

## Tutoring Cost Calculator Technical Appendix

The National Student Support Accelerator’s Tutoring Cost Calculator 2.0 was developed by Matthew Kraft, Grace Falken, Sarah White, and Marlene Almanzar with research support from Amanda Duckworth and Deena Haque. It is the result of a mixed-methods research approach to study the cost-inputs across a broad spectrum of tutoring models. We collected data about program costs from three main sources: 1) academic studies, 2) IRS 990 Tax filing forms from non-profit tutoring organizations, and 3) interviews and communication with tutoring organizations. We emphasize that the research we describe below is intended to inform users’ decisions on the cost inputs but that tutor wages and operating costs can vary substantially across program models and local labor markets. All inputs should be informed by the specific context of the user.

### Tutor Compensation

We provide broad baseline estimates for the most common types of tutors.

	Salary & Benefits	Hourly	Sources
Professional	N/A	\$20	Variety of LinkedIn job postings Interviews with tutoring organizations
College Students	N/A	\$10	Colleges not allowed to pay below state and federal minimum wage. Wages are often subsidized by Federal Work Study
Peer Tutors	\$0	\$0	Student sometimes receive course credit for their work or accrue volunteer hours towards graduation requirements
Teachers	\$70,000	\$45	National Average for Elementary/Middle School Teachers in 2019 from BLS rounded: <a href="https://www.bls.gov/oes/current/oes_nat.htm#25-0000">https://www.bls.gov/oes/current/oes_nat.htm#25-0000</a>
AmeriCorps	\$30,000	N/A	Stipends range broadly from \$17,000 to almost \$29,000 excluding benefits and Segal Education Award, we assume that the cost of an AmeriCorps staff is \$30,000 to account for these unobserved differences. <a href="https://www.matcheducation.org/join/match-corps/">https://www.matcheducation.org/join/match-corps/</a> , <a href="https://www.cityyear.org/experience/benefits-resources/compensation/">https://www.cityyear.org/experience/benefits-resources/compensation/</a>
Volunteer	\$0	\$0	
Stipend Young Adult	\$2,000	N/A	Stipends range from \$1,000 to \$2,500, depending on location for Breakthrough Collaborative. Similarly, Generation Teach stipends are \$2,800.

### Program Cost and Key Drivers

Program and support personnel tend to drive costs for tutoring programs. We analyzed the costs of a variety of tutoring programs through IRS 990 forms (required for non-profit status), organizational financial audits, academic research studies, and informal conversations with

program leaders. Across all of these sources, personnel salaries and benefits (tutors, supervisors, and operational staff) constituted the majority of program costs, roughly 60-80% of most program budgets. The other 20-40% of program costs were primarily consisted of costs for materials, such as curricula and technology, and facilities/transportation, such as rented office or instructional space.

Breaking down input costs in a more fine-grain way is difficult given the limited available information. It is relatively straightforward to estimate the costs to employ tutors of various types based on publicly available salary data. However, it is more difficult to determine the personnel costs related to tutor recruitment, training, and oversight from the financial documents of individual organizations. It is similarly difficult to pinpoint exact costs for support personnel, especially for larger national organizations, that also perform functions such as program evaluation, fundraising, human resources.

### **Non-Tutoring Operating Costs Estimates**

We provide very rough baseline estimates about the range of per-pupil operating costs in our calculator to help users estimate overall program costs. These estimates are based on cost data collected from the academic studies, interviews, and tax data described in our Data Sources. We draw on three primary cost estimates we obtained directly or estimated from these sources: total program costs, total tutor costs, and average per-pupil costs.

We estimate operating costs (e.g. all costs except tutor salaries) using the following formula:

$$\text{Avg. operating costs per pupil} = \text{Avg. costs per pupil} * \left(1 - \frac{\text{Total tutor costs}}{\text{Total program costs}}\right)$$

As a second step, we reviewed the program descriptions of tutoring models with lower, moderate, and higher operating costs and attempted to summarize key patterns of the differences between these models.

## Data Sources

**Academic Studies:** We review a wide range of literature. Unfortunately, most research on tutoring does not report information on costs. The studies we primarily draw on include:

Ander, R., Guryan, J., & Ludwig, J. (2016) Improving academic outcomes for disadvantaged students: Scaling up individualized tutorials. *The Hamilton Project*, Policy Proposal 2016-02.

Cook, P., Dodge, K., Farkas, G., Roland, G., Fryer, J., Guryan, J., Ludwig J., Mayer, S., Pollack, H., Steinberg, L. (2015) Not too late: Improving academic outcomes for disadvantaged youth. *Institute for Policy Research, Northwestern University*. Working paper no. 15-01.

Fitzgerald, J., Morrow, L. M., Gambrell, L., Calfee, R., Venezky, R., Woo, D. G., Dromsky, A. (2002) Federal policy and program evaluation and research: The America reads example. *Literacy Research and Instruction*, 41(4): 345-370.

Fryer, R. G. & Howard-Noveck, M. (2020) High-dosage tutoring and reading achievement: Evidence from New York City. *Journal of Labor Economics*, 38(2): 421-452.

Heinrich, C., Burch, P., Good, A., Acosta, R., Cheng, H., Dillender, M., Kirshbaum, C., Nisar, H., Stewart, M. (2014) Improving the Implementation and Effectiveness of Out-of-School-Time Tutoring. *Journal of Policy Analysis and Management*. (33)2, 471-494

Hollands, F., Pan, Y., Shand, R., Cheng, H., Levin, H., Belfield, C., Kieffer, M., Bowden, A. B., Hanisch-Cerda, B. (2013). Improving Early Literacy: Cost-Effectiveness Analysis of Effective Reading Programs. *Center for Benefit-Cost Studies of Education, Teachers College, Columbia University*.

Hollands, F., Kieffer, M., Shand, R., Pan, Y., Cheng, H., Levin, H. (2016). Cost-Effectiveness Analysis of Early Reading Programs: A Demonstration With Recommendations for Future Research. *Journal of Research on Educational Effectiveness*. (9) 1, pp. 30-53.

Jacob, R., Armstrong, C., Bowden, A. B., Pan, Y. (2016) Leveraging Volunteers: An Experimental Evaluation of a Tutoring Program for Struggling Readers. *Journal of Research on Educational Effectiveness*.

Levin, H. (2001). Waiting for Godot: Cost-Effectiveness Analysis in Education. *New Directions for Evaluation*. 90. Pp. 55-68

Shanahan, T., & Barr, R. (1995) An independent evaluation of the effects of an early instructional intervention for at-risk learners. *Reading Research Quarterly*, 30(4): 958-996.

Simon, J. (2011). A Cost-Effectiveness Analysis of Early Literacy Interventions. *Columbia*

*University.*

**Informal Interviews:** Informal conversations were conducted with leadership from ten tutoring organizations of varying types to discuss the validity of high-level tutoring cost bucket. These included Blue Engine, Brightpath Tutors, Educational Justice, Prospect Hill Community Foundation, Inspiring Minds, GoPeer.org, READ Alliance, Tutor.com, Saga Innovations, and White Plains Peer Tutoring.

**Organizational Finance:** We tabulated operating expense data for 24 programs from Part IX of 990 tax forms, which are required and made publicly available for non-profit entities. Additionally, we collected data on program scale using information reported within 990 forms, publicly available audit documents, program annual reports, and information available of program websites. These analyses included tax documents from the following organizations: Breakthrough Collaborative, Breakthrough New York, Citizen Schools, City Year, Generation Teacher, Go Project, Heart Math Tutoring, Inc., Inspiring Minds, Learning Matters, Reading and Math Inc, Reading Partners, Reading Recovery, Reality Changers, Saga Innovations, Serve MN, SpringBoard Collaborative, The Leap Frog Program, The Literacy Lab, Tutoring Chicago, and Vision Tutoring Educational Foundation.