

Statewide STEM Goals: Southeast Region

Goal 1: Increase student interest in STEM

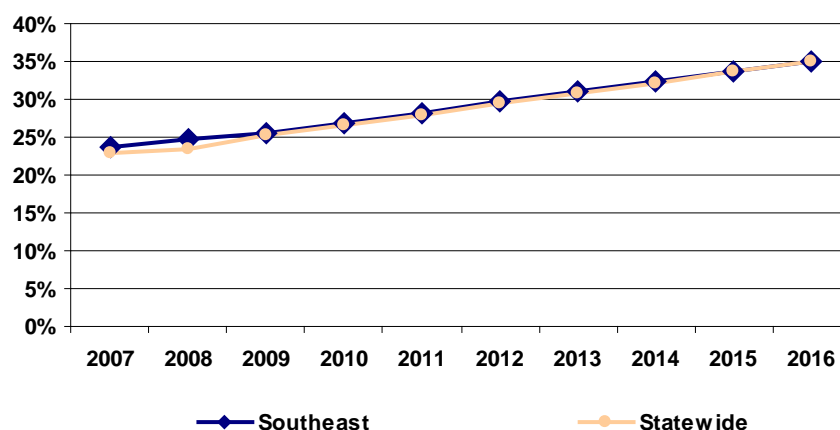
Increase interest in STEM college majors among college-going MA public school graduates to 35% by 2016.

- Additional Benchmarks:
- ◆ Increase interest among the underrepresented gender in fields with a gender-based gap in interest.
 - ◆ Increase interest among underrepresented races/ethnicities in fields with a race/ethnicity-based gap in interest.
 - ◆ Increase interest in fields where there are anticipated gaps in future employment (from industry growth and/or from retirement of current employees).
 - ◆ Increase interest in STEM fields at early ages (including preschool and elementary school) to assist in increasing student motivation to attain higher levels of STEM academic achievement/performance.

Interest in Majoring in a STEM Field among MA Public School SAT and SATII Test-Takers

Group	Region	Actual			Annual Targets to Match State Goal						
		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
All	Southeast	23.7%	24.7%	25.6%	26.9%	28.3%	29.6%	31.0%	32.3%	33.7%	35.0%
	Statewide	23.0%	23.4%	25.1%	26.5%	28.0%	29.4%	30.8%	32.2%	33.6%	35.0%
Female	Southeast	23.3%	24.5%	24.2%	25.8%	27.3%	28.8%	30.4%	31.9%	33.5%	35.0%
	Statewide	22.2%	22.8%	24.3%	25.8%	27.3%	28.9%	30.4%	31.9%	33.5%	35.0%
Male	Southeast	24.1%	24.9%	27.1%	28.2%	29.4%	30.5%	31.6%	32.7%	33.9%	35.0%
	Statewide	24.0%	24.0%	26.1%	27.4%	28.6%	29.9%	31.2%	32.5%	33.7%	35.0%
Asian	Southeast	40.0%	39.4%	42.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Statewide	35.2%	33.7%	37.9%	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Black	Southeast	29.9%	30.0%	26.9%	28.1%	29.2%	30.4%	31.5%	32.7%	33.8%	35.0%
	Statewide	29.7%	27.8%	26.7%	27.9%	29.1%	30.2%	31.4%	32.6%	33.8%	35.0%
Hispanic	Southeast	30.3%	26.1%	27.2%	28.3%	29.4%	30.6%	31.7%	32.8%	33.9%	35.0%
	Statewide	26.5%	26.2%	26.4%	27.6%	28.8%	30.1%	31.3%	32.5%	33.8%	35.0%
White	Southeast	23.6%	24.5%	25.9%	27.2%	28.5%	29.8%	31.1%	32.4%	33.7%	35.0%
	Statewide	22.5%	22.5%	24.4%	25.9%	27.4%	28.9%	30.5%	32.0%	33.5%	35.0%

Trend To Match State Goal: All Students



Statewide STEM Goals: Southeast Region

Goal 2: Increase STEM achievement among PreK12 students

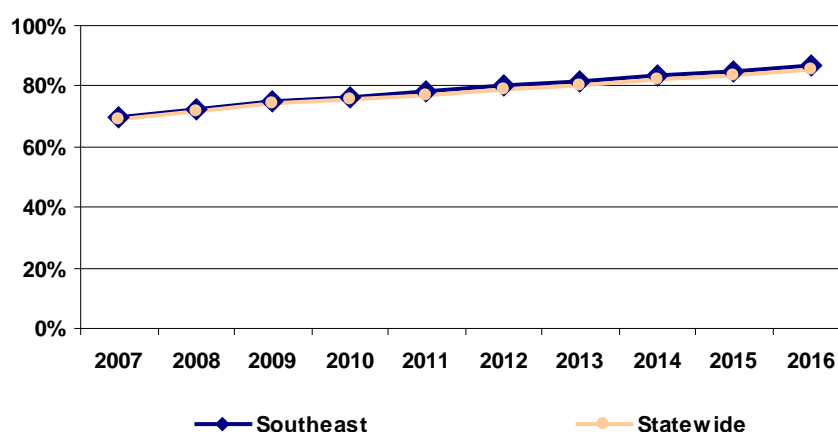
Increase the percentage of all students scoring Proficient or Advanced on the MCAS mathematics and science & technology/engineering assessments.

- Additional Benchmarks:
- ◆ Increase the percentage of all 5th and 8th grade students scoring Proficient or Advanced on mathematics and science & technology/engineering MCAS assessments by 20 percentage points by 2016.
 - ◆ Increase the percentage of all high school students scoring Proficient or Advanced on mathematics and science & technology/engineering MCAS assessments by 10 percentage points by 2016.
 - ◆ Reduce the achievement gaps of 5th grade, 8th grade, and high school students on the mathematics and science & technology/engineering MCAS assessments by 25% between 2010 and 2014, and another 25% between 2014 and 2016.

Percentage of 10th Grade Students Scoring Proficient or Higher on the Math MCAS

Group	Region	Actual			Annual Targets to Match State Goal						
		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
All	Southeast	69.5%	72.2%	75.2%	76.6%	78.3%	80.0%	81.6%	83.3%	85.0%	86.6%
	Statewide	68.9%	71.7%	74.2%	75.4%	77.0%	78.7%	80.4%	82.0%	83.7%	85.4%
Female	Southeast	69.5%	71.7%	75.1%	76.7%	78.4%	80.0%	81.7%	83.4%	85.0%	86.7%
	Statewide	69.5%	71.8%	74.8%	75.8%	77.5%	79.2%	80.8%	82.5%	84.2%	85.8%
Male	Southeast	69.4%	72.7%	75.4%	76.5%	78.2%	79.9%	81.5%	83.2%	84.9%	86.5%
	Statewide	68.5%	71.7%	73.7%	74.9%	76.6%	78.2%	79.9%	81.6%	83.2%	84.9%
Asian	Southeast	77.1%	72.1%	79.9%	85.4%	87.0%	88.7%	90.4%	92.0%	93.7%	95.4%
	Statewide	82.2%	84.7%	85.9%	86.5%	88.2%	89.8%	91.5%	93.2%	94.8%	96.5%
Black	Southeast	43.2%	44.8%	49.1%	48.0%	51.4%	54.7%	58.0%	61.4%	64.7%	68.0%
	Statewide	44.9%	47.5%	51.7%	53.3%	56.6%	60.0%	63.3%	66.6%	70.0%	73.3%
Hispanic	Southeast	42.7%	41.8%	47.7%	54.1%	57.4%	60.7%	64.1%	67.4%	70.7%	74.1%
	Statewide	42.1%	45.7%	48.3%	49.6%	52.9%	56.2%	59.6%	62.9%	66.2%	69.6%
White	Southeast	73.2%	76.1%	79.0%	80.7%	82.4%	84.0%	85.7%	87.4%	89.0%	90.7%
	Statewide	75.1%	78.0%	80.6%	81.8%	83.5%	85.2%	86.8%	88.5%	90.2%	91.8%

Trend To Match State Goal: All Students



Statewide STEM Goals: Southeast Region

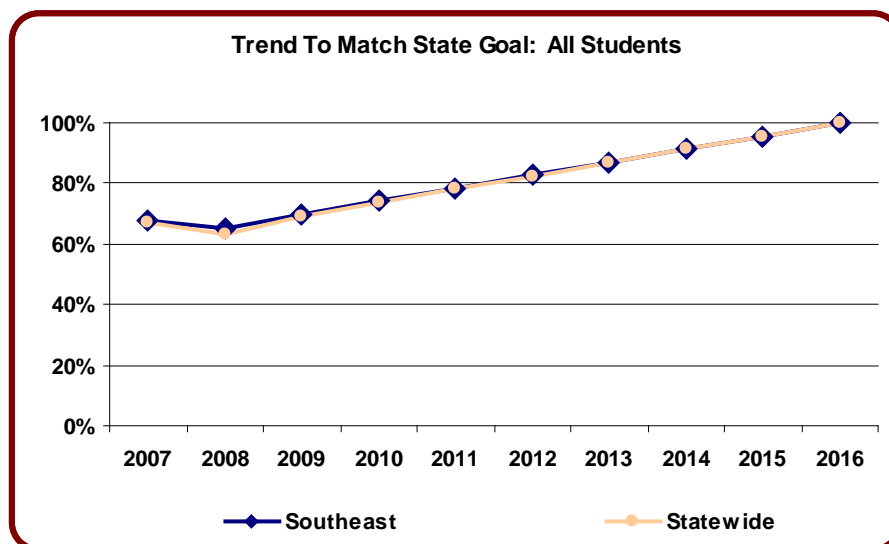
Goal 3: Increase the percentage of students who demonstrate readiness for college level study in STEM fields

Increase the percentage of MA public high school students who report taking at least 4 years of math (from 69% in 2009 [SAT]) and 3 years of la-based science (from 79% in 2009 [SAT]) to 100% in 2016,¹ consistent with MassCORE, as well as increase the percentage of MA public high school students who report taking advanced mathematics (pre-calculus and above) to 55% (from 44% in 2009 [SAT]) by 2016.

- Additional Benchmarks:
- ◆ Increase STEM course-taking among the underrepresented gender in courses with a gender-based gap in participation.
 - ◆ Increase STEM course-taking among underrepresented races/ethnicities in courses with a race/ethnicity-based gap in participation.

Percentage of MA Public School SAT and SATII Test Takers Who Report Taking Four or More Years of Math

Group	Region	Actual			Annual Targets to Match State Goal						
		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
All	Southeast	67.7%	65.0%	69.8%	74.1%	78.5%	82.8%	87.1%	91.4%	95.7%	100.0%
	Statewide	67.0%	63.1%	69.2%	73.6%	78.0%	82.4%	86.8%	91.2%	95.6%	100.0%
Female	Southeast	67.6%	64.7%	69.6%	74.0%	78.3%	82.6%	87.0%	91.3%	95.7%	100.0%
	Statewide	67.0%	63.2%	69.3%	73.6%	78.0%	82.4%	86.8%	91.2%	95.6%	100.0%
Male	Southeast	68.1%	65.3%	70.1%	74.4%	78.6%	82.9%	87.2%	91.5%	95.7%	100.0%
	Statewide	67.1%	63.2%	69.0%	73.5%	77.9%	82.3%	86.7%	91.2%	95.6%	100.0%
Asian	Southeast	67.5%	68.5%	70.3%	74.6%	78.8%	83.0%	87.3%	91.5%	95.8%	100.0%
	Statewide	71.5%	61.4%	72.8%	76.7%	80.6%	84.5%	88.3%	92.2%	96.1%	100.0%
Black	Southeast	57.0%	59.2%	59.0%	64.9%	70.7%	76.6%	82.4%	88.3%	94.1%	100.0%
	Statewide	55.9%	54.4%	54.1%	60.6%	67.2%	73.8%	80.3%	86.9%	93.4%	100.0%
Hispanic	Southeast	63.4%	59.8%	67.6%	72.2%	76.8%	81.5%	86.1%	90.7%	95.4%	100.0%
	Statewide	60.5%	58.1%	58.1%	64.1%	70.1%	76.1%	82.0%	88.0%	94.0%	100.0%
White	Southeast	70.8%	67.5%	73.0%	76.9%	80.7%	84.6%	88.4%	92.3%	96.1%	100.0%
	Statewide	70.7%	66.3%	73.3%	77.1%	80.9%	84.7%	88.6%	92.4%	96.2%	100.0%



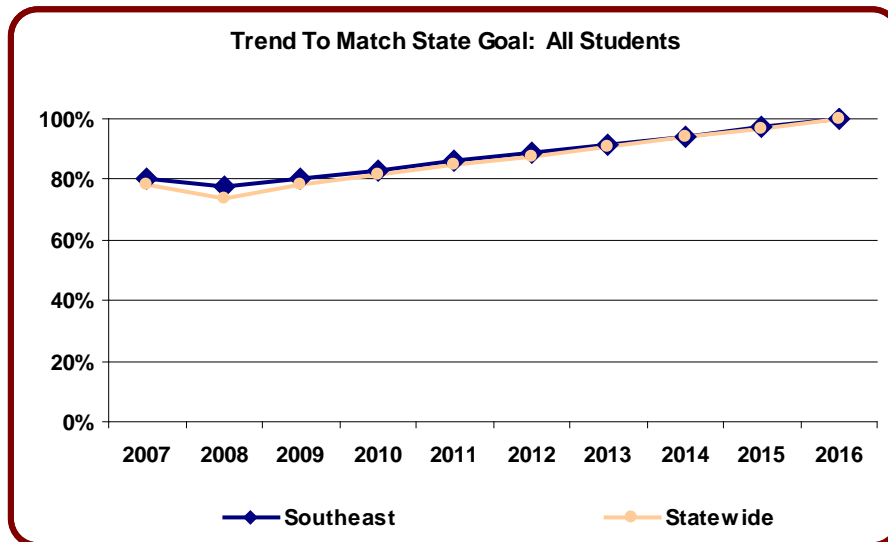
Statewide STEM Goals: Southeast Region

Goal 3: Increase the percentage of students who demonstrate readiness for college level study in STEM fields

Continued

Percentage of MA Public School SAT and SATII Test Takers Who Report Taking Three or More Years of Science

Group	Region	Actual			Annual Targets to Match State Goal						
		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
All	Southeast	80.1%	77.6%	80.2%	83.1%	85.9%	88.7%	91.5%	94.4%	97.2%	100.0%
	Statewide	78.4%	73.6%	78.6%	81.6%	84.7%	87.8%	90.8%	93.9%	96.9%	100.0%
Female	Southeast	81.8%	78.8%	81.5%	84.2%	86.8%	89.5%	92.1%	94.7%	97.4%	100.0%
	Statewide	80.1%	75.1%	80.1%	83.0%	85.8%	88.6%	91.5%	94.3%	97.2%	100.0%
Male	Southeast	78.4%	76.2%	78.8%	81.8%	84.8%	87.9%	90.9%	93.9%	97.0%	100.0%
	Statewide	76.6%	71.9%	76.8%	80.1%	83.4%	86.7%	90.1%	93.4%	96.7%	100.0%
Asian	Southeast	91.8%	83.2%	65.2%	70.2%	75.1%	80.1%	85.1%	90.1%	95.0%	100.0%
	Statewide	80.4%	68.5%	79.4%	82.3%	85.3%	88.2%	91.2%	94.1%	97.1%	100.0%
Black	Southeast	73.9%	75.1%	73.2%	77.1%	80.9%	84.7%	88.5%	92.4%	96.2%	100.0%
	Statewide	70.9%	66.8%	65.5%	70.5%	75.4%	80.3%	85.2%	90.2%	95.1%	100.0%
Hispanic	Southeast	78.6%	72.5%	78.0%	81.1%	84.3%	87.4%	90.6%	93.7%	96.9%	100.0%
	Statewide	72.6%	68.3%	70.1%	74.4%	78.7%	82.9%	87.2%	91.5%	95.7%	100.0%
White	Southeast	83.0%	80.2%	83.2%	85.6%	88.0%	90.4%	92.8%	95.2%	97.6%	100.0%
	Statewide	82.2%	77.0%	82.5%	85.0%	87.5%	90.0%	92.5%	95.0%	97.5%	100.0%



Statewide STEM Goals: Southeast Region

Goal 4: Increase the number of students who graduate from a postsecondary institution with a degree in a STEM field

Increase the number of students who complete STEM post-secondary degrees at MA public and private institutions by 50% from 2008 to 2016.

- Additional Benchmarks:
- ◆ Increase the number of Bachelor's degrees granted in all STEM majors to all students by 50% by 2016.
 - ◆ Increase the number of Bachelor's degrees granted in all STEM majors to the underrepresented gender in majors with a gender-based gap in degrees.
 - ◆ Increase the number of Bachelor's degrees granted in all STEM majors to the underrepresented race/ethnicity in majors with a race/ethnicity-based gap in degrees.

Number of Bachelor's Degrees Earned in STEM Fields at Both Public and Private Institutions of Higher Education

Group	Region	Actual			Annual Targets to Match State Goal						
		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
All	Southeast	663	736	754	799	847	897	951	1,008	1,068	1,131
	Statewide	11,410	12,134	12,549	13,297	14,090	14,931	15,821	16,765	17,765	18,824
Female	Southeast	319	407	369	391	414	439	465	493	523	554
	Statewide	5,943	6,392	6,583	6,976	7,392	7,832	8,300	8,795	9,319	9,875
Male	Southeast	344	329	385	408	432	458	486	514	545	578
	Statewide	5,467	5,742	5,966	6,322	6,699	7,098	7,522	7,970	8,446	8,949
Asian	Southeast	18	25	27	29	30	32	34	36	38	41
	Statewide	1,269	1,331	1,377	1,459	1,546	1,638	1,736	1,840	1,949	2,066
Black	Southeast	20	24	27	29	30	32	34	36	38	41
	Statewide	541	603	541	573	608	644	682	723	766	812
Hispanic	Southeast	12	17	10	11	11	12	13	13	14	15
	Statewide	449	530	505	535	567	601	637	675	715	758
White	Southeast	521	613	634	672	712	754	799	847	897	951
	Statewide	7,336	7,834	8,181	8,669	9,186	9,734	10,314	10,929	11,581	12,272

Trend To Match State Goal: All Students

