UMASS DONAHUE INSTITUTE • APPLIED RESEARCH & PROGRAM EVALUATION

Massachusetts Statewide STEM Indicators Project (MASSIP)

2013 Massachusetts STEM Dashboard

Presented to the Massachusetts Department of Higher Education's STEM Pipeline Program and the Massachusetts Governor's STEM Advisory Council.

May 2013

DRAFT VERSION 1.0 (6-17-13)

Contents

Introduction

The Massachusetts Mathematics, Science, Technology & Engineering Grant (Pipeline) Fund was established under the Acts of 2003 Economic Stimulus Trust Fund. The Massachusetts Department of Higher Education (DHE) was directed to administer the Pipeline Fund, with a focus on three goals:

(1) to increase the number of Massachusetts students who participate in programs that support careers in fields related to mathematics, technology, engineering, and science;
(2) to increase the number of qualified mathematics, technology, engineering, and science teachers in the Commonwealth; and,
(3) to improve the mathematics, technology, engineering, and science educational offerings available in public and private schools.

The DHE created Regional PreK–16 Networks to plan and implement teacher and student activities that address the Pipeline Fund's goals. In addition, the DHE contracted with the University of Massachusetts Donahue Institute to develop a statewide science, technology, engineering, and mathematics (STEM) indicators system that would serve to benchmark Massachusetts' progress in key educational and economic areas associated with the Pipeline Fund's goals.

Recognizing the vast number of initiatives in place across Massachusetts to address STEM educational issues, this indicators system is not intended to specifically evaluate the impact of those activities directly supported by the Pipeline Fund. Rather, it serves as a reflection of the overall state of the combined efforts across the Commonwealth to increase the "flow" of students through a STEM educational "pipeline." Indicators' reports provide a basis for charting the Commonwealth's progress as a whole in promoting STEM education at all levels.

The purpose of the Massachusetts Statewide STEM Indicators Project (MASSIP) is to collect, analyze, and present a set of measurements that reflect a range of educational and economic conditions that are indicative of the state of the Massachusetts STEM Pipeline. Data collected in support of MASSIP are to be publicly available, be free of charge, and meet four criteria:

A. Be Focused: Each indicator should speak directly to Massachusetts' educational and workforce status in STEM-related areas.
B. Be Meaningful: Data should be useful to a wide variety of audiences and purposes.
C. Be Accessible: Data should be available at no cost through currently existing secondary sources.
D. Be Perennial: Data should be consistently available on an annual (or other cyclical) basis.

Please note that MASSIP uses a broad definition of STEM that incorporates all of the following subject/ employment areas: (1) Agriculture, Conservation, and Natural Resources, (2) Architecture, (3) Biological and Biomedical Sciences, (4) Computer and Information Sciences, (5) Engineering and Engineering Technologies/Technicians, (6) Health Professions and Clinical Sciences, (7) Mathematics and Statistics, (8) Mechanic and Repair Technologies/Technicians, (9) Military Technologies/Technicians, (10) Physical Sciences, (11) Precision Production, and (12) Science Technologies/Technicians. As a result, data from MASSIP may not be comparable to data from other sources that use a different definition of STEM.

In 2009, MASSIP evolved to focus on what was then five (now six) Quantitative STEM Goals central to the Commonwealth's Statewide STEM Plan. The intention of these Goals was threefold: (1) to help focus state initiatives as well as stakeholders in general, (2) to help inform policy at state, regional, and local/school levels,

and (3) to help inform in-depth research. In selecting the indicators for the Plan, the following were taken into consideration:

I. That data associated with the Goals should, at a minimum, be able to be tracked at state and regional levels and, ideally, also at the local or district/school level;
II. That data should be able to be tracked for the total group (e.g., "all students" or "all employed persons") and, ideally, also for major subgroups, including by gender, race/ethnicity, and/or income;
III. That data for each Goal should track both progress of the whole group toward a statewide target, as well as gaps that may or may not exist between different subgroups;
IV. That data associated with the Goals should cover a minimum of five years in order to facilitate trend analysis; and,
V. That the Goals should be a living system—to be updated if/when improved data are available.

The following report represents the latest iteration of data presentation related to MASSIP and the Statewide STEM Goals. It is the first draft of a new "STEM Data Dashboard" that has been developed in accordance with the following priorities:

A. That one set of views ("Core View I") be developed to show overall progress for each of the STEM Goals, including the "big picture" of movement of the total group and highlights of differences between subgroups;
B. That a second set of views ("Core View II") be developed to show overall progress of the Commonwealth with respect to the US national average—where possible, using the same data/indicators from the Statewide STEM Goals (and, where not possible, using a proxy—for example, since the MCAS scores tracked for Goal 2 are specific to us, they are replaced with NAEP scores for the purposes of national comparison); and,
C. That a third set of views ("Supplemental Views") be developed to show (1) more specific information related to sub-groups, and/or (2) to organize charts in thematic groups to facilitate different kinds of comparisons.

Please note that because of Priority C, some charts will appear in multiple places in the Dashboard. For example, a chart concerning female interest in engineering might be seen in both a section about female interest, as well as a section about interest in engineering. In such cases, the chart will have a footnote indicating the other chart to which it is identical.

Information about the data associated with each chart/indicator can be found at the end of this report (in the "Data Notes" section).

For more information about the Dashboard and/or the data used, please contact:

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State STEM Goals

The Massachusetts State STEM Plan has six quantitative goals associated with it. Five of these (Goals 1 – 5) were included in the original 2010 Plan. A sixth Goal (Goal 6) was added by the Governor's STEM Advisory Council during the summer of 2012. All of these Goals are currently under review by the Council and its Operations Board as part of a process to update the STEM Plan. Below are the original formulations of each goal as well as comments on if/how they have been modified to date.

Goals 1 – 5 have been taken from:
A Foundation for the Future: Massachusetts' Plan for Excellence in STEM Education (Version 1.0).

Goal1: Increase student interest in STEM.

Increase interest in STEM college majors among college-going MA public school graduates to 48% by 2016 (from 38% in 2009).

- 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 group 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.

Goal 2: Increase STEM achievement among PreK-12 students.

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

- 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.

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 82% in 2009) and 3 years of lab-based science (from 95% in 2009) to 100% in 2016, 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) by 2016.

- 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.

Goal 4: Increase the number of students who graduate from a post-secondary 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.

- 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.

Goal 5: Increase the number/percentage of STEM classes led by effective educators, from PreK-16.

TBD.

Goal 6 was developed by the Governor's STEM Advisory Council during the summer of 2012

Goal 6: Align STEM education programs with the workforce needs of key economic sectors.

- Improve the competence (knowledge, skills and attitudes) of current and prospective workers for in-demand career tracks across relevant job levels,
- Increase the availability and diversity of STEM competent workers to support the replacement (retirement) and growth needs of employers,
- Increase total employment of the STEM workforce, regionally and statewide.
- Increase the number of STEM education programs that address in-demand career tracks and jobs for key economic sectors.
- Improve response of vocational schools and colleges/universities to adjust capacity of STEM programs consistent with projections for a more diverse pipeline of new and replacement STEM workers targeting the following categories of students over time.
- Increase the number of experiential learning opportunities offered in each key economic sector, statewide and regionally, as a percentage of enrolled students.
- Quantify the number and % increase of Massachusetts STEM talent hires including underrepresented group hires
- Decrease persistent and above norm vacancy rates for in-demand STEM defined job categories
- Measure and report (growth/decline) of STEM job postings by economic sector and career tracks (technical, managerial and scientist/engineer) as a percentage of employment in these sectors/tracks.

Core View I: STEM Goals

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Chart 1: **% of MA SAT Question Respondents Whose 1st Choice of Major was STEM (for All and by Gender)** *Public Schools Only*
Chart 2: **% of MA SAT Question Respondents Whose 1st Choice of Major was STEM (by Race/Ethnicity or Income)** *Public Schools Only*
Chart 3: **% of Question Respondents Whose 1st Choice of Major was Engineering or Health (by Gender)** *Public Schools Only*
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Core View I Page 2: Goal 2 - Increase Student STEM Achievement

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Core View I Page 3: Goal 3 - Increase Student STEM College Readiness

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Core View I Page 4: Goal 4 - Increase STEM Bachelor's Degrees

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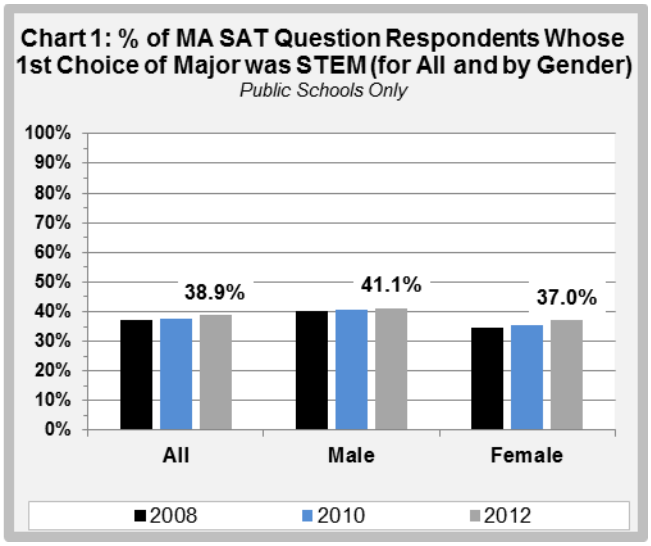
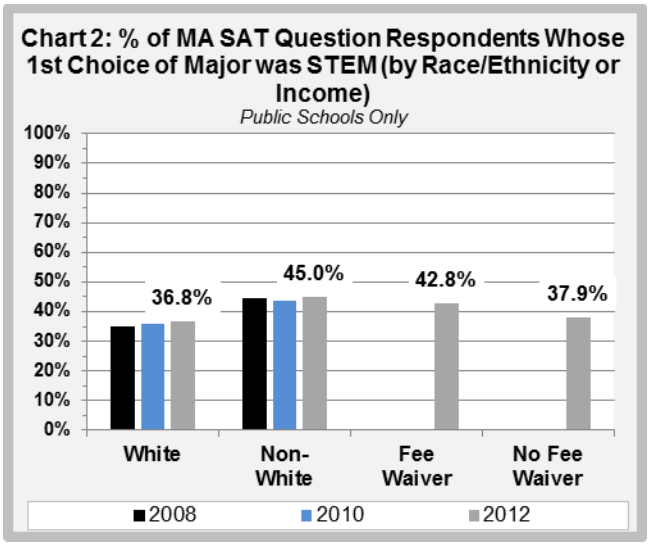
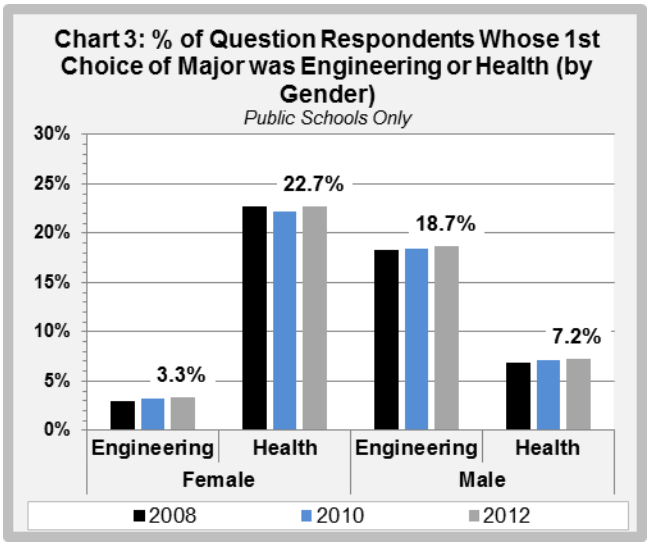
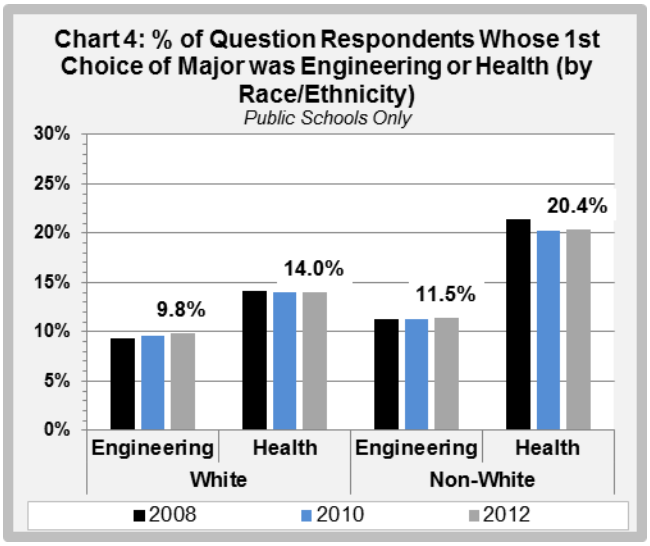
Chart 33: **MA Employment in Health Profession Occupations as a % of All Employment (by Gender and Race/Ethnicity)**

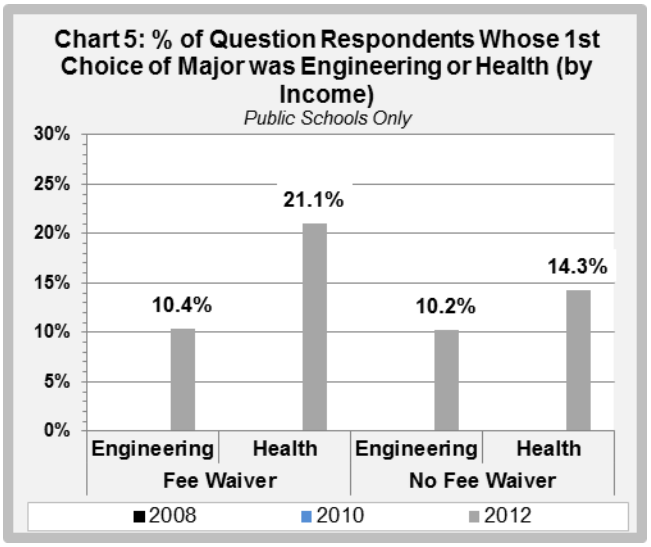
2013 MA STEM Dashboard Core View I: Page 1 – Statewide STEM Goal 1 (Increase Student STEM Interest)



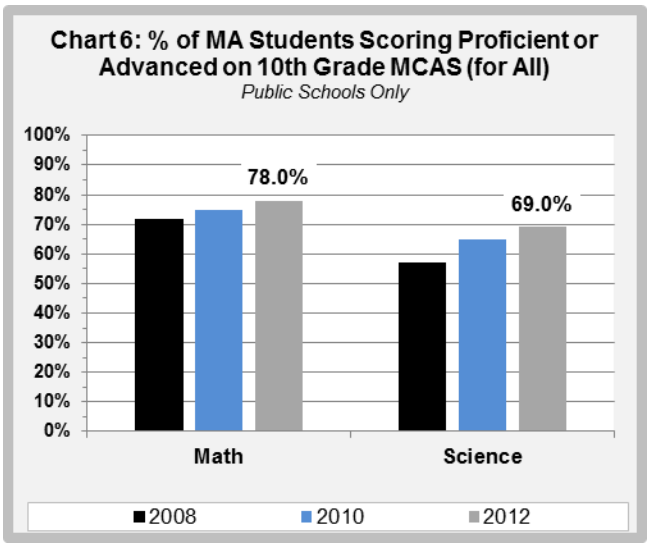


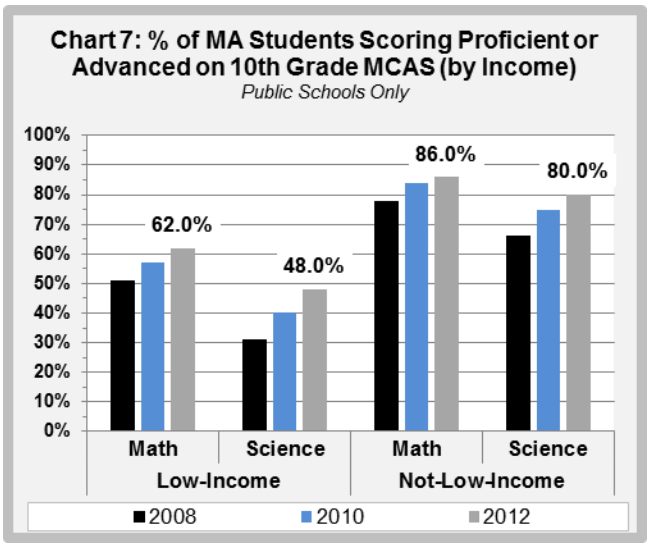


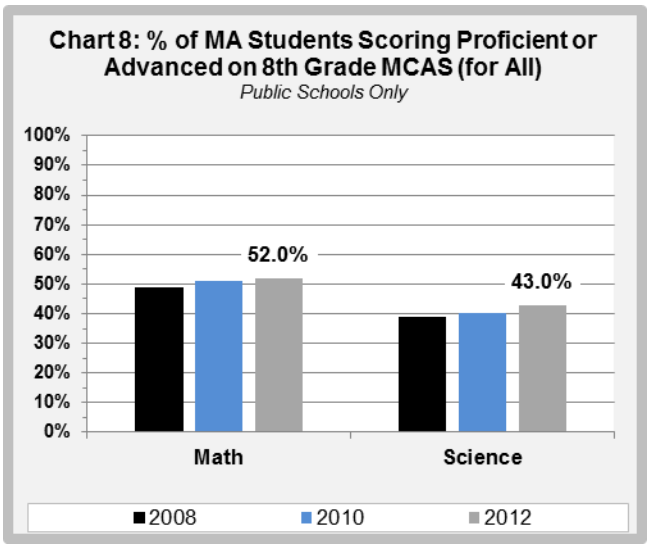


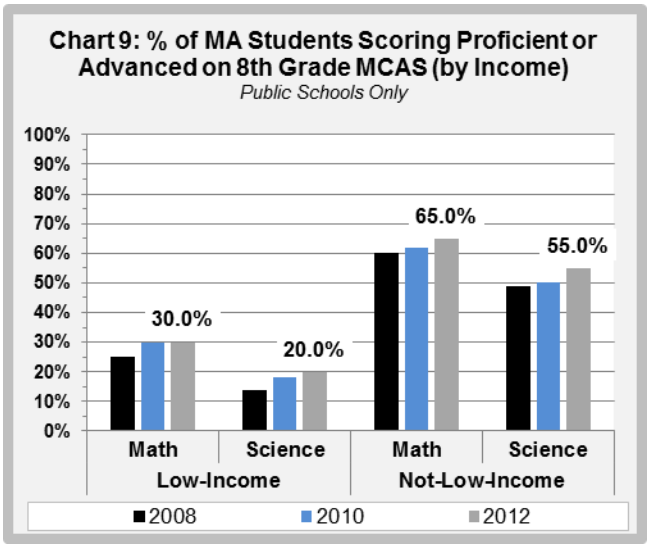


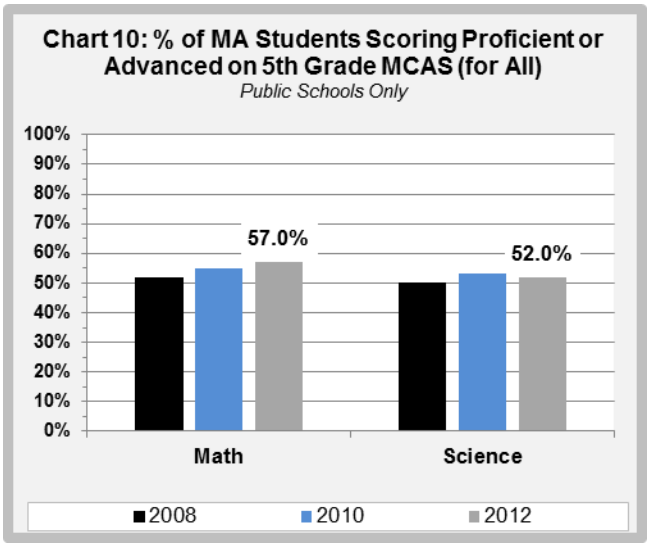
2013 MA STEM Dashboard Core View I: Page 2 – Statewide STEM Goal 2 (Increase Student STEM Achievement)

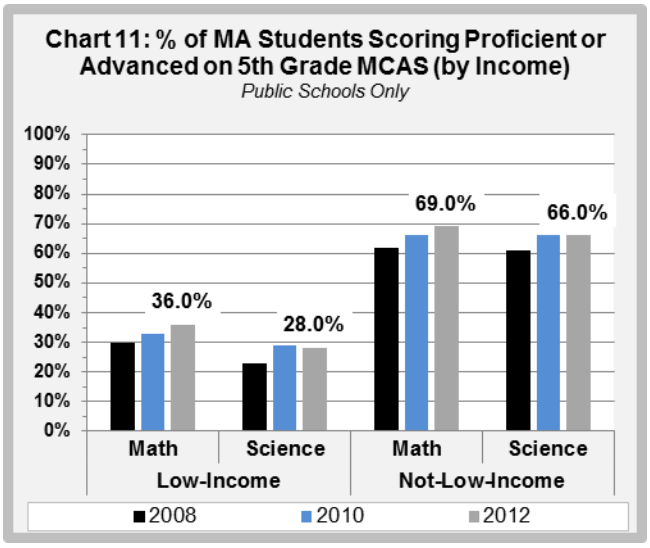




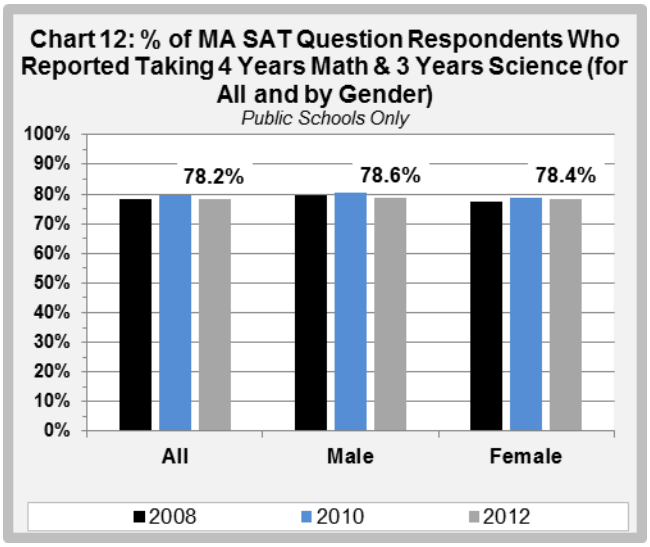


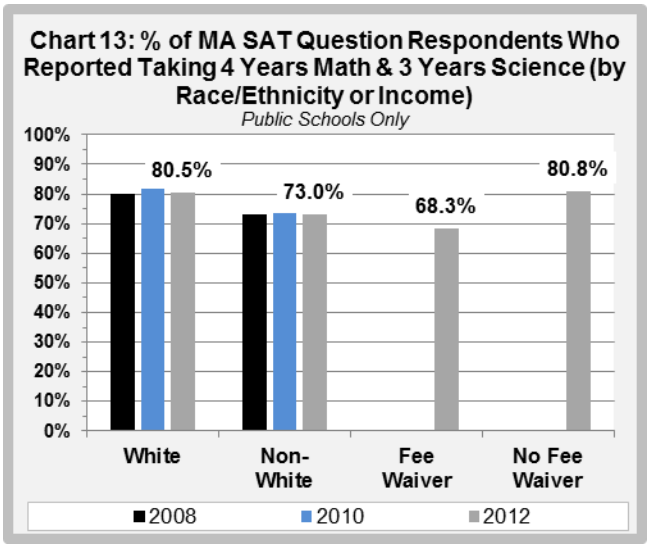


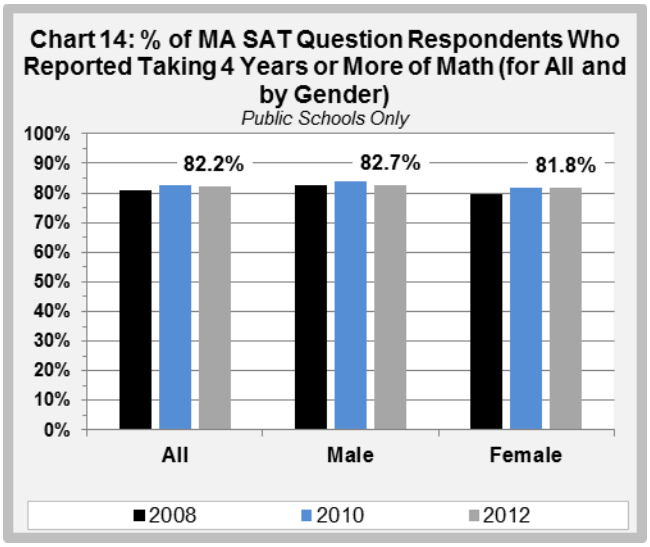


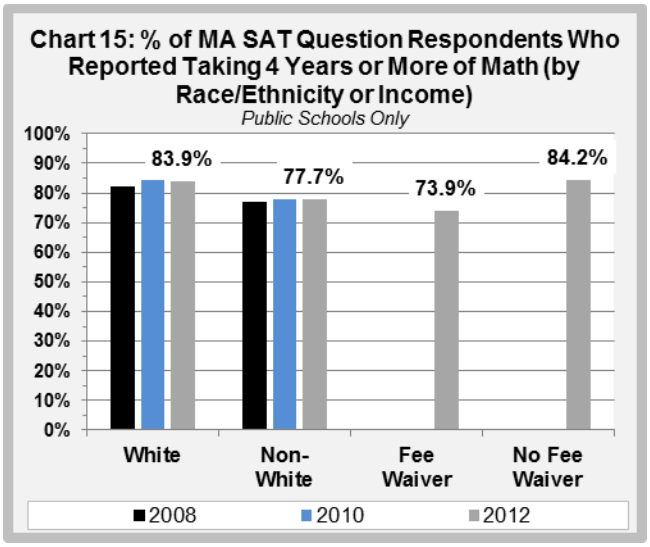


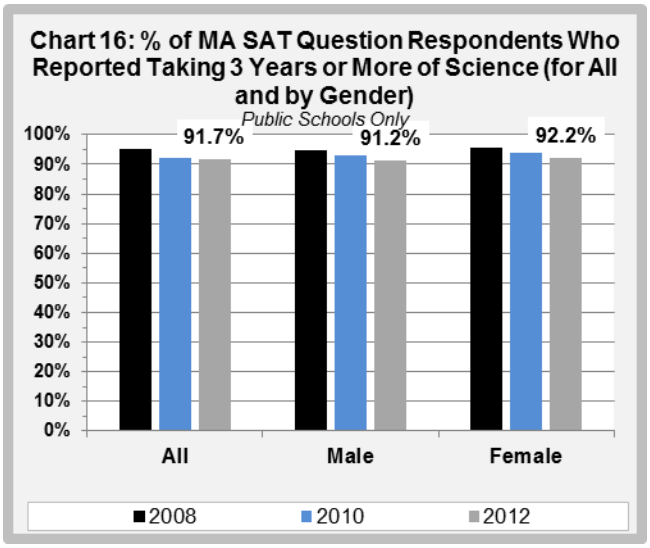
2013 MA STEM Dashboard Core View I: Page 3 – Statewide STEM Goal 3 (Increase Student STEM College Readiness)

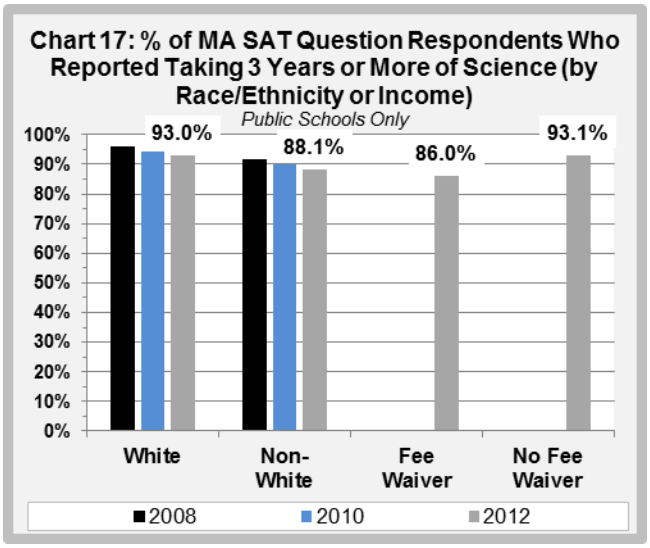




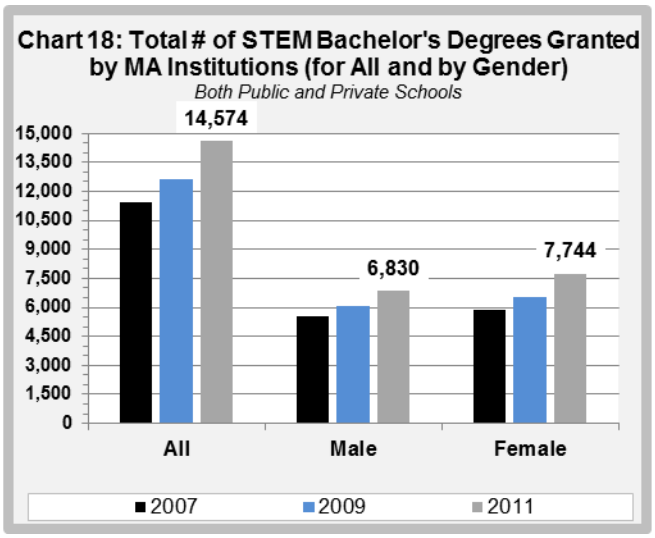


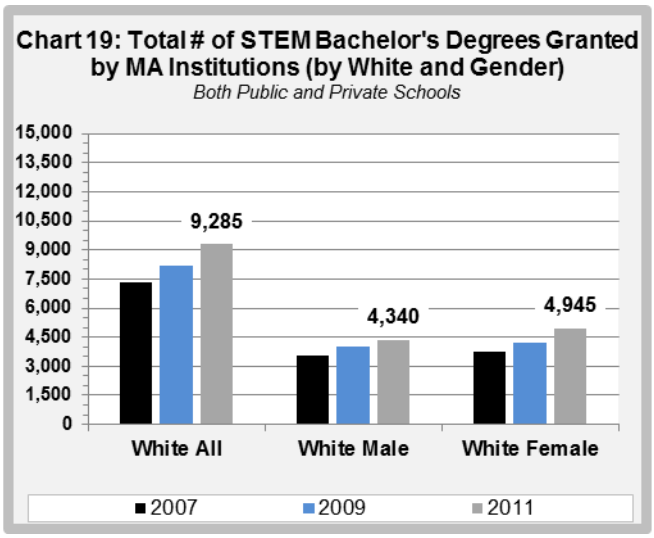


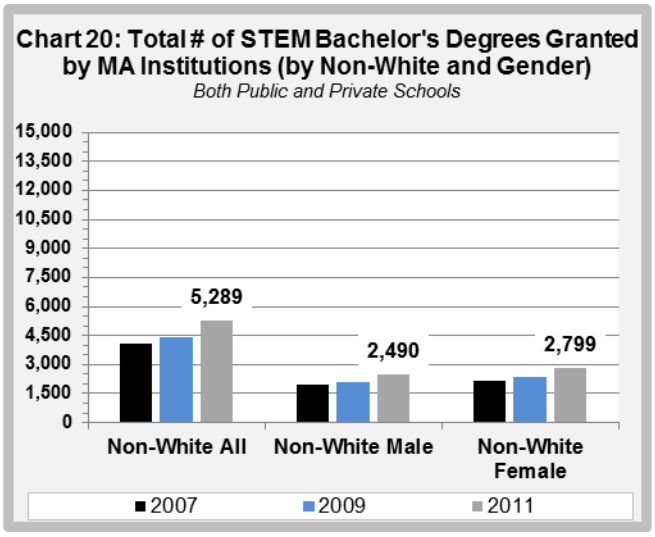


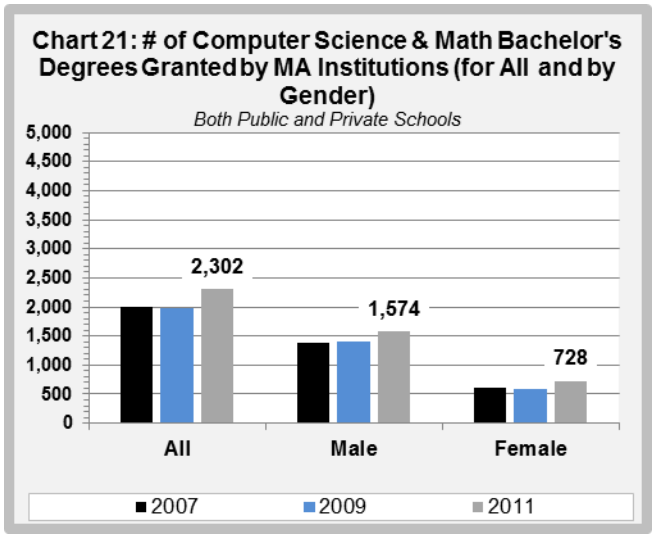


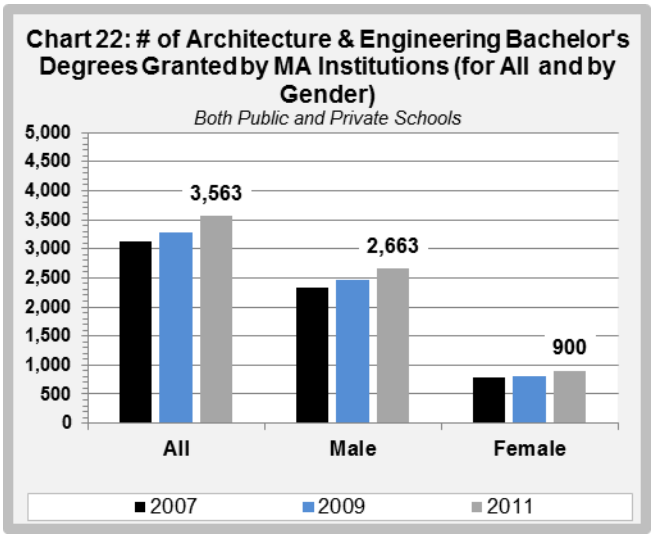
2013 MA STEM Dashboard Core View I: Page 4 – Statewide STEM Goal 4 (Increase Student STEM College Bachelor's Degrees)

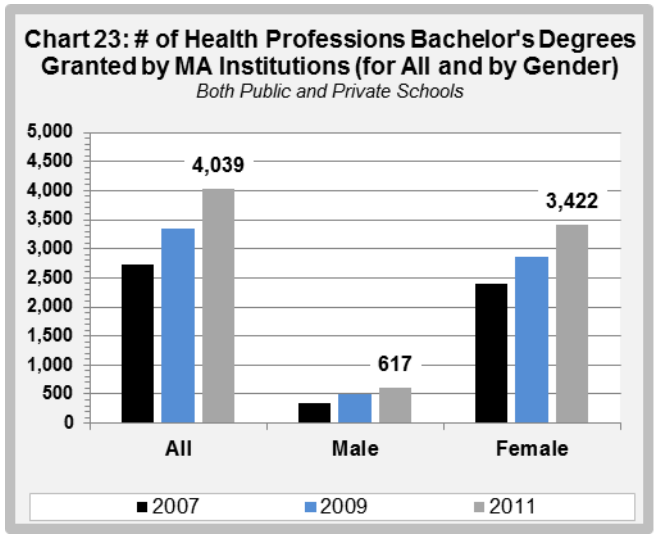




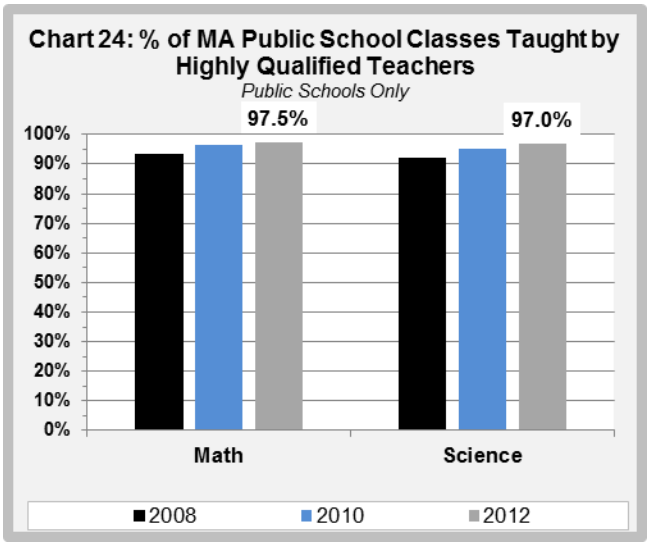


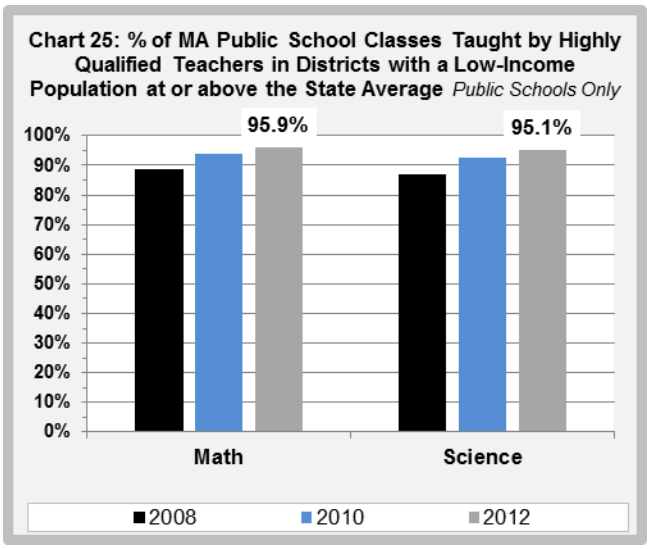


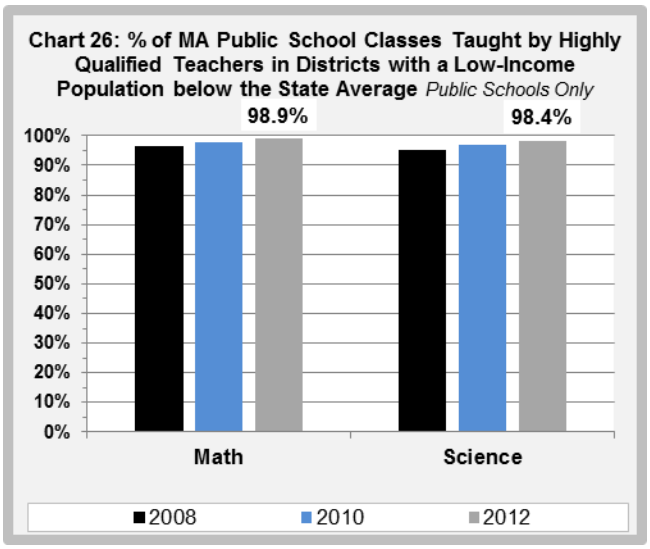


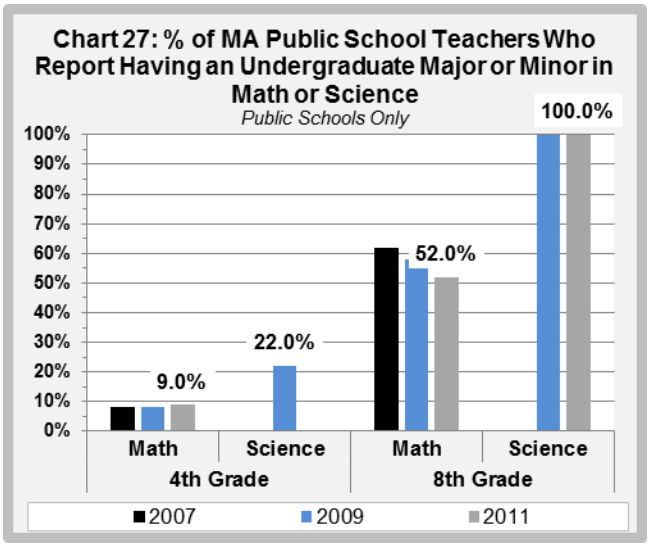


2013 MA STEM Dashboard Core View I: Page 5 – Statewide STEM Goal 5 (Increase Educator Effectiveness)

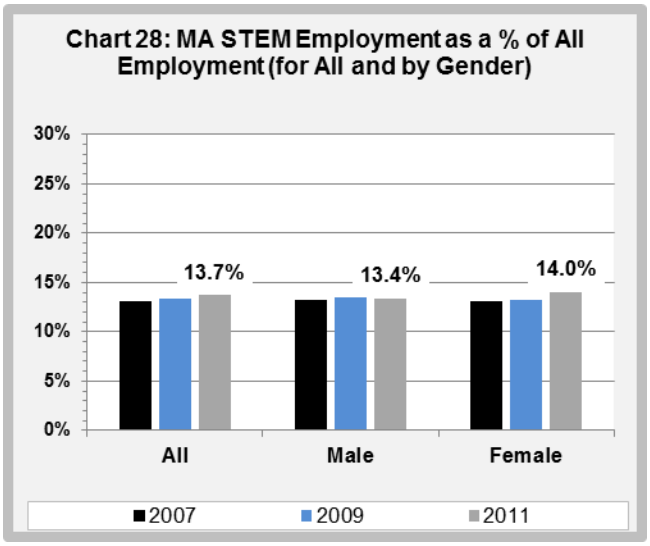


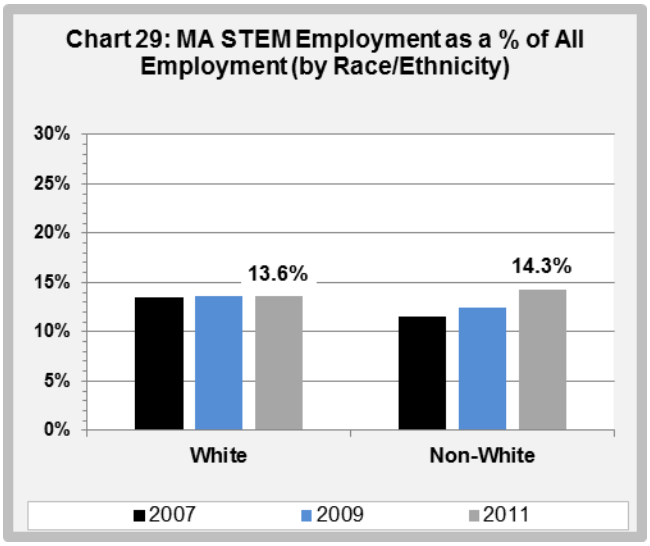


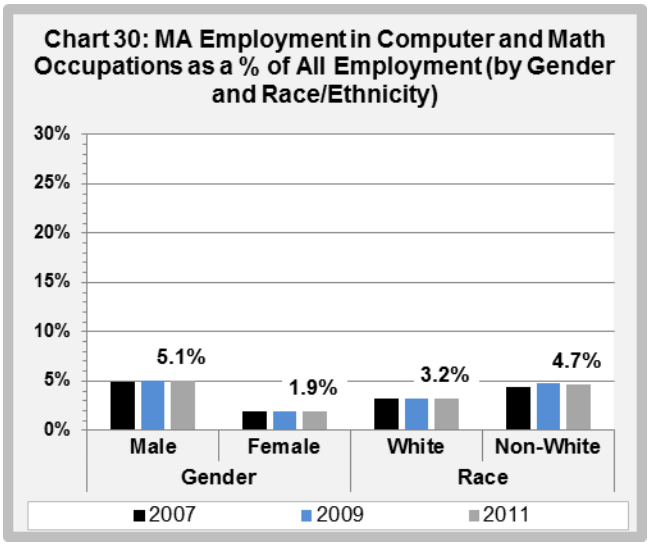


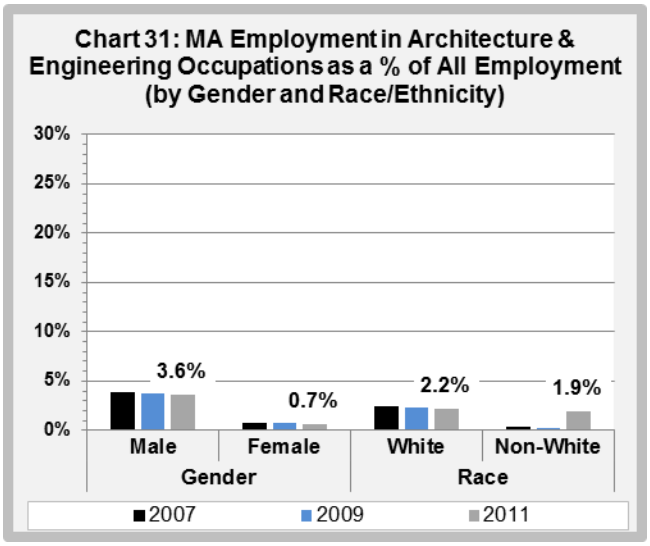


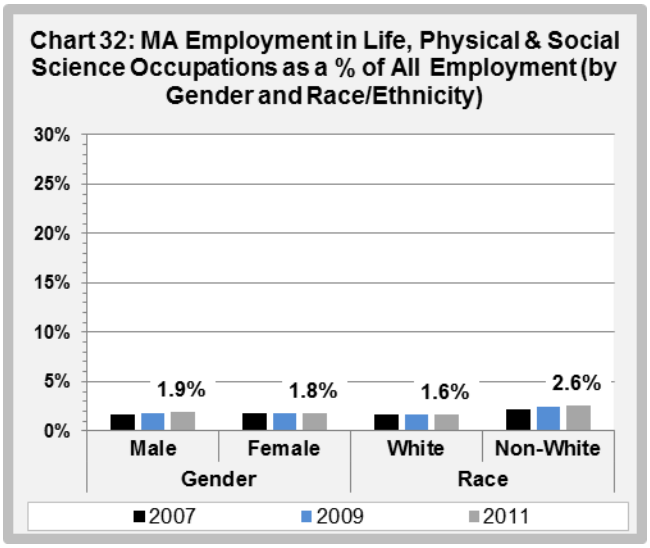
2013 MA STEM Dashboard Core View I: Page 6 – Statewide STEM Goal 6 (Increase Alignment of STEM Workforce)

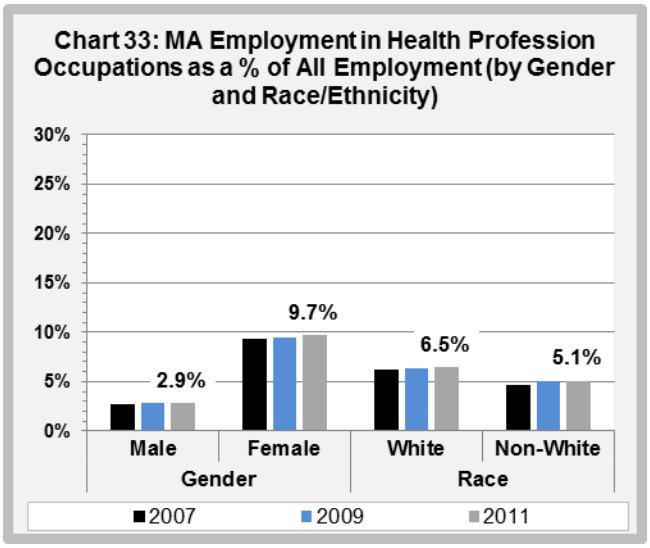












Core View II: MA vs. US

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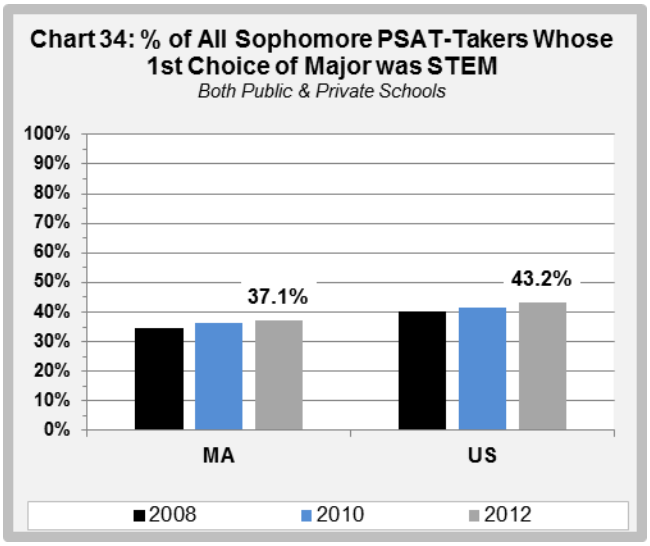
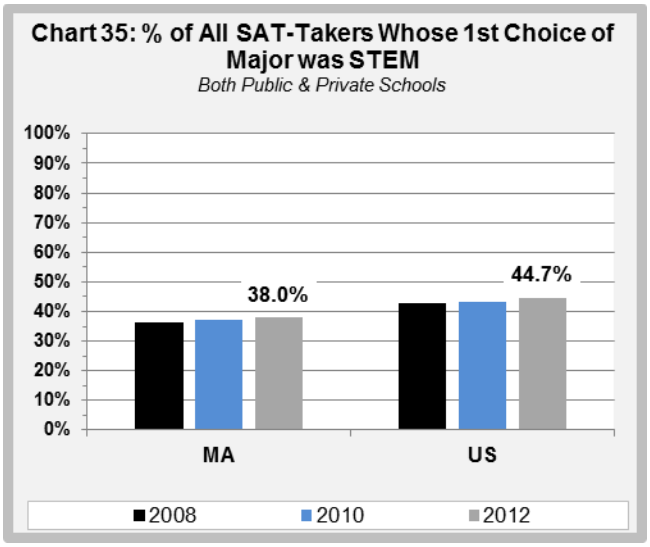
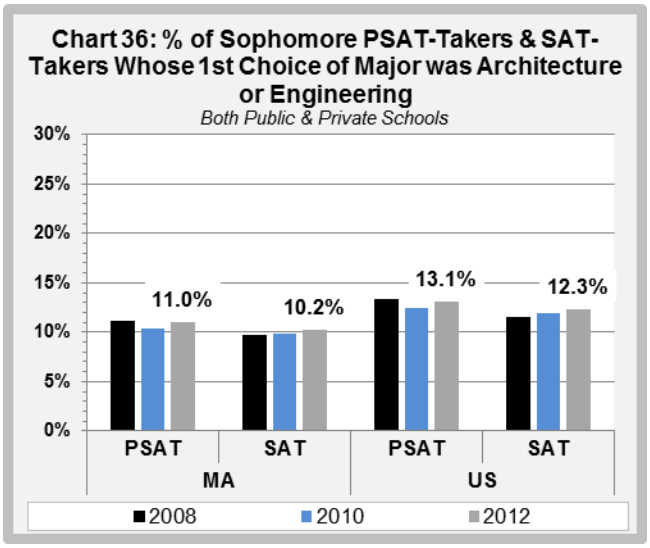
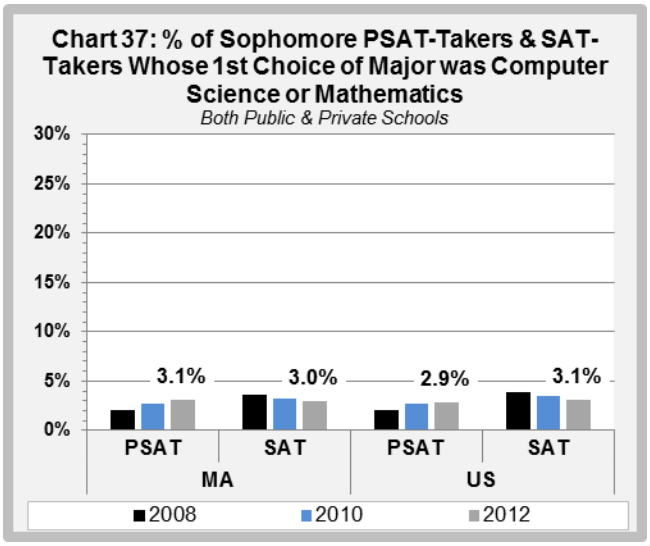
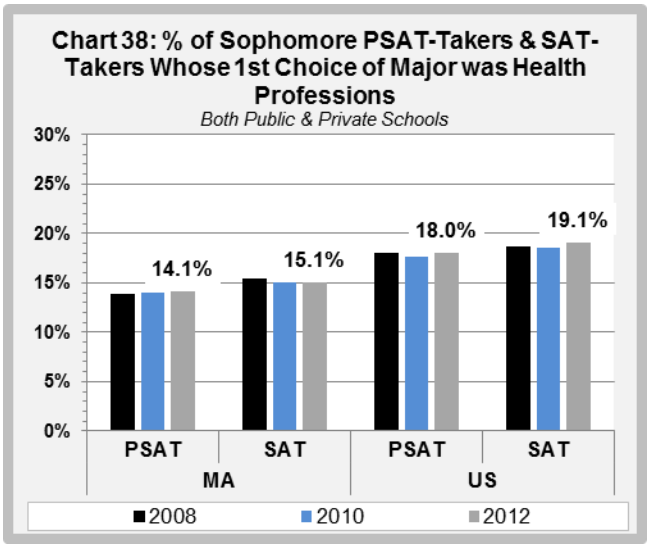
2013 MA STEM Dashboard Core View II: Page 1 – Student STEM Interest MA vs. US

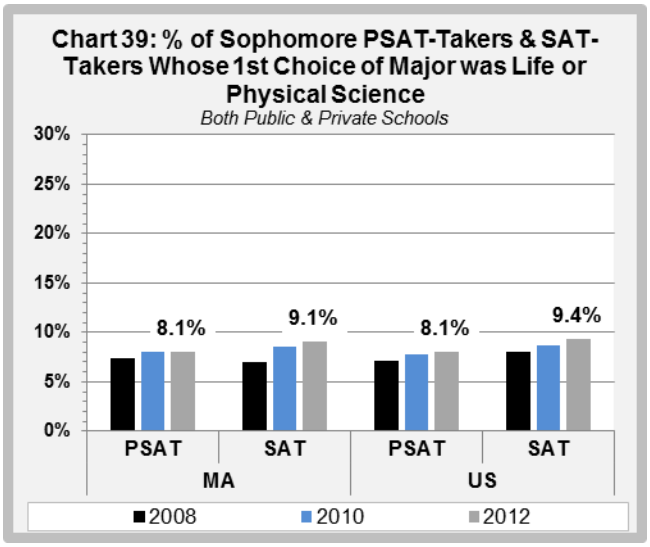




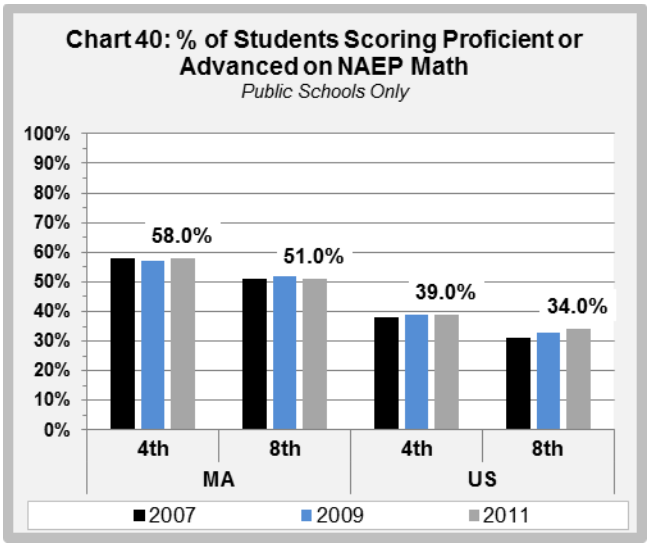


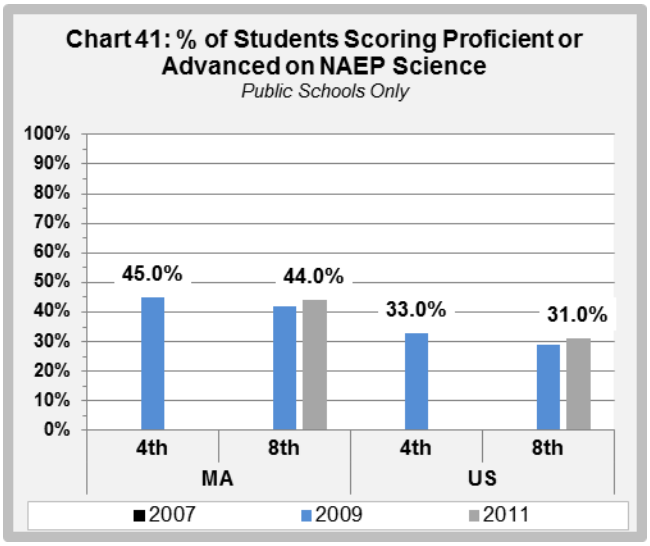


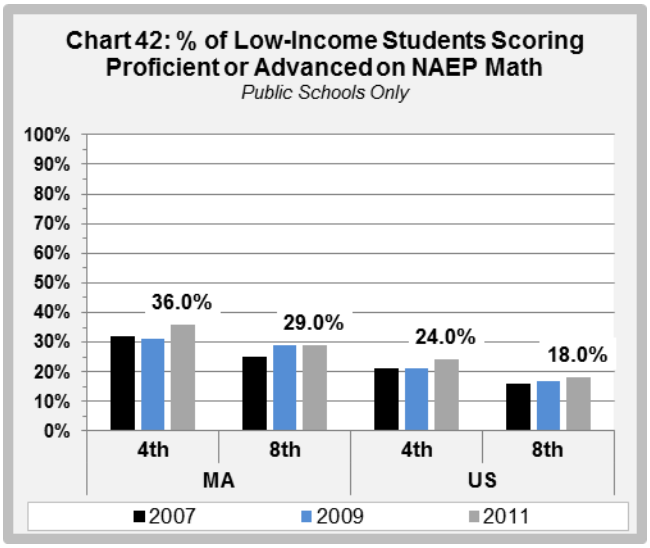


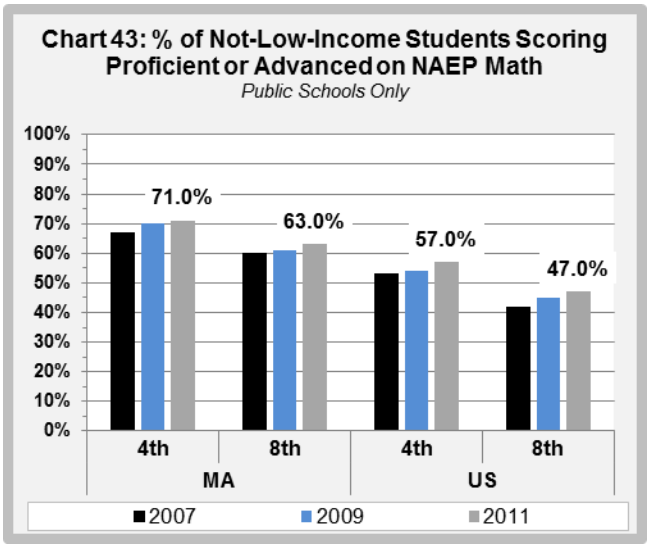


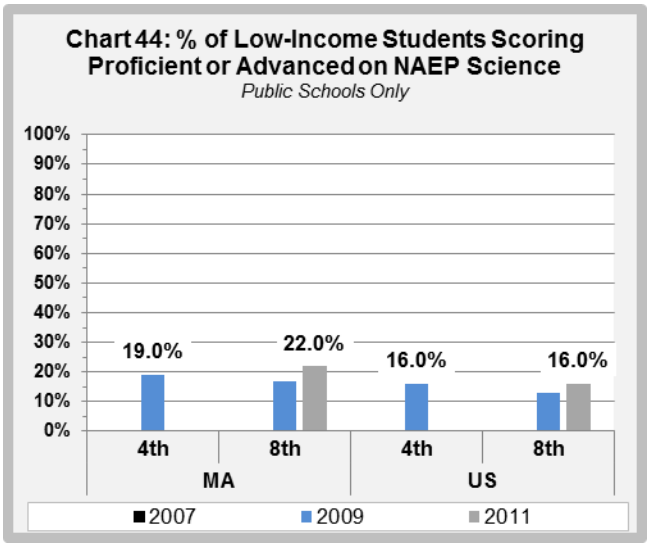
2013 MA STEM Dashboard Core View II: Page 2 – Student STEM Achievement MA vs. US

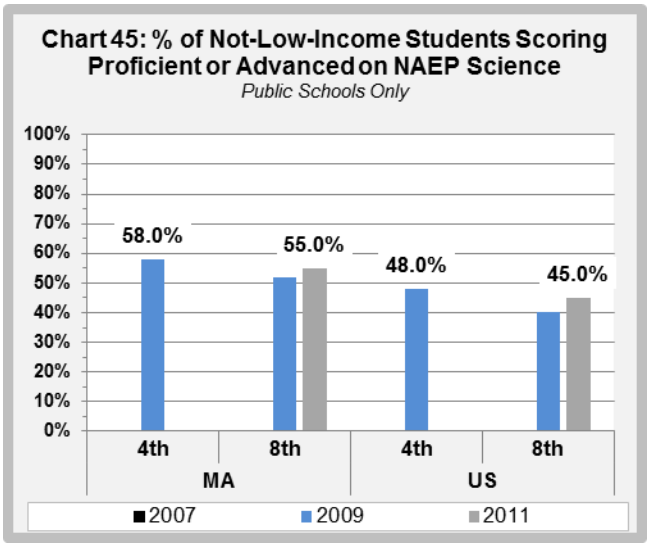




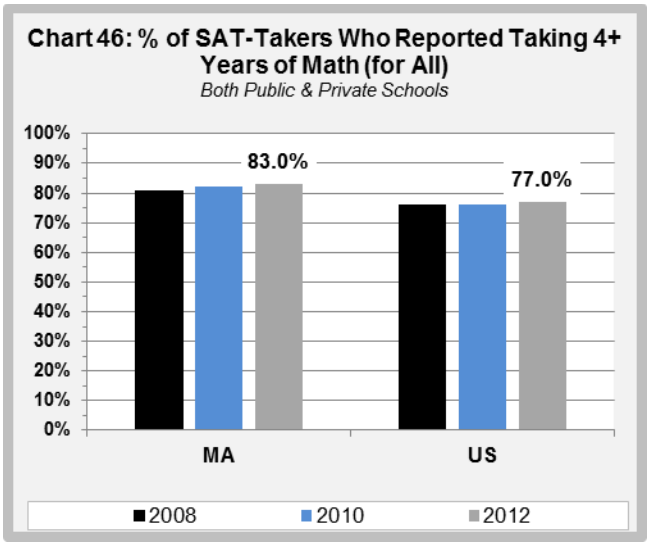


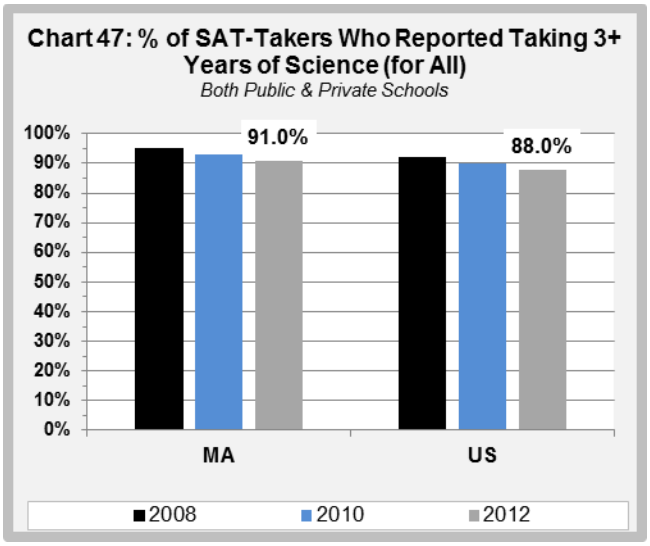


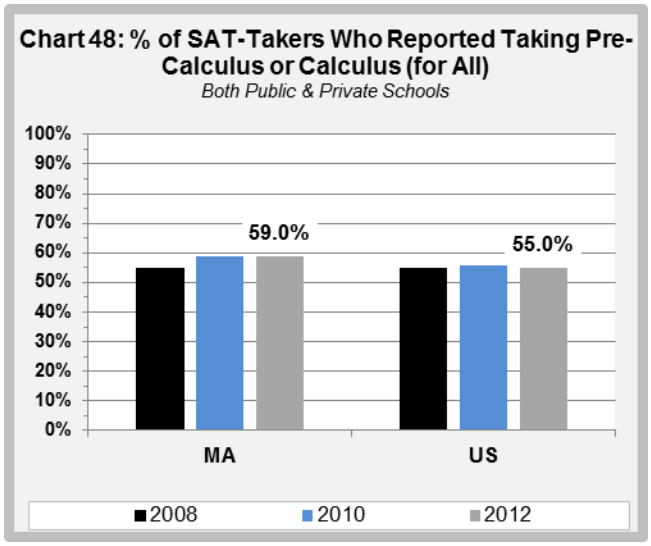


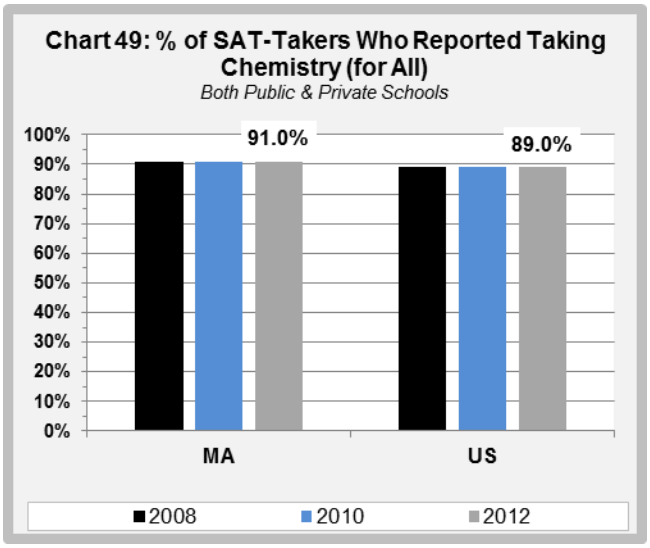


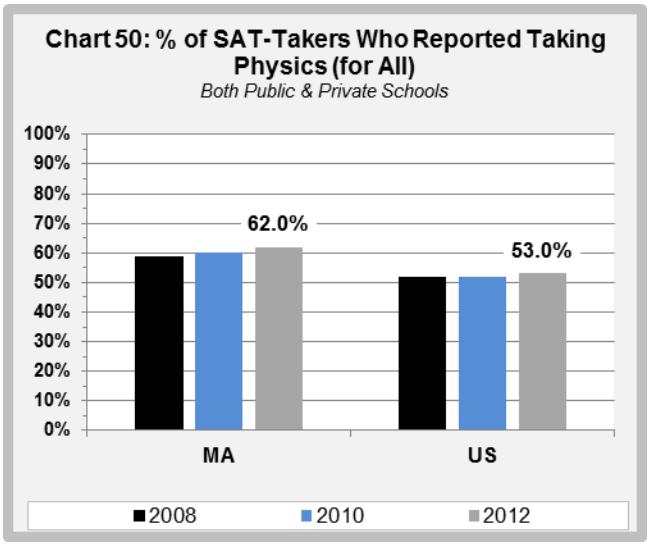
2013 MA STEM Dashboard Core View II: Page 3 – STEM College Readiness MA vs. US



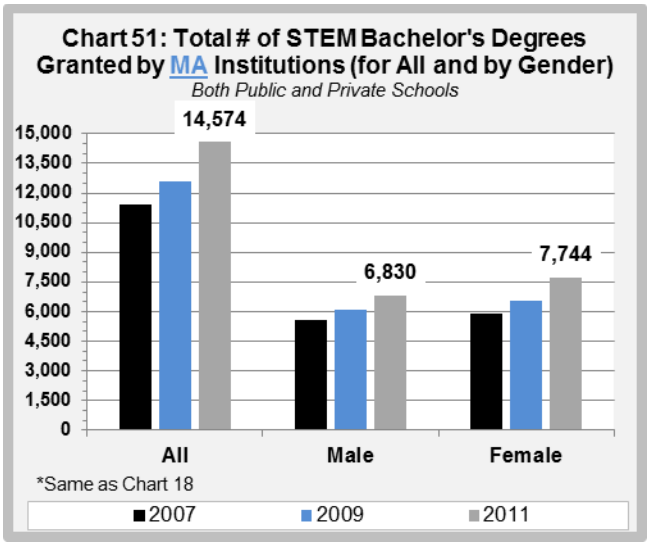


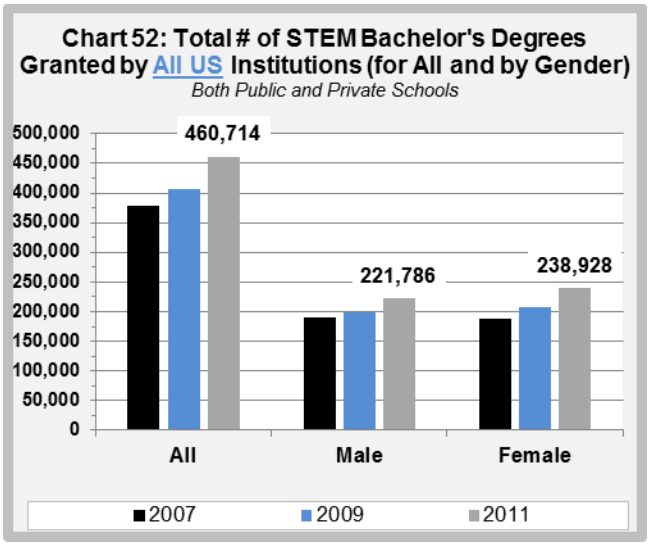


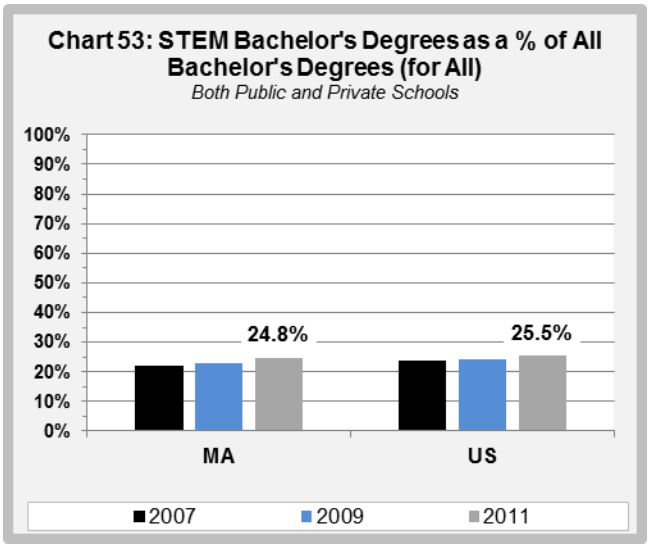


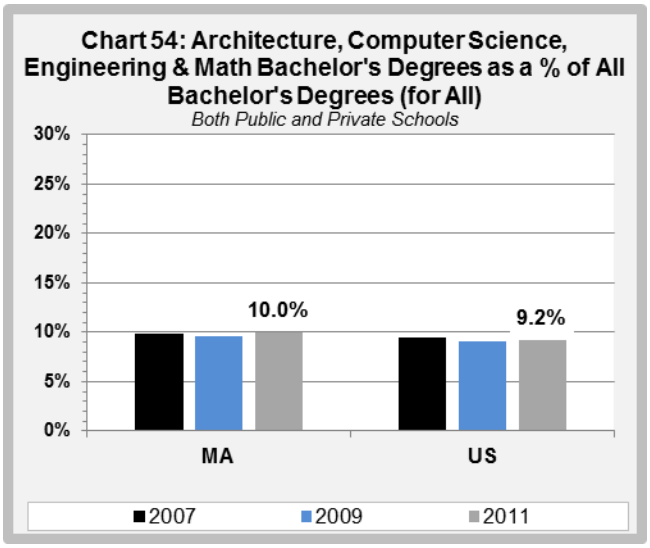


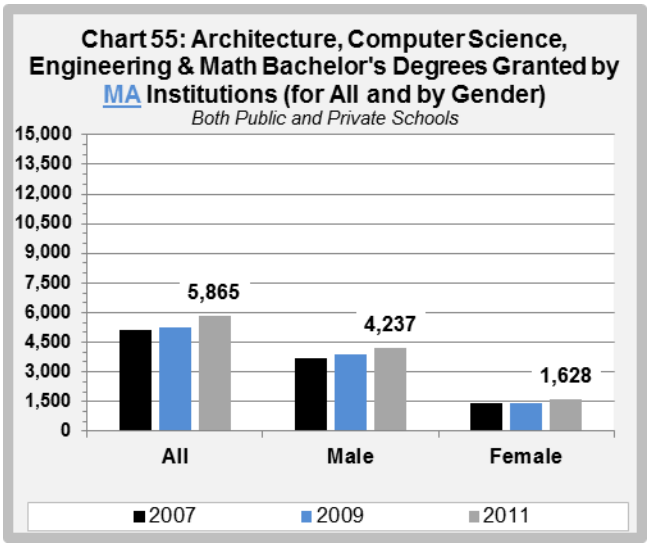
2013 MA STEM Dashboard Core View II: Page 4 – STEM Bachelor's Degrees MA vs. US

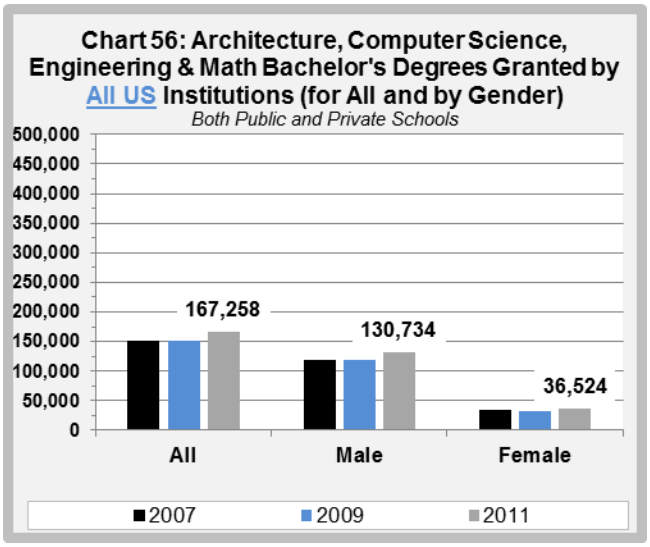




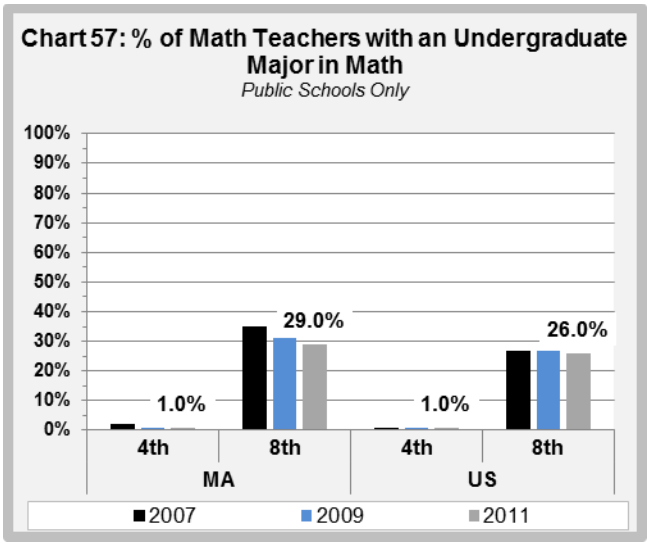


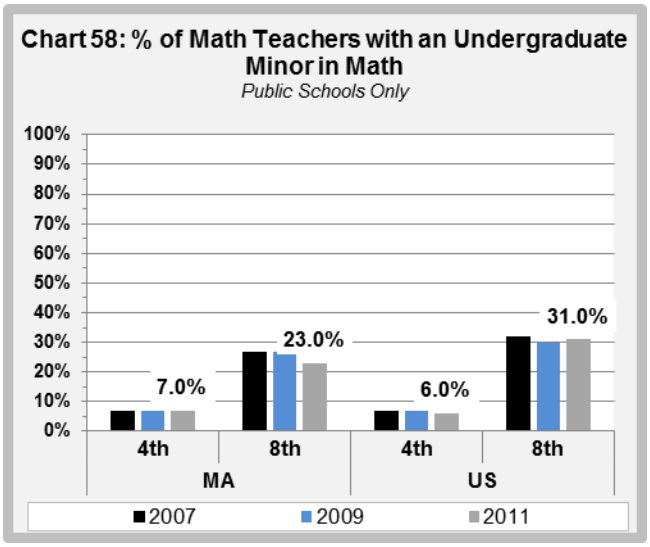


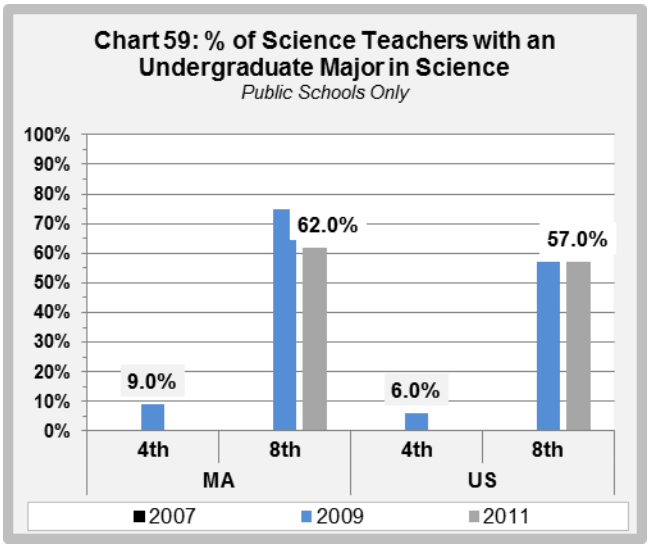


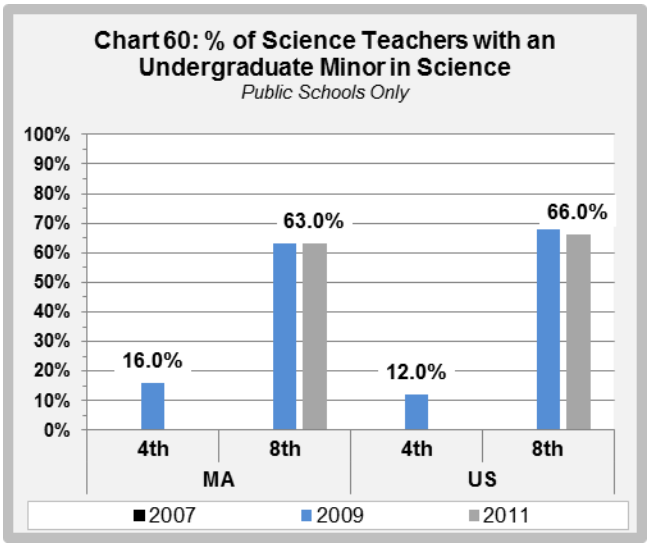


2013 MA STEM Dashboard Core View II: Page 5 – Educator Effectiveness MA vs. US

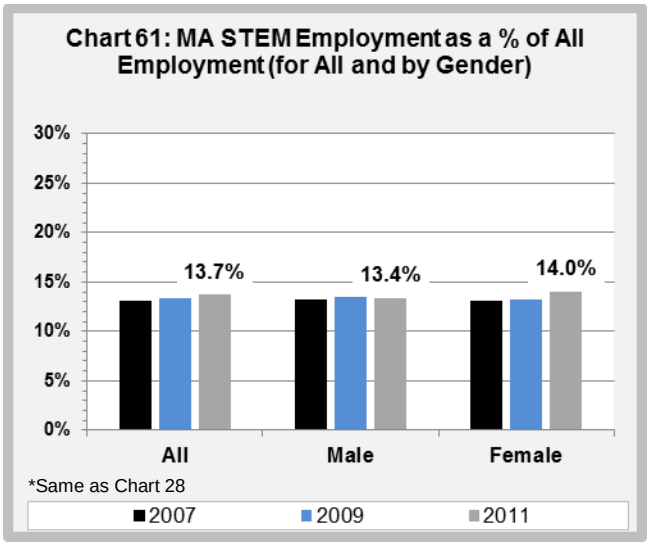


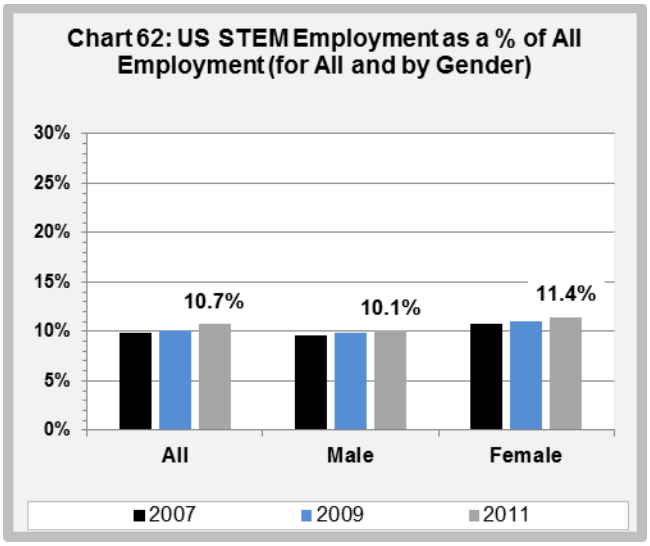


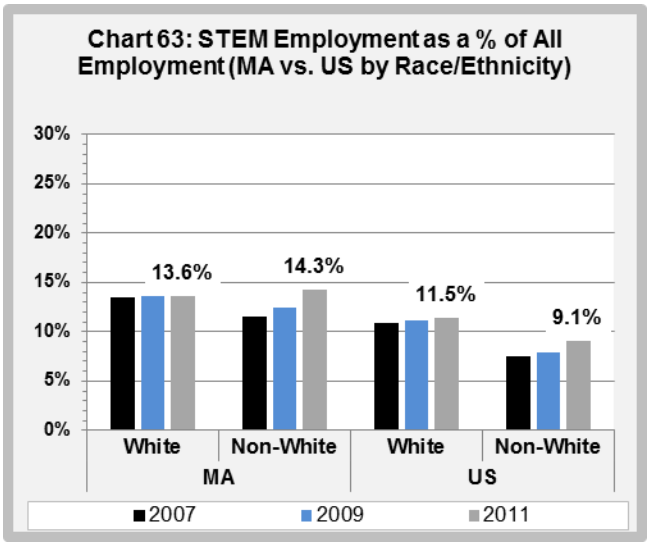


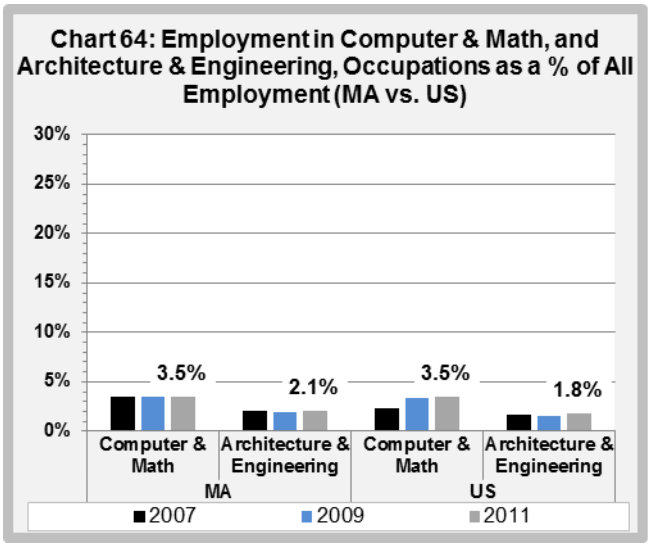


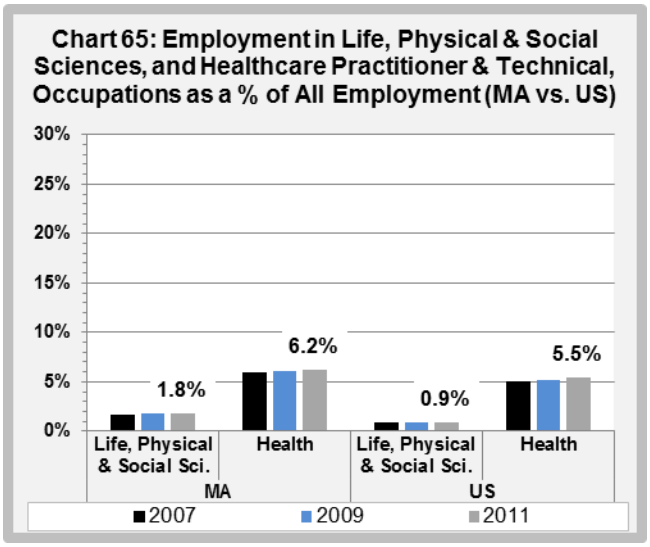
2013 MA STEM Dashboard Core View II: Page 6 – STEM Workforce MA vs. US











Supplemental Charts

This section contains additional charts that show more detailed data related to Core Views I and II. In some places a chart may be repeated from an earlier section. In these cases, it will be marked as such.

Supplemental Charts Pages 1 – 4: STEM Interest Details

Chart 66: **% of MA SAT-Takers Whose 1st Choice of Major was STEM (for All)** *Public Schools Only*
Chart 67: **% of MA SAT-Takers Whose 1st Choice of Major was Agriculture, Biological/Biomedical Sciences, & Conservation/Natural Resources (for All)** *Public Schools Only*
Chart 68: **of MA SAT-Takers Whose 1st Choice of Major was Computer/Information Sciences & Mathematics/Statistics (for All)** *Public Schools Only*
Chart 69: **% of MA SAT-Takers Whose 1st Choice of Major was Engineering & Engineering Technologies (for All)** *Public Schools Only*
Chart 70: **% of MA SAT-Takers Whose 1st Choice of Major was Health Professions (for All)** *Public Schools Only*
Chart 71: **% of MA SAT-Takers Whose 1st Choice of Major was Other STEM Majors (for All)** *Public Schools Only*
Chart 72: **% of MA SAT-Takers Whose 1st Choice of Major was STEM (by Gender)** *Public Schools Only*
Chart 73: **% of MA SAT-Takers Whose 1st Choice of Major was Agriculture, Biological/Biomedical Sciences, & Conservation/Natural Resources (by Gender)** *Public Schools Only*
Chart 74: **% of MA SAT-Takers Whose 1st Choice of Major was Computer/Information Sciences & Mathematics/Statistics (by Gender)** *Public Schools Only*
Chart 75: **% of MA SAT-Takers Whose 1st Choice of Major was Engineering & Engineering Technologies (by Gender)** *Public Schools Only*
Chart 76 **% of MA SAT-Takers Whose 1st Choice of Major was Health Professions (by Gender)** *Public Schools Only*
Chart 77: **% of MA SAT-Takers Whose 1st Choice of Major was Other STEM Majors (by Gender)** *Public Schools Only*
Chart 78: **% of MA SAT-Takers Whose 1st Choice of Major was STEM (by Race/Ethnicity)** *Public Schools Only*
Chart 79: **% of MA SAT-Takers Whose 1st Choice of Major was Agriculture, Biological/Biomedical Sciences, & Conservation/Natural Resources (by Race/Ethnicity)** *Public Schools Only*
Chart 80: **% of MA SAT-Takers Whose 1st Choice of Major was Computer/Information Sciences & Mathematics/Statistics (by Race/Ethnicity)** *Public Schools Only*
Chart 81: **% of MA SAT-Takers Whose 1st Choice of Major was Engineering & Engineering Technologies (by Race/Ethnicity)** *Public Schools Only*
Chart 82: **% of MA SAT-Takers Whose 1st Choice of Major was Health Professions (by Race/Ethnicity)** *Public Schools Only*
Chart 83: **% of MA SAT-Takers Whose 1st Choice of Major was Other STEM Majors (by Race/Ethnicity)** *Public Schools Only*
Chart 84: **% of MA SAT-Takers Whose 1st Choice of Major was STEM (by Income)** *Public Schools Only*
Chart 85: **% of MA SAT-Takers Whose 1st Choice of Major was Agriculture, Biological/Biomedical Sciences, & Conservation/Natural Resources (by Income)** *Public Schools Only*
Chart 86: **% of MA SAT-Takers Whose 1st Choice of Major was Computer/Information Sciences & Mathematics/Statistics (by Income)** *Public Schools Only*
Chart 87: **% of MA SAT-Takers Whose 1st Choice of Major was Engineering & Engineering Technologies (by Income)** *Public Schools Only*

Chart 88: **% of MA SAT-Takers Whose 1st Choice of Major was Health Professions (by Income)** *Public Schools Only*

Chart 89: **% of MA SAT-Takers Whose 1st Choice of Major was Other STEM Majors (by Income)** *Public Schools Only*

Supplemental Charts Pages 5 – 7: STEM Achievement (MCAS) Details

Chart 90: **% of MA Students Scoring Proficient or Advanced on 5th Grade MCAS (for All)** *Public Schools Only* *Same as Chart 10

Chart 91: **% of MA Students Scoring Proficient or Advanced on 5th Grade MCAS (by Gender)** *Public Schools Only*

Chart 92: **% of MA Students Scoring Proficient or Advanced on 5th Grade MCAS (by Race/Ethnicity)** *Public Schools Only*

Chart 93: **% of MA Students Scoring Proficient or Advanced on 5th Grade MCAS (by Income)** *Public Schools Only*

Chart 94: **% of MA Students Scoring Proficient or Advanced on 8th Grade MCAS (for All)** *Public Schools Only* *Same as Chart 8

Chart 95: **% of MA Students Scoring Proficient or Advanced on 8th Grade MCAS (by Gender)** *Public Schools Only*

Chart 96: **% of MA Students Scoring Proficient or Advanced on 8th Grade MCAS (by Race/Ethnicity)** *Public Schools Only*

Chart 97: **% of MA Students Scoring Proficient or Advanced on 8th Grade MCAS (by Income)** *Public Schools Only* *Same as Chart 9

Chart 98: **% of MA Students Scoring Proficient or Advanced on 10th Grade MCAS (for All)** *Public Schools Only *Same as Chart 6*

Chart 99: **% of MA Students Scoring Proficient or Advanced on 10th Grade MCAS (by Gender)** *Public Schools Only*

Chart 100: **% of MA Students Scoring Proficient or Advanced on 10th Grade MCAS (by Race/Ethnicity)** *Public Schools Only*

Chart 101: **% of MA Students Scoring Proficient or Advanced on 10th Grade MCAS (by Income)** *Public Schools Only* *Same as Chart 7

Supplemental Charts Pages 8 – 10: STEM Below Bachelor's Degrees Details

Chart 102: **Total STEM Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (for All)** *Both Public and Private Schools*

Chart 103: **Computer Science & Math Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (for All)** *Both Public and Private Schools*

Chart 104: **Architecture & Engineering Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (for All)** *Both Public and Private Schools*

Chart 105: **Life & Physical Science Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (for All)** *Both Public and Private Schools*

Chart 106: **Health Professions Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (for All)** *Both Public and Private Schools*

Chart 107: **Other STEM Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (for All)** *Both Public and Private Schools*

Chart 108: **Total STEM Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (by Gender)** *Both Public and Private Schools*

Chart 109: **Computer Science & Math Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (by Gender)** *Both Public and Private Schools*

Chart 110: **Architecture & Engineering Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (by Gender)** *Both Public and Private Schools*

Chart 111: Life & Physical Science Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (by Gender) *Both Public and Private Schools*
Chart 112: Health Professions Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (by Gender) *Both Public and Private Schools*
Chart 113: Other STEM Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (by Gender) *Both Public and Private Schools*
Chart 114: Total STEM Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*
Chart 115: Computer Science & Math Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*
Chart 116: Architecture & Engineering Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*
Chart 117 Life & Physical Science Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*
Chart 118: Health Professions Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*
Chart 119: Other STEM Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*

Supplemental Charts Pages 11 – 13: STEM Bachelor's Degrees Details

Chart 120: Total STEM Bachelor's Degrees as a % of All Bachelor's Degrees (for All) *Both Public and Private Schools*
Chart 121: Computer Science & Math Bachelor's Degrees as a % of All Bachelor's Degrees (for All) *Both Public and Private Schools*
Chart 122: Architecture & Engineering Bachelor's Degrees as a % of All Bachelor's Degrees (for All) *Both Public and Private Schools*
Chart 123: Life & Physical Science Bachelor's Degrees as a % of All Bachelor's Degrees (for All) *Both Public and Private Schools*
Chart 124: Health Professions Bachelor's Degrees as a % of All Bachelor's Degrees (for All) *Both Public and Private Schools*
Chart 125: Other STEM Bachelor's Degrees as a % of All Bachelor's Degrees (for All) *Both Public and Private Schools*
Chart 126: Total STEM Bachelor's Degrees as a % of All Bachelor's Degrees (by Gender) *Both Public and Private Schools*
Chart 127: Computer Science & Math Bachelor's Degrees as a % of All Bachelor's Degrees (by Gender) *Both Public and Private Schools*
Chart 128: Architecture & Engineering Bachelor's Degrees as a % of All Bachelor's Degrees (by Gender) *Both Public and Private Schools*
Chart 129: Life & Physical Science Bachelor's Degrees as a % of All Bachelor's Degrees (by Gender) *Both Public and Private Schools*
Chart 130: Health Professions Bachelor's Degrees as a % of All Bachelor's Degrees (by Gender) *Both Public and Private Schools*
Chart 131: Other STEM Bachelor's Degrees as a % of All Bachelor's Degrees (by Gender) *Both Public and Private Schools*
Chart 132: Total STEM Bachelor's Degrees as a % of All Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*
Chart 133 Computer Science & Math Bachelor's Degrees as % of All Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*
Chart 134: Architecture & Engineering Bachelor's Degrees as a % of All Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*

Chart 135: Life & Physical Science Bachelor's Degrees as a % of All Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*

Chart 136: Health Professions Bachelor's Degrees as a % of All Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*

Chart 137: Other STEM Bachelor's Degrees as a % of All Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*

Supplemental Charts Pages 14 – 16: STEM Above Bachelor's Degrees Details

Chart 138: Total STEM Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (for All) *Both Public and Private Schools*

Chart 139: Computer Science & Math Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (for All) *Both Public and Private Schools*

Chart 140: Architecture & Engineering Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (for All) *Both Public and Private Schools*

Chart 141: Life & Physical Science Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (for All) *Both Public and Private Schools*

Chart 142: Health Professions Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (for All) *Both Public and Private Schools*

Chart 143: Other STEM Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (for All) *Both Public and Private Schools*

Chart 144: Total STEM Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (by Gender) *Both Public and Private Schools*

Chart 145: Computer Science & Math Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (by Gender) *Both Public and Private Schools*

Chart 146: Architecture & Engineering Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (by Gender) *Both Public and Private Schools*

Chart 147: Life & Physical Science Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (by Gender) *Both Public and Private Schools*

Chart 148: Health Professions Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (by Gender) *Both Public and Private Schools*

Chart 149: Other STEM Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (by Gender) *Both Public and Private Schools*

Chart 150: Total STEM Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*

Chart 151: Computer Science & Math Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*

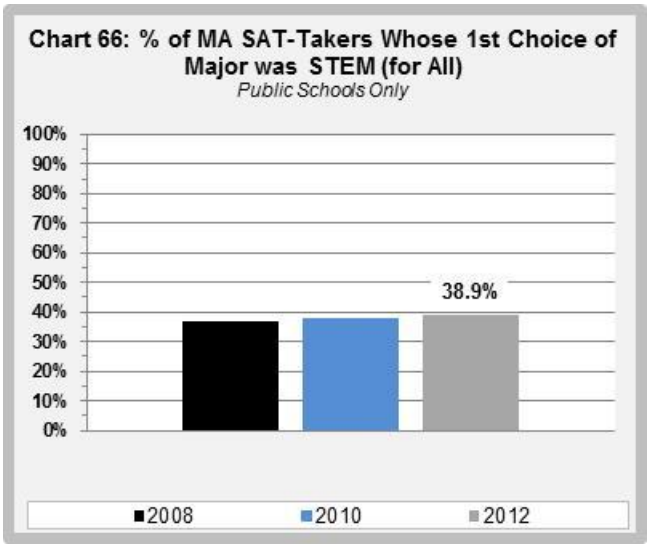
Chart 152: Architecture & Engineering Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*

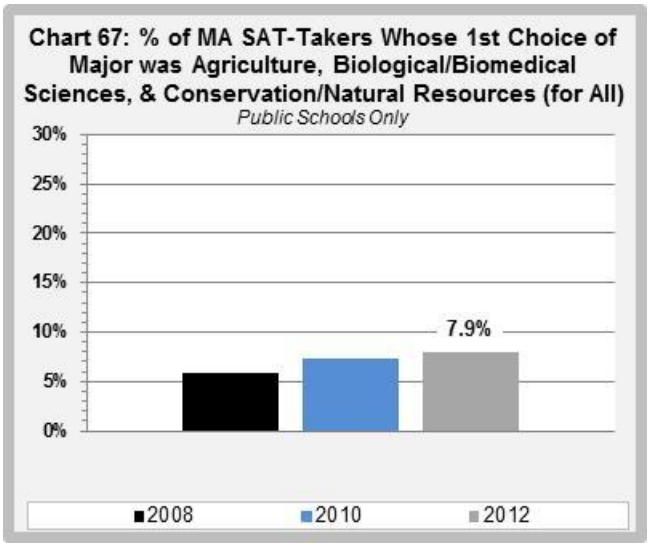
Chart 153: Life & Physical Science Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*

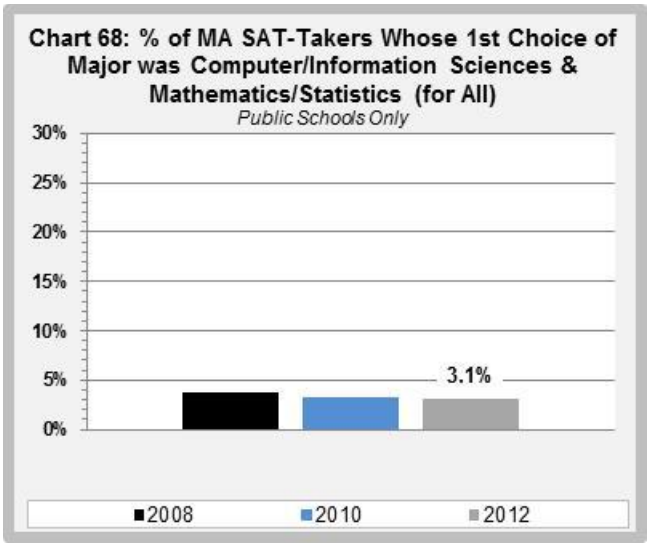
Chart 154: Health Professions Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*

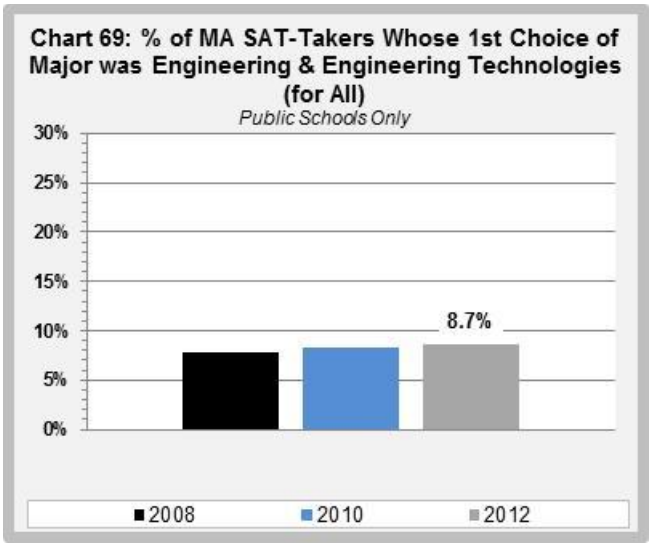
Chart 155: Other STEM Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*

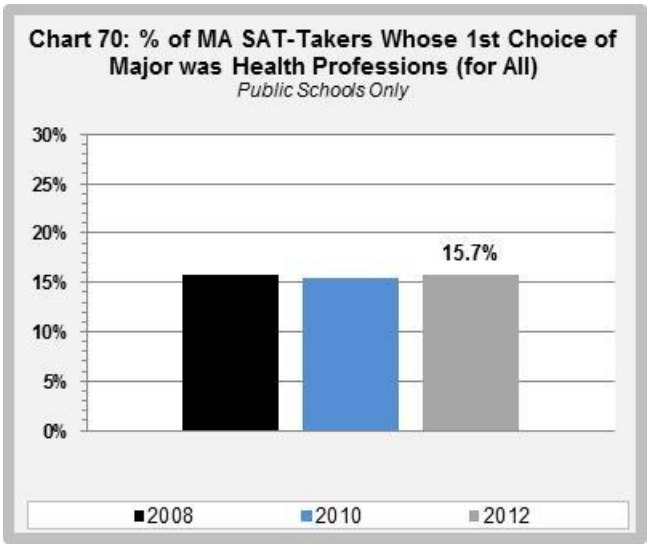
2013 MA STEM Dashboard Supplemental Charts: Page 1 – MA STEM Interest by Specific Areas (All Respondents)

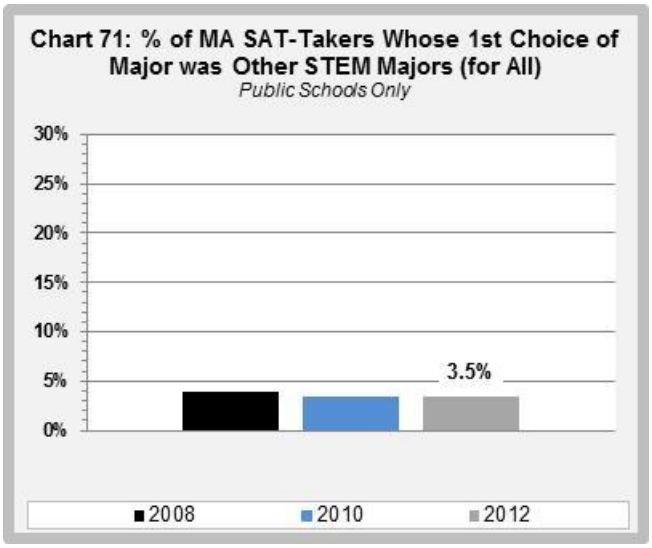




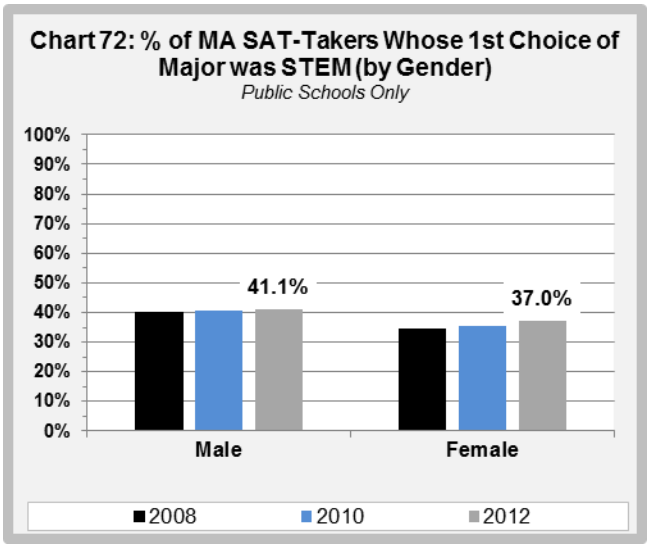


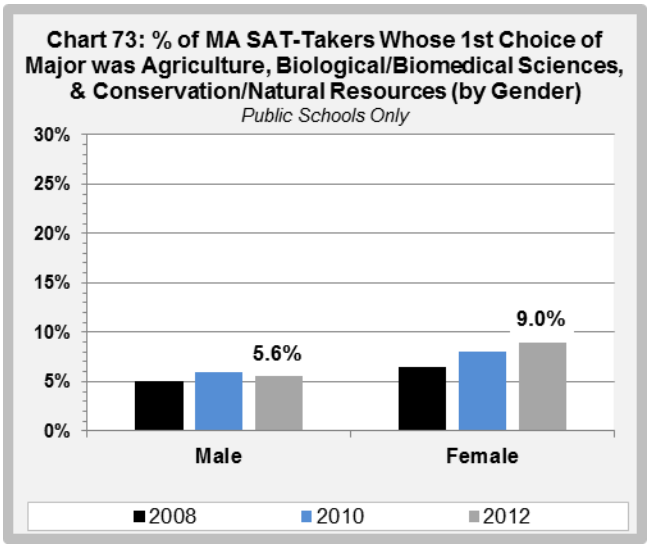


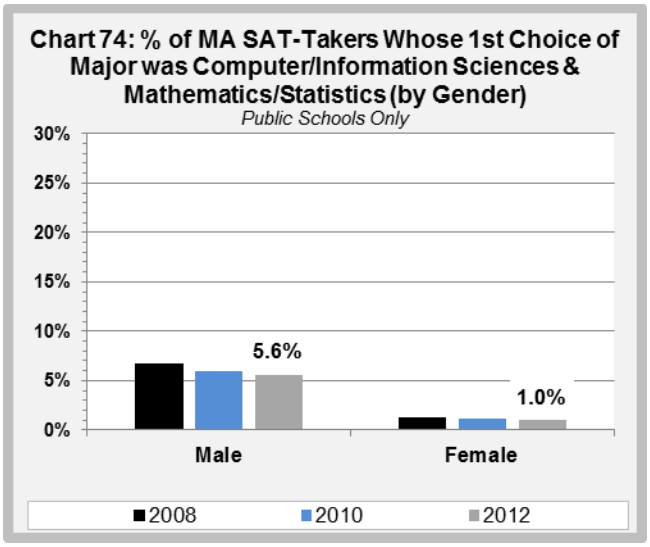


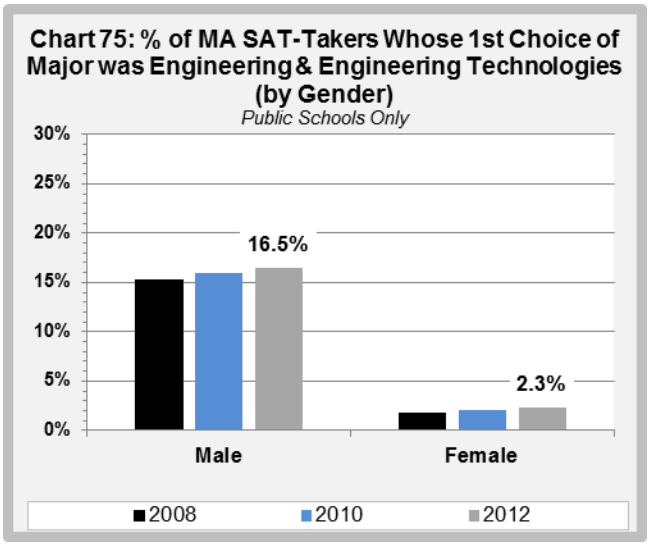


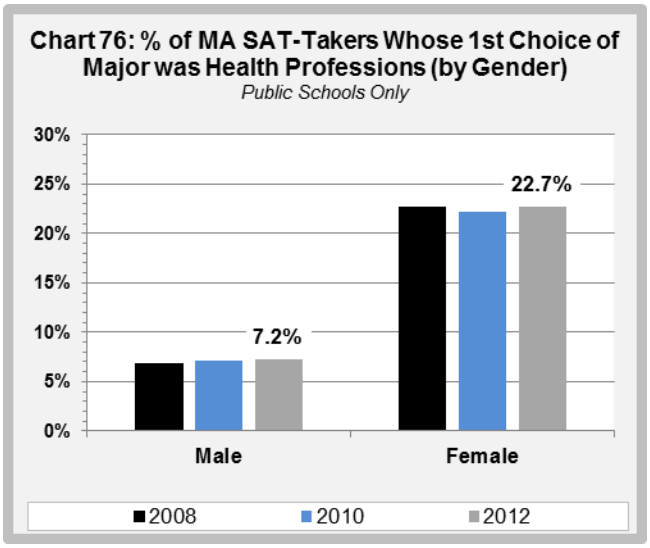
2013 MA STEM Dashboard Supplemental Charts: Page 2 – MA STEM Interest by Specific Areas (by Gender)

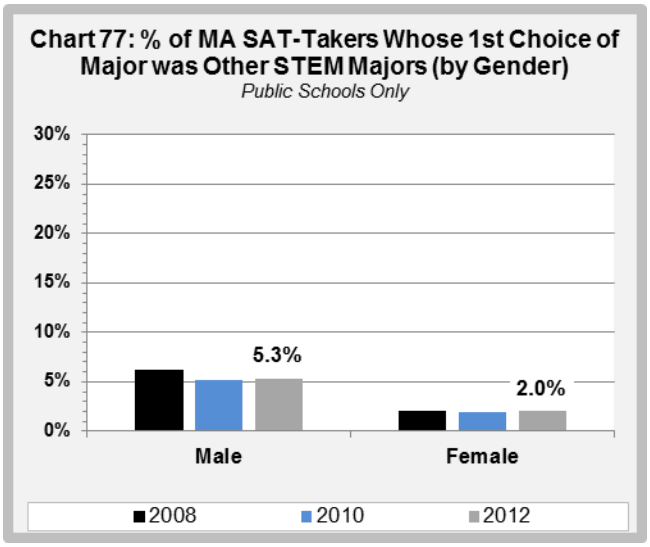




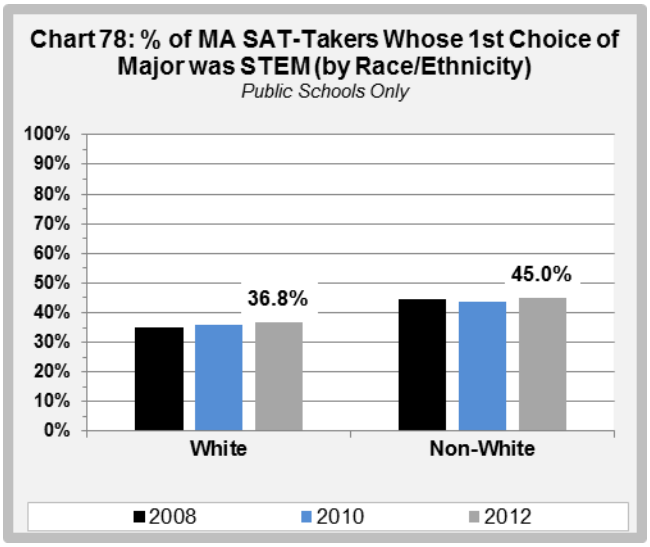


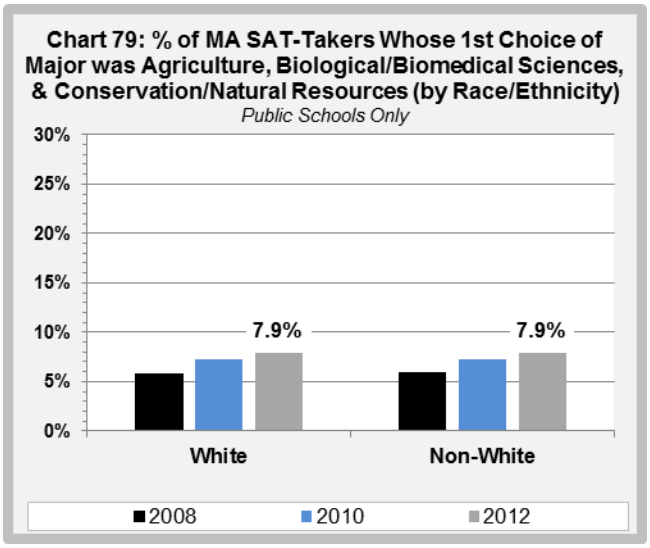


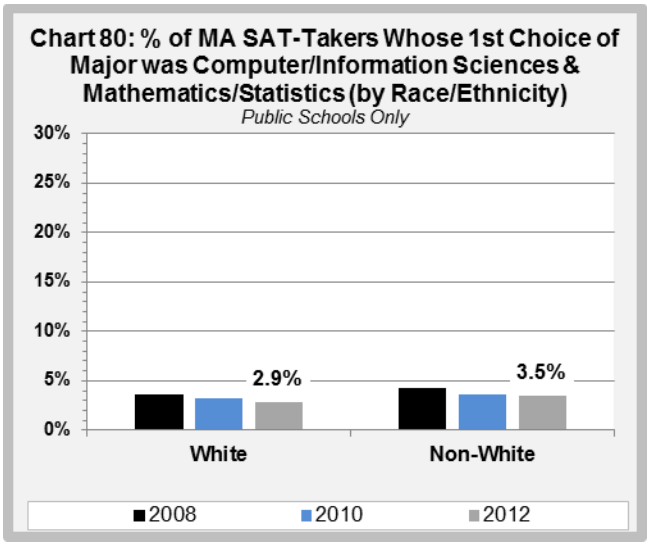


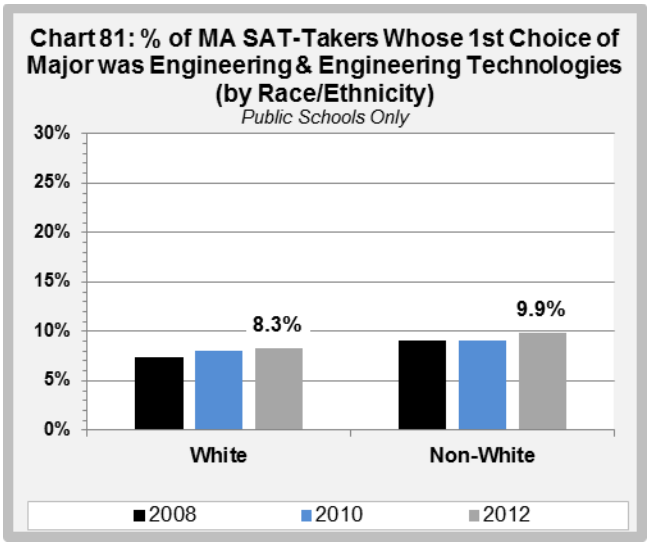


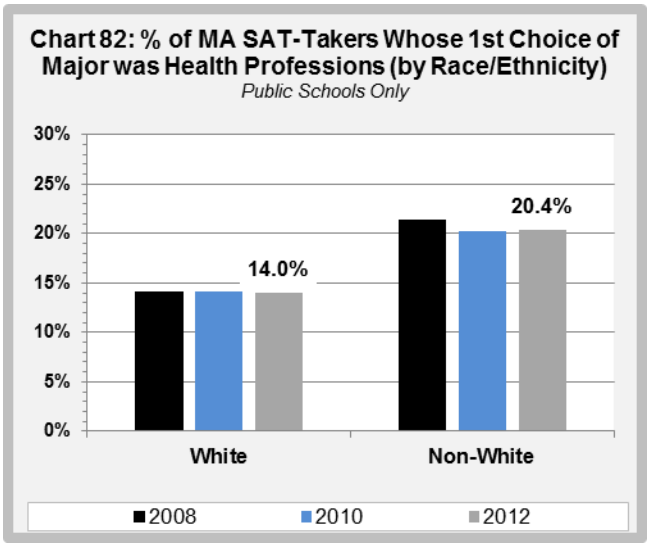
2013 MA STEM Dashboard Supplemental Charts: Page 3 – MA STEM Interest by Specific Areas (by Race/Ethnicity)

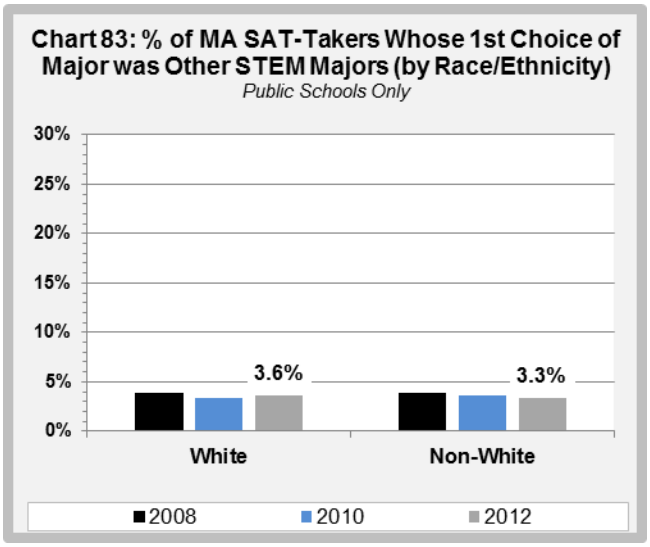




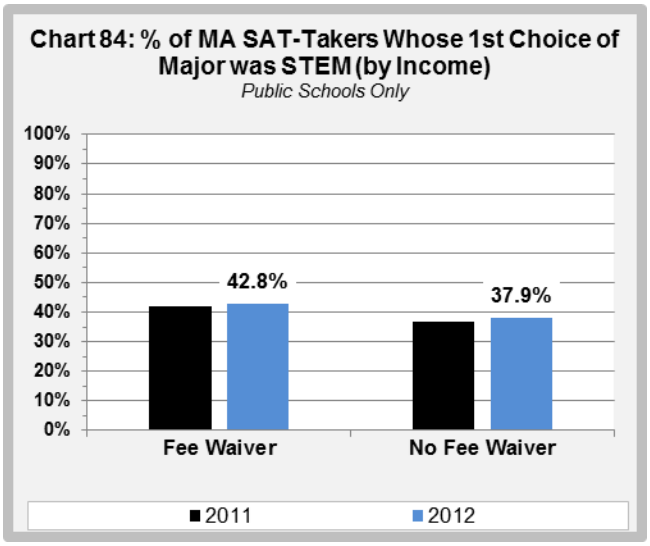


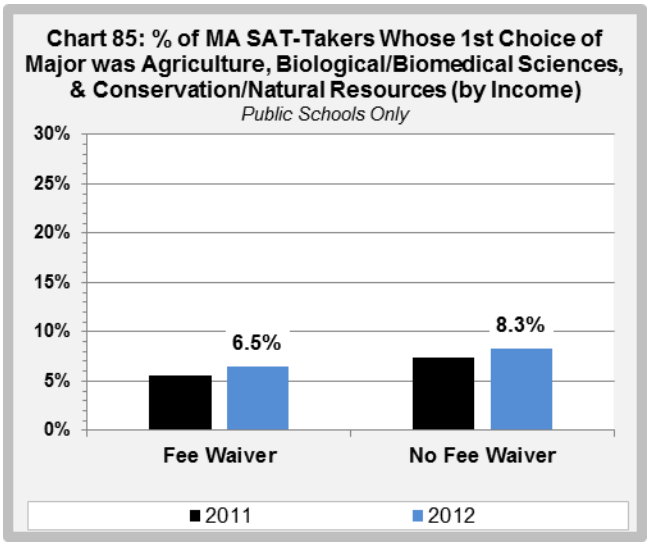


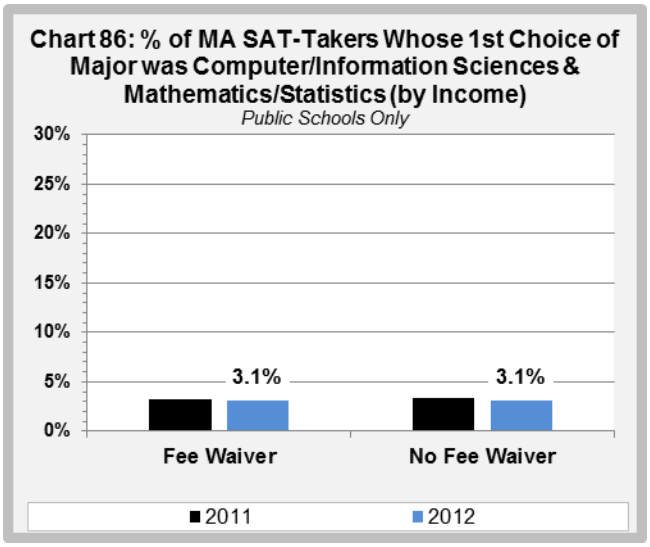


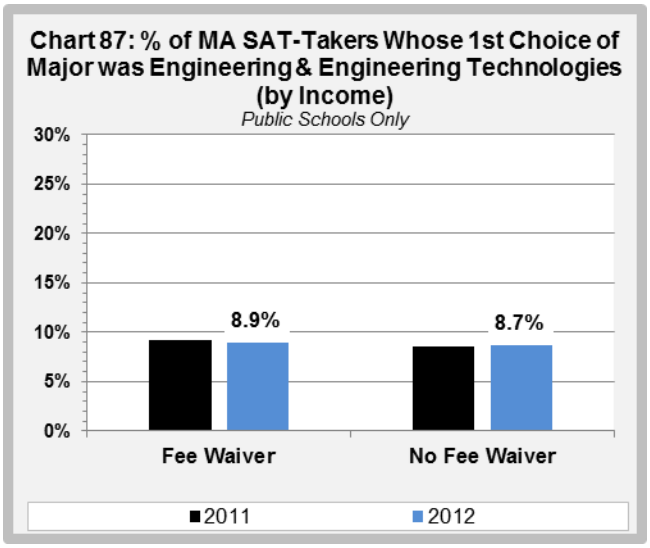


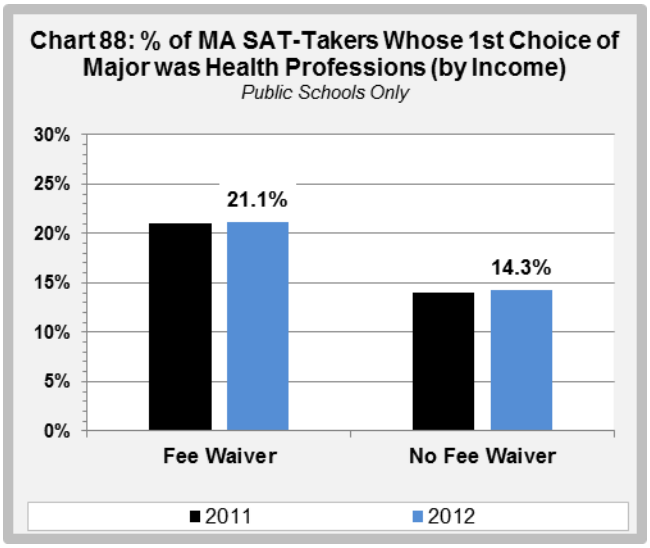
2013 MA STEM Dashboard Supplemental Charts: Page 4 – MA STEM Interest by Specific Areas (by Income)

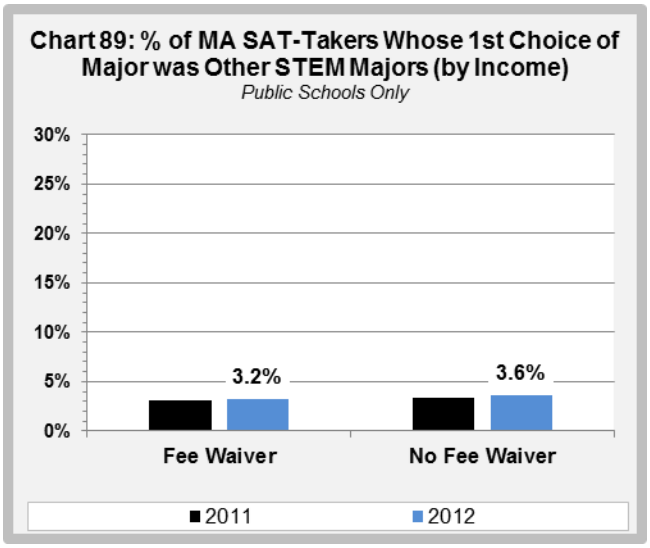




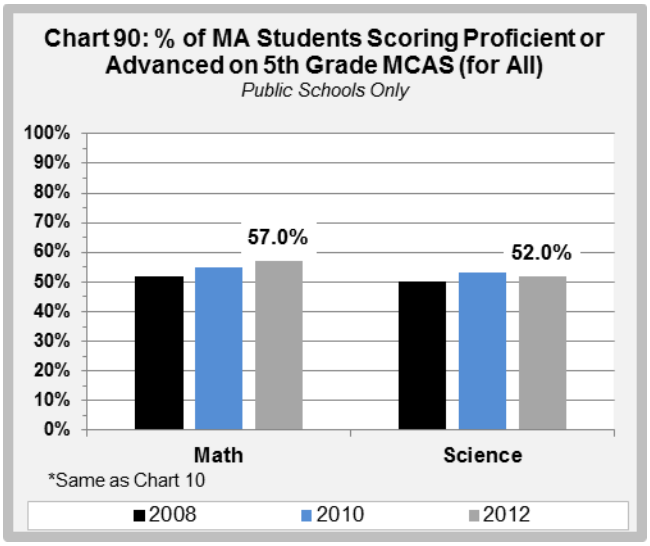


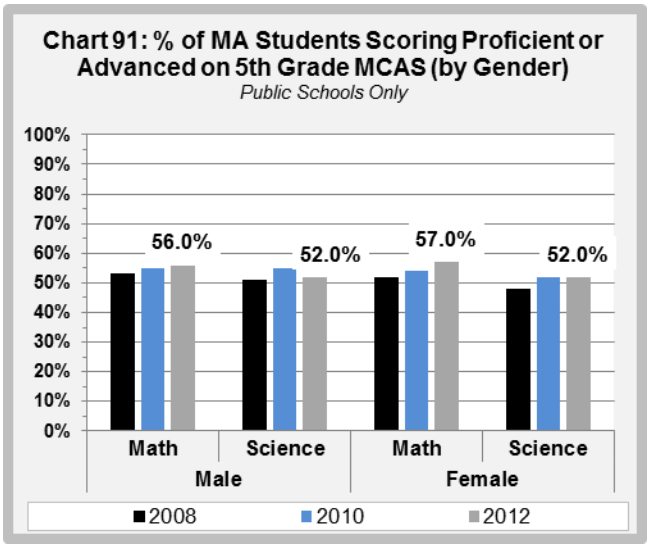


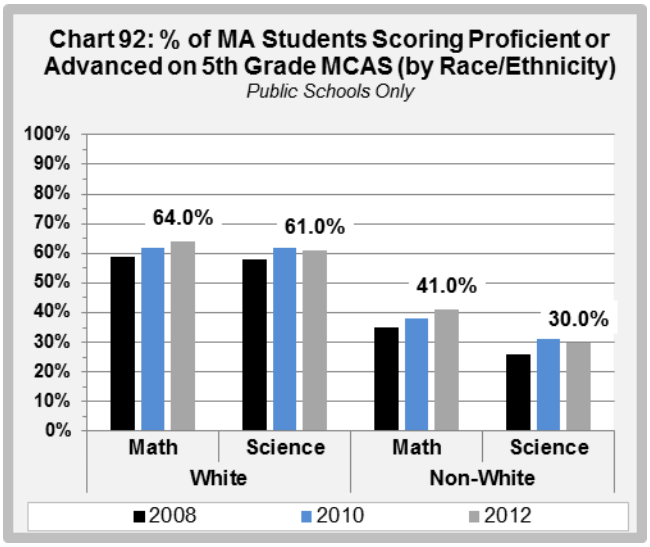


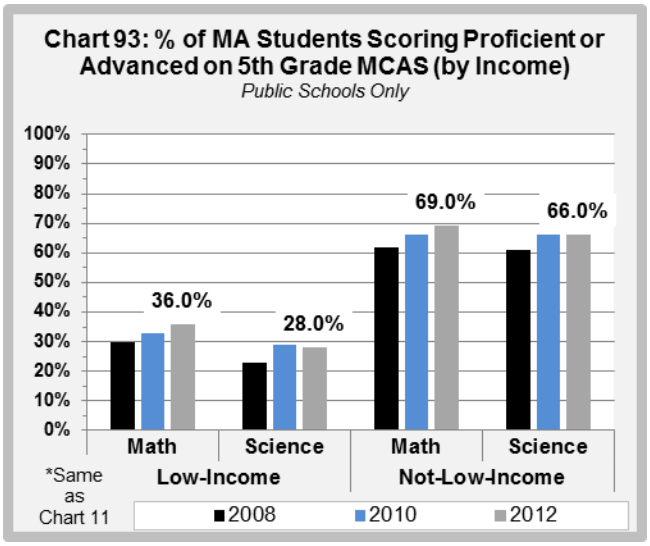


2013 MA STEM Dashboard Supplemental Charts: Page 5 – MA STEM Achievement on 5th Grade MCAS

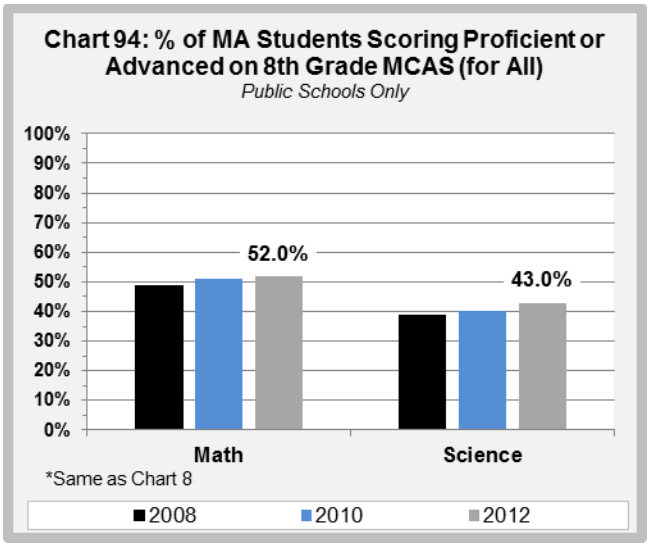


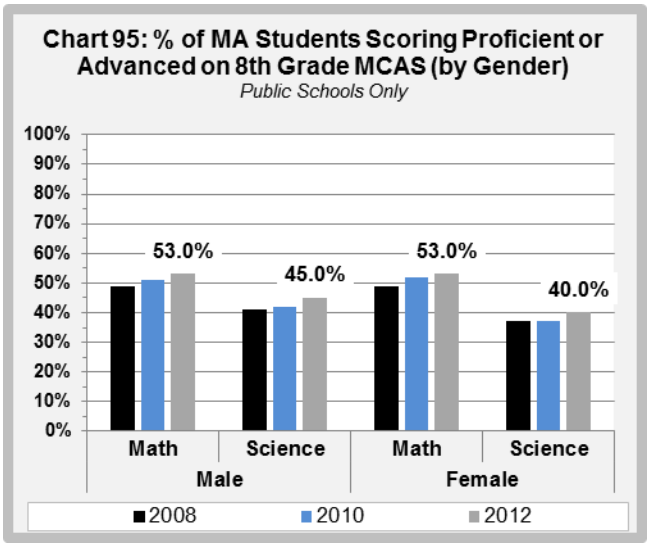


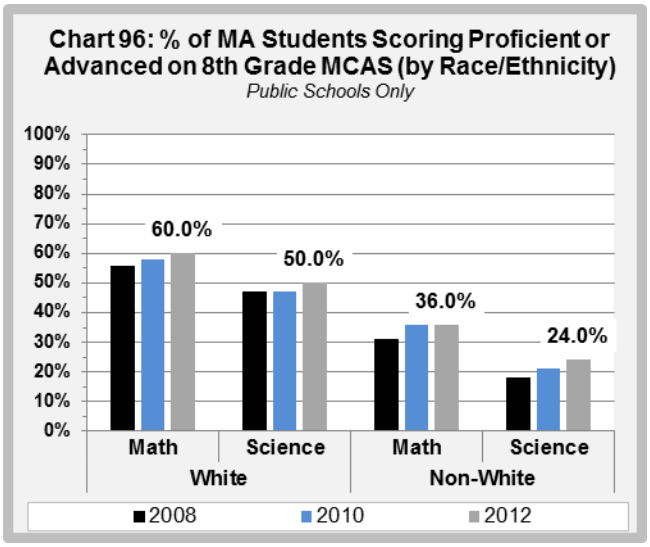


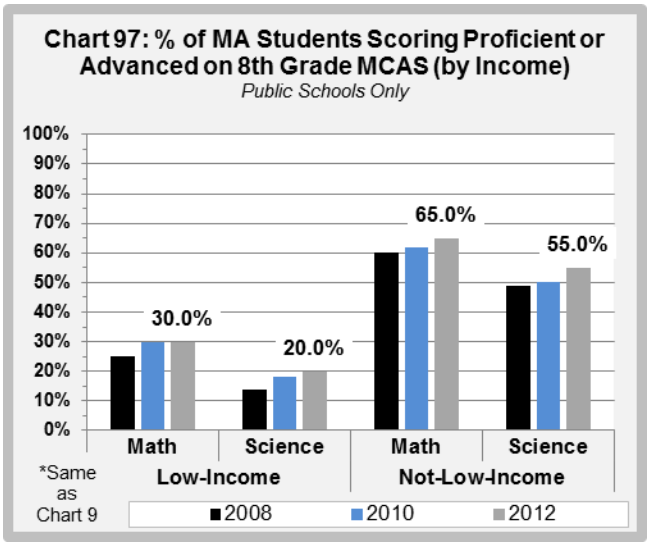


2013 MA STEM Dashboard Supplemental Charts: Page 6 – MA STEM Achievement on 8th Grade MCAS

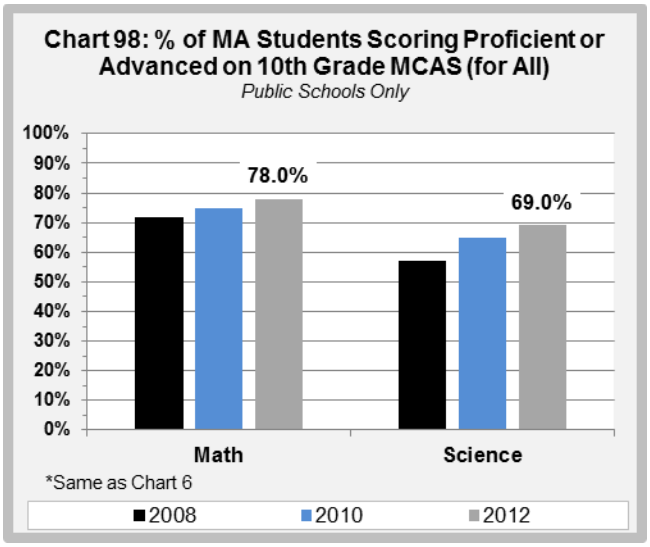


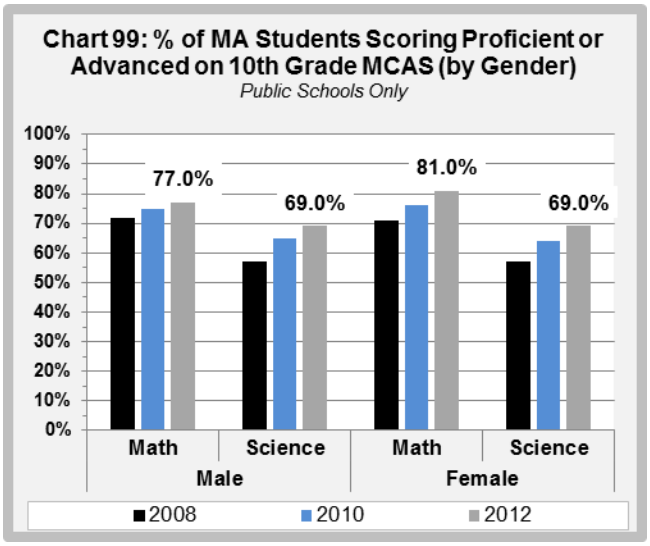


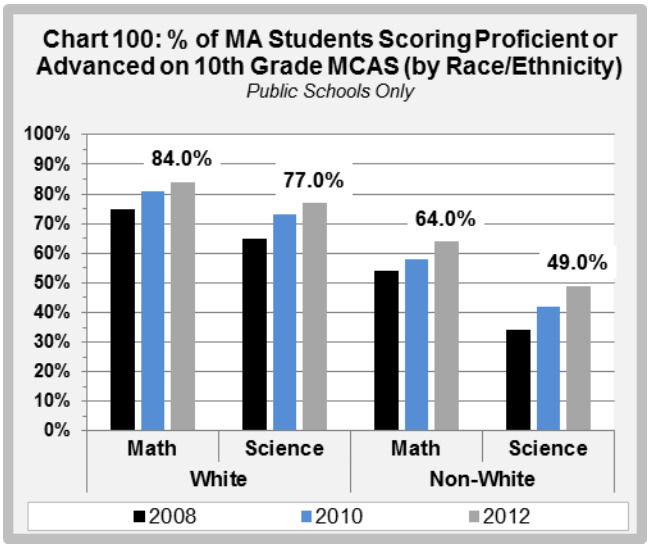


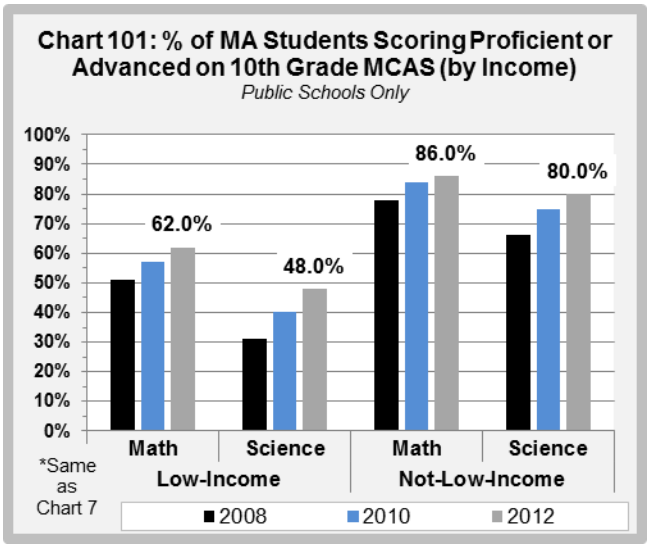


2013 MA STEM Dashboard Supplemental Charts: Page 7 – MA STEM Achievement on 10th Grade MCAS

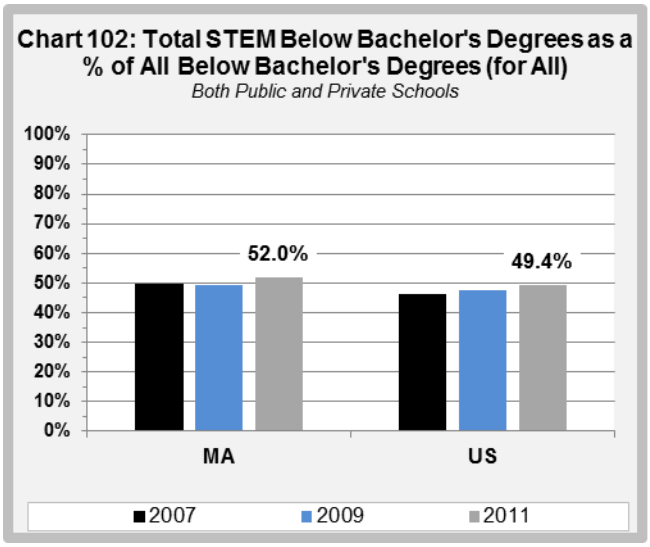


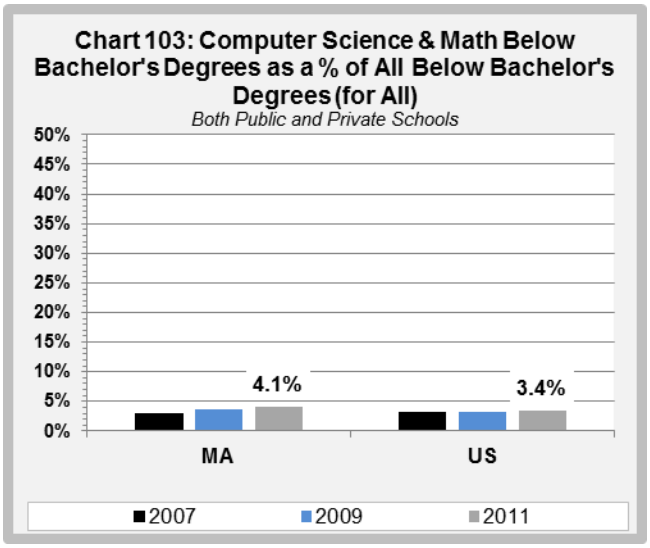


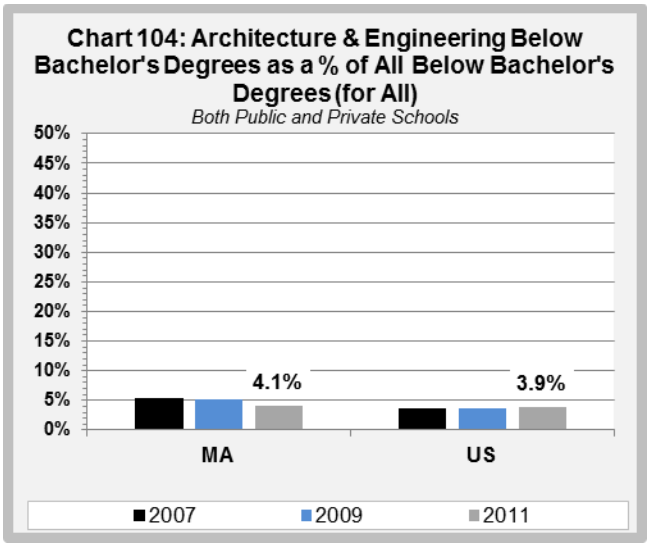


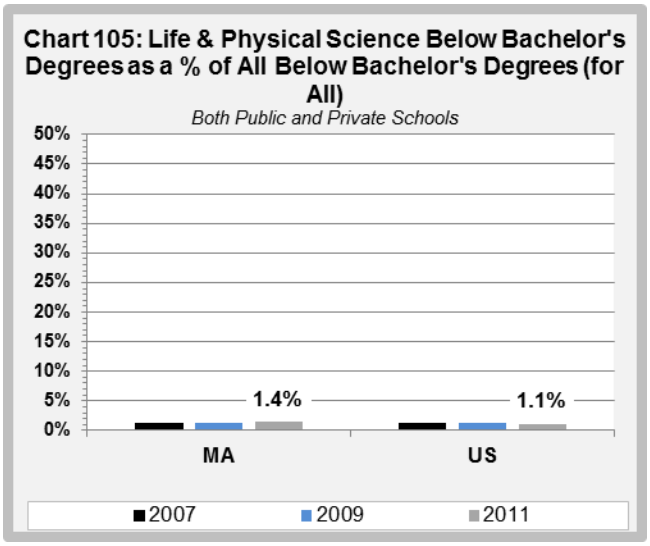


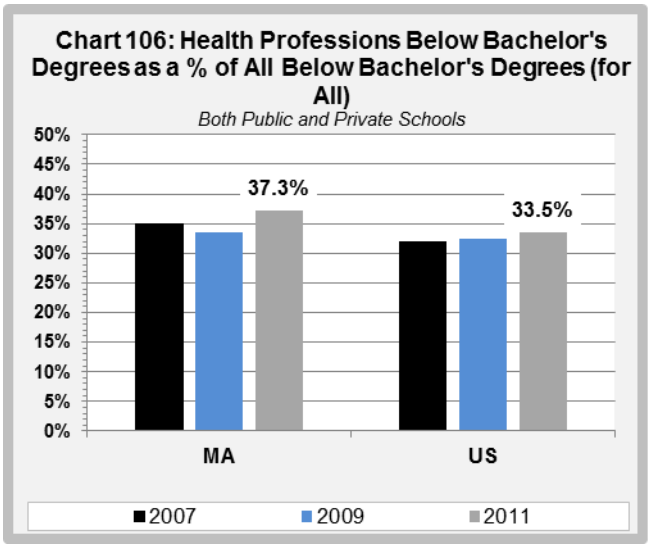
2013 MA STEM Dashboard Supplemental Charts: Page 8 – STEM Below Bachelor's Degrees by Specific Fields (All Students)

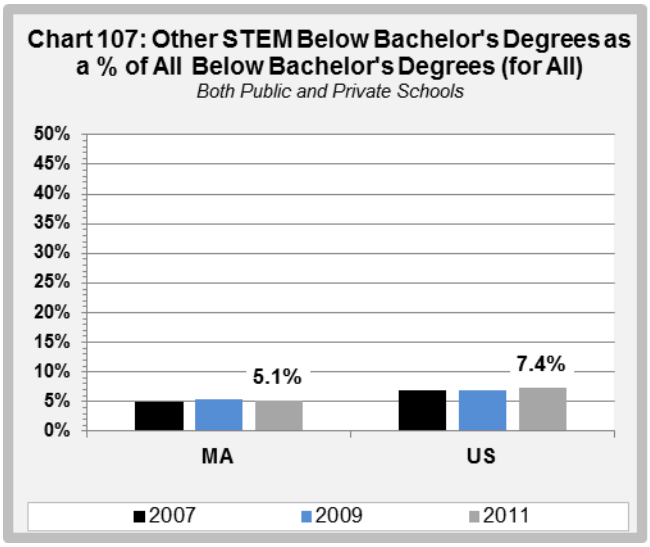




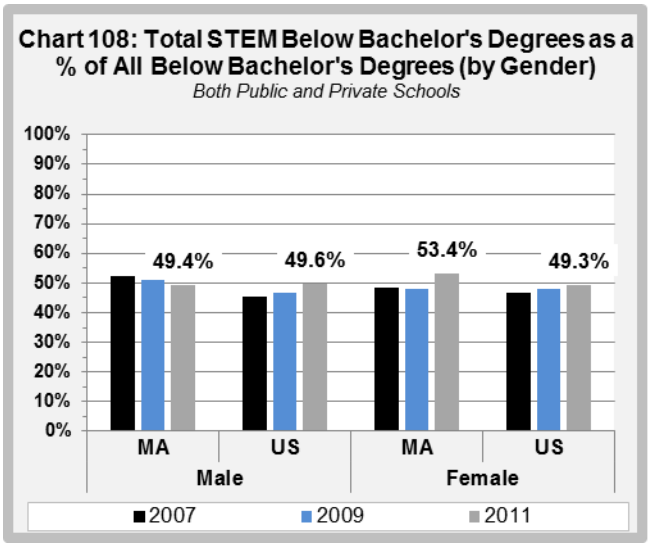


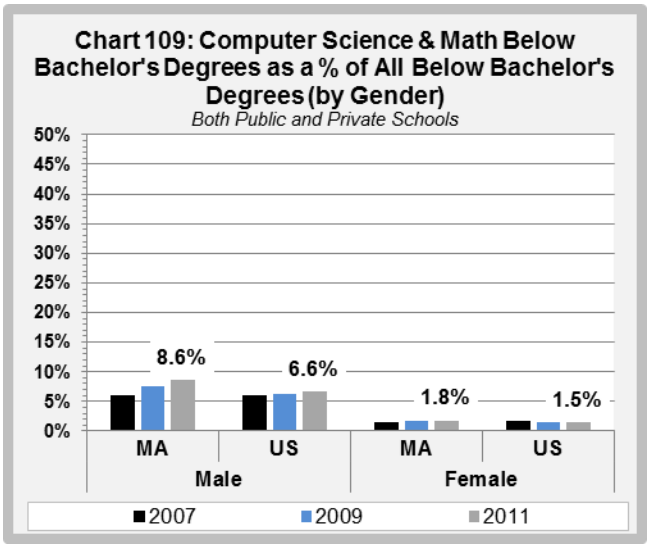


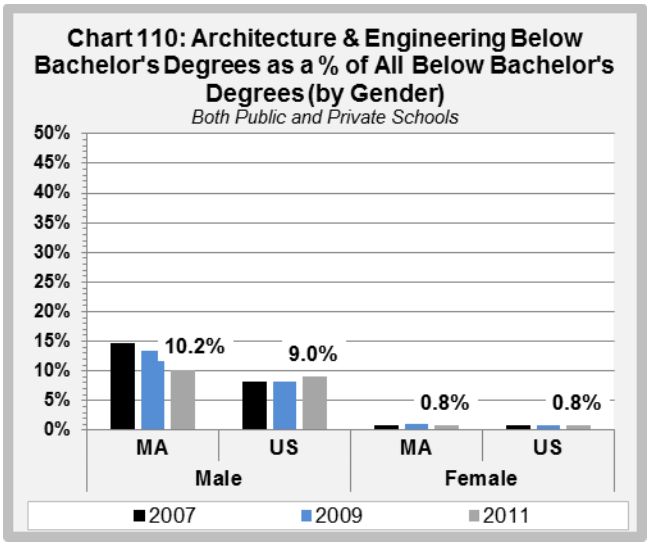


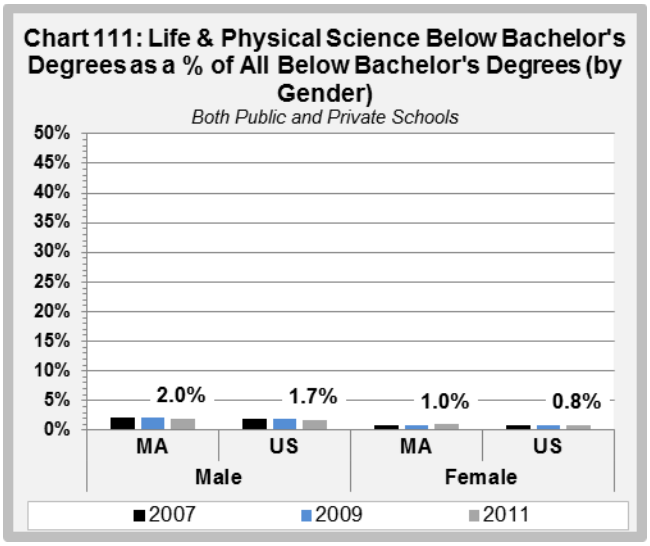


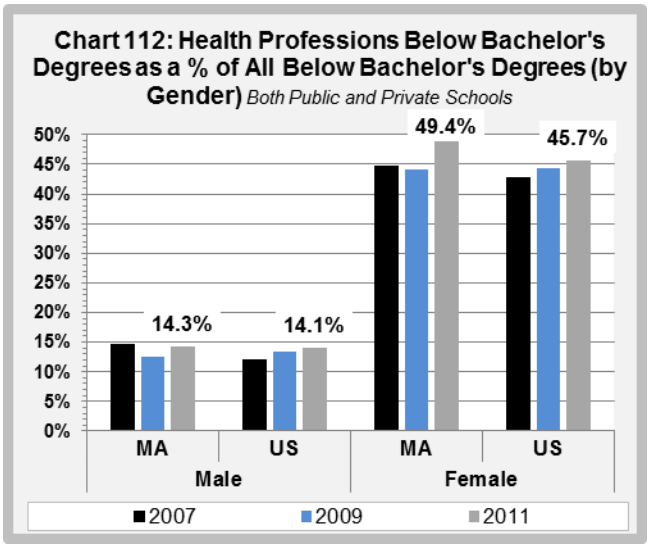
2013 MA STEM Dashboard Supplemental Charts: Page 9 – STEM Below Bachelor's Degrees by Specific Fields (by Gender)

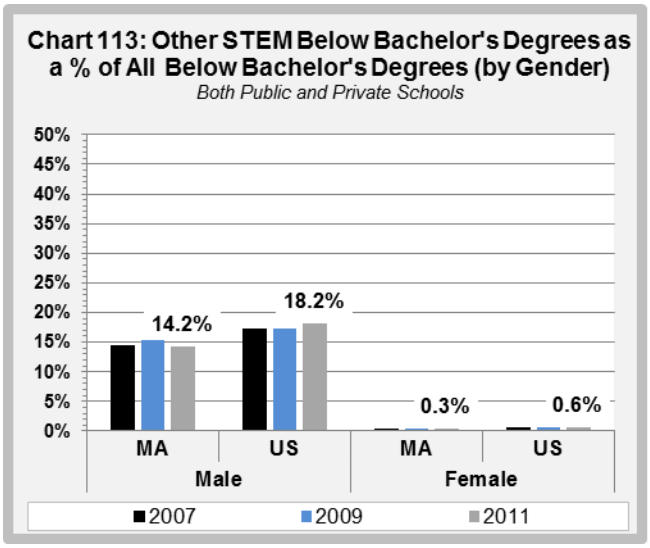




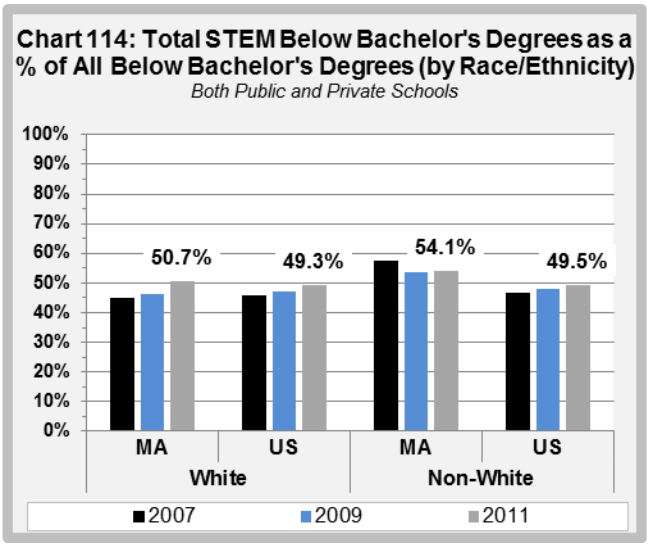


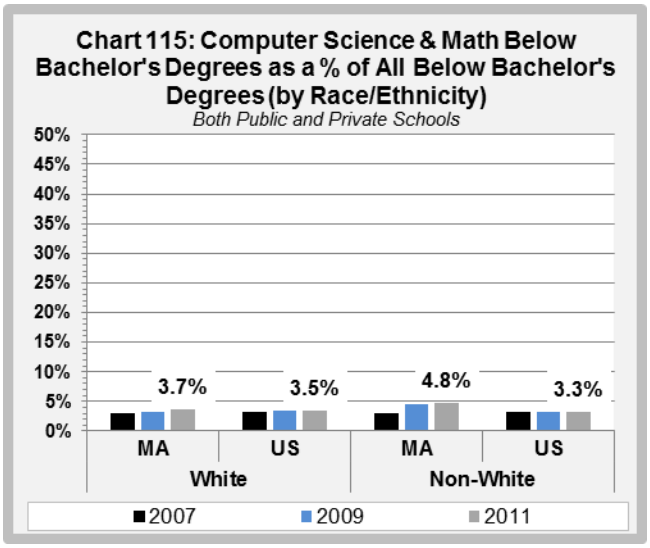


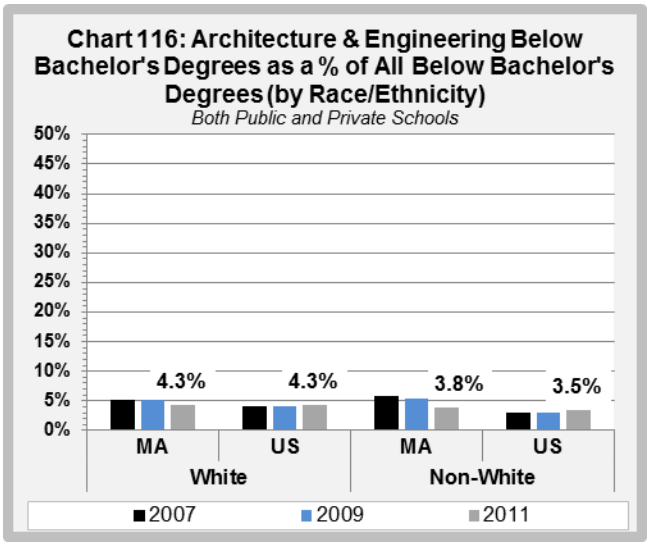


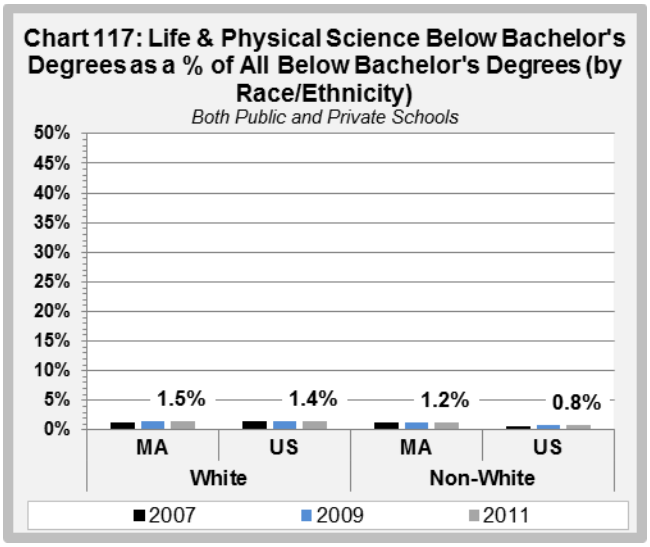


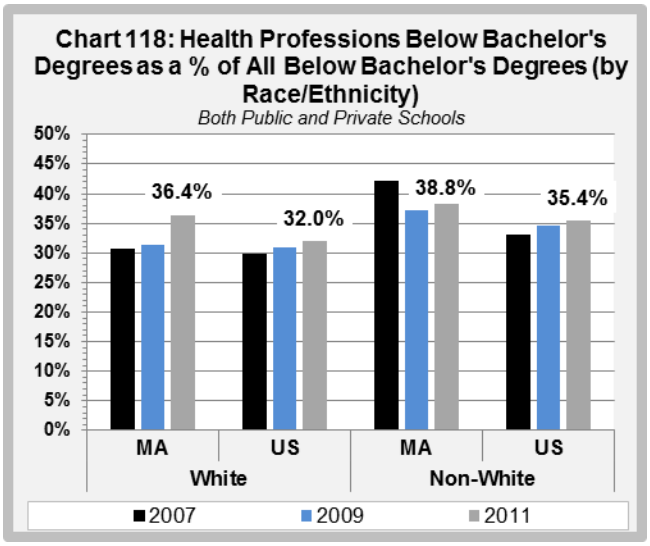
2013 MA STEM Dashboard Supplemental Charts: Page 10 – STEM Below Bachelor's Degrees by Specific Fields (by Race/Ethnicity)

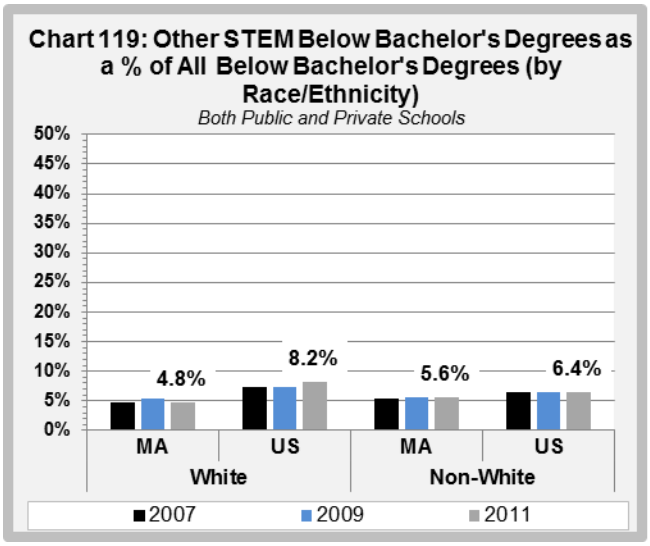




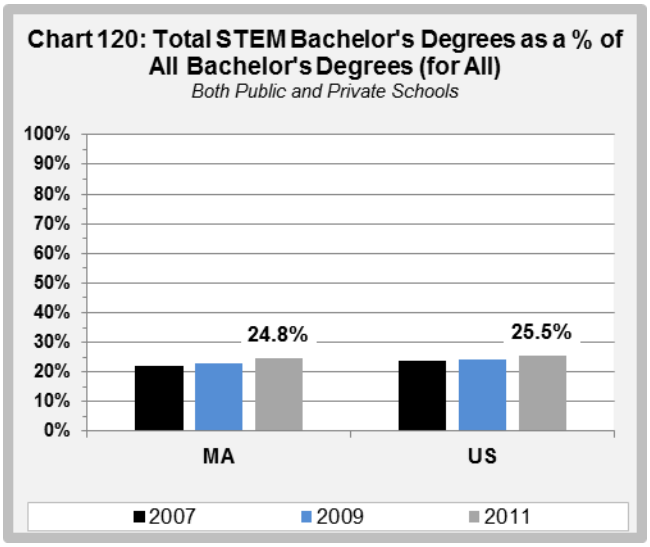


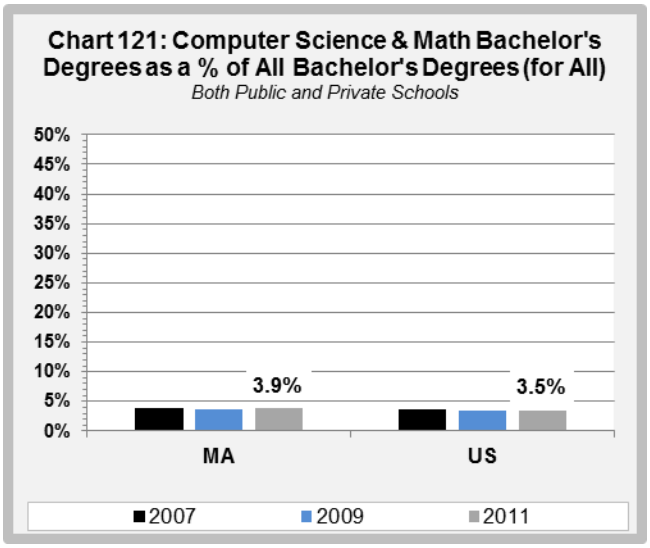


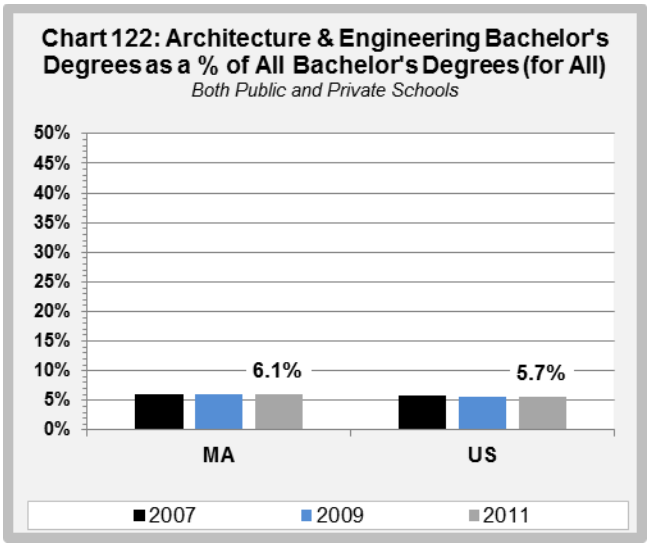


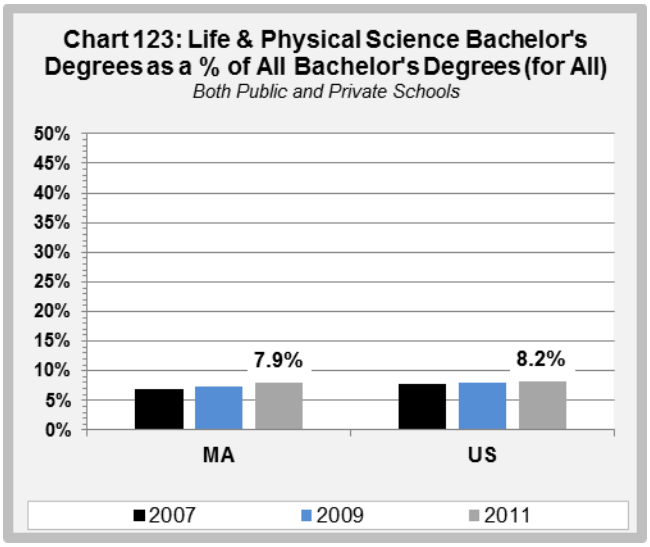


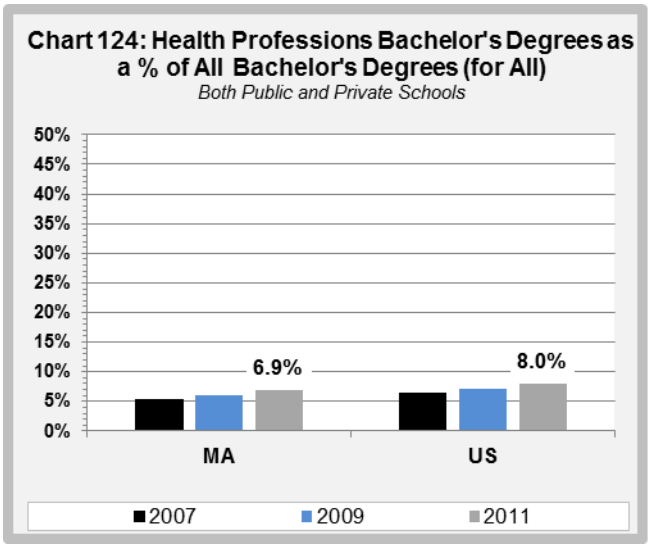
2013 MA STEM Dashboard Supplemental Charts: Page 11 – STEM Bachelor's Degrees by Specific Fields (All Students)

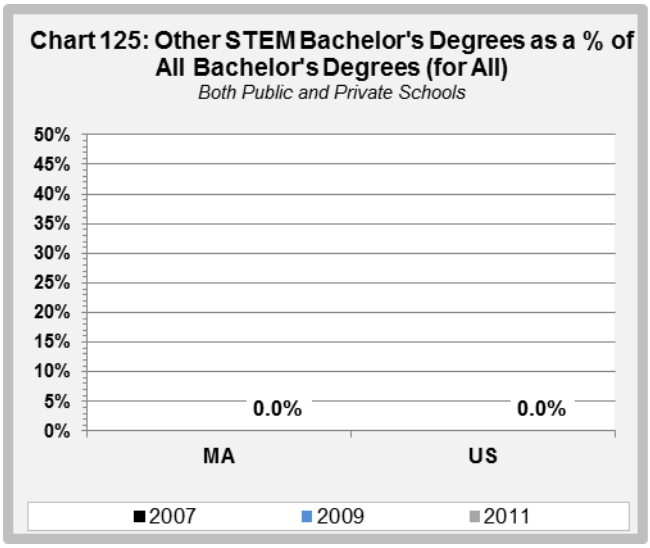




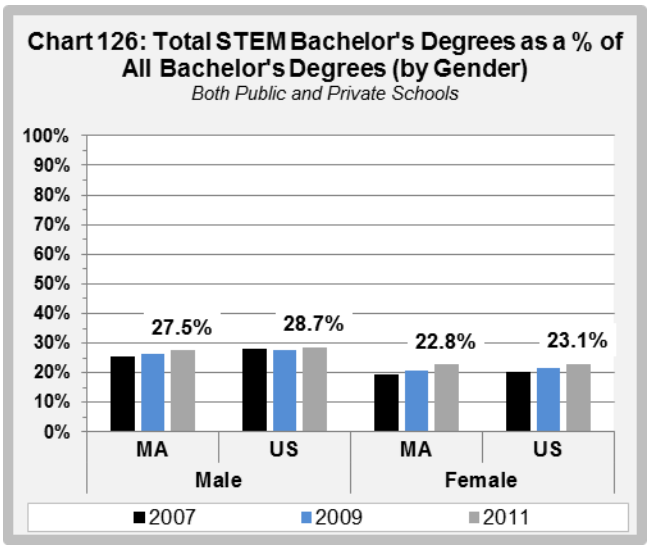


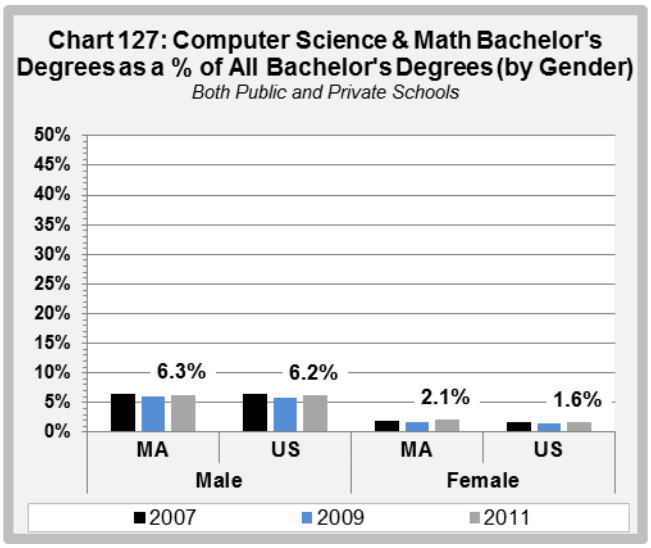


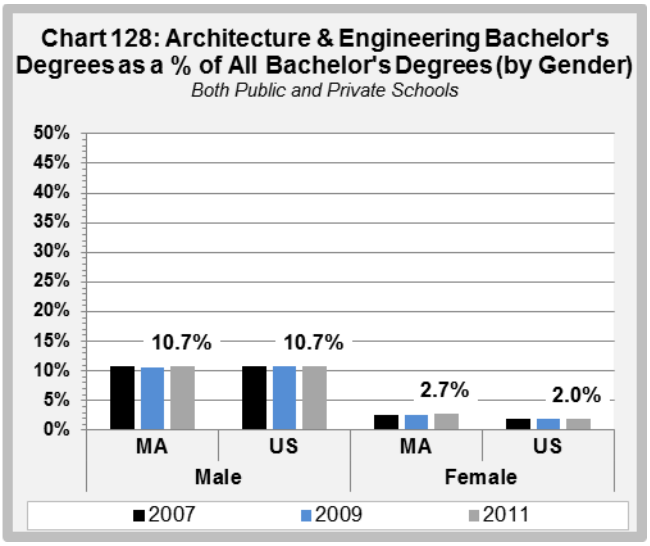


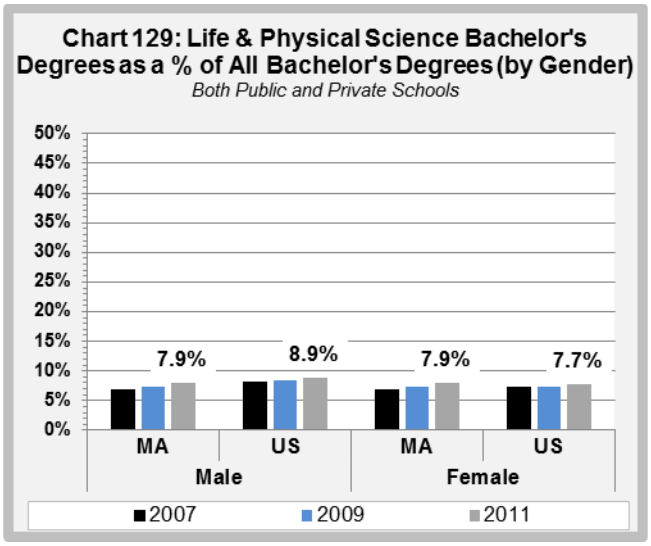


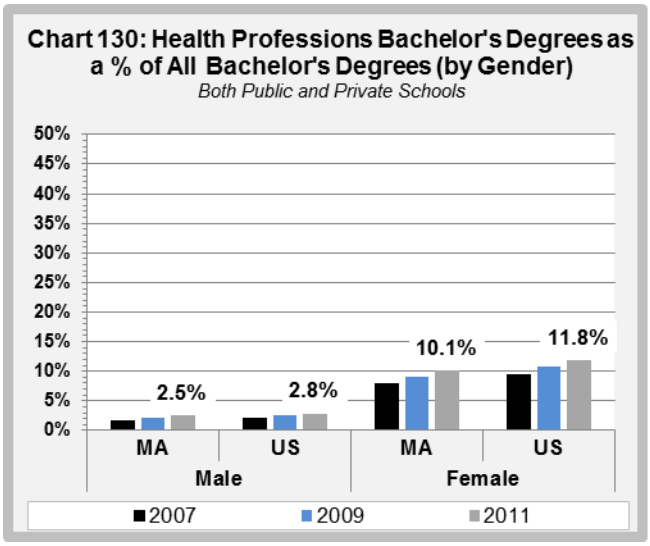
2013 MA STEM Dashboard Supplemental Charts: Page 12 – STEM Bachelor's Degrees by Specific Fields (by Gender)

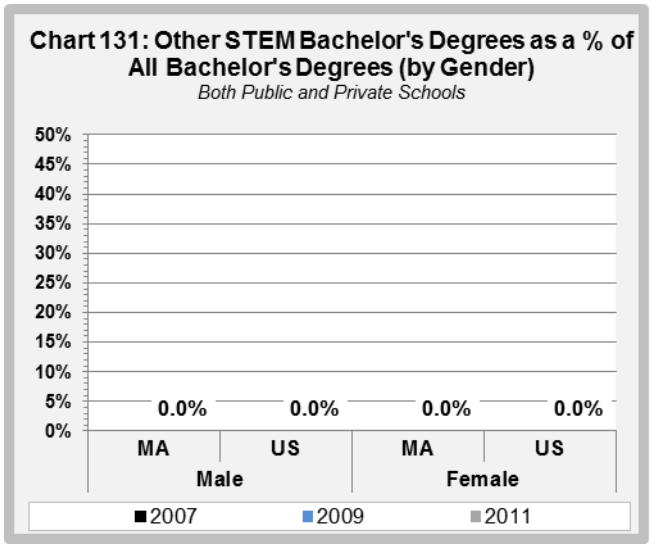




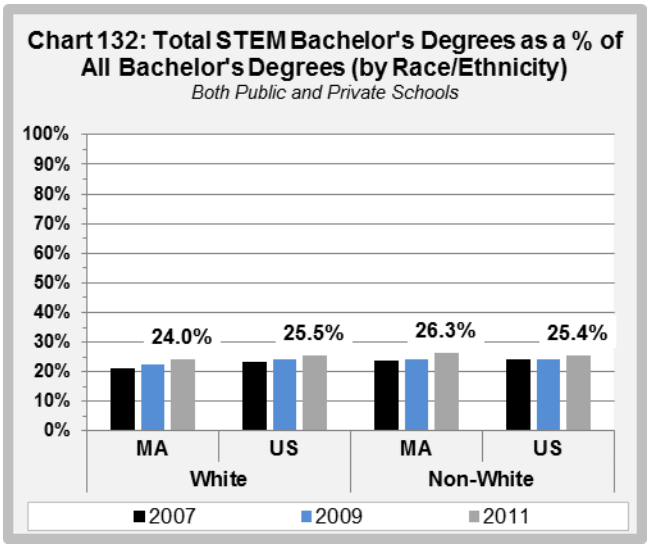


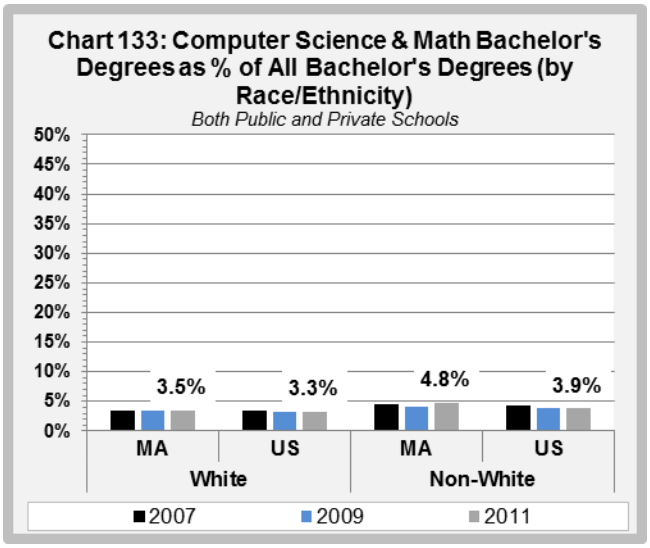


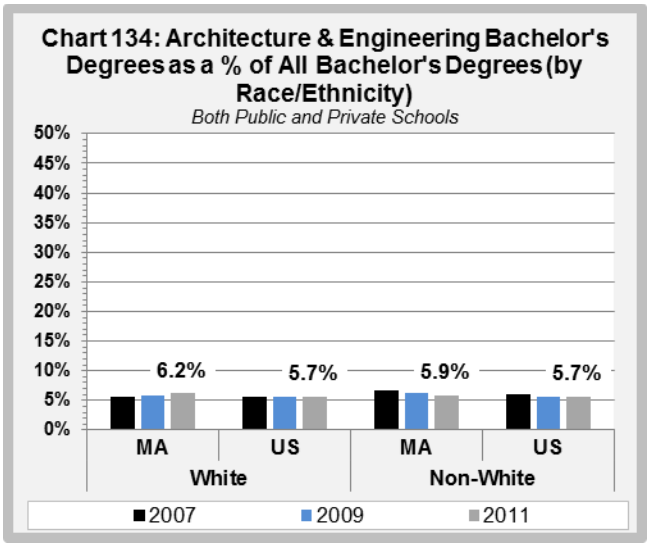


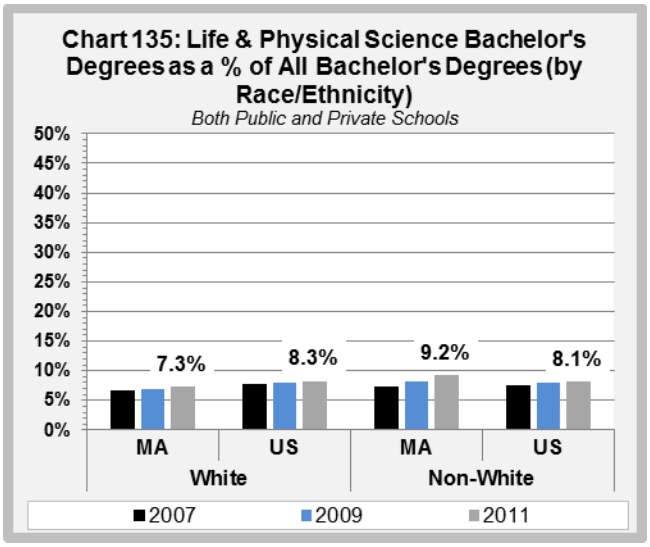


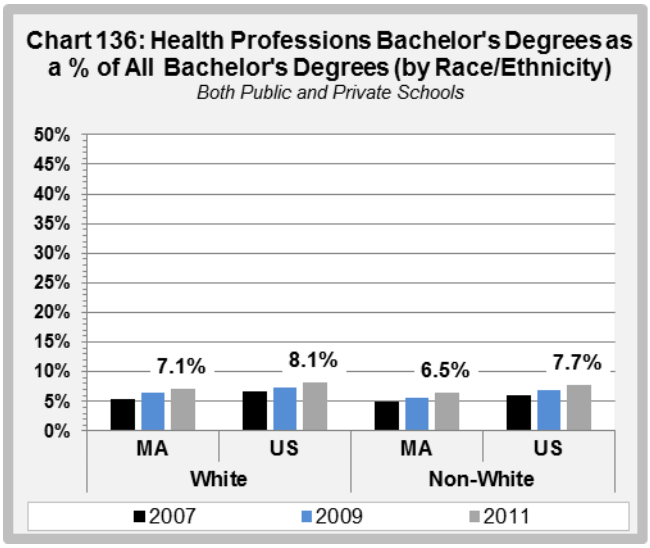
2013 MA STEM Dashboard Supplemental Charts: Page 13 – STEM Bachelor's Degrees by Specific Fields (by Race)

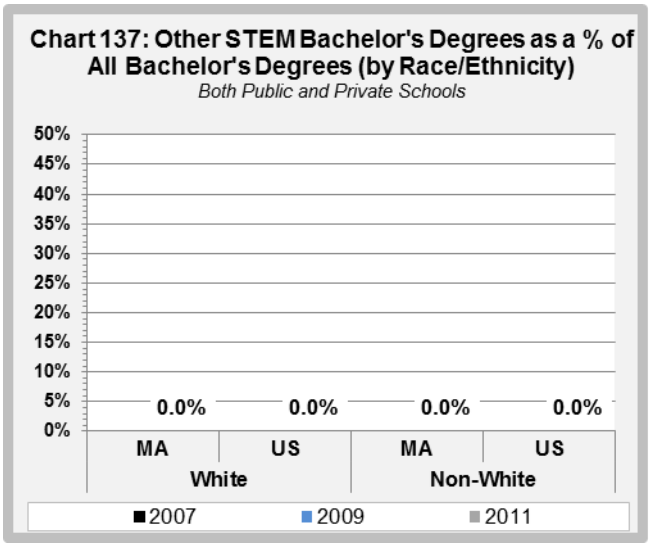




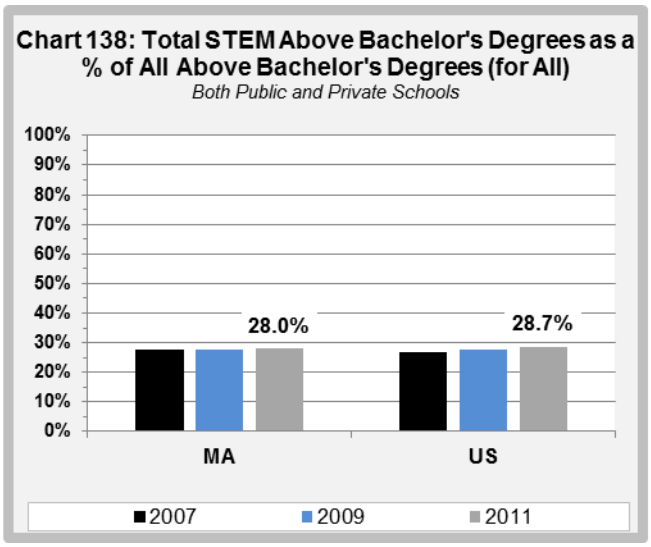


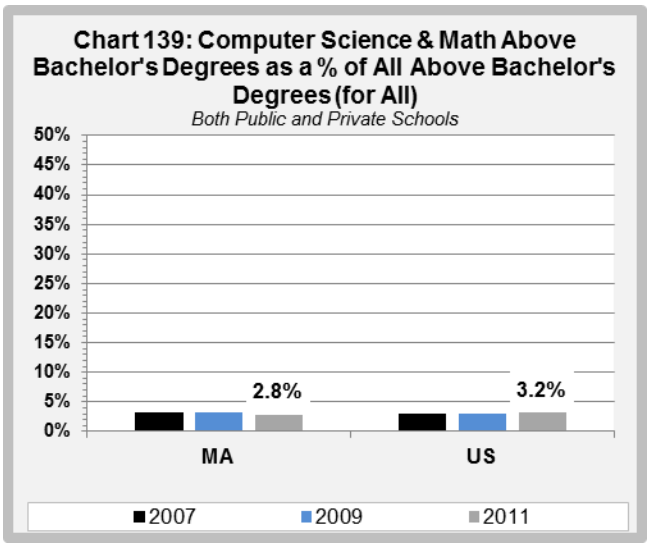


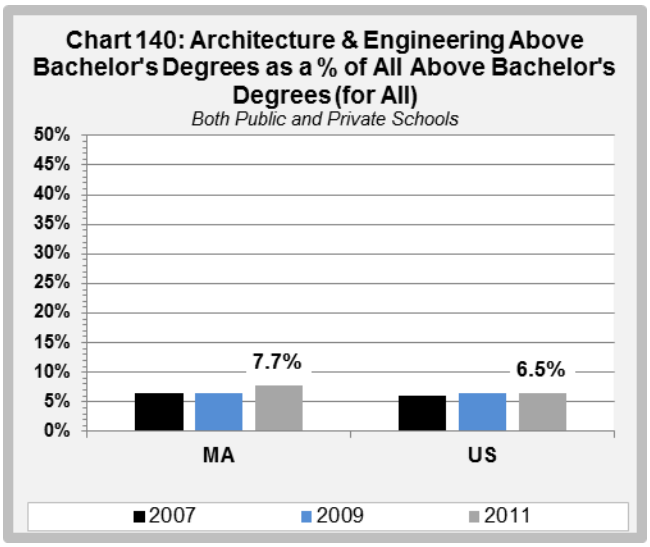


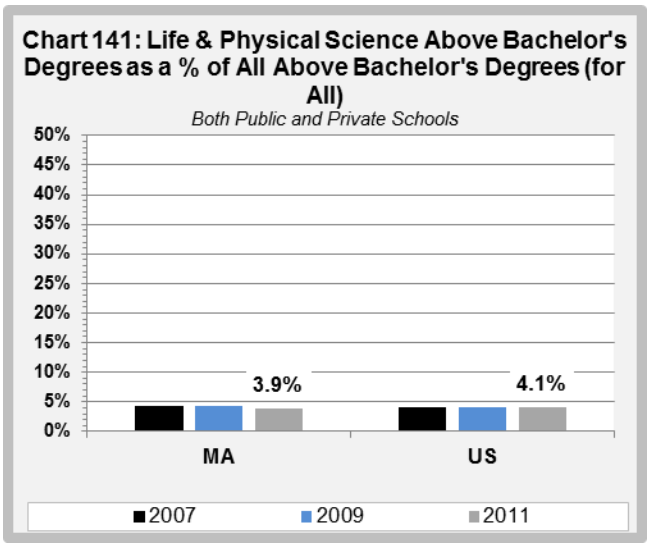


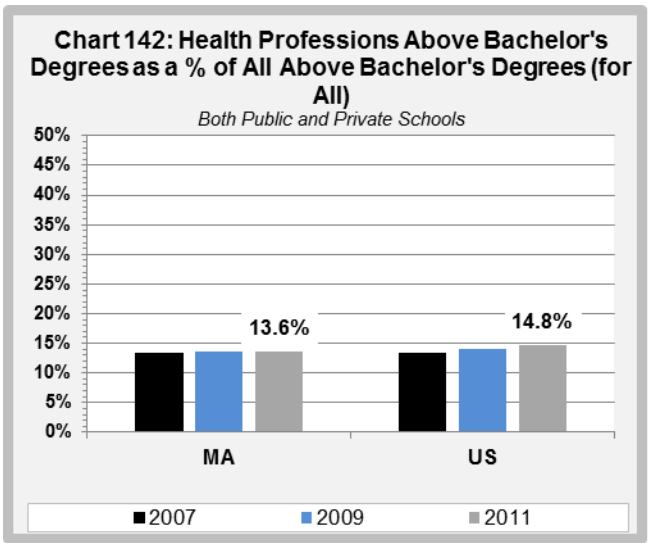
2013 MA STEM Dashboard Supplemental Charts: Page 14 – STEM Above Bachelor's Degrees by Specific Fields (All Students)

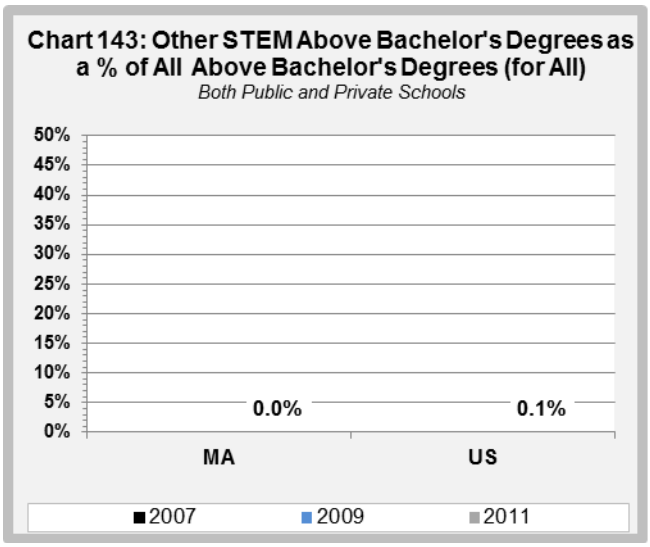




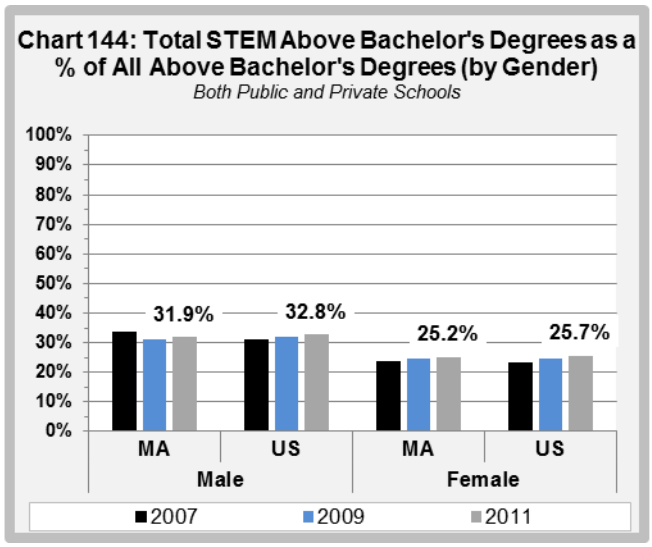


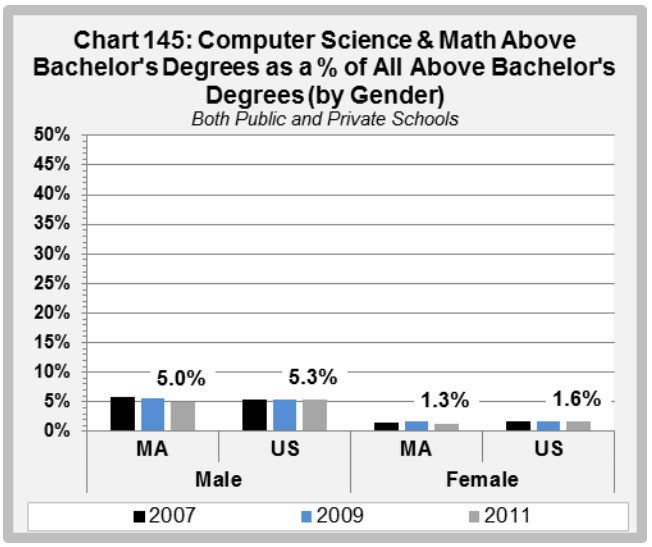


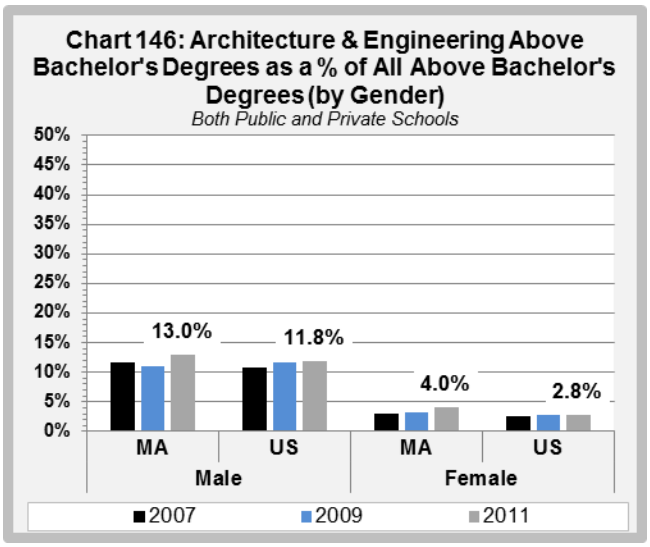


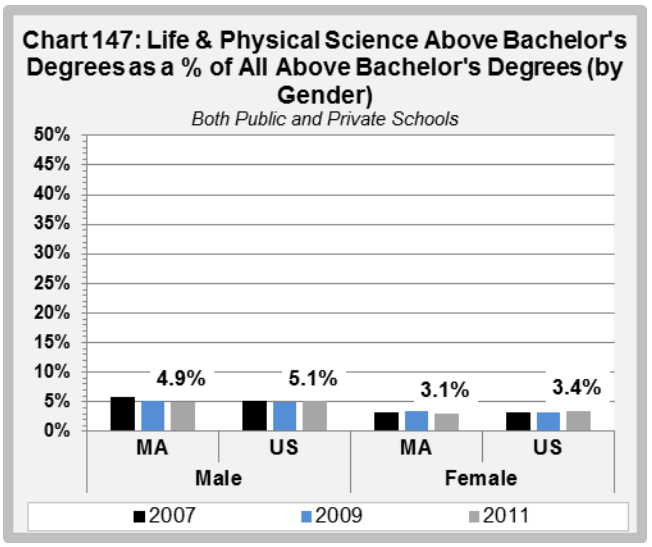


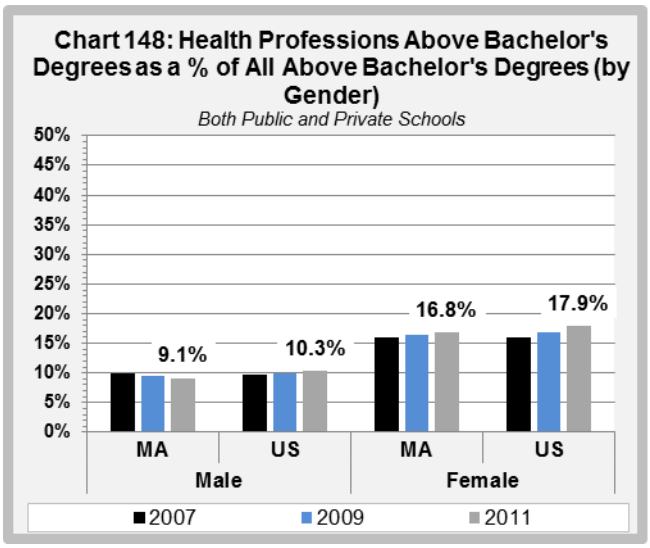
2013 MA STEM Dashboard Supplemental Charts: Page 15 – STEM Above Bachelor's Degrees by Specific Fields (by Gender)

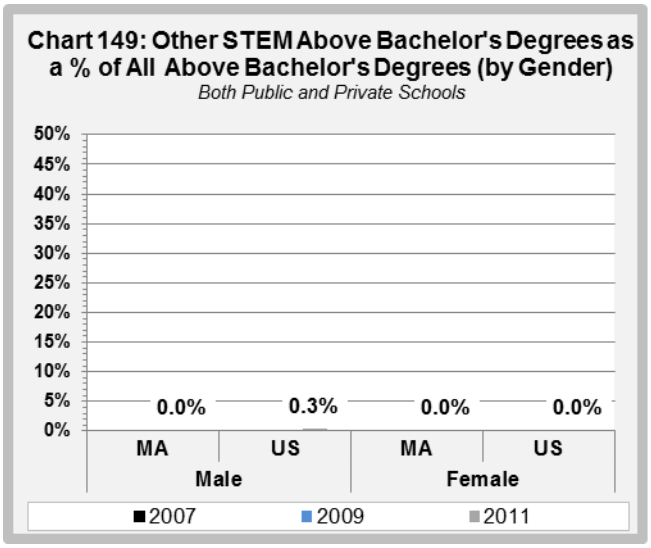




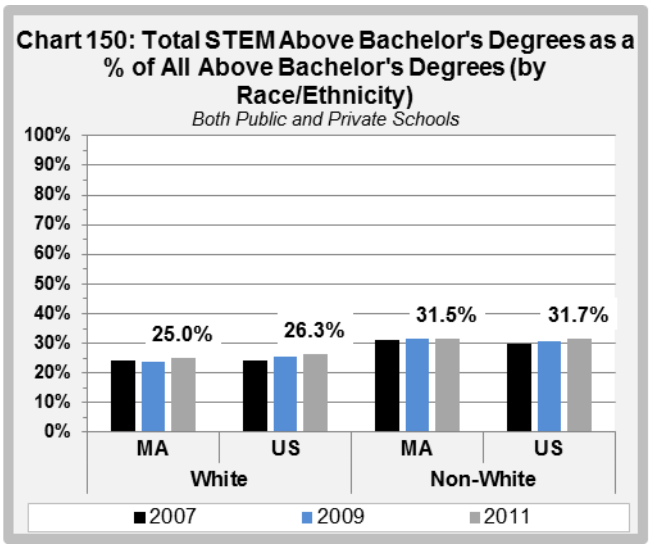


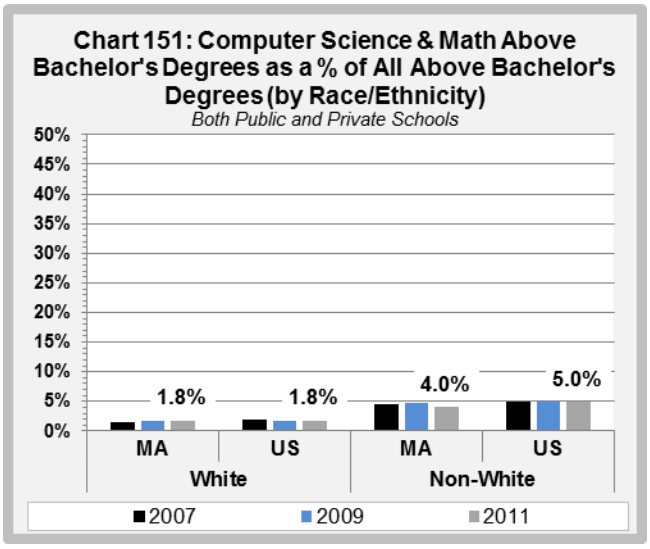


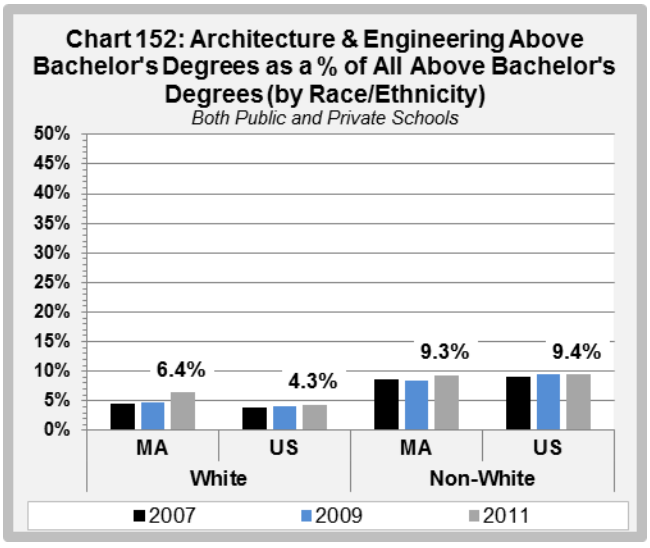


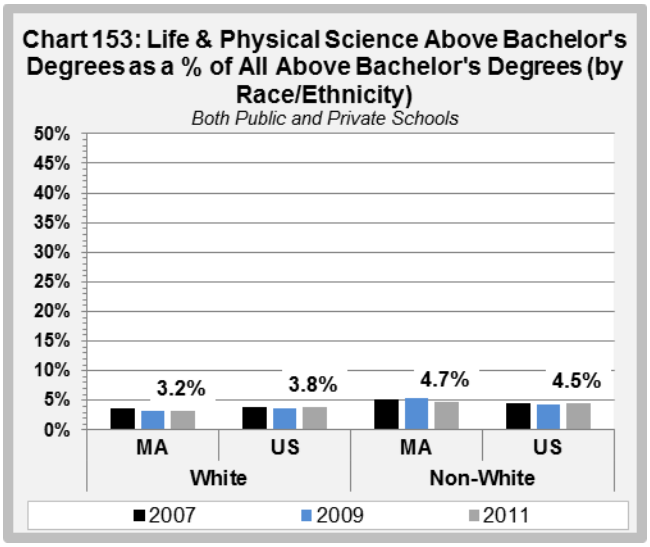


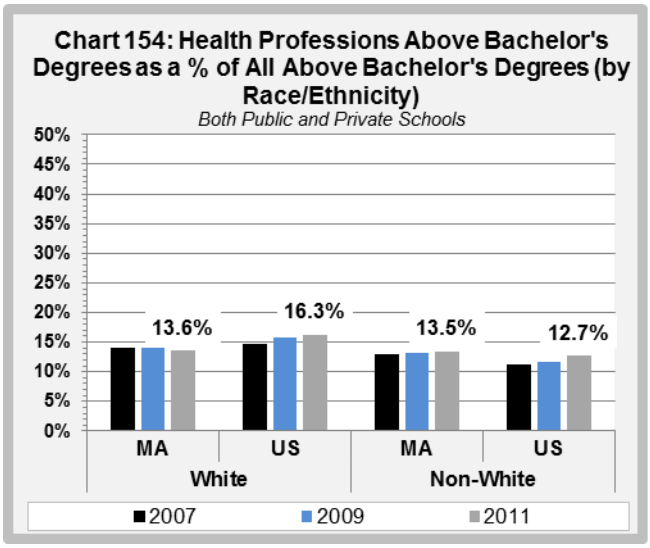
2013 MA STEM Dashboard Supplemental Charts: Page 16 – STEM Above Bachelor's Degrees by Specific Fields (by Race)

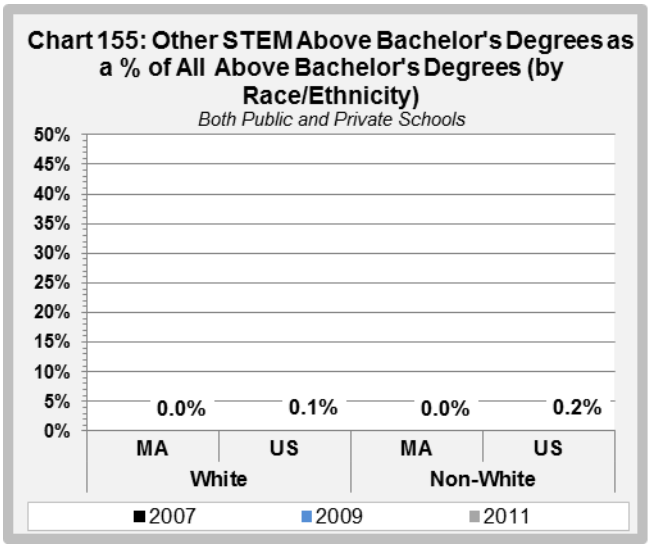












Data Notes

Source 1: SAT Registration Questionnaire

Charts: Core View I Page 1 (1, 2, 3, 4, 5), Core View I Page 3 (12, 13, 14, 15, 16, 17), Supplemental Charts Page 1 (66, 67, 68, 69, 70, 71), Supplemental Charts Page 2 (72, 73, 74, 75, 76, 77), Supplemental Charts Page 3 (78, 79, 80, 81, 82, 83), Supplemental Charts Page 4 (84, 85, 86, 87, 88, 89)

Data used for these charts consisted of individual responses by MA public school graduates to the questions on the registration questionnaire, including graduating cohorts 2007–2012. See Appendix A for the full questionnaire, including a list of college majors from which respondents can choose. Majors included as STEM are highlighted.

Data are obtained by the UMass Donahue Institute directly from the College Board through a data sharing agreement. This data sharing agreement also includes the MA Department of Higher Education and the MA Department of Elementary and Secondary Education. The data sharing agreement stipulates that the minimum N for any public reporting must be six (6), whether students, schools, or districts (whatever the operative level of analysis is).

Information related to interest in STEM college majors, as well as STEM course-taking in high school, are all self-reported by students. In some cases, if a student took the SAT as a junior, they are projecting what courses they intend to take during their senior year, rather than reporting on actual courses taken.

Approximate N of whole dataset is 290,000. The College Board estimates that 80% of all MA public school students take the SAT prior to graduating. However, it should be noted that the percentage of students who take the test varies widely by individual school. In cases such as the vocational schools, the percentage of students who take the SAT is frequently less than 50% of the graduating cohort, while in high-performing/high-income schools, the percentage of students who take the SAT is frequently 100%. As a result, charts based on this data source are only reflective of SAT test-takers, and not necessarily of all public school students.

Girls are overrepresented in the dataset, in comparison to the MA public school population as a whole. For example, for the 2011–2012 school year, the MA public school population was approximately 51% male and 49% female. However, the 2012 SAT test-taking cohort was 46% male and 54% female. This discrepancy in gender balance, however, is in line with general high school population versus college-going population patterns in both Massachusetts and the nation as a whole. Of SAT test-takers, 99.9% identify their gender.

The SAT includes a variable for whether a test-taker receives a waiver for the cost of the test (called the “fee-waiver variable”). Information on which test-takers qualify for the fee waiver can be found at http://sat.collegeboard.org/register/sat-fee-waivers. This variable has only been included in our dataset since 2011. For the graduating cohorts of 2011 and 2012, approximately 20% of the test-takers each year received a fee waiver. We use the fee waiver variable as a proxy for low-income status, as income is the dominant criteria for receiving one. However, just because a test-taker did not receive a fee waiver does not necessarily mean that they are high income. There could be cases of low-income students who did not apply to receive fee waivers because their testing costs were covered by other agencies. While this variable has limitations, and is only a proxy, it does indicate that low-income students are likely underrepresented in the SAT test-taker population compared to higher income students. For example, for the 2011–2012 school year, approximately 35% of MA public school students were officially categorized as “low income” (meaning they qualified for the federal free or reduced price lunch program).

On the registration questionnaire, test-takers are able to self-identify their race/ethnicity using the following options: (1) American Indian or Alaska Native, (2) Asian, Asian-American, or Pacific Islander, (3) Black or African-American, (4) Mexican or Mexican-American, (5) Puerto Rican, (6) Other Hispanic, Latino, or Latin American, (7) White, and (8) Other. This is a single-choice/forced-option question: test-takers cannot choose more than one answer. For racial/ethnic analysis of the SAT data, test-takers were grouped into two categories: white and non-white. "White" was defined simply as test-takers who self-identified as "white" for the race/ethnicity question. "Non-white" was defined simply as all other test-takers who responded to the race/ethnicity question (test-takers who did not respond to the race/ethnicity questions were not included in any race/ethnicity analysis). On average, for all of the years covered by our dataset, 96% of test-takers respond to the race/ethnicity question. Similar to the income demographics, white SAT test-takers are overrepresented in comparison to the MA public school student population as a whole. For the 2011–2012 school year, approximately 67% of the MA public school population was officially identified as "white," compared to about 75% of the SAT test-taking population.

STEM interest, for the purposes of this report, has been defined as SAT test-takers' first choice for a college major (see question #21 on the registration questionnaire). As mentioned in the Introduction, we have defined STEM as including the following fields: (1) Agriculture, Conservation, and Natural Resources, (2) Architecture, (3) Biological and Biomedical Sciences, (4) Computer and Information Sciences, (5) Engineering and Engineering Technologies/Technicians, (6) Health Professions and Clinical Sciences, (7) Mathematics and Statistics, (8) Mechanic and Repair Technologies/Technicians, (9) Military Technologies/Technicians, (10) Physical Sciences, (11) Precision Production, and (12) Science Technologies/Technicians. On average, over the years included in our dataset, 86% of test-takers have responded to the question about their first choice for a college major. The SAT college major variable we receive from the College Board is coded with the specific major identifying code each test-taker lists. We then categorize these specific codes into groups of majors (i.e., "computer & information sciences, mathematics & statistics, engineering, and engineering technologies/technicians"), as well as "STEM" or "non-STEM," for our analysis.

The 12 major categories listed above have been collapsed into only 4 primary STEM groups for this report, as follows:

I. "Computers and Math" = Computer & Information Sciences, and Mathematics & Statistics
II. "Architecture and Engineering" = Architecture, Engineering, and Engineering Technologies/Technicians
III. "Health" = Health Professions & Clinical Sciences
IV. "Life, Physical and Other" = Agriculture, Conservation, & Natural Resources, Biological & Biomedical Sciences, Mechanic & Repair Technologies/Technicians, Military Technologies/Technicians, Physical Sciences, Precision Production, and Science Technologies/Technicians

Majors were grouped in this fashion so that information could be presented in a manner parallel to data from other sources, most notably the occupational groups used by the Bureau of Labor Statistics and the American Community Survey.

The SAT asks test-takers to self-report which classes students took during high school and when. For example, a test-taker can list that they took Algebra in 9th grade, Geometry in 10th, Algebra II in 11th, and Pre-calculus in 12th. In addition, a separate question asks test-takers to tally the total number of years of study they have had in general subject areas (i.e., total years of math). The variables for number of years of math and number of years of science are based on responses to the question about total years of study. The response options that test-takers have include: (1) ½ year, (2) 1 year, (3) 2 years, (4) 3 years, (5) 4 years, and (6) more than 4 years. The data we receive from the College Board is coded with the raw responses from each test-taker. We then group the responses into new variables as follows:

I. Math is grouped/recoded into "4 years or more" (total of 4 years and more than 4 years) and "less than 4 years" (total of all other responses)

II. Science is grouped/recoded into "3 years of more" (total of 3 years, 4 years, and more than 4 years) and "less than 3 years" (total of all other responses)

On average, for all of the years covered by our dataset, over 80% of test-takers respond to the questions concerning the total number of years of math, and total number of years of science that they took in high school. We then combine/recode these two variables (years of math and years of science) into a single variable that tallies the number of respondents who report taking both four years or more of math and three years of more of science. The response rate for this combined variable is slightly lower (79%), as some test-takers answer one question, but not the other.

Source 2: PSAT and SAT College-Bound Seniors Public Reports

Charts: Core View II Page 1 (34, 35, 6, 37, 38, 39), Core View II Page 3 (46, 47, 48, 49, 50)

These data were based on aggregated responses for all PSAT and SAT test-takers (including test-takers from both public and private schools, as well as home-schooled and other students). Reports are available online at: http://research.collegeboard.org/. Data are transferred from the PDF copies of the reports into spreadsheets for analysis.

Please note that, because these reports include both public and non-public school students, the percentages for STEM interest and course-taking will be slightly different than those calculated using Source 1: SAT Registration Questionnaire (which only includes responses from public school test-takers). Furthermore, because the data are pre-aggregated into a specific report format, indicators for some of the MA versus US comparisons in Core View II are slightly different from ones for the STEM Goals in Core View I.

Source 3: Massachusetts Department of Elementary and Secondary Education – Massachusetts Comprehensive Assessment System (MCAS) Scores

Charts: Core View I Page 2 (6, 7, 8, 9, 10, 11), Supplemental Charts Page 5 (90, 91, 92, 93), Supplemental Charts Page 6 (94, 95, 96, 97), Supplemental Charts Page 7 (98, 99, 100, 101)

These data were based on aggregated scores for all MA public school students as reported by the Massachusetts Department of Elementary and Secondary Education via their School/District Profiles Directory, at http://profiles.doe.mass.edu/.

Source 4: National Center for Education Statistics – Integrated Postsecondary Education Data System (IPEDS)

Charts: Core View I Page 4 (18, 19, 20, 21, 22, 23), Core View II Page 4 (51, 52, 53, 54, 55, 56), Supplemental Charts Page 8 (102, 103, 104, 105, 106, 107), Supplemental Charts Page 9 (108, 109, 110, 111, 112, 113), Supplemental Charts Page 10 (114, 115, 116, 117, 118, 119), Supplemental Charts Page 11 (120, 121, 122, 123, 124, 125), Supplemental Charts Page 12 (126, 127, 128, 129, 130, 131), Supplemental Charts Page 13 (132, 133, 134, 135, 136, 137), Supplemental Charts Page 14 (138, 139, 140, 141, 142, 143), Supplemental Charts Page 15 (144, 145, 146, 147, 148, 149), Supplemental Charts Page 16 (150, 151, 152, 153, 154, 155)

These data were based on aggregated tallies for all certificates/degrees granted by US institutions of higher education, including public, non-profit, and for-profit, as reported by the National Center for Education Statistics

(NCES) at http://nces.ed.gov/ipeds/. While data are available for specific degrees, they have been grouped into three levels for presentation here: (1) Below Bachelor's = all certificates and degrees under the four-year degree level, including, for example, 12-month certificates or Associate's Degrees; (2) Bachelor's = all four-year degrees; and, (3) Above Bachelor's = all certificates and degrees above the four-year degree level, including, for example, Master's, PhD, or Certificate of Advanced Graduate Study.

Source 5: Massachusetts Department of Elementary and Secondary Education – Teacher Data Report

Charts: Core View I Page 5 (24, 25, 26)

These data were based on aggregated tallies of teachers who meet the federal standard of "highly qualified" for all MA public schools/districts, as reported by the Massachusetts Department of Elementary and Secondary Education via their School/District Profiles Directory at http://profiles.doe.mass.edu/. The federal definition of a "highly qualified" teacher can be found at: http://www2.ed.gov/nclb/methods/teachers/hqtflexibility.html.

Source 6: National Center for Education Statistics – National Assessment of Educational Progress (NAEP)

Charts: Core View I Page 5 (27), Core View II Page 2 (40, 41, 42, 43, 44, 45), Core View II Page 5 (57, 58, 59, 60)

These data were based on aggregated tallies of student test scores; student, teacher, and school/district demographic and socio-economic information; and teacher responses to survey questions, including public, non-profit, and for-profit, as reported by the National Center for Education Statistics (NCES) at http://nces.ed.gov/ipeds/.

Source 7: American Community Survey (ACS)

Charts: Core View I Page 6 (28, 29, 30, 31, 32, 33), Core View II Page 6 (61, 62, 63, 64, 65)

These occupational employment data were based on information reported to the Census Bureau through their annual sampling to supplement the decennial, in-depth census. Data are all considered estimates as they extrapolations to the population as a whole from those who respond to the survey. As opposed to the Bureau of Labor Statistics, whose occupational employment estimates come from employers, these are based on individuals' self-reporting of their jobs. As a result, these data may be somewhat different from those reported by the Bureau of Labor Statistics.

Please note that social science employment could not be separated out from the major category of "Life, Physical, and Social Science." According to past analysis, social sciences comprises about 20-25% of the employment in this major group (depending on the particular state, or whether it is the nation as a whole). Because the vast majority of jobs included in this major group still fall within our definition of STEM areas, we decided to include the whole group for reporting purposes, even though for all other data sources we have excluded the Social Sciences.

Data Tables

This section contains tables that show all of the data depicted in the charts. The tables are presented in the same order as the charts.

Table for Chart 1: % of MA SAT Question Respondents Whose 1st Choice of Major was STEM (for All and by Gender) *Public Schools Only*

	2008	2010	2012	Percentage Point Change 2008-2012
All	37.0%	37.7%	38.9%	1.9
Male	40.3%	40.5%	41.1%	0.8
Female	34.4%	35.5%	37.0%	2.6

Table for Chart 2: % of MA SAT Question Respondents Whose 1st Choice of Major was STEM (by Race/Ethnicity or Income) *Public Schools Only*

	2008	2010	2012	Percentage Point Change 2008-2012
White	34.9%	35.8%	36.8%	1.9
Non-White	44.5%	43.8%	45.0%	0.5
Fee Waiver			42.8%	N/A
No Fee Waiver			37.9%	N/A

Table for Chart 3: % of Question Respondents Whose 1st Choice of Major was Engineering or Health (by Gender) *Public Schools Only*

		2008	2010	2012	Percentage Point Change 2008-2012
Female	**Engineering**	3.0%	3.2%	3.3%	0.3
	Health	22.7%	22.2%	22.7%	0.0
Male	**Engineering**	18.3%	18.4%	18.7%	0.4
	Health	6.9%	7.1%	7.2%	0.3

Table for Chart 4: % of Question Respondents Whose 1st Choice of Major was Engineering or Health (by Race/Ethnicity) *Public Schools Only*

		2008	2010	2012	Percentage Point Change 2008-2012
White	**Engineering**	9.4%	9.6%	9.8%	0.4
	Health	14.2%	14.1%	14.0%	-0.2
Non-White	**Engineering**	11.2%	11.3%	11.5%	0.3
	Health	21.4%	20.3%	20.4%	-1.0

Table for Chart 5: % of Question Respondents Whose 1st Choice of Major was Engineering or Health (by Income) *Public Schools Only*

		2008	2010	2012	Percentage Point Change 2008-2012
Fee Waiver	**Engineering**			10.4%	N/A
	Health			21.1%	N/A
No Fee Waiver	**Engineering**			10.2%	N/A
	Health			14.3%	N/A

Table for Chart 6: % of MA Students Scoring Proficient or Advanced on 10th Grade MCAS (for All) *Public Schools Only*

	2008	2010	2012	Percentage Point Change 2008-2012
Math	72.0%	75.0%	78.0%	6.0
Science	57.0%	65.0%	69.0%	12.0

Table for Chart 7: % of MA Students Scoring Proficient or Advanced on 10th Grade MCAS (by Income) *Public Schools Only*					
		2008	2010	2012	Percentage Point Change 2008-2012
Low-Income	Math	51.0%	57.0%	62.0%	11.0
	Science	31.0%	40.0%	48.0%	17.0
Not-Low-Income	Math	78.0%	84.0%	86.0%	8.0
	Science	66.0%	75.0%	80.0%	14.0

Table for Chart 8: % of MA Students Scoring Proficient or Advanced on 8th Grade MCAS (for All) Public Schools Only				
	2008	2010	2012	Percentage Point Change 2008-2012
Math	49.0%	51.0%	52.0%	3.0
Science	39.0%	40.0%	43.0%	4.0

Table for Chart 9: % of MA Students Scoring Proficient or Advanced on 8th Grade MCAS (by Income) *Public Schools Only*					
		2008	2010	2012	Percentage Point Change 2008-2012
Low-Income	Math	25.0%	30.0%	30.0%	5.0
	Science	14.0%	18.0%	20.0%	6.0
Not-Low-Income	Math	60.0%	62.0%	65.0%	5.0
	Science	49.0%	50.0%	55.0%	6.0

Table for Chart 10: % of MA Students Scoring Proficient or Advanced on 5th Grade MCAS (for All) *Public Schools Only*				
	2008	2010	2012	Percentage Point Change 2008-2012
Math	52.0%	55.0%	57.0%	5.0
Science	50.0%	53.0%	52.0%	2.0

Table for Chart 11: % of MA Students Scoring Proficient or Advanced on 5th Grade MCAS (by Income) *Public Schools Only*					
		2008	2010	2012	Percentage Point Change 2008-2012
Low-Income	Math	30.0%	33.0%	36.0%	6.0
	Science	23.0%	29.0%	28.0%	5.0
Not-Low-Income	Math	62.0%	66.0%	69.0%	7.0
	Science	61.0%	66.0%	66.0%	5.0

Table for Chart 12: % of MA SAT Question Respondents Who Reported Taking 4 Years Math & 3 Years Science (for All and by Gender) *Public Schools Only*				
	2008	2010	2012	Percentage Point Change 2008-2012
All	78.5%	79.6%	78.2%	-0.3
Male	79.6%	80.5%	78.6%	-1.0
Female	77.6%	78.9%	78.4%	0.8

Table for Chart 13: % of MA SAT Question Respondents Who Reported Taking 4 Years Math & 3 Years Science (by Race/Ethnicity or Income) *Public Schools Only*				
	2008	2010	2012	Percentage Point Change 2008-2012
White	80.1%	81.6%	80.5%	0.4
Non-White	73.2%	73.6%	73.0%	-0.2
Fee Waiver			68.3%	N/A
No Fee Waiver			80.8%	N/A

Table for Chart 14: % of MA SAT Question Respondents Who Reported Taking 4 Years or More of Math (for All and by Gender) *Public Schools Only*				
	2008	2010	2012	Percentage Point Change 2008-2012
All	80.9%	82.7%	82.2%	1.3
Male	82.8%	83.9%	82.7%	-0.1
Female	79.6%	81.8%	81.8%	2.2

Table for Chart 15: % of MA SAT Question Respondents Who Reported Taking 4 Years or More of Math (by Race/Ethnicity or Income) *Public Schools Only*				
	2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
White	82.2%	84.5%	83.9%	1.7
Non-White	76.8%	77.8%	77.7%	0.9
Fee Waiver			73.9%	N/A
No Fee Waiver			84.2%	N/A

Table for Chart 16: % of MA SAT Question Respondents Who Reported Taking 3 Years or More of Science (for All and by Gender) *Public Schools Only*				
	2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
All	95.2%	92.2%	91.7%	-3.5
Male	94.9%	93.1%	91.2%	-3.7
Female	95.5%	93.7%	92.2%	-3.3

Table for Chart 17: % of MA SAT Question Respondents Who Reported Taking 3 Years or More of Science (by Race/Ethnicity or Income) *Public Schools Only*				
	2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
White	96.2%	94.5%	93.0%	-3.2
Non-White	91.8%	90.2%	88.1%	-3.7
Fee Waiver			86.0%	N/A
No Fee Waiver			93.1%	N/A

Table for Chart 18: Total # of STEM Bachelor's Degrees Granted by MA Institutions (for All and by Gender) *Both Public and Private Schools*				
	2007	**2009**	**2011**	**% Change**
All	11,444	12,607	14,574	27.4%
Male	5,556	6,064	6,830	22.9%
Female	5,888	6,543	7,744	31.5%

Table for Chart 19: Total # of STEM Bachelor's Degrees Granted by MA Institutions (by White and Gender) *Both Public and Private Schools*				
	2007	**2009**	**2011**	**% Change**
White All	7,337	8,196	9,285	26.6%
White Male	3,584	3,982	4,340	21.1%
White Female	3,753	4,214	4,945	31.8%

Table for Chart 20: Total # of STEM Bachelor's Degrees Granted by MA Institutions (by Non-White and Gender) *Both Public and Private Schools*				
	2007	**2009**	**2011**	**% Change**
Non-White All	4,107	4,411	5,289	28.8%
Non-White Male	1,972	2,082	2,490	26.3%
Non-White Female	2,135	2,329	2,799	31.1%

Table for Chart 21: # of Computer Science & Math Bachelor's Degrees Granted by MA Institutions (for All and by Gender) *Both Public and Private Schools*				
	2007	**2009**	**2011**	**% Change**
All	1,997	1,977	2,302	15.3%
Male	1,383	1,396	1,574	13.8%
Female	614	581	728	18.6%

Table for Chart 22: # of Architecture & Engineering Bachelor's Degrees Granted by MA Institutions (for All and by Gender) *Both Public and Private Schools*				
	2007	**2009**	**2011**	**% Change**
All	3,130	3,272	3,563	13.8%
Male	2,337	2,460	2,663	13.9%
Female	793	812	900	13.5%

Table for Chart 23: # of Health Professions Bachelor's Degrees Granted by MA Institutions (for All and by Gender) *Both Public and Private Schools*				
	2007	**2009**	**2011**	**% Change**
All	2,736	3,354	4,039	47.6%
Male	341	494	617	80.9%
Female	2,395	2,860	3,422	42.9%

Table for Chart 24: % of MA Public School Classes Taught by Highly Qualified Teachers *Public Schools Only*				
	2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
Math	93.5%	96.3%	97.5%	4.0
Science	92.2%	95.2%	97.0%	4.8

Table for Chart 25: % of MA Public School Classes Taught by Highly Qualified Teachers in Districts with a Low-Income Population at or above the State Average *Public Schools Only*				
	2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
Math	88.9%	93.8%	95.9%	7.0
Science	86.9%	92.5%	95.1%	8.2

Table for Chart 26: % of MA Public School Classes Taught by Highly Qualified Teachers in Districts with a Low-Income Population below the State Average *Public Schools Only*				
	2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
Math	96.7%	98.0%	98.9%	2.2
Science	95.3%	96.8%	98.4%	3.1

Table for Chart 27: % of MA Public School Teachers Who Report Having an Undergraduate Major or Minor in Math or Science *Public Schools Only*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
4th Grade	**Math**	8.0%	8.0%	9.0%	1.0
	Science		22.0%		N/A
8th Grade	**Math**	62.0%	58.0%	52.0%	-10.0
	Science		100.0%	100.0%	N/A

Table for Chart 28: MA STEM Employment as a % of All Employment (for All and by Gender)				
	2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
All	13.1%	13.3%	13.7%	0.6
Male	13.2%	13.4%	13.4%	0.2
Female	13.1%	13.2%	14.0%	0.9

Table for Chart 29: MA STEM Employment as a % of All Employment (by Race/Ethnicity)				
	2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
White	13.5%	13.6%	13.6%	0.1
Non-White	11.6%	12.4%	14.3%	2.7

Table for Chart 30: MA Employment in Computer and Math Occupations as a % of All Employment (by Gender and Race/Ethnicity)					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
Gender	**Male**	4.9%	5.0%	5.1%	0.2
	Female	1.9%	1.9%	1.9%	0.0
Race	**White**	3.3%	3.2%	3.2%	-0.1
	Non-White	4.4%	4.7%	4.7%	0.3

Table for Chart 31: MA Employment in Architecture & Engineering Occupations as a % of All Employment (by Gender and Race/Ethnicity)					
		2007	2009	2011	Percentage Point Change 2007-2011
Gender	Male	3.9%	3.7%	3.6%	-0.3
	Female	0.8%	0.7%	0.7%	-0.1
Race	White	2.4%	2.3%	2.2%	-0.2
	Non-White	0.3%	0.2%	1.9%	1.6

Table for Chart 32: MA Employment in Life, Physical & Social Science Occupations as a % of All Employment (by Gender and Race/Ethnicity)					
		2007	2009	2011	Percentage Point Change 2007-2011
Gender	Male	1.7%	1.8%	1.9%	0.2
	Female	1.7%	1.8%	1.8%	0.1
Race	White	1.6%	1.7%	1.6%	0.0
	Non-White	2.2%	2.4%	2.6%	0.4

Table for Chart 33: MA Employment in Health Profession Occupations as a % of All Employment (by Gender and Race/Ethnicity)					
		2007	2009	2011	Percentage Point Change 2007-2011
Gender	Male	2.7%	2.8%	2.9%	0.2
	Female	9.3%	9.5%	9.7%	0.4
Race	White	6.2%	6.3%	6.5%	0.3
	Non-White	4.7%	5.0%	5.1%	0.4

Table for Chart 34: % of All Sophomore PSAT-Takers Whose 1st Choice of Major was STEM *Both Public & Private Schools*				
	2008	2010	2012	Percentage Point Change 2008-2012
MA	34.5%	36.1%	37.1%	2.6
US	40.4%	41.6%	43.2%	2.8

Table for Chart 35: % of All SAT-Takers Whose 1st Choice of Major was STEM *Both Public & Private Schools*				
	2008	2010	2012	Percentage Point Change 2008-2012
MA	36.5%	37.1%	38.0%	1.5
US	42.8%	43.1%	44.7%	1.9

Table for Chart 36: % of Sophomore PSAT-Takers & SAT-Takers Whose 1st Choice of Major was Architecture or Engineering *Both Public & Private Schools*					
		2008	2010	2012	Percentage Point Change 2008-2012
MA	PSAT	11.1%	10.4%	11.0%	-0.1
	SAT	9.7%	9.9%	10.2%	0.5
US	PSAT	13.3%	12.4%	13.1%	-0.2
	SAT	11.6%	11.9%	12.3%	0.7

Table for Chart 37: % of Sophomore PSAT-Takers & SAT-Takers Whose 1st Choice of Major was Computer Science or Mathematics *Both Public & Private Schools*					
		2008	2010	2012	Percentage Point Change 2008-2012
MA	PSAT	2.1%	2.7%	3.1%	1.0
	SAT	3.6%	3.2%	3.0%	-0.6
US	PSAT	2.0%	2.7%	2.9%	0.9
	SAT	3.9%	3.5%	3.1%	-0.8

Table for Chart 38: % of Sophomore PSAT-Takers & SAT-Takers Whose 1st Choice of Major was Health Professions *Both Public & Private Schools*					
		2008	2010	2012	Percentage Point Change 2008-2012
MA	PSAT	13.9%	14.0%	14.1%	0.2
	SAT	15.5%	15.1%	15.1%	-0.4
US	PSAT	18.0%	17.6%	18.0%	0.0
	SAT	18.7%	18.5%	19.1%	0.4

Table for Chart 39: % of Sophomore PSAT-Takers & SAT-Takers Whose 1st Choice of Major was Life or Physical Science *Both Public & Private Schools*					
		2008	2010	2012	Percentage Point Change 2008-2012
MA	PSAT	7.4%	8.1%	8.1%	0.7
	SAT	7.0%	8.5%	9.1%	2.1
US	PSAT	7.1%	7.8%	8.1%	1.0
	SAT	8.0%	8.7%	9.4%	1.4

Table for Chart 40: % of Students Scoring Proficient or Advanced on NAEP Math *Public Schools Only*					
		2008	2010	2012	Percentage Point Change 2008-2012
MA	4th	58.0%	57.0%	58.0%	0.0
	8th	51.0%	52.0%	51.0%	0.0
US	4th	38.0%	39.0%	39.0%	1.0
	8th	31.0%	33.0%	34.0%	3.0

Table for Chart 41: % of Students Scoring Proficient or Advanced on NAEP Science *Public Schools Only*					
		2007	2009	2011	Percentage Point Change 2007-2011
MA	4th	N/A	45.0%		N/A
	8th		42.0%	44.0%	N/A
US	4th		33.0%		N/A
	8th		29.0%	31.0%	N/A

Table for Chart 42: % of Low-Income Students Scoring Proficient or Advanced on NAEP Math *Public Schools Only*					
		2007	2009	2011	Percentage Point Change 2007-2011
MA	4th	32.0%	31.0%	36.0%	4.0
	8th	25.0%	29.0%	29.0%	4.0
US	4th	21.0%	21.0%	24.0%	3.0
	8th	16.0%	17.0%	18.0%	2.0

Table for Chart 43: % of Not-Low-Income Students Scoring Proficient or Advanced on NAEP Math *Public Schools Only*					
		2007	2009	2011	Percentage Point Change 2007-2011
MA	4th	67.0%	70.0%	71.0%	4.0
	8th	60.0%	61.0%	63.0%	3.0
US	4th	53.0%	54.0%	57.0%	4.0
	8th	42.0%	45.0%	47.0%	5.0

Table for Chart 44: % of Low-Income Students Scoring Proficient or Advanced on NAEP Science *Public Schools Only*					
		2007	2009	2011	Percentage Point Change 2007-2011
MA	4th	N/A	19.0%		N/A
	8th		17.0%	22.0%	N/A
US	4th		16.0%		N/A
	8th		13.0%	16.0%	N/A

Table for Chart 45: % of Not-Low-Income Students Scoring Proficient or Advanced on NAEP Science *Public Schools Only*					
		2007	2009	2011	Percentage Point Change 2007-2011
MA	4th	N/A	58.0%		N/A
	8th		52.0%	55.0%	N/A
US	4th		48.0%		N/A
	8th		40.0%	45.0%	N/A

Table for Chart 46: % of SAT-Takers Who Reported Taking 4+ Years of Math (for All) *Both Public & Private Schools*				
	2008	2010	2012	Percentage Point Change 2008-2012
MA	81.0%	82.0%	83.0%	2.0
US	76.0%	76.0%	77.0%	1.0

Table for Chart 47: % of SAT-Takers Who Reported Taking 3+ Years of Science (for All) *Both Public & Private Schools*				
	2008	2010	2012	Percentage Point Change 2008-2012
MA	95.0%	93.0%	91.0%	-4.0
US	92.0%	90.0%	88.0%	-4.0

Table for Chart 48: % of SAT-Takers Who Reported Taking Pre-Calculus or Calculus (for All) *Both Public & Private Schools*				
	2008	2010	2012	Percentage Point Change 2008-2012
MA	55.0%	59.0%	59.0%	4.0
US	55.0%	56.0%	55.0%	0.0

Table for Chart 49: % of SAT-Takers Who Reported Taking Chemistry (for All) *Both Public & Private Schools*				
	2008	2010	2012	Percentage Point Change 2008-2012
MA	91.0%	91.0%	91.0%	0.0
US	89.0%	89.0%	89.0%	0.0

Table for Chart 50: % of SAT-Takers Who Reported Taking Physics (for All) *Both Public & Private Schools*				
	2008	2010	2012	Percentage Point Change 2008-2012
MA	59.0%	60.0%	62.0%	3.0
US	52.0%	52.0%	53.0%	1.0

Table for Chart 51: Total # of STEM Bachelor's Degrees Granted by MA Institutions (for All and by Gender) *Both Public and Private Schools* *Same as Chart 18				
	2007	2009	2011	% Change
All	11,444	12,607	14,574	27.4%
Male	5,556	6,064	6,830	22.9%
Female	5,888	6,543	7,744	31.5%

Table for Chart 52: Total # of STEM Bachelor's Degrees Granted by All US Institutions (for All and by Gender) *Both Public and Private Schools*				
	2007	2009	2011	% Change
All	378,541	405,904	460,714	21.7%
Male	190,156	198,622	221,786	16.6%
Female	188,385	207,282	238,928	26.8%

Table for Chart 53: STEM Bachelor's Degrees as a % of All Bachelor's Degrees (for All) *Both Public and Private Schools*				
	2007	2009	2011	Percentage Point Change 2007-2011
MA	22.0%	23.1%	24.8%	2.8
US	23.6%	24.1%	25.5%	1.9

Table for Chart 54: Architecture, Computer Science, Engineering & Math Bachelor's Degrees as a % of All Bachelor's Degrees (for All) *Both Public and Private Schools*				
	2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
MA	9.8%	9.6%	10.0%	0.2
US	9.5%	9.1%	9.2%	-0.3

Table for Chart 55: Architecture, Computer Science, Engineering & Math Bachelor's Degrees Granted by MA Institutions (for All and by Gender) *Both Public and Private Schools*				
	2007	**2009**	**2011**	**% Change**
All	5,127	5,249	5,865	14.4%
Male	3,720	3,856	4,237	13.9%
Female	1,407	1,393	1,628	15.7%

Table for Chart 56: Architecture, Computer Science, Engineering & Math Bachelor's Degrees Granted by All US Institutions (for All and by Gender) *Both Public and Private Schools*				
	2007	**2009**	**2011**	**% Change**
All	152,104	151,669	167,258	10.0%
Male	118,547	118,906	130,734	10.3%
Female	33,557	32,763	36,524	8.8%

Table for Chart 57: % of Math Teachers with an Undergraduate Major in Math *Public Schools Only*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
MA	**4th**	2.0%	1.0%	1.0%	-1.0
	8th	35.0%	31.0%	29.0%	-6.0
US	**4th**	1.0%	1.0%	1.0%	0.0
	8th	27.0%	27.0%	26.0%	-1.0

Table for Chart 58: % of Math Teachers with an Undergraduate Minor in Math *Public Schools Only*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
MA	**4th**	7.0%	7.0%	7.0%	0.0
	8th	27.0%	27.0%	23.0%	-4.0
US	**4th**	7.0%	7.0%	6.0%	-1.0
	8th	32.0%	30.0%	31.0%	-1.0

Table for Chart 59: % of Science Teachers with an Undergraduate Major in Science *Public Schools Only*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
MA	**4th**	N/A	9.0%		N/A
	8th		75.0%	62.0%	N/A
US	**4th**		6.0%		N/A
	8th		57.0%	57.0%	N/A

Table for Chart 60: % of Science Teachers with an Undergraduate Minor in Science *Public Schools Only*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
MA	**4th**	N/A	16.0%		N/A
	8th		63.0%	63.0%	N/A
US	**4th**		12.0%		N/A
	8th		68.0%	66.0%	N/A

Table for Chart 61: MA STEM Employment as a % of All Employment (for All and by Gender) *Same as Chart 28				
	2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
All	13.1%	13.3%	13.7%	0.6
Male	13.2%	13.4%	13.4%	0.2
Female	13.1%	13.2%	14.0%	0.9

Table for Chart 62: US STEM Employment as a % of All Employment (for All and by Gender)				
	2007	2009	2011	Percentage Point Change 2007-2011
All	9.8%	10.1%	10.7%	0.9
Male	9.5%	9.9%	10.1%	0.6
Female	10.7%	11.1%	11.4%	0.7

Table for Chart 63: STEM Employment as a % of All Employment (MA vs. US by Race/Ethnicity)					
		2007	2009	2011	Percentage Point Change 2007-2011
MA	**White**	13.5%	13.6%	13.6%	0.1
	Non-White	11.6%	12.4%	14.3%	2.7
US	**White**	10.9%	11.2%	11.5%	0.6
	Non-White	7.5%	7.8%	9.1%	1.6

Table for Chart 64: Employment in Computer & Math, and Architecture & Engineering, Occupations as a % of All Employment (MA vs. US)					
		2007	2009	2011	Percentage Point Change 2007-2011
MA	**Computer & Math**	3.5%	3.5%	3.5%	0.0
	Architecture & Engineering	2.0%	1.9%	2.1%	0.1
US	**Computer & Math**	2.3%	3.4%	3.5%	1.2
	Architecture & Engineering	1.7%	1.6%	1.8%	0.1

Table for Chart 65: Employment in Life, Physical & Social Sciences, and Healthcare Practitioner & Technical, Occupations as a % of All Employment (MA vs. US)					
		2007	2009	2011	Percentage Point Change 2007-2011
MA	**Life, Physical & Social Sci.**	1.7%	1.8%	1.8%	0.1
	Health	5.9%	6.1%	6.2%	0.3
US	**Life, Physical & Social Sci.**	0.9%	0.9%	0.9%	0.0
	Health	5.0%	5.2%	5.5%	0.5

Table for Chart 66: % of MA SAT-Takers Whose 1st Choice of Major was STEM (for All) *Public Schools Only*				
	2008	2010	2012	Percentage Point Change 2008-2012
MA	37.0%	37.7%	38.9%	1.9

Table for Chart 67: % of MA SAT-Takers Whose 1st Choice of Major was Agriculture, Biological/Biomedical Sciences, & Conservation/Natural Resources (for All) *Public Schools Only*				
	2008	2010	2012	Percentage Point Change 2008-2012
MA	5.9%	7.3%	7.9%	2.0

Table for Chart 68: % of MA SAT-Takers Whose 1st Choice of Major was Computer/Information Sciences & Mathematics/Statistics (for All) *Public Schools Only*				
	2008	2010	2012	Percentage Point Change 2008-2012
MA	3.7%	3.3%	3.1%	-0.6

Table for Chart 69: % of MA SAT-Takers Whose 1st Choice of Major was Engineering & Engineering Technologies (for All) *Public Schools Only*				
	2008	2010	2012	Percentage Point Change 2008-2012
MA	7.8%	8.3%	8.7%	0.9

Table for Chart 70: % of MA SAT-Takers Whose 1st Choice of Major was Health Professions (for All) *Public Schools Only*				
	2008	2010	2012	Percentage Point Change 2008-2012
MA	15.7%	15.5%	15.7%	0.0

Table for Chart 71: % of MA SAT-Takers Whose 1st Choice of Major was Other STEM Majors (for All) *Public Schools Only*				
	2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
MA	3.9%	3.4%	3.5%	-0.4

Table for Chart 72: % of MA SAT-Takers Whose 1st Choice of Major was STEM (by Gender) *Public Schools Only*				
	2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
Male	40.3%	40.5%	41.1%	0.8
Female	34.4%	35.5%	37.0%	2.6

Table for Chart 73: % of MA SAT-Takers Whose 1st Choice of Major was Agriculture, Biological/Biomedical Sciences, & Conservation/Natural Resources (by Gender) *Public Schools Only*				
	2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
Male	5.1%	5.9%	5.6%	0.5
Female	6.5%	8.0%	9.0%	2.5

Table for Chart 74: % of MA SAT-Takers Whose 1st Choice of Major was Computer/Information Sciences & Mathematics/Statistics (by Gender) *Public Schools Only*				
	2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
Male	6.8%	5.9%	5.6%	-1.2
Female	1.3%	1.2%	1.0%	-0.3

Table for Chart 75: % of MA SAT-Takers Whose 1st Choice of Major was Engineering & Engineering Technologies (by Gender) *Public Schools Only*				
	2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
Male	15.3%	15.9%	16.5%	1.2
Female	1.8%	2.1%	2.3%	0.5

Table for Chart 76: % of MA SAT-Takers Whose 1st Choice of Major was Health Professions (by Gender) *Public Schools Only*				
	2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
Male	6.9%	7.1%	7.2%	0.3
Female	22.7%	22.2%	22.7%	0.0

Table for Chart 77: % of MA SAT-Takers Whose 1st Choice of Major was Other STEM Majors (by Gender) *Public Schools Only*				
	2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
Male	6.2%	5.2%	5.3%	-0.9
Female	2.1%	1.9%	2.0%	-0.1

Table for Chart 78: % of MA SAT-Takers Whose 1st Choice of Major was STEM (by Race/Ethnicity) *Public Schools Only*				
	2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
White	34.9%	35.8%	36.8%	1.9
Non-White	44.5%	43.8%	45.0%	0.5

Table for Chart 79: % of MA SAT-Takers Whose 1st Choice of Major was Agriculture, Biological/Biomedical Sciences, & Conservation/Natural Resources (by Race/Ethnicity) *Public Schools Only*				
	2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
White	5.8%	7.2%	7.9%	2.1
Non-White	5.9%	7.2%	7.9%	2.0

Table for Chart 80: % of MA SAT-Takers Whose 1st Choice of Major was Computer/Information Sciences & Mathematics/Statistics (by Race/Ethnicity) *Public Schools Only*				
	2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
White	3.6%	3.2%	2.9%	-0.7
Non-White	4.3%	3.6%	3.5%	-0.8

Table for Chart 81: % of MA SAT-Takers Whose 1st Choice of Major was Engineering & Engineering Technologies (by Race/Ethnicity) *Public Schools Only*				
	2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
White	7.4%	8.1%	8.3%	0.9
Non-White	9.1%	9.1%	9.9%	0.8

Table for Chart 82: % of MA SAT-Takers Whose 1st Choice of Major was Health Professions (by Race/Ethnicity) *Public Schools Only*				
	2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
White	14.2%	14.1%	14.0%	-0.2
Non-White	21.4%	20.3%	20.4%	-1.0

Table for Chart 83: % of MA SAT-Takers Whose 1st Choice of Major was Other STEM Majors (by Race/Ethnicity) *Public Schools Only*				
	2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
White	3.9%	3.3%	3.6%	-0.3
Non-White	3.9%	3.6%	3.3%	-0.6

Table for Chart 84: % of MA SAT-Takers Whose 1st Choice of Major was STEM (by Income) *Public Schools Only*			
	2011	**2012**	**Percentage Point Change 2008-2012**
Fee Waiver	42.1%	42.8%	N/A
No Fee Waiver	36.7%	37.9%	N/A

Table for Chart 85: % of MA SAT-Takers Whose 1st Choice of Major was Agriculture, Biological/Biomedical Sciences, & Conservation/Natural Resources (by Income) *Public Schools Only*			
	2011	**2012**	**Percentage Point Change 2008-2012**
Fee Waiver	5.6%	6.5%	N/A
No Fee Waiver	7.4%	8.3%	N/A

Table for Chart 86: % of MA SAT-Takers Whose 1st Choice of Major was Computer/Information Sciences & Mathematics/Statistics (by Income) *Public Schools Only*			
	2011	**2012**	**Percentage Point Change 2008-2012**
Fee Waiver	3.2%	3.1%	N/A
No Fee Waiver	3.3%	3.1%	N/A

Table for Chart 87: % of MA SAT-Takers Whose 1st Choice of Major was Engineering & Engineering Technologies (by Income) *Public Schools Only*			
	2011	**2012**	**Percentage Point Change 2008-2012**
Fee Waiver	9.2%	8.9%	N/A
No Fee Waiver	8.6%	8.7%	N/A

Table for Chart 88: % of MA SAT-Takers Whose 1st Choice of Major was Health Professions (by Income) *Public Schools Only*			
	2011	**2012**	**Percentage Point Change 2008-2012**
Fee Waiver	21.0%	21.1%	N/A
No Fee Waiver	14.0%	14.3%	N/A

Table for Chart 89: % of MA SAT-Takers Whose 1st Choice of Major was Other STEM Majors (by Income) *Public Schools Only*			
	2011	**2012**	**Percentage Point Change 2008-2012**
Fee Waiver	3.1%	3.2%	N/A
No Fee Waiver	3.3%	3.6%	N/A

Table for Chart 90: % of MA Students Scoring Proficient or Advanced on 5th Grade MCAS (for All) *Public Schools Only* *Same as Chart 10				
	2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
Math	52.0%	55.0%	57.0%	5.0
Science	50.0%	53.0%	52.0%	2.0

Table for Chart 91: % of MA Students Scoring Proficient or Advanced on 5th Grade MCAS (by Gender) *Public Schools Only*					
		2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
Male	**Math**	53.0%	55.0%	56.0%	3.0
	Science	51.0%	55.0%	52.0%	1.0
Female	**Math**	52.0%	54.0%	57.0%	5.0
	Science	48.0%	52.0%	52.0%	4.0

Table for Chart 92: % of MA Students Scoring Proficient or Advanced on 5th Grade MCAS (by Race/Ethnicity) *Public Schools Only*					
		2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
White	**Math**	59.0%	62.0%	64.0%	5.0
	Science	58.0%	62.0%	61.0%	3.0
Non-White	**Math**	35.0%	38.0%	41.0%	6.0
	Science	26.0%	31.0%	30.0%	4.0

Table for Chart 93: % of MA Students Scoring Proficient or Advanced on 5th Grade MCAS (by Income) *Public Schools Only*					
		2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
Low-Income	**Math**	30.0%	33.0%	36.0%	6.0
	Science	23.0%	29.0%	28.0%	5.0
Not-Low-Income	**Math**	62.0%	66.0%	69.0%	7.0
	Science	61.0%	66.0%	66.0%	5.0

Table for Chart 94: % of MA Students Scoring Proficient or Advanced on 8th Grade MCAS (for All) *Public Schools Only* *Same as Chart 8				
	2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
Math	49.0%	51.0%	52.0%	3.0
Science	39.0%	40.0%	43.0%	4.0

Table for Chart 95: % of MA Students Scoring Proficient or Advanced on 8th Grade MCAS (by Gender) *Public Schools Only*					
		2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
Male	**Math**	49.0%	51.0%	53.0%	4.0
	Science	41.0%	42.0%	45.0%	4.0
Female	**Math**	49.0%	52.0%	53.0%	4.0
	Science	37.0%	37.0%	40.0%	3.0

Table for Chart 96: % of MA Students Scoring Proficient or Advanced on 8th Grade MCAS (by Race/Ethnicity) *Public Schools Only*					
		2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
White	**Math**	56.0%	58.0%	60.0%	4.0
	Science	47.0%	47.0%	50.0%	3.0
Non-White	**Math**	31.0%	36.0%	36.0%	5.0
	Science	18.0%	21.0%	24.0%	6.0

Table for Chart 97: % of MA Students Scoring Proficient or Advanced on 8th Grade MCAS (by Income) *Public Schools Only* *Same as Chart 9					
		2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
Low-Income	**Math**	25.0%	30.0%	30.0%	5.0
	Science	14.0%	18.0%	20.0%	6.0
Not-Low-Income	**Math**	60.0%	62.0%	65.0%	5.0
	Science	49.0%	50.0%	55.0%	6.0

Table for Chart 98: % of MA Students Scoring Proficient or Advanced on 10th Grade MCAS (for All) *Public Schools Only* *Same as Chart 6				
	2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
Math	72.0%	75.0%	78.0%	6.0
Science	57.0%	65.0%	69.0%	12.0

Table for Chart 99: % of MA Students Scoring Proficient or Advanced on 10th Grade MCAS (by Gender) *Public Schools Only*					
		2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
Male	**Math**	72.0%	75.0%	77.0%	5.0
	Science	57.0%	65.0%	69.0%	12.0
Female	**Math**	71.0%	76.0%	81.0%	10.0
	Science	57.0%	64.0%	69.0%	12.0

Table for Chart 100: % of MA Students Scoring Proficient or Advanced on 10th Grade MCAS (by Race/Ethnicity) *Public Schools Only*					
		2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
White	**Math**	75.0%	81.0%	84.0%	9.0
	Science	65.0%	73.0%	77.0%	12.0
Non-White	**Math**	54.0%	58.0%	64.0%	10.0
	Science	34.0%	42.0%	49.0%	15.0

Table for Chart 101: % of MA Students Scoring Proficient or Advanced on 10th Grade MCAS (by Income) *Public Schools Only* *Same as Chart 7					
		2008	**2010**	**2012**	**Percentage Point Change 2008-2012**
Low-Income	**Math**	51.0%	57.0%	62.0%	11.0
	Science	31.0%	40.0%	48.0%	17.0
Not-Low-Income	**Math**	78.0%	84.0%	86.0%	8.0
	Science	66.0%	75.0%	80.0%	14.0

Table for Chart 102: Total STEM Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (for All) *Both Public and Private Schools*				
	2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
MA	49.6%	49.2%	52.0%	2.4
US	46.3%	47.6%	49.4%	3.1

Table for Chart 103: Computer Science & Math Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (for All) *Both Public and Private Schools*				
	2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
MA	3.0%	3.7%	4.1%	1.1
US	3.3%	3.3%	3.4%	0.1

Table for Chart 104: Architecture & Engineering Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (for All) *Both Public and Private Schools*				
	2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
MA	5.4%	5.2%	4.1%	-1.3
US	3.7%	3.7%	3.9%	0.2

Table for Chart 105: Life & Physical Science Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (for All) *Both Public and Private Schools*				
	2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
MA	1.3%	1.3%	1.4%	0.1
US	1.2%	1.2%	1.1%	-0.1

Table for Chart 106: Health Professions Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (for All) *Both Public and Private Schools*				
	2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
MA	35.0%	33.6%	37.3%	2.3
US	32.1%	32.5%	33.5%	1.4

Table for Chart 107: Other STEM Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (for All) *Both Public and Private Schools*				
	2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
MA	4.9%	5.4%	5.1%	0.2
US	6.9%	6.9%	7.4%	0.5

Table for Chart 108: Total STEM Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (by Gender) *Both Public and Private Schools*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
Male	**MA**	52.2%	51.0%	49.4%	-2.8
	US	45.6%	46.9%	49.6%	4.0
Female	**MA**	48.3%	48.2%	53.4%	5.1
	US	46.7%	48.0%	49.3%	2.6

Table for Chart 109: Computer Science & Math Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (by Gender) *Both Public and Private Schools*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
Male	**MA**	6.1%	7.5%	8.6%	2.5
	US	6.0%	6.2%	6.6%	0.6
Female	**MA**	1.5%	1.8%	1.8%	0.3
	US	1.6%	1.5%	1.5%	-0.1

Table for Chart 110: Architecture & Engineering Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (by Gender) *Both Public and Private Schools*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
Male	**MA**	14.6%	13.5%	10.2%	-4.4
	US	8.2%	8.2%	9.0%	0.8
Female	**MA**	0.9%	1.0%	0.8%	-0.1
	US	0.9%	0.9%	0.8%	-0.1

Table for Chart 111: Life & Physical Science Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (by Gender) *Both Public and Private Schools*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
Male	**MA**	2.2%	2.1%	2.0%	-0.2
	US	1.9%	1.9%	1.7%	-0.2
Female	**MA**	0.9%	0.9%	1.0%	0.1
	US	0.8%	0.8%	0.8%	0.0

Table for Chart 112: Health Professions Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (by Gender) *Both Public and Private Schools*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
Male	**MA**	14.7%	12.6%	14.3%	-0.4
	US	12.2%	13.3%	14.1%	1.9
Female	**MA**	44.8%	44.1%	49.4%	4.6
	US	42.8%	44.3%	45.7%	2.9

Table for Chart 113: Other STEM Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (by Gender) *Both Public and Private Schools*					
		2007	2009	2011	Percentage Point Change 2007-2011
Male	MA	14.5%	15.3%	14.2%	-0.3
	US	17.3%	17.3%	18.2%	0.9
Female	MA	0.3%	0.4%	0.3%	0.0
	US	0.6%	0.6%	0.6%	0.0

Table for Chart 114: Total STEM Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*					
		2007	2009	2011	Percentage Point Change 2007-2011
White	MA	44.9%	46.4%	50.7%	5.8
	US	46.0%	47.2%	49.3%	3.3
Non-White	MA	57.6%	53.8%	54.1%	-3.5
	US	46.6%	48.1%	49.5%	2.9

Table for Chart 115: Computer Science & Math Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*					
		2007	2009	2011	Percentage Point Change 2007-2011
White	MA	3.0%	3.2%	3.7%	0.7
	US	3.3%	3.4%	3.5%	0.2
Non-White	MA	3.0%	4.5%	4.8%	1.8
	US	3.3%	3.2%	3.3%	0.0

Table for Chart 116: Architecture & Engineering Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*					
		2007	2009	2011	Percentage Point Change 2007-2011
White	MA	5.1%	5.1%	4.3%	-0.8
	US	4.1%	4.1%	4.3%	0.2
Non-White	MA	5.8%	5.3%	3.8%	-2.0
	US	3.0%	3.1%	3.5%	0.5

Table for Chart 117: Life & Physical Science Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*					
		2007	2009	2011	Percentage Point Change 2007-2011
White	MA	1.3%	1.4%	1.5%	0.2
	US	1.5%	1.4%	1.4%	-0.1
Non-White	MA	1.3%	1.2%	1.2%	-0.1
	US	0.7%	0.8%	0.8%	0.1

Table for Chart 118: Health Professions Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*					
		2007	2009	2011	Percentage Point Change 2007-2011
White	MA	30.8%	31.4%	36.4%	5.6
	US	29.8%	30.9%	32.0%	2.2
Non-White	MA	42.2%	37.1%	38.8%	-3.4
	US	33.2%	34.6%	35.4%	2.2

Table for Chart 119: Other STEM Below Bachelor's Degrees as a % of All Below Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*					
		2007	2009	2011	Percentage Point Change 2007-2011
White	MA	4.7%	5.3%	4.8%	0.1
	US	7.3%	7.4%	8.2%	0.9
Non-White	MA	5.4%	5.7%	5.6%	0.2
	US	6.4%	6.4%	6.4%	0.0

Table for Chart 120: Total STEM Bachelor's Degrees as a % of All Bachelor's Degrees (for All) *Both Public and Private Schools*				
	2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
MA	22.0%	23.1%	24.8%	2.8
US	23.6%	24.1%	25.5%	1.9

Table for Chart 121: Computer Science & Math Bachelor's Degrees as a % of All Bachelor's Degrees (for All) *Both Public and Private Schools*				
	2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
MA	3.8%	3.6%	3.9%	0.1
US	3.7%	3.4%	3.5%	-0.2

Table for Chart 122: Architecture & Engineering Bachelor's Degrees as a % of All Bachelor's Degrees (for All) *Both Public and Private Schools*				
	2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
MA	6.0%	6.0%	6.1%	0.1
US	5.8%	5.7%	5.7%	-0.1

Table for Chart 123: Life & Physical Science Bachelor's Degrees as a % of All Bachelor's Degrees (for All) *Both Public and Private Schools*				
	2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
MA	6.9%	7.3%	7.9%	1.0
US	7.7%	7.9%	8.2%	0.5

Table for Chart 124: Health Professions Bachelor's Degrees as a % of All Bachelor's Degrees (for All) *Both Public and Private Schools*				
	2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
MA	5.3%	6.1%	6.9%	1.6
US	6.4%	7.2%	8.0%	1.6

Table for Chart 125: Other STEM Bachelor's Degrees as a % of All Bachelor's Degrees (for All) *Both Public and Private Schools*				
	2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
MA	0.0%	0.0%	0.0%	0.0
US	0.0%	0.0%	0.0%	0.0

Table for Chart 126: Total STEM Bachelor's Degrees as a % of All Bachelor's Degrees (by Gender) *Both Public and Private Schools*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
Male	**MA**	25.6%	26.2%	27.5%	1.9
	US	27.9%	27.6%	28.7%	0.8
Female	**MA**	19.4%	20.7%	22.8%	3.4
	US	20.5%	21.5%	23.1%	2.6

Table for Chart 127: Computer Science & Math Bachelor's Degrees as a % of All Bachelor's Degrees (by Gender) *Both Public and Private Schools*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
Male	**MA**	6.4%	6.0%	6.3%	-0.1
	US	6.5%	5.8%	6.2%	-0.3
Female	**MA**	2.0%	1.8%	2.1%	0.1
	US	1.7%	1.5%	1.6%	-0.1

Table for Chart 128: Architecture & Engineering Bachelor's Degrees as a % of All Bachelor's Degrees (by Gender) *Both Public and Private Schools*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
Male	**MA**	10.8%	10.6%	10.7%	-0.1
	US	10.8%	10.7%	10.7%	-0.1
Female	**MA**	2.6%	2.6%	2.7%	0.1
	US	2.0%	1.9%	2.0%	0.0

Table for Chart 129: Life & Physical Science Bachelor's Degrees as a % of All Bachelor's Degrees (by Gender) *Both Public and Private Schools*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
Male	**MA**	6.9%	7.4%	7.9%	1.0
	US	8.3%	8.5%	8.9%	0.6
Female	**MA**	6.9%	7.3%	7.9%	1.0
	US	7.3%	7.4%	7.7%	0.4

Table for Chart 130: Health Professions Bachelor's Degrees as a % of All Bachelor's Degrees (by Gender) *Both Public and Private Schools*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
Male	**MA**	1.6%	2.1%	2.5%	0.9
	US	2.1%	2.5%	2.8%	0.7
Female	**MA**	7.9%	9.1%	10.1%	2.2
	US	9.6%	10.7%	11.8%	2.2

Table for Chart 131: Other STEM Bachelor's Degrees as a % of All Bachelor's Degrees (by Gender) *Both Public and Private Schools*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
Male	**MA**	0.0%	0.0%	0.0%	0.0
	US	0.1%	0.0%	0.0%	-0.1
Female	**MA**	0.0%	0.0%	0.0%	0.0
	US	0.0%	0.0%	0.0%	0.0

Table for Chart 132: Total STEM Bachelor's Degrees as a % of All Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
White	**MA**	21.2%	22.5%	24.0%	2.8
	US	23.5%	24.0%	25.5%	2.0
Non-White	**MA**	23.6%	24.1%	26.3%	2.7
	US	24.0%	24.4%	25.4%	1.4

Table for Chart 133: Computer Science & Math Bachelor's Degrees as % of All Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
White	**MA**	3.5%	3.4%	3.5%	0.0
	US	3.4%	3.2%	3.3%	-0.1
Non-White	**MA**	4.5%	4.1%	4.8%	0.3
	US	4.4%	3.8%	3.9%	-0.5

Table for Chart 134: Architecture & Engineering Bachelor's Degrees as a % of All Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
White	**MA**	5.7%	5.8%	6.2%	0.5
	US	5.6%	5.6%	5.7%	0.1
Non-White	**MA**	6.7%	6.3%	5.9%	-0.8
	US	6.0%	5.7%	5.7%	-0.3

Table for Chart 135: Life & Physical Science Bachelor's Degrees as a % of All Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
White	**MA**	6.6%	6.9%	7.3%	0.7
	US	7.8%	7.9%	8.3%	0.5
Non-White	**MA**	7.4%	8.2%	9.2%	1.8
	US	7.5%	7.9%	8.1%	0.6

Table for Chart 136: Health Professions Bachelor's Degrees as a % of All Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
White	**MA**	5.4%	6.4%	7.1%	1.7
	US	6.6%	7.3%	8.1%	1.5
Non-White	**MA**	5.0%	5.6%	6.5%	1.5
	US	6.0%	7.0%	7.7%	1.7

Table for Chart 137: Other STEM Bachelor's Degrees as a % of All Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
White	**MA**	0.0%	0.0%	0.0%	0.0
	US	0.0%	0.0%	0.0%	0.0
Non-White	**MA**	0.0%	0.0%	0.0%	0.0
	US	0.0%	0.0%	0.0%	0.0

Table for Chart 138: Total STEM Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (for All) *Both Public and Private Schools*				
	2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
MA	27.6%	27.5%	28.0%	0.4
US	26.6%	27.6%	28.7%	2.1

Table for Chart 139: Computer Science & Math Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (for All) *Both Public and Private Schools*				
	2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
MA	3.2%	3.2%	2.8%	-0.4
US	3.1%	3.1%	3.2%	0.1

Table for Chart 140: Architecture & Engineering Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (for All) *Both Public and Private Schools*				
	2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
MA	6.5%	6.5%	7.7%	1.2
US	6.0%	6.4%	6.5%	0.5

Table for Chart 141: Life & Physical Science Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (for All) *Both Public and Private Schools*				
	2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
MA	4.3%	4.2%	3.9%	-0.4
US	4.1%	4.0%	4.1%	0.0

Table for Chart 142: Health Professions Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (for All) *Both Public and Private Schools*				
	2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
MA	13.5%	13.6%	13.6%	0.1
US	13.4%	14.0%	14.8%	1.4

Table for Chart 143: Other STEM Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (for All) *Both Public and Private Schools*				
	2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
MA	0.0%	0.0%	0.0%	0.0
US	0.0%	0.1%	0.1%	0.1

Table for Chart 144: Total STEM Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (by Gender) *Both Public and Private Schools*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
Male	**MA**	33.5%	31.3%	31.9%	-1.6
	US	31.2%	32.0%	32.8%	1.6
Female	**MA**	23.6%	24.8%	25.2%	1.6
	US	23.4%	24.5%	25.7%	2.3

Table for Chart 145: Computer Science & Math Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (by Gender) *Both Public and Private Schools*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
Male	**MA**	5.9%	5.5%	5.0%	-0.9
	US	5.4%	5.3%	5.3%	-0.1
Female	**MA**	1.5%	1.6%	1.3%	-0.2
	US	1.6%	1.6%	1.6%	0.0

Table for Chart 146: Architecture & Engineering Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (by Gender) *Both Public and Private Schools*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
Male	**MA**	11.7%	11.1%	13.0%	1.3
	US	10.8%	11.6%	11.8%	1.0
Female	**MA**	3.0%	3.2%	4.0%	1.0
	US	2.6%	2.7%	2.8%	0.2

Table for Chart 147: Life & Physical Science Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (by Gender) *Both Public and Private Schools*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
Male	**MA**	5.9%	5.2%	4.9%	-1.0
	US	5.2%	5.0%	5.1%	-0.1
Female	**MA**	3.2%	3.5%	3.1%	-0.1
	US	3.3%	3.3%	3.4%	0.1

Table for Chart 148: Health Professions Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (by Gender) *Both Public and Private Schools*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
Male	**MA**	10.0%	9.4%	9.1%	-0.9
	US	9.7%	9.9%	10.3%	0.6
Female	**MA**	15.9%	16.5%	16.8%	0.9
	US	15.9%	16.9%	17.9%	2.0

Table for Chart 149: Other STEM Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (by Gender) *Both Public and Private Schools*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
Male	**MA**	0.0%	0.0%	0.0%	0.0
	US	0.1%	0.2%	0.3%	0.2
Female	**MA**	0.0%	0.0%	0.0%	0.0
	US	0.0%	0.0%	0.0%	0.0

Table for Chart 150: Total STEM Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*					
		2007	**2009**	**2011**	**Percentage Point Change 2007-2011**
White	**MA**	24.3%	23.7%	25.0%	0.7
	US	24.4%	25.3%	26.3%	1.9
Non-White	**MA**	31.2%	31.6%	31.5%	0.3
	US	29.8%	30.8%	31.7%	1.9

Table for Chart 151: Computer Science & Math Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*					
		2007	2009	2011	Percentage Point Change 2007-2011
White	MA	1.5%	1.8%	1.8%	0.3
	US	1.9%	1.8%	1.8%	-0.1
Non-White	MA	4.5%	4.8%	4.0%	-0.5
	US	4.9%	5.0%	5.0%	0.1

Table for Chart 152: Architecture & Engineering Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*					
		2007	2009	2011	Percentage Point Change 2007-2011
White	MA	4.6%	4.7%	6.4%	1.8
	US	3.9%	4.1%	4.3%	0.4
Non-White	MA	8.7%	8.4%	9.3%	0.6
	US	9.0%	9.5%	9.4%	0.4

Table for Chart 153: Life & Physical Science Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*					
		2007	2009	2011	Percentage Point Change 2007-2011
White	MA	3.6%	3.2%	3.2%	-0.4
	US	3.8%	3.7%	3.8%	0.0
Non-White	MA	5.1%	5.3%	4.7%	-0.4
	US	4.5%	4.4%	4.5%	0.0

Table for Chart 154: Health Professions Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*					
		2007	2009	2011	Percentage Point Change 2007-2011
White	MA	14.0%	14.0%	13.6%	-0.4
	US	14.8%	15.8%	16.3%	1.5
Non-White	MA	13.0%	13.1%	13.5%	0.5
	US	11.3%	11.7%	12.7%	1.4

Table for Chart 155: Other STEM Above Bachelor's Degrees as a % of All Above Bachelor's Degrees (by Race/Ethnicity) *Both Public and Private Schools*					
		2007	2009	2011	Percentage Point Change 2007-2011
White	MA	0.0%	0.0%	0.0%	0.0
	US	0.0%	0.1%	0.1%	0.1
Non-White	MA	0.0%	0.0%	0.0%	0.0
	US	0.0%	0.2%	0.2%	0.2