

CHARLES COUNTY PUBLIC SCHOOLS  
CAREER AND TECHNOLOGY EDUCATION

Building the Future  
Workforce

# A LOOK INSIDE OUR SCHOOL SYSTEM

## 2017-2018

- 36 Schools
  - 21 Elementary Schools
  - 8 Middle Schools
  - 7 High Schools
  - 4 Educational Centers
- 26,900 students
- 3,644 employees; the largest employer in the county
- Our Students:
  - 54.8% African-American
  - 28.7% White
  - 7.7% Hispanic
  - 7% Multi-Racial
  - 3.2% Asian
  - 0.5% Native American
- Graduation Rate: 94.74%
  - State Average: 87.67%

# CTE IN CCPS

- **28** High School Completer Programs
- **9** out of the **10** Career Clusters are represented:
  - Environmental, Agricultural and Natural Resources will be represented in 2019-2020; Apprenticeship Maryland in 2019-2020
- **10** Four-Year Programs include:
  - Construction Design and Management (CDM)
  - Graphic Communications
  - CISCO: IT Networking and Cyber
- **12** Three-Year Programs include:
  - Electrical Construction
  - Welding Technologies
  - Cosmetology
  - Culinary Arts
  - Teacher Academy of Maryland (TAM)
- **6** Two-Year Programs include:
  - Career Research and Development (CRD)
  - Maryland Fire and Rescue Institute (MFRI)
  - Interactive Media
  - Academy of Health Professions: Pharmacy Technician

# DATA!

## 2017-2018

- Enrollment in CTE Courses: 3,824 students
- Completers: 847 out of 1,965 students (52%)
- Dual Completers: 66.58% of CTE completers
- More Jobs for Marylanders Act: CCPS is at 42% with the goal of 45% in 2020

# ACCESS AND EQUITY IN CTE

- North Point High School (17 programs)
  - Application in 8<sup>th</sup> Grade
- Comprehensive High Schools (7 programs)
  - No Application Necessary for CTE
- Robert D. Stethem Educational Center (5 programs)
  - Application in 10<sup>th</sup> Grade
- Global CTE: Not by location, but by area of interest
- Focus Groups
- 8<sup>th</sup> Grade presentation
- School Counselor follow-up lesson
- Parent Nights at each Middle School
- Resources sent home to parents
- Every 8<sup>th</sup> student makes a plan!

# OPPORTUNITIES AND PROJECT BASED LEARNING K-12

- Project Lead the Way: Launch
  - Computer Science and Engineering Modules: Kindergarten, 1<sup>st</sup> and 2<sup>nd</sup> grade classes
  - Collaborative Exploration
  - Teachers as facilitators
- K-12 Computer Science
  - PLTW Launch (K-2)
  - Computer Class in Elementary (K-5)
  - Middle School Computer Science (6-8)
  - Gateway to Technology - Middle School (6-8)
  - High School Computer Science Pathway (9-12)
  - College of Southern Maryland Transcribed Credit Agreement
- Engineering
  - PLTW Launch (K-2)
  - VEX Robotics Teams (3-12)
  - MESA (3-12)
  - Destination Imagination (2-12)
  - PLTW: Gateway to Technology (6-8)
  - PLTW: Pathway to Engineering (9-12)
  - University of Maryland Baltimore County Transcribed Credit Agreement
- Career Cruising starts in 3<sup>rd</sup> Grade; implemented through School Counselors
- ALL CTE PATHWAYS UTILIZE PROJECT BASED LEARNING

# FUNDING

- Approximately \$215,000 a year from Carl D. Perkins Grant
- Approximately \$550,000 a year from local funds to support Career and Technology Education

# COMMUNITY SUPPORT

- **Program Advisory Committees**
  - Meet 3 times a year for every program
    - Curriculum reviews
    - Supply resources
    - Identify instructional needs
    - Identify industry needs
  - Mentorships
  - Guest Speakers
  - Guest Judges
  - Student Interviews
  - Work-Based Learning Opportunities
- **Local Advisory Council**
  - Meet 3 times a year to oversee CTE as a whole
  - Marketing
    - Parents
    - Students
    - Workforce and Industry
  - Workforce Needs
    - Programs to be updated
    - Programs to be eliminated
    - Programs to be developed
  - Ways to support Program Advisory Committees



# STUDENT OUTCOMES: WHY CHOOSE CTE?

- **Industry-Related Certifications**

- NATEF: Brakes, Engine Performance, Engine Repair, Electrical Systems, Automotive HVAC, Transmissions (Automotive)
- NCCER Core, NCCER Level I (HVAC, Carpentry, Electrical Construction)
- CFC Certification (HVAC)
- ADDA Apprenticeship (Drafting)
- Maryland Board of Nursing Certified Nursing Assistant (Academy of Health Professions)
- ParaPro (Teacher Academy of Maryland)
- National Board Cosmetologist (Cosmetology)
- American Welding Society: up to 12 certifications

- **Transcripted Credits and Articulation Agreements**

- Local and State agreements

- **Student Organizations**

- SkillsUSA, Future Business Leaders of America (FBLA), Educators Rising
- Leadership Opportunities
- Mentorship Opportunities
- Job Offers and Connections
- Direct Feedback from Industry

# A CLOSER LOOK: AUTOMOTIVE TECHNOLOGY

- **Program Certification**

- Recertification every 5 years
- NATEF
- Program Advisory Council support

- **Teacher Certification**

- Teacher Credentials
- Industry Credentials

- **Student Certification**

- Possibly 8 Industry Certifications!
- Reimbursement if the student passes
- Active participants in SkillsUSA

- **Program Advisory Council**

- Automotive Career Exploration: Ford
- Snap-On Tools
- Local Dealerships
- Mentorships, Internships and Work-Based Learning, Advisory

# A CLOSER LOOK: COMPUTER SCIENCE NEW PATHWAY SY 2017-2018

## Step 1:

### Program Advisory Committee

- College of Southern Maryland
- University of Maryland Baltimore County
- Local Workforce: Peaknet, OutsourcelT
- Indian Head Naval Surface Warfare Center
- CISCO!

## Step 2:

### Pathway Approval

- Introduction to Computer Programming
- AP Computer Science Principles
- AP Computer Science- A
- CISCO Networking Academy: Linux and Cyber Security

## Step 3:

### Concrete Connections to College, Career and Community

- 1<sup>st</sup> Course: Transcribed Credits
- 2<sup>nd</sup> Course: Transcribed Credit through College Board
- 3<sup>rd</sup> Course: Transcribed Credit through College Board
- 4<sup>th</sup> course: possible CCENT, Security +, Linux certifications through CISCO

## Step 4:

### Keep Current, Keep Updating, Keep Training