receive IB diplomas. The number of

M-DCPS students eligible to receive IB diplomas decreased by 50 students (or 9%) from 2016-2017 to 2017-2018.

- A total of 400 M-DCPS students, or 77% of eligible students, received IB diplomas at the conclusion of the 2017-2018 school year. The percentage of the District's eligible IB program students receiving an IB diploma increased by six percentage points from 2016-2017 to 2017-2018.
- Of the six M-DCPS IB schools, Coral Reef Senior had the highest percentage of eligible students receiving IB diplomas (90%) in 2017-2018.
- From 2016-2017 to 2017-2018, the percentage of students receiving IB diplomas increased at five of the six M-DCPS IB schools.

Table 1. Number of IB Examinations Taken and Percent of IB Exams Passed by Subject Area, 2016-2017 and 2017-2018, M-DCPS, All IB Schools Combined

Subject Area	# of Exams Taken		% of Exams Passed	
	2016-2017	2017-2018	2016-2017	2017-2018
Biology	305	333	53%	57%
Business Management	17	20	24%	75%
Chemistry	165	137	60%	72%
Computer Science	11	12	46%	58%
Dance	21	30	86%	77%
English A Literature	566	516	96%	93%
English B	3	0	N/A	N/A
Film	34	17	97%	82%
French AB	5	2	N/A	N/A
French B	125	100	84%	91%
Further Mathematics	1	0	N/A	N/A
Geography	43	40	58%	88%
German B	12	28	92%	89%
History	568	470	88%	90%
Information Technology in a Global Society	28	0	96%	N/A
Italian B	14	16	93%	88%
Mathematical Studies	343	299	77%	78%
Mathematics	241	202	64%	58%
Philosophy	0	38	N/A	24%
Physics	18	16	61%	50%
Portuguese B	9	3	N/A	N/A
Psychology	282	255	87%	77%
Social and Cultural Anthropology	47	56	96%	100%
Spanish A Language & Literature	17	21	71%	71%
Spanish A Literature	3	0	N/A	N/A
Spanish AB	0	2	N/A	N/A
Spanish B	390	365	94%	96%
Sports, Exercise, and Health Science	55	58	16%	38%
Theatre	38	23	55%	57%
Visual Arts	10	10	30%	50%
World Religions	10	39	80%	87%
<b>Total, All Subjects</b>	<b>3381</b>	<b>3108</b>	<b>80%</b>	<b>80%</b>

Table 2. Number of IB Examinations Taken and Percent of Examinations Passed, by School, 2016-2017 and 2017-2018

School	# of Exams Taken		% of Exams Passed	
	2016-2017	2017-2018	2016-2017	2017-2018
Coral Gables Senior	832	908	78%	81%
Coral Reef Senior	1021	892	89%	91%
John A. Ferguson Senior	705	640	79%	78%
Miami Beach Senior	399	255	82%	88%
North Miami Senior	220	176	59%	63%
South Dade Senior	204	237	61%	40%
<b>Total, All IB Schools</b>	<b>3381</b>	<b>3108</b>	<b>80%</b>	<b>80%</b>

Table 3. Number of IB Examinations Taken and Percent of Examinations Passed, By Ethnicity, 2016-2017 and 2017-2018

		White		Black		Hispanic		Other	
		#	%	#	%	#	%	#	%
		Taken	Passed	Taken	Passed	Taken	Passed	Taken	Passed
Coral Gables Senior	2018	155	76%	27	70%	679	83%	47	79%
	2017	207	78%	12	83%	585	78%	28	75%
Coral Reef Senior	2018	181	93%	55	82%	567	91%	89	94%
	2017	194	90%	63	89%	653	89%	111	90%
John A. Ferguson Senior	2018	21	81%	31	77%	560	78%	28	82%
	2017	39	74%	17	88%	593	78%	56	82%
Miami Beach Senior	2018	145	86%	12	75%	92	93%	6	N/A
	2017	188	85%	30	67%	167	81%	13	100%
North Miami Senior	2018	0	N/A	142	59%	28	82%	2	N/A
	2017	0	N/A	168	52%	50	80%	0	N/A
South Dade Senior	2018	25	44%	34	29%	172	41%	6	N/A
	2017	36	64%	6	N/A	156	63%	0	N/A
<b>Total, All Schools</b>	<b>2018</b>	<b>527</b>	<b>83%</b>	<b>301</b>	<b>63%</b>	<b>2098</b>	<b>81%</b>	<b>178</b>	<b>87%</b>
	<b>2017</b>	<b>664</b>	<b>82%</b>	<b>296</b>	<b>64%</b>	<b>2204</b>	<b>81%</b>	<b>208</b>	<b>87%</b>

Table 4. Number and Percent of Students Receiving IB Diplomas, by School and M-DCPS Overall, 2016-2017 and 2017-2018

School	Number of Students Eligible for IB Diplomas		Number of Students Receiving IB Diplomas		Percent of Students Receiving IB Diplomas	
	2016-2017	2017-2018	2016-2017	2017-2018	2016-2017	2017-2018
Coral Gables Senior	140	150	88	124	63%	83%
Coral Reef Senior	173	148	150	133	87%	90%
John A. Ferguson Senior	120	103	89	80	74%	78%
Miami Beach Senior	66	43	48	37	73%	86%
North Miami Senior	36	31	13	15	36%	48%
South Dade Senior	33	43	16	11	49%	26%
<b>Total, All IB Schools</b>	<b>568</b>	<b>518</b>	<b>404</b>	<b>400</b>	<b>71%</b>	<b>77%</b>

### Summary

This Research Brief summarized the performance of M-DCPS students participating in the IB program. Six M-DCPS high schools offered the IB program and administered the corresponding IB examinations during the 2017-2018 school year: Coral Gables Senior, Coral Reef Senior, John A. Ferguson Senior, Miami Beach Senior, North Miami Senior, and South Dade Senior.

Over 3,300 examinations were taken by M-DCPS students in 27 subject areas in 2017-2018, although the number of IB examinations taken in M-DCPS decreased by eight percentage points from 2016-2017 to 2017-2018. The greatest number of IB examinations were taken at Coral Gables Senior and Coral Reef Senior. Districtwide, 68% of IB examinations were taken by Hispanic students, 17% were taken by White students, 10% were taken by Black students, and 6% were taken by students classified as “Other.” From 2016-2017 to 2017-2018, the percentage of examinations taken by Hispanic and Black students increased, the percentage of examinations taken by White students decreased, and the percentage of examinations taken by students classified as “Other” remained stable.

The percentage of M-DCPS IB examinations receiving passing scores remained stable at 80% from 2016-2017 to 2017-2018. Coral Reef Senior and Miami Beach Senior had the highest percentages of IB examinations receiving passing scores. From 2016-2017 to 2017-2018, the percentage of examinations receiving passing scores increased by one percentage point for White students, decreased by one percentage point for Black students, and remained stable for Hispanic students and students classified as “Other.”

Overall, 77% of M-DCPS’ eligible students received an IB diploma at the conclusion of the 2017-2018 school year. The percentage of eligible students earning an IB diploma increased by six percentage points from 2016-2017 to 2017-2018. Of the six M-DCPS IB schools, Coral Reef Senior had the highest percentage of eligible students receiving IB diplomas in 2017-2018.