

SAT/SATII Test-Takers Who are Interested in a STEM Major and “Prepared” or “Near Prepared.” “Near Prepared” is defined as needing 1 additional year of math and/or science coursework to meet the Common Core Standard (3 years of science and 4 years of math). “Prepared” is defined as meeting the Common Core Standard.

Data are for MA Public School SAT & SATII Test-Takers Who Graduated in 2010.

of Test-Takers Interested in STEM Majors

	All Test-Takers		Female Test-Takers		Male Test-Takers	
	From Low-Income Schools	From High-Income Schools	From Low-Income Schools	From High-Income Schools	From Low-Income Schools	From High-Income Schools
Agriculture & Natural Resources	62	84	39	51	23	33
Architecture	169	159	56	63	113	96
Biological & Biomedical Sciences	454	717	311	403	143	314
Computer & Information Sciences	226	195	38	17	188	178
Engineering & Eng. Technology/Technician	876	724	126	103	750	621
Health Professions & Clinical Services	1,882	1,122	1,549	831	333	291
Mathematics & Statistics	117	93	41	42	76	51
Physical Sciences	94	120	32	43	62	77
STEM Total	3,880	3,214	2,192	1,553	1,688	1,661

% of Test-Takers Interested in STEM Majors Who Are “Prepared” (Cells under 60% are “circled”)

	All Test-Takers		Female Test-Takers		Male Test-Takers	
	From Low-Income Schools	From High-Income Schools	From Low-Income Schools	From High-Income Schools	From Low-Income Schools	From High-Income Schools
Agriculture & Natural Resources	58.1%	73.8%	61.5%	70.6%	52.2%	78.8%
Architecture	54.4%	74.8%	64.3%	77.8%	49.6%	72.9%
Biological & Biomedical Sciences	61.0%	81.3%	60.1%	82.9%	62.9%	79.3%
Computer & Information Sciences	57.5%	79.0%	60.5%	82.4%	56.9%	78.7%
Engineering & Eng. Technology/Technician	58.4%	80.1%	67.5%	84.5%	56.9%	79.4%
Health Professions & Clinical Services	59.2%	78.3%	58.6%	77.6%	62.2%	80.1%
Mathematics & Statistics	68.4%	78.5%	61.0%	78.6%	72.4%	78.4%
Physical Sciences	59.6%	75.8%	59.4%	67.4%	59.7%	80.5%
STEM Total	59.2%	79.0%	59.6%	79.0%	58.7%	79.0%

% of Test-Takers Interested in STEM Majors Who are “Near Prepared” (Cells over 20% are “circled”)

	All Test-Takers		Female Test-Takers		Male Test-Takers	
	From Low-Income Schools	From High-Income Schools	From Low-Income Schools	From High-Income Schools	From Low-Income Schools	From High-Income Schools
Agriculture & Natural Resources	24.2%	14.3%	20.5%	17.6%	30.4%	9.1%
Architecture	16.0%	8.8%	16.1%	7.9%	15.9%	9.4%
Biological & Biomedical Sciences	19.8%	6.3%	22.5%	6.5%	14.0%	6.1%
Computer & Information Sciences	18.1%	5.6%	18.4%	11.8%	18.1%	5.1%
Engineering & Eng. Technology/Technician	15.1%	7.7%	12.7%	6.8%	15.5%	7.9%
Health Professions & Clinical Services	17.3%	8.8%	17.7%	9.4%	15.6%	7.2%
Mathematics & Statistics	9.4%	6.5%	9.8%	9.5%	9.2%	3.9%
Physical Sciences	22.3%	9.2%	25.0%	14.0%	21.0%	6.5%
STEM Total	17.1%	7.9%	18.1%	8.8%	15.8%	7.0%

Information regarding STEM Interested and Prepared or Near Prepared, Test-Takers from the 2010 Cohort:

14,739 test-takers (37.4% of 39,381 question respondents) were interested in a STEM major

10,630 test-takers were both interested in, and prepared for, a STEM major

- This is 27.0% of the 39,381 question respondents, or, 72.1% of the 14,739 STEM interested test-takers

1,820 test-takers were interested in STEM majors, but needed 1 more year of science and/or math to be prepared

- This is 4.6% of the 39,381 question respondents, or, 12.3% of the 14,739 STEM interested test-takers
- 229, or 12.6%, of these 1,820 “near prepared” test-takers in 2010 came from 10 high schools
- 536, or 29.5% came from 35 high schools
- 45 high schools had 10 or more “near prepared” test-takers

Preparation and interest vary by the percentage of low-income students at a school:

	<u>Low-Income Schools (High % LI Students)</u>	<u>High-Income Schools (Low % LI Students)</u>
Total Test-Takers	11,583	11,023
Question Respondents	9,544	9,629
STEM Interested	3,880	3,214
	<i>40.7% of LIS QR</i>	<i>33.4% of HIS QR</i>
	<i>26.3% of All STEM Interested</i>	<i>21.8% of All STEM Interested</i>
STEM Interested & Prepared	2,297	2,540
	<i>59.2% of LIS STEM Interested</i>	<i>79.0% HIS STEM Interested</i>
Need 1 Year of Prep	663	254
	<i>36.4% of 1,820 Needing 1 Yr of Prep</i>	<i>14.0% of 1,820 Needing 1 Yr of Prep</i>
	<i>28.9% of LIS STEM Interested</i>	<i>10% of HIS STEM Interested</i>

Of the 1,820 “near prepared” test-takers:

- 663 or 36.4% of these 1,820 came from low-income schools.
- 536, or 29.5% came from 35 high schools
- 229, or 12.6% (i.e. 1 in 8 of the near-prepared test-takers) came from just 10 high schools
- 45 high schools had 10 or more near-prepared, but STEM-interested, test-takers
- 823 or 45.2% of these 1,820 were interested in health professions & clinical sciences
- 361 or 19.8% were interested in engineering & engineering technologies/technicians
- 259 or 14.2% were interested in biological & biomedical sciences
- 126 or 6.9% were interested in computer & information sciences

Calculated from another direction:

- 823, or 13.4%, of the 6,120 test-takers interested in health professions & clinical sciences were "near prepared"
- 361, or 11.1% of the 3,266 test-takers interested in engineering & engineering tech were "near prepared"
- 259, or 10.8%, of the 2,405 test-takers interested in biological sciences were "near prepared"
- 126, or 14.3%, of the 883 test-takers interested in computer sciences were "near prepared"

Other stats:

- 55.7% of the 1,820 "near prepared" test-takers were female and 44.3% were male
- 13.1% of female test-takers who are interested in a STEM major are "near prepared" compared to 11.5% of male test-takers
- 17.7% of Black test-takers who are STEM interested are "near prepared" compared to 15.4% for Latino, 11.4% for White, and 11.2% for Asian test-takers