



RETAKING ALGEBRA



Comparing online and face-to-face credit recovery for at-risk students

Who retook algebra? A total of 1,224 high school freshmen participated in this study.¹

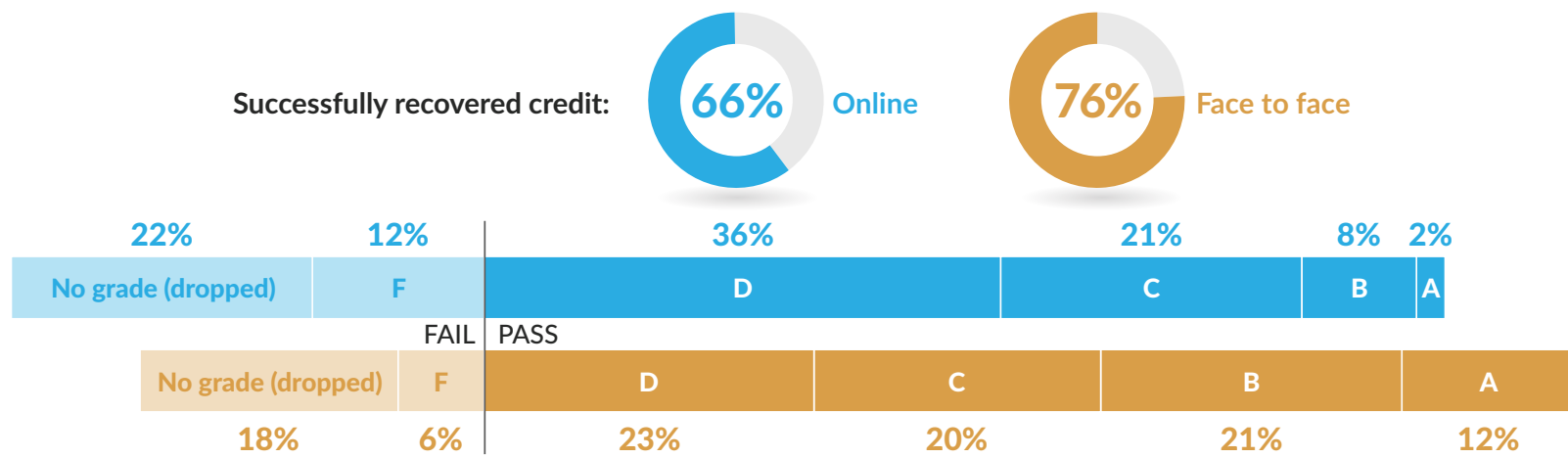
Students who failed algebra were more likely to be male, Hispanic, and eligible for free or reduced price lunch than students who passed. On average, they had failed more than three other semester-long courses in addition to algebra.



¹The students in this study participated in summer credit recovery in 17 high schools in the Chicago Public Schools, during summers 2011 or 2012

Did students succeed the second time?

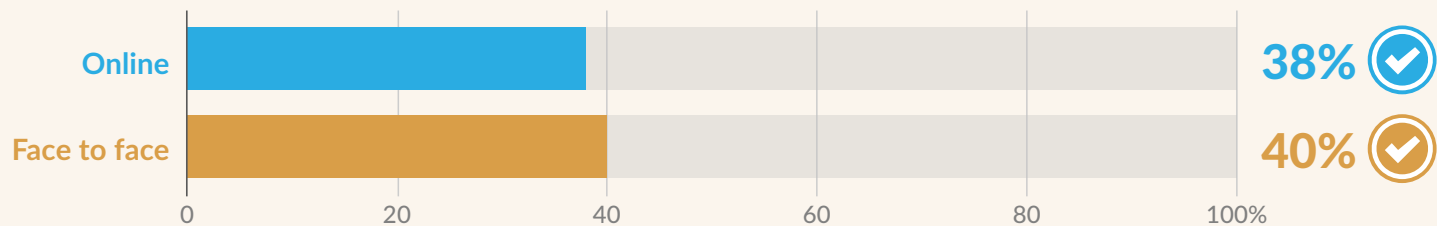
More students in the face-to-face classes earned a D or better—and recovered course credit—than students in the online classes.



Did students' math skills and confidence improve?

Students in the online classes scored lower on an end-of-course test than students in the face-to-face classes.

Average exam score at the end of the course (percent correct)



Students' experiences in the courses

- Class Difficulty** Students in the online classes thought the course was **more difficult** than students in face-to-face classes.
- Clarity** Students in the online classes were **less clear** about what they needed to do to succeed in the course than students in the face-to-face classes.
- Attitude** Students in the online classes reported **lower confidence** in their math skills, and **liked math less** than students in the face-to-face classes.

LONG-TERM OUTCOMES

- Did students pass other math classes?** Students in the online and face-to-face classes passed their next high school math courses, geometry and algebra II, at similar rates.
- How did students score on math achievement tests?** Students in the online and face-to-face classes had similar scores on the PLAN (or "pre-ACT") standardized math achievement test in 10th grade.
- Did students graduate on time?** **47%** of both online and face-to-face course students graduated in four years.

Source: Heppen, J. B., Sorensen, N., Allensworth, E., Walters, K., Rickles, J., Taylor, S. S., & Michelman, V. (2016). The struggle to pass algebra: Online vs. face-to-face credit recovery for at-risk urban students. *Journal of Research on Educational Effectiveness*. doi:10.1080/19345747.2016.1168500 www.air.org/project/back-track-study-using-online-courses-credit-recovery

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