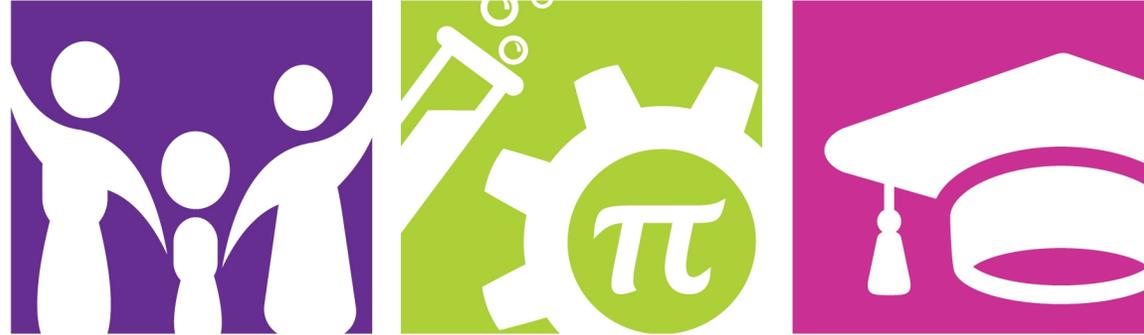


# DAPCEP



**PRESENTATION TO THE  
MICHIGAN SENATE AND HOUSE SUB-COMMITTEES:  
K-12, SCHOOL AID, EDUCATION**

*Michelle L. Reaves, Executive Director*

April 11, 2019

# What is DAPCEP?

- Detroit Area Pre-College Engineering Program (DAPCEP) and was established in 1976 as a Michigan non-profit (501c3) organization.
- **Mission:** Increase the number of historically underrepresented students who are motivated and prepared academically to pursue degrees leading to STEM careers
- Partners with more than 11 Michigan universities and more than 40 corporate, community and foundation organizations to connect youth to acclaimed K-12 supplemental educational programming and experiences.
- Supported over 11,000 students during the 2018-2019 year in the State of Michigan. Over 64,000 Alumni since the program inception.

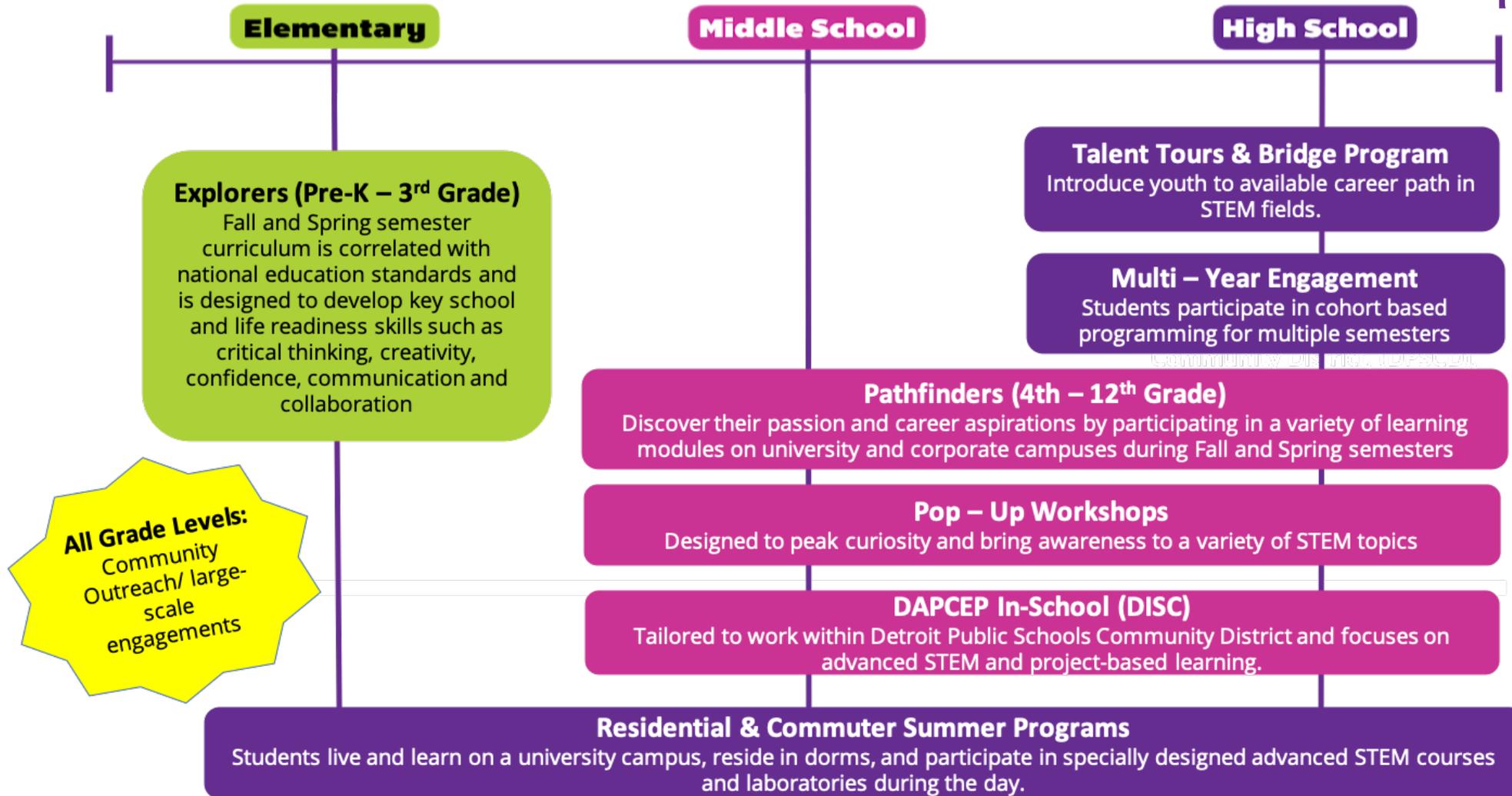
# Who is DAPCEP?



# Methodology

Segments	Pre-K to 3rd Grade	4th-6th Grade	7th-9th Grade	10th-12th Grade
<b>Goal</b>	School Ready	Middle School Ready	High School Ready	College/Career Ready
<b>Methods</b>	<ul style="list-style-type: none"> <li>• Early learning (highly motivational)</li> <li>• Academic reinforcement</li> <li>• Exposure to STEM concepts</li> </ul>	<ul style="list-style-type: none"> <li>• STEM group work</li> <li>• Hands-On Learning</li> <li>• Exposure to University Campus</li> <li>• Critical Mathematics &amp; Problem Solving Skills</li> </ul>	<ul style="list-style-type: none"> <li>• Career exploration through exposure</li> <li>• Hands-on learning</li> <li>• Refinement of critical algebraic &amp; problem solving skills</li> <li>• Group dynamics</li> </ul>	<ul style="list-style-type: none"> <li>• Advanced concepts</li> <li>• Exposure beyond K-12 systems capacity</li> <li>• Scientific reasoning</li> <li>• Critical academic reinforcement</li> <li>• SAT/ACT Preparation</li> <li>• Senior Transition Program</li> </ul>

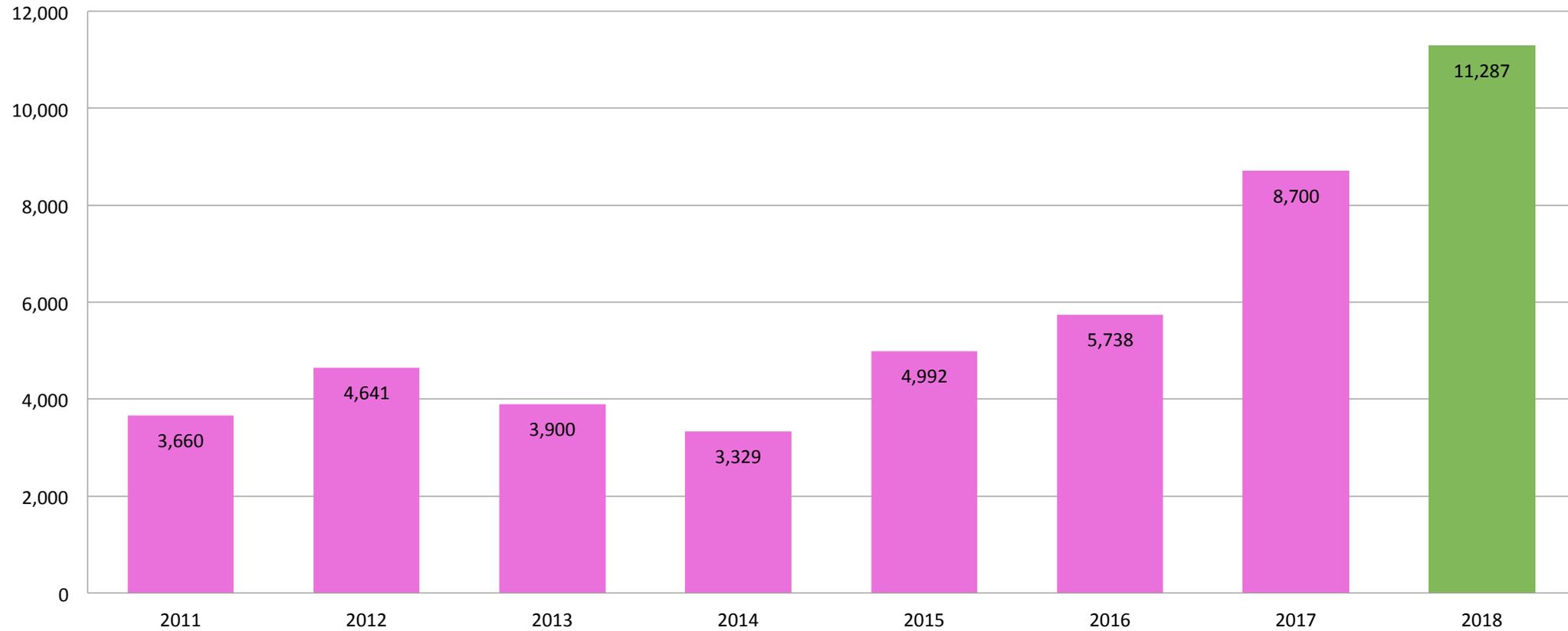
# Core Program Models



# Our Reach



NUMBER OF STUDENTS SERVED SINCE 2011



# Our Reach



- 99.7% of students reside in the State of Michigan
- 58% of students attend Detroit Public Schools Community District.
- 24% of students attend Metropolitan Detroit schools.
- 62% of students are Detroit residents
- 70% of students qualify for Free/Reduced Lunch
- 89% of current students indicate they learn new things in DAPCEP that are not in their school work
- 72% indicate that DAPCEP teaches them to think in new ways.



# Program Examples

- Steps to Success: Year-long program to prepare high school seniors with skill sets to ensure success in college and career.
- Multi-Year Engagements: Preparing African-American Males for Energy Education (PAAMEE): 18-month program focused on Nuclear Energy, Petroleum Fuels, Renewable Energy, and Energy Efficiencies for 240 students. Students were prepared for internship opportunities for Consumers Energy and DTE Energy.
- Certification Programs for High School Students
  - CompTIA Network+ Certification which is the gateway to a range of in-demand IT credentials.
  - Drone Pilot certifications course for students age 16 and older.



# DAPCEP & Michigan Business

## Working Together to Close the Technical Workforce Gap



- Ford African Ancestry Network & IT Department
  - Facilitate DAPCEP Saturday course at Ford IT Headquarters to expose students to automotive IT opportunities.
- General Motors
  - Volunteers facilitate summer Pop-Up STEM Workshop to Southeast Michigan Middle & High School students. Foundation supports pilot of a DAPCEP Afterschool Program Model.
- Quicken Loans
  - IT Department led workshop series helping Middle School students to learn how to code.



**Quicken Loans®**

# DAPCEP & Michigan Business (2)

## Working Together to Close the Technical Workforce Gap



- Blue Cross Blue Shield of Michigan



- Facilitate DAPCEP Saturday course at BCBSM Detroit Offices to expose high school students to business practices, underwriting and actuarial sciences

- Consumers Energy



- Hosted DAPCEP students at Michigan State University for a 1-Week program on renewable energy. CMS Engineers actively engaged students. Hired DAPCEP students as summer interns.

- DTE Energy Foundation



- Provided funding to support DAPCEP Saturday and Summer programs.

**NOTE:** In 2018, DAPCEP received \$1.7 million of in-kind services and support from corporate, university, and K-12 partnerships.

# State of Michigan Return on Investment

- During the last 7 years, DAPCEP received \$2,340,000.
- The ROI is **\$24,500,000** over a same time period. The following assumptions were used:
  - Less than of 1% of Alumni working in Michigan earn only \$50,000 per year
  - 5% tax rate
  - The 7 multiplier as provided by municipalities and data by State of Michigan

YEAR	State of Michigan Investment	>1% of DAPCEP Alumni	Taxes paid to SOM \$50K/Year = \$2500)	Business Multiplier (X7)
2012	\$340,000	80	\$200,000	\$1,400,000
2013	\$340,000	120	\$300,000	\$2,100,000
2014	\$340,000	160	\$400,000	\$2,800,000
2015	\$340,000	200	\$500,000	\$3,500,000
2016	\$300,000	240	\$600,000	\$4,200,000
2017	\$340,000	280	\$700,000	\$4,900,000
2018	\$340,000	320	\$800,000	\$5,600,000
<b>TOTAL</b>	<b>\$2,340,000</b>		<b>\$3,500,000</b>	<b>\$24,500,000</b>

# State of Michigan Impact

- 49% of DAPCEP students attend Michigan colleges and universities, significantly influenced by attending DAPCEP classes on that campus.
- DAPCEP relational asset with over 64,000 alum gives credibility to Michigan's capacity to prepare an advanced STEM workforce.
- DAPCEP places Michigan in the top tier of states with long-term STEM academic programs.

# How State Funding Was Utilized

- Funded 1600 students to participate in DAPCEP
- Provided funding for personnel support which offsets costs for student participation.
- DAPCEP is able to track student participation with a more robust student registration system.
- DAPCEP is able to evaluate the design, impact, and effectiveness of the program offerings.
- Eliminated transportation barriers for over 2500 students participating in various DAPCEP programs.



# How State Funding Will Be Utilized

- Maintain enrollment levels. Possibly expanding by 10%.
- Continue to engage students in quality and impactful Saturday STEM programs, Pop-Up STEM workshops, summer STEM experiences that will prepare them for future opportunities.
- Ultimately help more Michigan students attend Michigan colleges and universities and vocational programs.
- Help more Michigan students fill Michigan jobs, close Michigan's technical workforce gap and compete in global STEM economy.

# Request

DAPCEP is requesting to be reinstated in the 2019-2020 budget for **\$500,000**.

**Thank you!**