### ACT Profile Report - State

**Graduating Class 2014** 

Massachusetts



### **Table of Contents**

Percent of Your Students Ready for College-Level Coursework Five Year Trends—Percent of Students Who Met College Readiness Benchmarks Five Year Trends—Average ACT Scores Five Year Trends—Average ACT Scores by Level of Preparation Five Year Trends—Percent and Average Composite Score by Race/Ethnicity Percent of Students in College Readiness Standards Score Ranges Average ACT College Reportable Scores by Test Session Duration Percent of Students Who Met College Readiness Benchmark Scores by Test Session Duration	Page 5
Section II: Academic Achievement  ACT Score Distributions, Cumulative Percentages, Averages, and Quartile Values Average ACT Composite Scores for Race/Ethnicity by Level of Preparation Average ACT Scores by Race/Ethnicity Percent of Students in College Readiness Standards Score Ranges Average ACT Scores by Gender Percent of Students Who Met College Readiness Benchmark Scores by Gender College Readiness Benchmark Percent and Average ACT Scores by Overall High School Curriculum College Readiness Benchmark Percent and Average ACT Scores by Content-Specific Curriculum	Page 11
Section III: College Readiness & Impact of Course Rigor  Percent of Students Who Met ACT College Readiness Benchmark Scores by Race/Ethnicity  Average ACT Scores and Average ACT Score Changes by Common Course Patterns  College Readiness Percents by Common Course Patterns	Page 17
Section IV: Career and Educational Aspirations  Distribution of Planned Educational Majors for All Students by College Plans  Average ACT Composite Scores for Racial/Ethnic Groups by Post-Secondary Educational Aspirations  Students' Score Report Preferences at Time of Testing	Page 25
Section V: Optional Writing Test Results  Average ACT English and Writing Scores by Race/Ethnicity and Gender for students who took ACT Writing	Page 29

This report provides information about the performance of your 2014 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 2014. 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**

47% 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: 16,651 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. 63% 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 1% of the cohort took less than three years of math courses. Of these students, 42% were college ready. 4% of the cohort reported taking a course sequence of Algebra I, Algebra II, and Geometry. 26% of these students were college ready. In comparison, 75% 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 4% of the cohort took less than three years of natural science courses. 33% of these students were college ready. In comparison, 59% 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 20% 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 229999 Massachusetts

Total Students in Report: 16,651

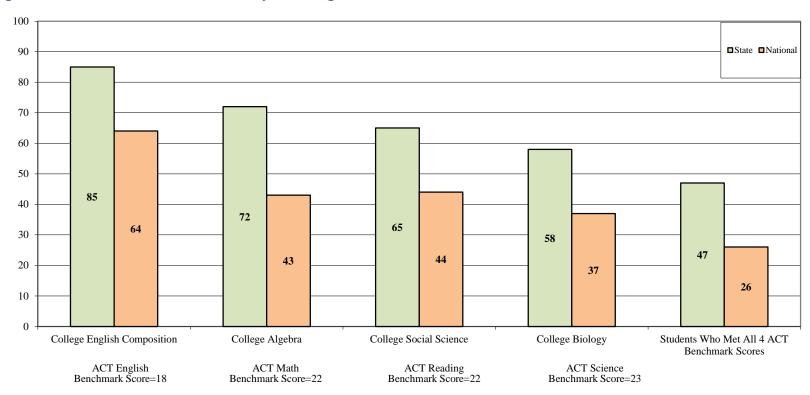
## Section I Executive Summary

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 of	of Students	Percent Who Met Benchmarks											
	Te	sted	En	glish	Mathe	Mathematics		Reading		ience	Met All Four			
Year	State	National	State	State National		National	State National		State National		State	National		
2010	14,736	1,568,835	86	66	70	43	71	52	46	29	41	24		
2011	14,975	1,623,112	86	66	73	45	74	52	47	30	43	25		
2012	15,398	1,666,017	86	67	73	46	72	52	48	31	44	25		
2013	16,058	1,799,243	84	64	72	44	66	44	55	36	46	26		
2014	16,651	1,845,787	85	64	72	43	65	44	58	37	47	26		

Table 1.2. Five Year Trends—Average ACT Scores

	Number o	of Students		Average ACT Scores											
	Te	sted	En	glish	Mathematics		Reading		Sci	ence	Composite				
Year	State	National	State	State National		National	State	State National		National	State	National			
2010	14,736	1,568,835	24.0	20.5	24.3	21.0	24.2	21.3	23.1	20.9	24.0	21.0			
2011	14,975	1,623,112	24.1	20.6	24.6	21.1	24.4	21.3	23.2	20.9	24.2	21.1			
2012	15,398	1,666,017	23.9	20.5	24.5	21.1	24.2	21.3	23.2	20.9	24.1	21.1			
2013	16,058	1,799,243	23.8	20.2	24.4	20.9	24.4	21.1	23.2	20.7	24.1	20.9			
2014	16,651	1,845,787	24.0	20.3	24.6	20.9	24.5	21.3	23.5	20.8	24.3	21.0			

Table 1.3. Five Year Trends—Average ACT Scores Nationwide

	Number of Students		Į.	Average ACT Scores		
Year	Tested	English	Mathematics	Reading	Science	Composite
2010	1,568,835	20.5	21.0	21.3	20.9	21.0
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

PAGE 8

Total Students in Report: 16,651

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 or	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
2010	9,379	5,108	64	35	24.2	23.8	24.4	24.2	24.4	23.9	23.2	22.9	24.2	23.8
2011	9,685	5,076	65	34	24.2	24.1	24.6	24.7	24.5	24.4	23.3	23.2	24.3	24.2
2012	9,840	5,373	64	35	24.1	23.7	24.6	24.3	24.4	23.9	23.4	23.0	24.2	23.9
2013	9,979	5,708	62	36	24.1	23.3	24.6	24.3	24.7	24.0	23.4	23.0	24.3	23.8
2014	10,450	5,897	63	35	24.2	23.9	24.6	24.7	24.7	24.4	23.5	23.5	24.4	24.2

<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	2010		20	2011		2012			2013			2014		
	N	%	Avg	N	%	Avg	N	%	Avg	N	%	Avg	N	%	Avg
All Students	14,736	100	24.0	14,975	100	24.2	15,398	100	24.1	16,058	100	24.1	16,651	100	24.3
Black/African American	604	4	19.2	573	4	19.4	651	4	19.2	691	4	19.0	688	4	19.2
American Indian/Alaska Native	33	0	22.5	23	0	23.8	34	0	22.3	25	0	22.9	34	0	22.4
White	11,308	77	24.3	11,460	77	24.5	11,296	73	24.3	11,633	72	24.5	11,985	72	24.6
Hispanic/Latino	503	3	20.7	675	5	21.1	819	5	21.4	844	5	21.0	953	6	21.3
Asian	788	5	25.3	836	6	25.5	1,016	7	25.1	1,054	7	25.0	1,204	7	25.4
Native Hawaiian/Other Pacific Islander	0	0		4	0	21.5	12	0	24.4	15	0	24.8	6	0	24.2
Two or more races	302	2	24.3	302	2	25.0	361	2	24.6	353	2	23.9	404	2	24.5
Prefer not to respond/No response	1,198	8	24.5	1,102	7	24.5	1,209	8	24.9	1,443	9	24.5	1,377	8	25.2

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

PAGE 9

Total Students in Report: 16,651

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				Aver	age ACT Sco	ores	
Student Group	Duration	N	Percent	English	Mathematics	Reading	Science	Composite
	Standard Time	15,803	95	24.0	24.7	24.5	23.5	24.3
State	Extended Time	848	5	23.6	23.2	25.7	23.6	24.1
	Total	16,651	100	24.0	24.6	24.5	23.5	24.3
	Standard Time	1,769,033	96	20.5	21.0	21.4	20.9	21.1
National	National Extended Time		4	16.2	17.8	18.5	18.1	17.8
	Total	1,845,787	100	20.3	20.9	21.3	20.8	21.0

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

Student Croup	Test Session		Per	cent of Stude	ents	Met
Student Group	Duration	English	Mathematics	Reading	Science	All Four
	Standard Time	85	73	65	58	47
State	Extended Time	80	60	70	57	49
	Total	85	72	65	58	47
	Standard Time	65	44	45	37	27
National	Extended Time	37	21	30	21	15
	Total	64	43	44	37	26

Code 229999 Massachusetts

Total Students in Report: 16,651

### 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.

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

ACT Scale	Eng	llish	Mathe	matics	Rea	ding	Scie	ence	Comp	oosite	ACT Scale
Score	N	CP	N	CP	N	CP	N	CP	N	CP	Score
36	128	100	189	100	266	100	260	100	28	100	36
35	514	99	316	99	356	98	275	98	188	100	35
34	616	96	486	97	636	96	337	97	350	99	34
33	558	92	432	94	714	92	284	95	450	97	33
32	491	89	389	91	869	88	315	93	468	94	32
31	495	86	441	89	779	83	472	91	685	91	31
30	774	83	542	86	829	78	399	88	761	87	30
29	607	79	1,004	83	704	73	283	86	813	82	29
28	669	75	1,122	77	688	69	612	84	938	78	28
27	824	71	1,220	70	698	65	1,175	81	1,075	72	27
26	885	66	1,368	63	795	61	839	74	1,172	65	26
25	1,101	61	1,474	55	742	56	1,442	68	1,174	58	25
24	1,226	54	1,265	46	777	51	1,361	60	1,213	51	24
23	959	47	1,034	38	1,165	47	1,527	52	1,196	44	23
22	1,119	41	738	32	819	40	1,301	42	1,135	37	22
21	1,049	34	582	28	1,390	35	1,121	35	1,021	30	21
20	948	28	567	24	806	27	1,068	28	875	24	20
19	675	22	568	21	787	22	954	22	710	19	19
18	485	18	763	18	529	17	589	16	623	14	18
17	433	15	834	13	571	14	538	12	550	11	17
16	433	13	743	8	412	10	411	9	411	7	16
15	536	10	347	3	379	8	285	7	307	5	15
14	327	7	133	1	287	6	248	5	229	3	14
13	213	5	58	1	281	4	169	3	118	2	13
12	153	4	21	1	163	2	134	2	89	1	12
11	150	3	10	1	122	1	97	2	44	1	11
10	105	2	2	1	39	1	79	1	14	1	10
9	82	1	2	1	22	1	29	1	12	1	9
8	51	1	0	1	4	1	22	1	2	1	8
7	23	1	0	1	12	1	8	1	0	1	7
6	14	1	0	1	3	1	8	1	0	1	6
5	5	1	0	1	3	1	3	1	0	1	5
4	3	1	1	1	2	1	3	1	0	1	4
3	0	1	0	1	1	1	3	1	0	1	3
2	0	1	0	1	1	1	0	1	0	1	2
1	0	1	0	1	0	1	0	1	0	1	1
Avg (SD)	24.0	(6.2)	24.6	(5.3)	24.5	(6.2)	23.5 (5.4) 24.3 (5.2)		(5.2)	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.

Massachusetts

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

	ACT Subs	Engl					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	1,494	100	435	100	881	100	1,203	100	1,530	100	378	100	427	100	18
17	1,751	91	604	97	1,600	95	1,973	93	1,488	91	610	98	297	97	17
16	1,145	81	1,301	94	1,695	85	1,713	81	1,764	82	932	94	1,554	96	16
15	1,274	74	1,996	86	1,062	75	1,237	71	1,645	71	1,801	88	2,019	86	15
14	998	66	1,905	74	1,764	69	1,214	63	1,749	61	2,361	78	1,844	74	14
13	1,544	60	1,974	63	1,635	58	1,493	56	1,930	51	2,283	63	2,311	63	13
12	1,457	51	1,923	51	1,418	48	1,740	47	1,894	39	2,520	50	1,778	49	12
11	1,613	42	1,816	39	1,409	40	1,317	37	985	28	1,313	35	2,071	39	11
10	1,519	32	1,389	28	1,494	31	1,079	29	876	22	1,927	27	1,587	26	10
9	1,229	23	1,184	20	1,022	22	1,423	22	919	17	900	15	1,256	17	9
8	771	16	906	13	1,243	16	720	14	853	11	776	10	674	9	8
7	600	11	422	7	614	9	622	9	643	6	373	5	364	5	7
6	535	8	306	5	418	5	362	6	229	2	251	3	224	3	6
5	386	4	267	3	224	2	361	3	90	1	99	1	98	1	5
4	181	2	143	1	77	1	129	1	33	1	56	1	55	1	4
3	96	1	63	1	41	1	50	1	14	1	57	1	48	1	3
2	53	1	17	1	33	1	13	1	8	1	5	1	29	1	2
1	5	1	0	1	21	1	2	1	1	1	9	1	15	1	1
Avg (SD)	12.4 (3	.8)	12.2 (	3.1)	12.4 (3.5) 12.7 (3.6)		13.2 (3.3) 12.3 (2.8)			2.8)	12.3 (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)	29	28	30	27	28
Q2 (50th Percentile)	24	25	24	23	24
Q1 (25th Percentile)	20	21	20	20	21

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	16,651	63	24.4	24.2
	Black/African American	688	55	19.3	19.1
	American Indian/Alaska Native	34	76	22.2	22.3
	White	11,985	65	24.5	24.7
State	Hispanic/Latino	953	54	22.0	20.7
	Asian	1,204	55	25.7	25.1
	Native Hawaiian/Other Pac. Isl.	6	67	25.3	22.0
	Two or more races	404	61	24.3	24.9
	Prefer not/No Response	1,377	58	25.8	25.3
	All Students	1,845,787	73	21.8	18.9
	Black/African American	241,678	68	17.6	15.7
	American Indian/Alaska Native	14,263	62	19.0	16.5
	White	1,038,435	76	23.1	20.2
National	Hispanic/Latino	281,216	71	19.5	17.3
	Asian	80,370	79	24.2	21.6
	Native Hawaiian/Other Pac. Isl.	5,676	65	20.0	16.6
	Two or more races	70,013	74	22.0	19.2
	Prefer not/No Response	114,136	56	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	24.0	24.6	24.5	23.5	24.3
	Black/African American	18.2	20.0	19.4	18.6	19.2
	American Indian/Alaska Native	21.6	22.7	22.6	21.9	22.4
	White	24.4	24.8	24.9	23.8	24.6
State	Hispanic/Latino	20.7	21.6	21.7	20.9	21.3
	Asian	24.6	27.5	24.4	24.7	25.4
	Native Hawaiian/Other Pac. Isl.	24.0	24.5	22.8	25.0	24.2
	Two or more races	24.5	24.3	25.0	23.7	24.5
	Prefer not/No Response	25.2	25.2	25.8	24.1	25.2
	All Students	20.3	20.9	21.3	20.8	21.0
	Black/African American	15.8	17.2	17.3	17.0	17.0
	American Indian/Alaska Native	16.6	18.1	18.4	18.3	18.0
	White	22.0	22.0	22.8	22.1	22.3
National	Hispanic/Latino	17.7	19.2	19.1	18.8	18.8
	Asian	22.8	24.9	22.8	23.2	23.5
	Native Hawaiian/Other Pac. Isl.	17.5	19.2	18.7	18.6	18.6
	Two or more races	20.6	20.9	21.7	21.0	21.2
	Prefer not/No Response	20.0	20.7	21.1	20.5	20.7

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

Student	CRS		lish		matics	Read	ding	Scie	ence
Group	Range	N	%	N	%	N	%	N	%
	33 to 36	1,816	11	1,423	9	1,972	12	1,156	7
	28 to 32	3,036	18	3,498	21	3,869	23	2,081	12
	24 to 27	4,036	24	5,327	32	3,012	18	4,817	29
State	20 to 23	4,075	24	2,921	18	4,180	25	5,017	30
	16 to 19	2,026	12	2,908	17	2,299	14	2,492	15
	13 to 15	1,076	6	538	3	947	6	702	4
	01 to 12	586	4	36	0	372	2	386	2
	33 to 36	92,922	5	55,103	3	97,714	5	55,222	3
	28 to 32	185,768	10	174,260	9	257,722	14	128,357	7
	24 to 27	302,723	16	383,630	21	263,034	14	367,160	20
National	20 to 23	431,178	23	336,283	18	445,726	24	542,581	29
	16 to 19	330,518	18	616,601	33	409,685	22	448,064	24
	13 to 15	264,127	14	266,401	14	240,948	13	186,262	10
	01 to 12	238,551	13	13,509	1	130,958	7	118,141	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	7,403	44	23.8	25.4	24.3	24.1	24.5
State	Females	9,248	56	24.2	24.0	24.7	23.0	24.1
	Missing	0	0					
	Males	856,651	46	20.0	21.4	21.1	21.2	21.1
National	Females	977,127	53	20.7	20.5	21.5	20.5	20.9
	Missing	12,009	1	15.7	17.8	17.3	17.4	17.2

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

Student Group	Gender		Per	cent of Stude	ents	Met
Student Group	Gender	English	Mathematics	Reading	Science	All Four
State	Males	84	76	64	62	50
State	Females	86	69	66	54	45
National	Males	62	47	43	40	29
National	Females	66	40	45	34	25

PAGE 16

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

Student	Curriculum		Eng	lish	Mathe	matics	Rea	ding	Scie	ence	Comp	osite
Group	Taken <sup>1</sup>	N	CRB %	Avg	CRB %	Avg	CRB %	Avg	CRB %	Avg	CRB % <sup>4</sup>	Avg
	Core or More <sup>2</sup>	10,450	86	24.2	73	24.6	67	24.7	58	23.5	48	24.4
State	Less than Core	5,897	83	23.9	72	24.7	63	24.4	57	23.5	47	24.2
	Missing <sup>3</sup>	304	72	21.8	45	21.5	58	23.4	45	22.2	34	22.3
	Core or More	1,347,997	71	21.4	50	21.7	50	22.2	42	21.6	31	21.8
National	Less than Core	405,073	48	17.9	27	18.9	30	19.2	23	18.9	15	18.9
	Missing	92,717	36	16.0	18	17.7	23	17.7	16	17.6	10	17.4

<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		N	Mathematics			Reading			Science		
Group	Taken <sup>1</sup>	N	CRB %	Avg	N	CRB %	Avg	N	CRB %	Avg	N	CRB %	Avg	
	Core or More <sup>2</sup>	16,121	85	24.1	16,176	73	24.7	10,914	66	24.6	15,728	59	23.6	
State	Less than Core	235	69	21.5	179	42	21.4	5,442	64	24.6	626	33	20.5	
	Missing <sup>3</sup>	295	73	21.9	296	46	21.6	295	58	23.4	297	45	22.2	
	Core or More	1,676,095	67	20.8	1,686,194	46	21.3	1,580,108	47	21.7	1,538,158	41	21.4	
National	Less than Core	88,420	36	15.9	74,627	8	16.4	180,385	32	19.4	220,701	17	18.1	
	Missing	81,272	38	16.3	84,966	19	17.8	85,294	24	17.8	86,928	17	17.7	

<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.

Code 229999 Massachusetts

# 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

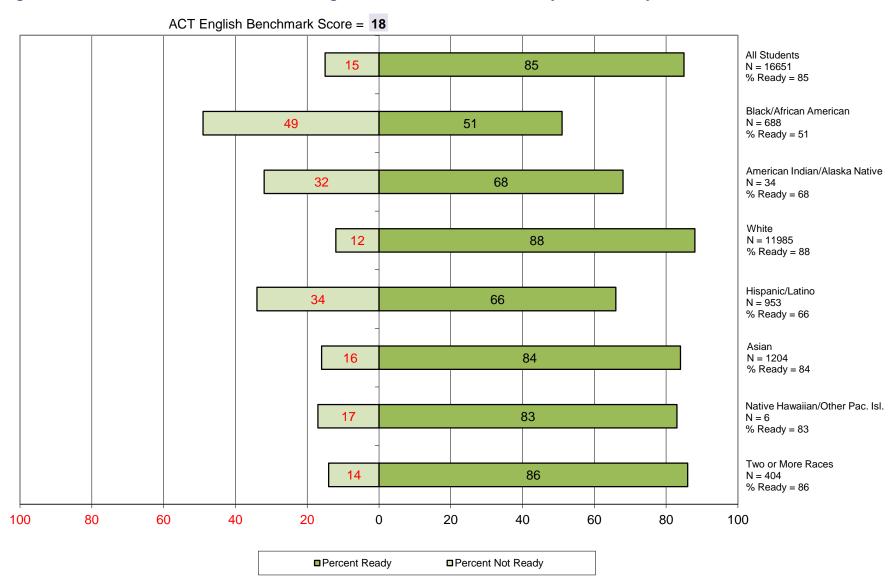


Figure 3.2. Percent of Students Who Met ACT College Readiness Benchmark Scores by Race/Ethnicity: MATHEMATICS

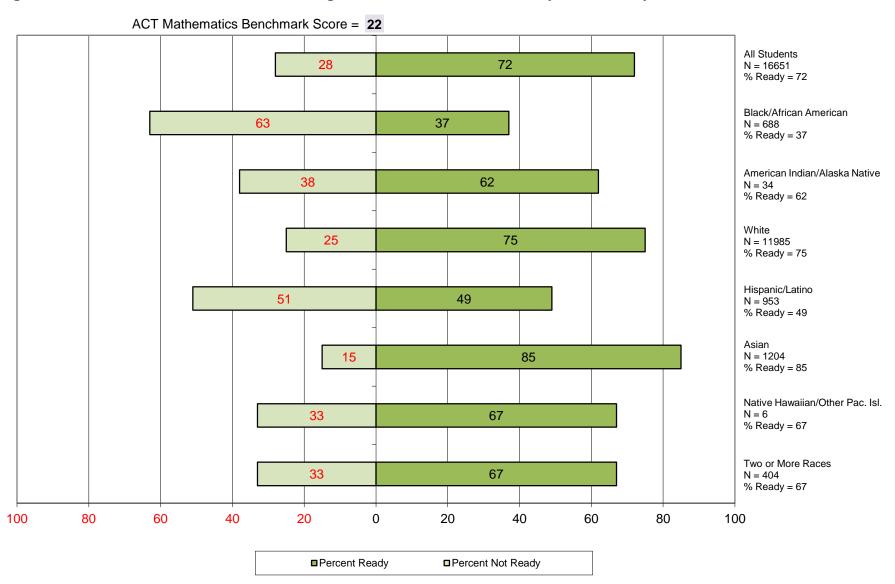


Figure 3.3. Percent of Students Who Met ACT College Readiness Benchmark Scores by Race/Ethnicity: READING

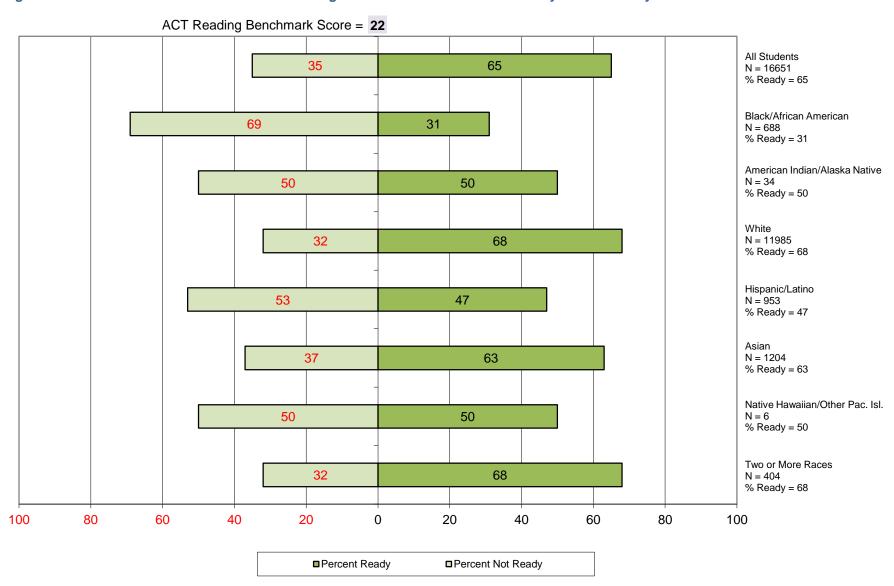


Figure 3.4. Percent of Students Who Met ACT College Readiness Benchmark Scores by Race/Ethnicity: SCIENCE

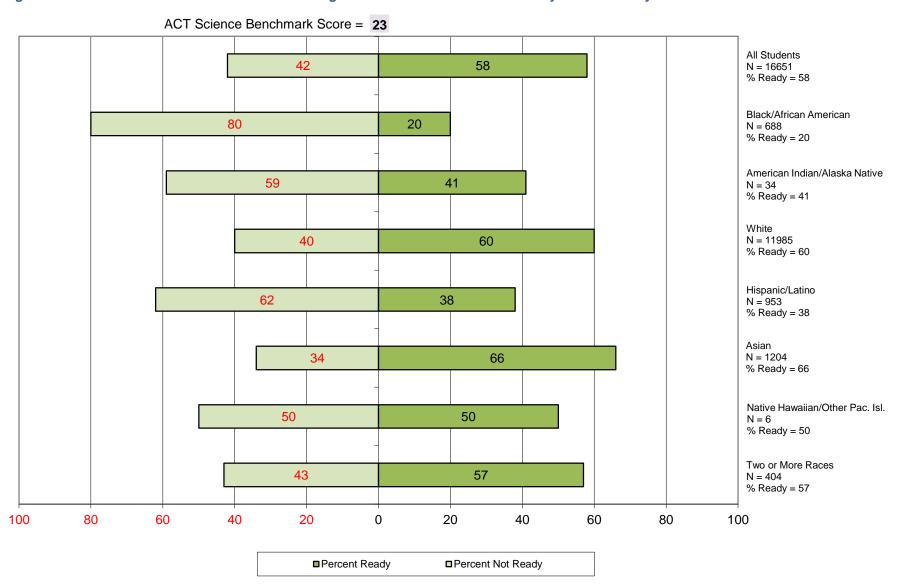


Figure 3.5. Percent of Students Who Met ACT College Readiness Benchmark Scores by Race/Ethnicity: ALL FOUR

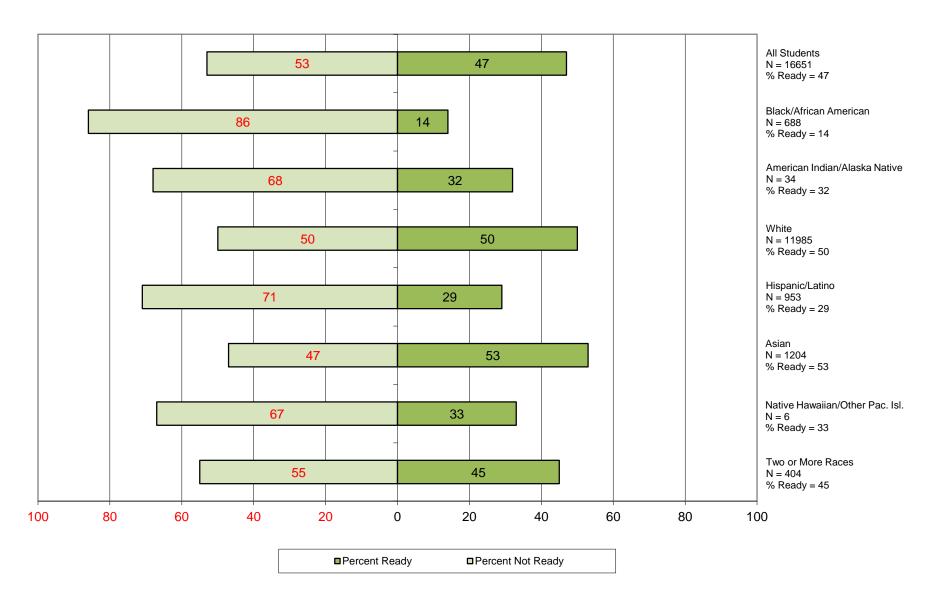


Table 3.1. Average ACT Scores and Average ACT Score Changes by Common Course Patterns												
Course Pattern		All	Students				Males			F	emales	
			ACT	Course Value			ACT	Course Value			ACT	Course Value
ENGLISH COURSE PATTERN	N	Percent	English	Added <sup>1</sup>	N	Percent	English	Added <sup>1</sup>	N	Percent	English	Added <sup>1</sup>
Eng 9, Eng 10, Eng 11, Eng 12, & Other English	3,901	23	24.3	2.8	1,666	23	24.1	2.5	2,235	24	24.5	3.1
Eng 9, Eng 10, Eng 11, Eng 12	12,220	73	24.0	2.5	5,466	74	23.8	2.2	6,754	73	24.2	2.8
Less than 4 years of English	235	1	21.5	-	119	2	21.6	=	116	1	21.4	-
Zero years / no English courses reported	295	2	21.9	-	152	2	21.8	-	143	2	21.9	-
			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	2,067	12	26.7	5.3	861	12	27.1	4.7	1,206	13	26.4	5.9
Alg 1, Alg 2, Geom, Trig, & Other Adv Math	1,356	8	23.2	1.8	486	7	23.5	1.1	870	9	23.0	2.5
Alg 1, Alg 2, Geom, & Trig	736	4	21.2	-0.2	292	4	21.8	-0.6	444	5	20.9	0.4
Alg 1, Alg 2, Geom, & Other Adv Math	2,058	12	21.2	-0.2	709	10	21.4	-1.0	1,349	15	21.1	0.6
Other comb of 4 or more years of Math	8,270	50	26.2	4.8	4,134	56	26.8	4.4	4,136	45	25.6	5.1
Alg 1, Alg 2, & Geom	671	4	18.7	-2.7	255	3	19.1	-3.3	416	4	18.5	-2.0
Other comb of 3 or 3.5 years of Math	1,018	6	24.0	2.6	424	6	24.3	1.9	594	6	23.8	3.3
Less than 3 years of Math	179	1	21.4	-	89	1	22.4	-	90	1	20.5	-
Zero years / no Math courses reported	296	2	21.6	-	153	2	22.3	-	143	2	20.8	-
			AOT	Course Value			AOT	Course Value			AOT	Course Value
COCIAL COIENCE COLIDOS DATTERNI	N	D	ACT Reading	Added <sup>1</sup>	N	D	ACT Reading	Added <sup>1</sup>	N	Dawasant	ACT Reading	Added <sup>1</sup>
SOCIAL SCIENCE COURSE PATTERN	865	Percent 5	·			Percent 6			414	Percent 4	_	
US Hist, World Hist, Am Gov, & Other Hist	4,510	27	25.4 24.2	0.8 -0.4	451 2,294	31	25.0 24.2	0.9 0.1	2,216	24	26.0 24.3	1.2 -0.5
Other comb of 4 or more years Social Science	653	4	24.2	-0.4 -0.3	2,29 <del>4</del> 317	4	23.8	-0.3	336	4	24.3 24.8	-0.5 0.0
US Hist, World Hist, & Am Gov Other comb of 3 or 3.5 years of Social Science	4,886	29	24.3	-0.3 0.2	2,006	27	23.6	-0.3 0.6	2,880	31	24.8	0.0
Less than 3 years of Social Science	5,442	33	24.6	0.2 -	2,008	29	24.7	-	3,259	35	24.8	0.0
Zero years / no Social Science courses reported	295	2	23.4	-	2,163 152	29	23.3	<u>-</u>	3,259 143	2	23.6	-
Zero years / no social science courses reported	295		23.4	<del>-</del>	132		23.3	-	143		23.0	-
			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	10,414	63	23.9	3.4	4,863	66	24.4	3.7	5,551	60	23.5	3.1
Bio, Chem, Phys	3,075	18	24.4	3.9	1,438	19	25.3	4.6	1,637	18	23.7	3.3
Gen Sci <sup>2</sup> , Bio, Chem	2,061	12	21.3	0.8	653	9	21.3	0.6	1,408	15	21.2	0.8
Other comb of 3 years of Natural Science	178	1	20.6	0.1	94	1	20.6	-0.1	84	1	20.7	0.3
Less than 3 years of Natural Science	626	4	20.5	-	202	3	20.7	-	424	5	20.4	=
Zero years / no Natural Science courses reported	297	2	22.2	-	153	2	22.6	-	144	2	21.8	-

<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.

Table 3.2. College Readiness Percents by Common Course Patterns												
Course Pattern			State				National					
		Percent Taking	Avg ACT	Percent Who Met		Percent Taking	Avg ACT	Percent Who Met				
ENGLISH COURSE PATTERN	N	Pattern	English	Benchmark	N	Pattern	English	Benchmark				
Eng 9, Eng 10, Eng 11, Eng 12, & Other English	3,901	23	24.3	87	370,875	20	21.7	73				
Eng 9, Eng 10, Eng 11, Eng 12	12,220	73	24.0	85	1,305,220	71	20.5	65				
Less than 4 years of English	235	1	21.5	69	88,420	5	15.9	36				
Zero years / no English courses reported	295	2	21.9	73	81,272	4	16.3	38				
		Percent Taking	Avg ACT	Percent Who Met		Percent Taking	Avg ACT	Percent Who Met				
MATHEMATICS COURSE PATTERN	N	Pattern	Math	Benchmark	N	Pattern	Math	Benchmark				
Alg 1, Alg 2, Geom, Trig, & Calc	2,067	12	26.7	88	118,677	6	23.8	67				
Alg 1, Alg 2, Geom, Trig, & Other Adv Math	1,356	8	23.2	68	157,764	9	21.8	55				
Alg 1, Alg 2, Geom, & Trig	736	4	21.2	50	120,160	7	19.3	30				
Alg 1, Alg 2, Geom, & Other Adv Math	2,058	12	21.2	49	356,555	19	19.4	31				
Other comb of 4 or more years of Math	8,270	50	26.2	83	622,896	34	23.7	65				
Alg 1, Alg 2, & Geom	671	4	18.7	26	220,037	12	17.1	11				
Other comb of 3 or 3.5 years of Math	1,018	6	24.0	69	90,105	5	19.8	35				
Less than 3 years of Math	179	1	21.4	42	74,627	4	16.4	8				
Zero years / no Math courses reported	296	2	21.6	46	84,966	5	17.8	19				
		Percent Taking	Avg ACT	Percent Who Met		Percent Taking	Avg ACT	Percent Who Met				
SOCIAL SCIENCE COURSE PATTERN	N	Pattern	Reading	Benchmark	N	Pattern	Reading	Benchmark				
US Hist, World Hist, Am Gov, & Other Hist	865	5	25.4	69	48,992	3	22.3	50				
Other comb of 4 or more years Social Science	4,510	27	24.2	63	921,129	50	22.2	50				
US Hist, World Hist, & Am Gov	653	4	24.3	64	105,110	6	19.6	33				
Other comb of 3 or 3.5 years of Social Science	4,886	29	24.8	67	504,877	27	21.3	43				
Less than 3 years of Social Science	5,442	33	24.6	64	180,385	10	19.4	32				
Zero years / no Social Science courses reported	295	2	23.4	58	85,294	5	17.8	24				
		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	10,414	63	23.9	61	781,043	42	22.1	46				
Bio, Chem, Phys	3,075	18	24.4	65	199,419	11	23.1	54				
Gen Sci <sup>1</sup> , Bio, Chem	2,061	12	21.3	39	505,460	27	20.0	28				
Other comb of 3 years of Natural Science	178	1	20.6	38	52,236	3	19.2	24				
Less than 3 years of Natural Science	626	4	20.5	33	220,701	12	18.1	17				
Zero years / no Natural Science courses reported	297	2	22.2	45	86,928	5	17.7	17				

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

Code 229999 Massachusetts

Total Students in Report: 16,651

### 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	123	1	23.8	3	3	19.0	109	1	23.8
Architecture	122	1	23.4	0	0		105	1	23.5
Area, Ethnic, & Multidisciplinary Studies	33	0	27.0	0	0		27	0	26.8
Arts: Visual & Performing	622	4	23.3	8	9	19.8	526	4	23.2
Business	2,315	14	23.5	23	25	20.8	1,967	14	23.5
Communications	463	3	23.4	4	4	23.5	400	3	23.4
Community, Family, & Personal Services	133	1	20.0	2	2	14.5	119	1	20.0
Computer Science & Mathematics	438	3	25.8	2	2	14.0	355	3	25.6
Education	727	4	21.8	3	3	15.7	626	5	21.7
Engineering	1,534	9	26.1	4	4	18.0	1,350	10	26.0
Engineering Technology & Drafting	94	1	22.5	1	1	21.0	84	1	22.6
English & Foreign Languages	277	2	26.6	1	1	31.0	233	2	26.6
Health Administration & Assisting	215	1	20.2	2	2	12.5	180	1	20.6
Health Sciences & Technologies	2,204	13	23.4	6	7	18.8	1,964	14	23.4
Philosophy, Religion, & Theology	42	0	23.6	0	0		31	0	23.8
Repair, Production, & Construction	11	0	20.2	3	3	19.0	6	0	19.3
Sciences: Biological & Physical	1,770	11	26.0	3	3	12.3	1,543	11	26.1
Social Sciences & Law	1,455	9	23.9	1	1	18.0	1,264	9	23.8
Undecided	3,877	23	24.8	24	26	21.0	2,755	20	24.5
No Response	193	1	22.5	0	0		26	0	21.8

<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	WI	hite	Hispanic/Latino		
Aspirations	N	Average	N	Average	N	Average	N	Average	N	Average	
Voc-Tech	51	21.0	1	16.0	0		36	21.5	6	17.7	
2-yr College Degree	40	17.8	4	14.0	0		28	18.8	2	12.5	
Bachelors Degree	5,601	22.3	201	16.9	11	20.3	4,390	22.7	316	19.8	
Graduate Study	4,644	25.1	114	20.0	8	22.0	3,616	25.3	225	23.0	
Prof. Level Degree	3,427	26.0	223	20.8	6	24.2	2,162	26.7	261	22.5	
Other	160	21.5	11	14.7	0		106	21.9	8	16.6	
No Response	2,728	25.0	134	19.6	9	24.0	1,647	25.7	135	20.4	

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	Average	N Average		N	Average	
Voc-Tech	51	21.0	6	23.5	1	19.0	0		1	15.0	
2-yr College Degree	40	17.8	4	19.3	0		0		2	14.5	
Bachelors Degree	5,601	22.3	285	22.6	2	19.5	119	22.0	277	23.0	
Graduate Study	4,644	25.1	268	26.1	0		104	25.0	309	26.1	
Prof. Level Degree	3,427	26.0	388	26.9	2	27.5	115	25.3	270	26.9	
Other	160	21.5	18	22.8	1	32.0	3	24.0	13	24.2	
No Response	2,728	25.0	235	25.9	0		63	27.2	505	25.1	

PAGE 28

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
UNIV OF MASSACHUSETTS AMHERST	Massachusetts	962	283	679	0	2	11	30	32	22	3
NORTHEASTERN UNIVERSITY	Massachusetts	602	186	416	1	2	9	22	32	29	4
BOSTON UNIVERSITY	Massachusetts	464	141	323	1	3	8	25	36	25	3
UNIV OF MASSACHUSETTS LOWELL	Massachusetts	364	85	279	1	7	21	32	25	11	2
BOSTON COLLEGE	Massachusetts	337	155	182	1	3	9	25	28	32	2
UNIVERSITY OF NEW HAMPSHIRE	New Hampshire	308	67	241	0	3	14	41	31	10	1
UNIV OF MASSACHUSETTS-DARTMOUTH	Massachusetts	253	47	206	2	10	28	35	19	5	0
WESTFIELD STATE UNIVERSITY	Massachusetts	246	72	174	2	17	30	31	16	3	0
UNIVERSITY OF RHODE ISLAND	Rhode Island	228	36	192	0	3	18	36	31	11	0
SALEM STATE UNIVERSITY	Massachusetts	221	48	173	5	8	37	34	14	2	0
WORCESTER POLYTECHNIC INST	Massachusetts	221	63	158	0	1	7	17	29	37	10
TUFTS UNIVERSITY	Massachusetts	214	76	138	1	1	6	16	27	37	12
BRIDGEWATER STATE COLLEGE	Massachusetts	213	49	164	4	13	33	32	15	2	0
QUINNIPIAC UNIVERSITY	Connecticut	212	43	169	0	1	10	34	40	14	0
UNIV OF MASSACHUSETTS BOSTON	Massachusetts	197	34	163	4	10	28	35	19	5	0
UNIVERSITY OF CONNECTICUT	Connecticut	197	42	155	0	1	15	24	38	21	1
UNIVERSITY OF VERMONT	Vermont	190	42	148	0	0	7	25	36	27	4
WORCESTER STATE UNIVERSITY	Massachusetts	169	41	128	1	16	36	31	15	2	0
BROWN UNIVERSITY	Rhode Island	164	62	102	0	1	4	6	26	43	20
FRAMINGHAM STATE UNIVERSITY	Massachusetts	162	50	112	2	17	38	28	11	3	1
ENDICOTT COLLEGE	Massachusetts	137	42	95	0	4	21	43	25	6	1
BENTLEY UNIVERSITY	Massachusetts	134	43	91	0	1	10	32	36	20	0
FITCHBURG STATE UNIVERSITY	Massachusetts	129	25	104	3	19	33	26	17	2	0
MASSACHUSETTS COLL PHARM/HLTH SCIENCES	Massachusetts	129	39	90	0	4	19	36	30	12	0
WENTWORTH INSTITUTE OF TECHNOLOGY	Massachusetts	120	35	85	3	6	20	29	33	8	1
HARVARD COLLEGE	Massachusetts	118	45	73	1	1	5	14	31	35	13
SUFFOLK UNIVERSITY	Massachusetts	117	29	88	1	3	23	42	21	11	0
MERRIMACK COLLEGE	Massachusetts	116	27	89	2	6	18	48	22	4	0
SYRACUSE UNIVERSITY	New York	115	30	85	0	0	9	28	38	25	0
NCAA ELIGIBILITY CENTER	Indiana	111	78	33	0	5	19	27	23	24	3
All Other Institutions		7,794	2,100	5,694	1	4	14	25	27	24	5
Total		14,944	4,115	10,829	1	4	15	27	27	21	4

Code 229999 Massachusetts

Total Students in Report: 16,651

## 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.

Code 229999 Massachusetts

PAGE 30

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

	N State National		Average ACT Scores							
			Eng	English		say	English/Writing Combined			
			State	National	State	National	State	National		
All Students	14,752	976,031	24.5	21.3	7.9	7.1	23.7	20.6		
Black/African American	575	114,263	18.7	16.4	7.2	6.3	18.9	16.3		
American Indian/Alaska Native	28	6,408	22.0	16.8	7.6	6.2	21.7	16.5		
White	10,563	520,054	24.8	23.1	7.9	7.3	24.0	22.1		
Hispanic/Latino	841	167,575	21.1	18.5	7.6	6.9	21.0	18.4		
Asian	1,129	61,663	25.0	23.7	8.1	7.7	24.3	22.9		
Native Hawaiian/Other Pac. Isl.	5	3,742	24.4	17.7	8.2	6.6	24.2	17.6		
Two or more races	355	39,565	25.0	21.4	7.9	7.1	24.1	20.7		
Prefer not/No Response	1,256	62,761	25.8	21.6	8.0	7.1	24.7	20.9		
Males	6,439	438,500	24.3	21.1	7.8	6.9	23.4	20.2		
Females	8,313	530,240	24.6	21.6	8.0	7.3	23.9	21.1		
Missing	0	7,291		16.0		5.9		15.7		