THE HIDDEN UNDERREPRESENTED GROUP:

Bringing *AP Computer Science Principles* to Students with Learning Differences

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RESEARCH & EVALUATION
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Study Goals

- **Expand participation in the *AP CS Principles* course** among students with learning differences.
- **Generate knowledge in the CS education community** about what is needed to include students with learning differences in CS.
- **Develop specific guidance for CS curriculum developers and teachers** about what is needed to make *AP CSP* accessible for students who learn differently.

Overview of Study

Working with lessons from *AP CSP* curricula *Beauty and Joy of Computing* for New York City and Code.org's *CS Principles*, the team will:

IDENTIFY THE CHALLENGES students with learning differences face as they engage with *AP CSP* instruction and content;

DEVELOP POSSIBLE SOLUTIONS to address those challenges through lesson *adaptations* (adjustments to sections of lessons to benefit all classroom learners) and recommended *accommodations* (adjustments to support individual learner needs);

TEST ADAPTATIONS AND ACCOMMODATIONS and gather student and teacher feedback; and

BROADLY DISSEMINATE FINDINGS so that *AP CSP* curriculum developers and teachers can support the needs of students with learning differences.

Further Details

BETWEEN 5-20% of school age students in the US have a learning difference (Cortiella & Horowitz 2014).

STUDENTS WITH LEARNING DIFFERENCES refers to students who have been identified as having a learning disability (e.g. specific learning disorder with impairment in reading like dyslexia, written expression, math, auditory processing, visual processing, executive functioning, and/or Attention Deficit/Hyperactivity Disorder).

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Interdisciplinary Project Team

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Learning specialists, teachers, and students at the Wolcott School, an independent preparatory HS in Chicago for *students with learning differences*

Collaborators & advisors, experts in HS CS, AP CSP, curriculum development, & students with disabilities