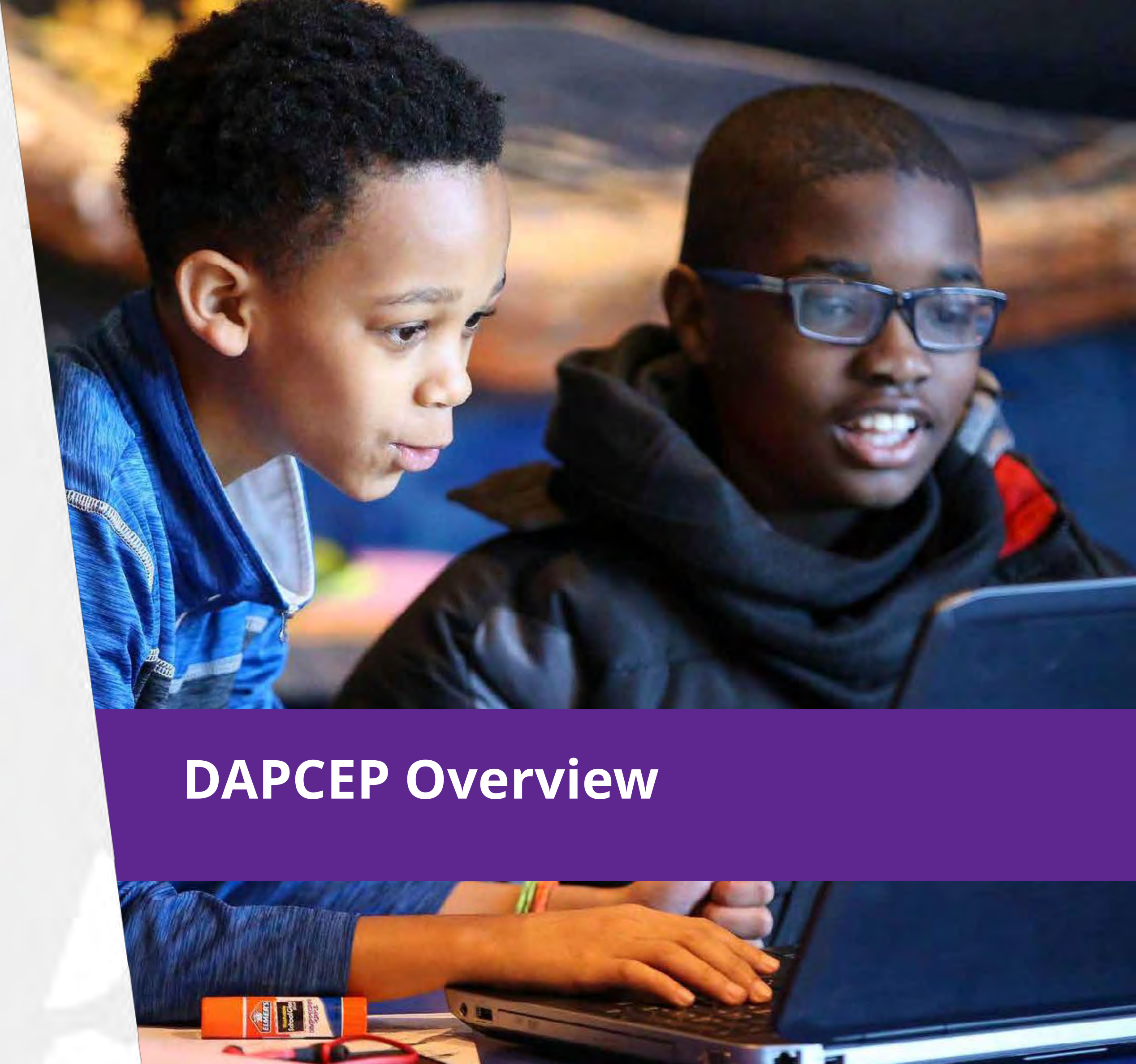


# DAPCEP



DETROIT AREA PRE-COLLEGE ENGINEERING PROGRAM

## DAPCEP Overview



## MISSION

To increase the number of historically underrepresented students who are motivated and prepared academically to pursue STEM degrees.

## HISTORY

Detroit Area Pre-College Engineering Program (DAPCEP) was established in 1976 as a Michigan non-profit (501c3) organization

## IMPACT

13,000 youth served throughout Southeastern Michigan, partnering with 11 colleges and universities, dozens of corporations, and hundreds of volunteers annually

# PROGRAM MODELS

## ELEMENTARY

**Explorers:** The DAPCEP Explorers curriculum is correlated with national education standards and is designed to develop key school and life readiness skills such as critical thinking, creativity, confidence, communication and collaboration

**ALL GRADE LEVELS**  
Community Outreach/ large-scale engagements

**Residential & Commuter Summer Programs:** Students live and learn on a university campus, reside in dorms, and participate in specially designed advanced STEM courses and laboratories during the day.

## MIDDLE SCHOOL

**Pathfinders:** Pathfinders discover their passion and career aspirations by participating in a broad variety of learning modules on university and corporate campuses

**Pop-Up Workshops:** Pop-Up workshops are designed to peak curiosity and bring awareness to a variety of STEM topics

**DAPCEP In-School (DISC):** The In-School program, (DISC) was tailored to work within Detroit Public Schools and focuses on advanced STEM and project-based learning.

## HIGH SCHOOL

**Talent Tours & Bridge Program:** DAPCEP talent tours introduce youth to available career path in STEM fields.

**Multi – year Engagement:** Students participate in cohort based programming for multiple semesters

# DAPCEP STUDENT DEMOGRAPHICS

  
Over **70%**

of students **qualify for  
Free/Reduced Lunch**,  
meeting the Federal low-income  
guidelines.

On average, we annually serve

**13,000+**  
students

- Explorers (Pre-K – 3rd Grade) Saturday Programs
- Pathfinders (4th – 12th Grade) Saturday Programs
- In-School Programs
- Summer Programs and Camps
- STEM Day and large-scale workshop activities

  
**40%**  
of students attend  
**public  
schools**

**30%**  
of students attend  
**charter  
schools**

  
**50%**  
female

  
**50%**  
male

  
Nearly  
**100%**

of DAPCEP students  
**graduate from  
high school**

# M E T H O D O L O G Y

Segments	Pre-K to 3rd Grade	4th-6th Grade	7th-9th Grade	10th-12th Grade
Goal	School Ready	Middle School Ready	High School Ready	College/Career Ready
Methods	<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>

# INCLUSIVE APPROACH

- ❑ DAPCEP teachers reflect cultural competency and use their knowledge to engage students in the learning process.
- ❑ Example: using terms students are aware of and identify with (hustle vs. entrepreneurship)
- ❑ Cultural competency drives student engagement and capacity to visualize themselves in STEM industries and career pathways.
- ❑ Teachers embody diversity in STEM and use their lived experiences to enhance instruction.
- ❑ Instructors avoid common obstructions to inclusive teaching with training and awareness.

