



# RESEARCH BRIEF

## Research Services

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### **Miami-Dade County Public Schools: 2018-2019 Student Performance in the Cambridge Advanced International Certificate of Education Program**

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

This Research Brief summarizes the performance of Miami-Dade County Public Schools (M-DCPS) students participating in the Cambridge Advanced International Certificate of Education (AICE) Program. Cambridge courses and examinations were offered at 14 M-DCPS high schools in 2018-2019. Over 11,800 examinations were taken by M-DCPS students in 32 subject areas in 2018-2019. The number of AICE examinations taken in M-DCPS increased by 12% from 2017-2018 to 2018-2019. The District's Hispanic students took 82% of all AICE examinations in 2018-2019. Overall, the percentage of AICE examinations receiving passing scores decreased by two percentage points, from 71% in 2017-2018 to 69% in 2018-2019. From 2017-2018 to 2018-2019, the percentage of AICE examinations receiving passing scores decreased slightly for all groups of students: by 2 percentage points for White students, by 1 percentage points for Hispanic students, by 4 percentage points for Black students, and by three percentage points for students classified as "Other". At the conclusion of the 2018-2019 school year, 78% of eligible M-DCPS students received AICE diplomas, a two percentage points increase from 2017-2018.

The Cambridge Advanced International Certificate of Education (AICE) diploma program is an international curriculum and examination system that emphasizes the value of a broad and balanced study. Along with an in-depth understanding of a variety of subjects, students are also required to master a broad range of skills critical for success in university study and employment. The program emphasizes the development of higher-order thinking skills, oral skills, writing skills, problem solving, real-world applications, independent investigative skills, teamwork, and international understanding.

The AICE program provides students with flexibility in class selection, allowing them to tailor their studies to their individual interests, abilities, and future plans. Students are required to complete courses from three different subject groups, plus the core compulsory subject Global Perspectives and Research. This skills-based course challenges students to think critically, analyze evidence,

and compare perspectives. Learning is assessed through a written examination as well as a team project and presentation. The program is made up of Advanced Subsidiary (AS) Level and Advanced (A) Level courses. Cambridge AS Level courses cover the first year of the two-year A Level curriculum and count as a single credit. A Level courses cover approximately two years of college-level curriculum and count as double credit toward the AICE diploma. There are 55 Cambridge AS and A Level subjects to choose from across four subject groups: Group 1: Mathematics and Sciences; Group 2: Languages; Group 3: Arts and Humanities; and Group 4: Interdisciplinary Subjects (optional). Students must earn at least one credit from each of Groups 1, 2, and 3. A maximum of two credits can count from Group 4.

Students must earn a minimum of seven credits (including the Global Perspectives and Research course) from subject groups 1, 2, and 3 (and optionally group 4) to be awarded the AICE diploma. Students must earn at least one credit from each of Groups 1, 2, and 3. The AICE program uses a point system to award diplomas at three levels - Distinction, Merit, and Pass - based on students' coursework performance and examination scores. Students are required to demonstrate knowledge, understanding, and application. They must also show that they have acquired the skills of analysis, synthesis, and evaluation. Examinations receive passing letter grades ranging from A to E, with A being the highest. The lowest passing grade of E (or a score of 3) is equivalent to a U.S. grade of C or a 3 on an Advanced Placement examination. Performance below a grade of E receives a grade of U, ungraded, which is not considered passing. Students must receive a score of E or higher on all of their examinations in order to receive an AICE diploma.

The following 14 Miami-Dade County Public Schools (M-DCPS) high schools offered Cambridge courses and examinations in 2018-2019:

- American Senior
- G. Holmes Braddock Senior
- Center for International Education: A Cambridge Associate School
- Cutler Bay Senior
- Hialeah Gardens Senior
- Keys Gate Charter High School
- Maritime & Science Technology (MAST) Academy
- Miami Edison Senior
- Miami Killian Senior
- Miami Lakes Educational Center
- Miami Norland Senior
- Miami Springs Senior
- Ronald W. Reagan/Doral Senior
- South Miami Senior

Some M-DCPS students are not on a Cambridge diploma track but are earning college credit by taking Cambridge courses and examinations. Thirteen of the 14 M-DCPS high schools that offered Cambridge courses and examinations in 2018-2019 offered a full diploma track program and had students who were eligible for AICE diplomas. Only Miami Edison Senior, offering the Cambridge program for the first time in 2017-2018, did not offer a full diploma track program.

This Research Brief includes 2017-2018 and 2018-2019 data on the 14 M-DCPS schools that offered Cambridge courses and examinations. Tables included in this report provide data on the number of AICE examinations taken and the percentage of examinations receiving passing scores by subject area across all 14 M-DCPS Cambridge schools, by school across all subject areas, and by school and ethnicity across all subject areas. The number and percentage of M-DCPS students receiving AICE diplomas in the District and at each Cambridge school are also provided.

The reader should note that the tables in this report include only the subject area examinations taken by students at M-DCPS schools. Results are not reported if fewer than 10 examinations were taken. Similarly, diploma data are only reported when 10 or more students at a school were eligible for the AICE diploma.

### **Participation in Cambridge AICE Examinations**

- Fourteen M-DCPS schools offered Cambridge courses and examinations in 2018-2019.
- Across all M-DCPS Cambridge schools, the number of AICE examinations taken by M-DCPS students in grades 9-12 increased by 12% (from 10,512 in 2017-2018 to 11,807 in 2018-2019).
- In 2018-2019, AICE examinations were taken in 32 different subject areas. The subject areas in which the largest numbers of M-DCPS students took examinations were English Language, General Paper, and History. (General Paper is multi-disciplinary subject matter drawn from across the curriculum. The syllabus encourages candidates to make cross-curricular links; develop a maturity of thought; and achieve an understanding and usage of the English language that enables them to express arguments, ideas, and opinions in a reflective and academic manner).
- The greatest number of AICE examinations were taken at G. Holmes Braddock Senior in 2018-2019 (2,287 examinations).
- The number of AICE examinations taken increased at eight of the 14 M-DCPS schools that offered Cambridge courses in both 2017-2018 and 2018-2019. The largest increases in the number of examinations taken were at Miami Springs Senior (from 135 examinations taken in 2017-2018 to 334 examinations taken in 2018-2019, a 147% increase), American Senior (from 262 examinations taken in 2017-2018 to 421 examinations taken in 2018-2019, a 61% increase), and Hialeah Gardens Senior (from 1505 examinations taken in 2017-2018 to 2211 examinations taken in 2018-2019, a 47% increase).
- The District's Hispanic students took 82% of all AICE examinations in 2018-2019. Black and White students each took 8% of AICE examinations, and students classified as "Other" (Alaskan Native, American Indian, Asian, Pacific Islander, and Multiracial categories) took 2% of examinations.

- From 2017-2018 to 2018-2019, the percentage of AICE examinations taken by Hispanic students increased by three percentage points, the percentage of examinations taken by Black students, White students, and students classified as “Other” decreased by one percentage point.

### **Examination Results**

- Across all M-DCPS Cambridge schools, the percentage of AICE examinations receiving passing scores decreased by two percentage points, from 71% in 2017-2018 to 69% in 2018-2019.
- The 2018-2019 subject areas in which the highest percentages of AICE examinations received passing scores were Portuguese, Spanish, and Spanish Literature. The subject areas in which the lowest percentages of examinations received passing scores were Art and Design, Biology, and Business.
- Ronald W. Reagan/Doral Senior and South Miami Senior had the highest percentages of AICE examinations receiving passing scores (83% and 79% respectively) in 2018-2019.
- From 2017-2018 to 2018-2019, the percentage of AICE examinations receiving passing scores increased at six M-DCPS Cambridge schools and decreased at eight schools. The largest increase in the percentage of examinations receiving passing scores was at Cutler Bay Senior (with a 10 percentage points increase) and South Miami Senior (with a 7 percentage points increase). Miami Springs Senior had the largest decrease in the percentage of examinations receiving passing scores (a 32 percentage points decrease).
- In 2018-2019, 74% of AICE examinations taken by White students, 72% of examinations taken by Hispanic students, 40% of examinations taken by Black students, and 75% of examinations taken by students classified as “Other” received passing scores.
- From 2017-2018 to 2018-2019, the percentage of AICE examinations receiving passing scores decreased for all groups of students: by 2 percentage points for White students, by 1 percentage point for Hispanic students, by 4 percentage points for Black students, and by 3 percentage points for students classified as “Other,”

### **Diploma Results**

- Grades 11 and 12 students who were enrolled in the Cambridge full diploma track program, met all program requirements, and took the required examinations were eligible to receive AICE diplomas. Districtwide, the number of students eligible to receive AICE diplomas increased by 11% (from 585 students in 2017-2018 to 650 students in 2018-2019).
- A total of 506 M-DCPS students, or 78% of the 650 eligible M-DCPS students, received AICE diplomas at the conclusion of the 2018-2019 school year. From 2017-2018 to 2018-2019, the percentage of M-DCPS students receiving AICE diplomas increased by two percentage points (from 76% to 78%).

- Of the 13 M-DCPS schools offering full diploma track programs, the following three schools had the highest percentages of eligible students receiving AICE diplomas: Miami Springs Senior (100%), Ronald W. Reagan/Doral Senior (99%), and G. Holmes Braddock Senior (93%).
- Among the 13 M-DCPS schools with full AICE diploma track programs in both 2017-2018 and 2018-2019, the percentage of students receiving diplomas increased at seven schools, remained stable at one, and decreased at four schools. (A year-to-year comparison is not provided for Miami Norland Senior because fewer than 10 students at the school were eligible for the AICE diploma during the 2017-2018 and 2018-2019 school years).

Table 1. Number of Cambridge AICE Examinations Taken and Percentage of Examinations Passed, by Subject Area, 2017-2018 and 2018-2019, M-DCPS, All Cambridge AICE Schools Combined

Subject Area	# of Exams Taken		% of Exams Passed	
	2017-2018	2018-2019	2017-2018	2018-2019
Art and Design	29	50	28	22
Biology	260	251	25	24
Business	121	140	27	11
Chemistry	224	92	34	53
Computer Science	0	26	N/A	39
Digital Media & Design	0	26	N/A	62
Economics	233	38	22	68
English Language	1229	1451	78	77
English Literature	765	806	76	71
Environmental Management	576	727	72	68
French (A Level)	15	5	100	N/A
French Language (AS Level)	10	26	100	65
Further Mathematics	0	2	N/A	N/A
General Paper	1450	1331	93	91
Geography	0	8	N/A	N/A
Global Perspectives & Research	817	992	94	95
History	1303	1619	53	43
Information Technology	48	14	6	43
Marine Science	688	864	62	69
Mathematics	289	189	60	80
Media Studies	66	100	92	76
Music	36	4	83	N/A
Physics	134	87	57	54
Portuguese (A Level)	5	2	N/A	N/A
Portuguese Language (AS Level)	21	18	100	100
Psychology	663	894	57	48
Sociology	135	155	44	47
Spanish (A Level)	134	219	100	100
Spanish Language (AS Level)	507	662	99	98
Spanish Literature	15	11	100	100
Thinking Skills	523	758	68	69
Travel/Tourism	216	240	70	66
<b>Total, All Subjects</b>	<b>10,512</b>	<b>11,807</b>	<b>71</b>	<b>69</b>

Table 2. Number of Cambridge AICE Examinations Taken and Percentage of Examinations Passed, by School, 2017-2018 and 2018-2019

School	# of Exams Taken		% of Exams Passed	
	2017-2018	2018-2019	2017-2018	2018-2019
American Senior	262	421	63	49
Center for International Education	958	977	61	64
Cutler Bay Senior	499	438	66	76
G. Holmes Braddock Senior	2059	2287	74	78
Hialeah Gardens Senior	1505	2211	67	62
Keys Gate Charter High School	500	337	63	69
MAST Academy	1463	1598	77	75
Miami Edison Senior	33	28	9	11
Miami Killian Senior	770	735	76	72
Miami Lakes Educational Center	249	288	84	72
Miami Norland Senior	397	354	23	18
Miami Springs Senior	135	334	85	53
Ronald W. Reagan/Doral Senior	1138	1053	85	83
South Miami Senior	544	746	72	79

Table 3. Number of Cambridge AICE Examinations Taken and Percentage of Examinations Passed, By Ethnicity, 2017-2018 and 2018-2019

		White		Black		Hispanic		Other	
		# Taken	% Passed	# Taken	% Passed	# Taken	% Passed	# Taken	% Passed
American Senior	2019	11	73	133	37	262	55	15	47
	2018	7	N/A	92	51	159	69	4	N/A
G. Holmes Braddock Senior	2019	128	73	19	63	2118	79	22	82
	2018	128	66	16	75	1870	75	45	58
Center for International Education	2019	67	60	112	53	773	66	25	60
	2018	77	56	110	50	742	62	29	86
Cutler Bay Senior	2019	61	80	33	55	331	76	12	100
	2018	84	68	45	64	353	65	17	82
Hialeah Gardens Senior	2019	32	63	20	75	2138	62	19	58
	2018	21	90	14	71	1454	67	16	81
Keys Gate Charter High School	2019	54	83	60	48	210	71	13	69
	2018	39	69	100	58	351	64	10	60
MAST Academy	2019	395	75	27	78	1127	75	49	73
	2018	351	78	29	76	1027	76	56	75
Miami Edison Senior	2019	0	N/A	24	13	4	N/A	0	N/A
	2018	0	N/A	29	7	4	N/A	0	N/A
Miami Killian Senior	2019	110	71	71	65	529	74	25	68
	2018	119	85	92	58	527	76	32	88
Miami Lakes Educational Center	2019	9	N/A	57	68	215	73	7	N/A
	2018	16	88	60	77	162	85	11	100
Miami Norland Senior	2019	2	N/A	333	17	16	38	3	N/A
	2018	1	N/A	373	23	23	39	0	N/A
Miami Springs Senior	2019	25	72	8	N/A	296	51	5	N/A
	2018	11	91	2	N/A	114	85	8	N/A
Ronald W. Reagan/Doral Senior	2019	82	78	3	N/A	908	83	60	92
	2018	112	89	16	81	971	84	39	87
South Miami Senior	2019	26	77	13	77	702	79	5	N/A
	2018	19	63	12	33	511	73	2	N/A
<b>Total, All Schools</b>	<b>2019</b>	<b>1002</b>	<b>74</b>	<b>913</b>	<b>40</b>	<b>9629</b>	<b>72</b>	<b>260</b>	<b>75</b>
	<b>2018</b>	<b>985</b>	<b>76</b>	<b>990</b>	<b>44</b>	<b>8268</b>	<b>73</b>	<b>269</b>	<b>78</b>



Table 4. Number and Percent of Students Receiving Cambridge AICE Diplomas, by School and M-DCPS Overall, 2017-2018 and 2018-2019

School	Number of Students Eligible for AICE Diplomas		Number of Students Receiving AICE Diplomas		Percent of Students Receiving AICE Diplomas	
	2017-2018	2018-2019	2017-2018	2018-2019	2017-2018	2018-2019
American Senior	26	7	2	N/A	8%	57%
G. Holmes Braddock Senior	85	121	80	113	94%	93%
Center for International Education	35	61	23	49	66%	80%
Cutler Bay Senior	23	27	11	20	48%	74%
Hialeah Gardens	92	103	68	58	74%	56%
Keys Gate Charter	34	24	15	11	44%	46%
MAST Academy	99	91	83	71	84%	78%
Miami Killian Senior	35	45	28	36	80%	80%
Miami Norland Senior	4	9	N/A	N/A	N/A	67%
Miami Lakes Educational Center	35	30	24	18	69%	60%
Miami Springs Senior	12	11	11	11	92%	100%
Ronald W. Reagan/Doral Senior	85	82	83	81	98%	99%
South Miami Senior	20	39	13	28	65%	72%
<b>Total, All Cambridge AICE Schools</b>	<b>585</b>	<b>650</b>	<b>443</b>	<b>506</b>	<b>76%</b>	<b>78%</b>

Note: The number of students receiving AICE diplomas does not add up to the total because results are not reported when fewer than 10 students were eligible for the diploma.

## **Summary**

This Research Brief summarized the performance of M-DCPS students participating in the Cambridge AICE program. Cambridge courses and examinations were available at a total of 14 M-DCPS schools in 2018-2019. Over 11,800 AICE examinations were taken by M-DCPS students in 32 subject areas in 2018-2019.

The number of AICE examinations taken in M-DCPS increased by 12% from 2017-2018 to 2018-2019. The greatest number of AICE examinations was taken at G. Holmes Braddock Senior in 2018-2019. The District's Hispanic students took 82% of all AICE examinations in 2018-2019; Black and White students each took 8% of AICE examinations, and students classified as "Other" took 2% of examinations.

The percentage of M-DCPS AICE examinations receiving passing scores decreased by two percentage points, from 71% in 2017-2018 to 69% in 2018-2019. Ronald W. Reagan/Doral Senior and South Miami Senior had the highest percentages of AICE examinations receiving passing scores. Students classified as "Other" had the highest percentage of AICE examinations receiving

passing scores in 2018-2019, followed by White students, Hispanic students, and Black students. From 2017-2018 to 2018-2019, the percentage of examinations receiving passing scores decreased by two percentage points for White students, by one percentage point for Hispanic students, by four percentage points for Black students, and by three percentage points for students classified as "Other".

Overall, 78% of M-DCPS' eligible students received an AICE diploma at the conclusion of the 2018-2019 school year. The percentage of eligible students earning an AICE diploma increased by two percentage points from 2017-2018 to 2018-2019. Of the 13 M-DCPS schools offering full AICE diploma track programs, Miami Springs Senior, Ronald W. Reagan/Doral Senior, and G. Holmes Braddock Senior had the highest percentages of eligible students receiving AICE diplomas in 2018-2019.