



WEYMOUTH PUBLIC SCHOOLS

Strong Schools  Strong Community

STEM Plan Development for WPS

School Committee Update

April 2015

U.S. Workforce through 2020

All Occupations 164 million

All STEM Jobs 9.2 million

**Computing Jobs
4.6 million**

Source: Jobs data and mean annual wages are from the Bureau of Labor Statistics (BLS), Employment Projections 2010-2020, available at <http://www.bls.gov/emp>



{ 30% }

Nationally

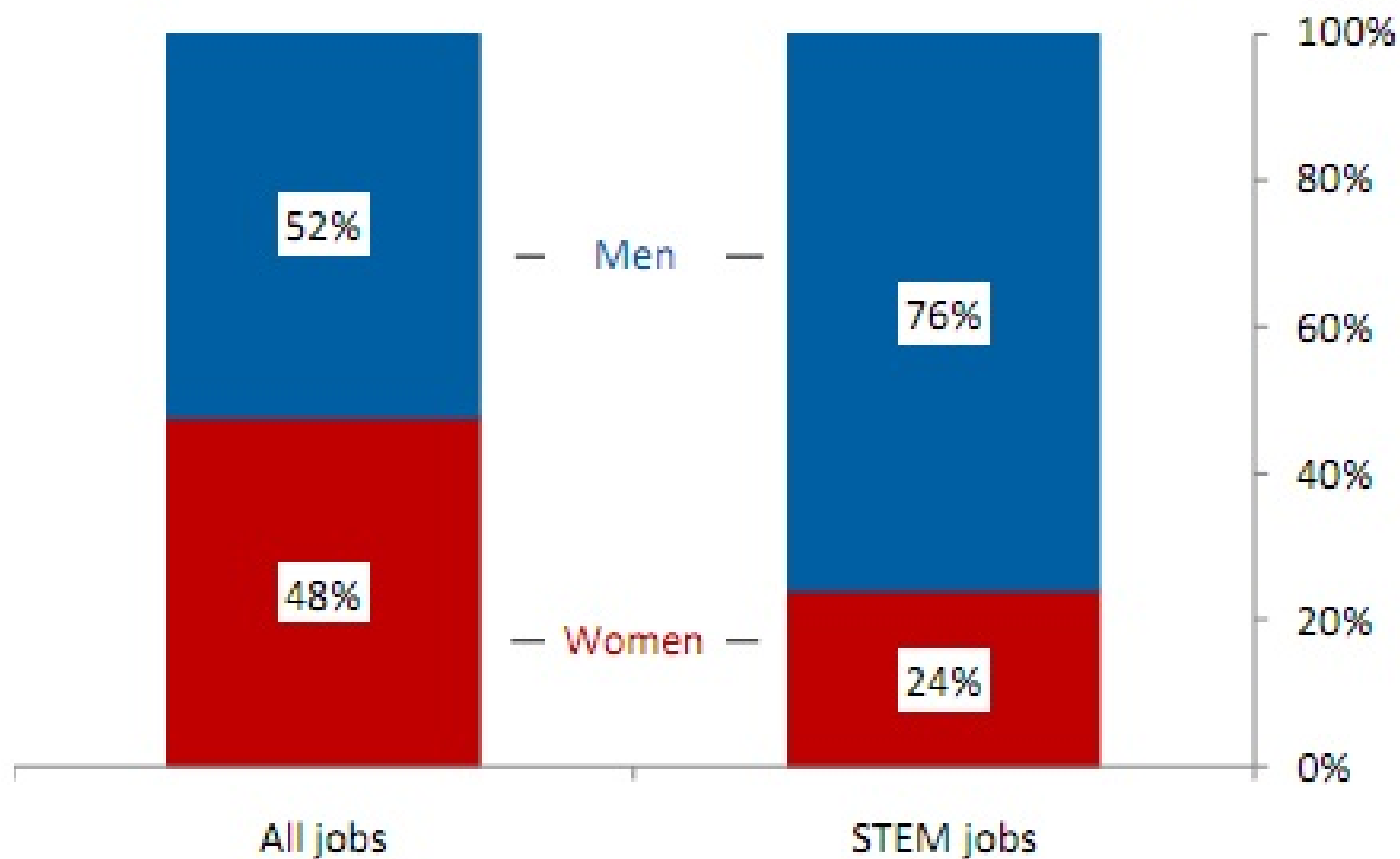
Only 30% of 12th-graders who took the ACT test are ready for college-level work in science.

{CHANGE THE
EQUATION}

STEMtistics



Figure 1. Gender Shares of Total and STEM Jobs, 2009

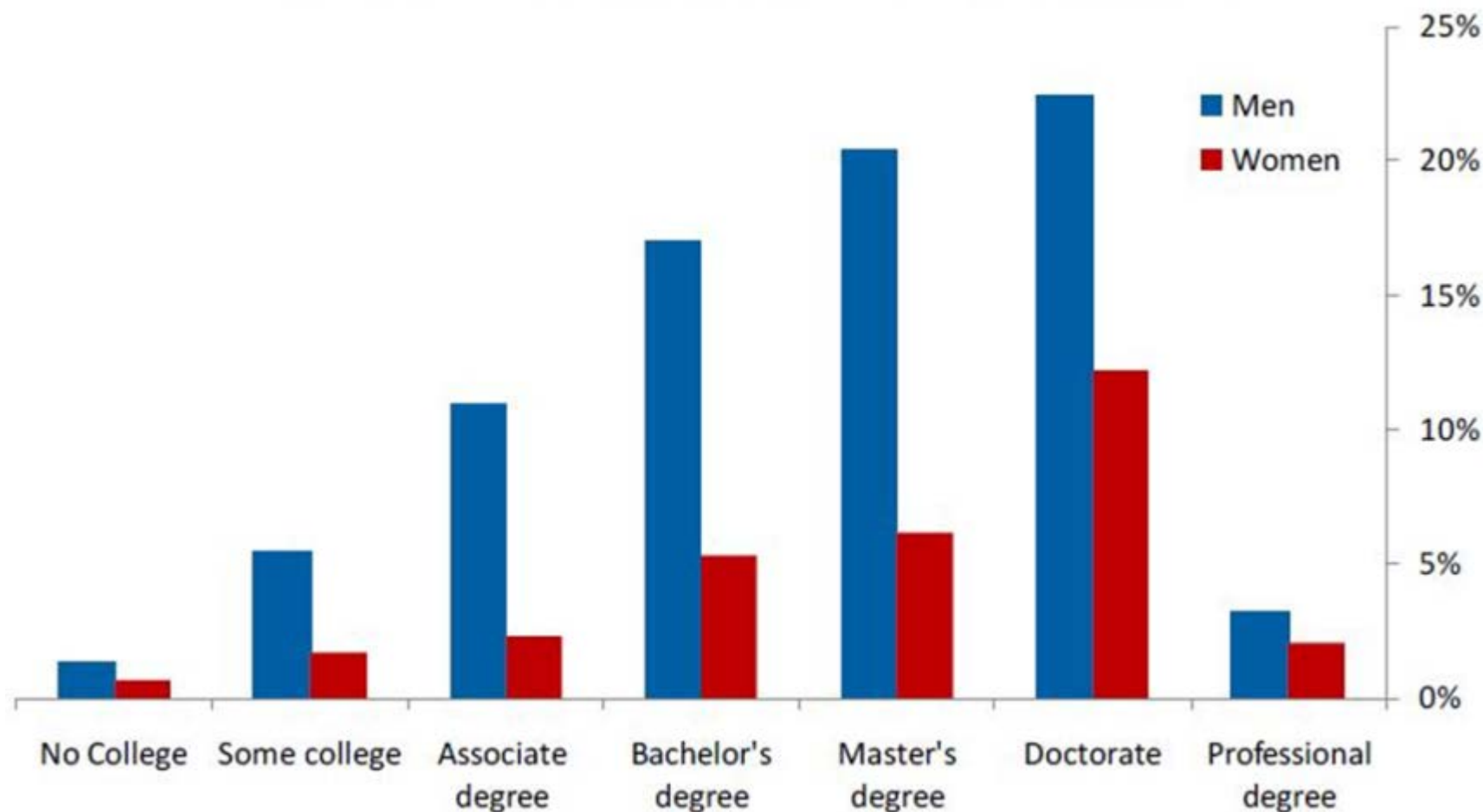


Source: ESA calculations from American Community Survey public-use microdata.

Note: Estimates are for employed persons age 16 and over.



**Figure 2. Share of Workers in STEM Jobs
by Gender and Educational Attainment, 2009**



Source: ESA calculations from American Community Survey public-use microdata.

Note: Professional degrees include medical, dental, veterinary, and law degrees. Estimates are for employed persons age 16 and over.



ENGINEERING **PAYS OFF**

\$79,000

annual mean wage for Engineering

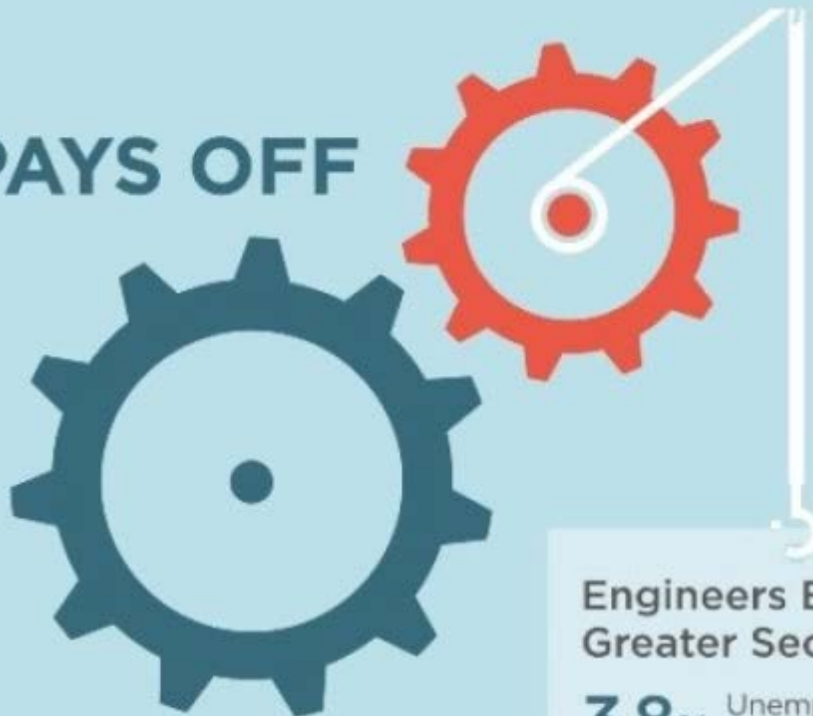
(Engineering occupations includes all engineering and architecture occupations, including Engineering Technical occupations, which most often require less than a bachelor's degree)

\$45,790

annual mean wage for all occupations

Source: Bureau of Labor Statistics, 2012

**{CHANGE THE
EQUATION}**



Engineers Enjoy Greater Security

3.8% Unemployment
rate for engineers

7.0% Unemployment rate
for all occupations

Source: Bureau of Labor Statistics, 2014



Overview

- Katherine Honey, Director of SE STEM Regional Network
 - MA STEM Pipeline – value and reason
 - Involvement in SE STEM Regional Network
- Goals and Overview
- Plan and Accomplishments
- Opportunities
 - Kevin Lyons, Class of 2016



STEM Development Team

- Laura Stevenson, co-chair
- Dr. Salim, co-chair
- Dr. Whipple, Asst. Superintendent
- Kelly Stukenborg, WHS Associate Principal
- Cathie Rebello, WHS CTE Director
- Dan Birolini, Adams Principal
- Paul Duprey, Chapman Principal
- Jeremy Burm, Hamilton Principal
- Maryann Bryan, Academy teacher





STEM Goals

Weymouth established four STEM goals:

- Engage students in STEM experiences across content areas
- Encourage teachers to participate in STEM professional development
- Make connections between STEM and career and college opportunities
- Produce STEM literate students ready to face tomorrow's challenges through problem solving, communication, critical thinking, computational thinking and grit



Small Steps...

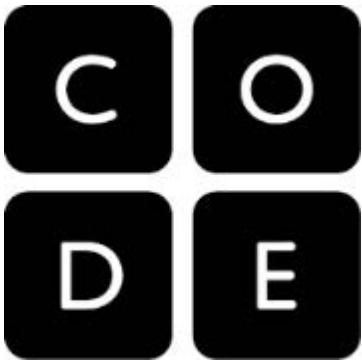


- Discussion- authentic, enriching, celebration, awareness, aligned, interest, engaging
- Connections to teaching and learning
 - Real world connections to College and Career Readiness (CCR)
 - Growth Mindset & Grit
 - Accountable Talk
 - Universal Design for Learning (UDL)
- Interdisciplinary
- Sustainable



STEM Lessons

- STEM lessons – grades 3, 6 & 7
 - Hour of Code
 - Introduction to STEM
 - Pi Day
 - And others....



Next Steps

- Grades pK, 1, and 8





STEM EXPERIENCES & OPPORTUNITIES

STEM Conference for Girls

- Partnership with AAUW
- Saturday, April 11th, 2015
- @ WHS cost \$10
- 8 AM – 1 PM

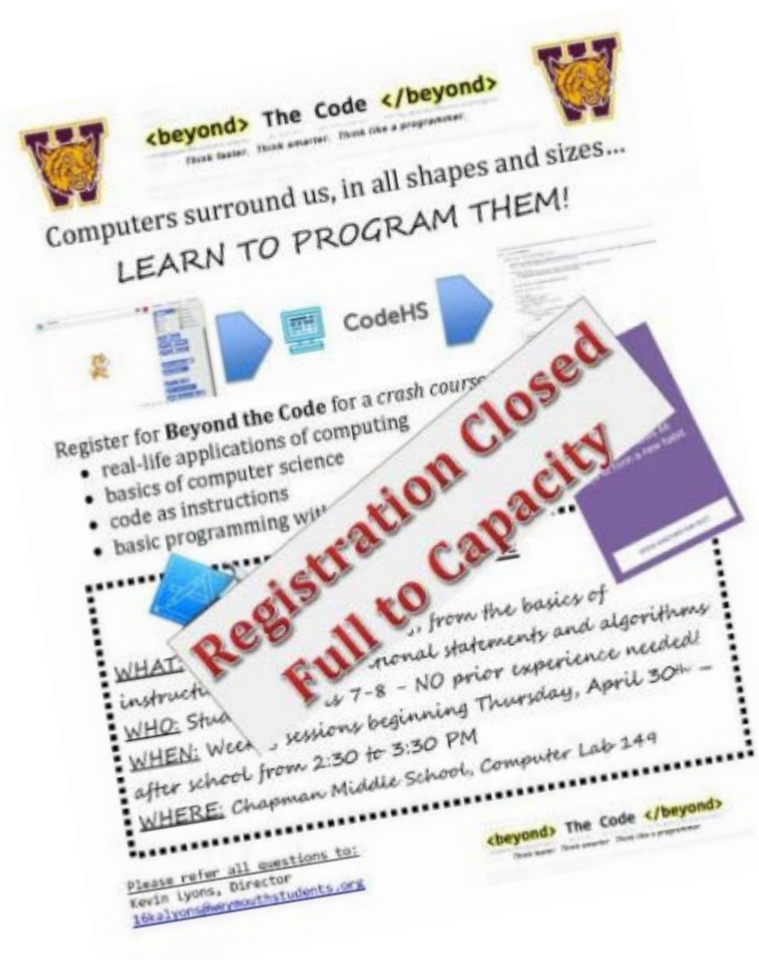


Envision the Future

- Residential Program for girls ages 11-13
- Bridgewater State University July 20 – July 24, 2015
- Program of the SE MA STEM Network
- Designed to foster interest in STEM fields by modeling effective practices
- Provide opportunities for girls to engage in challenging STEM activities, explore career options with STEM professionals, meet women role models in STEM fields, and connect with other girls with similar interests and aspirations
- Key Partners include: American Association of University Women (AAUW), Bridgewater State University, CONNECT Partnership, and the Office of Congressman Joseph Kennedy.



Beyond the Code



- Enrichment club for 6 weeks at Chapman
- Kevin Lyon, WHS class of 2016
- 25 students from 7th and 8th grade
- Expanding to other schools



We need you!



- Do you work in a STEM field?
- Are you passionate about STEM opportunities for students?
- Do you have real-world, industry-standard experience to help guide STEM in WPS?
- Contact laura.stevenson@weymouthschools.org

