

Appendix A: Additional Tables and Figures

Table A1 - Summary of the Distribution of Tutor Traits Among Student-Level Observations

	Tutor-Student Race Match	
	Mean	N
Tutor is Female	0.901	943
Tutor is Multilingual	0.163	943
Tutor Race: White	0.354	943
Tutor Race: Black	0.470	943
Tutor Race: Other	0.176	943
Tutor Has BA or Higher	0.616	928
At Least One Parent with a BA	0.558	892
Prior Experience as Tutor	1.000	941
Prior Experience as a Tutor for Study Program	0.892	941
Prior Experience as a Teacher	0.496	934
Prior Experience as a Teaching Assistant	0.538	941

Notes: Some tutors elected not to answer certain survey questions; analyses include all available responses provided by each tutor.

Table A2 - Student-Tutor Match Balance on Baseline Scores & Availability of Endline Scores

	Baseline Score	Has Endline Score
	(1)	(2)
A. Equation 1 Estimates		
Black Tutor-Black Student	0.020 (0.107)	-0.004 (0.038)
Black Tutor-Non-Black Student	-0.229+ (0.138)	0.001 (0.041)
Non-Black Tutor- Non-Black Student	-0.199+ (0.117)	0.003 (0.018)
Conditional Control Mean	-0.102	0.913
B. Equation 2 Estimates		
Black Student	0.216+ (0.117)	-0.003 (0.018)
Black Tutor	0.014 (0.170)	-0.003 (0.043)
Black Tutor X Black Student	0.005 (0.181)	-0.001 (0.016)
Conditional Control Mean	-0.102	0.913
N	965	965

Notes: All models include grade, school, and tutor region X wave (randomization strata) fixed effects; standard errors clustered by tutor. Conditional control mean = non-Black tutor-non-Black student cell. Sample: randomized match-sample frame including students missing endline scores; regressions exclude 2 students with missing grade.

Table A3 - Additional Intent-to-Treat (ITT) Estimates of Student-Tutor Match Effects on Reading Scores

	Preferred Model (Robust SEs)	Clustered SEs	Clustered SEs +controls	Excl. tutors only responding to survey 2	Incl. prefer-not-t o-say race responses	Grades K-3 Only	Grades 4-5 Only	Controlling for % Black in group	Controlling for Number of Groups	Controlling for Group Order
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Black Tutor X Black Student	0.057 (0.042)	0.056 (0.049)	0.057 (0.049)	0.078+ (0.044)	0.042 (0.042)	0.119* (0.059)	-0.018 (0.071)	0.060 (0.043)	0.057 (0.042)	0.057 (0.042)
Black Tutor X Non-Black Student	0.114 (0.117)	0.117 (0.073)	0.114 (0.096)	0.140 (0.123)	0.093 (0.111)	0.167 (0.195)	0.106 (0.132)	0.214+ (0.128)	0.114 (0.117)	0.107 (0.118)
Non-Black Tutor X Non-Black Student	0.020 (0.098)	0.010 (0.083)	0.020 (0.097)	0.082 (0.100)	-0.000 (0.091)	0.175 (0.151)	-0.066 (0.132)	0.108 (0.104)	0.020 (0.097)	0.023 (0.098)
Conditional Control Mean	-0.079	-0.079	-0.079	-0.011	-0.041	0.076	-0.180	-0.079	-0.079	-0.079
N	941	941	941	877	977	499	442	941	941	941
Controls for student characteristics	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES

Notes: All models include controls for baseline student achievement, grade, school, and tutor region X wave (randomization strata) fixed effects. Columns (2)-(3) cluster standard errors by tutor; all other columns report robust standard errors. Baseline achievement controls include the standardized baseline score and an indicator for the minimum score. Student characteristic controls include indicators for student race/ethnicity, gender, and English Learner status. Column (8) controls for the share of the tutoring group that is Black; column (9) for the tutor's number of groups; column (10) for group order. Conditional control mean = non-Black tutor-non-Black student cell within each column's sample.

Table A4 : Intent-to-Treat (ITT) Effects of Student-Tutor Race Match on Tutoring Attendance

	% Sessions Attended (Fall)		Total Sessions Attended	
	(1)	(2)	(3)	(4)
A. Specification 1 (Match Arms)				
Black Tutor-Black Student	0.007 (0.030)	0.006 (0.030)	0.324 (1.102)	0.290 (1.114)
Black Tutor-Non-Black Student	0.061+ (0.033)	0.034 (0.039)	2.123+ (1.181)	1.193 (1.424)
Non-Black Tutor- Non-Black Student	0.076* (0.031)	0.049 (0.036)	2.940** (1.137)	2.032 (1.297)
Conditional Control Mean	0.624	0.624	21.616	21.616
B. Specification 2 (Interaction)				
Black Student	-0.076* (0.031)	-0.049 (0.036)	-2.940** (1.137)	-2.032 (1.297)
Black Tutor	-0.015 (0.034)	-0.015 (0.033)	-0.817 (1.211)	-0.839 (1.206)
Black Tutor X Black Student	0.022 (0.044)	0.021 (0.044)	1.142 (1.630)	1.129 (1.634)
Conditional Control Mean	0.624	0.624	21.616	21.616
N	938	938	938	938
Student Controls	NO	YES	NO	YES

Notes: All models include controls for baseline student achievement, grade, school, and tutor region X wave (randomization strata) fixed effects; standard errors clustered by tutor. Conditional control mean = non-Black tutor-non-Black student cell. Sample: match sample with nonmissing fall attendance.

Table A5 - Intent-to-Treat (ITT) Effects of Exact Tutor-Student Race Match

	Standardized Reading Score		% Sessions Attended (Fall)	Total Sessions Attended (Fall)
	(1)	(2)	(3)	(4)
A. Pre-Registered Specification				
Tutor-Student Race Match	0.040 (0.038)	0.053 (0.039)	0.019 (0.016)	0.766 (0.604)
N	940	940	938	940
B. Exploratory: Within-Tutor (Adds Tutor Fixed Effects)				
Tutor-Student Race Match	-0.031 (0.063)	0.007 (0.066)	0.031 (0.023)	1.594+ (0.835)
N	937	937	935	937
Conditional Control Mean	-0.049	-0.049	0.453	15.690
Controls for student characteristics	NO	YES	YES	YES

Notes: This table presents estimates of a generic tutor-student race-match effect. Panel A is the pre-registered specification: school fixed effects and tutor region X wave (randomization strata) fixed effects. Panel B is an exploratory specification adding tutor fixed effects, identifying the match effect within tutors; strata are constant within tutor and absorbed. All models control for baseline student achievement (standardized score and an indicator for the minimum score) and grade fixed effects. Student characteristic controls (columns 2-4) include indicators for student race/ethnicity, gender, and English Learner status. Heteroskedasticity-robust standard errors in parentheses. Race match = student race equals tutor box-checked race. Conditional control mean = non-matched students within each column's sample. + p<0.10, * p<0.05, ** p<0.01, *** p<0.001.

Table A6: Relationships Between Tutor Education and Experience and Student Reading Scores

	(1)	(2)
(A) Tutor Education		
Has BA or Higher	0.021 (0.043)	0.023 (0.043)
N	926	926
(B) Prior Instructional Experience		
Been Tutor For Provider	0.203** (0.076)	0.201* (0.078)
N	939	939
Been Teacher	-0.006 (0.042)	-0.008 (0.041)
N	932	932
Been Assistant	-0.015 (0.048)	-0.019 (0.048)
N	939	939
Controls for student characteristics	NO	YES

Notes: Each cell presents a separate regression of the standardized mid-year reading score on the listed tutor trait. All models include baseline achievement controls (standardized score and an indicator for the minimum score), a Black tutor indicator, tutor caseload (number of groups), and grade, school, and tutor region X wave (randomization strata) fixed effects; standard errors clustered by tutor. Column 2 adds student characteristic controls (race/ethnicity, gender, English Learner status). Has BA or Higher includes tutors with graduate schooling. Ns vary with tutor item response. + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table A7: Relationships Between Tutor Demographic Traits and Student Reading Scores

	(1)	(2)
A. Race/Ethnicity		
Black	0.068+ (0.038)	0.065+ (0.039)
White	-0.006 (0.042)	-0.004 (0.042)
Other	-0.108* (0.047)	-0.104* (0.046)
N	941	941
B. Language Status		
Multilingual	-0.116+ (0.061)	-0.117+ (0.060)
N	941	941
C. Parental Education		
At Least One Parent Has BA	0.061 (0.046)	0.061 (0.046)
N	890	890
Controls for student characteristics	NO	YES

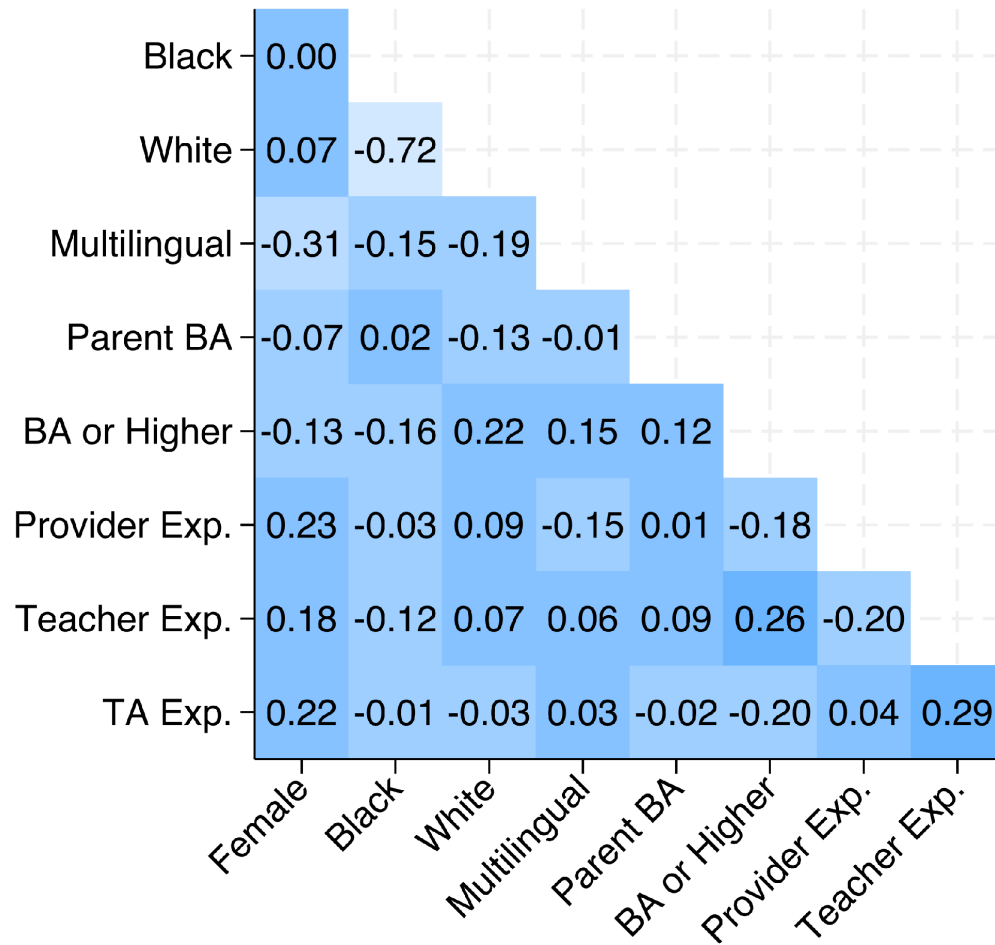
Notes: Each cell presents a separate regression of the standardized mid-year reading score on the listed tutor trait. Race/ethnicity traits are entered alone; the multilingual and parental-education models control for a Black tutor indicator. All models include baseline achievement controls (standardized score and an indicator for the minimum score), tutor caseload (number of groups), and grade, school, and tutor region X wave (randomization strata) fixed effects; standard errors clustered by tutor. Column 2 adds student characteristic controls (race/ethnicity, gender, English Learner status). At least one parent has BA counts reported parents only; students of tutors with no parental education response are excluded from that row. + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table A8: Comparison of Separate and Simultaneous Tutor-Trait Estimates

	Single Predictor Estimates	Simultaneous Regression	Single Predictor Estimates (Complete- Case Sample)
	(1)	(2)	(3)
Been Tutor For Provider	0.203** (0.076)	0.197*** (0.057)	0.206** (0.076)
Been Teacher	-0.006 (0.042)	-0.007 (0.041)	-0.015 (0.041)
Been Assistant	-0.015 (0.048)	0.005 (0.049)	-0.008 (0.048)
Has BA or Higher	0.021 (0.043)	0.037 (0.045)	0.021 (0.045)
Black	0.068+ (0.038)	0.069+ (0.041)	0.078* (0.038)
Other	-0.108* (0.047)	-0.034 (0.060)	-0.111* (0.047)
Multilingual	-0.116+ (0.061)	-0.094 (0.065)	-0.119+ (0.064)
N	Varies (926-941)	917	917

Notes: Each cell in columns 1 and 3 presents a separate regression of the standardized mid-year reading score on the listed trait; column 2 enters all traits simultaneously. Single-predictor race traits are entered alone and compared with all other tutors, as in Table A7; in the simultaneous model the White indicator is omitted as the reference category, so column 2 race coefficients are relative to White tutors. All models include baseline achievement controls (standardized score and an indicator for the minimum score), tutor caseload (number of groups), a Black tutor indicator in non-race trait models, and grade, school, and tutor region X wave (randomization strata) fixed effects; standard errors clustered by tutor. Column 1 uses each trait's full available sample; columns 2 and 3 use the complete-case sample with all traits observed. Has BA or Higher includes tutors with graduate schooling. + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Figure A1. Pairwise Correlations Among Tutor Traits (Tutor–Student Match Sample, N = 86)



Notes: Cell entries are pairwise correlation coefficients among the nine tutor traits, computed at the tutor level for the 86 tutors in the tutor–student match sample; darker shading indicates a more positive correlation. Parent BA = at least one reported parent holds a BA; BA or Higher includes tutors with graduate schooling; Provider Exp. = prior tutoring for the study provider; Teacher Exp. = classroom teaching experience; TA Exp. = teaching assistant experience.

Appendix B: Survey Measures

Student surveys gathered additional information on demographics, background, availability, time zone, native language, and interest in specific content areas or grade levels. They also explored students' confidence in reading, willingness to seek help, identification as a learner, excitement about tutoring, attitudes toward school and peers, and overall self-perception as learners. A survey with simplified language was fielded to kindergarten through third graders, with a separate one administered to fourth and fifth grade students. Response rates to the student survey were low among both K-3 and 4-5 students in the analytic sample, with baseline responders totaling, respectively, 56 and 79, and endline responders totaling 37 and 35. As such, we do not use these surveys in our analysis.

Tutoring Interest and Availability Form

Please take a few moments to provide your availability as an  Tutor for the upcoming school year 2022-23.

* Required

1. Email *

2. Name (First, Last) *

3. Phone Number *

Interest
and
Availability

Please take a few moments to provide your interest and availability as an  Tutor for the upcoming school year.

4. Which engagement(s) did you tutor for previously? (Please select all that apply) *

5. Which engagement(s) you would like to tutor for this year? (Please select all that apply) *

Check all that apply.

☐	
☐	
☐	

6. What time zone will you be tutoring from? *

Mark only one oval.

- ☐ Eastern Daylight Time (EDT)
☐ Central Daylight Time (CDT)
☐ Mountain Daylight Time (MDT)
☐ Mountain Standard Time (MST)
☐ Pacific Daylight Time (PDT)
☐ Alaska Daylight Time (AKDT)
☐ Hawaii Standard Time (HST)

7. How many hours each week would be your ideal number of consistent hours for the 2022-23 academic year? *

Mark only one oval.

- ☐ 9 - 15 hours
☐ 15-30 hours
☐ 30-40 hours

8.  tutoring happens 3 times a week. Are you available a minimum of 3 days a week for the '22-'23 school year? *

Mark only one oval.

- ☐ Yes
☐ No

9. At this time, are you able to provide the specific days and times that you will be available to tutor for the 2022-2023 academic year? *

Note: You will have an opportunity to adjust your availability during onboarding, and we recognize that this may change slightly.

Mark only one oval.

- ☐ Yes
☐ No

10. TRUE OR FALSE: I am available any day/ any time. *

Mark only one oval.

- ☐ True: Starting in the 2022-2023 school year, I can be available all week and therefore will leave the grid below blank (because there are no times I CANNOT tutor).
- ☐ False: I have other commitments through the week, and I will indicate the times I CAN tutor in the grid below.

11.  tutoring happens 3 times a week. Please check all days/ hours that you are available to tutor in Fall 2022

You should mark availability based on the time zone you selected in the prior question.

Check all that apply.

	Monday	Tuesday	Wednesday	Thursday	Friday
6-7 am	☐	☐	☐	☐	☐
7-8 am	☐	☐	☐	☐	☐
8-9 am	☐	☐	☐	☐	☐
9-10 am	☐	☐	☐	☐	☐
10 - 11 am	☐	☐	☐	☐	☐
11 am- Noon	☐	☐	☐	☐	☐
Noon - 1pm	☐	☐	☐	☐	☐
1-2 pm	☐	☐	☐	☐	☐
2-3 pm	☐	☐	☐	☐	☐
3-4 pm	☐	☐	☐	☐	☐
4-5 pm	☐	☐	☐	☐	☐
5-6 pm	☐	☐	☐	☐	☐
6-7 pm	☐	☐	☐	☐	☐
7-8 pm	☐	☐	☐	☐	☐
8-9 pm	☐	☐	☐	☐	☐

Demographic
Information

Tutoring is supporting nation-wide tutoring research in partnership with the National Student Support Accelerator. We would like you to provide the information outlined below to help us contribute to national research on tutoring programs.

Please note : Your demographic information will not be shared across the Program Management team and will only be used for the research partnership.

12. Where did you grow up? Please enter "NA" if you are not comfortable providing this information. *

13. Where do you currently live? Please enter "NA" if you are not comfortable providing this information. *

14. What is your gender? *

Mark only one oval.

- ☐ Female
☐ Male
☐ Non-Binary
☐ Other
☐ Prefer Not to answer

15. How would you describe your racial/ethnic/cultural identity? Please enter "NA" if you are not comfortable providing this information. *

16. Please check each race/ethnicity that best describes you. (Please check each box * that applies.)

Mark only one oval.

- ☐ American Indian or Alaskan Native
- ☐ Asian or Asian American
- ☐ Black or African American
- ☐ Hawaiian / Pacific Islander
- ☐ Latino/a or Hispanic American
- ☐ Middle Eastern
- ☐ White/Caucasian
- ☐ Other
- ☐ Prefer not to answer

17. What language(s) do you speak? (Please check each box that applies.) *

Check all that apply.

- ☐ Arabic
- ☐ Chinese
- ☐ English
- ☐ French / French Creole
- ☐ Korean
- ☐ Spanish
- ☐ Tagalog
- ☐ Vietnamese
- ☐ Prefer not to answer

18. Please select the highest level of education you have completed. *

Mark only one oval.

- ☐ Graduated from high school
- ☐ 1 year of college
- ☐ 2 years of college
- ☐ 3 years of college
- ☐ Graduated from a 4-year college
- ☐ Some graduate school
- ☐ Completed graduate school
- ☐ Other
- ☐ Prefer not to answer.

19. Please select the highest level of education completed by your mother. If you aren't sure, please take your best guess. *

Mark only one oval.

- ☐ Did not attend school
- ☐ 1st Grade
- ☐ 2nd Grade
- ☐ 3rd Grade
- ☐ 4th grade
- ☐ 5th Grade
- ☐ 6th Grade
- ☐ 7th Grade
- ☐ 8th Grade
- ☐ 9th Grade
- ☐ 10th Grade
- ☐ 11th Grade
- ☐ 12th Grade
- ☐ Graduated from high school
- ☐ 1year of college
- ☐ 2 years of college
- ☐ 3 years of college
- ☐ Graduated from a 4-year college
- ☐ Some graduate school
- ☐ Completed graduate school
- ☐ Other
- ☐ Prefer not to answer

20. Please select the highest level of education completed by your father. If you aren't ^{*} sure, please take your best guess.

Mark only one oval.

- ☐ Did not attend school
- ☐ 1st Grade
- ☐ 2nd Grade
- ☐ 3rd Grade
- ☐ 4th Grade
- ☐ 5th Grade
- ☐ 6th Grade
- ☐ 7th Grade
- ☐ 8th Grade
- ☐ 9th Grade
- ☐ 10th Grade
- ☐ 11th Grade
- ☐ 12th Grade
- ☐ Graduated from high school
- ☐ 1 year of college
- ☐ 2 years of college
- ☐ 3 years of college
- ☐ Graduated from a 4-year college
- ☐ Some graduate school
- ☐ Completed graduate school
- ☐ Prefer not to answer

21. Have you ever tutored students before? (Check all that apply) *

Check all that apply.

- ☐ No
☐ Yes, with Amplify
☐ Yes, somewhere else
☐ Prefer not to answer

22. Have you ever worked as a classroom teacher? *

Mark only one oval.

- ☐ No
☐ Yes (If yes, please indicate grade and subject of last classroom assignment)
☐ Prefer not to answer

23. If you responded yes to the prior question, please indicate the grade and subject of your last classroom assignment below. Otherwise, please enter "NA."

24. Have you ever worked as a teaching assistant? *

Mark only one oval.

- ☐ No
☐ Yes (if yes, please indicate grade and subject of last classroom assignment)
☐ Prefer not to answer

25. If you responded yes to the prior question, please indicate the grade and subject of your last classroom assignment below. Otherwise, please enter "NA." *