

Background

Minimum, Recommended, and Distinguished high school plans

- ▶ Graduation plans for students from 1997/98 through 2013/14.
- ▶ Latest versions of the Recommended and Distinguished plans required 4 years of English, mathematics, science, and social studies, and were aligned with the admission requirements for 4-year colleges in Texas.

Foundation High School Program

- ▶ High school graduation requirements for students entering public high schools in Texas beginning with grade 9 students in 2014/15.
- ▶ Eliminated Algebra II as a graduation requirement.
- ▶ Introduced 5 endorsement options.
- ▶ No longer aligned with 4-year college admission requirements in Texas.

Study design

Randomized controlled trial

School-level random assignment to treatment and control conditions within region (and district as necessary)

Recruitment

Goals

1. Recruit at least two high schools from each of the 20 Education Service Center regions across the state.
2. Recruit high schools that did not require or strongly encourage students to complete Algebra II.

Methods

- ▶ District research applications.
- ▶ Email messages and telephone recruitment calls.
- ▶ Public Information Requests (PIRs).

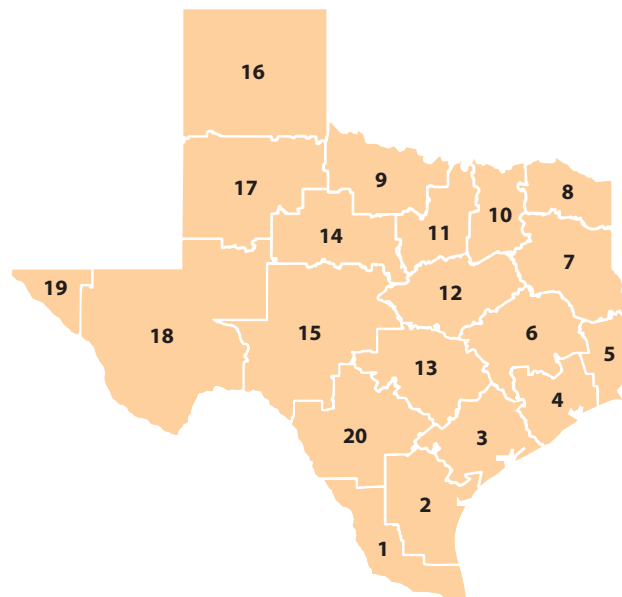
Research questions

Confirmatory

Does providing parents and guardians with information about the role of Algebra II in college admission have an impact on the percentage of students who complete Algebra II during grade 11?

Exploratory

Do the impacts vary by a school's percentage of students who are racial/ethnic minorities or economically disadvantaged?



Information dissemination

Schools recruited through telephone calls, email messages, and district research applications were given two options:

1. Mail the brochures themselves.
2. Provide researchers with student names and addresses.

Schools opting to mail the brochures were provided a stamped envelope addressed to study researchers and were asked to mail the envelope at the same time they mailed the student envelopes.

Brochures for the parents of students in schools recruited through PIRs were mailed by study researchers.

Sample: Baseline equivalence

Characteristics	Students in treatment schools (N = 14,415)	Students in control schools (N = 15,068)	Effect size
Gender			
Female	0.49	0.48	0.02
Male	0.51	0.52	0.03
Race/ethnicity			
Asian	0.02	0.02	0.00
Black	0.21	0.19	0.08
Hispanic	0.54	0.62	0.20
Other race/ethnicity	0.02	0.02	0.00
White	0.20	0.15	0.21
Student characteristics			
Economically disadvantaged	0.61	0.70	0.24
In special education	0.11	0.11	0.00
English learner	0.14	0.16	0.10
Achievement			
Average Algebra I end-of-course scale score	3,720.39 (601.11)	3,704.03 (556.08)	0.03

Methods: Two level models

Student level

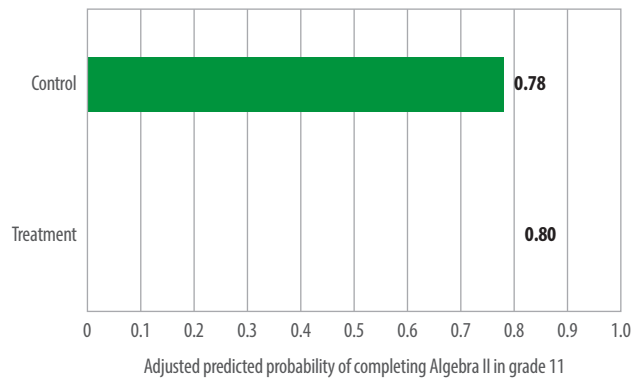
Gender, race/ethnicity, limited English proficient status, economic disadvantage, Algebra I EOC score

School level

Treatment, percentage minority, percentage economically disadvantaged, percentage special education, percentage English learners, school enrollment, Algebra I EOC passing rate

Exploratory analyses added either treatment X low-income or treatment X high racial/ethnic minority students

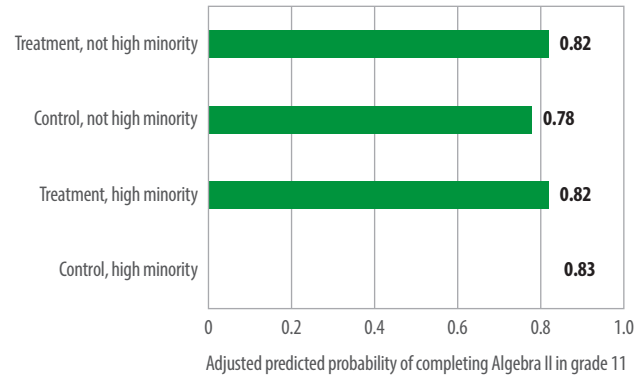
Informing parents about the role of Algebra II in college admission had no clear impact on Algebra II completion rates for grade 11 students.



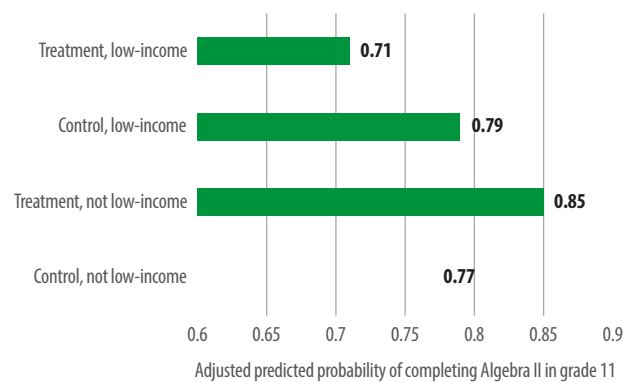
Citation

Stoker, G., & Mellor, L. (2018). *Impact of providing information to parents in Texas about the role of Algebra II in college admission* (REL 2018–290). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Southwest. Retrieved from <http://ies.ed.gov/ncee/edlabs>

In schools with a high percentage of racial/ethnic minority students, informing parents about the role of Algebra II in college admission had no clear impact on Algebra II completion rates for grade 11 students.



Algebra II completion rates in grade 11 did not differ between students in low-income treatment and control schools; however, an exploratory analysis suggests that the effects of the intervention differed, depending on whether students were in low-income schools or not.



Implications of the study

Overall, the study did not find statistically significant differences in Algebra II completion rates in grade 11 between students in treatment and control schools:

- ▶ No overall effects for schools with a high percentage of racial/ethnic minority students or low-income students.
- ▶ Findings similar to a statewide study conducted by the authors.

However, the exploratory analysis did find statistically significant interaction between school-level treatment and low-income school status:

- ▶ It suggests that the informational brochures functioned differently depending on the type of school they were distributed to: low-income or not low-income.
- ▶ Additional research could help parse this out and could help The Texas Education Agency (or other state agencies) better design and target informational materials for parents and guardians.

Algebra II completion remained consistent before and after the implementation of the new graduation requirements, 2007/08–2014/15 cohorts

