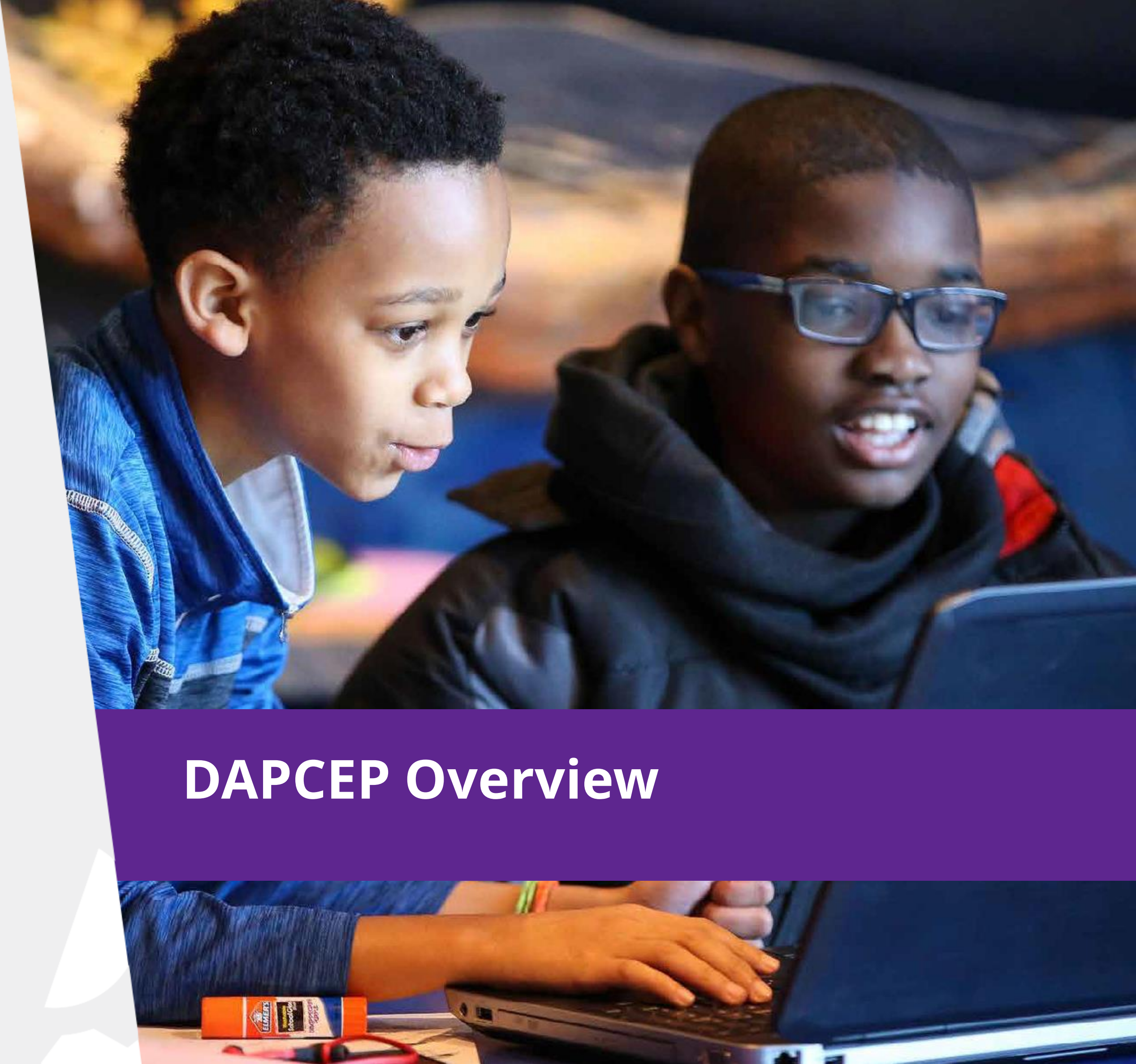


DAPCEP



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

16,000 youth served throughout Southeastern Michigan, partnering with 11 colleges and universities, dozens of corporations, and hundreds of volunteers annually

P R O G R A M M O D E L S

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

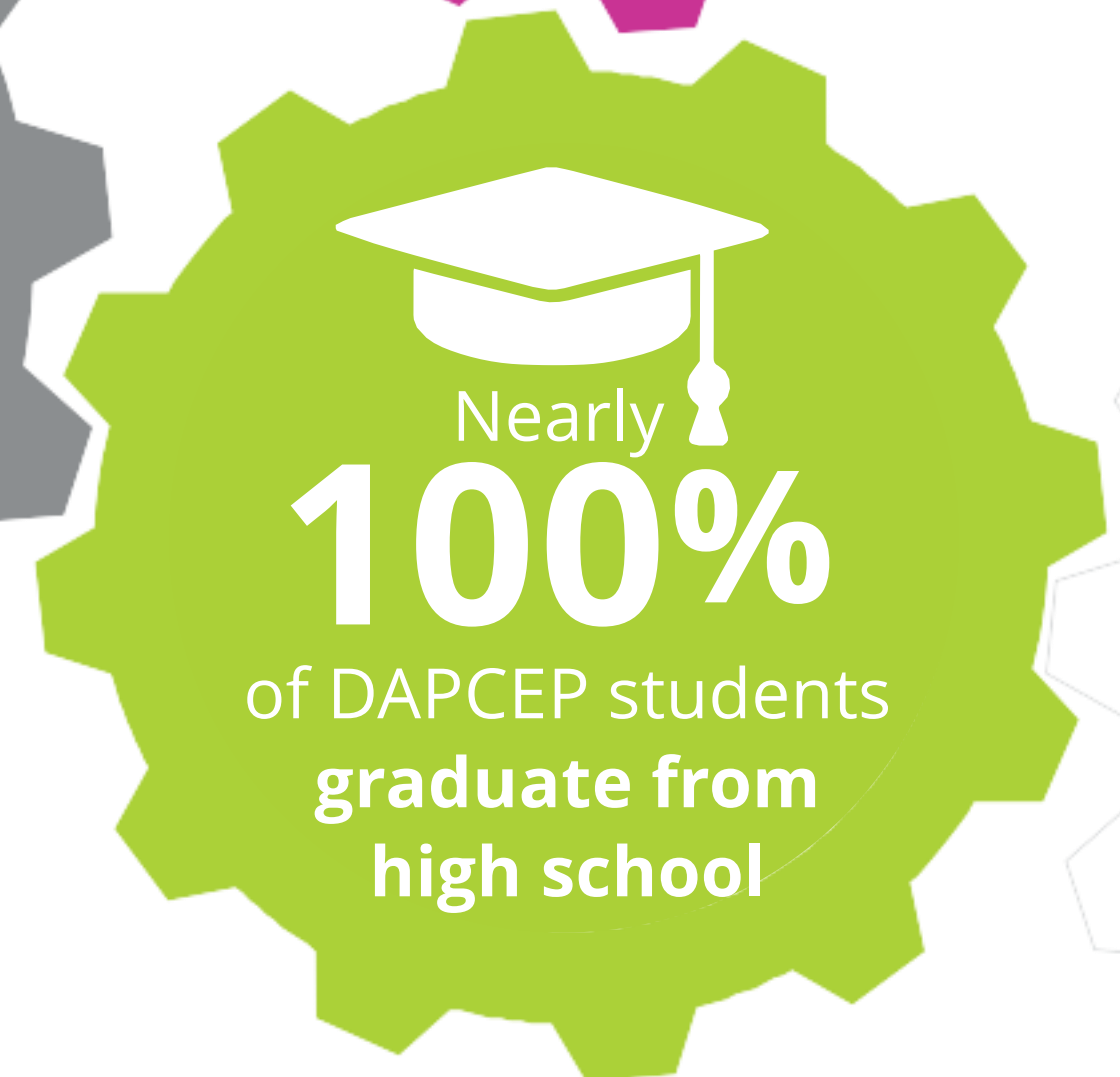
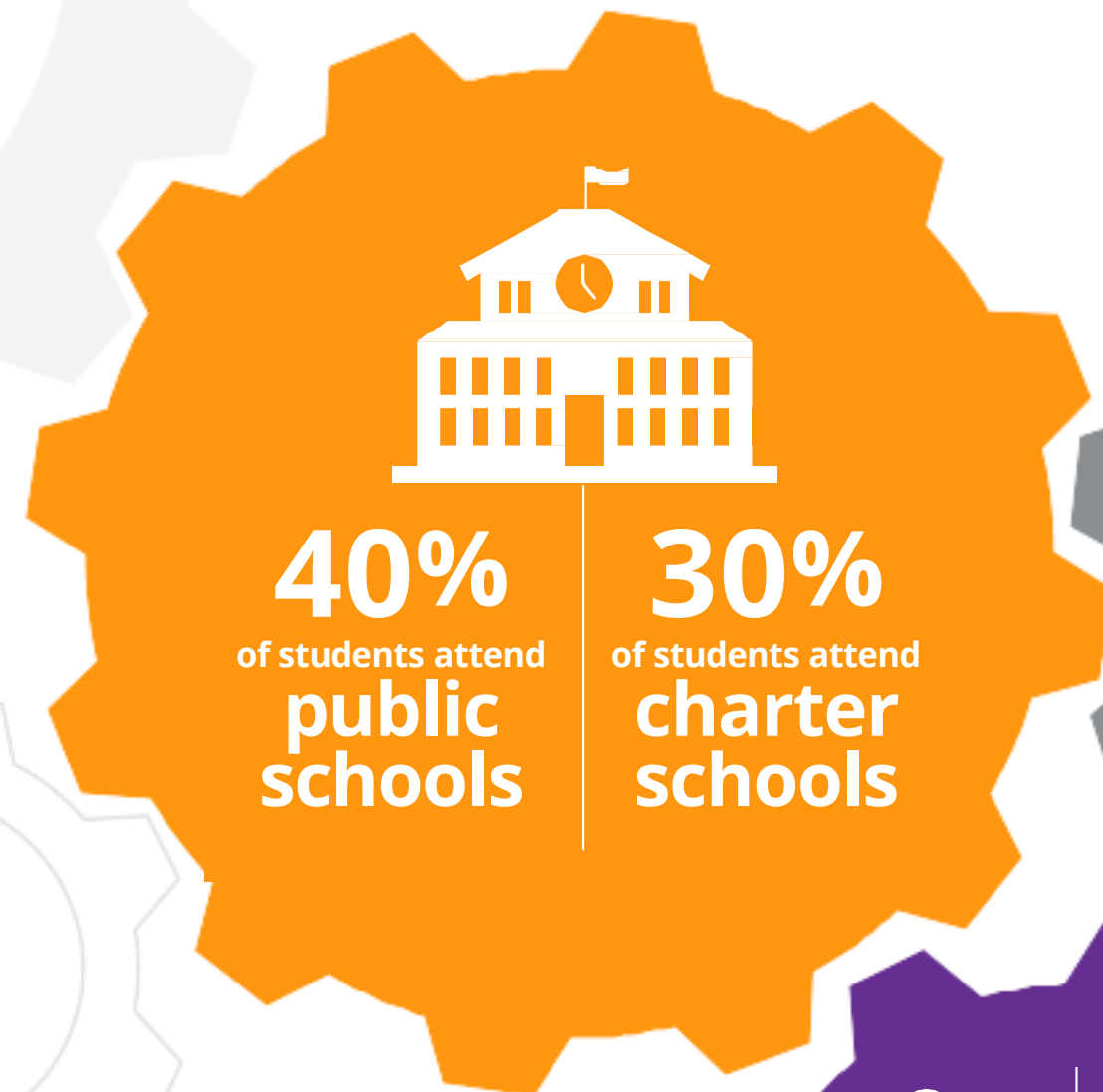
DAPCEP In-School (DISC): The In-School program, (DISC) was tailored to work within Detroit Public Schools and focuses on advanced STEM and project-based learning.

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

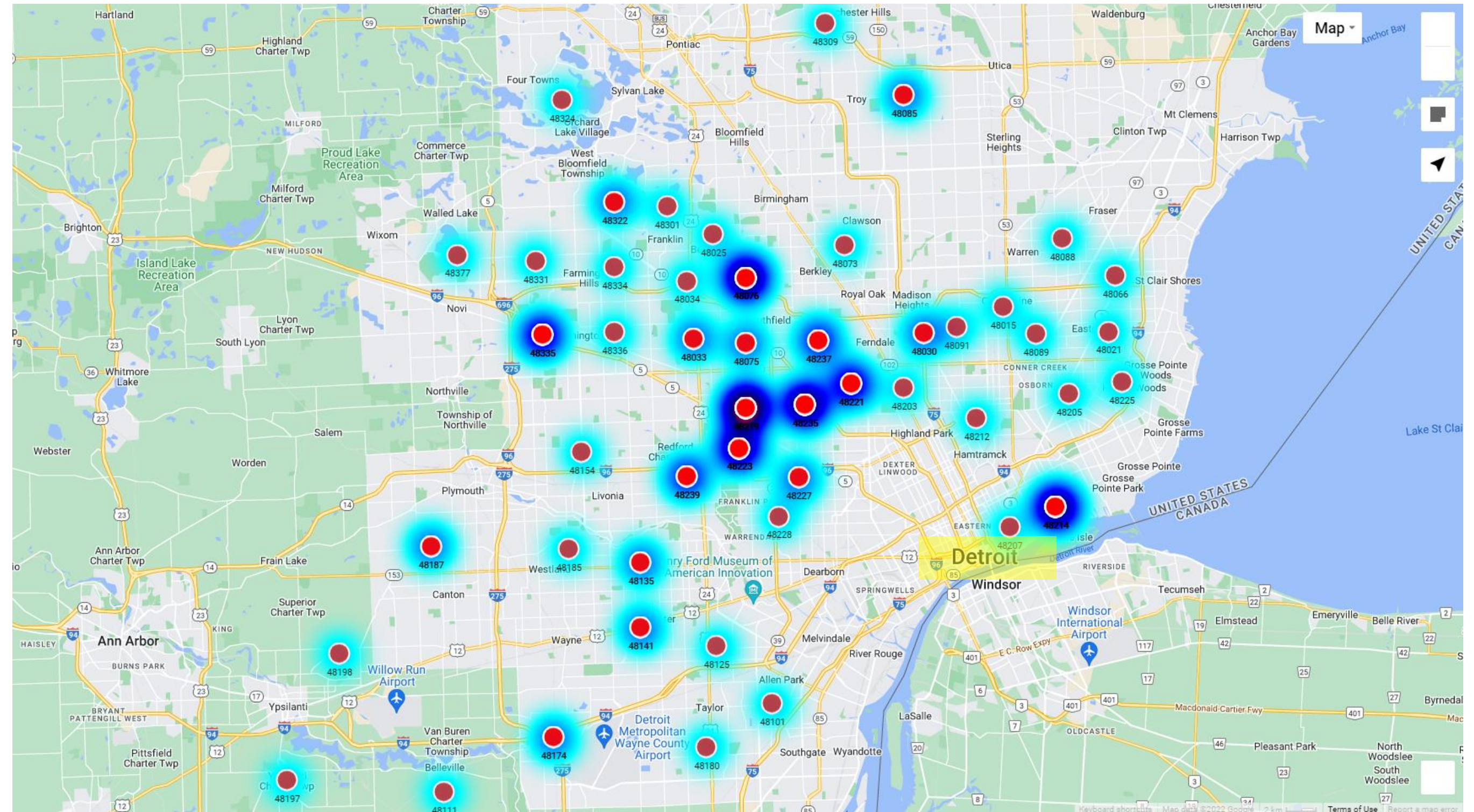
DAPCEP STUDENT DEMOGRAPHICS



P O P U L A T I O N S E R V E D



- Pre-K to 12th grade students from racial and ethnic backgrounds primarily underrepresented in STEM.
- Students primarily live Southeastern Michigan (Wayne, Oakland, and Macomb counties)
- Largest student population lives in Detroit



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	· Early learning (highly motivational) · Academic reinforcement · Exposure to STEM concepts	· STEM group work · Hands-On Learning · Exposure to University Campus · Critical Mathematics & Problem Solving Skills	· Career exploration through exposure · Hands-on learning · Refinement of critical algebraic & problem solving skills · Group dynamics	· Advanced concepts · Exposure beyond K-12 systems capacity · Scientific reasoning · Critical academic reinforcement · SAT/ACT Preparation · Senior Transition Program

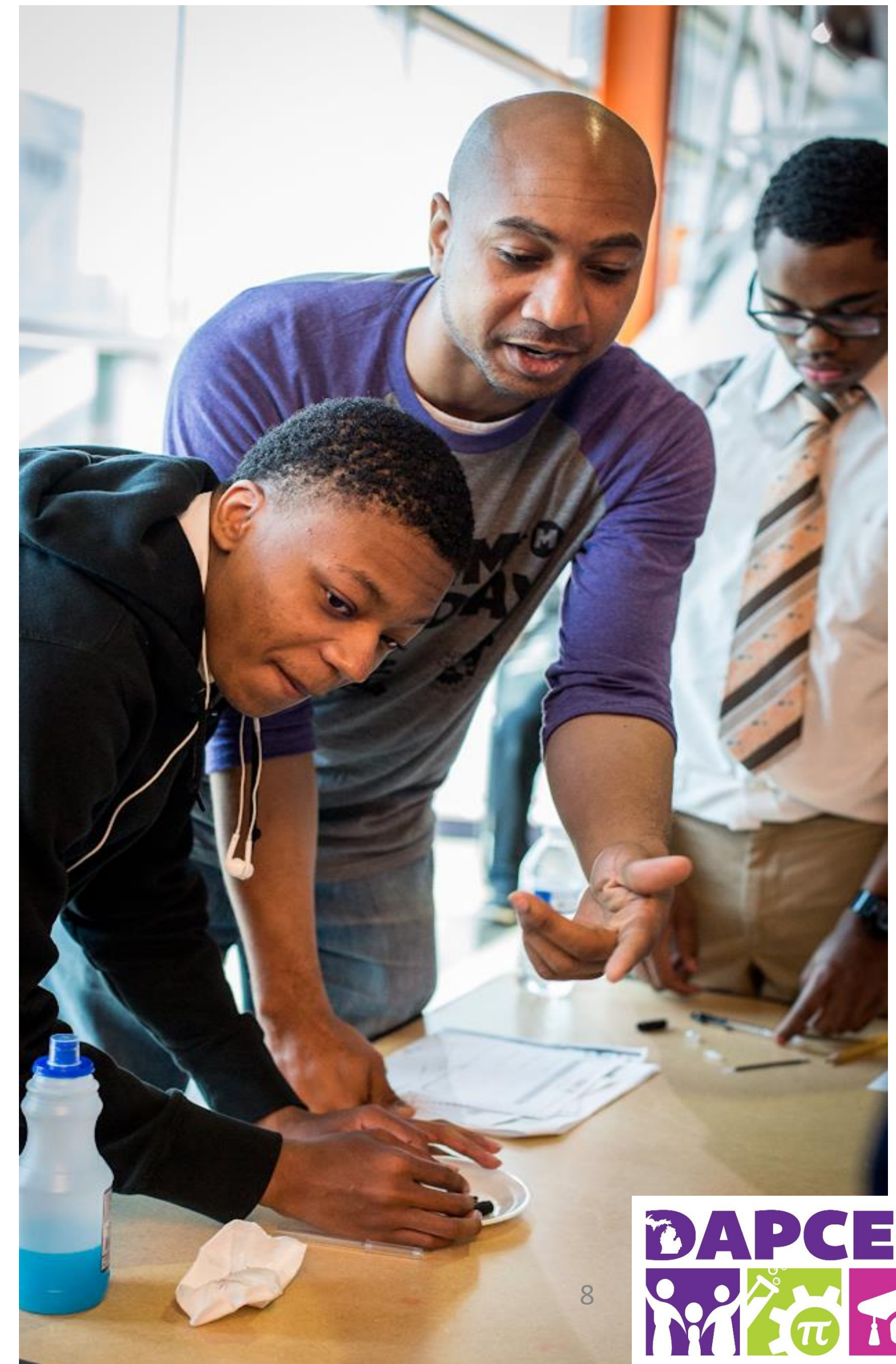
DAPCEP IMPACT

- 87% of DAPCEP high school seniors report applying to institutions of higher learning.
- 49% of DAPCEP students enroll in Michigan colleges and universities
- 68% of DAPCEP alumni choose careers in STEM
- 97% of alumni report that DAPCEP not only prepared them for academic success in college, but also introduced them to, and helped prepare them for, STEM careers.



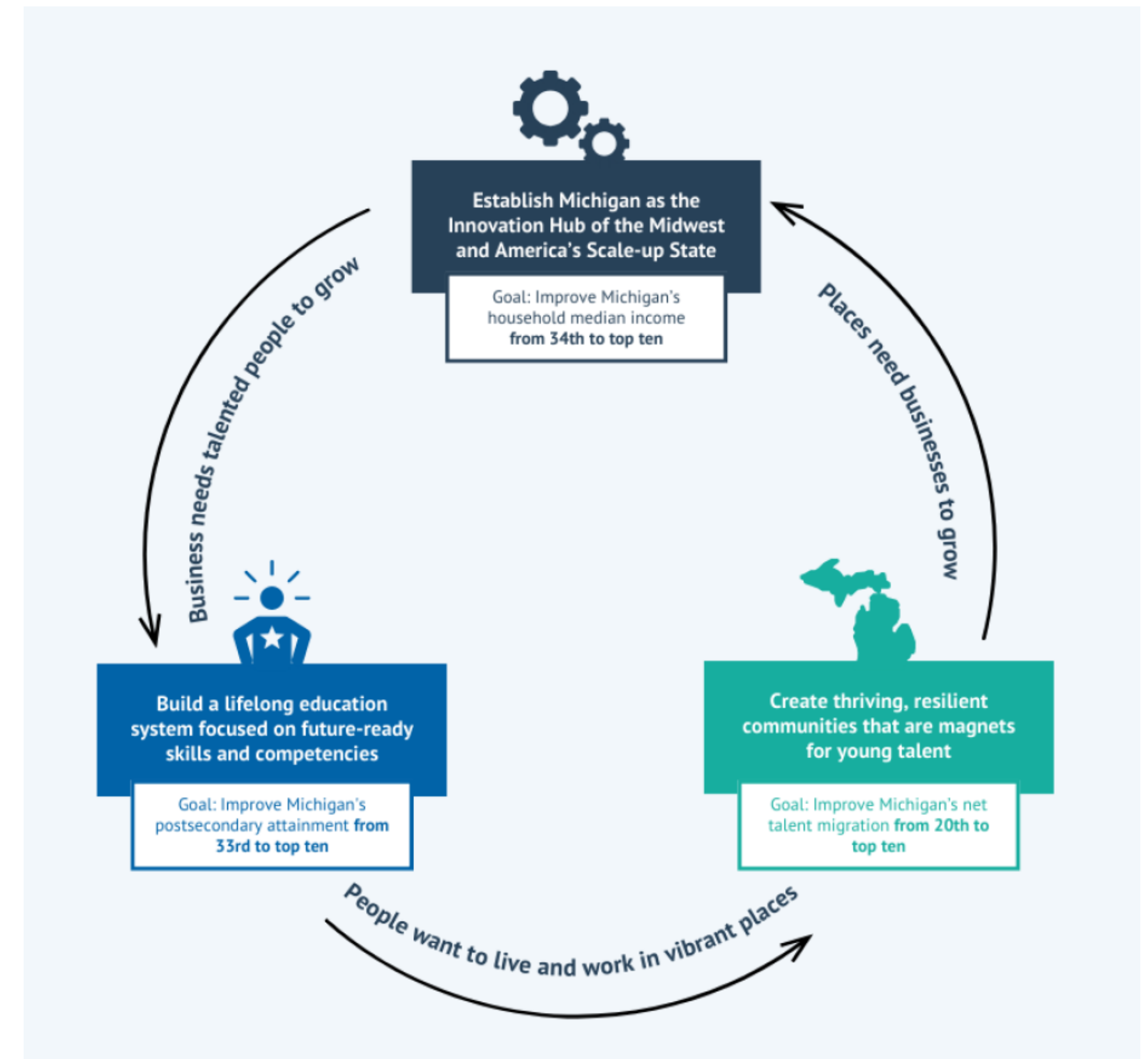
I N C L U S I V E A P P R O A C H

- ❑ 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.



REGIONAL SNAPSHOT

- ❑ Michigan now ranks 49th out of 50 states in growth since 2020.
- ❑ *Growing Michigan Together* council has established a framework to reverse decline in population growth
- ❑ Strategy 1 - Establish Michigan as the Innovation Hub of the Midwest and America's Scale-up State



INNOVATION STRATEGIES



Regional Recommendations:

- Reimagine the job of teaching and the structure of the school day, enabling educators to innovate so students can learn for life.
- Prepare students for an uncertain future by creating learners who are adaptable, curious, collaborative, and excellent communicators.
- Expand enrichment and out-of-school time experiences.

DAPCEP Strategy:

- DAPCEP teachers are also traditional day teachers. They use innovation practices developed in DAPCEP classes to improve traditional day instruction.
- Students learn how to harness their unique strengths, talents, and abilities in DAPCEP classes
- 21% of current DAPCEP Saturday courses offered for 4-12th grade students explore technology focus areas for innovation for U.S. Economic Development Administration tech hubs.

C O N T A C T



- Visit www.dapcep.org for more information about our programs.



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