

# How has the COVID-19 pandemic affected traditionally disadvantaged students taking the ACT in a low-income Houston high school?

By Samiha Zaman, Shane Foreman, Diya Patel, and David Nguyen  
University of Houston Bonner Leaders Program | The Honors College

## Background

### Pre-COVID-19 pandemic:

- A sizable ACT score performance gap existed between low-income and high-income students, where an average low-income student with annual parent income less than \$36K scored about four points lower than students with annual parent income greater than \$80K. (Turner et al., 2006)
- In Houston ISD, 79.3% of students are economically disadvantaged, 85.4% are minorities (Hispanic, African American, Native American, or Pacific Islander), and 43.5% of students are considered college-ready due to meeting or exceeding the college-ready criteria determined by the Texas Success Initiative Assessment (TSIA) test, the SAT or the ACT test. (Murphy et al., 2019)
  - Scoring lower on the ACT and similar college readiness exams significantly decreases a student's ability to attend college and access scholarship opportunities.

### Ongoing COVID-19 pandemic:

- K-12th grade students fell an average of five months behind in math and four months behind in reading at the end of the 2020-2021 school year, compared to a normal school year (Dorn et al., 2021)
  - Students faced challenges including reduced one-on-one academic support, technological difficulties, and learning disruptions.
  - For high school students preparing for the ACT exam, these challenges meant reduced ability to master the foundational knowledge necessary for scoring well on the exam.
- A national ACT analysis representing 600,000 students from 38 states revealed that although score declines were slightly less severe for Asian, Black and Native American students than for White and Hispanic students, the average ACT composite scores for Black, Hispanic, and Native American students remained 3-4 points lower than for White students. (Hayes & Allen, 2021)
  - Most traditionally underrepresented minority students need even more support for ACT and college preparation during the pandemic to boost their college and career readiness.

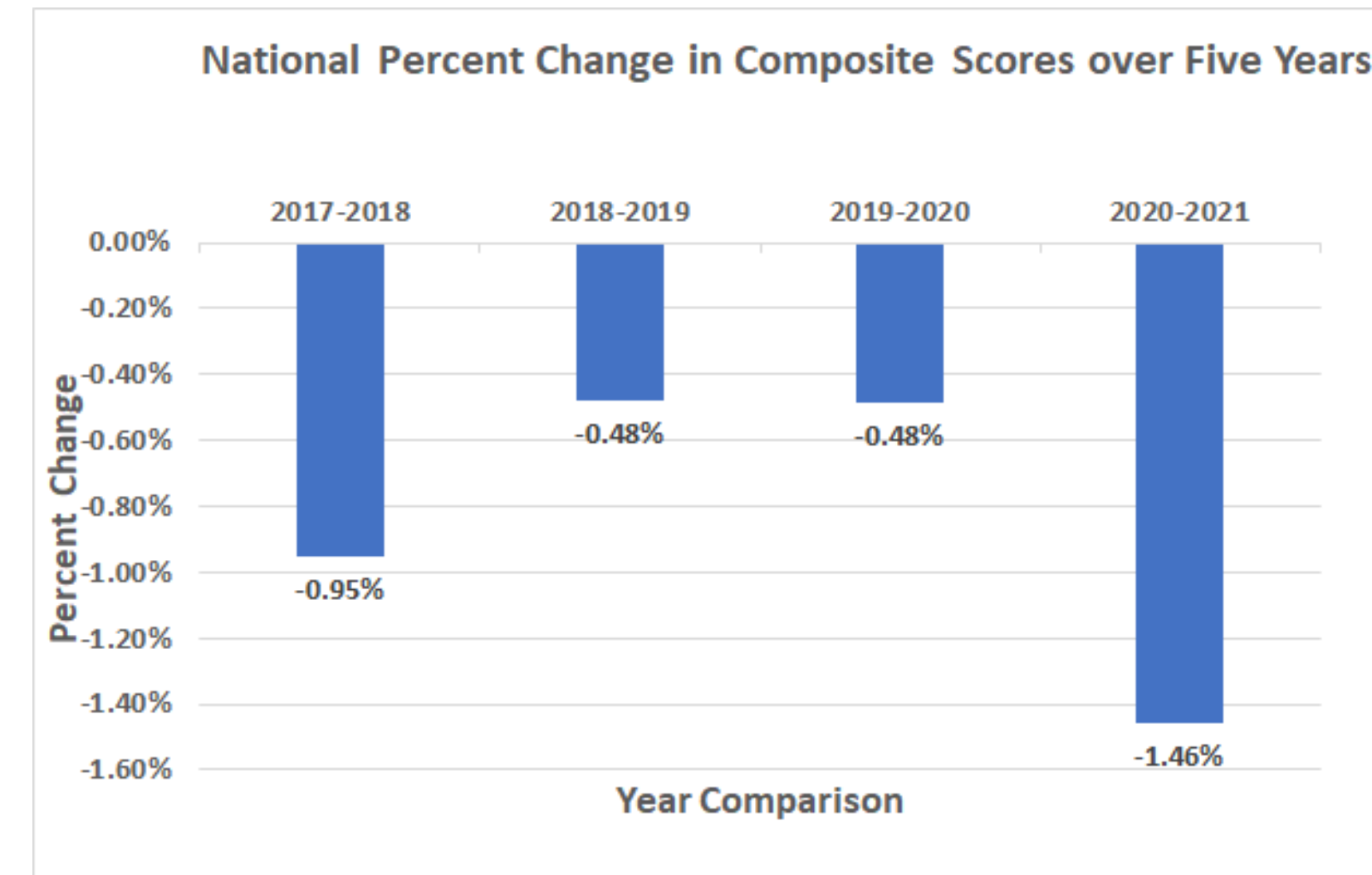
### ImpACT Mission

- By working within socioeconomically disadvantaged Houston communities, ImpACT prepares high school students for the ACT exam and college application process by providing personalized undergraduate-led student mentorship, teaching content and strategies for ACT success, and communicating options to reach and navigate college in both traditional and non-traditional ways.

## Acknowledgements

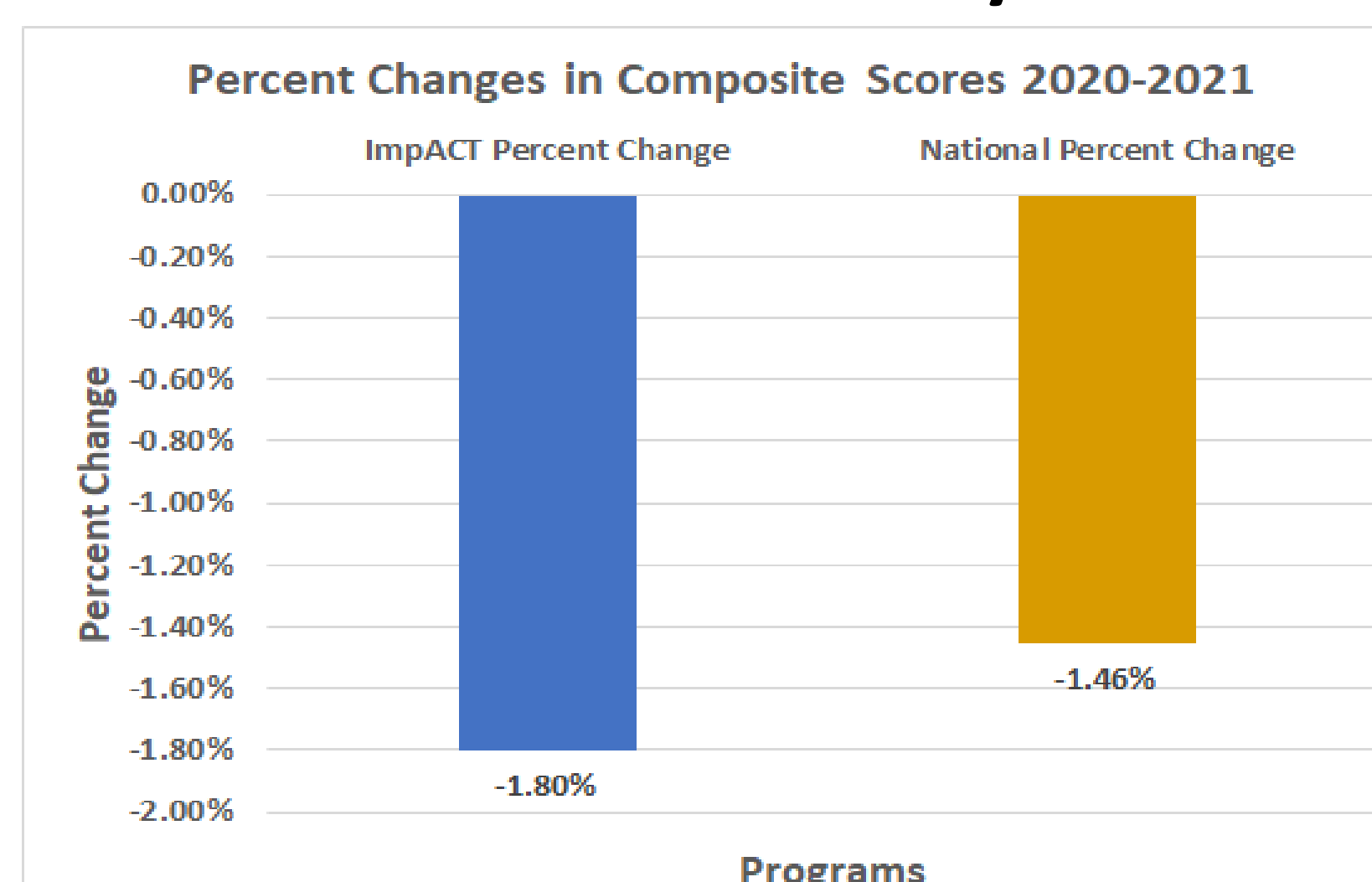
Dr. Douglas Erwing (Bonner Leaders Program - Director), Ms. Trinity Rinear (Bonner Leaders Program - Assistant Director), Ms. Cierra Sterling (KIPP Sunnyside High School - Director of College Counseling), Nikki Hammond (Bonner Leaders Program - Senior Intern)

## Data Analysis



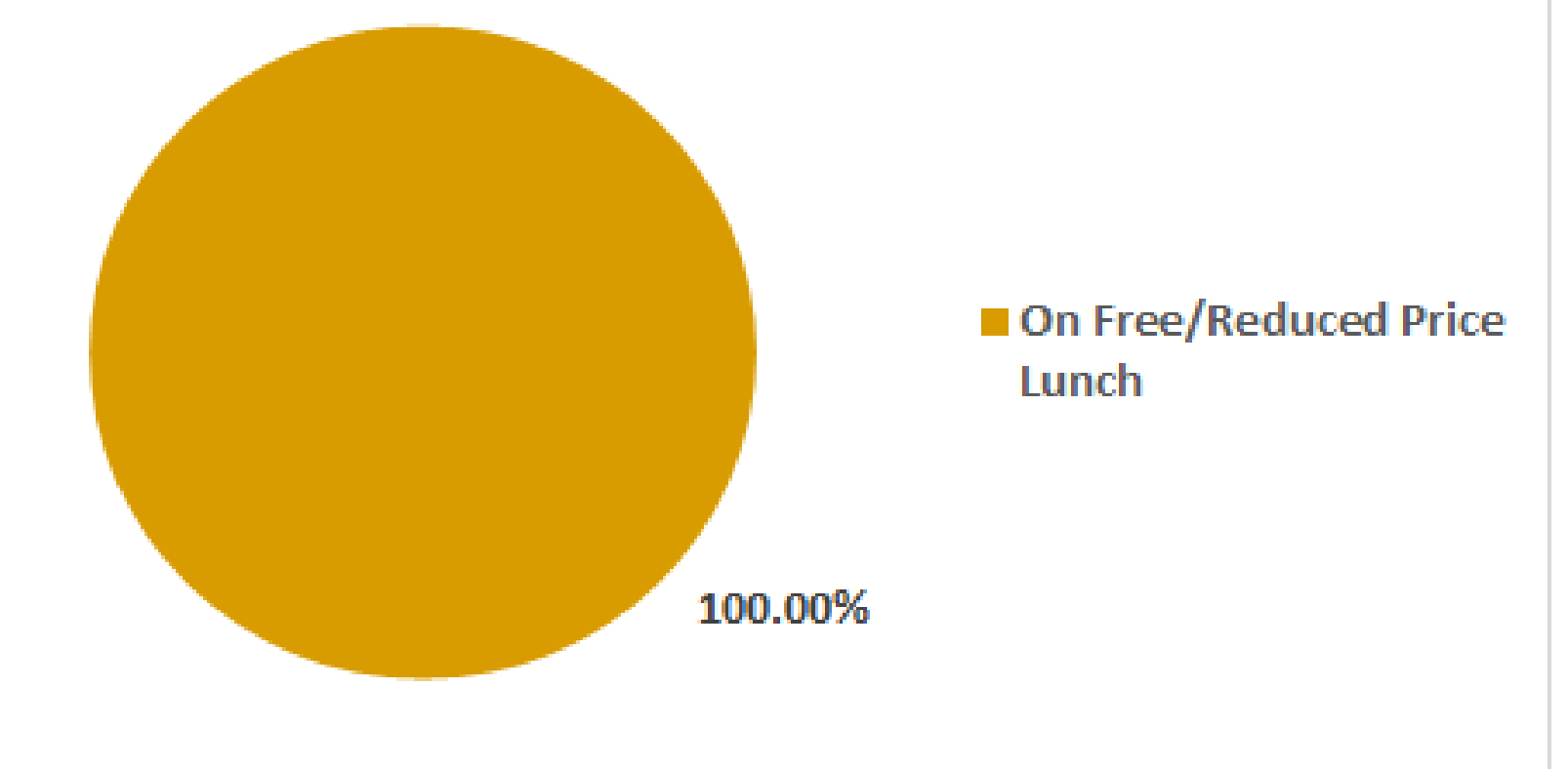
Over the last five years, average composite ACT scores have decreased from year to year, with the most significant decrease occurring from 2020 to 2021, the first years to be affected by the pandemic.

--data from *The ACT Profile Report - National, 2021, Page 7*



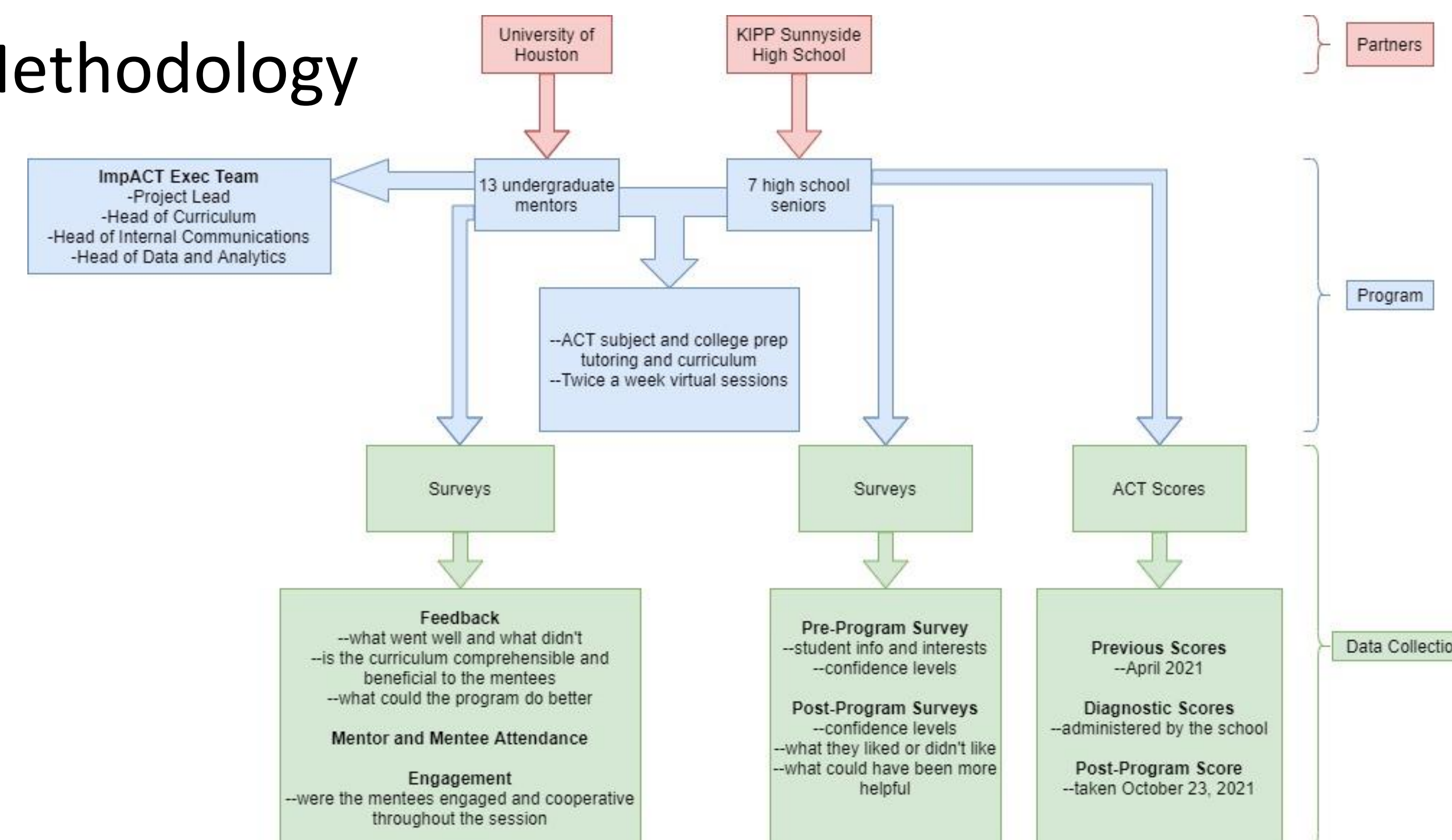
During the year 2021, ImpACT saw a slightly greater decrease in score changes than the overall change across the nation. ImpACT did not have sufficient data from previous years to compare long-term changes.

### Students on Free/Reduced Lunch



All students enrolled in ImpACT's mentoring program qualified for free/reduced lunch as determined by the federal income eligibility guidelines.

## Methodology



- ImpACT partnered with KIPP Sunnyside High School in fall 2021 to run a virtual program for high school seniors. Mentoring sessions occurred twice a week for about ninety minutes across four weeks. One session was canceled due to inclement weather, causing the program to run for a total of seven sessions.
- ImpACT trained 13 undergraduate mentors, instilling the program's mission statement and values. Mentor training simulations were utilized, in which mentors were presented with possible scenarios of student disengagement, misunderstandings, and fatigue. This activity helped mentors prepare for accommodating students' needs and managing issues arising during mentoring sessions.
- The primary ImpACT curriculum, created by the program's Head of Curriculum, was an ACT handbook that encompassed the four subjects tested on the ACT: English, Math, Reading, and Science. Each subject was assigned to be taught during the first half of a predetermined session. The latter half of sessions was dedicated to teaching topics related to post-secondary success, including the search for the right career pathway, financial aid resources, and essay writing.
- ImpACT's data collection varied in methods and types. The primary method of data collection was quantitative: ACT test scores. KIPP Sunnyside students took diagnostic tests prior to ImpACT's mentoring program to measure students' strengths and weaknesses in each subject. With students' consent, school-administered diagnostic ACT scores and previous ACT scores were shared with ImpACT to evaluate both student progress and ImpACT's effectiveness.
- ImpACT's secondary method of data collection was qualitative: mentor and student surveys. Prior to the start of each program, students filled out program-start surveys indicating their ACT test-taking confidence levels and career interests. This data was used to pair students with mentors in similar career paths. Upon the conclusion of each program, students filled out program-end surveys indicating their ACT test-taking confidence levels and suggestions for program improvement. Mentors also filled out program-end surveys indicating successes or issues within the program, engagement levels within the sessions, and suggestions for program improvement. This data was analyzed for purposes of revamping the curriculum, altering session agendas, and improving overall communication within the program.

## Conclusion

- Students enrolled in ImpACT's ACT and college prep program saw a decrease in scores between April 2021 and October 2021 ACT exams, which is consistent to the decrease in nationwide ACT score performance.
  - These score decreases are not unexpected and show the need for further mentorship and ACT resources to help underserved students access academic support.
- Future program plans involve mentoring 25-30 students from community partner schools to expand students' access to ACT and college prep resources.
  - Although most of ImpACT's programs have been running virtually from fall 2020 including the ongoing spring 2022 programs, moving to an in-person format will be a priority to continue the mission of providing quality ACT and college preparation to students.

### Limitations:

- Although 7 students were in the program, data analysis shows scores for 6 students due to 1 student's score being inaccessible (student was not able to take the exam). Low student enrollment within the program occurred due to students' afterschool involvements. Additionally, low sample size may affect accuracy of findings.
- Many students faced technical difficulties during virtual sessions, affecting their ability to attend and receive mentoring for the entire duration of the program.
- ImpACT's program ran from Sept-Oct 2021 although April 2021 ACT scores were used as the early benchmark, so additional factors such as learning loss from summer may have affected the observed score change.

### References:

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