Digital Opportunities in NEW Fox Valley Technical College
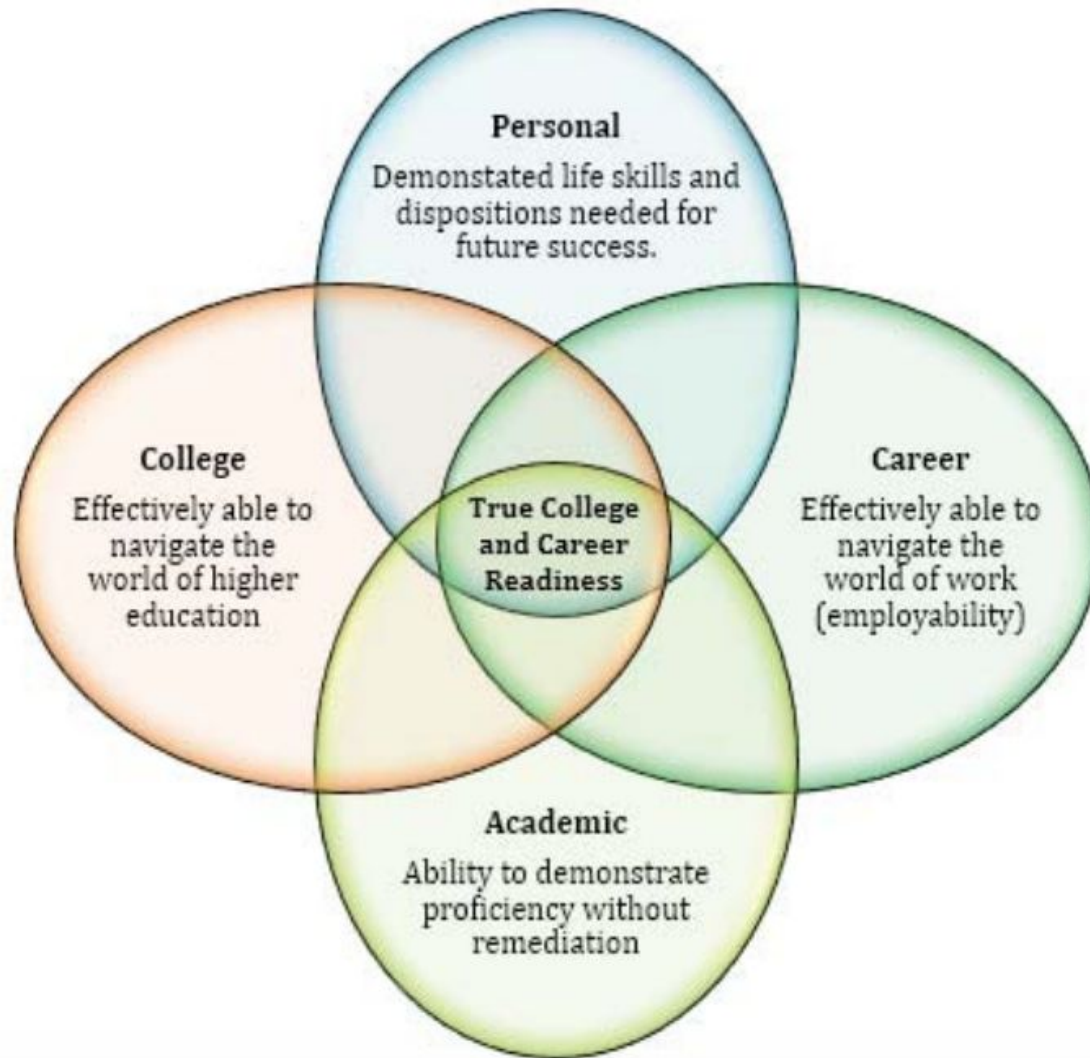## June 11, 2018

Laura Schmidt
Strategic Advisor to the Superintendent

Growing "Tech" Talent: Regional Strategies

BEST PRACTICE

SDNB Case Study: Always Start With Why

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Delivering the Vision of a College and Career Ready Graduate

> *As a State, we need to go beyond the traditional measures of College and Career Readiness if our students are to succeed in the projected economy. It is our collective work to help students develop a diverse set of talents that can fuel innovation and job creation while supporting projected workforce needs. Academic and Career Planning is one of many important aspects of this work...*
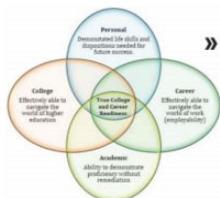>
> – SDNB Superintendent Joe Garza

School District of New Berlin's Journey

2012	2013	2014	2015	2016

» Joint Legislative Committee (2012)

» Charter "College & Career Readiness" Initiative (2013)

» Define "Vision of SDNB Graduate" (2013)

» Align Strategic Plan (2013)
– Key message: Build upon foundation of academic success

» Community Outreach – "Partners In Education" (2013)

» Deepen learning experiences in targeted areas (2014-2015)
– Nursing Program
– Information Technology Program
– Manufacturing Foundations Program

» Implement ACP scope and sequence G6-12 (2014-2015)

» Student Campaign – "Own Your Voyage" (2014-2015)

» Deepen organization culture of ACP mentorship (2015-16)
– Align school improvement plans
– Building vs. district level leadership teams
– Professional learning for all staff
– Incorporate CCR 'Dispositions' in grading/reporting
– Expand parent engagement efforts

» Align related programs (2015-16)
– Gifted and Talented
– Special Education

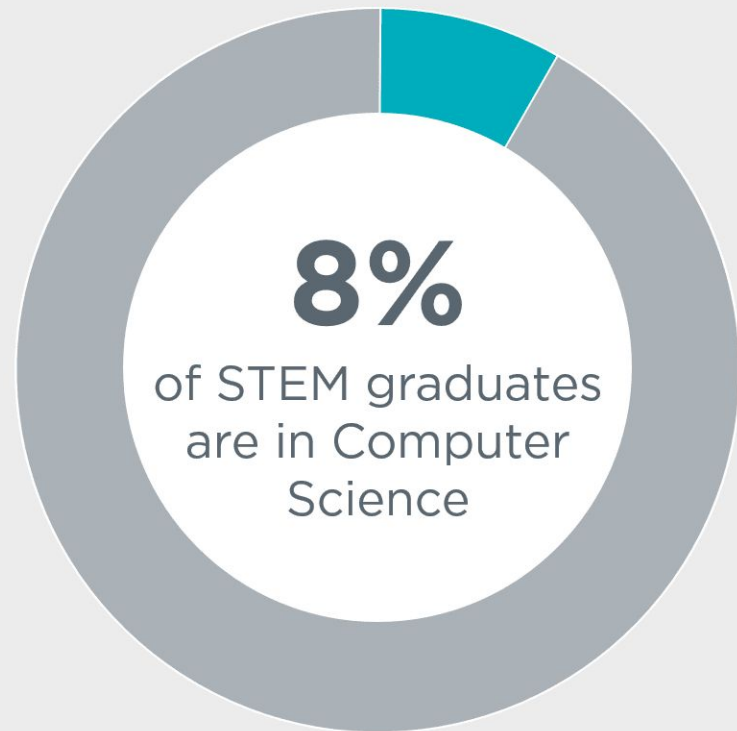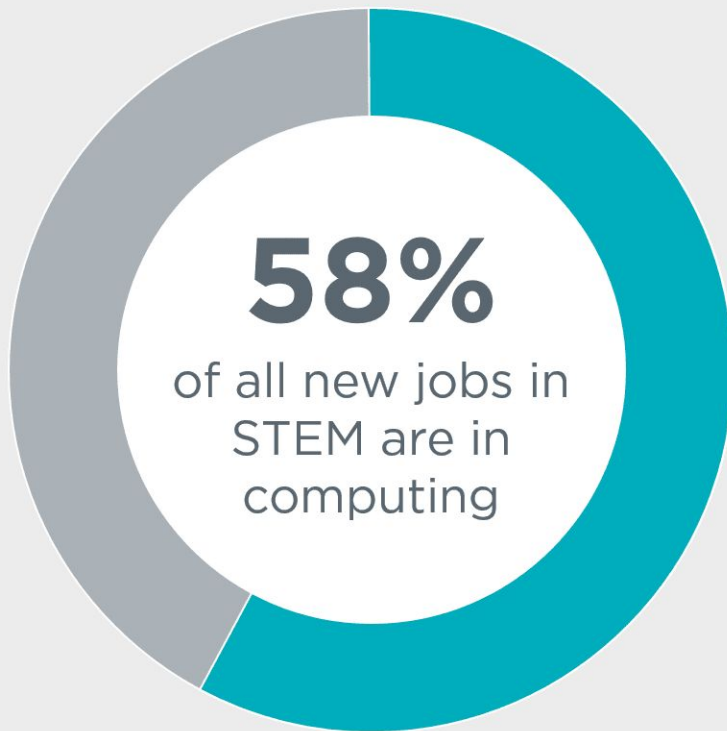» Expand CCR "Data Dashboard" (2015-16)

» Continuous Improvement (ongoing)

» Regional/State advocacy to address perceived barriers (ongoing)
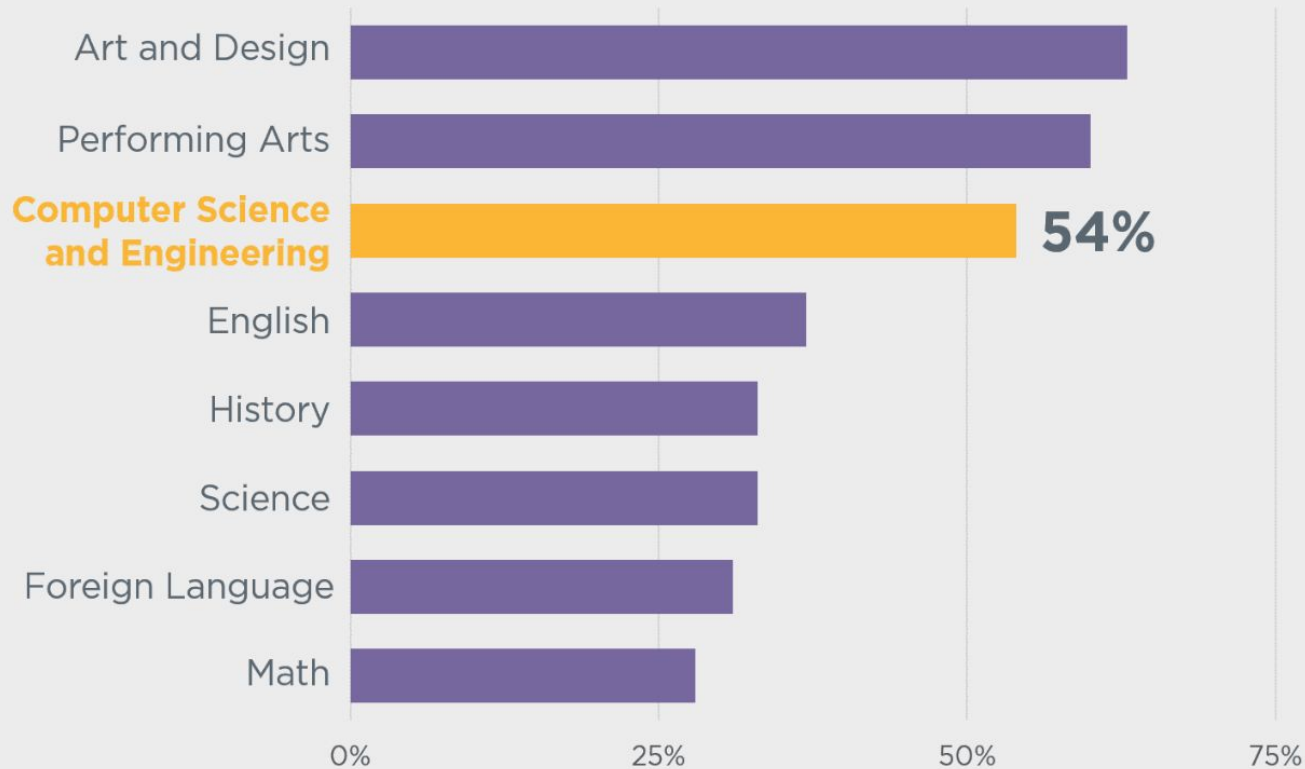
» Assess infrastructure gaps, charter projects (2013-2015)
– Implement career and technical 'core'
– Implement financial literacy 'core'
– Increase elective technical coursework
– Increase career exposure
– Increase Career and Technical Student Organizations (CTSO)
– Develop experiential learning program
– Strengthen elementary alignment
– Strengthen post-secondary alignment
– Demonstrate value for broader range of pathways

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The "STEM" problem is in computer science

58%
of all new jobs in STEM are in computing

8%
of STEM graduates are in Computer Science

https://code.org/promote

What subjects do students like "a lot"?

Bar chart showing percentage of students who like each subject "a lot":

- Art and Design
- Performing Arts
- **Computer Science and Engineering** — **54%**
- English
- History
- Science
- Foreign Language
- Math

X-axis: 0%, 25%, 50%, 75%

Students enjoy **computer science** and the arts **the most**!

Growing "Tech" Talent: Local Strategies

- District Culture, Leadership
- K12 Academic and Career Planning
- Grade 7 Technical Wheel (Elective)
- Broaden Scope of "Tech Pathways"
- K12 Co-curriculars
- Career Based Learning Opportunities
- Engaging Girls
- Community Supports
- Define & Measure "Technological Literacy"
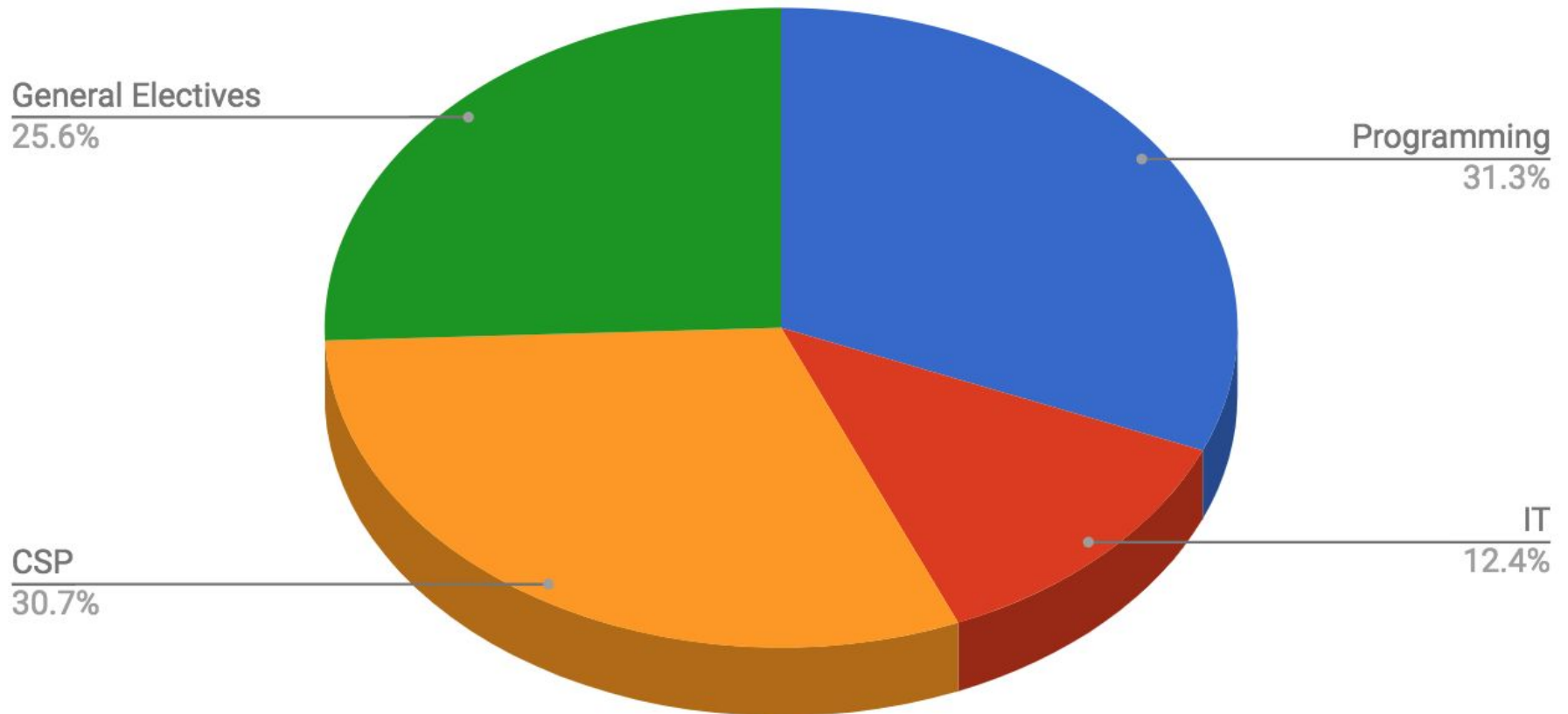
Percent of SDNB Students taking Computer Science,
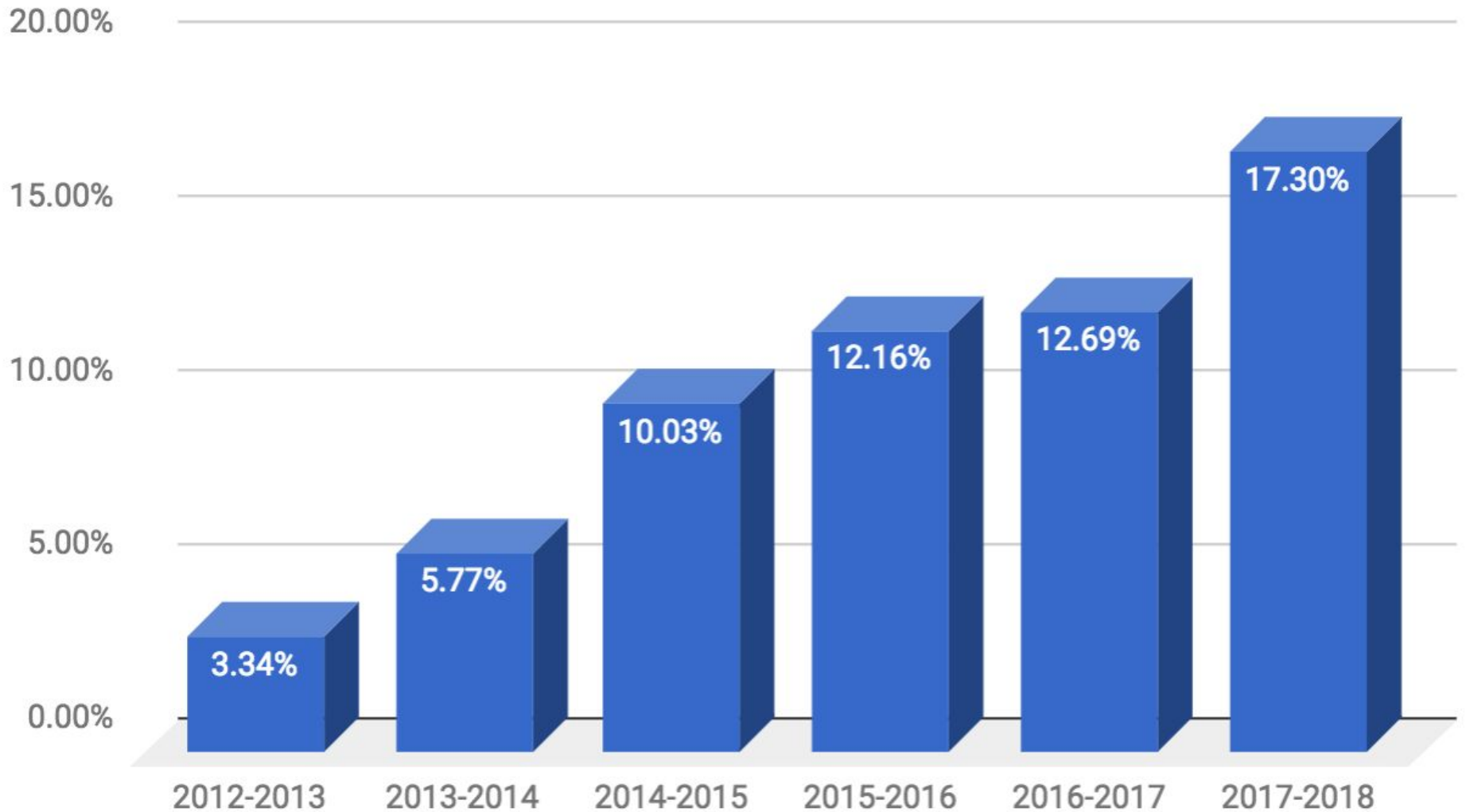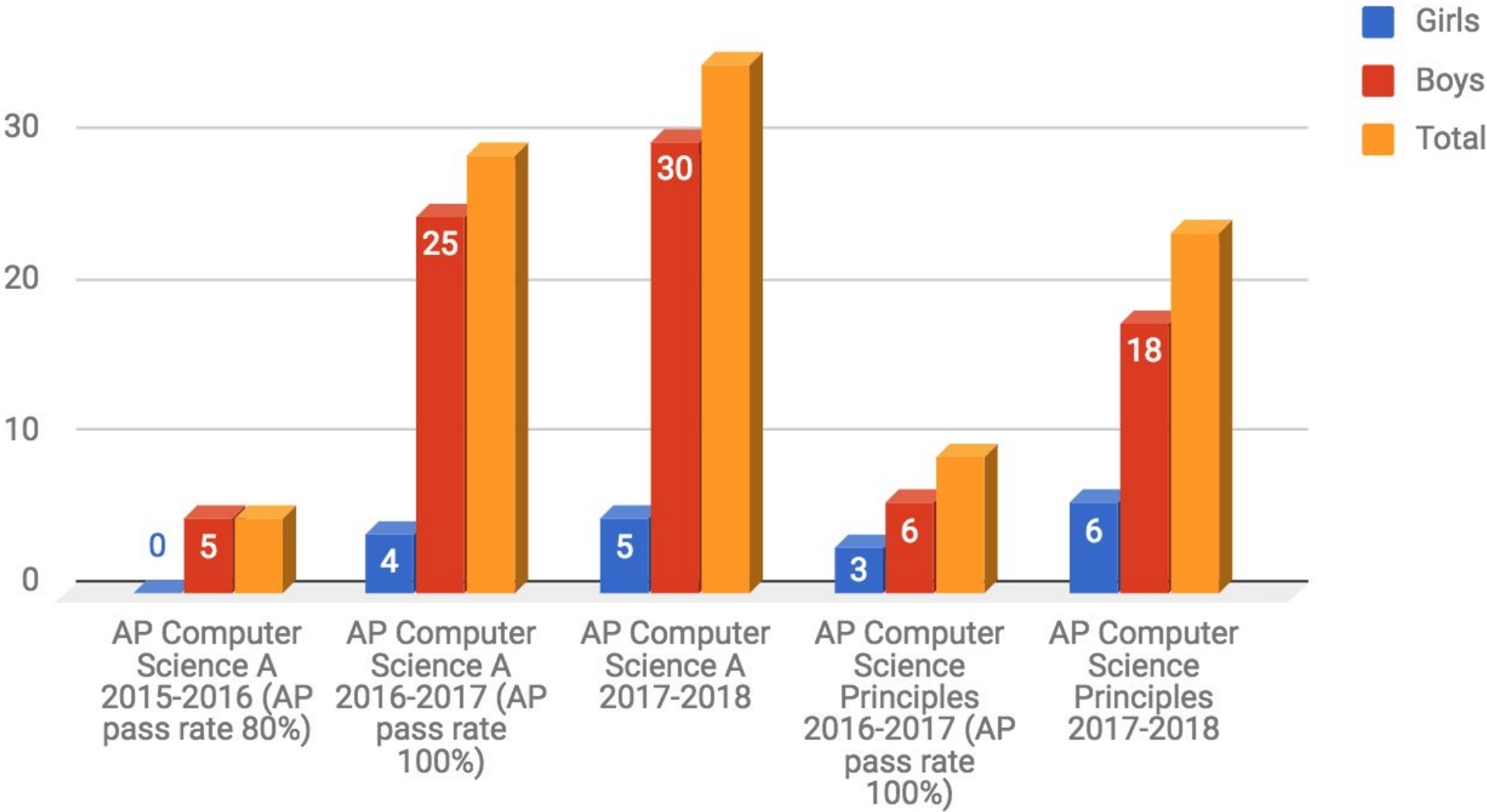
More Options = More Student Engagement

Creative Thinkers Wanted

Introducing
AP® Computer Science Principles
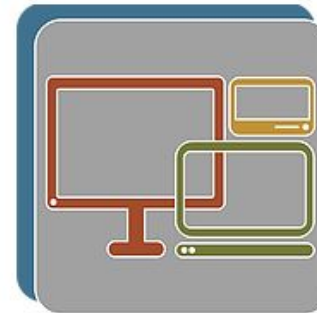
TechKNOW
Student Helpdesk
School District of New Berlin
Expect Excellence

COMPUTER SCIENCE A

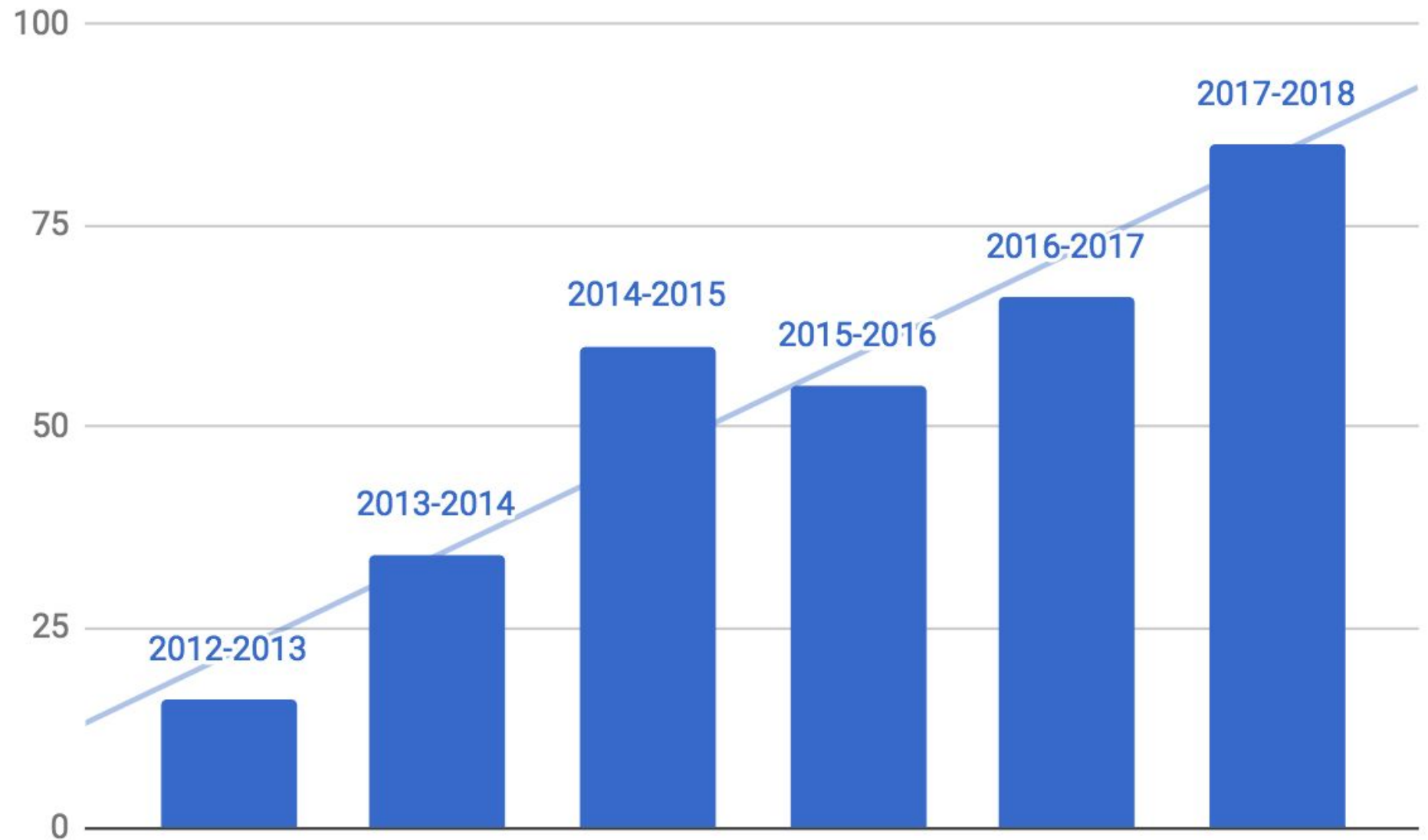# Area of Interest in 2017-18

Advanced Placement Courses (AP) Enrollment Trends
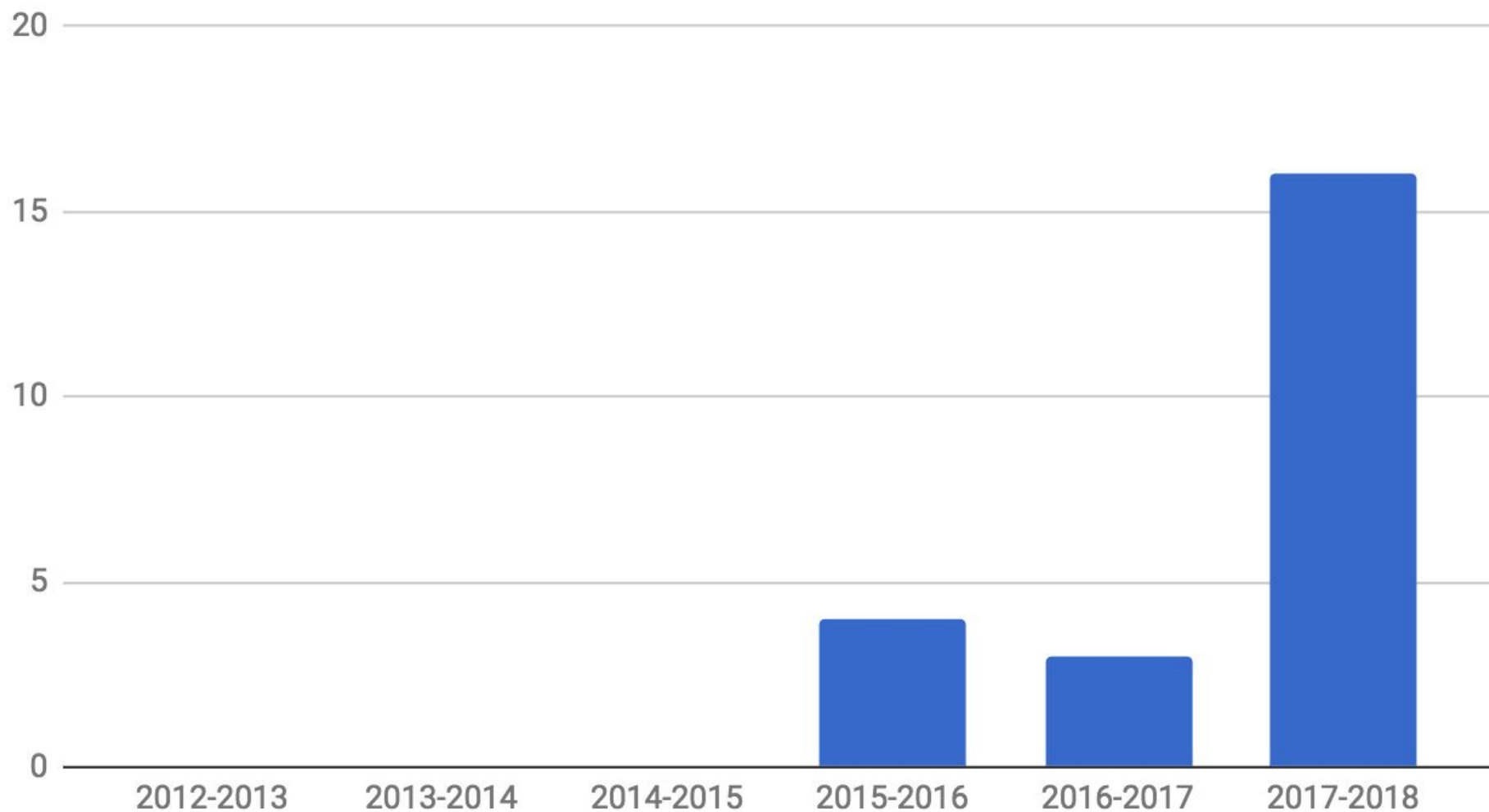
SDNB Girls Enrolled in Computer Science Courses

"Perceived" Barriers to CS

- Accountability

- Perception of "Computer Science"

- Talent Pool of CS Educators

- Centralized Resources for CS Educators

- Considering EdTech as "the" Solution

Action expresses priority

Mahatma Gandhi

ISTE Standards Students•2016

Empowered Learner · Digital Citizen · Knowledge Constructor · Innovative Designer · Computational Thinker · Creative Communicator · Global Collaborator

K12 COMPUTER SCIENCE FRAMEWORK

CORE CONCEPTS

Computing Systems · Networks and the Internet · Data and Analysis · Algorithms and Programming · Impacts of computing

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Includes "Technological Literacy"
But how do districts define it? Measure it?

One of the key components of our "Vision of a Graduate" is technological literacy.

Technological literacy* refers to one's ability to use, manage, evaluate and understand technology. In order to be a technologically literate citizen, a person should understand what technology is, how it works, how it shapes society and, in turn, how society shapes it.

Additionally, a technologically literate person leverages their inventiveness to design and build things and to solve practical problems that are technological in nature.

Technological literacy involves a vision where every person has a degree of knowledge about the nature, behavior, power and consequences of many aspects of technology from a real-world perspective.

* definition adapted from ITEAA.org

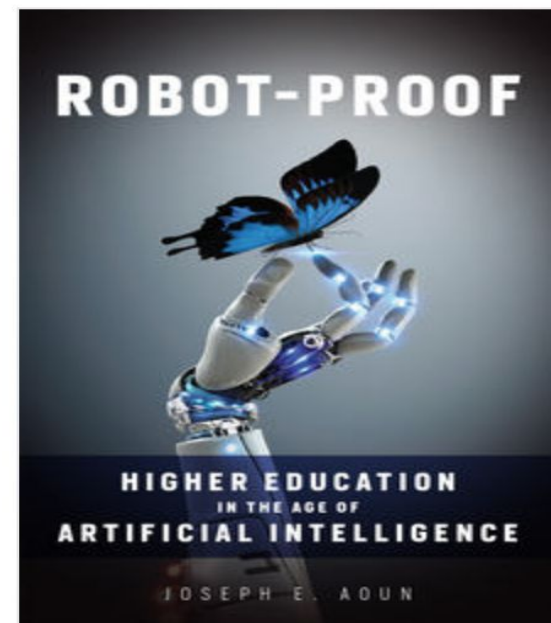### Key Strategies
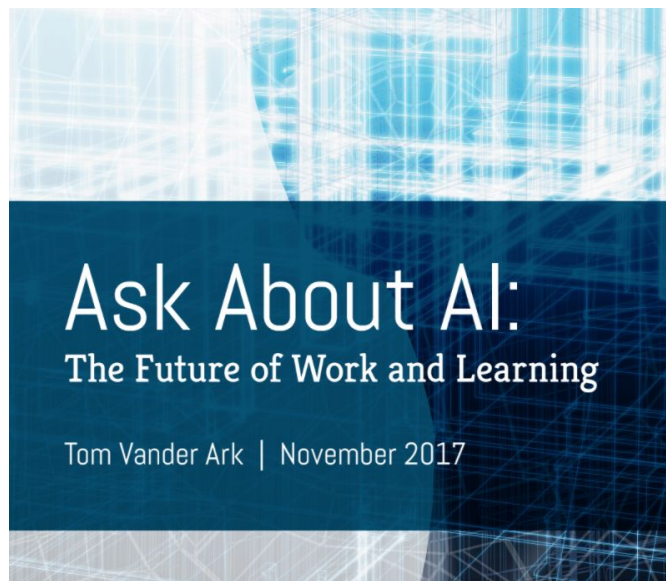
Instructional Standards

Digital Citizenship

Digital Learning

Online Coursework

Computer Science Curriculum

IT TechKNOW Program

Advanced Innovation and Design

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Ask About AI:
The Future of Work and Learning

Tom Vander Ark | November 2017

ROBOT-PROOF

HIGHER EDUCATION
IN THE AGE OF
ARTIFICIAL INTELLIGENCE

JOSEPH E. AOUN

The Future of Learning:
Redefining Readiness
from the Inside Out

ADVANCING ai WISCONSIN

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