

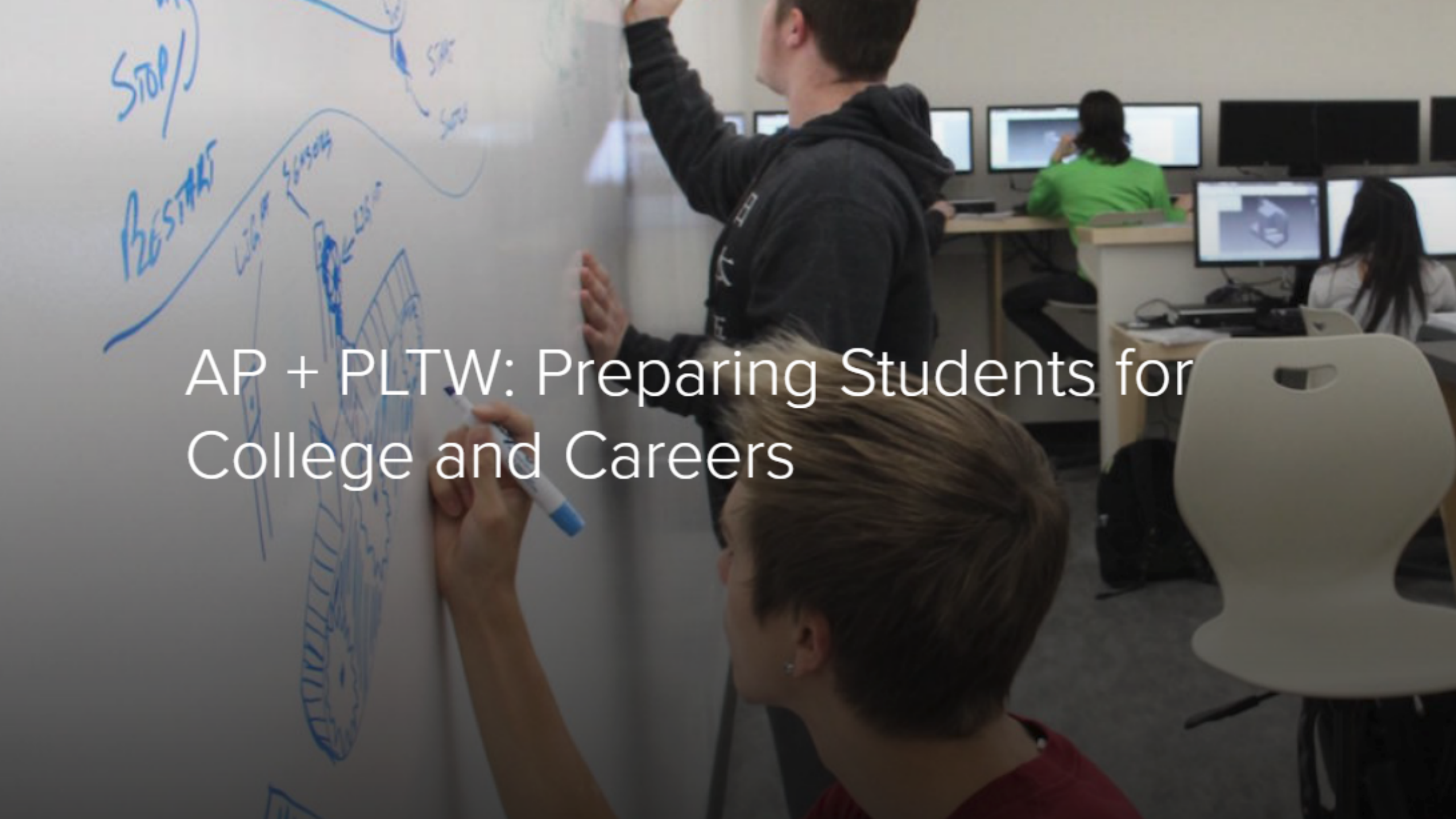


# AP + PLTW Student Recognition

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A photograph of a classroom or computer lab. In the foreground, a student with short brown hair is writing on a whiteboard with a blue marker. The whiteboard has several diagrams and handwritten notes in blue ink, including the word "STOP" and "PRESTARS". In the background, other students are seated at desks with multiple computer monitors. One student is wearing a bright green shirt. The room is brightly lit, and the overall atmosphere is one of active learning and collaboration.

# AP + PLTW: Preparing Students for College and Careers



# Agenda

- Project Lead The Way Overview
- College Board and Advanced Placement Overview
- College Board and Project Lead The Way Partnership
  - Objectives
  - Overview of key elements
  - Recognitions



*Elementary School*

**Launch**

*Middle School*

**Gateway**

*High School*

**Engineering**

**Biomedical Science**

**Computer Science**

**Computer Science**

**Engineering**

**Biomedical Science**





# College Board and Advanced Placement



# About the College Board

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- A mission-driven, not-for profit organization, the College Board, through its programs and initiatives, **challenges all students to own their future** by practicing hard and taking advantage of every opportunity they earn.
- The College Board's work is organized around:
  - Focused Assessments
  - Instruction and Personalized Practice
  - College Opportunities
  - Career Opportunities

# About Advanced Placement

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- Through the Advanced Placement (AP) program, academically willing and prepared students can access the challenging course work that is essential for college and career success.
- Research shows that students who score a 3 or higher on an AP exam typically:
  - Earn higher GPAs in college
  - Take more – not less – college course work in the discipline
  - Are more likely to graduate in four years
  - Have higher graduation rates
- Additionally, research shows that students who took AP math and science were more likely than non-AP students to earn degrees in physical science, engineering, and life science disciplines.

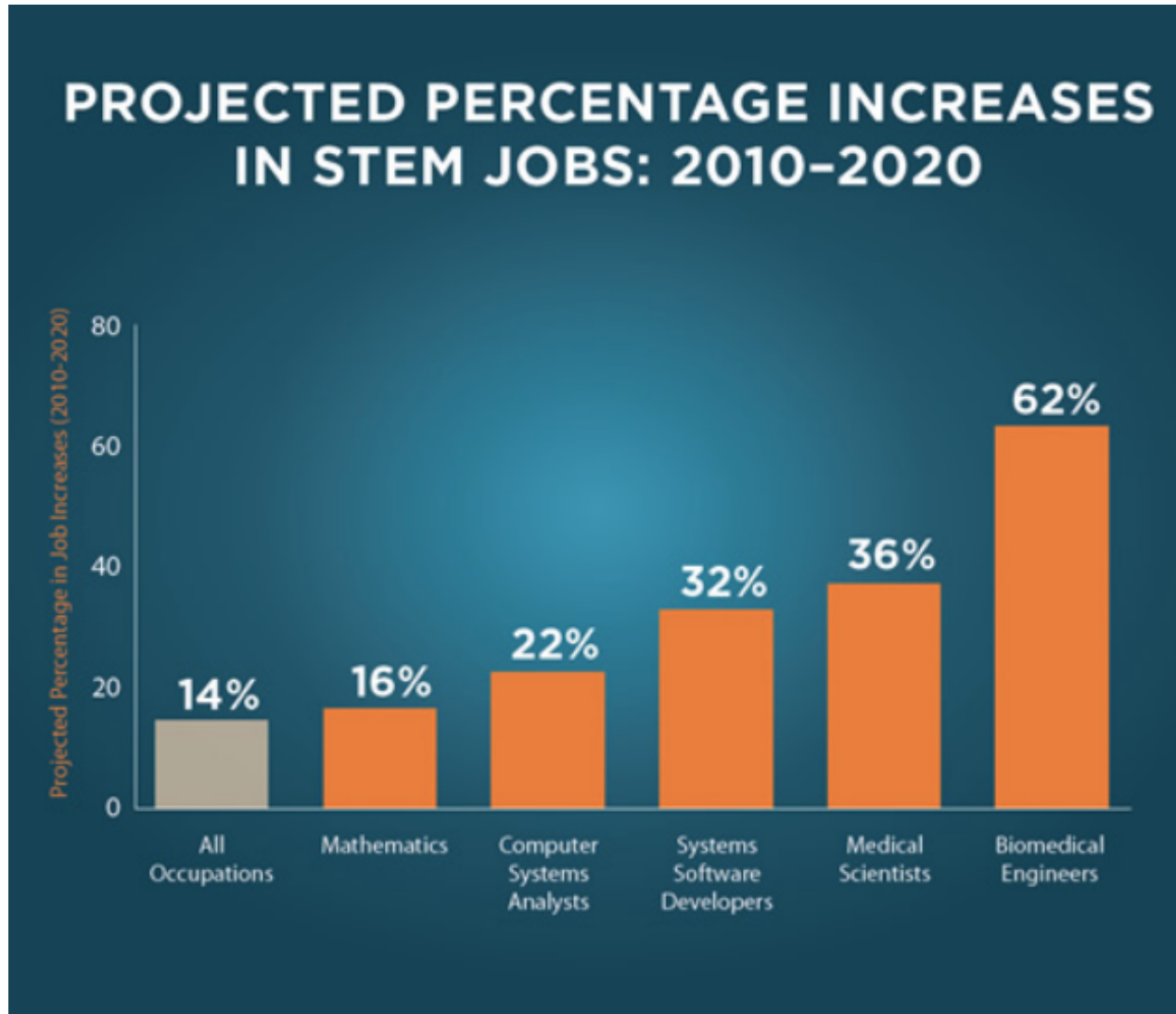




# College Board and PLTW Partnership



# The Challenge



# The Challenge

In Massachusetts, STEM jobs are growing faster than other jobs

Between 2017 and 2027 in Massachusetts



STEM jobs will grow

7%

▲ 8% Computing

▼ -2% Engineering

▲ 1% Advanced Manufacturing

All other jobs will grow

3%



# The Challenge

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Success in Advanced Placement courses can put more students on a path to STEM careers.

Of the high school graduating class of 2015 in Massachusetts:

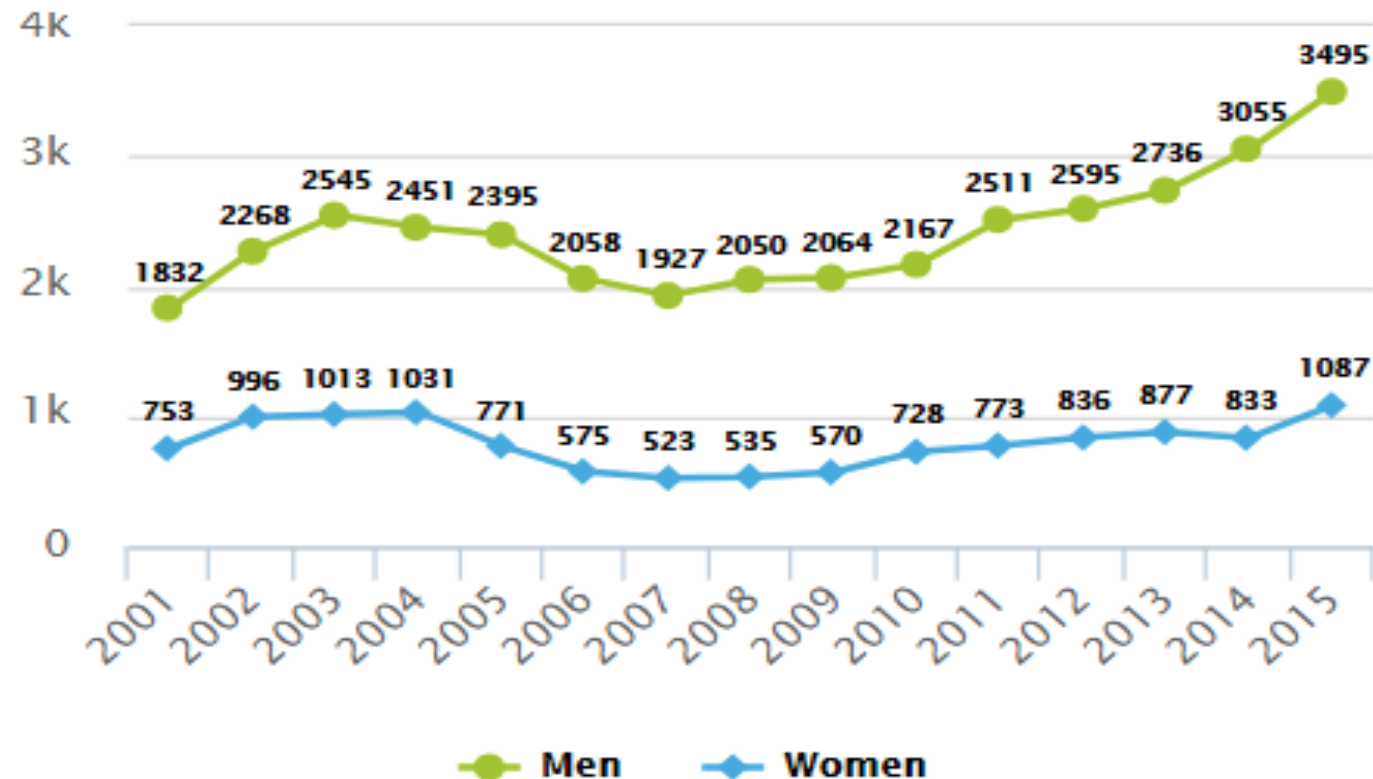
	Took AP Math Exam	Scored 3+ on AP Math Exam
All Students	20%	13%
White	19%	13%
Black	12%	4%
Hispanic	11%	4%
Asian	49%	36%
American Indian/Alaskan Native	19%	7%

# The Challenge

## Women have lost ground in computing

The available talent in computer science would rise dramatically if the state simply closed the gender gap in these subjects.

Number of computing degrees/certificates in Massachusetts



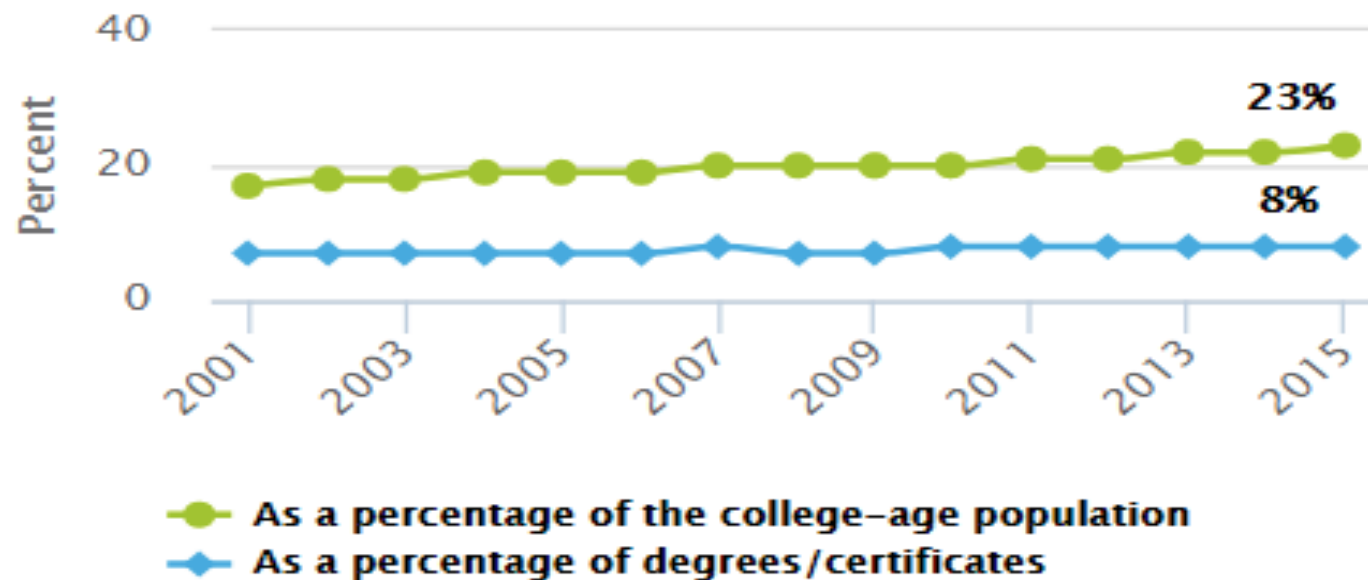
SOURCE: U.S. Department of Education, 2009-2015

# The Challenge

## People of color are not gaining ground in engineering degrees

It is critical to prepare and inspire many more students of color to pursue STEM subjects such as computer science and engineering.

Underrepresented minorities in Massachusetts earning engineering degrees/certificates



SOURCE: U.S. Department of Education, 2009-2015



# Core Objectives

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## College Board and PLTW Partnership:

Opportunities for ALL students to become college AND career ready

- Increase the **number and diversity** of students who develop interest in and readiness for STEM degrees and careers
- Provide these students with **academic and applied learning** courses that prepare them for college and career
- Increase **opportunities and recognition** for students who demonstrate college and career readiness

# Key Elements

## Connect

## Recognize

## Opportunity

- Connecting AP® courses and PLTW programs to create **college and career pathways in engineering, biomedical science, and computer science** that include:
  - PLTW introductory and specialization courses that *emphasize applied learning*
  - AP courses provide an opportunity to take *challenging college-level course work and the potential to earn college credit.*
- **Recognitions** for students and schools in engineering, biomedical science, and computer science — similar to AP Scholar Awards
- A portfolio of **career-focused opportunities** sponsored by key industry partners, including work-based learning, mentorship, scholarship, and preferential application.

# AP+PLTW Pathways

	Engineering	Biomedical Science	Computer Science
AP Courses	<ul style="list-style-type: none"> <li>• AP Biology</li> <li>• AP Calculus AB</li> <li>• AP Calculus BC</li> <li>• AP Chemistry</li> <li>• AP Environmental Science</li> <li>• AP Physics 1: Algebra-Based</li> <li>• AP Physics 2: Algebra-Based</li> <li>• AP Physics C: Electricity and Magnetism</li> <li>• AP Physics C: Mechanics</li> <li>• AP Statistics</li> <li>• AP Computer Science Principles</li> </ul>	<ul style="list-style-type: none"> <li>• AP Biology</li> <li>• AP Chemistry</li> </ul>	<ul style="list-style-type: none"> <li>• AP Computer Science Principles</li> <li>• AP Computer Science A</li> </ul>
PLTW Courses	<ul style="list-style-type: none"> <li>• Introduction to Engineering Design</li> <li>• Principles of Engineering</li> <li>• Digital Electronics</li> <li>• Computer Integrated Manufacturing</li> <li>• Aerospace Engineering</li> <li>• Civil Engineering and Architecture</li> <li>• Environmental Sustainability</li> </ul>	<ul style="list-style-type: none"> <li>• Principles of Biomedical Science</li> <li>• Human Body Systems</li> <li>• Medical Interventions</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction to Computer Science</li> <li>• Cybersecurity (Fall 2018 launch)</li> </ul>

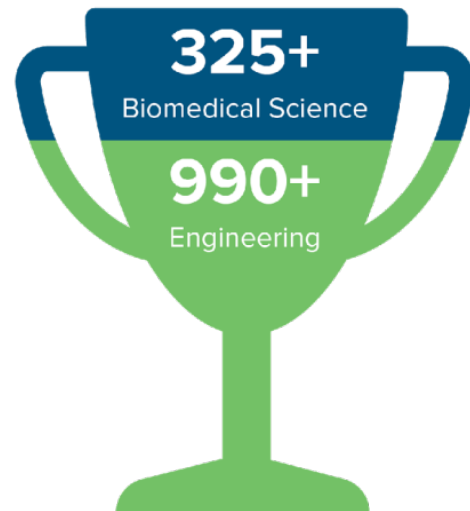


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# AP+PLTW Student Achievement Recognition

- Student must earn 3 qualifying scores: one AP Exam score of 3 or higher; one PLTW score of Proficient or higher on the PLTW End-of-Course (EoC) assessment(s); and a score either AP or PLTW
- Student must submit an application at [apandpltw.org](http://apandpltw.org)
  - Applications must be submitted by **June 30**
  - Students will learn about the status of their application in the Fall
- Students earning the recognition will receive an **email and certificate** in the email congratulating them on their recognition
- Colleges and universities receiving AP score reports from students awarded the AP+PLTW recognition will also receive AP+PLTW Achievement results

# 2015-16 AP+PLTW Student Achievement Results



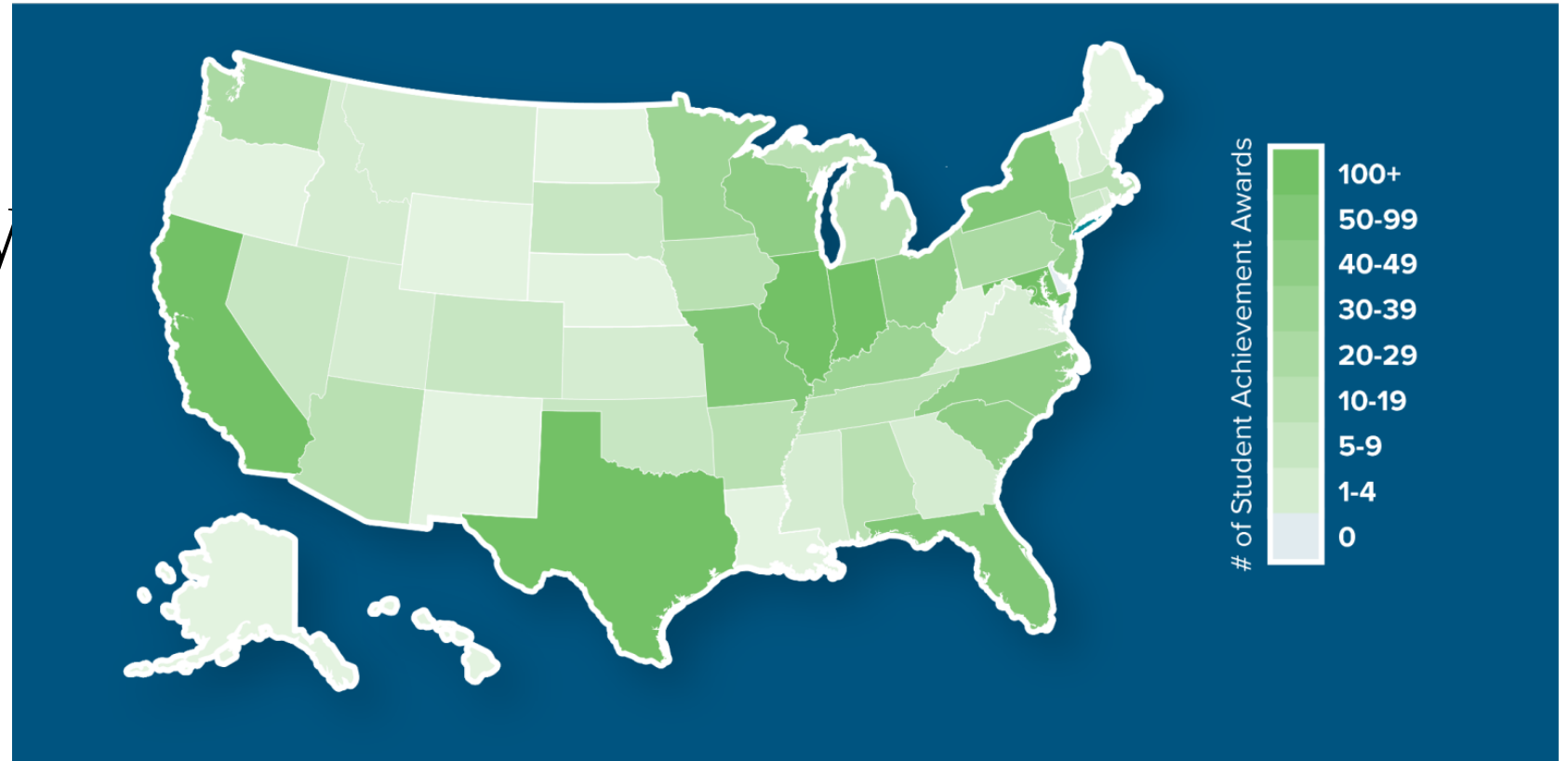
More than  
**1,300**  
AP + PLTW  
Student  
Achievements  
awarded.

Note: Since the 2015-16 school year was the first time two of courses in the AP + PLTW Computer Science pathway were offered, no students were eligible to receive the AP + PLTW Student Achievement in Computer Science for 2015-16.

**18** students received  
awards in two pathways.



# 2015-16 AP+PLTW Student Achievement Results

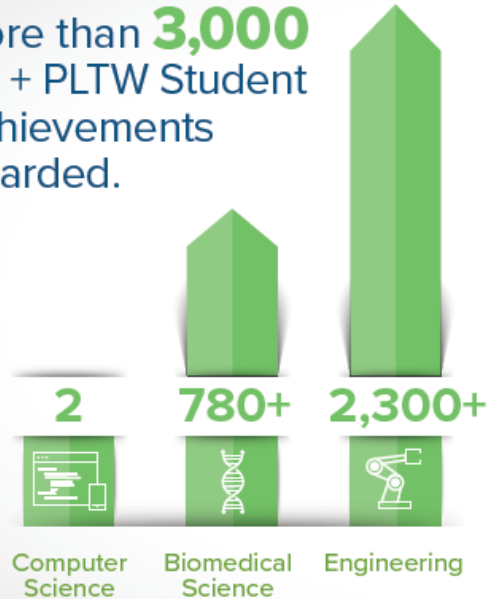


# 2016-17 AP+PLTW Student Achievement Results

TOTAL INCREASE IN AP + PLTW STUDENT  
ACHIEVEMENT FROM 2015-2016

134%

More than **3,000**  
AP + PLTW Student  
Achievements  
awarded.



**2** Students became the first to earn recognition in Computer Science

**142%** Increase in Biomedical Science

**135%** Increase in Engineering

**75**

Students received recognition in both Biomedical Science and Engineering

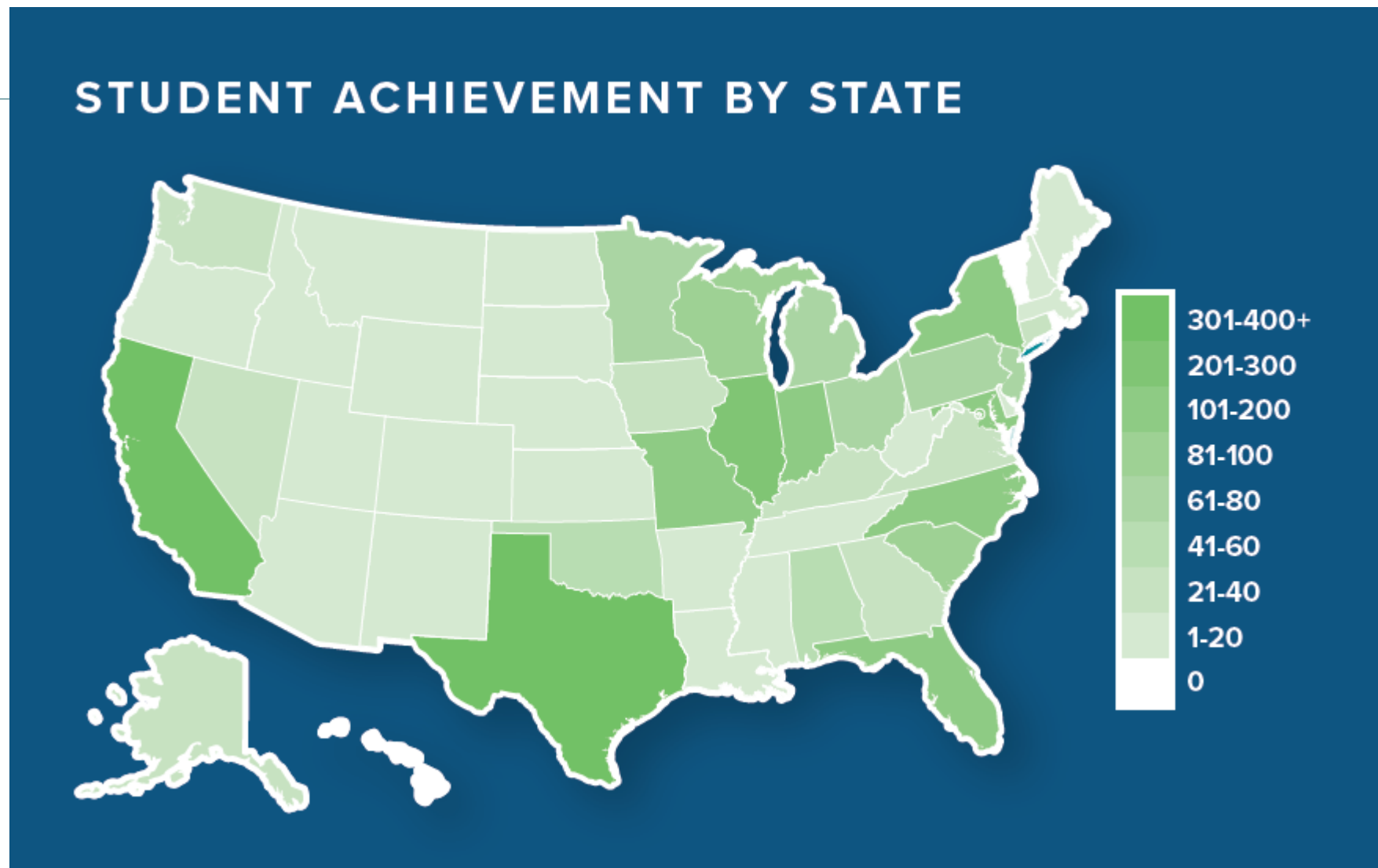


**322%**

Increase in students from previous year



# 2016-17 AP+PLTW Student Achievement Results



# Student Registration



## Welcome to the AP + PLTW Student Achievement Process

*The College Board and Project Lead The Way are excited to provide you with an opportunity to earn recognition for your AP and PLTW coursework. To earn this student achievement, you must complete three courses in a pathway - one AP course; one PLTW course; and a third course, either AP or PLTW - and earn a qualifying score of 3 or higher on the AP Exam(s) and a score of Proficient or higher on the PLTW End-of-Course (EoC) Assessment(s).*

*To start the AP + PLTW student achievement application process, you'll complete three easy steps.*

- 1. Create and/or login to your College Board account*
- 2. Verify your email address*
- 3. Provide us with personal information and details regarding your PLTW coursework.*

*Applications received by June 30 will be considered for awards issued the following fall.*

- Students should go to <https://www.apandpltw.org/>

# Student Registration Process



Create or login into their College Board Account



Verify their email address



Provide personal information, details about their PLTW coursework, and permission to release their End of Course scores to College Board



Eligibility for the AP + PLTW Student Achievement Award is determined each summer with awards announced in the fall



Registration deadline is June 30th for that year's awards



# Thank You



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