

### Profile Report - State

**Graduating Class 2015** 

Michigan



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This report provides information about the performance of your 2015 graduating seniors who took the ACT as sophomores, juniors, or seniors; and self-reported at the time of testing that they were scheduled to graduate in 2015. Beginning with the Graduating Class of 2013, all students whose scores are college reportable, both standard and extended time tests, are now included in the report.

### This report focuses on:

Performance - student test performance in the context of college readiness

Access - number of your graduates exposed to college entrance testing and the percent of race/ethnicity participation

Course Selection - percent of students pursuing a core curriculum

Course Rigor - impact of rigorous coursework on achievement

College Readiness - percent of students meeting ACT College Readiness Benchmark Scores in each content area

Awareness - extent to which student aspirations match performance

Articulation - colleges and universities to which your students send test results

Each year, test data for a school, district, and the state represents a different cohort of students. ACT encourages educators to focus on trends (3, 5, 10 years), not year-to-year changes. Such changes can represent normal – even expected – fluctuations. On the other hand, trend lines offer more insight into what is happening in a school, district, or the state.

Furthermore, ACT encourages educators to measure student performance in the context of college readiness measures. The focus should be on the number and percentage of students who met or exceeded ACT's College Readiness Benchmark Scores, a measure that is much more meaningful and understandable than an average composite score for a group of students.

### The ACT is a curriculum-based measure of college readiness. ACT components include:

Tests of academic achievement in English, math, reading, science, and writing (optional) High school grade and course information Student Profile Section Career Interest Inventory

### The ACT:

Every few years, ACT conducts the **ACT National Curriculum Survey** to ensure its curriculum-based assessment tools accurately measure the skills high school teachers teach and instructors of entry-level college courses expect. The ACT is the only college readiness test designed to reflect the results of such a survey.

ACT's **College Readiness Standards** are sets of statements intended to help students, parents and educators understand the meaning of test scores. The standards relate test scores to the types of skills needed for success in high school and beyond. They serve as a direct link between what students have learned and what they are ready to do next. The ACT is the only college readiness test for which scores can be tied directly to standards. *Connecting College Readiness Standards to the Classroom* interpretive guides can be found at <a href="https://www.act.org/standard/infoserv.html">www.act.org/standard/infoserv.html</a>.

Only the ACT reports **College Readiness Benchmark Scores** – A benchmark score is the minimum score needed on an ACT subject-area test to indicate a 50% chance of obtaining a B or higher or about a 75% chance of obtaining a C or higher in the corresponding credit-bearing college courses, which include English Composition, Algebra, Social Science and Biology. These scores were empirically derived based on the actual performance of students in college. The College Readiness Benchmark Scores, updated in August of 2013, are:

College Course/Course Area	ACT Test	Benchmark Score
English Composition	English	18
Algebra	Mathematics	22
Social Sciences	Reading	22
Biology	Science	23

For more information, go to www.act.org

### **How to Improve Scores and Increase College Readiness**

22% of your students met all four ACT College Readiness Benchmark Scores (Table 1.1). To improve students' scores and increase the percentage of students identified as college ready, ACT suggests:

PROVIDING ACCESS FOR ALL STUDENTS TO TAKE THE ACT: 118,555 of your students are included in this report (the 'cohort'). Increasing access insures that more students have the opportunity to consider college and allows the reader to use this report to evaluate how well courses and instructional programs are preparing students for college and work.

MAKING CORE CURRICULUM A PRIORITY: Emphasize the need for all students to develop college and work ready skills, regardless of postsecondary aspirations. 73% of the students in the cohort reported taking courses that would be considered 'Core or More' (Table 1.4).

MAKING SURE STUDENTS ARE TAKING THE RIGHT KINDS OF COURSES: Table 3.2 reports 3% of the cohort took less than three years of math courses. Of these students, 7% were college ready. 18% of the cohort reported taking a course sequence of Algebra I, Algebra II, and Geometry. 10% of these students were college ready. In comparison, 44% of the students who took 3 or more years of math beyond Algebra I, Algebra II, and Geometry were college ready. Getting more students ready for Algebra prior to 9th grade will increase the chances that students will be prepared for and take advanced-level math courses.

Similarly, Table 3.2 reports 7% of the cohort took less than three years of natural science courses. 22% of these students were college ready. In comparison, 37% of students who took at least three years of science coursework were college ready.

EVALUATING RIGOR OF COURSES: Table 2.6 reports the percentage of students falling in each of the ACT College Readiness Standards score ranges. For example, approximately 58% of the cohort fall into the lowest three Mathematics score ranges. To increase these students' achievement, identify the standards they should focus on next by accessing ACT's College Readiness Standards at www.act.org/standard.

PLAN GUIDANCE ACTIVITIES BASED ON STUDENTS' CAREER AND COLLEGE ASPIRATIONS: Data in Tables 4.1 and 4.2 enable the reader to determine if aspirations are consistent with academic performance and whether among students with similar aspirations, academic performance is consistent across racial/ethnic groups.

For more information on interpreting data in this report, or to learn how ACT can help your students improve their readiness for college and the workplace, contact ACT Customer Service at 319-337-1309 or customerservices@act.org.

Code 239999 Michigan

Total Students in Report: 118,555

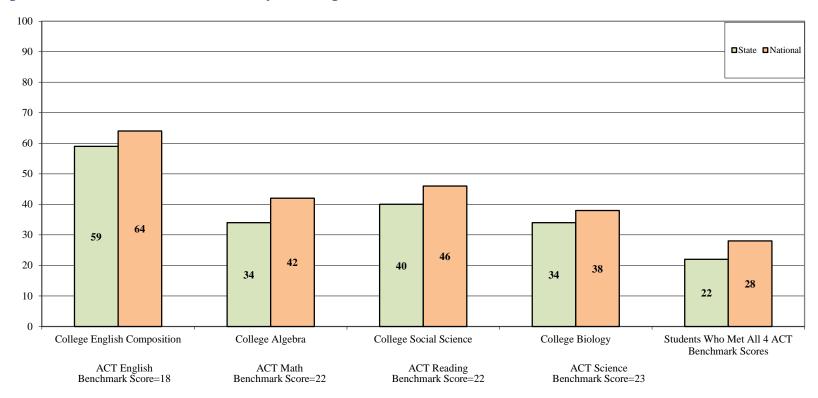
## Section I Executive Summary

Beginning in August of 2013, all students whose scores are college reportable, both standard and extended time tests, are now included.

Also beginning in August 2013 Graduating Class data, College Readiness Benchmarks for Reading and Science were updated to reflect the most recent college coursework research.

To find the results of only standard time or extended time test takers, refer to Tables 1.7 and 1.8 on page 10.

Figure 1.1. Percent of Your Students Ready for College-Level Coursework



A benchmark score is the minimum score needed on an ACT subject-area test to indicate a 50% chance of obtaining a B or higher or about a 75% chance of obtaining a C or higher in the corresponding credit-bearing college course.

Table 1.1. Five Year Trends—Percent of Students Who Met College Readiness Benchmarks

	Number o	f Students		Percent Who Met Benchmarks											
	Tes	sted	En	glish	Mathe	ematics	Reading		Science		Met All Four				
Year	State	National	State	National	State	National	State	National	State	National	State	National			
2011	116,823	1,623,112	58	66	35	45	44	52	26	30	20	25			
2012	114,727	1,666,017	59	67	36	46	45	52	26	31	21	25			
2013	120,451	1,799,243	57	64	35	44	37	44	33	36	21	26			
2014	119,990	1,845,787	59	64	35	43	36	44	33	37	22	26			
2015	118,555	1,924,436	59	64	34	42	40	46	34	38	22	28			

Table 1.2. Five Year Trends—Average ACT Scores

	Number o	f Students		Average ACT Scores										
	Tes	sted	English Mathematics Reading		ading	Science		Composite						
Year	State	National	State	State National		National	State National		State	National	State	National		
2011	116,823	1,623,112	19.3	20.6	19.9	21.1	20.1	21.3	20.3	20.9	20.0	21.1		
2012	114,727	1,666,017	19.3	20.5	20.1	21.1	20.0	21.3	20.4	20.9	20.1	21.1		
2013	120,451	1,799,243	19.1	20.2	19.9	20.9	20.0	21.1	20.2	20.7	19.9	20.9		
2014	119,990	1,845,787	19.3	20.3	19.9	20.9	20.2	21.3	20.4	20.8	20.1	21.0		
2015	118,555	1,924,436	19.4	20.4	19.9	20.8	20.3	21.4	20.4	20.9	20.1	21.0		

Table 1.3. Five Year Trends—Average ACT Scores Nationwide

	Number of Students		1	Average ACT Scores	3	
Year	Tested	English	Mathematics	Reading	Science	Composite
2011	1,623,112	20.6	21.1	21.3	20.9	21.1
2012	1,666,017	20.5	21.1	21.3	20.9	21.1
2013	1,799,243	20.2	20.9	21.1	20.7	20.9
2014	1,845,787	20.3	20.9	21.3	20.8	21.0
2015	1,924,436	20.4	20.8	21.4	20.9	21.0

Table 1.4. Five Year Trends—Average ACT Scores by Level of Preparation

									Average A	ACT Scores				
		of Students sted	Perd	cent <sup>2</sup>	Eng	glish	Mathe	ematics	Rea	ading	Sci	ence	Composite	
	Core or	Less than	Core	Less than	Core or	Less than	Core or	Less than	Core or	Less than	Core or	Less than	Core or	Less than
Year	More	Core	More	Core	More	Core	More	Core	More	Core	More	Core	More	Core
2011	88,122	21,346	75	18	20.1	16.7	20.6	18.0	20.8	18.1	21.0	18.3	20.8	17.9
2012	88,554	19,416	77	17	20.1	16.7	20.7	18.1	20.7	17.9	21.0	18.5	20.7	17.9
2013	90,038	20,819	75	17	20.1	16.5	20.6	17.9	20.8	17.8	21.0	18.2	20.7	17.7
2014	88,119	20,371	73	17	20.4	16.7	20.7	18.0	21.0	18.0	21.2	18.5	20.9	17.9
2015	86,167	19,724	73	17	20.4	16.8	20.6	18.0	21.2	18.3	21.2	18.4	21.0	18.0

<sup>&</sup>lt;sup>1</sup>"Core or More" results correspond to students taking four or more years of English AND three or more years each of math, social studies, and natural science.

Table 1.5. Five Year Trends—Percent and Average Composite Score by Race/Ethnicity

	20	2011			012		2013			2014			2015		
	N	%	Avg	N	%	Avg	N	%	Avg	N	%	Avg	N	%	Avg
All Students	116,823	100	20.0	114,727	100	20.1	120,451	100	19.9	119,990	100	20.1	118,555	100	20.1
Black/African American	16,685	14	15.9	16,048	14	16.0	15,857	13	16.0	15,824	13	16.2	15,608	13	16.3
American Indian/Alaska Native	1,008	1	18.0	731	1	17.7	704	1	17.2	716	1	17.1	698	1	17.3
White	77,846	67	21.1	75,949	66	21.1	79,066	66	20.9	78,446	65	21.0	76,536	65	21.0
Hispanic/Latino	4,684	4	18.2	6,471	6	18.2	7,245	6	18.3	7,532	6	18.3	7,808	7	18.4
Asian	2,891	2	23.3	3,012	3	23.1	3,202	3	23.1	3,357	3	23.3	3,475	3	23.5
Native Hawaiian/Other Pacific Islander	16	0	20.0	179	0	19.4	128	0	18.7	127	0	19.0	131	0	19.5
Two or more races	3,986	3	19.2	4,117	4	19.5	4,700	4	19.5	4,855	4	19.7	4,990	4	19.8
Prefer not to respond/No response	9,707	8	19.1	8,220	7	19.4	9,549	8	19.3	9,133	8	19.3	9,309	8	19.5

<sup>&</sup>lt;sup>2</sup>Percent of all students tested. Numbers will not add up to 100% due to student non-response.

Table 1.6. Percent of Students in College Readiness Standards Score Ranges



Table 1.7. Average ACT College Reportable Scores by Test Session Duration

Student Group	Test Session			Average ACT Scores								
Student Group	Duration	N	Percent	English	Mathematics	Reading	Science	Composite				
	Standard Time	108,817	92	19.8	20.2	20.7	20.7	20.5				
State	Extended Time	9,738	8	14.2	16.4	16.5	16.8	16.1				
	Total	118,555	100	19.4	19.9	20.3	20.4	20.1				
	Standard Time	1,838,433	96	20.6	21.0	21.5	21.1	21.2				
National	Extended Time	86,003	4	16.5	18.1	18.8	18.3	18.1				
	Total	1,924,436	100	20.4	20.8	21.4	20.9	21.0				

Table 1.8. Percent of Students Who Met College Readiness Benchmark Scores by Test Session Duration

Student Group	Test Session		Met			
Student Group	Duration	English	Mathematics	Reading	Science	All Four
	Standard Time	62	36	42	36	24
State	Extended Time	23	10	19	12	6
	Total	59	34	40	34	22
	Standard Time	65	43	47	39	28
National	Extended Time	38	22	32	23	16
	Total	64	42	46	38	28

### Section II Academic Achievement

Beginning with the Graduating Class of 2013, all students whose scores are college reportable, both standard and extended time tests, are now included. Also beginning with the 2013 Graduating Class data, College Readiness Benchmarks for Reading and Science were updated to reflect the most recent college coursework research.

Michigan

Total Students in Report: 118,555

Table 2.1. ACT Score Distributions, Cumulative Percentages (CP<sup>1</sup>), and Score Averages

ACT Scale	Eng	lish	Mathe	matics	Rea	ding	Scie	ence	Com	posite	ACT Scale
Score	N	СР	N	СР	N	CP	N	CP	N	CP	Score
36	219	100	408	100	779	100	526	100	77	100	36
35	1,278	100	438	100	425	99	671	100	372	100	35
34	1,316	99	919	99	1,526	99	958	99	680	100	34
33	1,811	98	744	99	2,098	98	448	98	962	99	33
32	1,732	96	1,214	98	2,429	96	1,214	98	1,316	98	32
31	1,663	95	968	97	2,315	94	1,081	97	1,670	97	31
30	1,729	93	1,195	96	2,858	92	1,435	96	1,958	96	30
29	1,795	92	1,965	95	2,685	90	1,478	95	2,419	94	29
28	2,525	90	3,009	93	2,856	87	2,740	93	3,017	92	28
27	2,896	88	4,301	91	3,172	85	2,889	91	3,575	89	27
26	3,901	86	4,471	87	3,402	82	4,992	89	4,192	86	26
25	4,748	82	5,156	83	3,642	79	6,831	84	4,743	83	25
24	5,354	78	6,366	79	4,229	76	5,989	79	5,848	79	24
23	5,419	74	5,741	74	7,157	73	9,056	74	6,256	74	23
22	6,212	69	3,690	69	8,112	67	9,163	66	6,856	69	22
21	7,400	64	5,188	66	5,843	60	7,661	58	7,661	63	21
20	7,444	58	3,978	61	8,570	55	11,314	52	7,908	56	20
19	6,654	52	6,422	58	6,136	48	7,032	42	8,278	50	19
18	5,303	46	9,646	53	5,926	42	7,088	36	8,429	43	18
17	5,254	41	11,284	44	8,245	37	5,866	30	8,226	36	17
16	6,975	37	15,591	35	5,593	30	9,854	25	7,910	29	16
15	7,732	31	14,263	22	7,939	26	5,179	17	7,353	22	15
14	5,212	25	7,784	10	4,816	19	1,863	13	6,919	16	14
13	4,530	20	2,596	3	6,930	15	4,212	11	5,888	10	13
12	3,916	16	883	1	5,624	9	3,218	8	3,967	5	12
11	4,528	13	226	1	2,084	4	2,295	5	1,632	2	11
10	4,607	9	67	1	2,191	3	1,647	3	345	1	10
9	2,705	5	17	1	522	1	1,354	2	59	1	9
8	2,415	3	8	1	45	1	294	1	21	1	8
7	937	1	10	1	260	1	128	1	15	1	7
6	215	1	5	1	101	1	39	1	2	1	6
5	92	1	0	1	29	1	7	1	1	1	5
4	20	1	1	1	1	1	18	1	0	1	4
3	13	1	0	1	10	1	2	1	0	1	3
2	3	1	0	1	4	1	11	1	0	1	2
1	2	1	1	1	1	1	2	1	0	1	1
Avg (SD)	19.4	(6.6)	19.9	(5.2)	20.3	(6.2)	20.4	(5.4)	20.1	(5.4)	Avg (SD)

<sup>1</sup>CP is the cumulative percent of students at or below a score point.

Note: Shaded portions of columns identify the students who met/exceeded the ACT College Readiness Benchmark Scores.

Michigan

Table 2.2. ACT Subscore Distributions, Cumulative Percentages (CP<sup>1</sup>), and Subscore Averages

		Eng	lish			Rea	ding				Mathem	atics			
ACT Scale	Usage/ Med	chanics	Rhetorica	l Skills	Social St Science		Arts/ Lite	rature	Pre/Elem Algeb		Algebra/ Co Geom		Plane Geo Trigonor		ACT Scale
Score	N	CP	N	CP	N	CP	N	CP	N	CP	N	CP	N	CP	Score
18	3,336	100	1,641	100	2,848	100	3,246	100	2,933	100	849	100	882	100	18
17	5,051	97	981	99	4,073	98	4,599	97	2,711	98	1,217	99	164	99	17
16	3,045	93	5,863	98	5,347	94	5,933	93	4,362	95	2,170	98	3,917	99	16
15	4,656	90	6,538	93	7,724	90	3,969	88	4,461	92	4,464	96	4,636	96	15
14	5,616	86	7,385	87	5,811	83	7,206	85	5,353	88	8,269	93	7,722	92	14
13	4,757	82	8,169	81	11,112	78	7,451	79	10,370	83	9,634	86	10,188	85	13
12	7,956	78	9,315	74	8,708	69	8,506	73	8,928	75	7,914	78	9,136	77	12
11	10,083	71	13,027	66	9,716	62	8,791	65	7,557	67	16,396	71	9,768	69	11
10	13,474	62	10,233	55	16,928	53	9,560	58	8,388	61	13,789	57	18,890	61	10
9	9,850	51	14,299	47	9,977	39	9,307	50	13,561	54	22,564	45	14,645	45	9
8	10,469	43	10,765	35	12,280	31	13,902	42	14,183	42	13,065	26	13,092	33	8
7	9,739	34	9,190	26	9,289	20	8,533	30	15,312	30	9,040	15	10,304	22	7
6	8,861	26	7,608	18	9,796	12	11,931	23	11,506	17	2,355	8	6,710	13	6
5	7,708	18	5,267	11	3,078	4	6,752	13	4,755	8	3,530	6	2,402	7	5
4	6,810	12	6,101	7	559	2	6,374	7	3,199	4	1,212	3	3,176	5	4
3	5,030	6	1,732	2	848	1	1,654	2	749	1	1,686	2	1,119	2	3
2	1,879	2	384	1	373	1	813	1	204	1	27	1	1,163	2	2
1	235	1	57	1	88	1	28	1	23	1	374	1	641	1	1
Avg (SD)	9.5 (4.	0)	10.0 (3	3.6)	10.6 (3	3.5)	9.9 (3	.9)	9.9 (3	.5)	10.2 (2	2.9)	9.9 (3	2)	Avg (SD)

<sup>&</sup>lt;sup>1</sup>CP is the cumulative percent of students at or below a score point.

**Table 2.3. ACT Score Quartile Values** 

Quartile	English	Mathematics	Reading	Science	Composite
Q3 (75th Percentile)	24	24	24	24	24
Q2 (50th Percentile)	19	18	20	20	20
Q1 (25th Percentile)	15	16	15	16	16

Table 2.4. Average ACT Composite Scores for Race/Ethnicity by Level of Preparation

Student		Number of Students	Percent Taking	Average ACT C	omposite Score
Group	Race/Ethnicity	Tested	Core or More <sup>1</sup>	Core or More	Less Than Core
	All Students	118,555	73	21.0	18.0
	Black/African American	15,608	65	17.0	15.2
	American Indian/Alaska Native	698	64	18.2	15.6
	White	76,536	77	21.7	19.0
State	Hispanic/Latino	7,808	69	19.2	16.9
	Asian	3,475	78	24.7	19.8
	Native Hawaiian/Other Pac. Isl.	131	63	20.7	18.7
	Two or more races	4,990	73	20.5	18.3
	Prefer not/No Response	9,309	56	20.7	17.1
	All Students	1,924,436	72	21.9	18.9
	Black/African American	252,566	67	17.8	15.9
	American Indian/Alaska Native	14,711	61	19.0	16.5
	White	1,057,803	76	23.2	20.2
National	Hispanic/Latino	299,920	71	19.6	17.4
	Asian	87,499	79	24.5	22.0
	Native Hawaiian/Other Pac. Isl.	6,090	62	20.3	16.5
	Two or more races	76,066	73	22.0	19.3
	Prefer not/No Response	129,781	54	22.6	18.5

<sup>&</sup>lt;sup>1</sup>"Core or More" results correspond to students taking four or more years of English AND three or more years each of math, social studies, and natural science.

Table 2.5. Average ACT Scores by Race/Ethnicity

Student						
Group	Race/Ethnicity	English	Mathematics	Reading	Science	Composite
	All Students	19.4	19.9	20.3	20.4	20.1
	Black/African American	15.1	16.4	16.4	16.8	16.3
	American Indian/Alaska Native	15.9	17.4	17.6	17.8	17.3
	White	20.4	20.7	21.3	21.3	21.0
State	Hispanic/Latino	17.3	18.2	18.7	18.9	18.4
	Asian	22.7	24.7	22.7	23.5	23.5
	Native Hawaiian/Other Pac. Isl.	18.3	19.4	19.9	19.9	19.5
	Two or more races	19.2	19.3	20.3	20.1	19.8
	Prefer not/No Response	18.6	19.3	19.7	19.6	19.5
	All Students	20.4	20.8	21.4	20.9	21.0
	Black/African American	15.9	17.2	17.4	17.3	17.1
	American Indian/Alaska Native	16.6	18.1	18.4	18.2	17.9
	White	22.1	21.9	22.9	22.2	22.4
National	Hispanic/Latino	17.8	19.1	19.2	19.0	18.9
	Asian	23.0	25.0	23.3	23.6	23.9
	Native Hawaiian/Other Pac. Isl.	17.7	19.2	18.9	18.8	18.8
	Two or more races	20.7	20.8	21.8	21.1	21.2
	Prefer not/No Response	19.9	20.5	21.1	20.5	20.6

Table 2.6. Percent of Students in College Readiness Standards (CRS) Score Ranges

Student	CRS	Eng	lish		matics	Rea	ding	Scie	ence
Group	Range	N	%	N	%	N	%	N	%
	33 to 36	4,624	4	2,509	2	4,828	4	2,603	2
	28 to 32	9,444	8	8,351	7	13,143	11	7,948	7
	24 to 27	16,899	14	20,294	17	14,445	12	20,701	17
State	20 to 23	26,475	22	18,597	16	29,682	25	37,194	31
	16 to 19	24,186	20	42,943	36	25,900	22	29,840	25
	13 to 15	17,474	15	24,643	21	19,685	17	11,254	9
	01 to 12	19,453	16	1,218	1	10,872	9	9,015	8
	33 to 36	100,774	5	54,201	3	114,663	6	62,731	3
	28 to 32	198,676	10	185,515	10	261,565	14	140,666	7
	24 to 27	303,299	16	384,130	20	281,364	15	388,063	20
National	20 to 23	444,997	23	352,854	18	463,232	24	559,967	29
	16 to 19	357,690	19	646,399	34	409,189	21	462,353	24
	13 to 15	277,710	14	283,831	15	264,288	14	200,383	10
	01 to 12	241,290	13	17,506	1	130,135	7	110,273	6

Table 2.7. Average ACT Scores by Gender

Student Group	Gender				Aver	age ACT Sco	ores	
Student Group	Gender	N	Percent	English	Mathematics	Reading	Science	Composite
	Males	58,218	49	18.8	20.2	20.0	20.5	20.0
State	Females	58,382	49	20.0	19.6	20.7	20.3	20.3
	Missing	1,955	2	17.8	18.7	19.2	19.2	18.9
	Males	895,775	47	20.0	21.3	21.2	21.3	21.1
National	Females	1,013,212	53	20.8	20.4	21.6	20.6	21.0
	Missing	15,449	1	15.7	17.7	17.6	17.5	17.3

Table 2.8. Percent of Students Who Met College Readiness Benchmark Scores by Gender

Student Croup	Gender		Per	cent of Stude	ents	Met
Student Group	Gender	English	Mathematics	Reading	Science	All Four
State	Males	55	37	39	36	24
State	Females	63	32	42	33	21
National	Males	61	46	45	42	30
National	Females	66	39	47	36	26

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Table 2.9. College Readiness Benchmark (CRB) Percent and Average ACT Scores by Overall High School Curriculum

Tubic 2.5.	Table 2.5. Conege Redunices Denominary (ORD) I crock and Average Act Cooles by Cveran riigh Concor Carriodian												
Student	Curriculum	Ν	Eng	lish	Mathe	matics	Rea	ding	Scie	ence	Comp	osite	
Group	Taken <sup>1</sup>	14	CRB %	Avg	CRB %	Avg	CRB %	Avg	CRB %	Avg	CRB % <sup>4</sup>	Avg	
	Core or More <sup>2</sup>	86,167	65	20.4	40	20.6	46	21.2	39	21.2	27	21.0	
State	Less than Core	19,724	42	16.8	20	18.0	27	18.3	20	18.4	11	18.0	
	Missing <sup>3</sup>	12,664	38	16.2	18	17.6	25	17.8	19	18.0	11	17.5	
	Core or More	1,389,338	71	21.4	49	21.7	52	22.3	44	21.8	33	21.9	
National	Less than Core	424,562	48	18.0	27	18.9	32	19.3	24	19.0	16	18.9	
	Missing	110,536	38	16.3	19	17.8	25	18.0	19	17.8	11	17.6	

<sup>&</sup>lt;sup>1</sup> "Curriculum Taken" reflects overall high school curriculum in this table.

Table 2.10. College Readiness Benchmark (CRB) Percent and Average ACT Scores by Content-Specific Curriculum

Student	Curriculum		English		Mathematics				Reading			Science		
Group	Taken <sup>1</sup>	Ν	CRB %	Avg	N	CRB %	Avg	N	CRB %	Avg	N	CRB %	Avg	
	Core or More <sup>2</sup>	96,799	63	20.1	102,870	37	20.3	99,959	43	20.8	98,163	37	20.8	
State	Less than Core	10,512	36	15.9	4,080	7	16.2	6,814	19	17.0	8,371	22	18.6	
	Missing <sup>3</sup>	11,244	39	16.4	11,605	18	17.7	11,782	25	17.9	12,021	20	18.1	
	Core or More	1,732,463	67	20.8	1,743,121	45	21.2	1,627,689	49	21.8	1,592,830	42	21.5	
National	Less than Core	93,944	36	15.9	78,951	8	16.3	194,720	34	19.5	227,926	18	18.1	
	Missing	98,029	40	16.5	102,364	20	17.8	102,027	26	18.1	103,680	20	18.0	

<sup>&</sup>lt;sup>1</sup> "Curriculum Taken" reflects content-specific curriculum in this table.

<sup>&</sup>lt;sup>2</sup> "Core or More" results correspond to students taking four or more years of English AND three or more years each of math, social studies, and natural science.

<sup>&</sup>lt;sup>3</sup> Zero years or no coursework information reported in one or more content areas.

<sup>&</sup>lt;sup>4</sup> Composite CRB% results reflect students who met all four subject-area benchmarks.

<sup>&</sup>lt;sup>2</sup> "Core or More" results correspond to students taking four or more years of English or three or more years of math, social studies, or natural science, respectively. For instance, Reading "Core or More" results correspond to students taking three or more years of social studies, regardless of courses taken in other content areas.

<sup>&</sup>lt;sup>3</sup> Zero years or no coursework information reported in the specified content area.

# Section III College Readiness and the Impact of Course Rigor

Beginning with the Graduating Class of 2013, all students whose scores are college reportable, both standard and extended time tests, are now included. Also beginning with the 2013 Graduating Class data, College Readiness Benchmarks for Reading and Science were updated to reflect the most recent college coursework research.

Figure 3.1. Percent of Students Who Met ACT College Readiness Benchmark Scores by Race/Ethnicity: ENGLISH

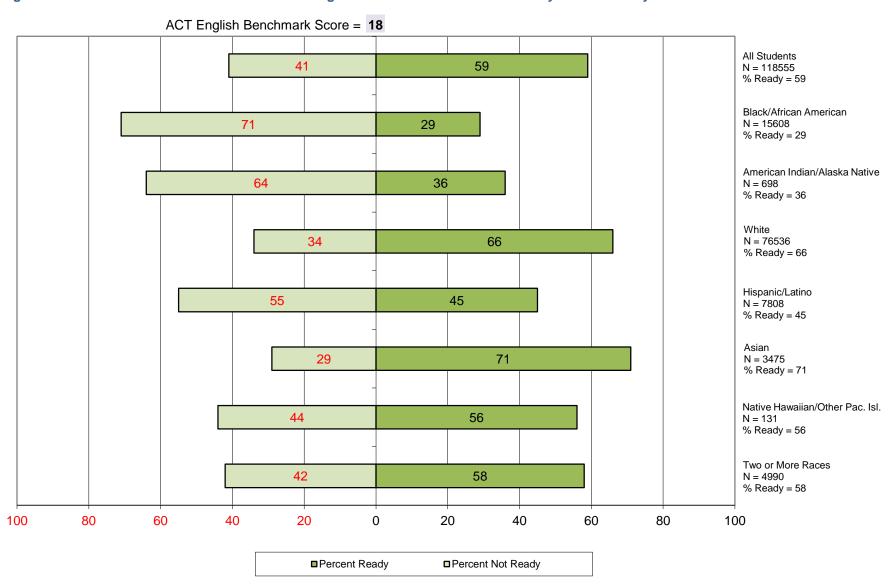


Figure 3.2. Percent of Students Who Met ACT College Readiness Benchmark Scores by Race/Ethnicity: MATHEMATICS

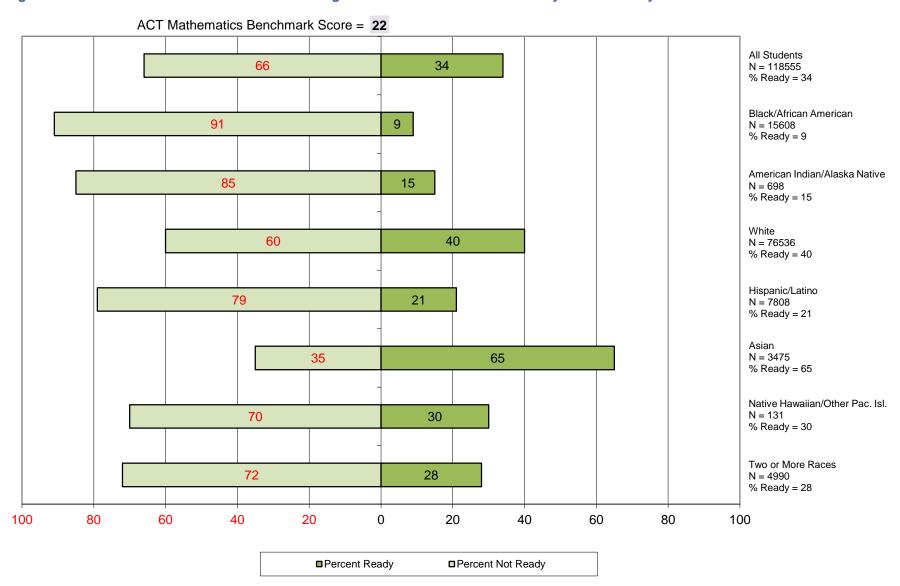


Figure 3.3. Percent of Students Who Met ACT College Readiness Benchmark Scores by Race/Ethnicity: READING

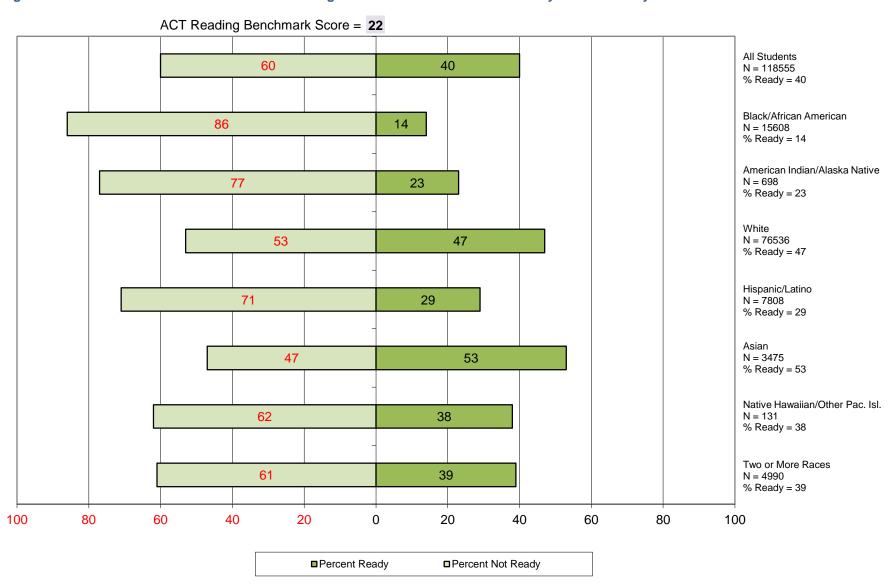


Figure 3.4. Percent of Students Who Met ACT College Readiness Benchmark Scores by Race/Ethnicity: SCIENCE

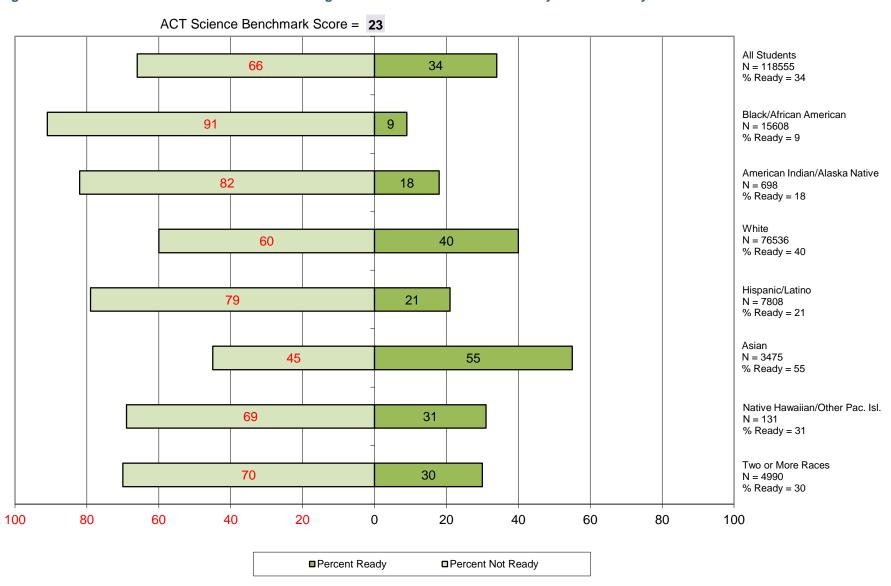


Figure 3.5. Percent of Students Who Met ACT College Readiness Benchmark Scores by Race/Ethnicity: ALL FOUR

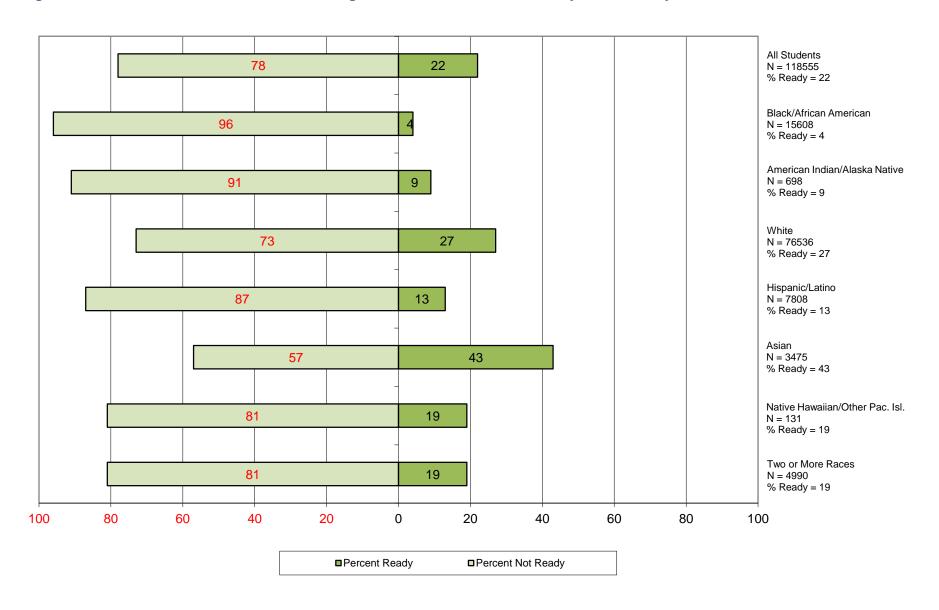


Table 3.1. Average ACT Scores and Average ACT Score Changes by Common Course Patterns												
Course Pattern		All	Students				Males			F	emales	
			ACT	Course Value			ACT	Course Value			ACT	Course Value
ENGLISH COURSE PATTERN	N	Percent	English	Added <sup>1</sup>	N	Percent	English	Added <sup>1</sup>	N	Percent	English	Added <sup>1</sup>
Eng 9, Eng 10, Eng 11, Eng 12, & Other English	22,152	19	21.8	5.9	9,377	16	21.2	5.8	12,629	22	22.3	5.7
Eng 9, Eng 10, Eng 11, Eng 12	74,647	63	19.6	3.7	37,349	64	19.2	3.8	36,605	63	20.0	3.4
Less than 4 years of English	10,512	9	15.9	=	5,759	10	15.4	-	4,552	8	16.6	-
Zero years / no English courses reported	11,244	9	16.4	-	5,733	10	15.8	-	4,596	8	16.8	-
			ACT	Course Value			ACT	Course Value			ACT	Course Value
MATHEMATICS COURSE PATTERN	N	Percent	Math	Added <sup>1</sup>	N	Percent	Math	Added <sup>1</sup>	N	Percent	Math	Added <sup>1</sup>
Alg 1, Alg 2, Geom, Trig, & Calc	5,965	5	22.0	5.8	2,899	5	22.5	6.4	3,035	5	21.5	5.2
Alg 1, Alg 2, Geom, Trig, & Other Adv Math	8,063	7	21.6	5.4	3,277	6	22.1	6.0	4,726	8	21.4	5.1
Alg 1, Alg 2, Geom, & Trig	7,520	6	18.9	2.7	3,685	6	19.2	3.1	3,758	6	18.7	2.4
Alg 1, Alg 2, Geom, & Other Adv Math	18,944	16	19.4	3.2	7,776	13	19.6	3.5	10,976	19	19.2	2.9
Other comb of 4 or more years of Math	33,535	28	22.9	6.7	17,491	30	23.5	7.4	15,846	27	22.3	6.0
Alg 1, Alg 2, & Geom	21,459	18	17.0	0.8	11,120	19	17.1	1.0	10,026	17	16.8	0.5
Other comb of 3 or 3.5 years of Math	7,384	6	18.5	2.3	3,788	7	18.9	2.8	3,516	6	18.0	1.7
Less than 3 years of Math	4,080	3	16.2	-	2,236	4	16.1	-	1,768	3	16.3	-
Zero years / no Math courses reported	11,605	10	17.7	-	5,946	10	17.7	-	4,731	8	17.4	-
			ACT	Course Value			ACT	Course Value			ACT	Course Value
SOCIAL SCIENCE COURSE PATTERN	N	Percent	Reading	Added <sup>1</sup>	N	Percent	Reading	Added <sup>1</sup>	N	Percent	Reading	Added <sup>1</sup>
US Hist, World Hist, Am Gov, & Other Hist	654	1	20.7	3.7	400	1	20.4	3.6	250	0	21.3	3.9
Other comb of 4 or more years Social Science	61,541	52	21.5	4.5	27,585	47	21.4	4.6	33,467	57	21.7	4.3
US Hist, World Hist, & Am Gov	2,436	2	18.6	1.6	1,399	2	18.4	1.6	1,003	2	18.9	1.5
Other comb of 3 or 3.5 years of Social Science	35,328	30	19.8	2.8	18,843	32	19.8	3.0	16,112	28	19.9	2.5
Less than 3 years of Social Science	6,814	6	17.0	-	3,958	7	16.8	-	2,736	5	17.4	-
Zero years / no Social Science courses reported	11,782	10	17.9	-	6,033	10	17.4	-	4,814	8	18.1	-
			ACT	Course Value			ACT	Course Value			ACT	Course Value
NATURAL SCIENCE COURSE PATTERN	N	Percent	Science	Added <sup>1</sup>	N	Percent	Science	Added <sup>1</sup>	N	Percent	Science	Added <sup>1</sup>
Gen Sci <sup>2</sup> , Bio, Chem, & Phys	45,792	39	21.3	2.7	23,707	41	21.7	3.6	21,683	37	20.9	1.7
Bio, Chem, Phys	12,098	10	22.5	3.9	6,227	11	23.0	4.9	5,782	10	22.1	2.9
Gen Sci <sup>2</sup> , Bio, Chem	34,100	29	19.9	1.3	14,507	25	19.6	1.5	19,276	33	20.1	0.9
Other comb of 3 years of Natural Science	6,173	5	19.1	0.5	3,476	6	19.3	1.2	2,605	4	18.9	-0.3
Less than 3 years of Natural Science	8,371	7	18.6	-	4,145	7	18.1	-	4,108	7	19.2	-
Zero years / no Natural Science courses reported	12,021	10	18.1	-	6,156	11	17.9	_	4,928	8	17.9	-
10 AOT	12,021		10.1		0,100		17.0		1,020		17.0	

<sup>1</sup>Course value added is defined as the average ACT score change compared to course sequences in which students took

less than four years of English or less than three years of Mathematics, Social Science or Natural Science.

<sup>&</sup>lt;sup>2</sup>Includes General, Physical and Earth Sciences.

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Total Students in Report: 118,555

Table 3.2. College Readiness Percents by Common Course Patterns

Table 3.2. College Readiness Percents by Common Course Patterns											
Course Pattern			State			i .	National				
ENGLISH COURSE PATTERN	N	Percent Taking Pattern	Avg ACT English	Percent Who Met Benchmark	N	Percent Taking Pattern	Avg ACT English	Percent Who Met Benchmark			
Eng 9, Eng 10, Eng 11, Eng 12, & Other English	22,152	19	21.8	74	373,145	19	21.7	72			
Eng 9, Eng 10, Eng 11, Eng 12	74,647	63	19.6	60	1,359,318	71	20.6	65			
Less than 4 years of English	10,512	9	15.9	36	93,944	5	15.9	36			
Zero years / no English courses reported	11,244	9	16.4	39	98,029	5	16.5	40			
MATHEMATICS COURSE DATTERN	NI	Percent Taking	Avg ACT	Percent Who Met Benchmark	NI	Percent Taking	Avg ACT	Percent Who Met			
MATHEMATICS COURSE PATTERN	N	Pattern	Math		N	Pattern	Math	Benchmark			
Alg 1, Alg 2, Geom, Trig, & Calc	5,965	5	22.0	52	123,105	6	23.5	65			
Alg 1, Alg 2, Geom, Trig, & Other Adv Math	8,063	7	21.6	52	164,036	9	21.7	53			
Alg 1, Alg 2, Geom, & Trig	7,520	6	18.9	26	123,192	6	19.1	28			
Alg 1, Alg 2, Geom, & Other Adv Math	18,944	16	19.4	30	362,476	19	19.4	30			
Other comb of 4 or more years of Math	33,535	28	22.9	59	655,589	34	23.7	64			
Alg 1, Alg 2, & Geom	21,459	18	17.0	10	219,221	11	17.1	11			
Other comb of 3 or 3.5 years of Math	7,384	6	18.5	22	95,502	5	19.8	34			
Less than 3 years of Math	4,080	3	16.2	7	78,951	4	16.3	8			
Zero years / no Math courses reported	11,605	10	17.7	18	102,364	5	17.8	20			
SOCIAL SCIENCE COURSE PATTERN	N	Percent Taking Pattern	Avg ACT Reading	Percent Who Met Benchmark	N	Percent Taking Pattern	Avg ACT Reading	Percent Who Met Benchmark			
US Hist, World Hist, Am Gov, & Other Hist	654	1	20.7	42	48,944	3	22.3	51			
Other comb of 4 or more years Social Science	61,541	52	21.5	48	942,441	49	22.3	52			
US Hist, World Hist, & Am Gov	2,436	2	18.6	28	108,348	6	19.7	35			
Other comb of 3 or 3.5 years of Social Science	35,328	30	19.8	36	527,956	27	21.4	46			
Less than 3 years of Social Science	6,814	6	17.0	19	194,720	10	19.5	34			
Zero years / no Social Science courses reported	11,782	10	17.9	25	102,027	5	18.1	26			
		Percent Taking	Avg ACT	Percent Who Met		Percent Taking	Avg ACT	Percent Who Met			
NATURAL SCIENCE COURSE PATTERN	N	Pattern	Science	Benchmark	N	Pattern	Science	Benchmark			
Gen Sci <sup>1</sup> , Bio, Chem, & Phys	45,792	39	21.3	41	807,744	42	22.2	48			
Bio, Chem, Phys	12,098	10	22.5	49	217,893	11	23.2	55			
Gen Sci <sup>1</sup> , Bio, Chem	34,100	29	19.9	29	512,754	27	20.1	30			
Other comb of 3 years of Natural Science	6,173	5	19.1	23	54,439	3	19.1	24			
Less than 3 years of Natural Science	8,371	7	18.6	22	227,926	12	18.1	18			
Zero years / no Natural Science courses reported	12,021	10	18.1	20	103,680	5	18.0	20			

<sup>&</sup>lt;sup>1</sup>Includes General, Physical and Earth Sciences.

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### Section IV Career and Educational Aspirations

Beginning with the Graduating Class of 2013, all students whose scores are college reportable, both standard and extended time tests, are now included. Also beginning with the 2013 Graduating Class data, College Readiness Benchmarks for Reading and Science were updated to reflect the most recent college coursework research.

Table 4.1. Distribution of Planned Educational Majors for All Students by College Plans

		All Students		Plan on 2	Years or Less	of College	Plan on 4	Years or More	of College
Planned Educational Major	$N^1$	Percent <sup>2</sup>	Avg ACT Comp	N	Percent <sup>2</sup>	Avg ACT Comp	N	Percent <sup>2</sup>	Avg ACT Comp
Agriculture & Natural Resources Conservation	1,719	1	18.8	412	3	16.3	1,205	1	19.9
Architecture	995	1	19.6	115	1	16.1	832	1	20.2
Area, Ethnic, & Multidisciplinary Studies	153	0	20.9	20	0	16.2	124	0	22.1
Arts: Visual & Performing	8,977	8	19.4	1,381	12	16.5	6,959	8	20.1
Business	9,825	8	20.8	966	8	16.5	8,554	10	21.3
Communications	1,960	2	20.9	155	1	16.9	1,729	2	21.3
Community, Family, & Personal Services	5,994	5	17.8	1,343	11	16.4	4,234	5	18.4
Computer Science & Mathematics	3,254	3	22.3	304	3	17.9	2,826	3	22.9
Education	4,504	4	20.3	273	2	16.1	4,079	5	20.7
Engineering	8,762	7	22.6	713	6	16.2	7,741	9	23.3
Engineering Technology & Drafting	2,442	2	19.2	519	4	16.3	1,786	2	20.2
English & Foreign Languages	1,282	1	23.1	87	1	18.0	1,123	1	23.7
Health Administration & Assisting	2,823	2	17.8	365	3	15.8	2,325	3	18.2
Health Sciences & Technologies	21,961	19	20.9	1,114	9	16.4	20,201	23	21.2
Philosophy, Religion, & Theology	454	0	21.1	32	0	18.5	386	0	21.4
Repair, Production, & Construction	2,872	2	17.3	1,318	11	16.6	1,330	2	18.1
Sciences: Biological & Physical	4,907	4	23.6	126	1	16.1	4,620	5	23.9
Social Sciences & Law	8,243	7	21.1	359	3	16.5	7,591	9	21.4
Undecided	9,398	8	21.1	952	8	16.4	7,287	8	22.0
No Response	17,328	15	17.2	987	8	14.5	1,606	2	16.6

<sup>12-</sup>Year and 4-Year "N" counts do not reflect "Missing" and "Other" college plans, therefore they may not add up to the N count for All Students.

<sup>&</sup>lt;sup>2</sup>Percent of students tested within College Plan groups (All Students, 2-Year, 4-Year).

Table 4.2. Average ACT Composite Scores for Racial/Ethnic Groups by Post-Secondary Educational Aspirations

Educational Degree	All Racial/Ethnic Groups Combined		Black/Africa	an American	American India	n/ Alaska Native	W	nite	Hispanic/Latino		
Aspirations	N	Average	N	Average	N	Average	N	Average	N	Average	
Voc-Tech	3,431	15.9	494	13.8	36	15.0	2,148	16.5	262	15.6	
2-yr College Degree	8,362	16.4	1,250	14.2	86	15.6	5,333	17.0	704	15.7	
Bachelors Degree	49,007	19.9	6,214	16.1	233	17.3	33,611	20.8	3,212	18.3	
Graduate Study	15,157	23.1	1,476	18.1	61	20.0	10,618	23.9	782	21.3	
Prof. Level Degree	22,770	22.7	3,097	18.5	106	20.3	13,983	23.6	1,440	20.9	
Other	3,207	16.9	368	14.7	40	15.6	2,024	17.4	249	15.9	
No Response	16,621	17.9	2,709	14.8	136	15.8	8,819	18.8	1,159	16.4	

Educational Degree	All Racial/Ethnic Groups Combined		Asian		Native Hawaiian/ Other Pacific Islander		Two or more races		Prefer not to respond/ No Response		
Aspirations	N	Average	N	Average	N	N Average		Average	N	Average	
Voc-Tech	3,431	15.9	63	17.2	7	16.0	114	16.1	307	15.1	
2-yr College Degree	8,362	16.4	91	16.4	6	14.0	313	16.5	579	15.7	
Bachelors Degree	49,007	19.9	1,018	20.8	51	19.9	2,027	19.3	2,641	18.9	
Graduate Study	15,157	23.1	630	25.3	8	20.8	611	22.4	971	22.3	
Prof. Level Degree	22,770	22.7	1,298	26.7	30	22.3	1,134	22.0	1,682	23.0	
Other	3,207	16.9	59	17.6	2	17.5	122	16.8	343	16.8	
No Response	16,621	17.9	316	20.1	27	17.9	669	18.1	2,786	18.4	

Table 4.3. Students' Score Report Preferences at Time of Testing											
						Percent of Students in					
			Number of Students				College Readiness Standards Ranges				
				2nd-6th							
Name	State	Total	1st Choice	Choice	01-12	13-15	16-19	20-23	24-27	28-32	33-36
MICHIGAN STATE UNIVERSITY	Michigan	33,328	12,499	20,829	3	10	22	28	23	12	2
CENTRAL MICHIGAN UNIVERSITY	Michigan	23,572	6,553	17,019	2	13	32	32	17	5	0
UNIVERSITY OF MICHIGAN-ANN ARBOR	Michigan	21,613	8,259	13,354	2	9	17	22	24	21	5
GRAND VALLEY STATE UNIVERSITY	Michigan	18,807	4,539	14,268	2	8	25	33	22	9	1
WESTERN MICHIGAN UNIVERSITY	Michigan	15,560	3,310	12,250	2	12	30	31	17	6	1
FERRIS STATE UNIVERSITY	Michigan	11,616	3,244	8,372	3	15	35	30	13	4	0
WAYNE STATE UNIVERSITY	Michigan	10,934	2,731	8,203	5	18	31	25	14	7	1
OAKLAND UNIVERSITY	Michigan	9,885	2,567	7,318	3	12	29	29	18	8	1
EASTERN MICHIGAN UNIVERSITY	Michigan	9,843	2,276	7,567	4	18	34	26	13	5	0
SAGINAW VALLEY STATE UNIVERSITY	Michigan	6,778	1,598	5,180	3	16	34	30	14	4	0
STATE-NO COLLEGE PLANS	Iowa	4,950	4,950	0	18	37	28	11	3	1	0
NORTHERN MICHIGAN UNIVERSITY	Michigan	4,897	1,518	3,379	2	11	31	32	18	6	0
GRAND RAPIDS COMMUNITY COLLEGE	Michigan	4,791	1,689	3,102	6	22	35	25	10	3	0
MICHIGAN TECHNOLOGICAL UNIVERSITY	Michigan	4,692	1,230	3,462	2	9	21	25	23	17	3
UNIVERSITY OF MICHIGAN-DEARBORN	Michigan	4,679	1,042	3,637	4	14	26	28	17	9	1
NCAA ELIGIBILITY CENTER	Indiana	3,779	1,641	2,138	3	12	30	28	18	7	1
OAKLAND COMMUNITY COLLEGE	Michigan	3,520	1,099	2,421	7	24	37	22	8	2	0
UNIVERSITY OF MICHIGAN-FLINT	Michigan	2,936	645	2,291	4	17	31	28	15	5	0
MACOMB COMMUNITY COLLEGE	Michigan	2,864	1,155	1,709	8	28	36	20	7	1	0
LANSING COMMUNITY COLLEGE	Michigan	2,834	980	1,854	7	23	38	22	10	2	0
KALAMAZOO VALLEY COMMUNITY COLLEGE	Michigan	2,519	1,033	1,486	7	22	37	23	8	3	0
DAVENPORT UNIVERSITY	Michigan	2,473	588	1,885	3	18	36	27	12	3	0
LAKE SUPERIOR STATE UNIVERSITY	Michigan	2,440	687	1,753	2	13	33	32	15	5	0
DELTA COLLEGE	Michigan	2,279	958	1,321	6	24	37	23	9	2	0
HOPE COLLEGE	Michigan	2,278	555	1,723	1	5	15	27	30	20	3
HENRY FORD COMMUNITY COLLEGE	Michigan	2,146	718	1,428	10	34	36	15	4	1	0
UNIVERSITY OF DETROIT MERCY	Michigan	2,022	384	1,638	4	15	28	26	18	7	1
SCHOOLCRAFT COLLEGE	Michigan	1,993	660	1,333	7	24	37	22	8	2	0
ADRIAN COLLEGE	Michigan	1,640	446	1,194	3	19	36	25	13	3	0
LAWRENCE TECHNOLOGICAL UNIVERSITY	Michigan	1,606	470	1,136	2	9	20	27	25	15	2
All Other Institutions		125,247	31,876	93,371	5	18	28	23	15	10	2
Total		348,521	101,900	246,621	4	15	28	26	17	9	2

## Section V Optional Writing Test Results

Beginning with the Graduating Class of 2013, all students whose scores are college reportable, both standard and extended time tests, are now included. Also beginning with the 2013 Graduating Class data, College Readiness Benchmarks for Reading and Science were updated to reflect the most recent college coursework research.

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Table 5.1. Average ACT English and Writing Scores by Race/Ethnicity and Gender for students who took ACT Writing

			Average ACT Scores							
	N		English		Essay		English/Writing Combined			
	State	National	State	National	State	National	State	National		
All Students	99,337	1,108,908	19.0	21.0	6.7	6.9	18.5	20.2		
Black/African American	13,195	136,380	14.7	16.3	5.9	6.0	14.7	15.9		
American Indian/Alaska Native	644	7,142	15.6	16.5	5.8	5.9	15.3	16.0		
White	63,129	567,060	20.0	22.8	6.9	7.1	19.4	21.8		
Hispanic/Latino	6,777	196,970	17.0	18.4	6.5	6.7	16.9	18.1		
Asian	2,917	68,736	23.0	23.9	7.3	7.6	22.1	23.0		
Native Hawaiian/Other Pac. Isl.	120	4,070	18.3	18.0	6.5	6.5	17.9	17.6		
Two or more races	4,304	45,517	18.9	21.3	6.6	6.9	18.5	20.4		
Prefer not/No Response	8,251	83,033	18.4	20.8	6.4	6.7	17.9	19.9		
Males	49,677	507,737	18.4	20.7	6.3	6.6	17.8	19.7		
Females	47,721	590,537	19.5	21.4	7.0	7.1	19.2	20.8		
Missing	1,939	10,634	17.8	16.0	6.5	5.6	17.5	15.4		