The Condition of STEM 2013

Oregon

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ACT has been a leader in measuring college and career readiness trends for years. Each August, we release *The Condition of College & Career Readiness* (**www.act.org/newsroom/data/2013**), our annual report on the progress of the ACT-tested graduating class relative to college readiness. Nationally, 54.3% of the 2013 graduating class took the ACT® college readiness assessment. The continued increase of test takers enhances the breadth and depth of the data pool, providing a comprehensive picture of the current college readiness levels of the graduating class as well as offering a glimpse of the emerging national educational pipeline. It also allows us to review various aspects of the ACT-tested 2013 graduating class. This report reviews the graduating class in the context of STEM (Science, Technology, Engineering, Mathematics)-related fields. ACT is uniquely positioned to deliver this report for two key reasons. First is our commitment to science by the inclusion of subject-level science tests in our assessments. Second is a research-based measure of interests, the ACT Interest Inventory, with which we are able to determine student interest levels in specific STEM fields and, more importantly, readiness in math and science of those interested in STEM careers.

The report breaks the graduating class into four STEM-related cohorts:[1]

1. Students who have an **expressed** and **measured** interest in STEM.
2. Students who have an **expressed** interest only.
3. Students who have a **measured** interest only.
4. Students with no interest in STEM.

Essentially, a student who has an **expressed** interest in STEM is choosing a major or occupation (out of the 294 listed in the Standard Profile Section of the ACT) that corresponds with STEM fields. A **measured** interest utilizes the ACT Interest Inventory, an inventory delivered with the ACT that determines inherent interest in different occupations and majors. The ACT *College Choice Report* (**www.act.org/collegechoice/13-14**) details it is important to align students' expressed and measured interests relative to postsecondary enrollment. In this report, we will primarily review the academic achievement of students in each of these cohorts as measured by the ACT College Readiness Benchmarks.[2] Finally, we will look at academic achievement levels, particularly in math and science, by race/ethnicity, gender, parents' level of education, and educational aspirations.

Refining the Definition of STEM[3]

As ACT began to review how to properly define STEM for this report, we were struck by the inconsistency of definitions across the country. In order to maintain consistency and offer states the opportunity to use this report as a baseline for state-level STEM initiatives, we needed to create areas within the STEM fields. This categorization gives states and their STEM councils the flexibility they need and provides a forum for a national discussion on definitions and categorizations. We hope this report sparks such a discussion. The table on page 26 describes how ACT chose to categorize STEM, based on the occupations and majors listed on the ACT. We determined four key areas:

1. **Science**—Includes majors and occupations in the traditional hard sciences, as well as sciences involving the management of natural resources. Also includes science education.
2. **Computer Science and Mathematics**—Includes majors and occupations in the computer sciences, as well as general and applied mathematics. Also includes mathematics education.
3. **Medical and Health**—Includes majors and occupations in the health sciences and medical technologies.
4. **Engineering and Technology**—Includes majors and occupations in engineering and engineering technologies.

The report will show achievement levels in each of these four areas on a state and national level. Also, by request of STEM councils around the country, we have included the actual number of students interested in specific majors/occupations. We do this so that STEM councils and other state officials can measure the numbers of students in specific major/occupational pipelines. This will assist them in documenting success of STEM initiatives that focus on generating interest in specific STEM fields.

ACT's Commitment to STEM

In spring 2014, ACT will launch ACT Aspire™, an assessment system for grades 3–10. ACT Aspire will offer the same subjects as the ACT: English, reading, math, science, and writing. Based on the ACT College and Career Readiness Standards and aligned to the Common Core State Standards, ACT Aspire will provide an early indicator of statewide college and career readiness. To complement the information in this report, ACT will create a STEM score for students testing within the ACT Aspire system, giving educators a much earlier look at the STEM pipeline in their state. Our hope is to help educators, parents, and STEM councils and organizations around the country broaden STEM opportunities for students at all levels. This is a critical step if the United States is to remain a world leader, and ACT is committed to research and assessment practices that make greater STEM opportunities for students a reality.

Please note that reporting achievement by combinations of student characteristics may give rise to small N *counts. As a result, outcomes in this report should be interpreted with caution.*

Key Findings
from the National *Condition of STEM 2013* Report

1. **Interest in STEM is high.** Almost half (48.3%) of students in the 2013 ACT-tested graduating class have an interest in STEM majors or occupations. While these are encouraging numbers, more must be done to *keep* these students engaged in STEM fields.
   - 23.4% of students had an **expressed** interest only in STEM. Intervention strategies for the students with an expressed interest only allow students to understand what takes place in a specific major or occupation and defines an educational plan for the student.
   - 8.5% of students had a **measured** interest only in STEM. ACT Interest Inventory results suggest an inherent interest in a STEM major or occupation, yet they have not expressed an interest in pursuing a STEM major. A wider net must be cast with the goal of guiding and nurturing students with an expressed and/or measured interest so they can understand how to experience success in STEM fields. More must be done to identify and foster this interest earlier in students' educational experiences.

2. **Achievement levels in math and science are highest when expressed and measured interest match.** ACT's *College Choice Report, Part 1*, released in November 2013, showed the importance an expressed and measured interest match has on students' progression into postsecondary education. We see the same influence on achievement levels in STEM. Across all four STEM areas, student achievement was highest for those with both expressed and measured interest, typically followed by expressed only and ending with measured only. Students interested in Engineering and Technology were most likely to meet the math and science Benchmarks. Overall Benchmark attainment percentages are consistent between expressed and measured interest, except in the area of math, meaning academically the difference between these groups is in math, not science. This raises the question of whether math proficiency dampens student interest or, more importantly, if it impacts whether a student enters any of the STEM fields.

3. **Surprisingly, more female than male students are interested in STEM, although the opposite is true among higher-achieving students.** The overall percent of females interested in STEM majors and occupations is a surprising 46%, of which the largest percentage (24%) are interested in nursing (LPN and BS/RN). Across all four STEM areas, however, males consistently outperformed females in math and science, with the exception of the females interested in Engineering and Technology. Females were more prevalent in the expressed and measured cohort, suggesting they have an inherent interest in STEM fields, which contradicts the low representation of women in the STEM fields.

4. **The academic achievement gap that exists in general for ethnically diverse students is even more pronounced among those interested in the STEM fields.** With the exception of Asian students, 61% of whom were interested in STEM, the number of ethnic minority students (African American, Hispanic, and Native American) interested in STEM fields is low, as are their achievement levels in math and science. Among African American students interested in STEM, the vast majority have an expressed interest only. Among measured interest only students, Hispanic students have a greater representation than other minority groups. A real opportunity exists for a meaningful discussion with these students on what STEM careers entail in terms of educational planning and achievement.

5. **Students interested in STEM have higher educational aspirations, and their parents are more likely to have attended college than those not interested in STEM.** There are significant differences in math and science achievement levels for students interested in attaining an associate's degree or lower versus those aspiring to attain a bachelor's degree or higher. A similar trend occurs in terms of parents' level of education, with significant differences in achievement levels in math and science occurring as parents' level of education increases. ACT's *The Condition of College and Career Readiness 2013: First-Generation Students* report, released in November 2013, also found troubling levels of academic achievement for first-generation students. Those first-generation students who are interested in STEM have only slightly higher achievement levels in both math and science. Essentially, stronger and earlier support structures and interventions related to career and educational planning and academic preparedness are needed to see real differences in these still-troubling numbers.
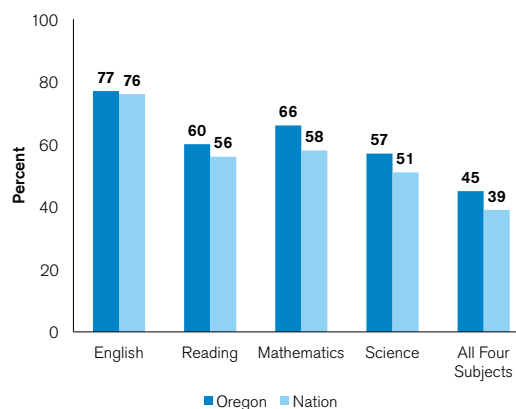
Oregon STEM Report
Attainment of College and Career Readiness

Expressed and Measured Interest

- 12,857 of your graduates, which is an estimated 34% of your graduating class, took the ACT.*
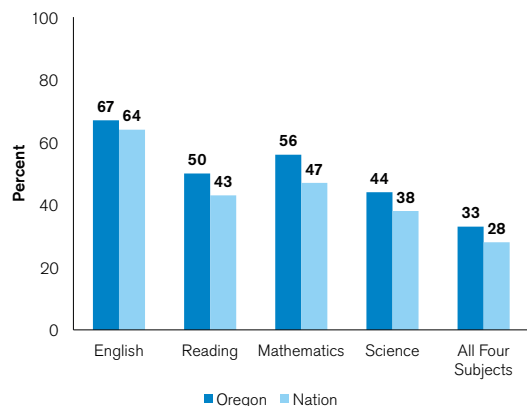- 2,457 of your graduates have an expressed and measured interest in STEM.

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Subject

	English	Reading	Mathematics	Science	All Four Subjects
Oregon	77	60	66	57	45
Nation	76	56	58	51	39

Expressed Interest Only

- 2,619 of your graduates have an expressed interest only in STEM.

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Subject

	English	Reading	Mathematics	Science	All Four Subjects
Oregon	67	50	56	44	33
Nation	64	43	47	38	28

Measured Interest Only

- 1,252 of your graduates have a measured interest only in STEM.

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Subject

	English	Reading	Mathematics	Science	All Four Subjects
Oregon	67	51	49	43	32
Nation	64	45	41	37	26
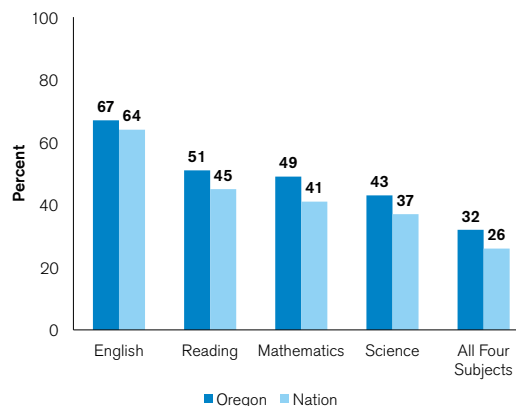
No Interest

- 6,529 of your graduates have no interest in STEM.

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Subject

	English	Reading	Mathematics	Science	All Four
Oregon	62%	47%	42%	35%	25%
Nation	61%	41%	38%	31%	22%

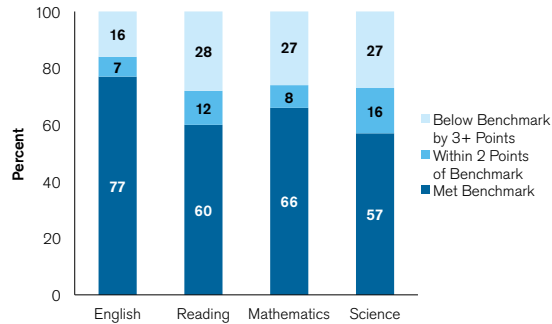* Totals for graduating seniors were obtained from *Knocking at the College Door: Projections of High School Graduates*, 8th edition.
  © December 2012 by the Western Interstate Commission for Higher Education.
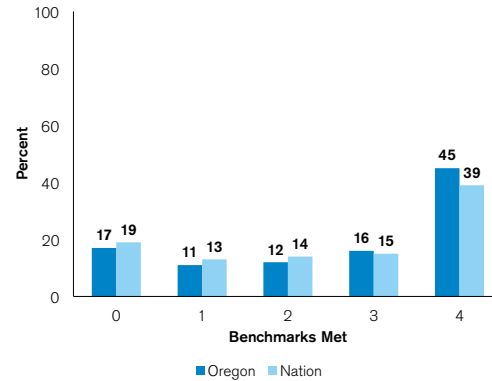Note: Percents in this report may not sum to 100% due to rounding.

Oregon STEM Report

Attainment of College and Career Readiness

Expressed and Measured Interest

Percent of 2013 ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject
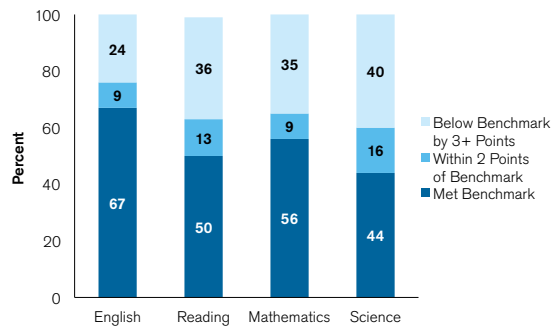
Subject	Met Benchmark	Within 2 Points of Benchmark	Below Benchmark by 3+ Points
English	77	7	16
Reading	60	12	28
Mathematics	66	8	27
Science	57	16	27

Percent of 2013 ACT-Tested High School Graduates by Number of ACT College Readiness Benchmarks Attained

Benchmarks Met	Oregon	Nation
0	17	19
1	11	13
2	12	14
3	16	15
4	45	39

Expressed Interest Only

Percent of 2013 ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject

Subject	Met Benchmark	Within 2 Points of Benchmark	Below Benchmark by 3+ Points
English	67	9	24
Reading	50	13	36
Mathematics	56	9	35
Science	44	16	40

Percent of 2013 ACT-Tested High School Graduates by Number of ACT College Readiness Benchmarks Attained

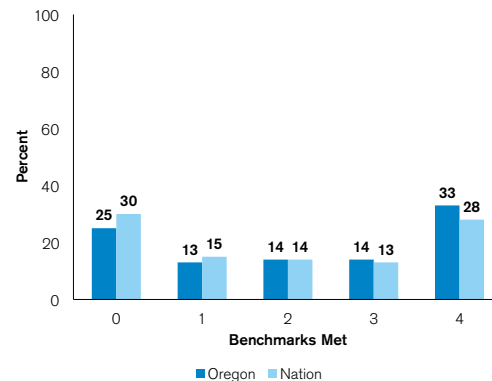| Benchmarks Met	Oregon	Nation
0	25	30
1	13	15
2	14	14
3	14	13
4	33	28

Measured Interest Only

Percent of 2013 ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject

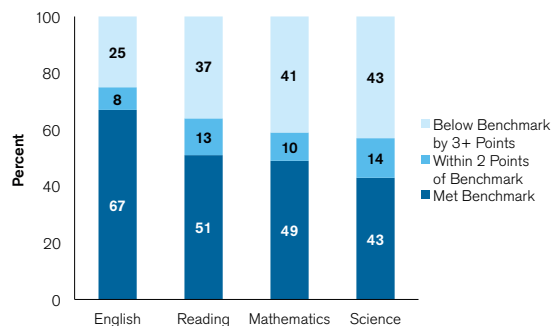| Subject	Met Benchmark	Within 2 Points of Benchmark	Below Benchmark by 3+ Points
English	67	8	25
Reading	51	13	37
Mathematics	49	10	41
Science	43	14	43

Percent of 2013 ACT-Tested High School Graduates by Number of ACT College Readiness Benchmarks Attained

Benchmarks Met	Oregon	Nation
0	27	31
1	13	16
2	14	14
3	14	13
4	32	26

ACT

Oregon STEM Report

Attainment of College and Career Readiness

Expressed and Measured Interest

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Race/Ethnicity and Subject*

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Gender and Subject

Expressed Interest Only

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Race/Ethnicity and Subject*
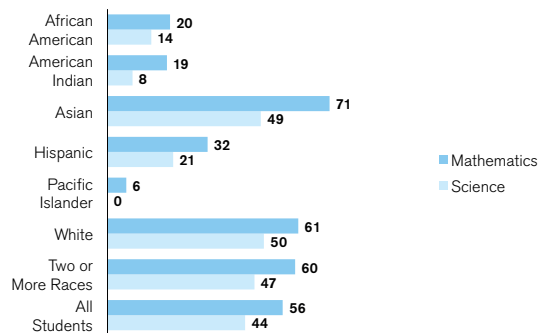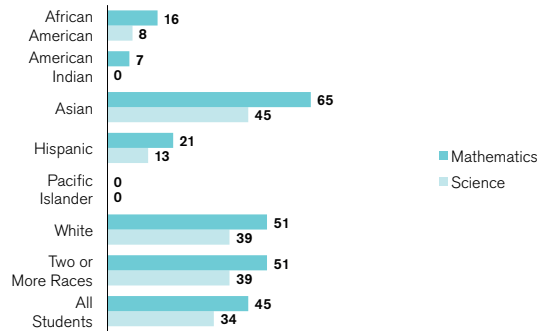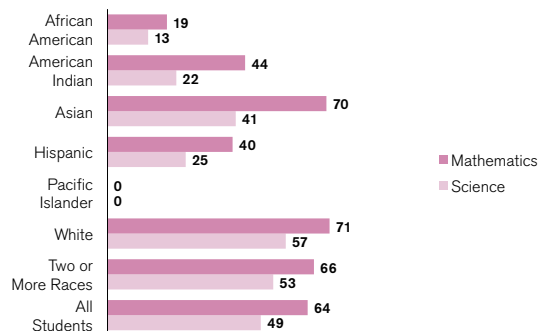
Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Gender and Subject

Measured Interest Only

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Race/Ethnicity and Subject*
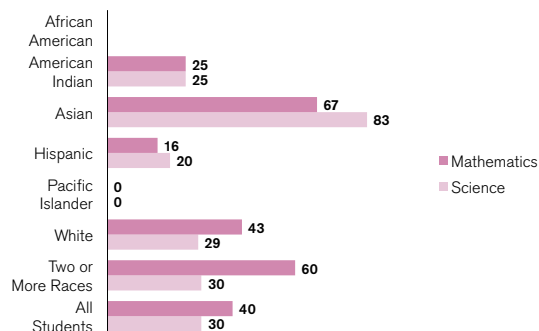
Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Gender and Subject

* Race/ethnicity categories changed for the 2010–2011 academic year to reflect updated US Department of Education reporting requirements.
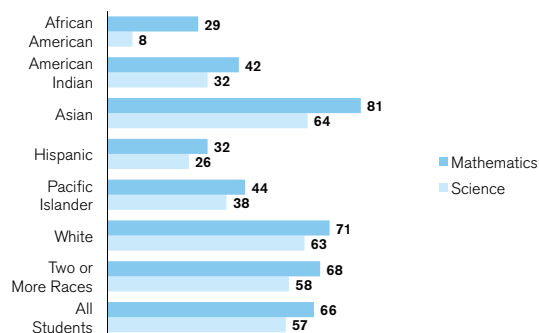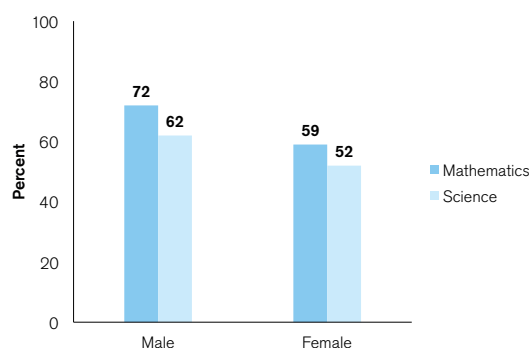
Oregon STEM Report
Attainment of College and Career Readiness

Expressed and Measured Interest

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Educational Aspirations and Subject
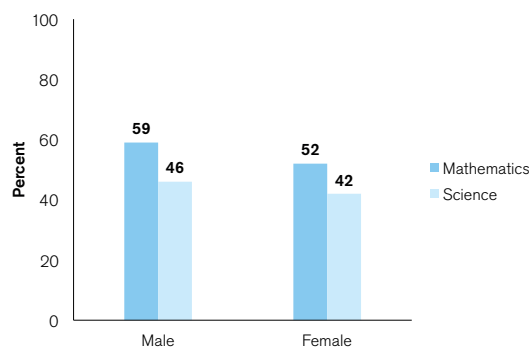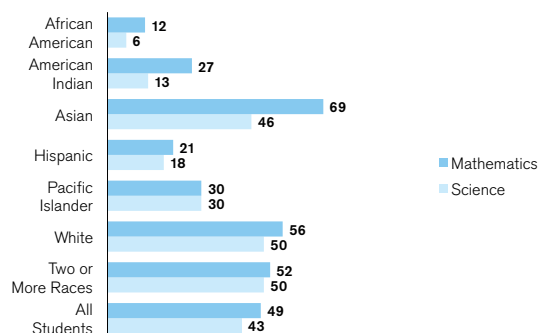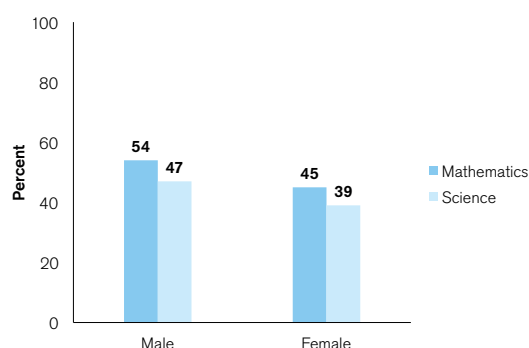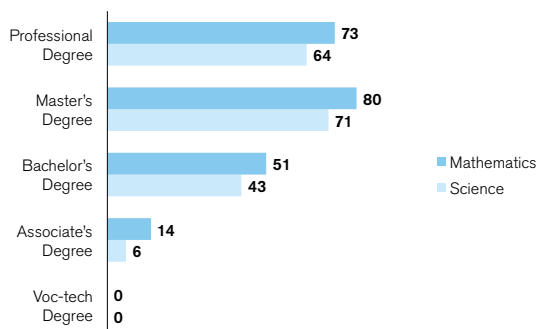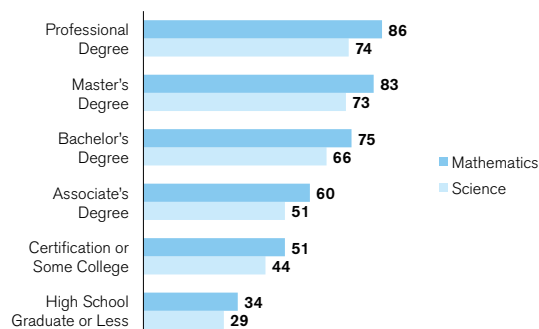
Educational Aspiration	Mathematics	Science
Professional Degree	73	64
Master's Degree	80	71
Bachelor's Degree	51	43
Associate's Degree	14	6
Voc-tech Degree	0	0

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Highest Parental Education Level

Parental Education Level	Mathematics	Science
Professional Degree	86	74
Master's Degree	83	73
Bachelor's Degree	75	66
Associate's Degree	60	51
Certification or Some College	51	44
High School Graduate or Less	34	29

Expressed Interest Only

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Educational Aspirations and Subject

Educational Aspiration	Mathematics	Science
Professional Degree	66	55
Master's Degree	75	63
Bachelor's Degree	45	32
Associate's Degree	16	9
Voc-tech Degree	12	3

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Highest Parental Education Level

Parental Education Level	Mathematics	Science
Professional Degree	79	70
Master's Degree	77	65
Bachelor's Degree	64	52
Associate's Degree	46	36
Certification or Some College	40	32
High School Graduate or Less	30	15

Measured Interest Only

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Educational Aspirations and Subject
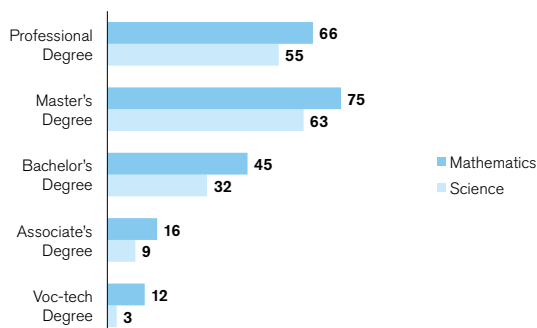
Educational Aspiration	Mathematics	Science
Professional Degree	60	52
Master's Degree	66	59
Bachelor's Degree	43	37
Associate's Degree	14	11
Voc-tech Degree	17	25

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Highest Parental Education Level

Parental Education Level	Mathematics	Science
Professional Degree	75	64
Master's Degree	75	64
Bachelor's Degree	54	51
Associate's Degree	44	41
Certification or Some College	39	29
High School Graduate or Less	22	17

ACT

Science
Majors/Occupations

Expressed and Measured Interest

Percent of 2013 ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject

Subject	Below Benchmark by 3+ Points	Within 2 Points of Benchmark	Met Benchmark
English	10	6	83
Reading	23	11	66
Mathematics	23	9	68
Science	22	16	63

Percent of 2013 ACT-Tested High School Graduates by Number of ACT College Readiness Benchmarks Attained

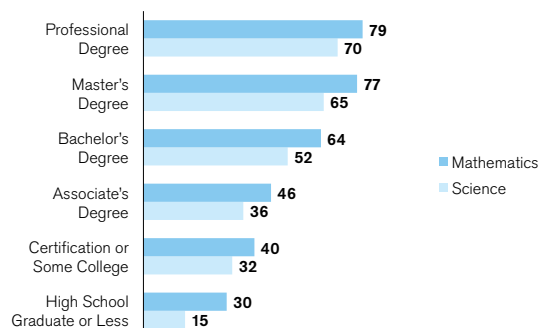| Benchmarks Met	0	1	2	3	4
Percent	13	10	12	16	49

Expressed Interest Only

Percent of 2013 ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject

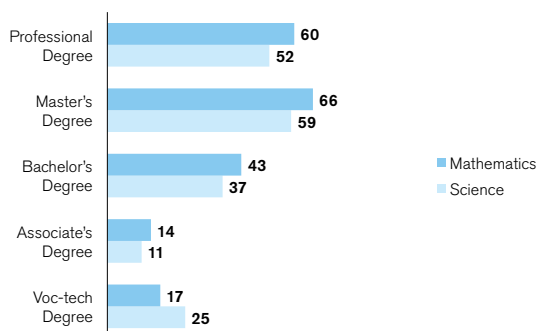| Subject	Below Benchmark by 3+ Points	Within 2 Points of Benchmark	Met Benchmark
English	16	9	75
Reading	25	11	64
Mathematics	33	9	59
Science	33	15	51

Percent of 2013 ACT-Tested High School Graduates by Number of ACT College Readiness Benchmarks Attained

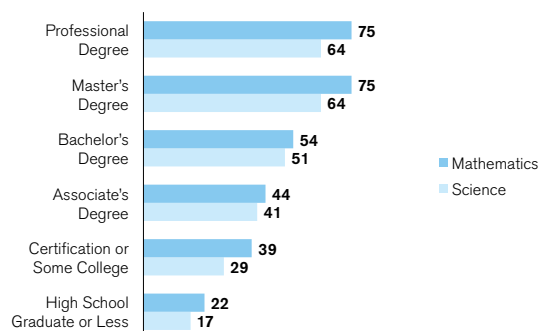| Benchmarks Met	0	1	2	3	4
Percent	19	11	15	14	41

Measured Interest Only

Percent of 2013 ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject

Subject	Below Benchmark by 3+ Points	Within 2 Points of Benchmark	Met Benchmark
English	20	8	71
Reading	32	13	54
Mathematics	42	9	49
Science	42	13	45

Percent of 2013 ACT-Tested High School Graduates by Number of ACT College Readiness Benchmarks Attained

Benchmarks Met	0	1	2	3	4
Percent	25	12	15	14	34

Note: Reporting achievement by combinations of student characteristics may give rise to small *N* counts. As a result, outcomes reported in this section should be interpreted with caution.
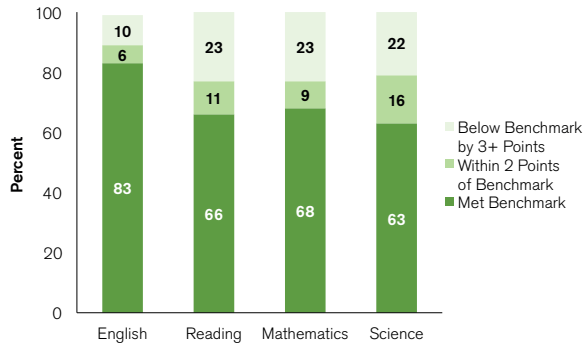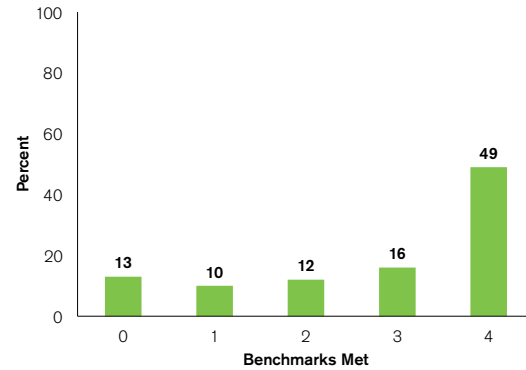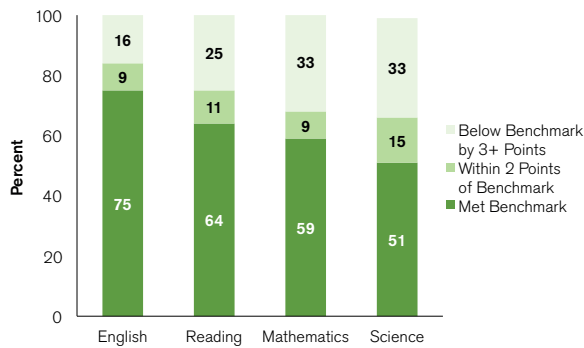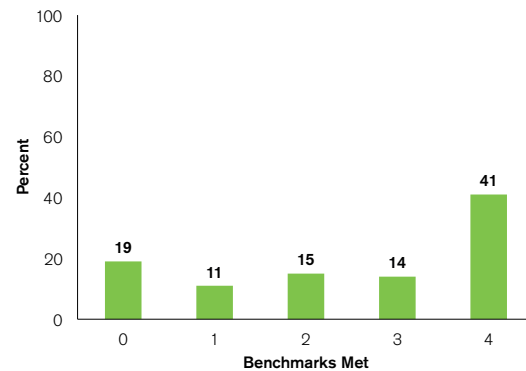
Science
Majors/Occupations

Expressed and Measured Interest

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Race/Ethnicity and Subject*

Race/Ethnicity	Mathematics	Science
African American	38	0
American Indian	40	20
Asian	90	77
Hispanic	39	28
Pacific Islander	50	50
White	70	67
Two or More Races	74	72
All Students	68	63

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Gender and Subject

Gender	Mathematics	Science
Male	71	65
Female	66	62

Expressed Interest Only

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Race/Ethnicity and Subject*

Race/Ethnicity	Mathematics	Science
African American	20	30
American Indian	0	0
Asian	84	68
Hispanic	52	40
Pacific Islander	0	0
White	56	51
Two or More Races	76	59
All Students	59	51

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Gender and Subject

Gender	Mathematics	Science
Male	60	49
Female	58	54

Measured Interest Only

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Race/Ethnicity and Subject*

Race/Ethnicity	Mathematics	Science
African American	0	0
American Indian	0	0
Asian	78	56
Hispanic	21	20
Pacific Islander	33	33
White	56	52
Two or More Races	48	57
All Students	49	45

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Gender and Subject

Gender	Mathematics	Science
Male	54	50
Female	45	41

* Race/ethnicity categories changed for the 2010–2011 academic year to reflect updated US Department of Education reporting requirements.
Note: Reporting achievement by combinations of student characteristics may give rise to small *N* counts. As a result, outcomes reported in this section should be interpreted with caution.
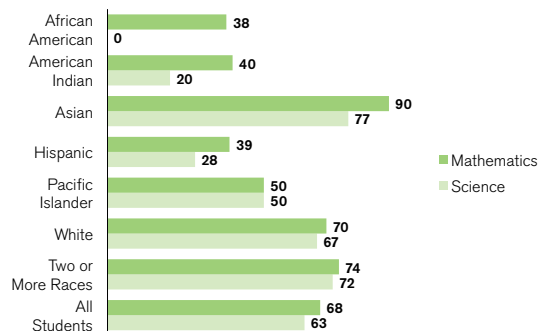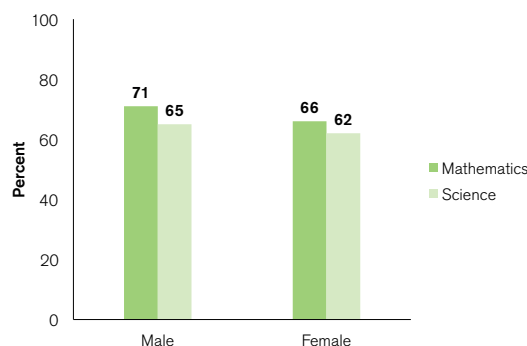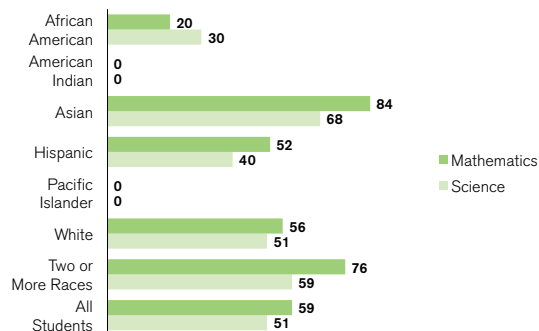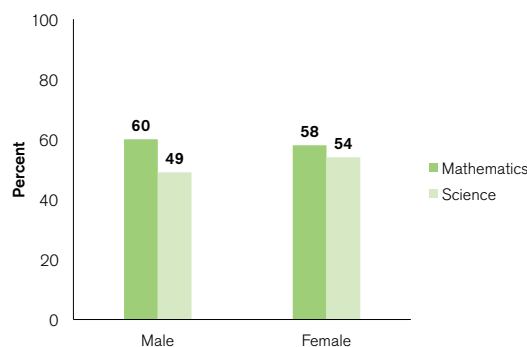
ACT®

Science
Majors/Occupations

Expressed and Measured Interest

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Educational Aspirations and Subject

Aspiration	Mathematics	Science
Professional Degree	79	72
Master's Degree	83	74
Bachelor's Degree	43	43
Associate's Degree	11	22
Voc-tech Degree	0	0

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Highest Parental Education Level

Parental Education	Mathematics	Science
Professional Degree	89	82
Master's Degree	81	80
Bachelor's Degree	74	66
Associate's Degree	61	56
Certification or Some College	48	47
High School Graduate or Less	40	30

Expressed Interest Only

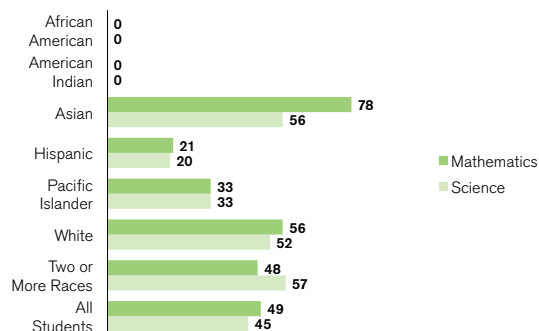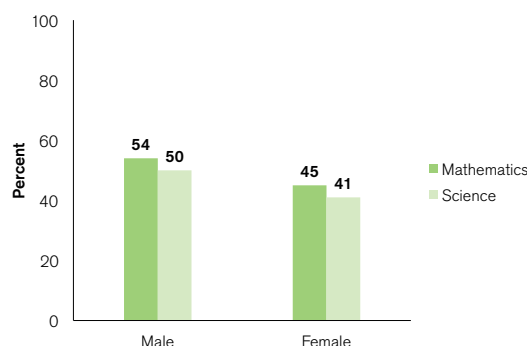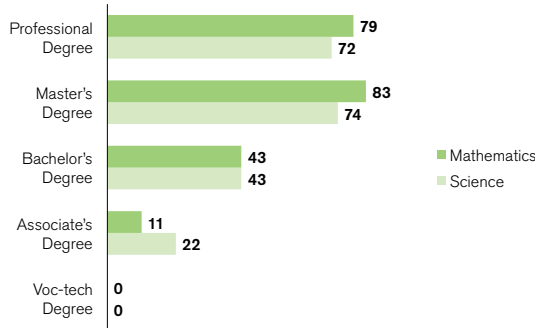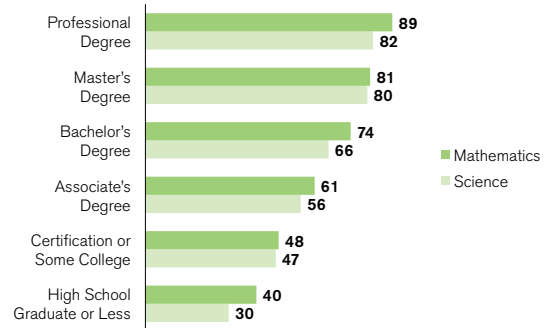**Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Educational Aspirations and Subject**

Aspiration	Mathematics	Science
Professional Degree	73	65
Master's Degree	73	62
Bachelor's Degree	43	37
Associate's Degree	7	7
Voc-tech Degree		

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Highest Parental Education Level

Parental Education	Mathematics	Science
Professional Degree	77	73
Master's Degree	81	66
Bachelor's Degree	60	58
Associate's Degree	35	35
Certification or Some College	34	28
High School Graduate or Less	39	24

Measured Interest Only

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Educational Aspirations and Subject
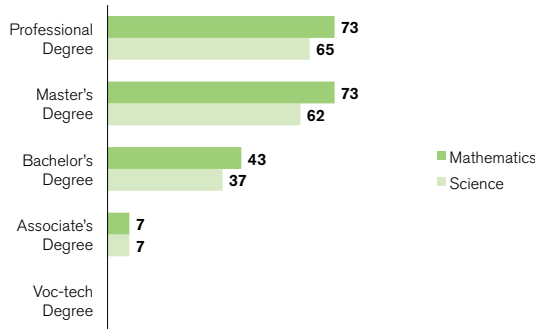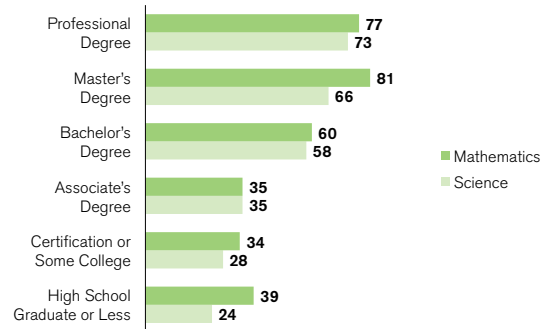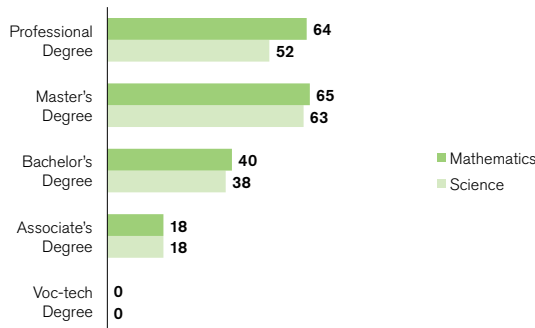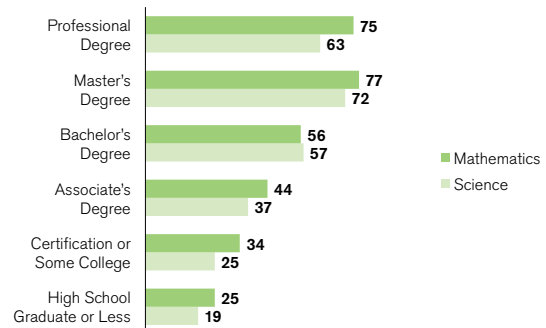
Aspiration	Mathematics	Science
Professional Degree	64	52
Master's Degree	65	63
Bachelor's Degree	40	38
Associate's Degree	18	18
Voc-tech Degree	0	0

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Highest Parental Education Level

Parental Education	Mathematics	Science
Professional Degree	75	63
Master's Degree	77	72
Bachelor's Degree	56	57
Associate's Degree	44	37
Certification or Some College	34	25
High School Graduate or Less	25	19

Note: Reporting achievement by combinations of student characteristics may give rise to small *N* counts. As a result, outcomes reported in this section should be interpreted with caution.
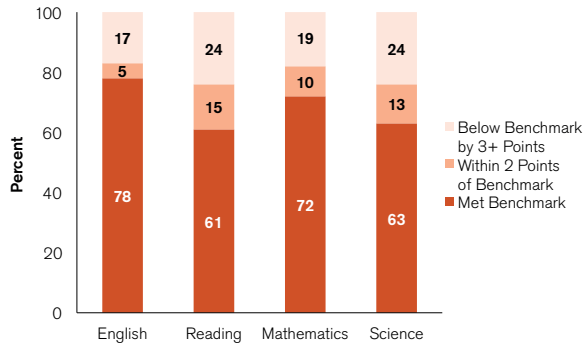
Science
Majors/Occupations

Science Majors/Occupations	Oregon	
	Expressed and Measured Interest	Expressed Interest Only
Agronomy and Crop Science	3	6
Animal Sciences	18	24
Astronomy	24	15
Atmospheric Sciences and Meteorology	6	4
Biochemistry and Biophysics	100	46
Biology, General	165	75
Cell/Cellular Biology	35	17
Chemistry	60	23
Ecology	9	11
Environmental Science	16	10
Food Sciences and Technology	3	6
Forestry	9	17
Genetics	28	11
Geological and Earth Sciences	11	9
Horticulture Science	2	4
Marine/Aquatic Biology	68	41
Microbiology and Immunology	15	6
Natural Resources Conservation, General	11	15
Natural Resources Management	3	2
Physical Sciences, General	27	20
Physics	42	22
Science Education	4	1
Wildlife and Wildlands Management	4	9
Zoology	48	38

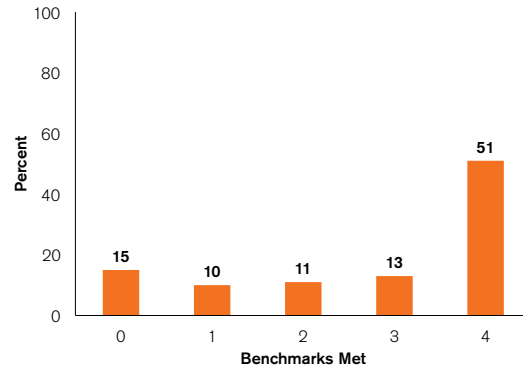**ACT**

Computer Science and Mathematics
Majors/Occupations

Expressed and Measured Interest

Percent of 2013 ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject
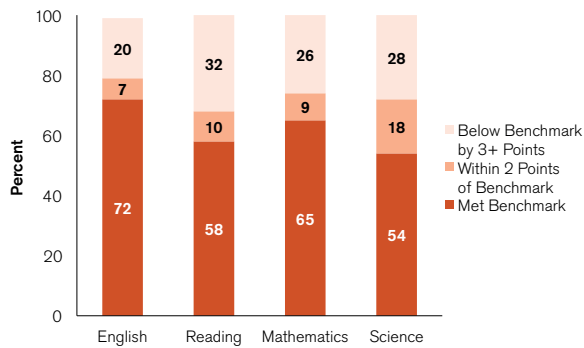

Legend:
- Below Benchmark by 3+ Points
- Within 2 Points of Benchmark
- Met Benchmark

Percent of 2013 ACT-Tested High School Graduates by Number of ACT College Readiness Benchmarks Attained

Expressed Interest Only

Percent of 2013 ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject

Legend:
- Below Benchmark by 3+ Points
- Within 2 Points of Benchmark
- Met Benchmark

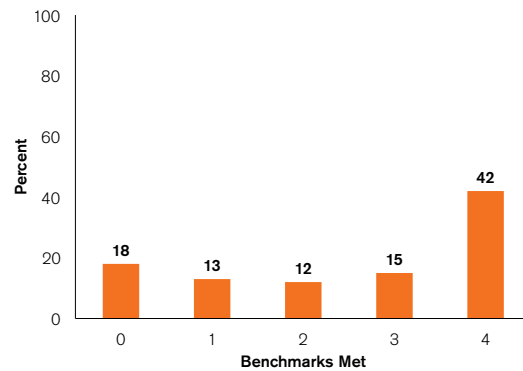**Percent of 2013 ACT-Tested High School Graduates by Number of ACT College Readiness Benchmarks Attained**

Measured Interest Only

Percent of 2013 ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject

Legend:
- Below Benchmark by 3+ Points
- Within 2 Points of Benchmark
- Met Benchmark

Percent of 2013 ACT-Tested High School Graduates by Number of ACT College Readiness Benchmarks Attained

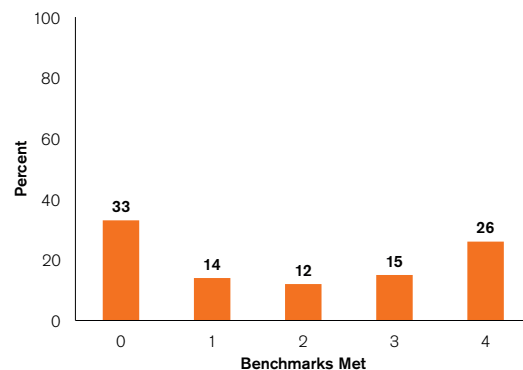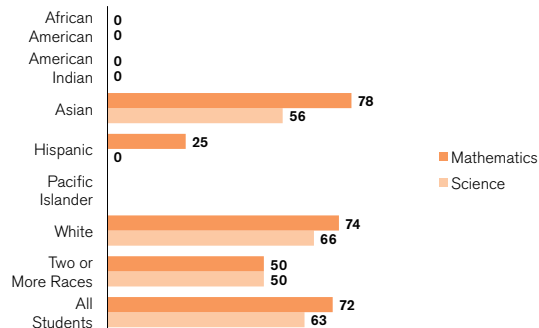Note: Reporting achievement by combinations of student characteristics may give rise to small *N* counts. As a result, outcomes reported in this section should be interpreted with caution.

Computer Science and Mathematics
Majors/Occupations

Expressed and Measured Interest

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Race/Ethnicity and Subject*

Race/Ethnicity	Mathematics	Science
African American	0	0
American Indian	0	0
Asian	78	56
Hispanic	25	0
Pacific Islander		
White	74	66
Two or More Races	50	50
All Students	72	63

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Gender and Subject

Gender	Mathematics	Science
Male	71	62
Female	83	75

Expressed Interest Only

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Race/Ethnicity and Subject*

Race/Ethnicity	Mathematics	Science
African American	50	33
American Indian	0	0
Asian	75	55
Hispanic	36	23
Pacific Islander	25	0
White	70	61
Two or More Races	76	65
All Students	65	54

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Gender and Subject

Gender	Mathematics	Science
Male	64	54
Female	70	56

Measured Interest Only

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Race/Ethnicity and Subject*

Race/Ethnicity	Mathematics	Science
African American	0	0
American Indian	0	0
Asian	59	24
Hispanic	28	20
Pacific Islander	0	0
White	59	49
Two or More Races	31	23
All Students	47	36

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Gender and Subject

Gender	Mathematics	Science
Male	52	40
Female	41	32

* Race/ethnicity categories changed for the 2010–2011 academic year to reflect updated US Department of Education reporting requirements.
Note: Reporting achievement by combinations of student characteristics may give rise to small *N* counts. As a result, outcomes reported in this section should be interpreted with caution.
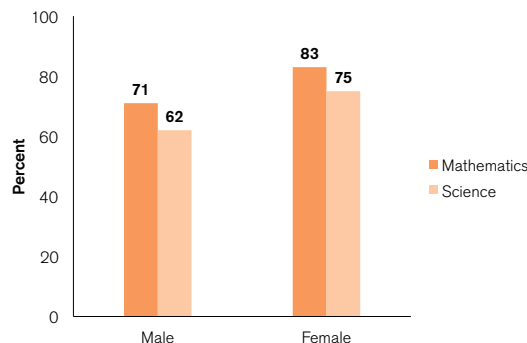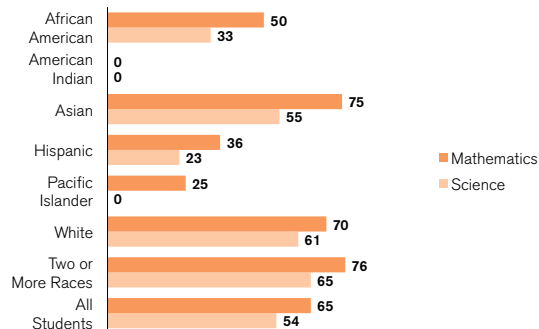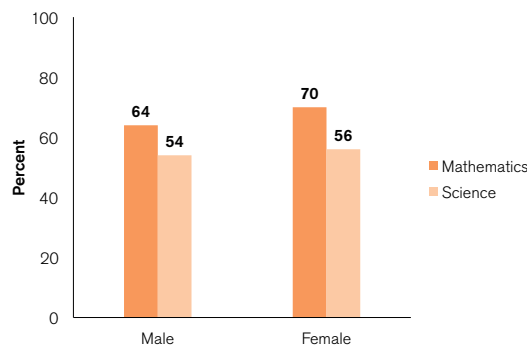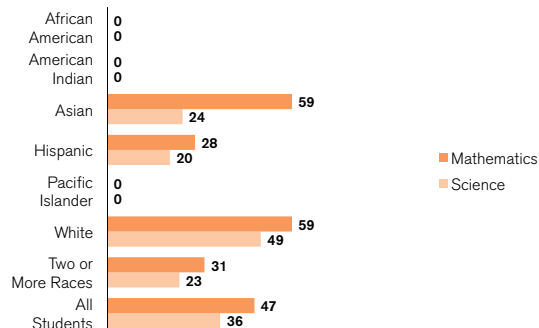
Computer Science and Mathematics
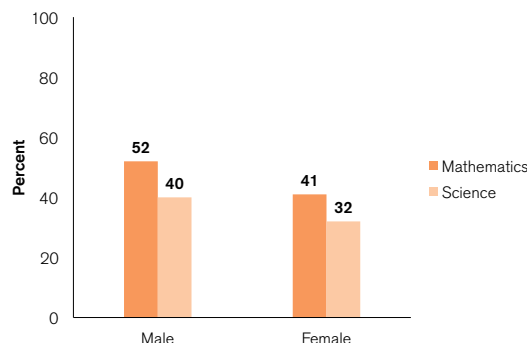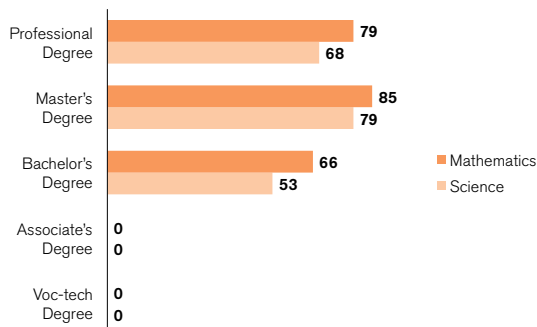## Majors/Occupations

Expressed and Measured Interest

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Educational Aspirations and Subject

	Mathematics	Science
Professional Degree	79	68
Master's Degree	85	79
Bachelor's Degree	66	53
Associate's Degree	0	0
Voc-tech Degree	0	0

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Highest Parental Education Level

	Mathematics	Science
Professional Degree	75	63
Master's Degree	85	73
Bachelor's Degree	74	79
Associate's Degree	56	11
Certification or Some College	79	57
High School Graduate or Less	53	53

Expressed Interest Only

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Educational Aspirations and Subject

	Mathematics	Science
Professional Degree	75	68
Master's Degree	87	76
Bachelor's Degree	55	45
Associate's Degree	27	27
Voc-tech Degree	0	0

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Highest Parental Education Level

	Mathematics	Science
Professional Degree	79	84
Master's Degree	77	70
Bachelor's Degree	74	60
Associate's Degree	52	43
Certification or Some College	37	39
High School Graduate or Less	57	24

Measured Interest Only

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Educational Aspirations and Subject

	Mathematics	Science
Professional Degree	65	45
Master's Degree	68	54
Bachelor's Degree	46	36
Associate's Degree	8	8
Voc-tech Degree	0	0

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Highest Parental Education Level

	Mathematics	Science
Professional Degree	75	58
Master's Degree	67	57
Bachelor's Degree	54	49
Associate's Degree	45	55
Certification or Some College	38	17
High School Graduate or Less	13	7

Note: Reporting achievement by combinations of student characteristics may give rise to small *N* counts. As a result, outcomes reported in this section should be interpreted with caution.
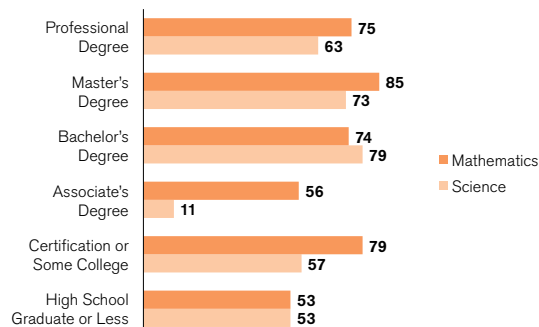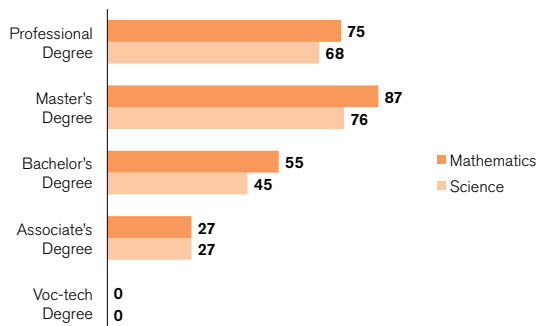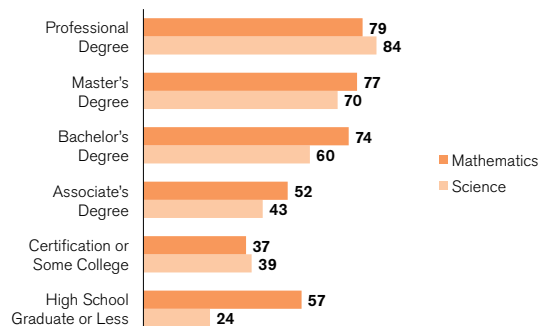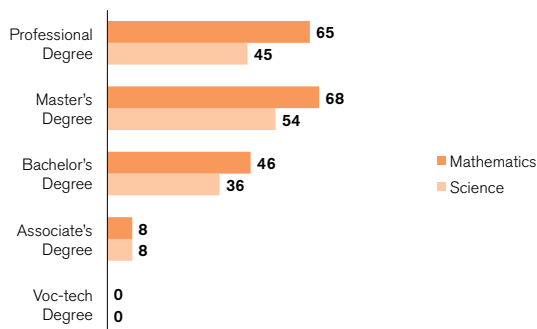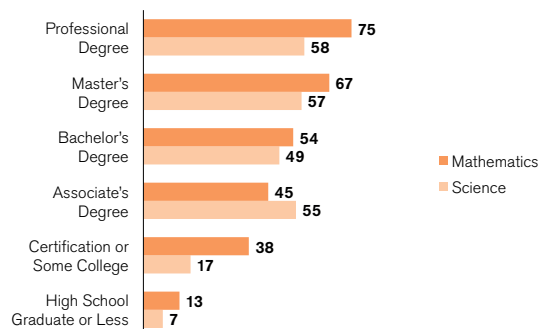
Computer Science and Mathematics
Majors/Occupations

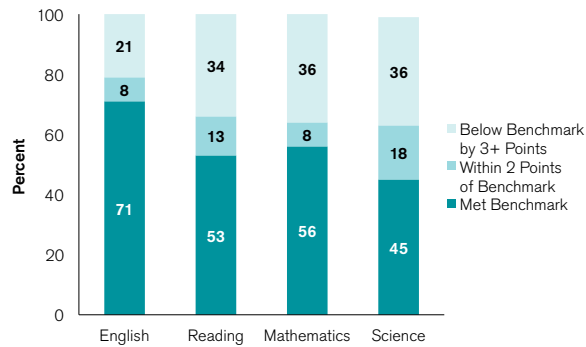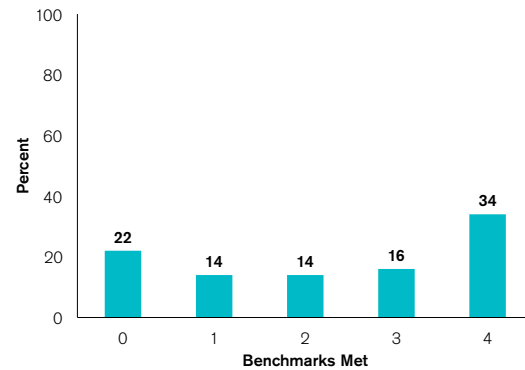| Computer Science and Mathematics Majors/Occupations	Oregon	
	Expressed and Measured Interest	Expressed Interest Only
Actuarial Science	2	2
Applied Mathematics	3	8
Business/Management Quantitative Methods, General	11	49
Computer and Information Sciences, General	24	43
Computer Network/Telecommunications	5	4
Computer Science and Programming	55	74
Computer Software and Media Application	7	22
Computer System Administration	2	2
Data Management Technology	1	0
Information Science	1	1
Management Information Systems	0	6
Mathematics Education	1	23
Mathematics, General	9	21
Statistics	1	6
Webpage Design	2	8

Medical and Health
Majors/Occupations

Expressed and Measured Interest

Percent of 2013 ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject
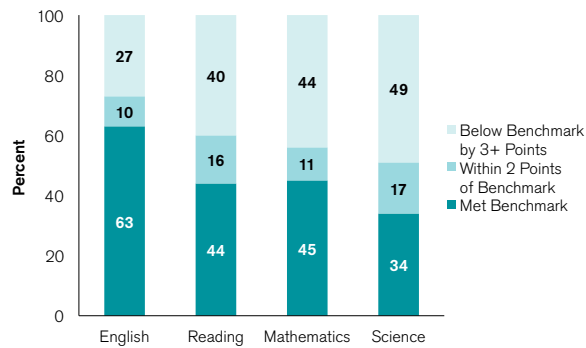

Legend:
- Below Benchmark by 3+ Points
- Within 2 Points of Benchmark
- Met Benchmark

Subject	Below Benchmark by 3+ Points	Within 2 Points of Benchmark	Met Benchmark
English	21	8	71
Reading	34	13	53
Mathematics	36	8	56
Science	36	18	45

Percent of 2013 ACT-Tested High School Graduates by Number of ACT College Readiness Benchmarks Attained

Benchmarks Met	Percent
0	22
1	14
2	14
3	16
4	34

Expressed Interest Only

Percent of 2013 ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject

Legend:
- Below Benchmark by 3+ Points
- Within 2 Points of Benchmark
- Met Benchmark

Subject	Below Benchmark by 3+ Points	Within 2 Points of Benchmark	Met Benchmark
English	27	10	63
Reading	40	16	44
Mathematics	44	11	45
Science	49	17	34

Percent of 2013 ACT-Tested High School Graduates by Number of ACT College Readiness Benchmarks Attained

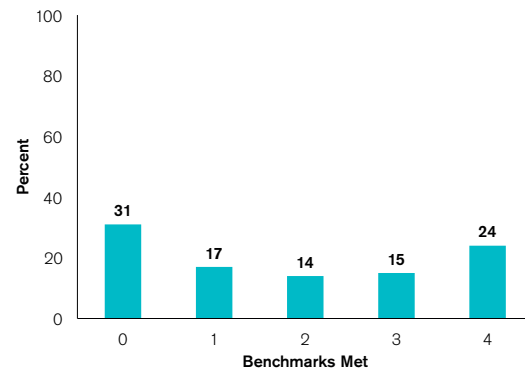| Benchmarks Met	Percent
0	31
1	17
2	14
3	15
4	24

Measured Interest Only

Percent of 2013 ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject

Legend:
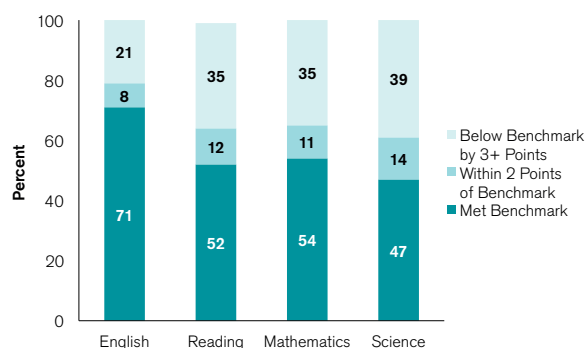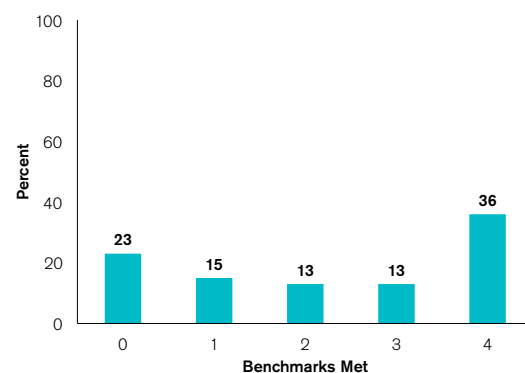- Below Benchmark by 3+ Points
- Within 2 Points of Benchmark
- Met Benchmark

Subject	Below Benchmark by 3+ Points	Within 2 Points of Benchmark	Met Benchmark
English	21	8	71
Reading	35	12	52
Mathematics	35	11	54
Science	39	14	47

Percent of 2013 ACT-Tested High School Graduates by Number of ACT College Readiness Benchmarks Attained

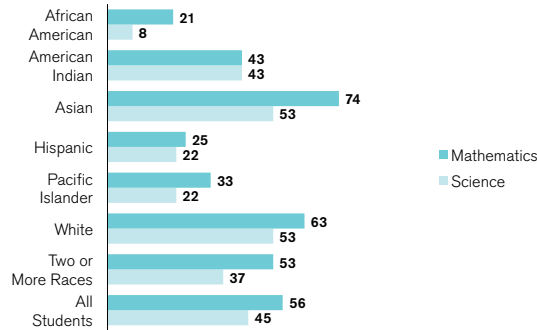| Benchmarks Met	Percent
0	23
1	15
2	13
3	13
4	36

Note: Reporting achievement by combinations of student characteristics may give rise to small *N* counts. As a result, outcomes reported in this section should be interpreted with caution.
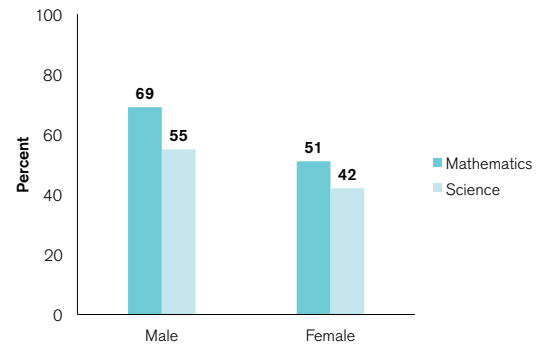
Medical and Health

Majors/Occupations

Expressed and Measured Interest

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Race/Ethnicity and Subject*


African American: Mathematics 21, Science 8
American Indian: Mathematics 43, Science 43
Asian: Mathematics 74, Science 53
Hispanic: Mathematics 25, Science 22
Pacific Islander: Mathematics 33, Science 22
White: Mathematics 63, Science 53
Two or More Races: Mathematics 53, Science 37
All Students: Mathematics 56, Science 45

■ Mathematics
■ Science

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Gender and Subject

Male: Mathematics 69, Science 55
Female: Mathematics 51, Science 42
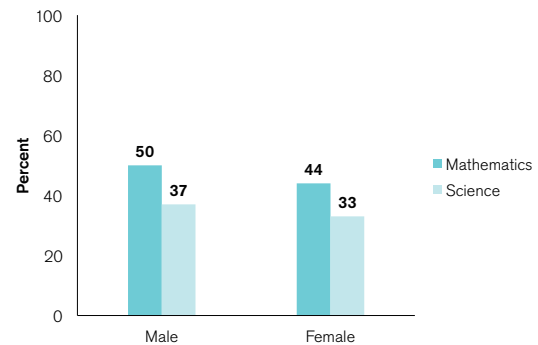
■ Mathematics
■ Science

Expressed Interest Only

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Race/Ethnicity and Subject*

African American: Mathematics 16, Science 8
American Indian: Mathematics 7, Science 0
Asian: Mathematics 65, Science 45
Hispanic: Mathematics 21, Science 13
Pacific Islander: Mathematics 0, Science 0
White: Mathematics 51, Science 39
Two or More Races: Mathematics 51, Science 39
All Students: Mathematics 45, Science 34

■ Mathematics
■ Science

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Gender and Subject

Male: Mathematics 50, Science 37
Female: Mathematics 44, Science 33

■ Mathematics
■ Science

Measured Interest Only

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Race/Ethnicity and Subject*
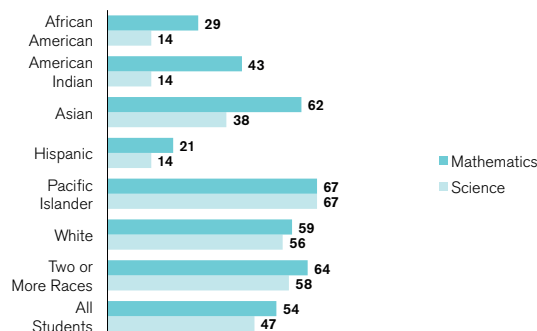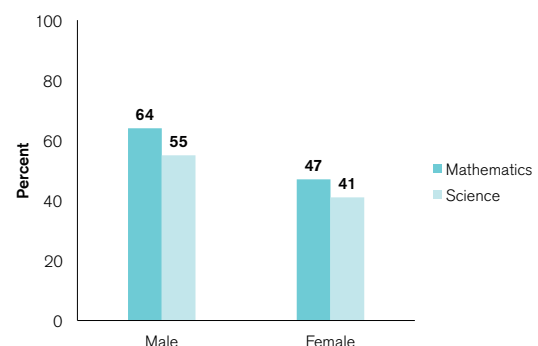

African American: Mathematics 29, Science 14
American Indian: Mathematics 43, Science 14
Asian: Mathematics 62, Science 38
Hispanic: Mathematics 21, Science 14
Pacific Islander: Mathematics 67, Science 67
White: Mathematics 59, Science 56
Two or More Races: Mathematics 64, Science 58
All Students: Mathematics 54, Science 47

■ Mathematics
■ Science

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Gender and Subject

Male: Mathematics 64, Science 55
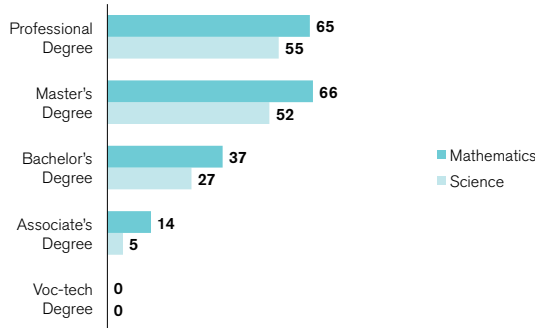Female: Mathematics 47, Science 41

■ Mathematics
■ Science

* Race/ethnicity categories changed for the 2010–2011 academic year to reflect updated US Department of Education reporting requirements.
Note: Reporting achievement by combinations of student characteristics may give rise to small *N* counts. As a result, outcomes reported in this section should be interpreted with caution.
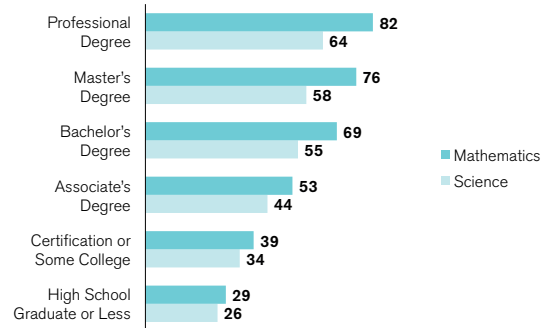
Medical and Health
Majors/Occupations

Expressed and Measured Interest

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Educational Aspirations and Subject
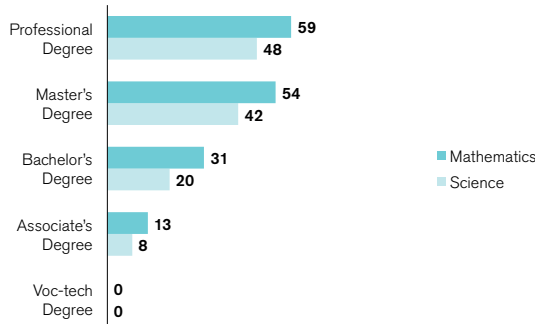
Degree	Mathematics	Science
Professional Degree	65	55
Master's Degree	66	52
Bachelor's Degree	37	27
Associate's Degree	14	5
Voc-tech Degree	0	0

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Highest Parental Education Level

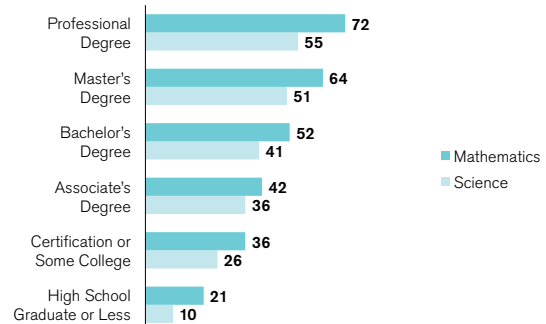| Level	Mathematics	Science
Professional Degree	82	64
Master's Degree	76	58
Bachelor's Degree	69	55
Associate's Degree	53	44
Certification or Some College	39	34
High School Graduate or Less	29	26

Expressed Interest Only

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Educational Aspirations and Subject
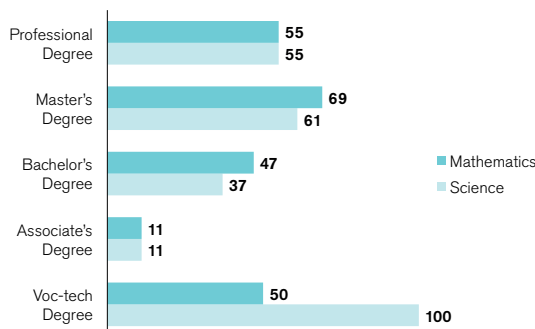
Degree	Mathematics	Science
Professional Degree	59	48
Master's Degree	54	42
Bachelor's Degree	31	20
Associate's Degree	13	8
Voc-tech Degree	0	0

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Highest Parental Education Level

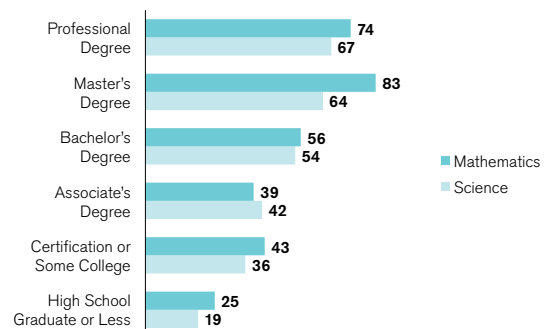| Level	Mathematics	Science
Professional Degree	72	55
Master's Degree	64	51
Bachelor's Degree	52	41
Associate's Degree	42	36
Certification or Some College	36	26
High School Graduate or Less	21	10

Measured Interest Only

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Educational Aspirations and Subject

Degree	Mathematics	Science
Professional Degree	55	55
Master's Degree	69	61
Bachelor's Degree	47	37
Associate's Degree	11	11
Voc-tech Degree	50	100

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Highest Parental Education Level

Level	Mathematics	Science
Professional Degree	74	67
Master's Degree	83	64
Bachelor's Degree	56	54
Associate's Degree	39	42
Certification or Some College	43	36
High School Graduate or Less	25	19

Note: Reporting achievement by combinations of student characteristics may give rise to small *N* counts. As a result, outcomes reported in this section should be interpreted with caution.

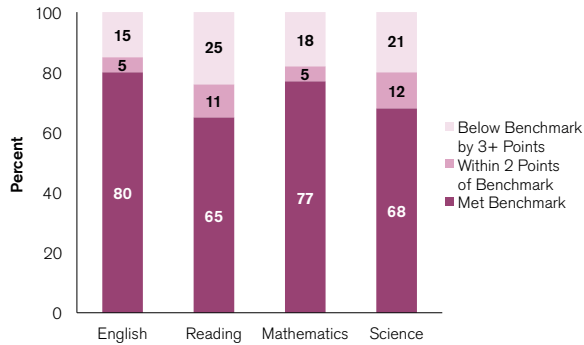# Medical and Health

Majors/Occupations

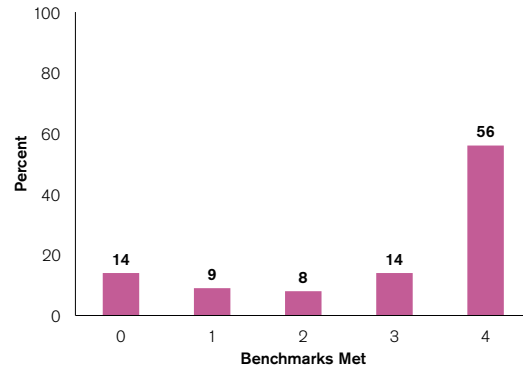| Medical and Health Majors/Occupations	Oregon	
	Expressed and Measured Interest	Expressed Interest Only
Athletic Training	34	96
Chiropractic (Pre-Chiropractic)	2	11
Dentistry (Pre-Dentistry)	42	44
Emergency Medical Technology	10	25
Food and Nutrition	7	20
Health/Medical Technology, General	44	49
Medical Laboratory Technology	12	5
Medical Radiologic Technology	22	34
Medicine (Pre-Medicine)	358	197
Nuclear Medicine Technology	5	0
Nursing, Practical/Vocational (LPN)	27	40
Nursing, Registered (BS/RN)	188	291
Optometry (Pre-Optometry)	12	8
Osteopathic Medicine	4	1
Pharmacy (Pre-Pharmacy)	68	51
Physical Therapy (Pre-Physical Therapy)	66	115
Physician Assisting	20	15
Respiratory Therapy Technology	0	2
Surgical Technology	16	9
Veterinarian Assisting/Technology	13	6
Veterinary Medicine (Pre-Vet)	52	33

Engineering and Technology
Majors/Occupations

Expressed and Measured Interest

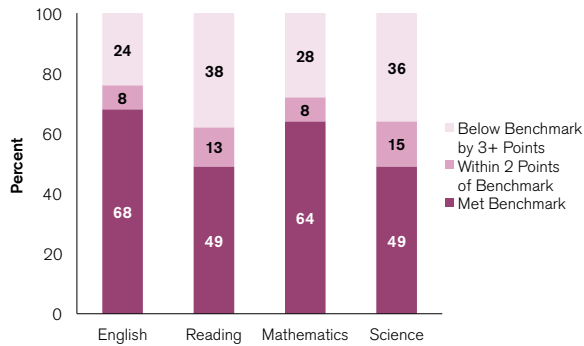**Percent of 2013 ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject**

Percent of 2013 ACT-Tested High School Graduates by Number of ACT College Readiness Benchmarks Attained
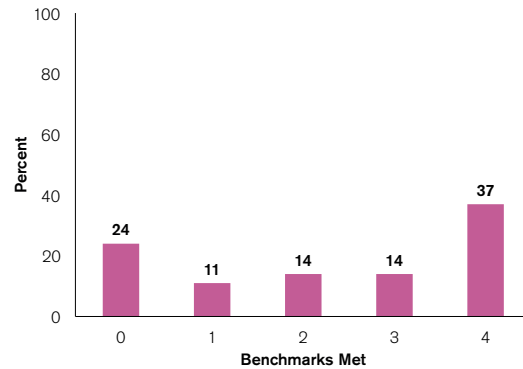

Expressed Interest Only

Percent of 2013 ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject
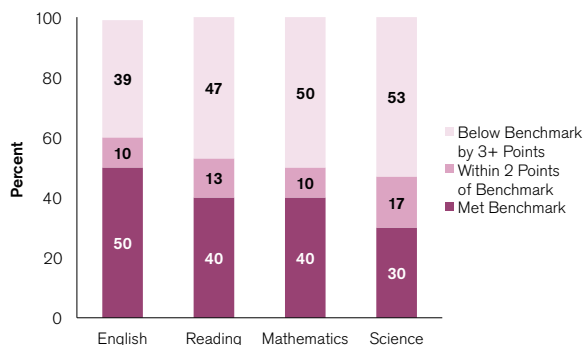

Percent of 2013 ACT-Tested High School Graduates by Number of ACT College Readiness Benchmarks Attained

Measured Interest Only

Percent of 2013 ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject

Percent of 2013 ACT-Tested High School Graduates by Number of ACT College Readiness Benchmarks Attained
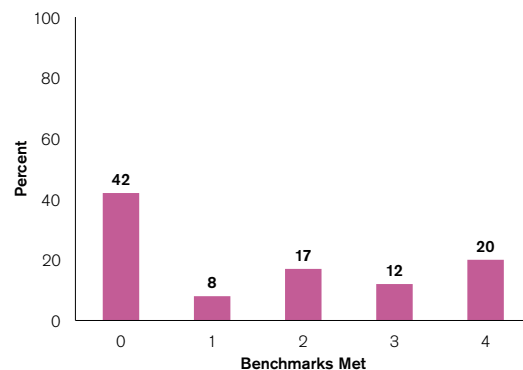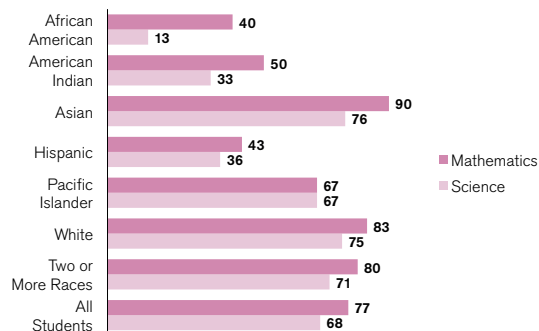

Note: Reporting achievement by combinations of student characteristics may give rise to small *N* counts. As a result, outcomes reported in this section should be interpreted with caution.
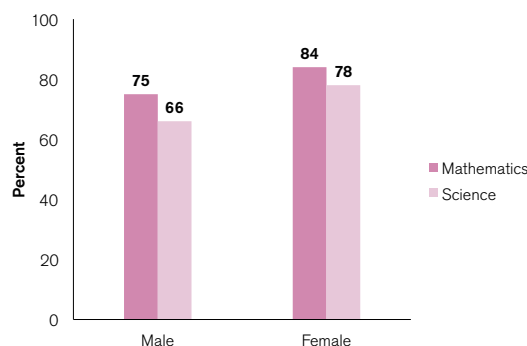
Engineering and Technology

Majors/Occupations

Expressed and Measured Interest

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Race/Ethnicity and Subject*

African American — Mathematics: 40, Science: 13
American Indian — Mathematics: 50, Science: 33
Asian — Mathematics: 90, Science: 76
Hispanic — Mathematics: 43, Science: 36
Pacific Islander — Mathematics: 67, Science: 67
White — Mathematics: 83, Science: 75
Two or More Races — Mathematics: 80, Science: 71
All Students — Mathematics: 77, Science: 68

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Gender and Subject

Male — Mathematics: 75, Science: 66
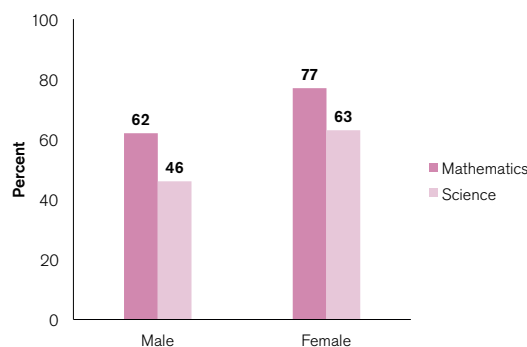Female — Mathematics: 84, Science: 78

Expressed Interest Only

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Race/Ethnicity and Subject*

African American — Mathematics: 19, Science: 13
American Indian — Mathematics: 44, Science: 22
Asian — Mathematics: 70, Science: 41
Hispanic — Mathematics: 40, Science: 25
Pacific Islander — Mathematics: 0, Science: 0
White — Mathematics: 71, Science: 57
Two or More Races — Mathematics: 66, Science: 53
All Students — Mathematics: 64, Science: 49

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Gender and Subject

Male — Mathematics: 62, Science: 46
Female — Mathematics: 77, Science: 63

Measured Interest Only

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Race/Ethnicity and Subject*
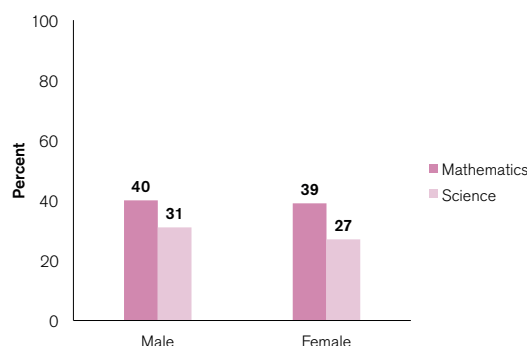
American Indian — Mathematics: 25, Science: 25
Asian — Mathematics: 67, Science: 83
Hispanic — Mathematics: 16, Science: 20
Pacific Islander — Mathematics: 0, Science: 0
White — Mathematics: 43, Science: 29
Two or More Races — Mathematics: 60, Science: 30
All Students — Mathematics: 40, Science: 30

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Gender and Subject

Male — Mathematics: 40, Science: 31
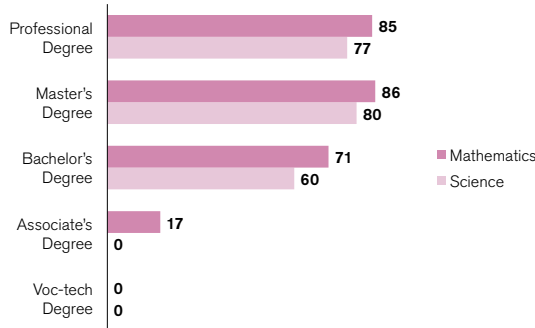Female — Mathematics: 39, Science: 27

* Race/ethnicity categories changed for the 2010–2011 academic year to reflect updated US Department of Education reporting requirements.
Note: Reporting achievement by combinations of student characteristics may give rise to small *N* counts. As a result, outcomes reported in this section should be interpreted with caution.
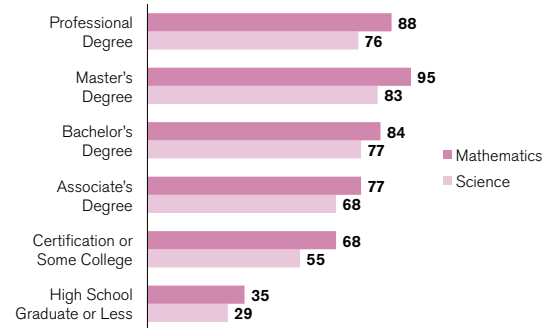
Engineering and Technology

Majors/Occupations

Expressed and Measured Interest

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Educational Aspirations and Subject

Educational Aspiration	Mathematics	Science
Professional Degree	85	77
Master's Degree	86	80
Bachelor's Degree	71	60
Associate's Degree	17	0
Voc-tech Degree	0	0

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Highest Parental Education Level

Parental Education Level	Mathematics	Science
Professional Degree	88	76
Master's Degree	95	83
Bachelor's Degree	84	77
Associate's Degree	77	68
Certification or Some College	68	55
High School Graduate or Less	35	29

Expressed Interest Only

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Educational Aspirations and Subject
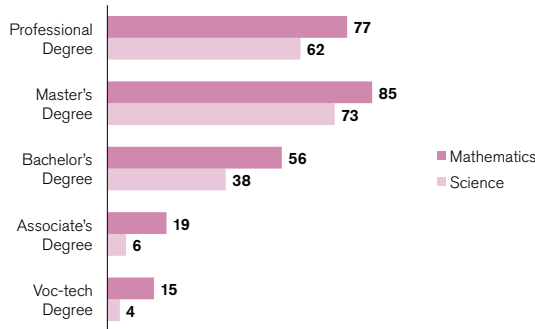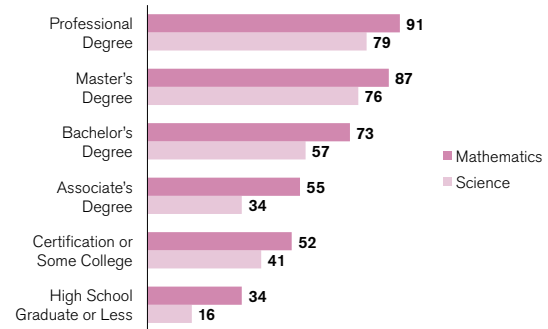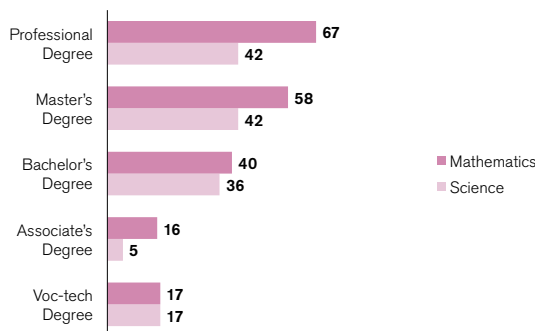
Educational Aspiration	Mathematics	Science
Professional Degree	77	62
Master's Degree	85	73
Bachelor's Degree	56	38
Associate's Degree	19	6
Voc-tech Degree	15	4

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Highest Parental Education Level

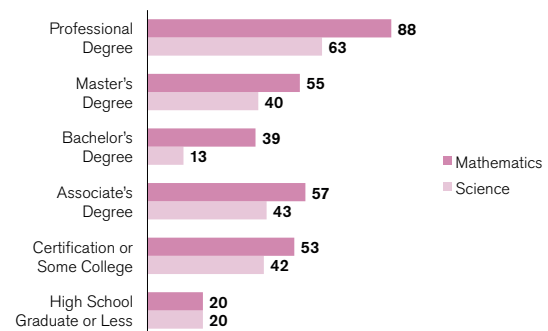| Parental Education Level	Mathematics	Science
Professional Degree	91	79
Master's Degree	87	76
Bachelor's Degree	73	57
Associate's Degree	55	34
Certification or Some College	52	41
High School Graduate or Less	34	16

Measured Interest Only

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Educational Aspirations and Subject

Educational Aspiration	Mathematics	Science
Professional Degree	67	42
Master's Degree	58	42
Bachelor's Degree	40	36
Associate's Degree	16	5
Voc-tech Degree	17	17

Percent of 2013 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Highest Parental Education Level

Parental Education Level	Mathematics	Science
Professional Degree	88	63
Master's Degree	55	40
Bachelor's Degree	39	13
Associate's Degree	57	43
Certification or Some College	53	42
High School Graduate or Less	20	20

Note: Reporting achievement by combinations of student characteristics may give rise to small *N* counts. As a result, outcomes reported in this section should be interpreted with caution.

Engineering and Technology
Majors/Occupations

| Engineering and Technology Majors/Occupations	Oregon	
	Expressed and Measured Interest	Expressed Interest Only
Aeronautical/Aerospace Engineering Technology	7	6
Aerospace/Aeronautical Engineering	69	46
Agricultural/Bioengineering	7	3
Architectural Drafting/CAD Technology	2	5
Architectural Engineering	7	30
Architectural Engineering Technology	0	3
Architecture, General	21	65
Automotive Engineering Technology	6	18
Biomedical Engineering	48	25
Chemical Engineering	52	22
Civil Engineering	33	72
Civil Engineering Technology	2	7
Computer Engineering	39	53
Computer Engineering Technology	11	15
Construction Engineering/Management	4	23
Construction/Building Technology	2	3
Drafting/CAD Technology, General	4	7
Electrical, Electronic, and Communication Engineering	30	49
Electrical/Electronics Engineering Technology	5	16
Electromechanical/Biomedical Engineering Technology	3	0
Engineering (Pre-Engineering), General	118	152
Engineering Technology, General	16	29
Environmental Control Technologies	0	2
Environmental Health Engineering	11	10
Industrial Engineering	4	12
Industrial Production Technologies	0	1
Mechanical Drafting/CAD Technology	1	5
Mechanical Engineering	95	139
Mechanical Engineering Technology	5	8
Military Technologies	6	25
Nuclear Engineering	12	14
Quality Control and Safety Technologies	0	0
Surveying Technology	0	1

ACT

ACT STEM Research

As a nonprofit educational research organization, ACT is committed to producing research that focuses on key issues in education and workforce development. Our goal is to serve as a data resource. We strive to provide policymakers with the information they need to inform education and workforce development policy and to give educators the tools they need to lead more students toward college and career success. What follows are some of ACT's recent and most groundbreaking research studies related to STEM. To review these studies, go to **www.act.org/research/summary**.

ACT National Curriculum Survey®

The ACT National Curriculum Survey is a nationwide survey of educational practices and expectations. Conducted every three to five years by ACT, the survey collects data about what entering college students should know and be able to do to be ready for college-level coursework in English, math, reading, and science. The survey can be found at **www.act.org/research-policy/national-curriculum-survey**.
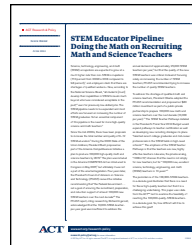
STEM Educator Pipeline: Doing the Math on Recruiting Math and Science Teachers

This report uses data from the ACT college readiness assessment to examine the feasibility of producing 100,000 high-quality math and science teachers in the next decade and finds that there is an insufficient number of graduates interested in and capable of math and science teaching to meet the 100,000 high-quality teacher goal. The report can be found at **www.act.org/research/policymakers/reports/stempipeline.html**.
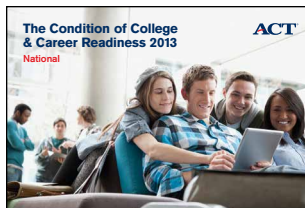
The Condition of College & Career Readiness

Using ACT scores and the ACT College Readiness Benchmarks, *The Condition of College & Career Readiness 2013* provides a series of graphics highlighting the college and career readiness of the ACT-tested high school class of 2013. This report is updated annually, and the 2013 report can be found at **www.act.org/newsroom/data/2013**.
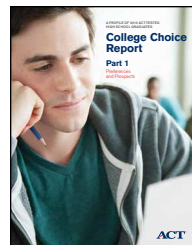
College Choice Report, Part 1: Preferences and Prospects

The *College Choice Report* provides enrollment managers and other college administrators with information about student patterns during the college choice process of the 2013 high school graduates who took the ACT. The focus of this year's report is students' selection of a college major or program of study. The report can be found at **www.act.org/collegechoice/13-14**.

STEM Resources

ACT has connected with state STEM councils across the country to identify valuable STEM-related resources. These are the top resources suggested by STEM experts.

STEM Premier™
STEM Premier is a virtual platform that connects STEM students with higher education and the workforce. Students can showcase their skills, get ranked and rated, receive guidance, and find STEM scholarships while colleges, technical schools, and corporations can identify, track, and recruit STEM Premier talent.
www.stempremier.com

National Science Foundation
The National Science Foundation is an independent federal agency created by Congress in 1950 to promote the progress of science; to advance national health, prosperity, and welfare; and to secure national defense.
www.nsf.gov

STEMconnector®
STEMconnector is the one-stop shop for keeping up with trends in STEM education. Its website features profiles of all 50 states and more than 6,000 organizations and an informative blog. STEMconnector sends a free daily newsletter, the STEMdaily®, to more than 12,000 thought leaders.
www.stemconnector.org

Projections of Jobs and Education Requirements Through 2018
This report from the Georgetown University Center on Education and the Workforce connects education and training to careers.
www9.georgetown.edu/grad/gppi/hpi/cew/ pdfs/fullreport.pdf

USA Science and Engineering Festival
The USA Science and Engineering Festival attracts thousands of K–12 students, parents, teachers, and STEM professionals in the largest national celebration of STEM. The third annual conference will be held April 24–27, 2014, in Washington, DC.
www.usasciencefestival.org

USNews.com
USNews.com has comprehensive coverage on STEM trends in education and careers. Its national leadership conference, US News STEM Solutions, is where employers and educators meet to effect change, take action, and make an impact.
www.usnews.com/news/stem-solutions

ACT-Defined STEM Majors and Occupations by Area

Science Majors/Occupations

Agronomy and Crop Science
Animal Sciences
Astronomy
Atmospheric Sciences and Meteorology
Biochemistry and Biophysics
Biology, General
Cell/Cellular Biology
Chemistry
Ecology
Environmental Science
Food Sciences and Technology
Forestry
Genetics
Geological and Earth Sciences
Horticulture Science
Marine/Aquatic Biology
Microbiology and Immunology
Natural Resources Conservation, General
Natural Resources Management
Physical Sciences, General
Physics
Science Education
Wildlife and Wildlands Management
Zoology

Computer Science and Mathematics Majors/Occupations

Actuarial Science
Applied Mathematics
Business/Management Quantitative Methods, General
Computer and Information Sciences, General
Computer Network/Telecommunications
Computer Science and Programming
Computer Software and Media Application
Computer System Administration
Data Management Technology
Information Science
Management Information Systems
Mathematics Education
Mathematics, General
Statistics
Webpage Design

Medical and Health Majors/Occupations

Athletic Training
Chiropractic (Pre-Chiropractic)
Dentistry (Pre-Dentistry)
Emergency Medical Technology
Food and Nutrition
Health/Medical Technology, General
Medical Laboratory Technology
Medical Radiologic Technology
Medicine (Pre-Medicine)
Nuclear Medicine Technology
Nursing, Practical/Vocational (LPN)
Nursing, Registered (BS/RN)
Optometry (Pre-Optometry)
Osteopathic Medicine
Pharmacy (Pre-Pharmacy)
Physical Therapy (Pre-Physical Therapy)
Physician Assisting
Respiratory Therapy Technology
Surgical Technology
Veterinarian Assisting/Technology
Veterinary Medicine (Pre-Vet)

Engineering and Technology Majors/Occupations

Aeronautical/Aerospace Engineering Technology
Aerospace/Aeronautical Engineering
Agricultural/Bioengineering
Architectural Drafting/CAD Technology
Architectural Engineering
Architectural Engineering Technology
Architecture, General
Automotive Engineering Technology
Biomedical Engineering
Chemical Engineering
Civil Engineering
Civil Engineering Technology
Computer Engineering
Computer Engineering Technology
Construction Engineering/Management
Construction/Building Technology
Drafting/CAD Technology, General
Electrical, Electronic, and Communication Engineering
Electrical/Electronics Engineering Technology
Electromechanical/Biomedical Engineering Technology
Engineering (Pre-Engineering), General
Engineering Technology, General
Environmental Control Technologies
Environmental Health Engineering
Industrial Engineering
Industrial Production Technologies
Mechanical Drafting/CAD Technology
Mechanical Engineering
Mechanical Engineering Technology
Military Technologies
Nuclear Engineering
Quality Control and Safety Technologies
Surveying Technology

Oregon STEM Report
Endnotes

1. Students were assigned to one of four STEM cohorts: Expressed and Measured, Expressed Only, Measured Only, or No STEM Interest. These cohorts were based on the pairing of Expressed and Measured STEM interest types, where:

   • Students with expressed STEM interest planned on a STEM major or occupation following high school.

   • Students with measured STEM interest had a highest ACT Interest Inventory score in Science or had a highest ACT Interest Inventory score in Technology and a second-highest score in Science.

   Within each STEM cohort, students were also assigned to one of four STEM areas: Science, Computer Science and Mathematics, Medical and Health, or Engineering and Technology. STEM areas for students in the Expressed and Measured Interest cohort and the Expressed Interest Only cohort were based on the STEM area of students' planned major. If planned major was not STEM, then the STEM area of their planned occupation was used. For students in the Measured Interest Only cohort, STEM area was based on a crosswalk between ACT Interest Inventory score profile and planned major. The crosswalk was created from a national sample of undergraduate students with a declared major and a grade point average of at least 2.0. (For more information about the crosswalk, go to **www.act.org/emtrends/12/interestmajor.html**.) By definition, students in the No STEM Interest cohort could not be assigned a STEM area.

2. The ACT College Readiness Benchmarks are scores on the ACT subject area tests that represent the level of achievement required for students to have a 50% chance of obtaining a B or higher or about a 75% chance of obtaining a C or higher in corresponding credit-bearing first-year college courses. Based on a nationally stratified sample, the Benchmarks are median course placement values for these institutions and represent a typical set of expectations. The ACT College Readiness Benchmarks are:

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

3. When individuals register for the ACT, they are asked to choose a college major they plan to enter as well as an occupational choice from a list of 294 major and occupational titles. Of these 294 titles, 93 have been identified as STEM related. Assignment of ACT titles to STEM titles was conducted by an expert panel of ACT staff members with knowledge of labor market trends and postsecondary academic programs. Panel decisions were informed by three sources of information: (1) STEM-designated occupations from the US Bureau of Labor Statistics (BLS), (2) STEM-designated degree programs from US Immigration and Customs Enforcement (ICE), and (3) ACT Interest Inventory score profiles for students planning to enter the major/occupation. ACT titles were assigned to STEM when both the corresponding BLS and ICE titles were included in STEM or when the corresponding BLS title was included in STEM and the profile of measured interests of students planning to enter this occupation peaked on the Science and Technology scale. These two guidelines accounted for 89 of the 93 ACT titles assigned to STEM. The remaining four titles were assigned to STEM based on the judged intensiveness of their math and science coursework (major) or work tasks (occupation). ACT titles in the Social Sciences were excluded from this STEM list because many STEM taxonomies do not include majors and occupations in this field.

ACT is an independent, nonprofit organization that provides assessment, research, information, and program management services in the broad areas of education and workforce development. Each year, we serve millions of people in high schools, colleges, professional associations, businesses, and government agencies, nationally and internationally. Though designed to meet a wide array of needs, all ACT programs and services have one guiding purpose—helping people achieve education and workplace success.

This report can be found at
www.act.org/stemcondition

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