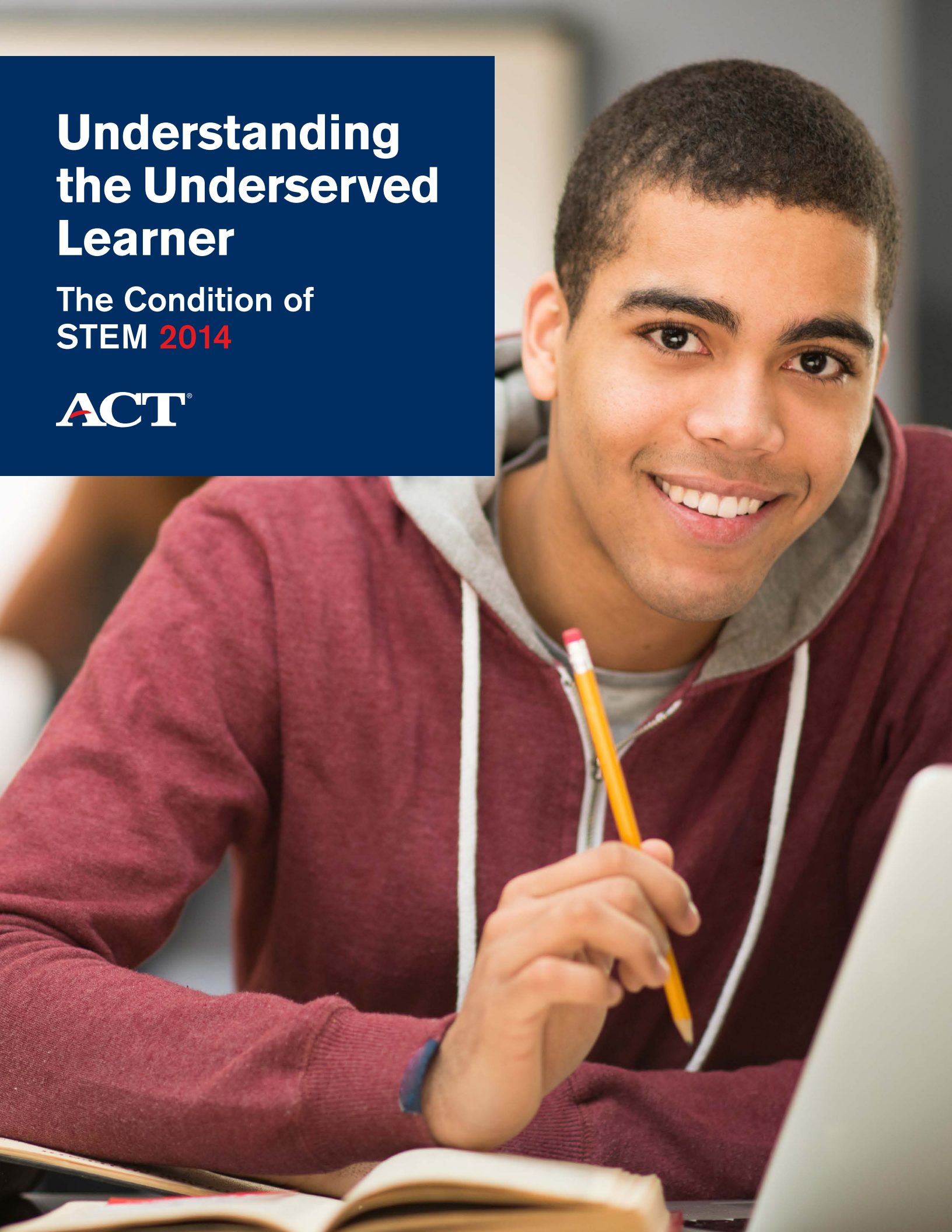
Understanding the Underserved Learner

The Condition of STEM 2014

ACT®



Understanding the Underserved Learner 2014

In 2013, ACT expanded its *Condition of College & Career Readiness* series to include a special report focused on students who indicated an interest in STEM-related fields. For the last two years, the *Condition of STEM* report series has provided a comprehensive picture of the college readiness levels of these students. To further advance STEM readiness and to honor its commitments to engaging underserved learners in pursuit of their college and career goals, ACT is focusing on that audience in this *Condition of STEM* report. Historically, access to quality education and career planning opportunities and resources was hindered for underserved learners. Identifying these students and determining their readiness in math and science could provide them with more opportunities to successfully enter STEM careers and help address the national deficit of skilled STEM workers.

ACT is uniquely positioned to deliver this report for two key reasons. First, our commitment to science is exemplified by the inclusion of a science test in our assessments. Second, the ACT Interest Inventory, our distinctive research-based measure of students' interest in a range of occupations and majors, enables us to identify students with an expressed or measured interest in STEM fields. By combining ACT Interest Inventory results with ACT® test scores, we are able to describe college readiness among students interested in STEM careers.

Definition of Underserved Learners

ACT identifies underserved learners using student characteristics that are often related to a lack of access to high-quality educational and career planning opportunities and resources. Specifically, this definition encompasses students who have at least **one** of the following characteristics:

- **Minority:** race/ethnicity is African American, American Indian/Alaska Native, Hispanic/Latino, or Native Hawaiian/other Pacific Islander
- **Low income:** combined parental income is less than or equal to $36,000
- **First generation in college:** highest parental education level is high school diploma or less

This definition, consistent with that used in current research activities and state/federal intervention programs, casts a wide net. We have elected to maintain such a broad definition for this report as a means of representing all underserved students.

Key Findings

- Underserved students make up a large portion of the potential STEM target group. Of the 899,684 students from the 2014 graduating class who had an interest in STEM, more than 418,000 (47%) were underserved students.
- Underserved graduates are just as likely as ACT-tested students overall to be interested in STEM—49% have an interest in STEM in each case.
- Underserved students are far less prepared for success in college STEM coursework than are students overall. For example, only 25% of underserved STEM students met the ACT College Readiness Benchmark in science, compared to 59% of students who are not underserved. Erasing this readiness gap in science would help more than 140,000 students become ready for first-year college science coursework.
- The three characteristics used by ACT to define underserved students appear to have a cumulative suppressing effect on college readiness. In other words, the greater the number of characteristics represented by students, the lower their Benchmark attainment rates. In isolation, embodiment of at least one underserved characteristic is associated with lower Benchmark attainment rates than STEM students nationwide. When compared to students meeting a single characteristic, those with pairs of characteristics saw readiness rates drop more than 20 percentage points. When all three characteristics were met, readiness rates dropped by up to 34 percentage points relative to the single-characteristic students.

What's Next?

These findings suggest that in order to best help underserved students succeed in STEM-related subjects and fields, we need to better understand the relationships among the defining characteristics and remove the barriers that they create alone and in combination with each other. A few ways to start developing solutions to remove some of these barriers include:

- Start STEM conversations with students at an early age.
- Bring parents into the conversation earlier.
- Include diverse STEM role models in the education process.
- Raise student awareness of college, scholarship, internship, and financial aid availability and opportunities.

Understanding the Underserved Learner 2014

Attainment of College and Career Readiness

Overall STEM Interest

- Between 2010 and 2014, the percent of underserved students interested in STEM stayed the same.

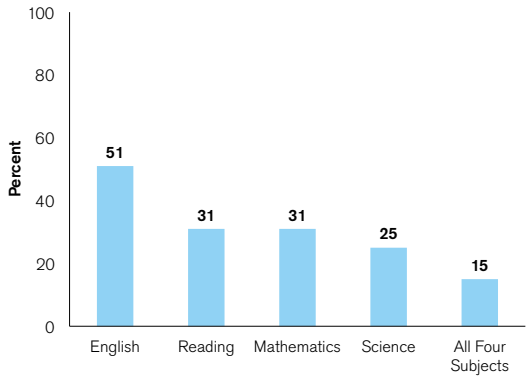
Underserved Student STEM Interest Trends: 2010–2014

		2010	2011	2012	2013	2014
Percent	**Nation**	49%	49%	48%	49%	49%
***N* Count**	**Nation**	299,283	346,718	372,671	405,517	418,375

Overall STEM Interest

- 418,375 underserved graduates have an interest in STEM.

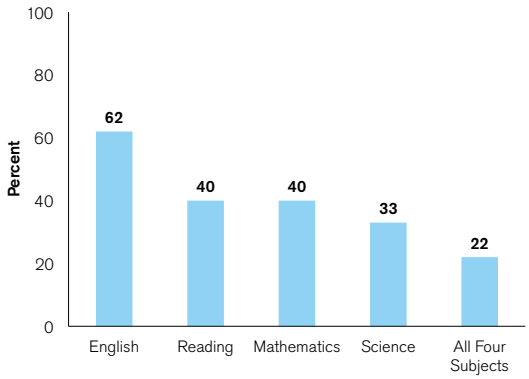
Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Subject



Expressed and Measured Interest

- 130,438 underserved graduates have an expressed and measured interest in STEM, which is 31% of the overall interest.

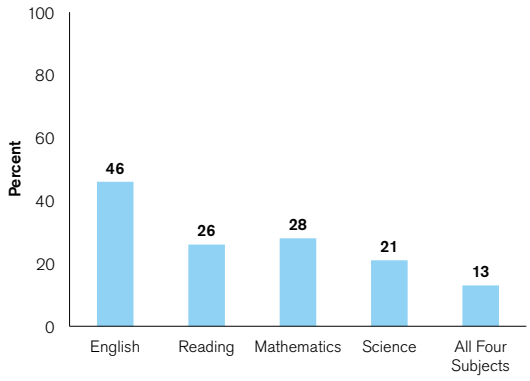
Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Subject



Expressed Interest Only

- 212,965 underserved graduates have an expressed interest in STEM, which is 51% of the overall interest.

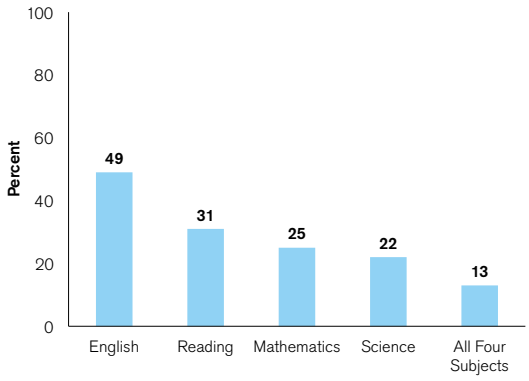
Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Subject



Measured Interest Only

- 74,972 underserved graduates have a measured interest in STEM, which is 18% of the overall interest.

Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Subject



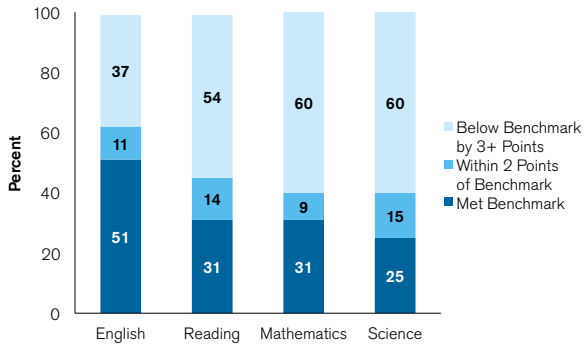
Note: Percents in this report may not sum to 100% due to rounding.

Understanding the Underserved Learner 2014

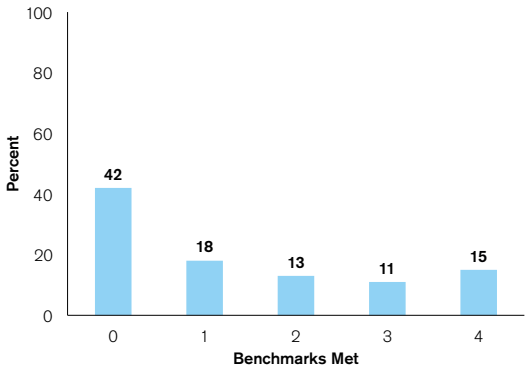
Attainment of College and Career Readiness

Overall STEM Interest (*N* = 418,375)

Percent of 2014 Underserved ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject

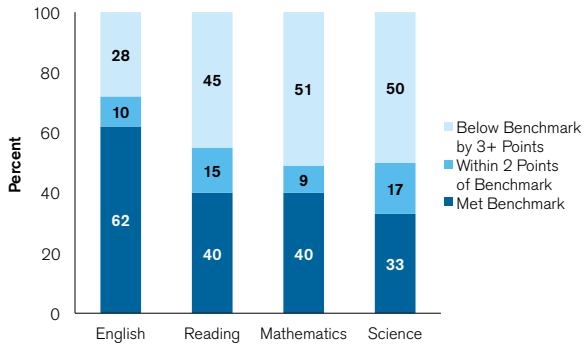


Percent of 2014 Underserved ACT-Tested High School Graduates by Number of ACT College Readiness Benchmarks Attained

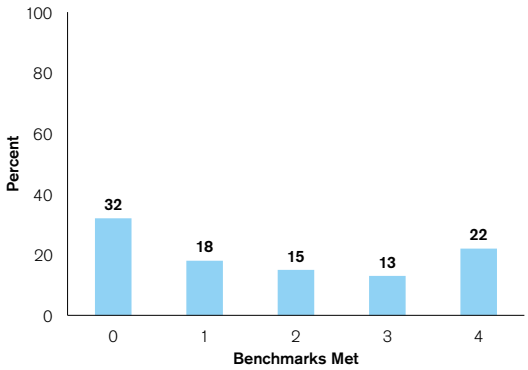


Expressed and Measured Interest (*N* = 130,438)

Percent of 2014 Underserved ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject



Percent of 2014 Underserved ACT-Tested High School Graduates by Number of ACT College Readiness Benchmarks Attained

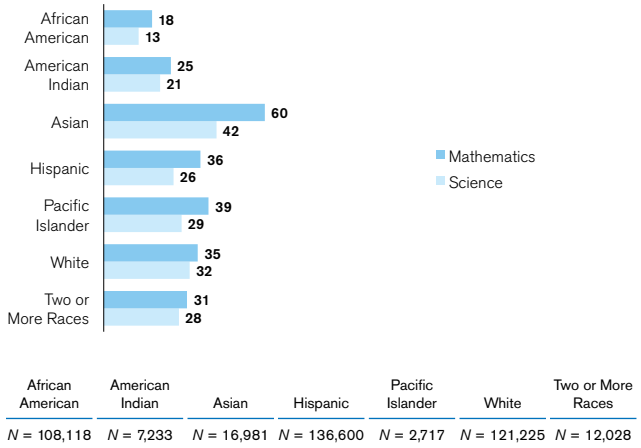


Understanding the Underserved Learner 2014

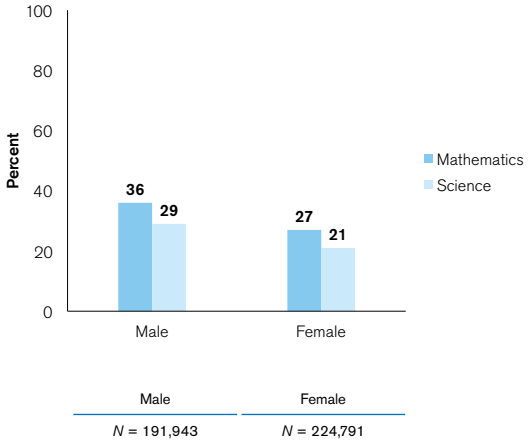
Attainment of College and Career Readiness

Overall STEM Interest

Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Race/Ethnicity and Subject*

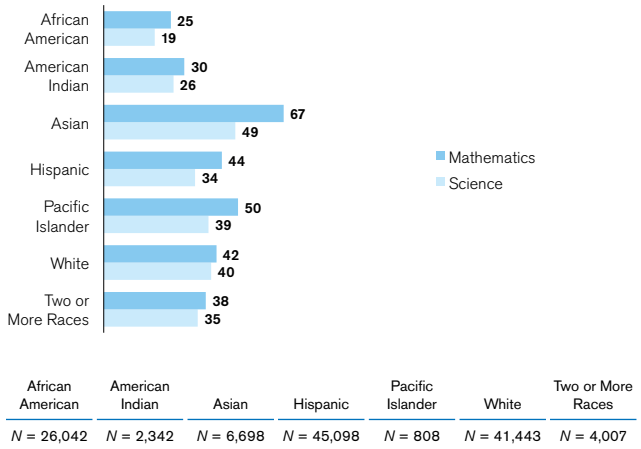


Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Gender and Subject

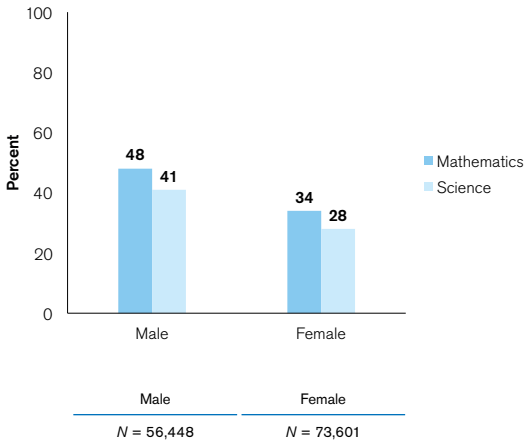


Expressed and Measured Interest

Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Race/Ethnicity and Subject*



Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Gender and Subject



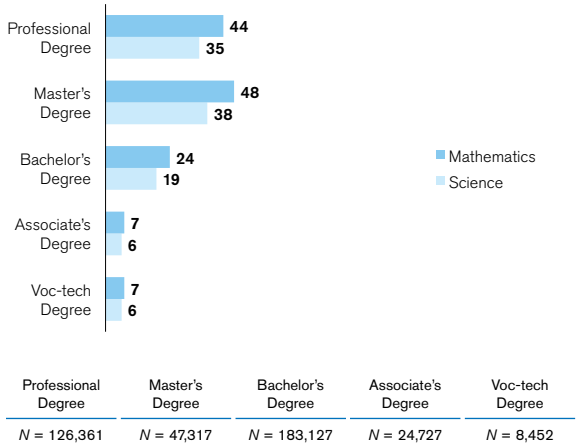
* Race/ethnicity categories changed for the 2010–2011 academic year to reflect updated US Department of Education reporting requirements.

Understanding the Underserved Learner 2014

Attainment of College and Career Readiness

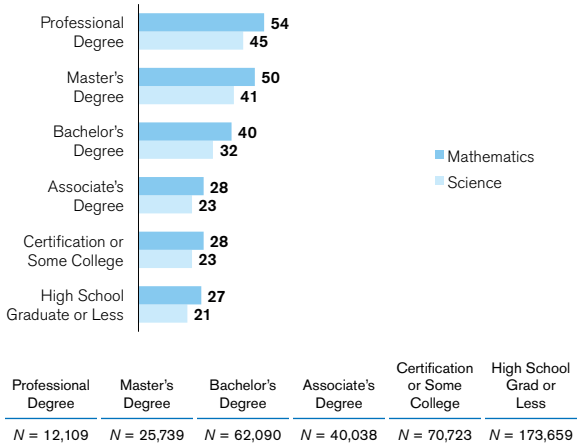
Overall STEM Interest

Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Educational Aspirations and Subject



Professional Degree	Master's Degree	Bachelor's Degree	Associate's Degree	Voc-tech Degree
N = 126,361	*N* = 47,317	*N* = 183,127	*N* = 24,727	*N* = 8,452

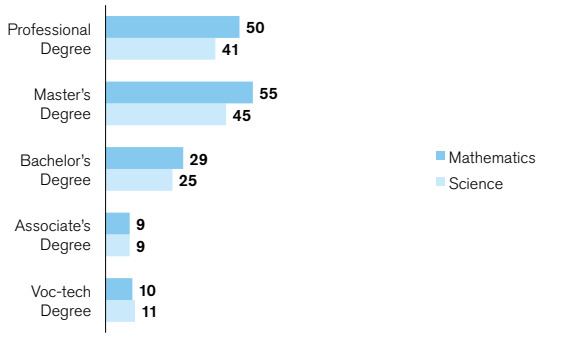
Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Highest Parental Education Level and Subject



Professional Degree	Master's Degree	Bachelor's Degree	Associate's Degree	Certification or Some College	High School Grad or Less
N = 12,109	*N* = 25,739	*N* = 62,090	*N* = 40,038	*N* = 70,723	*N* = 173,659

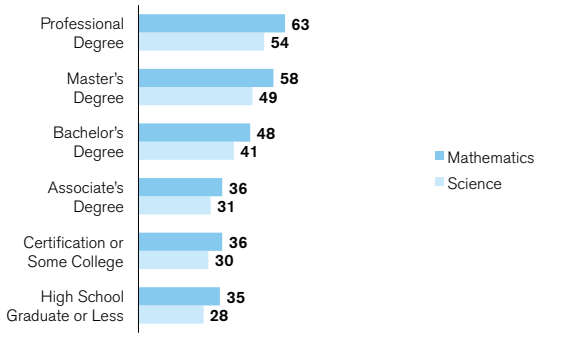
Expressed and Measured Interest

Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Educational Aspirations and Subject



Professional Degree	Master's Degree	Bachelor's Degree	Associate's Degree	Voc-tech Degree
N = 56,357	*N* = 15,266	*N* = 49,262	*N* = 4,979	*N* = 1,234

Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Highest Parental Education Level and Subject



Professional Degree	Master's Degree	Bachelor's Degree	Associate's Degree	Certification or Some College	High School Grad or Less
N = 4,798	*N* = 9,435	*N* = 21,552	*N* = 13,073	*N* = 23,051	*N* = 54,524

Science

Majors/Occupations

Overall STEM Interest

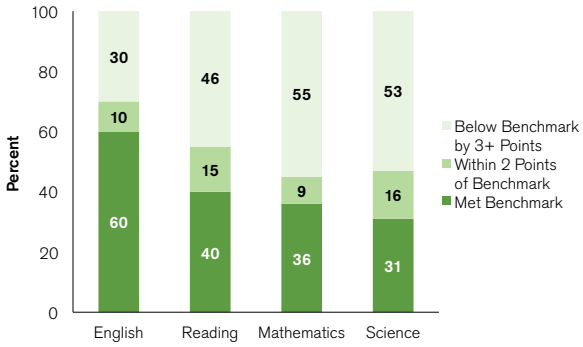
- Between 2010 and 2014, the percent of underserved students interested in STEM increased by 1%.

Underserved Student STEM Interest Trends: 2010–2014

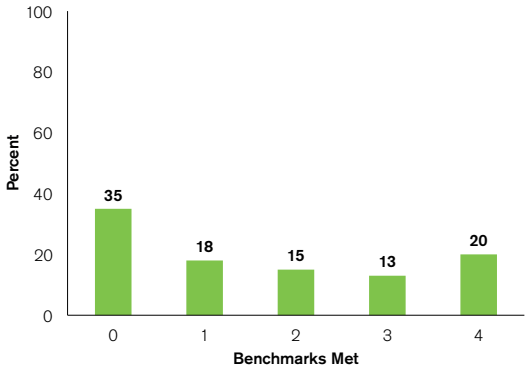
		2010	2011	2012	2013	2014
Percent	Nation	19%	19%	20%	20%	20%
N Count	Nation	55,459	67,529	75,570	81,257	83,856

Overall STEM Interest (*N* = 83,856)

Percent of 2014 Underserved ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject

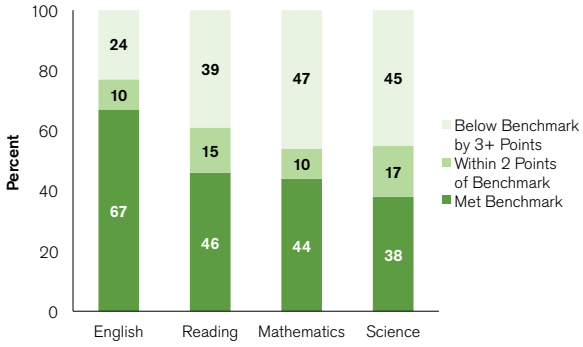


Percent of 2014 Underserved ACT-Tested High School Graduates by Number of ACT College Readiness Benchmarks Attained

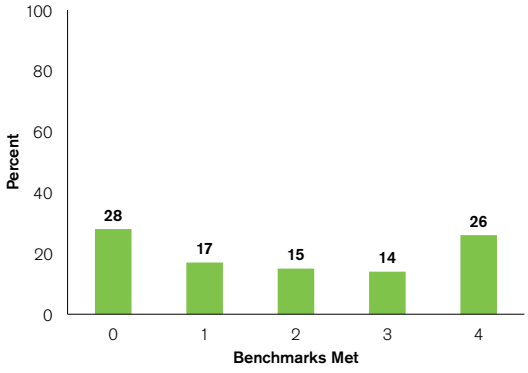


Expressed and Measured Interest (*N* = 34,191)

Percent of 2014 Underserved ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject



Percent of 2014 Underserved ACT-Tested High School Graduates by Number of ACT College Readiness Benchmarks Attained



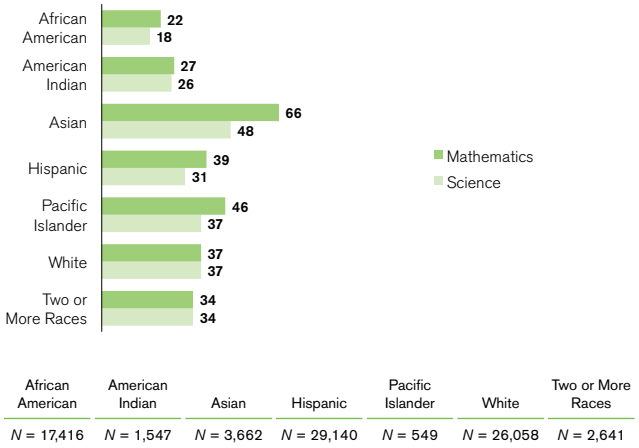
Note: Reporting achievement by combinations of student characteristics may give rise to small *N* counts. As a result, outcomes reported in this section should be interpreted with caution.

Science

Majors/Occupations

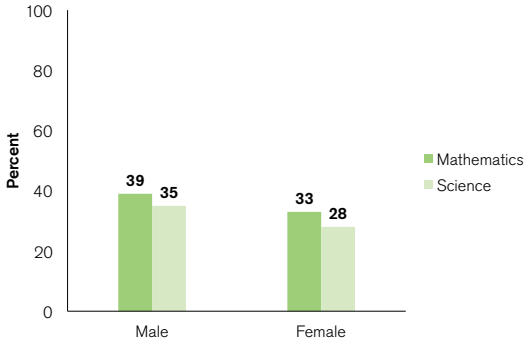
Overall STEM Interest

Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Race/Ethnicity and Subject*



African American	American Indian	Asian	Hispanic	Pacific Islander	White	Two or More Races
N = 17,416	*N* = 1,547	*N* = 3,662	*N* = 29,140	*N* = 549	*N* = 26,058	*N* = 2,641

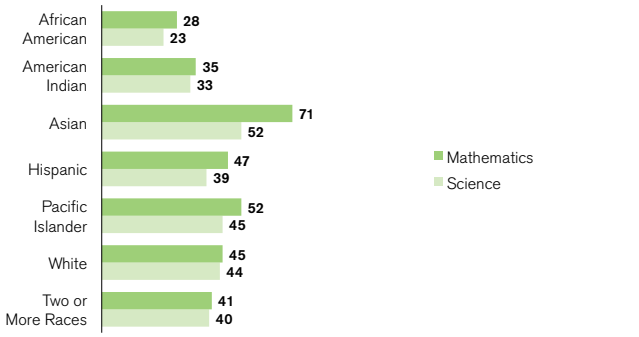
Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Gender and Subject



Male	Female
N = 33,247	*N* = 50,352

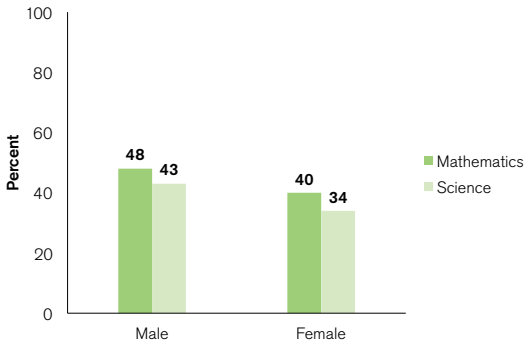
Expressed and Measured Interest

Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Race/Ethnicity and Subject*



African American	American Indian	Asian	Hispanic	Pacific Islander	White	Two or More Races
N = 6,535	*N* = 552	*N* = 1,867	*N* = 11,999	*N* = 207	*N* = 10,831	*N* = 1,105

Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Gender and Subject



Male	Female
N = 13,711	*N* = 20,401

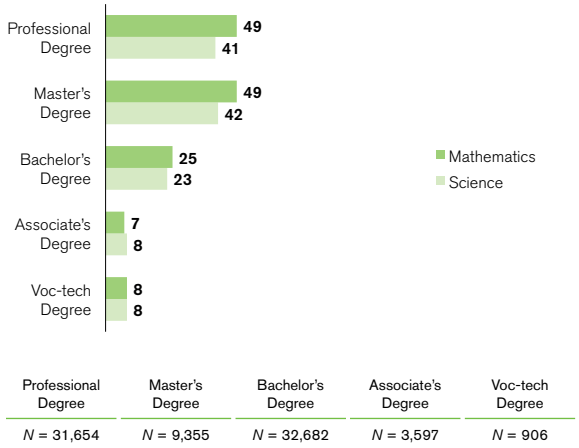
* Race/ethnicity categories changed for the 2010–2011 academic year to reflect updated US Department of Education reporting requirements.
Note: Reporting achievement by combinations of student characteristics may give rise to small *N* counts. As a result, outcomes reported in this section should be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

Science

Majors/Occupations

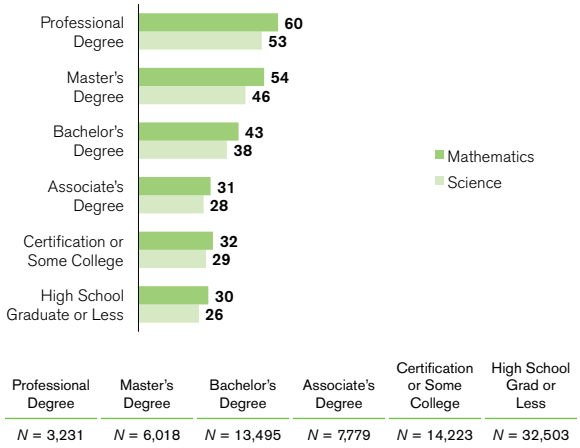
Overall STEM Interest

Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Educational Aspirations and Subject



Professional Degree	Master's Degree	Bachelor's Degree	Associate's Degree	Voc-tech Degree
N = 31,654	*N* = 9,355	*N* = 32,682	*N* = 3,597	*N* = 906

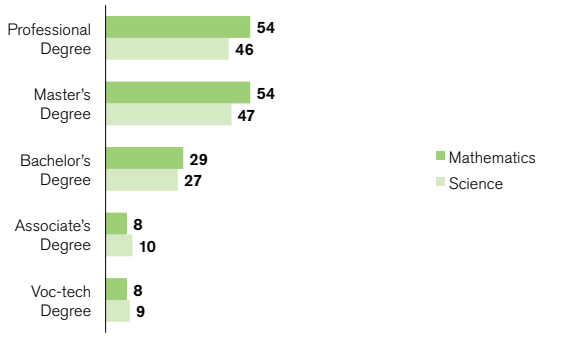
Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Highest Parental Education Level and Subject



Professional Degree	Master's Degree	Bachelor's Degree	Associate's Degree	Certification or Some College	High School Grad or Less
N = 3,231	*N* = 6,018	*N* = 13,495	*N* = 7,779	*N* = 14,223	*N* = 32,503

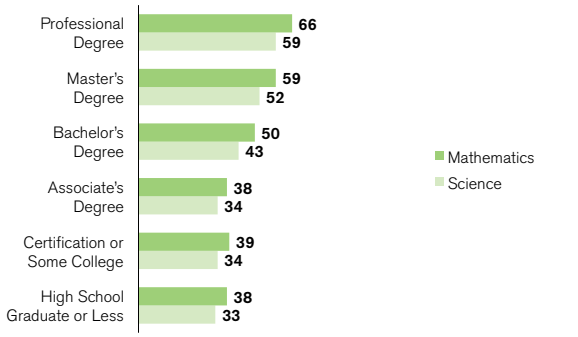
Expressed and Measured Interest

Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Educational Aspirations and Subject



Professional Degree	Master's Degree	Bachelor's Degree	Associate's Degree	Voc-tech Degree
N = 16,813	*N* = 3,990	*N* = 11,485	*N* = 847	*N* = 161

Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Highest Parental Education Level and Subject



Professional Degree	Master's Degree	Bachelor's Degree	Associate's Degree	Certification or Some College	High School Grad or Less
N = 1,605	*N* = 2,813	*N* = 6,062	*N* = 3,305	*N* = 6,022	*N* = 13,287

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	National *N* Counts and Percents of Underserved Learners			
	Overall STEM Interest*		Expressed and Measured Only	
	N Count	Percent	*N* Count	Percent
Agronomy and Crop Science	408	1	162	0
Animal Sciences	3,767	6	1,527	4
Astronomy	1,574	3	1,070	3
Atmospheric Sciences and Meteorology	637	1	336	1
Biochemistry and Biophysics	7,545	13	4,798	14
Biology, General	13,467	22	8,132	24
Cell/Cellular Biology	2,970	5	1,828	5
Chemistry	4,673	8	2,906	8
Ecology	577	1	349	1
Environmental Science	790	1	372	1
Food Sciences and Technology	817	1	177	1
Forestry	711	1	226	1
Genetics	1,708	3	1,079	3
Geological and Earth Sciences	876	1	535	2
Horticulture Science	261	0	112	0
Marine/Aquatic Biology	5,117	9	3,103	9
Microbiology and Immunology	1,440	2	1,005	3
Natural Resources Conservation, General	694	1	281	1
Natural Resources Management	300	1	103	0
Physical Sciences, General	2,129	4	1,106	3
Physics	2,149	4	1,316	4
Science Education	464	1	266	1
Wildlife and Wildlands Management	1,896	3	644	2
Zoology	4,983	8	2,758	8
Totals	59,953		34,191	

* The "overall STEM interest" counts and percents do not include the "measured only interest" students, as they did not choose a STEM major or occupation.

Computer Science and Mathematics

Majors/Occupations

Overall STEM Interest

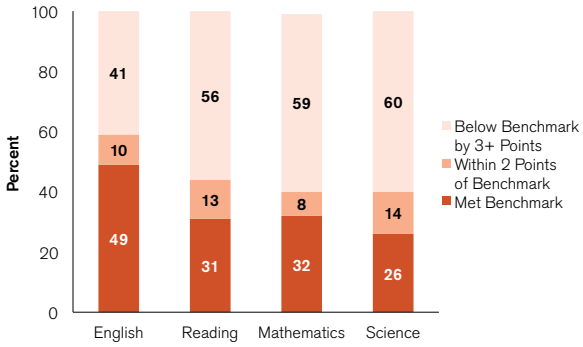
- Between 2010 and 2014, the percent of underserved students interested in STEM decreased by 1%.

Underserved Student STEM Interest Trends: 2010–2014

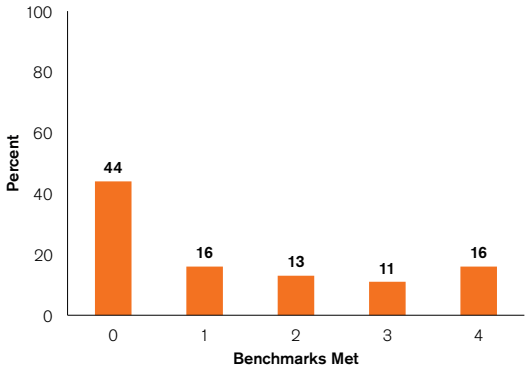
		2010	2011	2012	2013	2014
Percent	Nation	11%	10%	10%	10%	10%
N Count	Nation	31,577	34,303	36,478	39,902	42,645

Overall STEM Interest (*N* = 42,645)

Percent of 2014 Underserved ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject

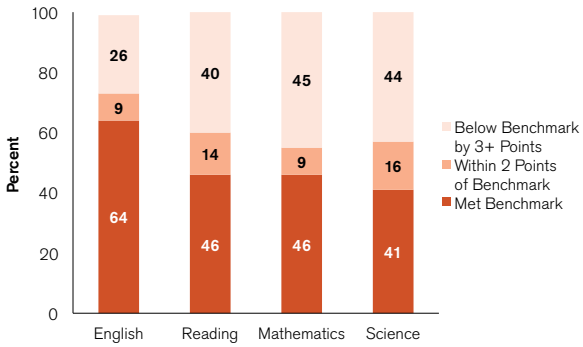


Percent of 2014 Underserved ACT-Tested High School Graduates by Number of ACT College Readiness Benchmarks Attained

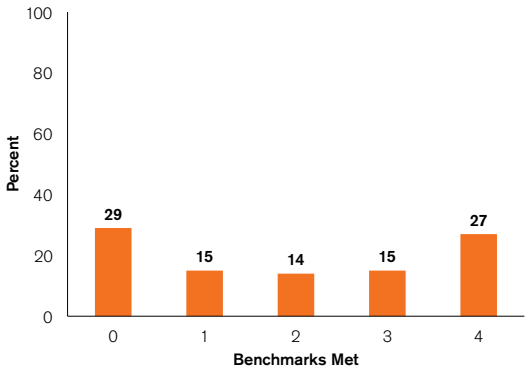


Expressed and Measured Interest (*N* = 6,762)

Percent of 2014 Underserved ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject



Percent of 2014 Underserved ACT-Tested High School Graduates by Number of ACT College Readiness Benchmarks Attained



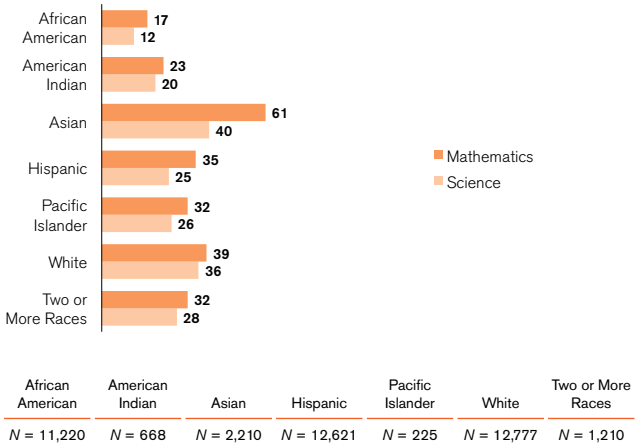
Note: Reporting achievement by combinations of student characteristics may give rise to small *N* counts. As a result, outcomes reported in this section should be interpreted with caution.

Computer Science and Mathematics

Majors/Occupations

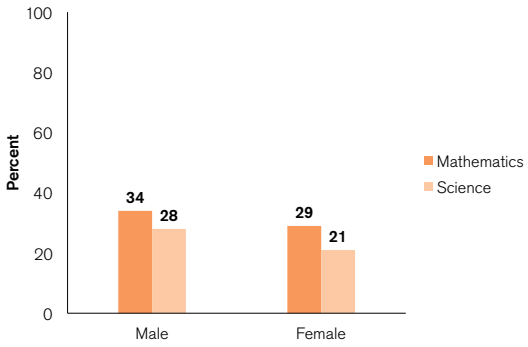
Overall STEM Interest

Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Race/Ethnicity and Subject*



African American	American Indian	Asian	Hispanic	Pacific Islander	White	Two or More Races
N = 11,220	*N* = 668	*N* = 2,210	*N* = 12,621	*N* = 225	*N* = 12,777	*N* = 1,210

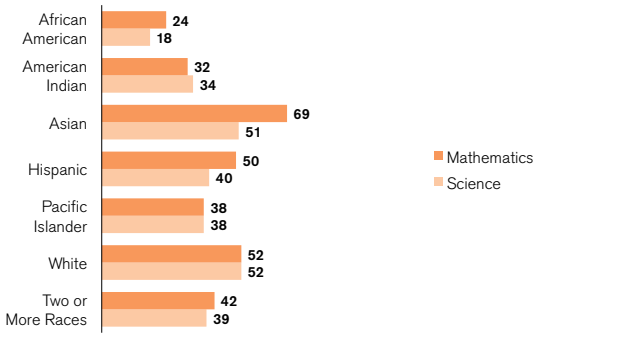
Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Gender and Subject



Male	Female
N = 28,836	*N* = 13,610

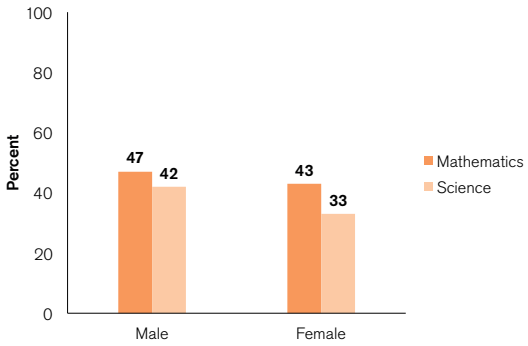
Expressed and Measured Interest

Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Race/Ethnicity and Subject*



African American	American Indian	Asian	Hispanic	Pacific Islander	White	Two or More Races
N = 1,215	*N* = 102	*N* = 443	*N* = 2,033	*N* = 26	*N* = 2,461	*N* = 223

Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Gender and Subject



Male	Female
N = 5,693	*N* = 1,045

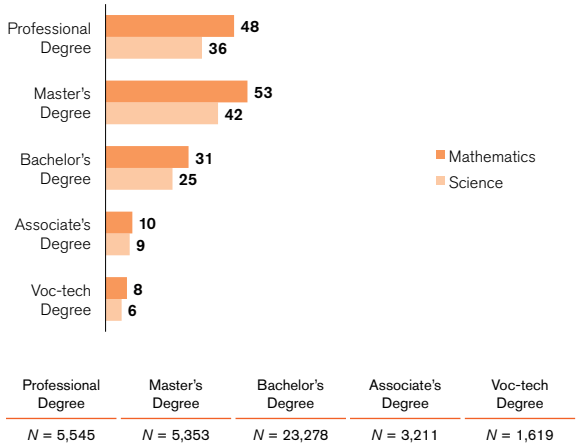
* Race/ethnicity categories changed for the 2010–2011 academic year to reflect updated US Department of Education reporting requirements.
Note: Reporting achievement by combinations of student characteristics may give rise to small *N* counts. As a result, outcomes reported in this section should be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

Computer Science and Mathematics

Majors/Occupations

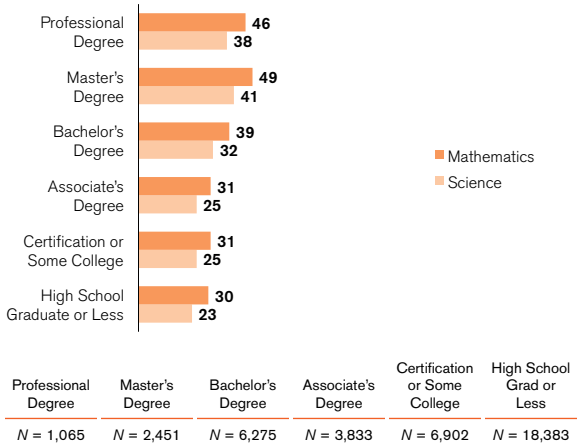
Overall STEM Interest

Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Educational Aspirations and Subject



Professional Degree	Master's Degree	Bachelor's Degree	Associate's Degree	Voc-tech Degree
N = 5,545	*N* = 5,353	*N* = 23,278	*N* = 3,211	*N* = 1,619

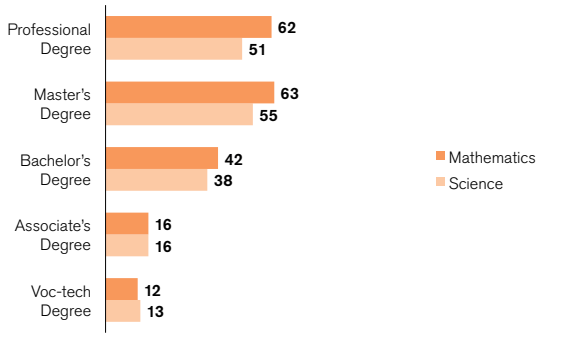
Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Highest Parental Education Level and Subject



Professional Degree	Master's Degree	Bachelor's Degree	Associate's Degree	Certification or Some College	High School Grad or Less
N = 1,065	*N* = 2,451	*N* = 6,275	*N* = 3,833	*N* = 6,902	*N* = 18,383

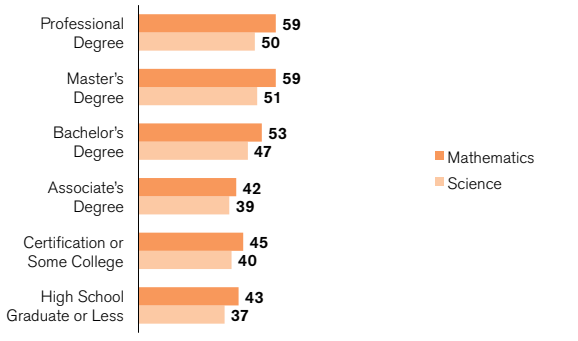
Expressed and Measured Interest

Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Educational Aspirations and Subject



Professional Degree	Master's Degree	Bachelor's Degree	Associate's Degree	Voc-tech Degree
N = 1,137	*N* = 1,031	*N* = 3,875	*N* = 346	*N* = 152

Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Highest Parental Education Level and Subject



Professional Degree	Master's Degree	Bachelor's Degree	Associate's Degree	Certification or Some College	High School Grad or Less
N = 213	*N* = 483	*N* = 1,161	*N* = 658	*N* = 1,168	*N* = 2,871

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	National *N* Counts and Percents of Underserved Learners			
	Overall STEM Interest*		Expressed and Measured Only	
	N Count	Percent	*N* Count	Percent
Actuarial Science	358	1	36	1
Applied Mathematics	780	3	175	3
Business/Management Quantitative Methods, General	3,141	11	276	4
Computer and Information Sciences, General	3,645	12	1,016	15
Computer Network/Telecommunications	1,902	6	416	6
Computer Science and Programming	9,031	30	2,862	42
Computer Software and Media Application	3,616	12	808	12
Computer System Administration	810	3	184	3
Data Management Technology	254	1	35	1
Information Science	292	1	54	1
Management Information Systems	801	3	65	1
Mathematics Education	2,184	7	278	4
Mathematics, General	1,609	5	310	5
Statistics	375	1	61	1
Webpage Design	1,054	4	186	3
Totals	29,852		6,762	

* The "overall STEM interest" counts and percents do not include the "measured only interest" students, as they did not choose a STEM major or occupation.

Medical and Health

Majors/Occupations

Overall STEM Interest

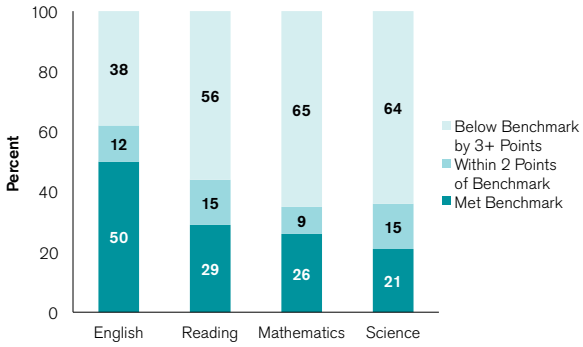
- Between 2010 and 2014, the percent of underserved students interested in STEM decreased by 3%.

Underserved Student STEM Interest Trends: 2010–2014

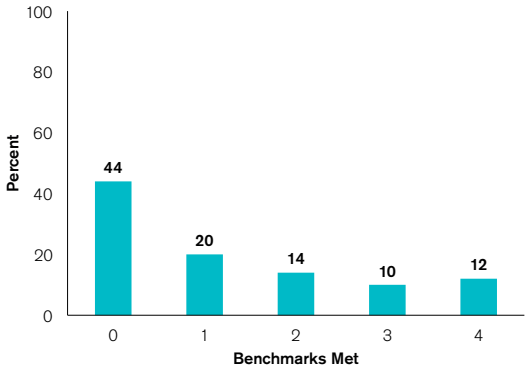
		2010	2011	2012	2013	2014
Percent	Nation	49%	49%	48%	47%	46%
N Count	Nation	145,768	168,908	178,594	191,701	193,811

Overall STEM Interest (*N* = 193,811)

Percent of 2014 Underserved ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject

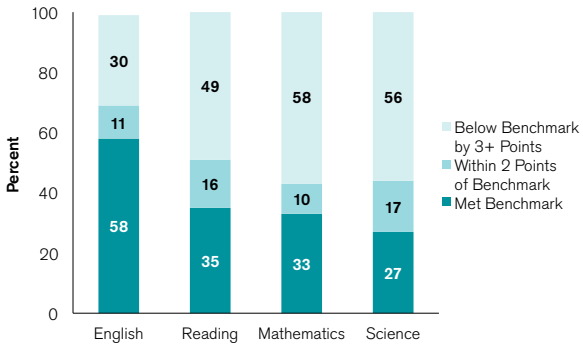


Percent of 2014 Underserved ACT-Tested High School Graduates by Number of ACT College Readiness Benchmarks Attained

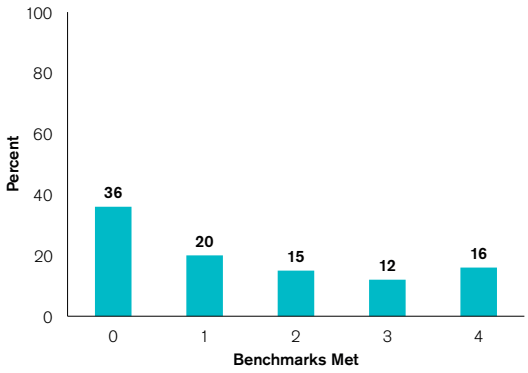


Expressed and Measured Interest (*N* = 64,665)

Percent of 2014 Underserved ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject



Percent of 2014 Underserved ACT-Tested High School Graduates by Number of ACT College Readiness Benchmarks Attained



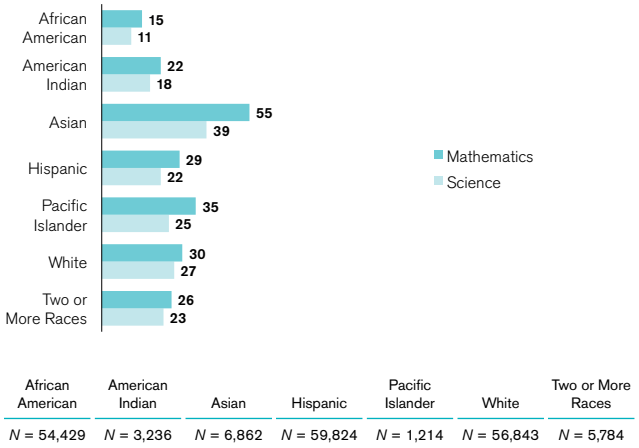
Note: Reporting achievement by combinations of student characteristics may give rise to small *N* counts. As a result, outcomes reported in this section should be interpreted with caution.

Medical and Health

Majors/Occupations

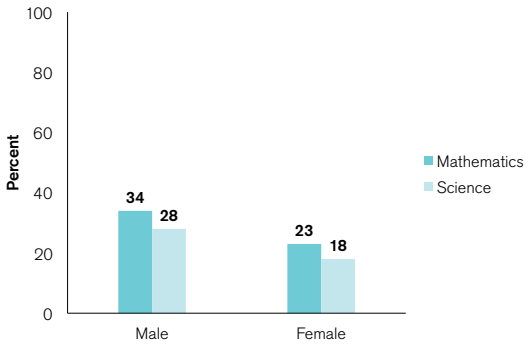
Overall STEM Interest

Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Race/Ethnicity and Subject*



African American	American Indian	Asian	Hispanic	Pacific Islander	White	Two or More Races
N = 54,429	*N* = 3,236	*N* = 6,862	*N* = 59,824	*N* = 1,214	*N* = 56,843	*N* = 5,784

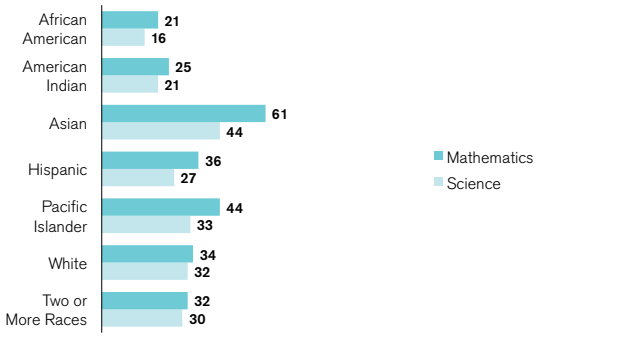
Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Gender and Subject



Male	Female
N = 50,147	*N* = 142,918

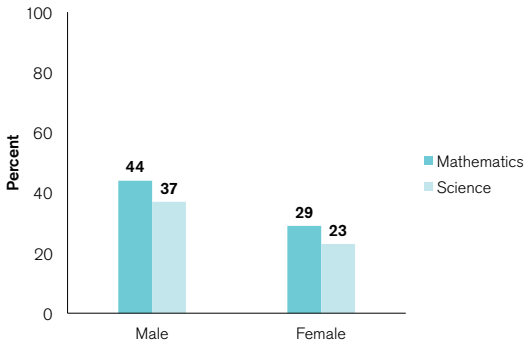
Expressed and Measured Interest

Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Race/Ethnicity and Subject*



African American	American Indian	Asian	Hispanic	Pacific Islander	White	Two or More Races
N = 13,525	*N* = 1,195	*N* = 2,998	*N* = 21,198	*N* = 390	*N* = 21,498	*N* = 2,003

Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Gender and Subject



Male	Female
N = 16,421	*N* = 48,039

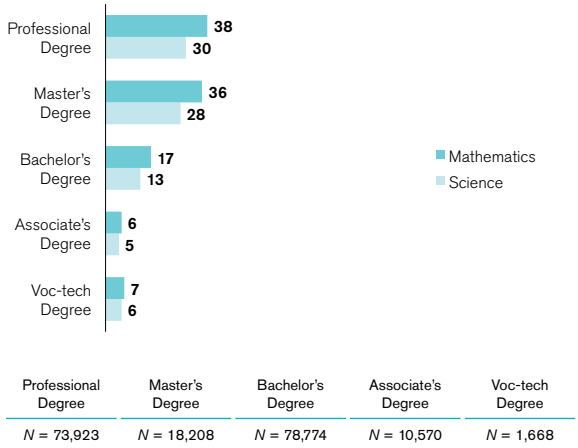
* Race/ethnicity categories changed for the 2010–2011 academic year to reflect updated US Department of Education reporting requirements.
Note: Reporting achievement by combinations of student characteristics may give rise to small *N* counts. As a result, outcomes reported in this section should be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

Medical and Health

Majors/Occupations

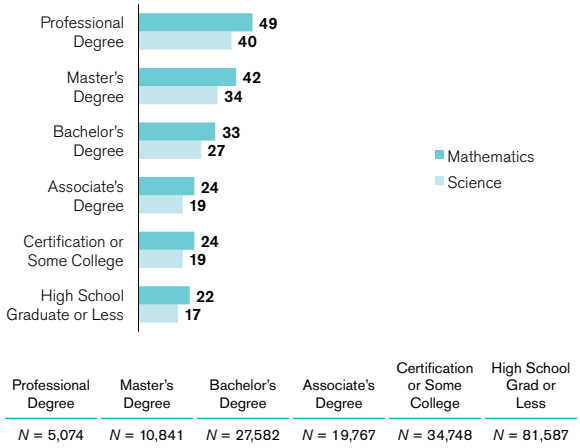
Overall STEM Interest

Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Educational Aspirations and Subject



Professional Degree	Master's Degree	Bachelor's Degree	Associate's Degree	Voc-tech Degree
N = 73,923	*N* = 18,208	*N* = 78,774	*N* = 10,570	*N* = 1,668

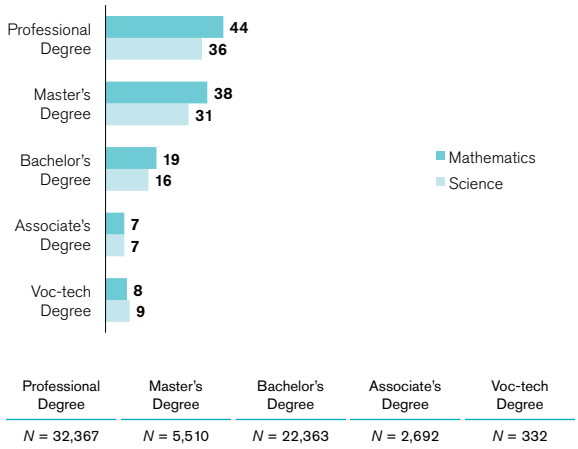
Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Highest Parental Education Level and Subject



Professional Degree	Master's Degree	Bachelor's Degree	Associate's Degree	Certification or Some College	High School Grad or Less
N = 5,074	*N* = 10,841	*N* = 27,582	*N* = 19,767	*N* = 34,748	*N* = 81,587

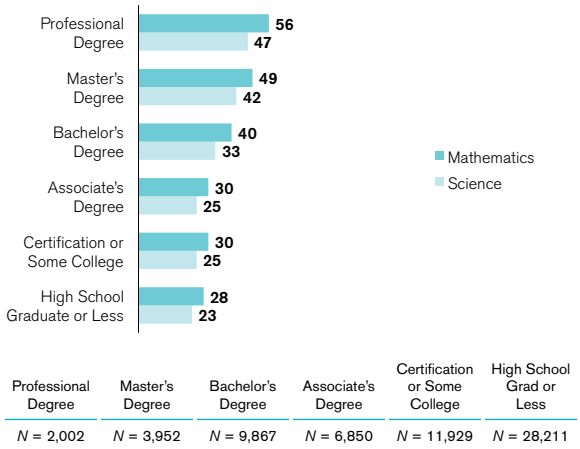
Expressed and Measured Interest

Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Educational Aspirations and Subject



Professional Degree	Master's Degree	Bachelor's Degree	Associate's Degree	Voc-tech Degree
N = 32,367	*N* = 5,510	*N* = 22,363	*N* = 2,692	*N* = 332

Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Highest Parental Education Level and Subject



Professional Degree	Master's Degree	Bachelor's Degree	Associate's Degree	Certification or Some College	High School Grad or Less
N = 2,002	*N* = 3,952	*N* = 9,867	*N* = 6,850	*N* = 11,929	*N* = 28,211

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	National *N* Counts and Percents of Underserved Learners			
	Overall STEM Interest*		Expressed and Measured Only	
	N Count	Percent	*N* Count	Percent
Athletic Training	12,681	8	2,962	5
Chiropractic (Pre-Chiropractic)	864	1	325	1
Dentistry (Pre-Dentistry)	5,816	3	2,148	3
Emergency Medical Technology	2,426	1	896	1
Food and Nutrition	1,954	1	300	0
Health/Medical Technology, General	6,530	4	2,615	4
Medical Laboratory Technology	1,500	1	736	1
Medical Radiologic Technology	5,268	3	1,934	3
Medicine (Pre-Medicine)	31,100	19	16,544	26
Nuclear Medicine Technology	329	0	154	0
Nursing, Practical/Vocational (LPN)	8,748	5	2,496	4
Nursing, Registered (BS/RN)	48,693	29	17,274	27
Optometry (Pre-Optometry)	1,141	1	472	1
Osteopathic Medicine	239	0	114	0
Pharmacy (Pre-Pharmacy)	9,401	6	4,045	6
Physical Therapy (Pre-Physical Therapy)	13,146	8	3,865	6
Physician Assisting	2,979	2	1,286	2
Respiratory Therapy Technology	369	0	120	0
Surgical Technology	3,057	2	1,596	2
Veterinarian Assisting/Technology	3,054	2	1,061	2
Veterinary Medicine (Pre-Vet)	7,859	5	3,722	6
Totals	167,154		64,665	

* The "overall STEM interest" counts and percents do not include the "measured only interest" students, as they did not choose a STEM major or occupation.

Engineering and Technology

Majors/Occupations

Overall STEM Interest

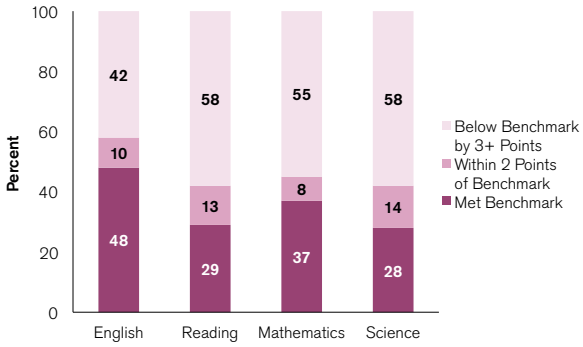
- Between 2010 and 2014, the percent of underserved students interested in STEM increased by 1%.

Underserved Student STEM Interest Trends: 2010–2014

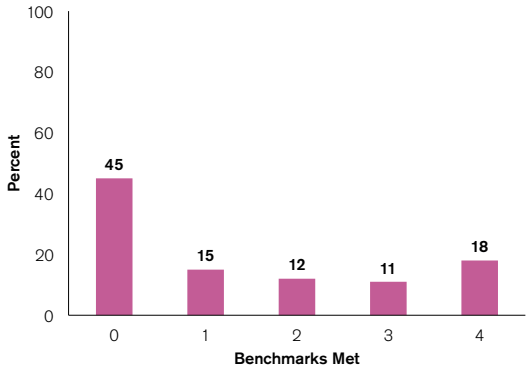
		2010	2011	2012	2013	2014
Percent	Nation	22%	22%	22%	23%	23%
N Count	Nation	66,479	75,978	82,029	92,657	98,063

Overall STEM Interest (*N* = 98,063)

Percent of 2014 Underserved ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject

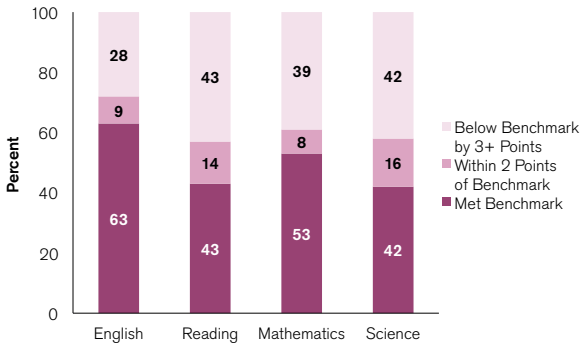


Percent of 2014 Underserved ACT-Tested High School Graduates by Number of ACT College Readiness Benchmarks Attained

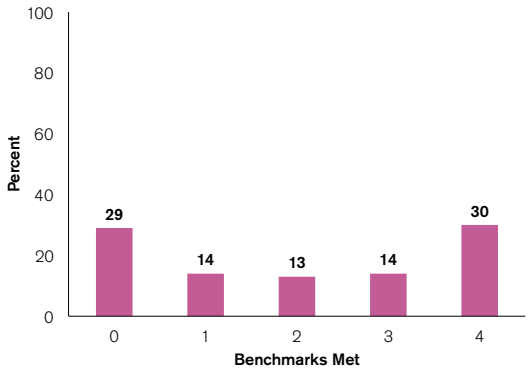


Expressed and Measured Interest (*N* = 24,820)

Percent of 2014 Underserved ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject



Percent of 2014 Underserved ACT-Tested High School Graduates by Number of ACT College Readiness Benchmarks Attained



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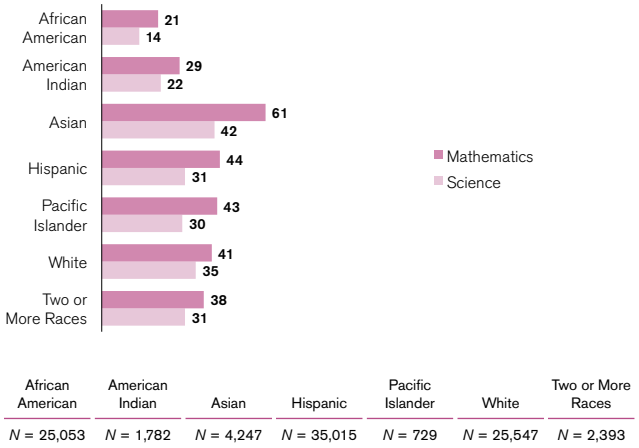
Engineering and Technology

Majors/Occupations

Overall STEM Interest

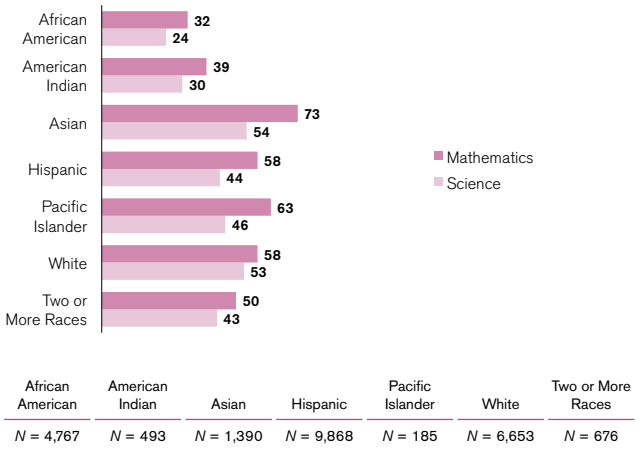
Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Race/Ethnicity and Subject*



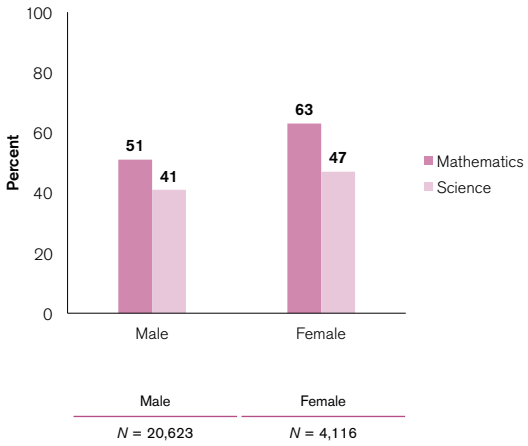
Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Gender and Subject

Expressed and Measured Interest

Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Race/Ethnicity and Subject*



Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Gender and Subject



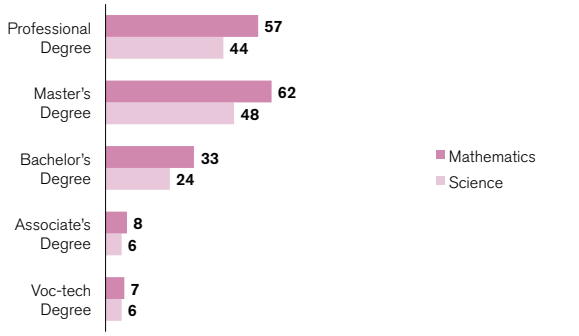
* Race/ethnicity categories changed for the 2010–2011 academic year to reflect updated US Department of Education reporting requirements.
Note: Reporting achievement by combinations of student characteristics may give rise to small *N* counts. As a result, outcomes reported in this section should be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

Engineering and Technology

Majors/Occupations

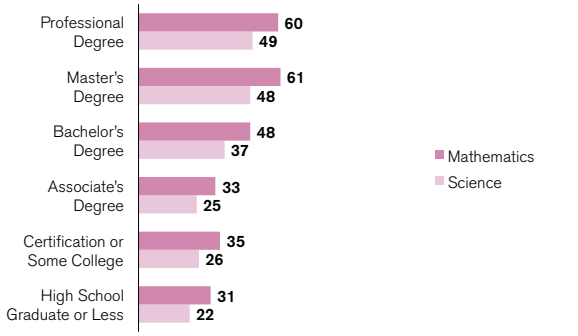
Overall STEM Interest

Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Educational Aspirations and Subject



Professional Degree	Master's Degree	Bachelor's Degree	Associate's Degree	Voc-tech Degree
N = 15,239	*N* = 14,401	*N* = 48,393	*N* = 7,349	*N* = 4,259

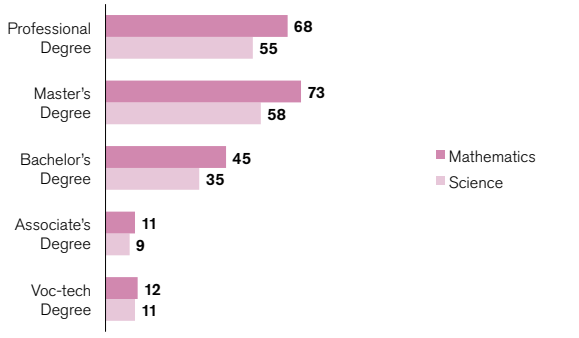
Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Highest Parental Education Level and Subject



Professional Degree	Master's Degree	Bachelor's Degree	Associate's Degree	Certification or Some College	High School Grad or Less
N = 2,739	*N* = 6,429	*N* = 14,738	*N* = 8,659	*N* = 14,850	*N* = 41,186

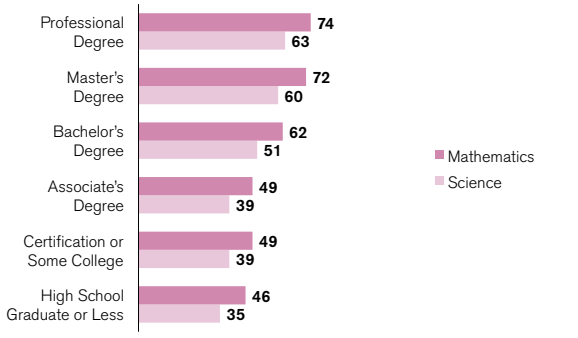
Expressed and Measured Interest

Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Educational Aspirations and Subject



Professional Degree	Master's Degree	Bachelor's Degree	Associate's Degree	Voc-tech Degree
N = 6,040	*N* = 4,735	*N* = 11,539	*N* = 1,094	*N* = 589

Percent of 2014 Underserved ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Highest Parental Education Level and Subject



Professional Degree	Master's Degree	Bachelor's Degree	Associate's Degree	Certification or Some College	High School Grad or Less
N = 978	*N* = 2,187	*N* = 4,462	*N* = 2,260	*N* = 3,932	*N* = 10,155

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	National *N* Counts and Percents of Underserved Learners			
	Overall STEM Interest*		Expressed and Measured Only	
	N Count	Percent	*N* Count	Percent
Aeronautical/Aerospace Engineering Technology	884	1	356	1
Aerospace/Aeronautical Engineering	5,483	6	2,488	10
Agricultural/Bioengineering	587	1	188	1
Architectural Drafting/CAD Technology	699	1	136	1
Architectural Engineering	2,632	3	556	2
Architectural Engineering Technology	422	0	97	0
Architecture, General	5,226	6	869	4
Automotive Engineering Technology	2,519	3	425	2
Biomedical Engineering	3,187	4	1,785	7
Chemical Engineering	4,059	5	2,039	8
Civil Engineering	5,261	6	1,280	5
Civil Engineering Technology	499	1	128	1
Computer Engineering	6,715	8	1,781	7
Computer Engineering Technology	3,536	4	837	3
Construction Engineering/Management	2,350	3	394	2
Construction/Building Technology	578	1	97	0
Drafting/CAD Technology, General	565	1	128	1
Electrical, Electronic, and Communication Engineering	5,807	7	1,557	6
Electrical/Electronics Engineering Technology	2,049	2	494	2
Electromechanical/Biomedical Engineering Technology	187	0	88	0
Engineering (Pre-Engineering), General	8,059	9	2,463	10
Engineering Technology, General	2,301	3	534	2
Environmental Control Technologies	116	0	42	0
Environmental Health Engineering	781	1	342	1
Industrial Engineering	1,374	2	303	1
Industrial Production Technologies	234	0	39	0
Mechanical Drafting/CAD Technology	660	1	147	1
Mechanical Engineering	15,452	18	4,067	16
Mechanical Engineering Technology	1,592	2	386	2
Military Technologies	1,563	2	324	1
Nuclear Engineering	955	1	425	2
Quality Control and Safety Technologies	58	0	15	0
Surveying Technology	54	0	10	0
Totals	86,444		24,820	

* The "overall STEM interest" counts and percents do not include the "measured only interest" students, as they did not choose a STEM major or occupation.

STEM

Interest and Achievement by State

State	Percent of Graduates Who Are ACT Tested and Underserved*	Percent of ACT-Tested and Underserved Graduates Interested in STEM	Percent of Underserved STEM Students Meeting Benchmarks			
			English	Reading	Math	Science
Alabama	40	53	52	30	20	20
Alaska	12	54	48	33	35	23
Arizona	33	49	46	28	30	21
Arkansas	48	49	54	33	27	24
California	16	52	60	37	47	31
Colorado	52	44	52	31	29	26
Connecticut	6	51	72	50	53	44
Delaware	5	55	58	39	40	32
District of Columbia	20	44	45	29	32	21
Florida	51	45	48	33	29	22
Georgia	28	51	50	30	25	21
Hawaii	45	48	33	18	21	14
Idaho	14	54	60	42	39	32
Illinois	56	42	54	30	31	25
Indiana	14	51	56	38	37	29
Iowa	18	49	61	43	36	37
Kansas	25	49	57	38	38	31
Kentucky	58	49	50	28	22	21
Louisiana	65	51	50	25	20	17
Maine	1	55	70	47	47	36
Maryland	9	50	57	35	39	30
Massachusetts	4	51	68	45	57	40
Michigan	50	46	47	25	24	21
Minnesota	18	49	60	39	46	37
Mississippi	65	53	45	22	14	14
Missouri	29	49	59	38	32	31
Montana	41	49	51	37	33	27
Nebraska	30	46	56	34	31	28
Nevada	18	52	54	37	38	29
New Hampshire	3	57	77	58	61	50
New Jersey	7	47	60	39	48	34
New Mexico	50	56	47	30	28	23

STEM

Interest and Achievement by State

State	Percent of Graduates Who Are ACT Tested and Underserved*	Percent of ACT-Tested and Underserved Graduates Interested in STEM	Percent of Underserved STEM Students Meeting Benchmarks			
			English	Reading	Math	Science
New York	8	53	67	47	57	44
North Carolina	59	50	35	20	23	14
North Dakota	30	46	47	32	28	23
Ohio	26	49	57	38	37	32
Oklahoma	35	53	56	36	27	27
Oregon	13	46	53	36	36	30
Pennsylvania	5	50	58	40	43	33
Rhode Island	4	47	45	34	29	25
South Carolina	27	52	43	27	25	20
South Dakota	23	52	59	38	38	33
Tennessee	57	49	51	27	21	19
Texas	24	54	49	30	37	26
Utah	37	46	48	30	27	25
Vermont	5	51	60	49	45	42
Virginia	9	52	59	40	41	32
Washington	7	51	55	38	45	33
West Virginia	27	54	59	36	23	26
Wisconsin	24	48	60	37	40	36
Wyoming	49	46	48	30	26	22
National	27	49	51	31	31	25

* 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.

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 and Health Majors/Occupations
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

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This report can be found at
www.act.org/stemunderserved2014

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