

## INTEROFFICE CORRESPONDENCE

Los Angeles Unified School District

Independent Analysis Unit

### INFORMATIVE

DATE: May 10, 2021

**TO:** Members, Board of Education  
Austin Beutner, Superintendent

**FROM:** Glenn Daley, Director, Independent Analysis Unit  
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**SUBJECT: RESEARCH SPOTLIGHT: THE POTENTIAL OF HIGH-IMPACT TUTORING TO IMPROVE ACADEMIC OUTCOMES AMONG HIGH SCHOOL STUDENTS**

A recent National Bureau of Economic Research Working Paper, *Not Too Late: Improving Academic Outcomes Among Adolescents*,<sup>1</sup> found that high school students who were exposed to “high-impact” math tutoring had significant gains in math test scores and math GPAs—and that these gains persisted beyond the intervention year. The study was a randomized control trial, the gold standard of research design, and its results have promising policy implications, first because the intervention came at a low cost (now \$1,800 per student per year)<sup>2</sup> and second because few interventions in high school years have shown any effect, let alone effects this large (this study has evidence of potentially doubling or tripling the amount math students learn in a year).<sup>3</sup> Further, the researchers estimated a benefit-cost ratio for the high-impact tutoring program that was comparable to benefit-cost ratios for highly regarded early childhood interventions and larger scale programs like the Tennessee Star class size reduction policy.

The tutoring program was implemented by the non-profit **Saga Education**,<sup>4</sup> which currently partners with Chicago Public Schools (the setting for the first two randomized controlled trials), New York City Department of Education, Broward County Public Schools, and District of Columbia Public Schools. Core elements of Saga Education’s high-impact tutoring model include:

- **Time.** Students were exposed to the high-impact tutoring program for **45 minutes each school day**. The time was built into their schedule to replace an elective or double-dose math class. By comparison, most other tutoring interventions are designed to meet with students once every one, two, or four weeks, for 30 minutes to an hour.<sup>5</sup>
- **Structured curriculum.** Saga Education implemented a structured curriculum model that tutors were trained to execute, which gave students the opportunity to practice and learn math skills at their level (e.g., remedial math skills). Students were paired with tutors at a two-to-one ratio—though today the program has evolved to a **four-to-one ratio** where students spend **half the time on a learning platform**. Tutors were trained to plan the **structured curriculum beginning at a level appropriate for their students’ math knowledge and skills**.
- **Coordination.** The Saga intervention **included tutors and a coordinator that works directly with the students’ math teachers**. This coordination ensured the tutoring curriculum covered standards the teachers were covering in their math class in addition to the skills tailored to the students’ needs.

- **Low-cost.** The key innovation of Saga’s intervention was keeping costs low through their model of recruitment and training. They hire tutors at a low cost for **one year of public service.** Because **tutoring requires less professional preparation than teaching,** the applicant pool is greater, and they only need to train employees for four weeks prior to the school year and lose little investment when the tutors leave after a year.

Overall, the high-impact tutoring intervention is exciting for its low cost and potential to improve academic outcomes among struggling high school students in math, a subject linked to success in school and later in life.<sup>6</sup> However, the gaps between struggling high school students and their peers have likely grown after more than a year of remote learning,<sup>7</sup> making it urgent for the District to ameliorate the effects of lost learning opportunities. As the Board considers policies to direct the enormous influx of one-time monies to mitigate learning loss and accelerate learning, a high-impact tutoring intervention like the one studied in the **paper** may offer a promising path.

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<sup>1</sup> Guryan, J., Ludwig, J., Bhatt, M. P., Cooki, P. J., Davis, J. M. V., Dodge, K., Farkas, G., Fryer Jr, R. G., Mayer, S., Pollack, H., & Steinberg, L. (2021). *Not too late: Improving academic outcomes among adolescents* (NBER Working Paper No. 28531). National Bureau of Economic Research.

[https://www.nber.org/system/files/working\\_papers/w28531/w28531.pdf](https://www.nber.org/system/files/working_papers/w28531/w28531.pdf)

<sup>2</sup> The per-pupil cost ranged from \$3,500 to \$4,300 at the time of the study, when the student-to-tutor ratio was two-to-one. Now, Saga Education tutors receive an AmeriCorps grant that reduces the program cost to \$1,800 per student per year. For comparison, the overall per-pupil cost for Chicago students was approximately \$17,000 in FY 2019, versus \$15,500 in L.A. Unified in FY 2019. (For Chicago Public Schools per-pupil funding, see:

<https://www.illinoisreportcard.com/district.aspx?source=environment&source2=perstudentspending&Districtid=15016299025>. For L.A. Unified’s per-pupil funding, see: <https://achieve.lausd.net/cfo>).

<sup>3</sup> The authors’ discuss differences in relative success between interventions geared towards young children and adolescents on pages 2-4.

<sup>4</sup> <https://www.sagaeducation.org/>

<sup>5</sup> E.g., No Child Left Behind funded tutoring (see page 12 of “*Not Too Late*”).

<sup>6</sup> E.g., see: Besecker, M. (2019). *STEM course taking in Los Angeles Unified School District: Access and success by racial/ethnic subgroups*. Independent Analysis Unit, Los Angeles Unified School District Board of Education. <http://laschoolboard.org/sites/default/files/IAUReport20190404-STEMCourseTaking.pdf>

<sup>7</sup> E.g., see: Kufield, M., Soland, J., Tarasawa, B., Johnson, A., Ruzek, E., & Liu, J. (2020). Projecting the potential impact of COVID-19 school closures on academic achievement. *Educational Researcher*, 49(8), 549-565.

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