# THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA OFFICE OF THE SUPERINTENDENT

# DR. FRANK TILL SUPERINTENDENT OF SCHOOLS

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Approved memorandum with signatures is on file.

October 14, 2004

TO: School Board Members

FROM: Katherine Blasik, Ph.D., Associate Superintendent

Research, Evaluation, Assessment & Boundaries

VIA: Frank Till

Superintendent of Schools

SUBJECT: 2004 ACT ASSESSMENT PROGRAM

The ACT High School Profile Report with national, state, and district results was recently released by ACT, Inc. The ACT Assessment is a comprehensive, standardized college entrance exam designed to assess high school students' general educational development and their ability to complete college-level work. The ACT is a curriculum-based achievement test that measures English, Mathematics, Reading, and Science Reasoning skills deemed critical for successful college academic performance and is administered at various times throughout the year. Students elect to take the ACT based on personal preference or requirements of the college(s) of their choice.

#### Highlights of the report indicate:

- The number of Broward students participating in ACT testing in 2004 (4,418) increased by six percent over the previous year. This increase in Broward student participation in ACT testing surpasses the one percent increase statewide and contrasts with the slight decline in student participation (<1%) across the nation as compared to 2003.
- The number of Broward students participating in ACT testing increased among all ethnic groups in 2004, with the exception of Caucasian American/White students. The highest proportional growth in Broward ACT participation occurred among Puerto Rican/Hispanic students, where a 26 percent increase in student participation rate was documented in the period from 2002 to 2004. During the same time period, African American/Black student ACT participation increased by 14 percent, Mexican American/Chicano student participation increased by seven percent, and Asian American/Pacific Islander participation increased by four percent.

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- With regard to school-by-school results, of the 29 Broward high school programs with reported data for two years, over three-fifths (18) of the schools increased student participation in the ACT in 2004, as compared to 2003.
- Of the 29 Broward high school programs with two years of reported data, 21 (72%) earned higher average scores in at least one section of the ACT.
- Eight schools (Coconut Creek, College Academy, Coral Springs, Blanche Ely, Hallandale, William T. McFatter Technical, Miramar, and Stranahan) posted higher average scores this year in every subtest when compared to their 2003 performance.
- Although mean scores for Broward students were slightly lower than scores statewide and across the nation in 2004, ACT test scores in Broward County have risen steadily **in all areas** during the three-year period from 2002, demonstrating continued progress in preparing high school students for college-level work.
- In Broward County, 2004 Composite scores for African American/Black, American Indian/Alaskan Native, and Mexican American/Chicano students showed improvement over the previous year.
- Broward African American/Black and Mexican American/Chicano students' mean scores matched or surpassed their peers in the state and nationwide **in every area**.
- Puerto Rican/Hispanic students' Mathematics, Reading, Science, and Composite mean scores equaled or were greater than their counterparts statewide and across the nation.
- Nonetheless, an achievement gap continues to be noted for both African American/Black and Puerto Rican/Hispanic students' scores when compared to the performance of Caucasian American/White participants in Broward County, Florida, and across the nation.

According to ACT, the most important prerequisite for optimum performance by students on college admission tests is a sound, comprehensive educational program (ACT, Inc., 2004). These most recent ACT results speak well of Broward's efforts to increase student achievement. This memorandum and the attached report can be accessed on the Student Assessment & School Performance website located at: <a href="http://www.broward.k12.fl.us/studentassessment/reports.htm">http://www.broward.k12.fl.us/studentassessment/reports.htm</a>. If you have any questions regarding this report, please contact me at 754-321-2470 or Kimberley Kraft, Director of Student Assessment & School Performance, at 754-321-4257.

FJT/KAB/KEK:sjm Attachment

cc: Senior Management
Area Directors
Diane Carr, Executive Director, Core Curriculum
Frank Vodolo, Executive Director, Educational Programs
Cynthia Park, Director, Advanced Academic Programs
High School Principals

#### THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA



## Research, Evaluation, Assessment & Boundaries Student Assessment & School Performance

## 2004 ACT ASSESSMENT PROGRAM

The ACT Assessment is a comprehensive, standardized college entrance exam designed to assess high school students' general educational development and their ability to complete college-level work. The ACT is a curriculum-based achievement test that measures English, Mathematics, Reading, and Science Reasoning skills deemed critical for successful college academic performance and is administered at various times throughout the year. Students elect to take the ACT based on personal preference or requirements of the college(s) of their choice. The ACT Assessment yields scores in four content areas: English, Mathematics, Reading, and Science, in addition to a Composite score, all of which are reported on a scale of 1 to 36, with 36 being the highest possible score on the ACT Assessment.

Documentation from ACT, Inc. (2004) notes that the exam was taken by nearly 1.2 million graduates in the class of 2004, or four out of every 10 high school graduates throughout the nation. The test is administered in all 50 states and the District of Columbia and is the predominant college entrance exam in 25 states. However, college-bound students who take the ACT Assessment are not necessarily representative of college-bound students nationally. Students who live in the Midwest, Rocky Mountains, Plains, and the Southern regions of the country are overrepresented among ACT-tested students as compared to college-bound students nationally (ACT, Inc., 2004).

## **ACT Assessment Participation**

The results profiled in this report are based on all students who took the ACT Assessment during their sophomore, junior, or senior year, and who graduated from high school in the spring of 2004. The most recent test record is used for students testing more than once (ACT, Inc., 2004).

According to ACT Inc., the ACT Assessment is designed for those students who plan to attend college and the focus is on students who completed the recommended college preparatory courses. The recommended college core courses (as defined by ACT) include:

- English (four years or more)
  One credit each for English 9, English 10, English 11, and English 12
- Mathematics (three years or more)

One year credit each for Algebra I, Algebra II, and Geometry One-half year credit each for Trigonometry, Calculus (not Pre-calculus), and other mathematics courses beyond Algebra II, computer mathematics/computer science

• Social Sciences (three years or more)

One year credit each for American History, World History, and American Government

One-half year credit each for Economics, Geography, Psychology, and other history

• Natural Sciences (three years or more)

One year credit each for General/Physical/Earth Science, Biology, Chemistry, and Physics

#### **ACT Assessment Results**

This year, large numbers of Broward County Public Schools' students continued to take standardized, comprehensive college entrance exams. Typically students taking college admission tests have strong academic backgrounds and are applicants to the nation's most selective colleges and scholarship programs. Therefore, in some states, a limited number of college-bound seniors take the ACT. However, in Broward, all students in the district are encouraged to take college admission tests.

Caution should be used in making comparisons between state and national results. State results may differ from national results for non-educational reasons such as the demographic make-up of a state's ACT-tested graduates compared to the nation as noted in Appendix A.

Table 1 provides ACT participation rates and test results for the district, state, and the nation. As three years of data are necessary to determine data trends, results are provided for 2002 through 2004. The numbers of students, as well as their overall averages for the English, Mathematics, Reading, and Science Reasoning subtests and the Composite scores, are included.

As indicated in Table 1, the number of Broward students participating in ACT testing in 2004 (4,418) increased by six percent over the previous year. This increase in Broward student participation in ACT testing surpasses the one percent increase statewide and contrasts with the slight decline in student participation (<1%) across the nation as compared to 2003.

As displayed in Table 1, average scores in Broward County, Florida and across the nation remained relatively stable over the three-year period. Although mean scores for Broward students were slightly lower than scores statewide and across the nation in 2004, ACT test scores in Broward County have risen consistently in all areas during the three-year period shown, demonstrating continued progress in preparing high school students for college-level work.

	Table 1: Broward, Florida, and National Average ACT Scores, 2002-2004										
Year	Number	English	Mathematics	Reading	Science Reasoning	Composite					
	Broward										
2002	4,192	18.6	19.9	19.8	19.4	19.6					
2003	4,169	18.8	20.0	20.1	19.4	19.7					
2004	4,418	18.8	20.1	20.2	19.5	19.8					
			Florida								
2002	51,935	19.8	20.3	20.8	20.2	20.4					
2003	55,784	19.8	20.3	21.0	20.2	20.5					
2004	56,431	19.9	20.4	21.0	20.2	20.5					
			Nation								
2002	1,116,082	20.2	20.6	21.1	20.8	20.8					
2003	1,175,059	20.3	20.6	21.2	20.8	20.8					
2004	1,171,460	20.4	20.7	21.3	20.9	20.9					

#### **Results by Ethnicity**

Table 2 depicts Broward County's average ACT Assessment Composite scores by ethnicity for 2002 through 2004. The national ethnic categories listed in the table are those identified by ACT, Inc. As the data reflects, an increase in participation rates for most ethnic groups was demonstrated in Broward County in 2004. The highest proportional growth in Broward ACT participation occurred among Puerto Rican/Hispanic students, where a 26 percent increase in student participation rate was documented in the period from 2002 to 2004. During the same time period, African American/Black student ACT participation increased by 14 percent, Mexican American/Chicano student participation increased by seven percent, and Asian American/Pacific Islander participation increased by four percent.

As seen in Table 2, the 2004 Composite scores for African American/Black, American Indian/Alaskan Native, and Mexican American/Chicano students in Broward County showed improvement over the previous year. Composite scores for Asian American/Pacific Islander students remained stable, while Composite scores for Caucasian American/White and Puerto Rican/Hispanic students experienced a slight decline in 2004. Caution must be used when reviewing results for groups with small numbers of participating students.

Table 2: Broward Average ACT Composite Scores by Ethnicity 2002-2004									
	200	2	2003		200	4			
Ethnicity	Number	Score	Number	Score	Number	Score			
African American/Black	1,281	17.2	1,430	17.0	1,458	17.4			
American Indian/Alaskan Native	12	20.9	8	19.1	9	20.1			
Caucasian American/White	1,419	21.8	1,369	22.0	1,365	21.9			
Mexican American/Chicano	58	20.1	53	19.7	62	20.1			
Asian American/Pacific Islander	204	21.0	183	21.8	212	21.8			
Puerto Rican/Hispanic	570	19.7	605	19.8	720	19.7			

While Table 2 illustrates three years of Broward data by ethnicity, Appendix A presents the percent of test takers and the average scores by ethnicity for the district, state, and the nation in 2004 and differences in Broward ACT Composite scores by the major ethnic groups for the three year period 2001-02 through 2003-04. As indicated in Table A1, Broward student demographics by ethnicity differ somewhat from the state and the nation. Specifically, African American/Black students comprise over one-third (38%) of the ACT test-takers in Broward compared to 20 percent in Florida and 13 percent across the nation, and Puerto Rican/Hispanic students represent 19% of ACT participants in Broward versus 15% statewide and only 3% nationally.

As shown in Table A1, Broward students, in 2004, outperformed their counterparts in most areas in the state and nationwide.

- Broward African American/Black students' mean scores matched or surpassed their peers in the state and nationwide **in every area**, including the Composite scores.
- Puerto Rican/Hispanic students' Mathematics, Reading, Science, and Composite mean scores equaled or were greater than their counterparts statewide and across the nation.
- Broward Caucasian American/White students earned Mathematics, Reading, and Composite mean scores commensurate with or superior to Caucasian American/White students in the state and nationwide.
- Asian American/Pacific Islander students in Broward posted mean scores in Mathematics and Reading exceeding scores among all groups across the state and nationwide.

Broward's Caucasian American/White students matched White students' scores in Science across the state. Broward Asian American/Pacific Islander students earned higher mean scores in Science than Asian American/Pacific Islander students statewide and matched Florida Asian students' Composite scores. Broward American Indian/Alaskan Native students' English, Reading, Science, and Composite mean scores surpassed their peers nationwide.

Table A2 reports the differences between Caucasian American/White students and the two other major ethnic groups in Broward: African American/Black and Puerto Rican/Hispanic students. As seen in the table, differences still persist among Caucasian American/White and the other major ethnic groups when their ACT Composite scores are compared. While the gap between African American/Black students and Caucasian American/White students narrowed this year from the previous year by one-half point (4.5 vs. 5.0) the change in the gap over from 2001-02 through 2003-04 is one-tenth of a point. The gap between Puerto Rican/Hispanic and Caucasian American/White students remains stable for the three years.

# **Individual School Results**

Appendix B provides school-by-school average ACT results for 2002, 2003, and 2004. Only two years of data are reported for Cypress Bay High School, as this school did not have any students participating in ACT testing prior to 2003. Again, when reviewing the school-by-school results, note that students with a wide range of academic backgrounds are encouraged to take college entrance exams such as the ACT in Broward County.

A review of individual school results finds that:

- Of the 29 Broward high school programs reporting ACT participation in 2003 and 2004, over three-fifths (18) of the schools reported a higher participation rate.
- Of the 29 Broward high school programs reporting ACT scores in 2003 and 2004, 21 (72%) posted improved scores in at least one area this year.
- Eight schools (Coconut Creek, College Academy, Coral Springs, Blanche Ely, Hallandale, William T. McFatter Technical, Miramar, and Stranahan) posted higher average scores this year in **every subtest** when compared to their 2003 performance.

Data contained in *The High School Profile Report*, which is sent to every high school, must be interpreted and shared with students and their parents so that students may better understand what is required to make a successful transition to college and to further training.

#### References

ACT, Inc. (2004). www.act.org

ACT, Inc. (2004). The High School Profile Report, A Description of the Academic Abilities and Nonacademic Characteristics of Your ACT Tested 2004 Graduates, Iowa City, IA: ACT, Inc.

APPENDIX A

Table A1: Broward, Florida, and National ACT Results by Ethnicity:										
Percent of Test-Takers and Mean Scores, 2004										
					Science					
Ethnic Group	Percent	English	Mathematics	Reading	Reasoning	Composite				
	Broward									
African American/Black	38%	16.3	17.6	17.7	17.5	17.4				
American Indian/Alaskan Native	<1%	19.2	20.4	20.7	20.0	20.1				
Caucasian American/White	36%	21.2	22.1	22.5	21.3	21.9				
Mexican American/Chicano	2%	18.7	20.5	20.8	19.7	20.1				
Asian American/Pacific Islander	6%	20.3	23.5	21.7	21.4	21.8				
Puerto Rican/Hispanic	19%	18.6	20.0	20.1	19.6	19.7				
		Flor	rida							
African American/Black	20%	16.0	17.3	17.4	17.3	17.2				
American Indian/Alaskan Native	<1%	20.3	20.4	21.6	20.5	20.9				
Caucasian American/White	59%	21.4	21.5	22.5	21.3	21.8				
Mexican American/Chicano	2%	18.3	19.5	19.8	19.5	19.4				
Asian American/Pacific Islander	4%	20.7	22.9	21.6	21.3	21.8				
Puerto Rican/Hispanic	15%	18.8	19.7	20.1	19.5	19.7				
		Nat	ion							
African American/Black	13%	16.3	16.9	17.1	17.4	17.1				
American Indian/Alaskan Native	1%	17.8	18.6	19.3	19.2	18.8				
Caucasian American/White	75%	21.4	21.4	22.3	21.6	21.8				
Mexican American/Chicano	5%	17.3	18.5	18.5	18.6	18.4				
Asian American/Pacific Islander	4%	21.0	23.0	21.5	21.7	21.9				
Puerto Rican/Hispanic	3%	17.9	18.9	19.1	19.0	18.8				
Note: Percentages are based on the total number of test-takers who identified their ethnicity and, due to										

Note: Percentages are based on the total number of test-takers who identified their ethnicity and, due to rounding, may not sum to 100.

Table A2: Differences in Broward Average ACT Composite Scores by Major Ethnic Groups									
2002 Through 2004									
	2001-02	2002-03	2003-04	Change in Gap 2001-02 through 2003-04					
African American/Black	17.2	17.0	17.4						
Gap between African American/Black and Caucasian American/White	4.6	5.0	4.5	0.1					
Caucasian American/White	21.8	22.0	21.9						
Gap between Puerto Rican/Hispanic and Caucasian American/White	2.1	2.2	2.2	0.1					
Puerto Rican/Hispanic	19.7	19.8	19.7						

# APPENDIX B

Table B1:	2002-20	04 School-	by-School	Average ACT	Test Results	s for North A	rea
School	Year	Number Tested	English	Mathematics	Reading	Science Reasoning	Composite
	2002	157	16.9	17.9	17.8	18.0	17.8
Coconut Creek	2003	159	16.4	17.4	17.9	17.7	17.5
	2004	114	17.7	18.6	18.7	18.5	18.5
	2002	225	19.1	20.7	20.2	20.0	20.1
Coral Springs	2003	214	19.3	21.1	20.9	20.2	20.5
	2004	238	20.1	21.7	21.4	20.6	21.1
	2002	186	18.0	19.4	19.3	19.0	19.1
Deerfield Beach	2003	172	19.8	20.8	20.9	19.8	20.5
	2004	123	18.0	19.8	19.7	19.4	19.3
	2002	240	16.6	17.9	17.7	17.7	17.6
Blanche Ely	2003	225	15.4	17.2	17.3	16.9	16.8
	2004	244	16.5	17.7	18.2	17.7	17.7
	2002	97	16.3	17.0	17.7	17.0	17.1
Pompano Beach	2003	39	19.0	18.3	20.9	18.7	19.3
	2004	80	18.6	18.5	20.2	18.8	19.1
	2002	244	22.0	22.9	22.7	21.3	22.4
Stoneman Douglas	2003	243	21.7	22.8	23.0	21.4	22.4
	2004	232	21.4	23.1	22.3	21.4	22.2
	2002	261	21.4	22.9	22.4	21.4	22.2
Taravella	2003	240	21.3	22.9	22.3	21.5	22.1
	2004	225	21.7	23.0	22.8	21.5	22.4

Table B2: 2002-2004	Table B2: 2002-2004 School-by-School Average ACT Test Results for North Central Area									
School	Year	Number Tested	English	Mathematics	Reading	Science Reasoning	Composite			
	2002	134	16.4	18.3	18.0	17.8	17.8			
Boyd Anderson	2003	192	17.2	18.5	18.8	18.1	18.3			
	2004	160	15.7	18.1	17.4	17.7	17.3			
Callaga Agadamy at	2002	6	*	*	*	*	*			
College Academy at BCC	2003	55	22.8	23.7	23.4	22.2	23.1			
ВСС	2004	70	23.5	24.6	25.4	22.6	24.2			
William T. McFatter	2002	34	19.2	20.2	19.8	20.0	19.9			
Technical	2003	37	19.2	20.8	20.6	19.8	20.3			
Technical	2004	52	20.6	22.4	22.2	21.0	21.7			
	2002	147	17.0	18.5	18.2	18.3	18.1			
Northeast	2003	164	17.9	18.7	19.5	18.9	18.9			
	2004	178	17.9	19.2	19.4	18.6	18.9			
	2002	163	20.4	21.9	22.0	21.4	21.6			
Nova	2003	152	20.7	22.7	21.5	21.2	21.6			
	2004	146	20.6	22.1	21.8	20.9	21.5			
	2002	285	17.5	18.5	18.4	18.4	18.3			
Piper	2003	263	17.6	18.4	18.6	18.4	18.4			
	2004	273	17.4	18.4	18.9	18.3	18.3			
*No data are reported when	n fewer	than 10 stu	udents test	ed.						

Table B3: 2002-2004 School-by-School Average Test ACT Results for South Central Area											
School	Year	Number Tested	English	Mathematics	Reading	Science Reasoning	Composite				
Crimmaga Davi	2003	2	*	*	*	*	*				
Cypress Bay	2004	185	20.4	21.7	21.7	20.7	21.3				
	2002	129	15.9	17.2	17.2	17.1	16.9				
Dillard	2003	154	15.4	16.8	17.2	16.8	16.7				
	2004	137	15.9	17.4	17.1	17.3	17.1				
	2002	102	18.2	18.8	19.4	18.2	18.8				
Fort Lauderdale	2003	87	18.4	18.6	19.9	18.3	19.0				
	2004	101	17.3	18.7	18.6	17.9	18.3				
	2002	153	18.4	19.8	20.2	19.0	19.5				
Plantation	2003	158	18.4	19.5	19.5	19.4	19.3				
	2004	137	18.3	19.9	19.9	19.3	19.5				
	2002	157	18.6	19.7	20.3	19.6	19.7				
South Plantation	2003	127	18.2	18.9	19.5	18.1	18.8				
	2004	125	18.3	19.4	19.4	19.5	19.3				
	2002	189	18.3	19.6	19.7	19.5	19.5				
Stranahan	2003	135	17.5	18.6	18.2	18.3	18.2				
	2004	197	17.7	19.0	19.2	19.0	18.9				
	2002	224	20.5	22.1	21.9	21.0	21.5				
Western	2003	199	20.8	22.2	22.2	21.3	21.7				
	2004	93	20.6	21.4	22.2	20.7	21.4				
*No data are repo	rted wh	en fewer tl	han 10 stu	dents tested.							

<b>Table B4: 20</b>	Table B4: 2002-2004 School-by-School Average ACT Test Results for South Area										
School	Year	Number Tested	English	Mathematics	Reading	Science Reasoning	Composite				
	2002	158	21.3	23.0	22.5	21.4	22.2				
Cooper City	2003	208	21.3	22.8	22.8	21.6	22.3				
	2004	221	20.4	21.7	21.5	20.8	21.2				
	2002	382	19.6	20.6	21.0	20.2	20.5				
Flanagan, Charles W.	2003	340	20.2	21.3	21.0	20.2	20.8				
	2004	391	19.5	21.0	20.9	20.3	20.5				
	2002	58	16.7	17.6	17.2	16.8	17.2				
Hallandale	2003	58	16.5	17.0	16.6	17.2	17.0				
	2004	56	16.8	18.0	18.5	18.1	18.0				
	2002	84	19.6	20.6	20.2	20.0	20.2				
Hollywood Hills	2003	84	18.6	19.9	20.2	19.5	19.5				
	2004	111	18.9	20.6	20.1	20.1	20.0				
	2002	97	18.0	18.5	18.9	18.4	18.6				
McArthur	2003	101	17.6	19.3	19.3	18.5	18.8				
	2004	103	16.9	18.7	18.4	18.3	18.2				
	2002	138	16.1	17.6	17.1	17.5	17.2				
Miramar	2003	141	15.9	16.9	17.5	17.3	17.0				
	2004	151	17.4	18.5	19.3	18.1	18.4				
	2002	59	17.6	18.8	18.6	18.7	18.6				
South Broward	2003	49	18.8	19.6	20.4	19.4	19.7				
	2004	69	16.8	17.6	18.3	18.0	17.8				

Table B5: 2002-2004 School-by-School Average ACT Test Results for Charter Schools									
Charter School	Year	Number Tested	English	Mathematics	Reading	Science Reasoning	Composite		
	2002	37	18.6	17.3	19.5	19.2	18.8		
Coral Springs	2003	24	19.1	19.0	19.3	19.2	19.3		
	2004	39	20.4	18.9	21.1	20.0	20.2		
North Lauderdale	2002	33	14.7	16.3	15.3	16.2	15.7		
Academy	2003	33	15.5	15.9	17.4	16.0	16.3		
Academy	2004	32	15.3	16.8	17.4	17.7	16.9		
	2002	1	*	*	*	*	*		
Pembroke Pines	2003	93	19.4	20.2	20.5	19.7	20.0		
	2004	109	20.0	20.1	21.6	20.1	20.6		
*No data are reported when fewer than 10 students tested.									