



# RESEARCH BRIEF

## Research Services

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### MIAMI-DADE COUNTY PUBLIC SCHOOLS: 2011-2012 STUDENT PERFORMANCE IN INTERNATIONAL BACCALAUREATE AND CAMBRIDGE ADVANCED INTERNATIONAL CERTIFICATE OF EDUCATION PROGRAMS

#### At a Glance

*This Research Brief summarizes the performance of M-DCPS students participating in the International Baccalaureate (IB) and Cambridge Advanced International Certificate of Education (AICE) programs. Outcome data are provided for the 10 M-DCPS schools offering the two programs and corresponding examinations. Participation in international studies programs continues to grow, with over 4,800 examinations taken by M-DCPS students during the 2011-2012 school year. Over three-quarters (76%) of IB examinations received passing scores and 61% of Cambridge AICE examinations received passing scores. At the conclusion of the 2011-2012 school year, 66% of eligible students received IB diplomas and 66% of eligible Cambridge students received AICE diplomas.*

Beginning in the 2009-10 school year, Florida Senate Bill 1908 amended the School Performance Grade criteria for Florida's senior high schools. Half of each senior high school's performance grade is now based on FCAT scores and the other half is based on non-FCAT factors. Non-FCAT factors include the performance and participation of students in international studies programs, such as the International Baccalaureate (IB) and Cambridge Advanced International Certificate of Education (AICE) programs.

The IB and Cambridge AICE programs are rigorous pre-university curriculum and examination programs that emphasize the development of higher order thinking skills, including problem solving and creativity. The IB program provides students with a broad general education, while offering specialization in accordance with students' interests and plans. The Cambridge AICE program also provides a broad education and emphasizes a flexible curriculum that can be tailored to students' abilities, interests, and career plans. The IB and AICE diplomas are recognized at colleges and universities throughout the United States and worldwide.

This Research Brief includes a description of the IB and AICE programs and data on the 10 M-DCPS schools (six IB and four AICE) that implement these programs and administer the examinations. The number of IB and AICE examinations taken, the percentage of examinations receiving passing scores, and the number and percentage of participating students earning diplomas are provided.

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## **INTERNATIONAL BACCALAUREATE (IB) DIPLOMA PROGRAM**

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. This report focuses on the IB Diploma Program that is offered at M-DCPS senior high schools. Six M-DCPS high schools offered the IB program and administered the corresponding IB examinations during the 2011-2012 school year: Coral Gables Senior, Coral Reef Senior, John A. Ferguson Senior, Miami Beach Senior, North Miami Senior, and South Dade Senior. During the previous school year (2010-2011), Miami Beach Senior and South Dade Senior offered the IB program but had not yet begun to administer IB examinations.

The IB Diploma Program 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. Students study six courses from the following six areas: language and literature; individuals and societies; mathematics and computer science; arts; experimental sciences; and language acquisition. Three additional core requirements are designed to broaden students' educational experience: the extended essay, which requires students to engage in independent research relating to one of the subjects they are studying; a Theory of Knowledge course that encourages students to reflect on the nature of learning and different kinds of knowledge; and a Creativity, Action, Service (CAS) component that requires students to complete 150 hours of a combination of arts, athletics, and community service projects.

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. Students must earn a score of 4 or higher on each of six IB examinations (or a total of at least 24 points) in order to receive the IB diploma, subject to certain minimum levels of performance across all components of the program.

For examinations taken in foreign languages, IB course descriptions are as follows:

Course Level A1: Language is the student's native language; courses focus on developing oral and written communication skills and performing literary analysis of works of literature produced in that language.

Course Level A2: Students speak the language nearly fluently; courses concentrate on the literature and the culture of the countries where the language is spoken.

Course Level B: Students have 2-3 years of previous coursework in the language; courses focus on learning to communicate in the language in written and spoken forms.

Course Level AB: Students have no previous background in the language; courses focus on giving students basic knowledge of both the language in everyday use and the culture of the places where it is spoken.

Highlights of IB program outcomes follow. The reader should note that results are not reported if fewer than 10 examinations were taken.

### **Participation in IB Examinations**

- In 2011-2012, 2,926 IB examinations were taken in 26 content areas. The number of IB examinations taken by M-DCPS students increased by four percentage points from 2010-2011 to 2011-2012.
- Of all IB examinations taken during the 2011-2012 school year, the largest number was taken by students at Coral Reef Senior. They participated in 32% of all IB examinations. The percentages of examinations taken at each of the other five M-DCPS IB schools were as follows:
  - Coral Gables Senior: 25%
  - John A. Ferguson Senior: 22%
  - North Miami Senior: 8%
  - South Dade Senior: 8%
  - Miami Beach Senior: 5%
- Overall, the most IB examinations were taken in History, English, and Biology in 2011-2012.
- In 2011-2012, IB examinations were taken in more content areas at Coral Gables Senior and John A. Ferguson Senior (18 and 17 content areas, respectively) than at the other four IB schools (13 content areas at Coral Reef Senior, 11 content areas at North Miami Senior, 9 content areas at South Dade Senior, and 8 content areas at Miami Beach Senior).
- The number of IB examinations administered decreased at each of the four M-DCPS high schools administering IB examinations in both 2010-2011 and 2011-2012. The largest decrease in the number of examinations administered was seen at North Miami Senior (25% decrease), followed by a 14% decrease at John A. Ferguson Senior, an 8% decrease at Coral Reef Senior, and a 2% decrease at Coral Gables Senior. The number of IB examinations administered Districtwide increased because two schools (Miami Beach Senior and South Dade Senior) administered IB examinations for the first time in 2011-2012.

### **IB Exam Results**

- Overall, the percentage of IB examinations receiving passing scores decreased from 79% in 2010-2011 to 76% in 2011-2012.
- During the 2011-2012 school year, Coral Reef Senior and Miami Beach Senior had the highest percentages of IB examinations receiving passing scores (88% at each school), followed by Coral Gables Senior (71%), John A. Ferguson Senior (70%), North Miami Senior (70%), and South Dade Senior (61%).
- Of the four M-DCPS high schools that administered IB examinations in both 2010-2011 and 2011-2012, the percentages of IB examinations receiving passing scores increased at Coral Gables Senior and North Miami Senior, but decreased at John A. Ferguson Senior and Coral Reef Senior.
- Overall, the 2011-2012 content areas in which the highest percentages of IB examinations received passing scores were English, Spanish, and Social Anthropology. All Social Anthropology and Spanish Level A2 examinations received passing scores. The lowest percentages of IB examinations received passing scores in Design Technology and Physics.

## **IB Diploma Results**

- Grade 12 students who were enrolled in the IB program and met all program requirements were eligible to receive IB diplomas. Overall, the number of students eligible to receive IB diplomas increased by 5% from 2010-2011 to 2011-2012 (from 469 students in 2010-2011 to 491 students in 2011-2012).
- A total of 325 M-DCPS students, or 66% of students eligible for IB diplomas, received diplomas at the conclusion of the 2011-2012 school year.
- Overall, the percentage of IB program students receiving diplomas increased by 1% (from 65% in 2010-2011 to 66% in 2011-2012).
- Of the six IB high schools, Coral Reef Senior had the largest number of students eligible to receive IB diplomas and the greatest percentage of students receiving IB diplomas.
- Of the four M-DCPS high schools that awarded IB diplomas in both 2010-2011 and 2011-2012, three schools (Coral Gables Senior, Coral Reef Senior, and North Miami Senior) posted increases in the percentages of students receiving diplomas. The percentage of students receiving IB diplomas decreased at John A. Ferguson Senior.

IB program outcomes are presented in the tables below. Data are provided separately for each M-DCPS IB senior high school and for the six schools combined.

Table 1. Number of Students Taking IB Examinations and Percent Passing Examinations by Subject Area, 2010-2011 and 2011-2012  
**M-DCPS, All IB Schools Combined**

<b>Subject Area</b>	<b># of Tests Taken</b>		<b>% of Tests Passed</b>	
	<b>2010-2011</b>	<b>2011-2012</b>	<b>2010-2011</b>	<b>2011-2012</b>
Biology	323	369	58%	58%
Business and Management	33	25	58%	80%
Chemistry	116	122	66%	74%
Computer Science	3	1	n/a	n/a
Dance	6	8	n/a	n/a
Design Technology	38	35	79%	17%
Economics	14	11	29%	46%
English A1	461	484	95%	90%
Film	21	2	76%	n/a
French AB	3	0	n/a	n/a
French B	88	106	82%	76%
German B	25	28	88%	89%
History	451	511	81%	71%

Information Technology in a Global Society	53	24	79%	42%
Italian AB	1	0	n/a	n/a
Italian B	30	24	90%	67%
Mandarin B	0	1	n/a	n/a
Mathematical Studies	300	300	89%	82%
Mathematics	158	182	68%	68%
Music	3	4	n/a	n/a
Physics	13	13	46%	39%
Psychology	153	163	60%	74%
Social Anthropology	22	73	100%	100%
Spanish AB	8	1	n/a	n/a
Spanish A2	19	28	100%	100%
Spanish B	289	312	94%	94%
Theatre	66	38	76%	87%
Visual Arts	116	61	71%	48%
<b>Total, All Subjects</b>	<b>2,813</b>	<b>2,926</b>	<b>79%</b>	<b>76%</b>

Table 2. Number of Students Taking IB Examinations and Percent Passing Examinations by Subject Area, 2010-2011 and 2011-2012  
**Coral Gables Senior**

Subject Area	# of Tests Taken		% of Tests Passed	
	2010-2011	2011-2012	2010-2011	2011-2012
Biology	103	101	29%	33%
Business and Management	30	22	57%	86%
Chemistry	17	15	0%	27%
Computer Science	3	1	n/a	n/a
English A1	123	116	90%	85%
French B	23	31	70%	81%
German B	10	12	70%	75%
History	112	143	71%	76%
Italian B	17	6	88%	n/a
Mandarin B	0	1	n/a	n/a
Mathematical Studies	91	71	96%	96%

Mathematics	35	49	40%	39%
Music	3	4	n/a	n/a
Physics	5	10	n/a	40%
Psychology	77	71	27%	69%
Spanish A2	11	9	100%	n/a
Spanish B	68	59	93%	97%
Visual Arts	14	6	36%	n/a
<b>Total, All Subjects</b>	<b>742</b>	<b>727</b>	<b>65%</b>	<b>71%</b>

Table 3. Number of Students Taking IB Examinations and Percent Passing Examinations by Subject Area, 2010-2011 and 2011-2012  
Coral Reef Senior

Subject Area	# of Tests Taken		% of Tests Passed	
	2010-2011	2011-2012	2010-2011	2011-2012
Biology	100	112	75%	68%
Chemistry	45	93	78%	84%
English A1	170	145	100%	100%
French B	36	36	97%	92%
German B	15	16	100%	100%
History	170	145	92%	78%
Information Technology in a Global Society	53	24	79%	42%
Mathematical Studies	85	86	100%	93%
Mathematics	79	61	73%	87%
Psychology	26	20	96%	90%
Social Anthropology	22	73	100%	100%
Spanish B	112	104	100%	99%
Theatre	24	22	83%	100%
Visual Arts	81	0	73%	n/a
<b>Total, All Subjects</b>	<b>1,018</b>	<b>937</b>	<b>89%</b>	<b>88%</b>

Table 4. Number of Students Taking IB Examinations and Percent Passing  
Examinations by Subject Area, 2010-2011 and 2011-2012  
**John A. Ferguson Senior**

Subject Area	# of Tests Taken		% of Tests Passed	
	2010-2011	2011-2012	2010-2011	2011-2012
Biology	52	76	64%	74%
Business and Management	3	3	n/a	n/a
Chemistry	54	13	76%	62%
Dance	6	8	n/a	n/a
Design Technology	38	35	79%	17%
English A1	124	115	95%	89%
Film	21	2	76%	n/a
French AB	2	0	n/a	n/a
French B	21	28	91%	57%
History	124	115	80%	61%
Italian AB	1	0	n/a	n/a
Italian B	13	18	92%	72%
Mathematical Studies	80	51	91%	71%
Mathematics	42	47	83%	70%
Physics	8	3	n/a	n/a
Psychology	27	13	100%	100%
Spanish AB	8	0	n/a	n/a
Spanish A2	8	19	n/a	100%
Spanish B	70	50	94%	92%
Theatre	13	0	85%	n/a
Visual Arts	21	36	86%	42%
<b>Total, All Subjects</b>	<b>736</b>	<b>632</b>	<b>85%</b>	<b>70%</b>

Table 5. Number of Students Taking IB Examinations and Percent Passing  
Examinations by Subject Area, 2010-2011 and 2011-2012  
**Miami Beach Senior**

Subject Area	# of Tests Taken		% of Tests Passed	
	2010-2011	2011-2012	2010-2011	2011-2012
Biology	n/a	15	n/a	67%
English A1	n/a	28	n/a	100%
History	n/a	28	n/a	86%
Mathematical Studies	n/a	14	n/a	100%
Mathematics	n/a	15	n/a	100%
Psychology	n/a	14	n/a	79%
Spanish B	n/a	28	n/a	100%
Visual Arts	n/a	14	n/a	57%
<b>Total, All Subjects</b>	<b>n/a</b>	<b>156</b>	<b>n/a</b>	<b>88%</b>

Table 6. Number of Students Taking IB Examinations and Percent Passing  
Examinations by Subject Area, 2010-2011 and 2011-2012  
**North Miami Senior**

Subject Area	# of Tests Taken		% of Tests Passed	
	2010-2011	2011-2012	2010-2011	2011-2012
Biology	68	27	71%	78%
Economics	14	11	29%	46%
English A1	44	41	84%	83%
French AB	1	0	n/a	n/a
French B	8	7	n/a	n/a
History	45	41	64%	73%
Mathematical Studies	44	38	52%	61%
Mathematics	2	10	n/a	30%
Psychology	23	11	78%	82%
Spanish AB	0	1	n/a	n/a
Spanish B	39	36	80%	72%
Theatre	29	16	66%	69%
<b>Total, All Subjects</b>	<b>317</b>	<b>239</b>	<b>67%</b>	<b>70%</b>



Table 7. Number of Students Taking IB Examinations and Percent Passing  
Examinations by Subject Area, 2010-2011 and 2011-2012  
**South Dade Senior**

Subject Area	# of Tests Taken		% of Tests Passed	
	2010-2011	2011-2012	2010-2011	2011-2012
Biology	n/a	38	n/a	47%
Chemistry	n/a	1	n/a	n/a
English A1	n/a	39	n/a	69%
French B	n/a	4	n/a	n/a
History	n/a	39	n/a	49%
Mathematical Studies	n/a	40	n/a	63%
Psychology	n/a	34	n/a	59%
Spanish B	n/a	35	n/a	91%
Visual Arts	n/a	5	n/a	n/a
<b>Total, All Subjects</b>	<b>n/a</b>	<b>235</b>	<b>n/a</b>	<b>61%</b>

Table 8. Number and Percent of Students Receiving IB Diplomas,  
by School and M-DCPS Overall, 2010-2011 and 2011-2012

School	Number of Students Eligible for IB Diplomas		Number of Students Receiving IB Diplomas		Percent of Students Receiving IB Diplomas	
	2010-2011	2011-2012	2010-2011	2011-2012	2010-2011	2011-2012
Coral Gables Senior	124	117	44	63	35%	54%
Coral Reef Senior	170	145	144	131	85%	90%
John A. Ferguson Senior	127	115	95	69	75%	60%
Miami Beach Senior	0	28	0	23	n/a	82%
North Miami Senior	48	46	22	24	46%	52%
South Dade Senior	0	40	0	15	n/a	38%
<b>Total, All IB Schools</b>	<b>469</b>	<b>491</b>	<b>305</b>	<b>325</b>	<b>65%</b>	<b>66%</b>

## **CAMBRIDGE ADVANCED INTERNATIONAL CERTIFICATE OF EDUCATION (AICE)**

The AICE program is based on Britain's A Level examinations and is administered and assessed by the University of Cambridge International Examinations, a department of the University of Cambridge in the United Kingdom. The four-year curriculum progresses from two years of preparatory classes in grades 9 and 10 to participation in the AICE diploma program in grades 11 and 12. The program emphasizes the development of higher order thinking skills, oral skills, writing skills, problem solving, real word applications, independent skills, teamwork, and international understanding. AICE courses are the equivalent of those offered at the U.S. university freshman level or beyond. The AICE program is available at four M-DCPS high schools: American Senior, G. Holmes Braddock Senior, Ronald W. Reagan/Doral Senior, and Miami Lakes Educational Center, although a full diploma track program is not offered at American Senior.

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 six full-credit AICE courses and pass the corresponding examinations for each course. Within the AICE program, there are over 50 subjects from three curriculum areas: mathematics and science; languages; and arts and humanities. At least one course and examination must be from each of the three subject areas.

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 as passing. Students must receive a score of E or higher on all of their examinations in order to receive an AICE diploma. Upon successful completion of the AICE program and admission to a college or university, high school students may be awarded up to 45 hours of credit from universities throughout the U.S. and from all public universities and colleges in Florida, based on each subject and examination grade earned.

The reader should note that the tables below include only the subject area examinations taken by students at M-DCPS schools, although the AICE program offers courses and examinations in over 50 subjects. 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. Data on students receiving AICE diplomas are not provided for American Senior because the school does not offer a full diploma track program.

Highlights of Cambridge AICE program outcomes follow. Results are not reported if fewer than 10 examinations were taken.

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

- In 2011-2012, AICE examinations were taken in 20 content areas. The number of AICE examinations taken by M-DCPS students increased by seven percentage points from 2010-2011 to 2011-2012.

- Of all AICE examinations taken during the 2011-2012 school year, the largest number was taken by students at Ronald W. Reagan/Doral Senior. They participated in 44% of all AICE examinations. The percentages of examinations taken at the other three M-DCPS Cambridge schools were as follows:
  - G. Holmes Braddock Senior: 30%
  - American Senior: 17%
  - Miami Lakes Educational Center: 9%
- Overall, the most AICE examinations were taken in Thinking Skills, History, English Literature, and English Language in 2011-2012.
- In 2011-2012, AICE examinations were taken in more content areas (16) at Ronald W. Reagan/Doral Senior than at the other three M-DCPS Cambridge schools (14 content areas at G. Holmes Braddock Senior, 7 content areas at American Senior, and 6 content areas at Miami Lakes Educational Center).
- From 2010-2011 to 2011-2012, the number of AICE examinations taken increased by 30 percentage points at Ronald W. Reagan/Doral Senior, 20 percentage points at Miami Lakes Educational Center, and 16 percentage points at G. Holmes Braddock Senior. The number of AICE examinations taken at American Senior decreased by 34 percentage points.

#### **Cambridge AICE Examination Results**

- Overall, the percentage of AICE examinations receiving passing scores increased from 51% in 2010-2011 to 61% in 2011-2012.
- During the 2011-2012 school year, Miami Lakes Educational Center had the highest percentage of AICE examinations receiving passing scores (87%), followed by Ronald W. Reagan/Doral Senior (74%), G. Holmes Braddock Senior (60%), and American Senior (18%).
- From 2010-2011 to 2011-2012, the percentage of AICE examinations receiving passing scores increased at three of the four M-DCPS Cambridge high schools, but decreased slightly at American Senior.
- Overall, the 2011-2012 content areas in which the highest percentages of AICE examinations received passing scores were French Language, Spanish Language, and General Paper. Content areas in which the lowest percentages of examinations received passing scores were Biology, Chemistry, Economics, and Physics.

#### **Cambridge AICE Diploma Results**

- Grades 11 and 12 students who were enrolled in the AICE program and met all program requirements were eligible to receive AICE diplomas. Districtwide, the number of students eligible to receive AICE diplomas increased by 5% from 2010-2011 to 2011-2012 (from 112 students in 2010-2011 to 118 students in 2011-2012).
- A total of 78 M-DCPS students, or 66% of the 118 M-DCPS students eligible for Cambridge diplomas, received AICE diplomas at the conclusion of the 2011-2012 school year.
- Overall, the percentage of AICE program students receiving diplomas increased by 13 percentage points (from 53% in 2010-2011 to 66% in 2011-2012).

- Ronald W. Reagan/Doral Senior had the highest percentage of Cambridge students receiving AICE diplomas (90%), followed by Miami Lakes Educational Center (55%) and G. Holmes Braddock Senior (37%).
- From 2010-2011 to 2011-2012, Ronald W. Reagan/Doral Senior and Miami Lakes Educational Center posted increases in the percentages of AICE students receiving diplomas. The percentage of students receiving AICE diplomas decreased at G. Holmes Braddock Senior.

Cambridge AICE program outcomes are presented in the following tables. Data are provided for the four M-DCPS AICE senior high schools combined and then separately for each school.

Table 9. Number of Students Taking Cambridge AICE Examinations and Percent Passing Examinations by Subject Area, 2010-2011 and 2011-2012  
M-DCPS, All Cambridge AICE Schools Combined

Subject Area	# of Tests Taken		% of Tests Passed	
	2010-2011	2011-2012	2010-2011	2011-2012
Biology	135	56	24%	20%
Biology 2	1	45	n/a	42%
Business Studies	0	9	n/a	n/a
Chemistry	98	59	18%	31%
Chemistry 2	6	9	n/a	n/a
Economics	67	96	54%	35%
English Language	196	201	86%	78%
English Literature	255	221	47%	59%
French/French Language	25	46	100%	100%
General Paper	0	123	n/a	90%
Geography	0	34	n/a	0%
History	247	240	44%	50%
Mathematics	124	92	37%	57%
Physics	66	53	9%	36%
Physics 2	7	9	n/a	n/a
Psychology	156	109	62%	66%
Sociology	25	27	16%	52%
Spanish Literature	1	3	n/a	n/a
Spanish/Spanish Language	96	126	99%	98%

Thinking Skills	249	327	49%	66%
<b>Total, All Subjects</b>	<b>1,754</b>	<b>1,885</b>	<b>51%</b>	<b>61%</b>

Table 10. Number of Students Taking Cambridge AICE Examinations and Percent Passing by Subject Area, 2010-2011 and 2011-2012  
**American Senior High**

Subject Area	# of Tests Taken		% of Tests Passed	
	2010-2011	2011-2012	2010-2011	2011-2012
Biology	58	0	0%	n/a
Business Studies	0	9	n/a	n/a
Chemistry	43	20	0%	0%
English Language	51	56	63%	43%
English Literature	98	38	18%	21%
Geography	0	34	n/a	0%
History	65	65	8%	14%
Physics	13	0	0%	n/a
Thinking Skills	157	98	22%	17%
<b>Total, All Subjects</b>	<b>485</b>	<b>320</b>	<b>19%</b>	<b>18%</b>

Table 11. Number of Students Taking Cambridge AICE Examinations and Percent Passing Examinations by Subject Area, 2010-2011 and 2011-2012  
**G. Holmes Braddock Senior**

Subject Area	# of Tests Taken		% of Tests Passed	
	2010-2011	2011-2012	2010-2011	2011-2012
Biology	31	52	19%	14%
Chemistry	36	16	28%	75%
Economics	46	36	35%	22%
English Language	52	50	87%	78%
English Literature	85	95	65%	56%
General Paper	0	53	n/a	100%
History	52	51	25%	26%
Mathematics	65	25	9%	28%
Physics	10	9	10%	n/a
Psychology	58	35	45%	77%
Sociology	0	27	n/a	52%

Spanish Literature	1	3	n/a	n/a
Spanish/Spanish Language	31	56	97%	96%
Thinking Skills	28	65	93%	74%
<b>Total, All Subjects</b>	<b>495</b>	<b>573</b>	<b>47%</b>	<b>60%</b>

Table 12. Number of Students Taking Cambridge AICE Examinations and Percent Passing Examinations by Subject Area, 2010-2011 and 2011-2012  
**Ronald W. Reagan/Doral Senior**

Subject Area	# of Tests Taken		% of Tests Passed	
	2010-2011	2011-2012	2010-2011	2011-2012
Biology	46	4	59%	n/a
Biology 2	1	45	n/a	42%
Chemistry	19	23	42%	26%
Chemistry 2	6	9	n/a	n/a
Economics	21	60	95%	43%
English Language	64	55	98%	96%
English Literature	42	60	55%	73%
French/French Language	25	46	100%	100%
General Paper	0	70	n/a	83%
History	99	96	77%	77%
Mathematics	41	53	63%	62%
Physics	43	44	12%	36%
Physics 2	7	9	n/a	n/a
Psychology	79	57	75%	65%
Sociology	25	0	16%	n/a
Spanish/Spanish Language	65	70	100%	100%
Thinking Skills	49	120	94%	93%
<b>Total, All Subjects</b>	<b>632</b>	<b>821</b>	<b>72%</b>	<b>74%</b>

Table 13. Number of Students Taking Cambridge AICE Examinations and Percent Passing by Subject Area, 2010-2011 and 2011-2012  
Miami Lakes Educational Center

Subject Area	# of Tests Taken		% of Tests Passed	
	2010-2011	2011-2012	2010-2011	2011-2012
English Language	29	40	100%	100%
English Literature	30	28	77%	93%
History	31	28	45%	82%
Mathematics	18	14	78%	86%
Psychology	19	17	63%	47%
Thinking Skills	15	44	93%	89%
<b>Total, All Subjects</b>	<b>142</b>	<b>171</b>	<b>75%</b>	<b>87%</b>

Table 14. Number and Percent of Students Receiving Cambridge AICE Diplomas, by School and M-DCPS Overall, 2010-2011 and 2011-2012

School	Number of Students Eligible for AICE Diplomas		Number of Students Receiving AICE Diplomas		Percent of Students Receiving AICE Diplomas	
	2010-2011	2011-2012*	2010-2011	2011-2012	2010-2011	2011-2012
American Senior**	n/a	n/a	n/a	n/a	n/a	n/a
G. Holmes Braddock Senior	38	46	18	17	47%	37%
Ronald W. Reagan/Doral Senior	43	61	32	55	74%	90%
Miami Lakes Educational Center	31	11	9	6	29%	55%
<b>Total, All Cambridge AICE Schools</b>	<b>112</b>	<b>118</b>	<b>59</b>	<b>78</b>	<b>53%</b>	<b>66%</b>

Notes:

\* Computation of Number of Students Eligible for AICE Diplomas in 2011-2012 was modified to include only grades 11 and 12 students who had met all AICE program requirements.

\*\* Data on students receiving Cambridge AICE diplomas are not provided for American Senior because the school did not offer a full diploma track program.

## CONCLUSION

This Research Brief summarized the performance of M-DCPS students participating in the IB and Cambridge AICE programs. The IB and Cambridge AICE programs are rigorous pre-university curriculum and examination programs that emphasize the value of broad and balanced study. Both programs promote the development of higher order thinking skills, intercultural understanding, and independent learning.

Six M-DCPS high schools offered the IB program and administered the corresponding IB examinations during the 2011-2012 school year: Coral Gables Senior, Coral Reef Senior, John A. Ferguson Senior, Miami Beach Senior, North Miami Senior, and South Dade Senior. During the previous school year (2010-2011), Miami Beach Senior and South Dade Senior offered the IB program but had not yet begun administration of IB examinations. Four schools offered the Cambridge AICE program and administered the corresponding examinations during 2011-2012: American Senior, G. Holmes Braddock Senior, Ronald W. Reagan/Doral Senior, and Miami Lakes Educational Center. Participation in the two programs continues to grow, with the number of IB examinations taken increasing by four percentage points from 2010-2011 to 2011-2012 and the number of Cambridge AICE examinations taken increasing by seven percentage points.

Over 2,900 IB examinations were taken by M-DCPS students in 26 content areas in 2011-2012. Passing rates ranged from 61% to 88% at each of the schools, with an overall passing rate of 76% across the six schools. Coral Reef Senior and Miami Beach Senior had the highest percentages of IB examinations receiving passing scores. Overall, 66% of eligible students received IB diplomas at the conclusion of the 2011-2012 school year.

A total of 1,885 Cambridge AICE examinations were taken by M-DCPS students in 20 content areas in 2011-2012. Passing rates ranged from 18% to 87% at each of the schools, with an overall passing rate of 61% across the four participating schools. Miami Lakes Educational Center had the highest percentage of AICE examinations receiving passing scores. Overall, 66% of eligible students received Cambridge AICE diplomas at the conclusion of the 2011-2012 school year.