



CollegeSpring
Impact Report

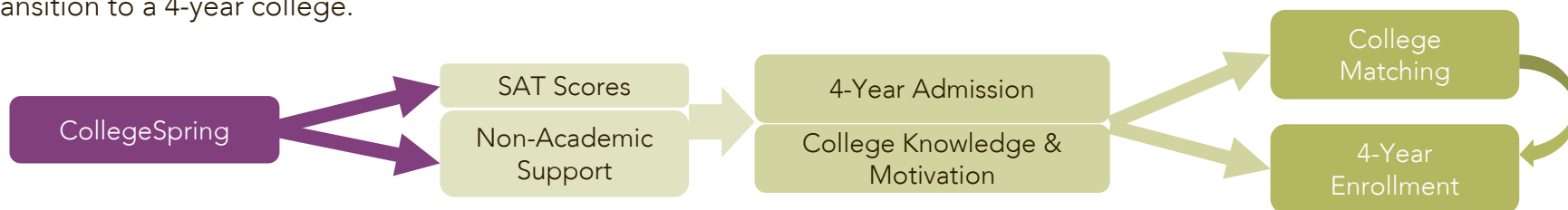
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Data provided by CollegeSpring, Alliance College-Ready Public Schools (Los Angeles), Green Dot Public Schools (Los Angeles), and Envision Schools (Bay Area)

Executive Summary

CollegeSpring exists for the purpose of helping low-income students access a high-quality 4-year college education. The method by which CollegeSpring accomplishes this goal is through a high-touch program in which students receive SAT preparation and college-readiness services from professional instructors and near-peer mentors. The immediate impact of the program is clear. Historically, CollegeSpring students in our academic year programs boost their in-program SAT scores by **172 points**; the increase from junior year baseline to the actual SAT is **158 points**.

Yet, **SAT score increases are simply a means to giving our students a college education and a bright future.** We assert that SAT score increases are associated with an increased probability for students to be accepted to better colleges, leading to better college matching and a greater likelihood that students will enroll and succeed. Moreover, we posit that our high-touch programming pushes students who, even with the academic ability, may lack the knowledge and motivation to successfully transition to a 4-year college.

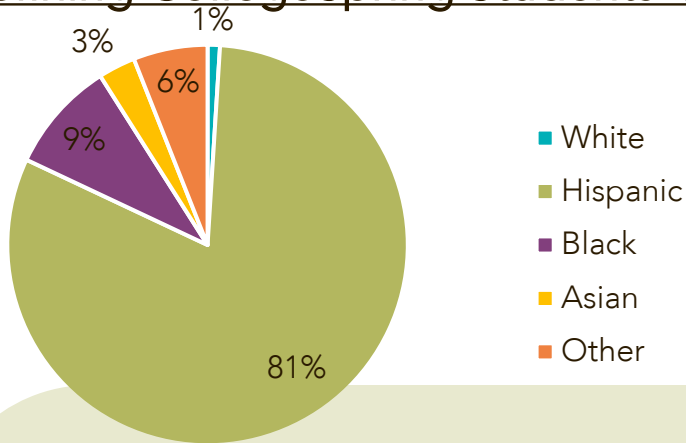


However, this begs the question: **does CollegeSpring have an impact on students beyond the SAT?** In other words, does our impact model work?

This report tracks CollegeSpring's impact through 4-year admission, college matching, and 4-year college enrollment, **offering empirical evidence for each piece of our impact model.**

- On pages 1-2, we present data demonstrating the high academic and non-academic need of the students we serve and our ability to positively impact their college outcomes – even if they fall below the SAT college readiness benchmark.
- On page 3, we show data demonstrating our impact on our students' SAT scores.
- On pages 4-5, we demonstrate the relationship between increasing SAT scores and the probability of 4-year college admission.
- On page 6, the increased probability of 4-year admission is echoed in CollegeSpring students' increased admission to California State Universities relative to other similar students.
- On page 7, we demonstrate CollegeSpring's impact on student college enrollment, across levels of GPA.
- On pages 8-9, we show how CollegeSpring's impact goes beyond SAT score increases into better college matching in students' college admissions and greater likelihood of 4-year enrollment, regardless of SAT score.

Defining CollegeSpring Students' Need



CollegeSpring serves students who are known to be at a disadvantage in 4-year college access. The statistics on this page are from 1,651 of the students in our current program cycle.

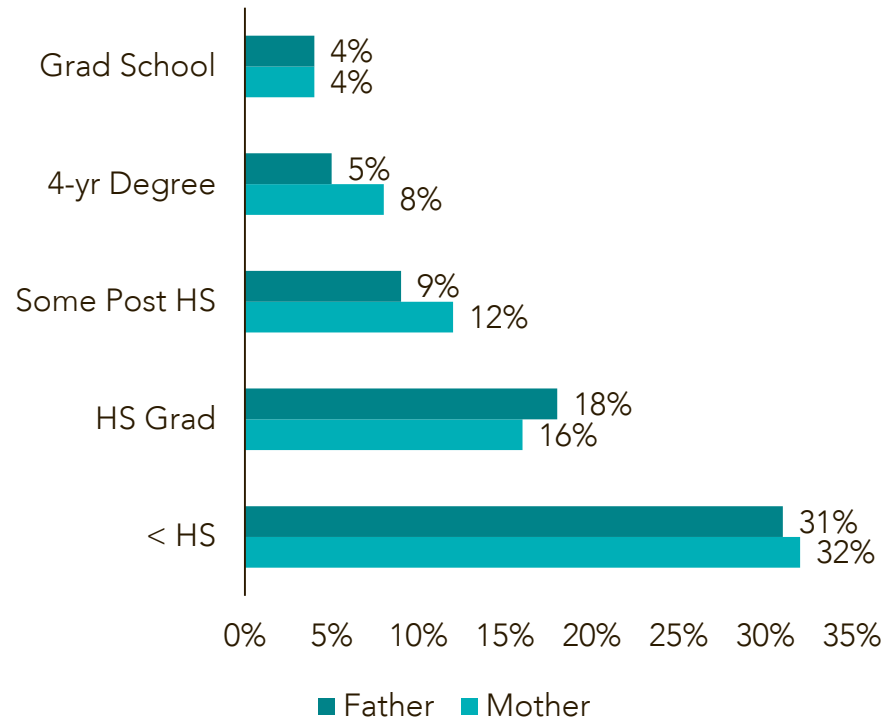
CollegeSpring students are mostly racial and ethnic minorities, many first- or second- generation immigrants. The **vast majority of students receive free and reduced lunch**, speaking to the well-established income gap in SAT scores and college attainment¹.

Likewise, most CollegeSpring students do not have parents who finished college (indeed, many have parents who did not complete high school). They lack the support and knowledge of a parent's college experience.

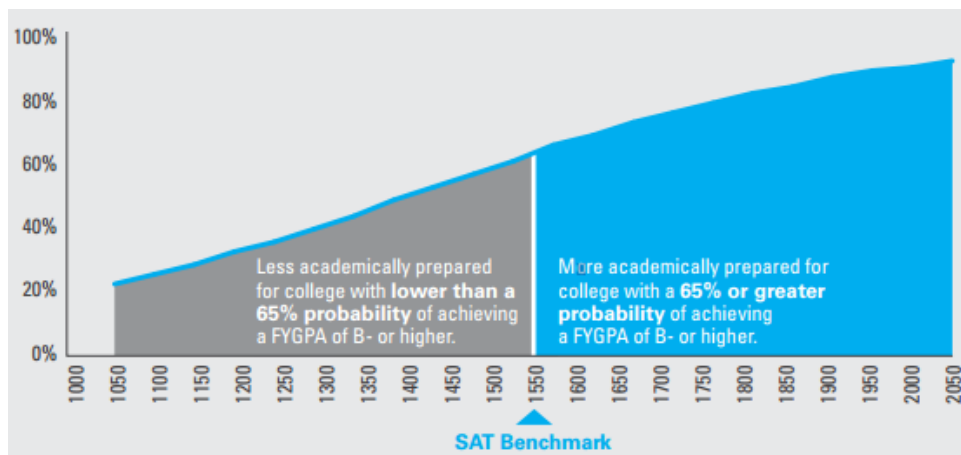
On average, CollegeSpring students come into the program scoring **1058 on the SAT**. In other words, CollegeSpring serves those who are **truly the highest need**.

85% received free or reduced lunch
 50% are English Language Learners
 81% from immigrant parents
 12% are immigrants
 79% will be first-generation college students

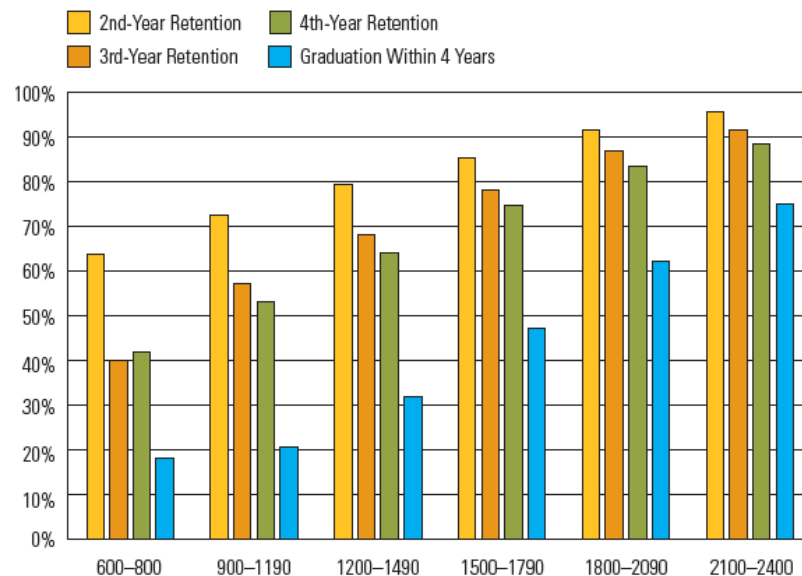
Parental Education



Serving Students Below the College Board SAT Benchmark



College Board 2013 SAT Report on College & Career Readiness



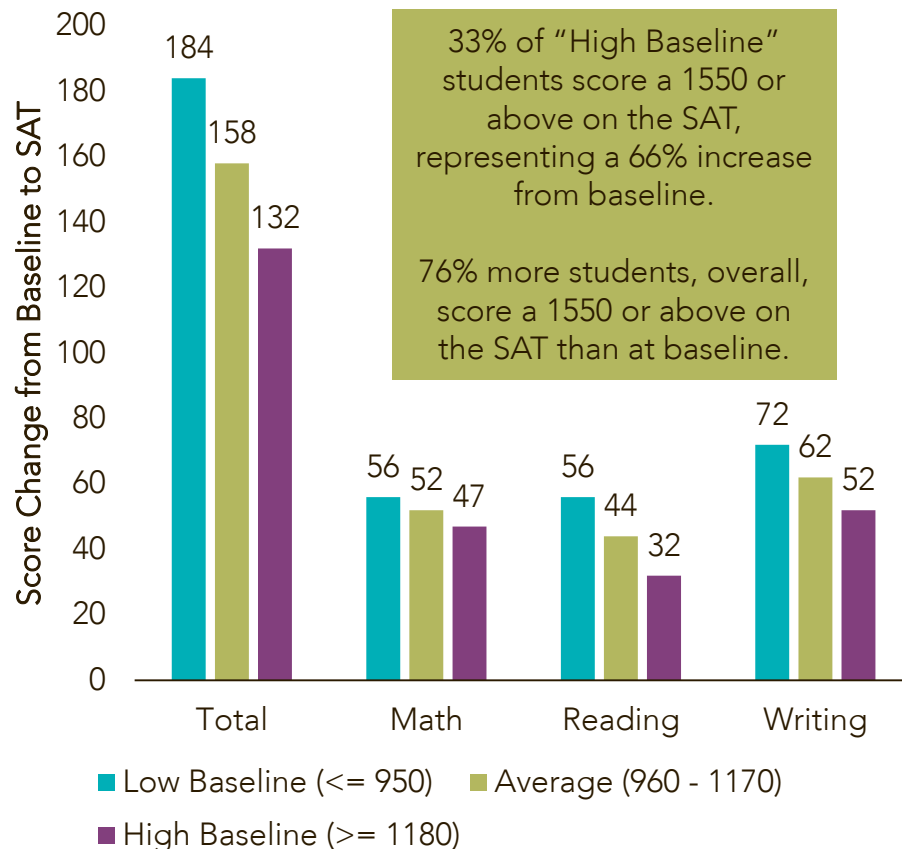
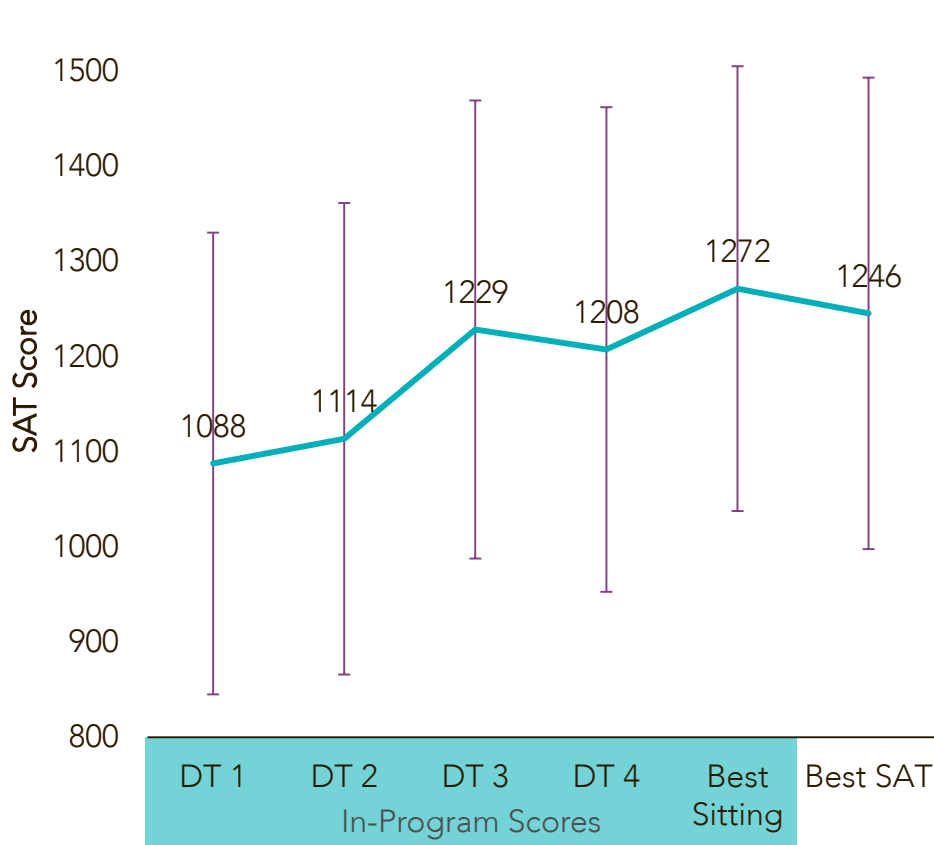
The SAT: Supporting Retention and Graduation (sat.collegeboard.org/landingpages/higher-ed)

CollegeSpring serves what is arguably the highest need population of students: low-income, minority students with low baseline SAT scores. Because schools and NPOs may have a strong focus on meeting SAT benchmarks², students with a low baseline may never get access to the support they need to succeed in college. By serving all students in a junior class or all students who want to be served over the summer, **CollegeSpring reaches those highest need students.**

Yet, many point to the College Board SAT Benchmark (1550) as the marker of the success of college access interventions. CollegeSpring students, who come in scoring well below 1200 on the SAT, have little hope of meeting that benchmark during the course of the program and, indeed, during the course of high school.

However, a closer look at College Board's data shows that the benchmark marks a point on a continuum. Students who score a 1250 on the SAT are more likely to do well in college and graduate than students who score a 1100. Indeed, this difference is comparable to the difference between those students who score a 1550 and a 1400. In other words, **pushing students SAT scores above the benchmark is similar in impact to increasing scores the same amount below the benchmark.** In the College Board's own words³, "...college readiness is a continuum and... students scoring below the SAT benchmark may still be successful in college, especially with additional preparation and perseverance."

CollegeSpring Improves Students' SAT Scores

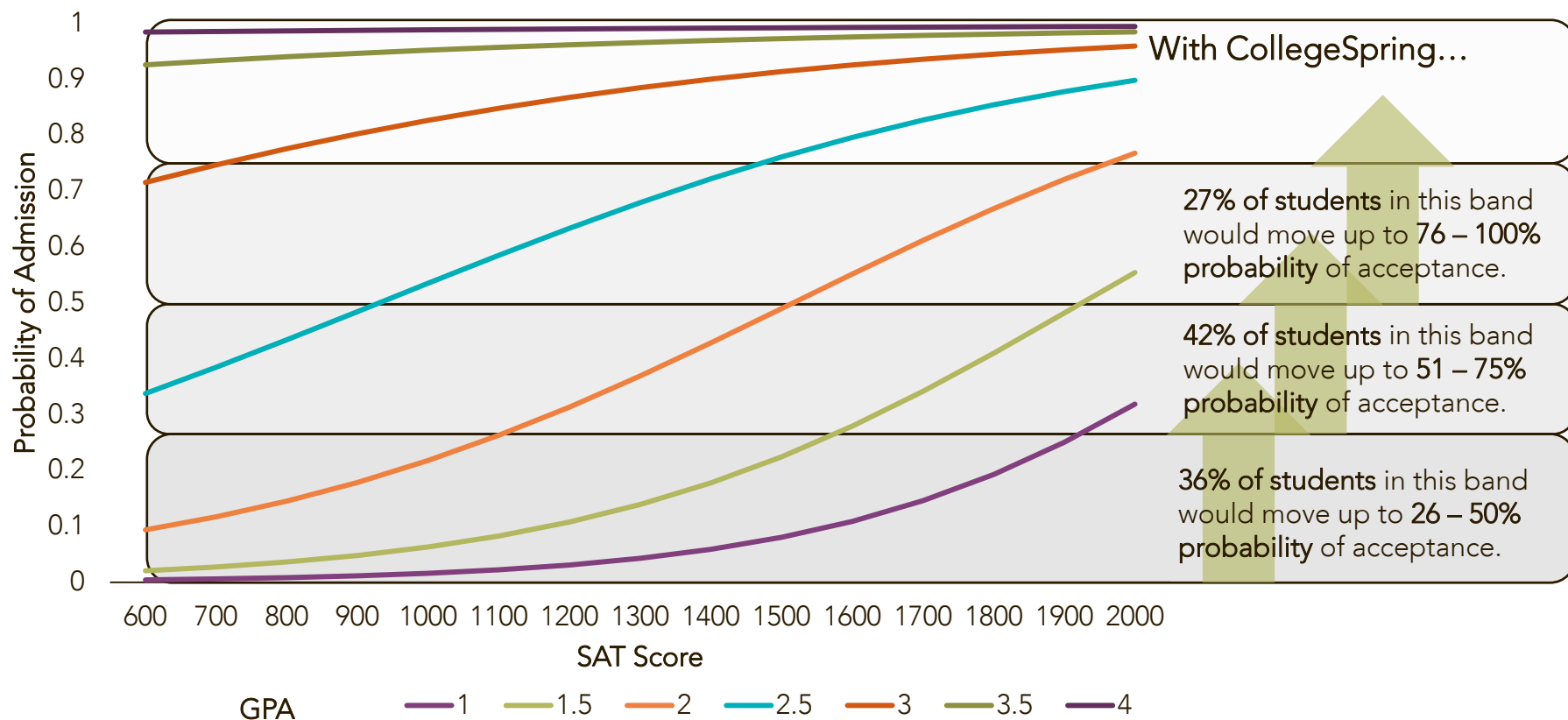


The two graphs on this page indicate CollegeSpring students' SAT score improvements. The data in these graphs come from CollegeSpring's Fiscal Year 2013 programs: Academic Year 2012-2013 and Summer 2014. During this time, CollegeSpring served 2,272 students across California.

On the left, the graph shows the number of points students improve from the point at which they come into the program (DT 1) to the actual SAT. In FY13, students improved their scores an average of **187 points** in the program; to the SAT, scores improved an average of **158 points**. The vertical lines indicate 1 SD above and below the mean.

The graph on the right shows that CollegeSpring is particularly impactful on the 1/3 of students who come in at the lowest baseline. In other words, **CollegeSpring works best for those students who need the most help**.

The Relationship between SAT Score Increase and 4-Year College Admission

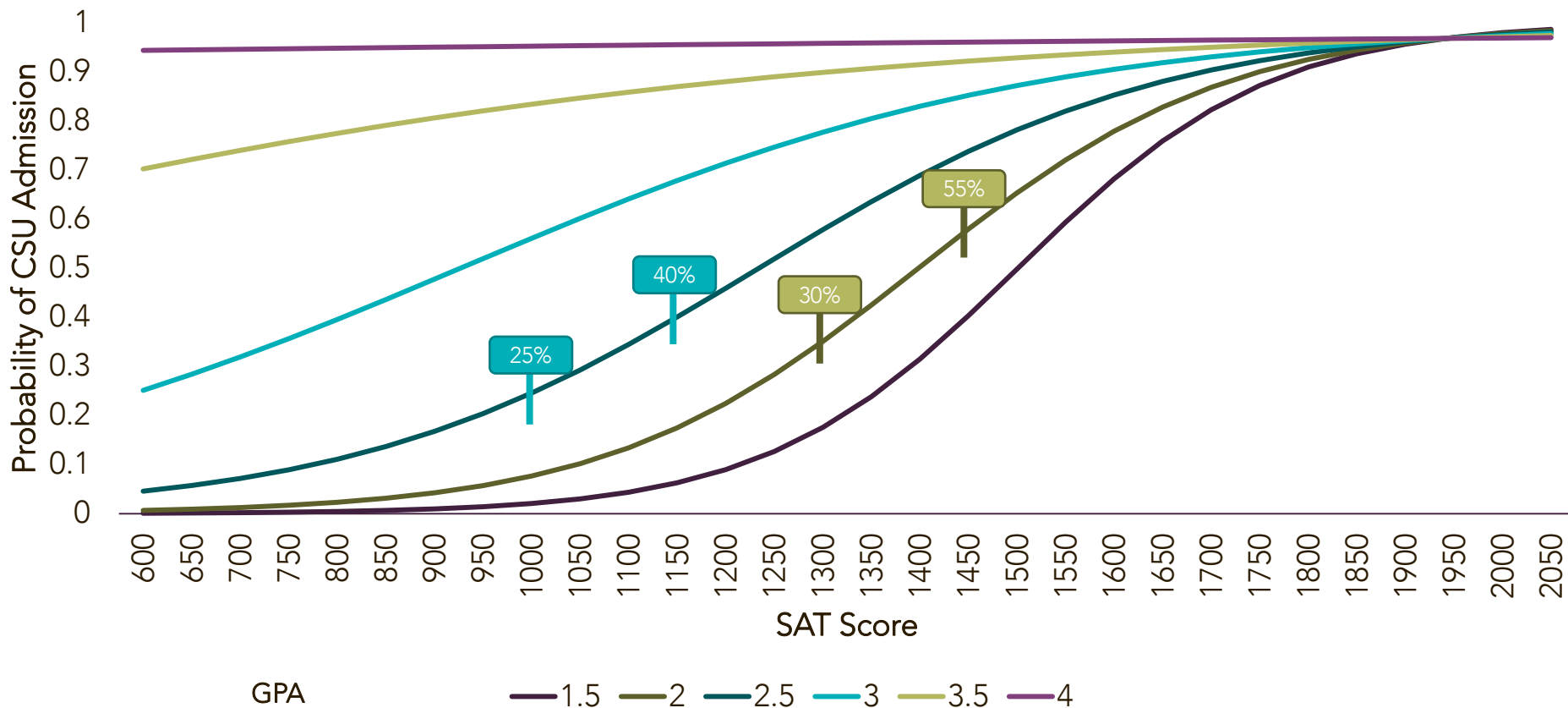


In a sample of 6,626 students from 33 charter schools in California, we used SAT scores (range 600 – 2206), GPAs (range 0 – 4.52), and college data to **calculate expected probabilities of 4-year college acceptance for students from high-minority, low-income high schools**⁴. The curves on the left side of the figure show that SAT scores can significantly increase the probability of admission – especially for students with lower GPAs in the low to mid ranges.

We then used our students' data to project what SAT scores students in the sample who did not complete CollegeSpring would have obtained had they gone through the CollegeSpring program⁵. We used projected SAT scores to calculate probability of college acceptance. **The percentage of students with increased probability are on the right side of the figure.**

This figure shows admission for 4-year schools, overall, including private and public schools. There may be more of an impact of SAT score increases on particular 4-year schools.

The Relationship between SAT Score Increase and 4-Year College Admission: CSUs



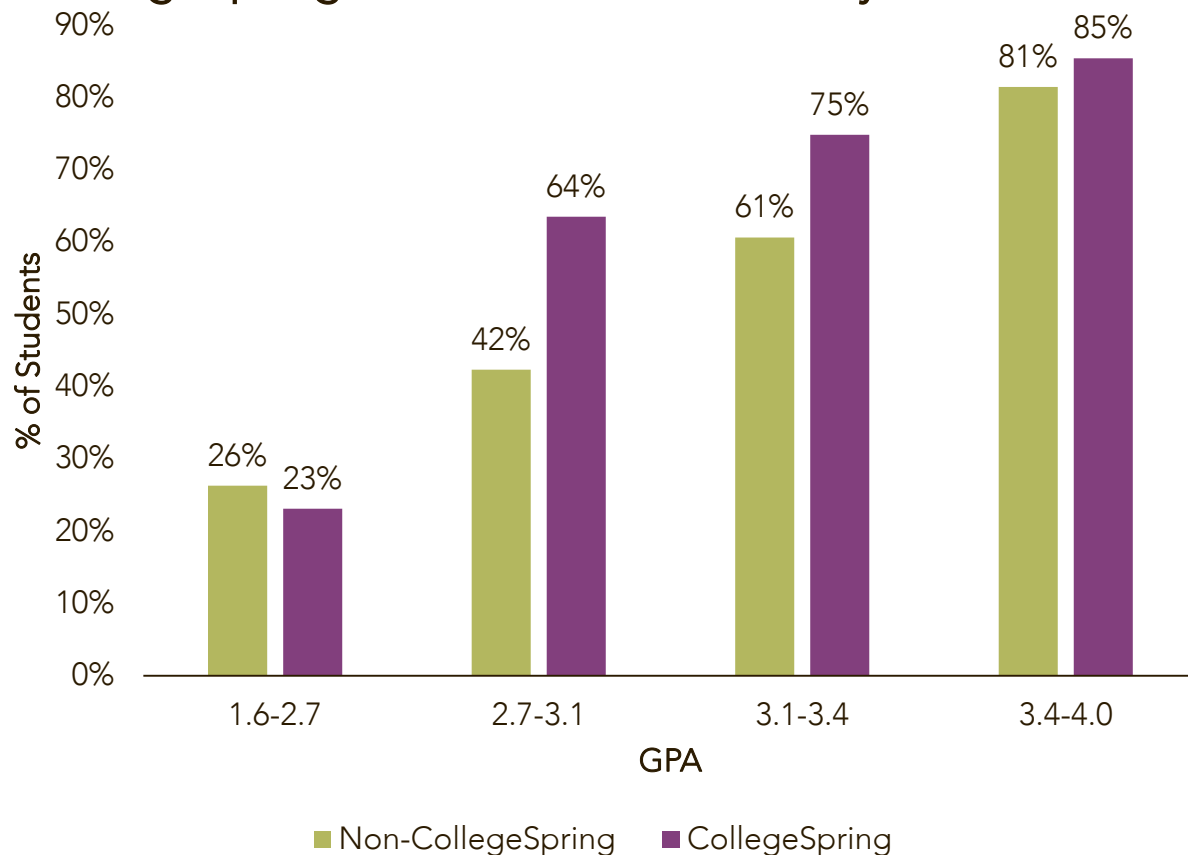
This analysis examines admission to a California State University, specifically.

In a sample of 6,726 college applications of Los Angeles charter school students, we used SAT scores, GPAs, and college data to calculate expected probabilities of acceptance to a CSU for students from high-minority, low-income high schools.

This analysis showed that students with SAT scores above 1700 and those with higher GPAs have a very high probability of getting accepted to a CSU. However, for students with GPAs in the midrange and SAT scores below 1700, SAT scores are strongly related to the probability of acceptance.

For example, for a student with a GPA of 2.5, the probability that they will be accepted to a CSU goes up by 15 percentage points if they raise their SAT score from 1000 to 1150.

CollegeSpring Students are More Likely to Gain Admission to CSUs



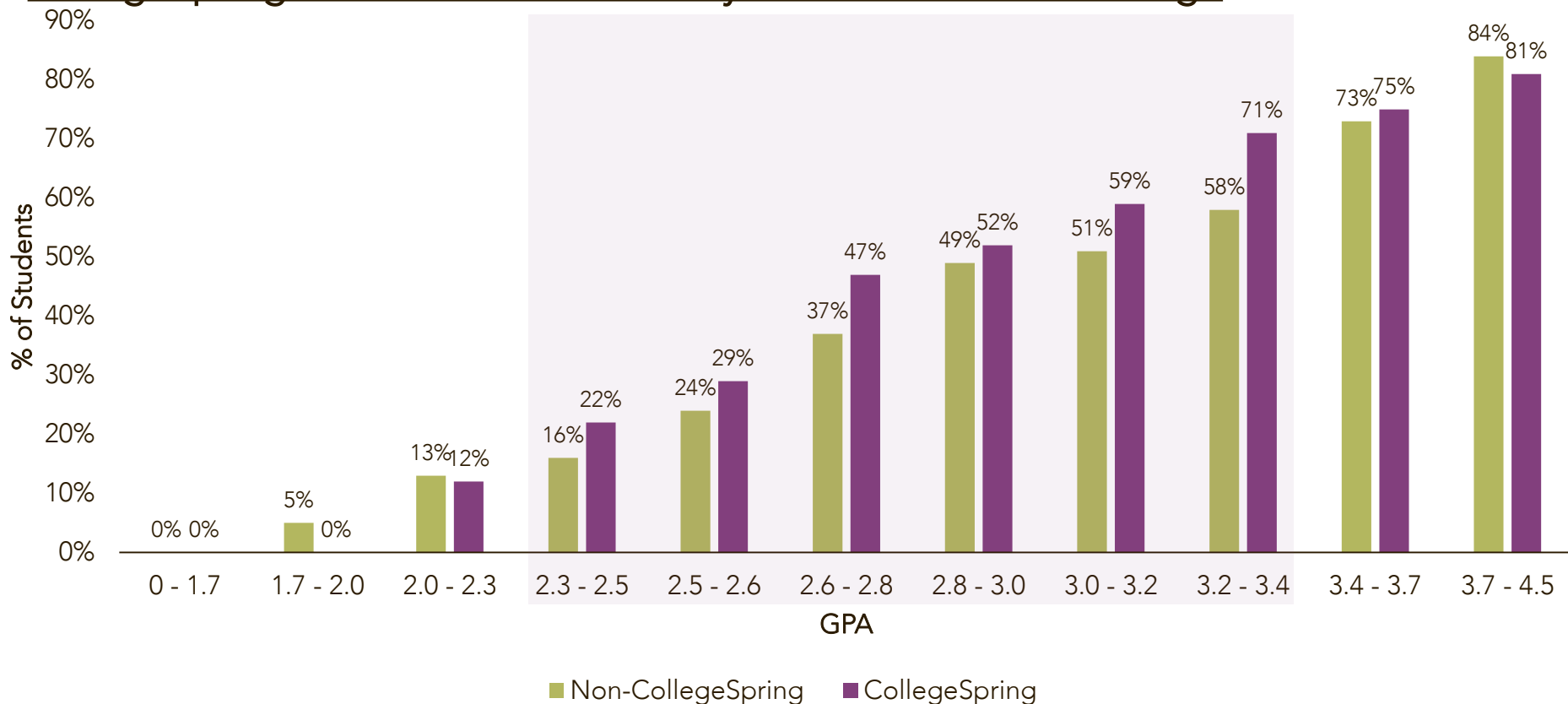
For every 1000 students who go through CollegeSpring, 120 additional students will get accepted to a California State University.

This could translate to **\$1,800,000** additional annual earnings for that group of students⁶.

We used data from 1,338 college applications of Los Angeles charter school students. We compared the application outcomes of students who completed the CollegeSpring program (c/o 2013) to the application outcomes of students at those same schools who did not complete the CollegeSpring program (c/o 2012).

As we predicted, we found that **students who completed the CollegeSpring program were more likely to be accepted to CSUs** than students in those same schools who did not complete the CollegeSpring program. This was especially true for students with midrange GPAs.

CollegeSpring Students are More Likely to Enroll in 4-Year College

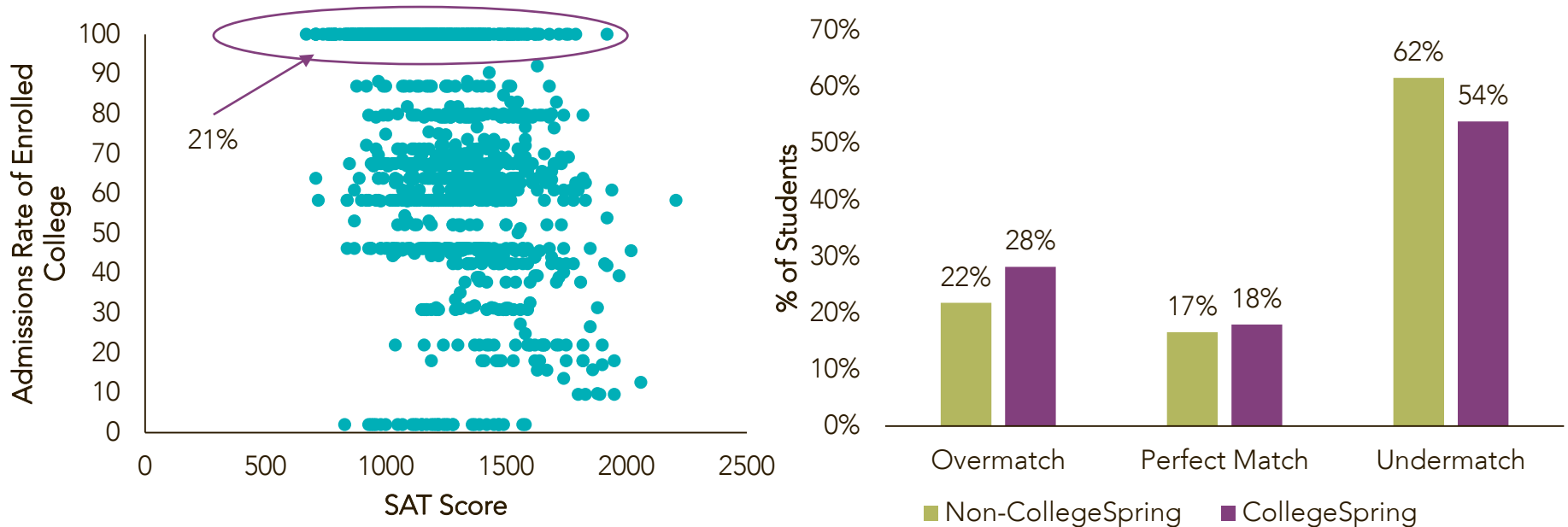


With greater four-year acceptance and lower likelihood of college undermatching (and greater likelihood of college overmatching), CollegeSpring students are well-suited for successful 4-year college enrollment.

Indeed, this is what we found among a sample of 1,599 California charter high school graduates. Students who had completed the CollegeSpring program were **more likely to have enrolled in a 4-year college** after graduating high school than were those students who did not complete the CollegeSpring program.

This difference was particularly pronounced among students with mid-range GPAs. These are likely students who particularly **can benefit from and need the additional support CollegeSpring offers students**. Students on the lower and higher end of the GPA spectrum can't benefit from or don't need, respectively, the additional support from CollegeSpring.

Beyond Academics: CollegeSpring Students are Less Likely to Undermatch

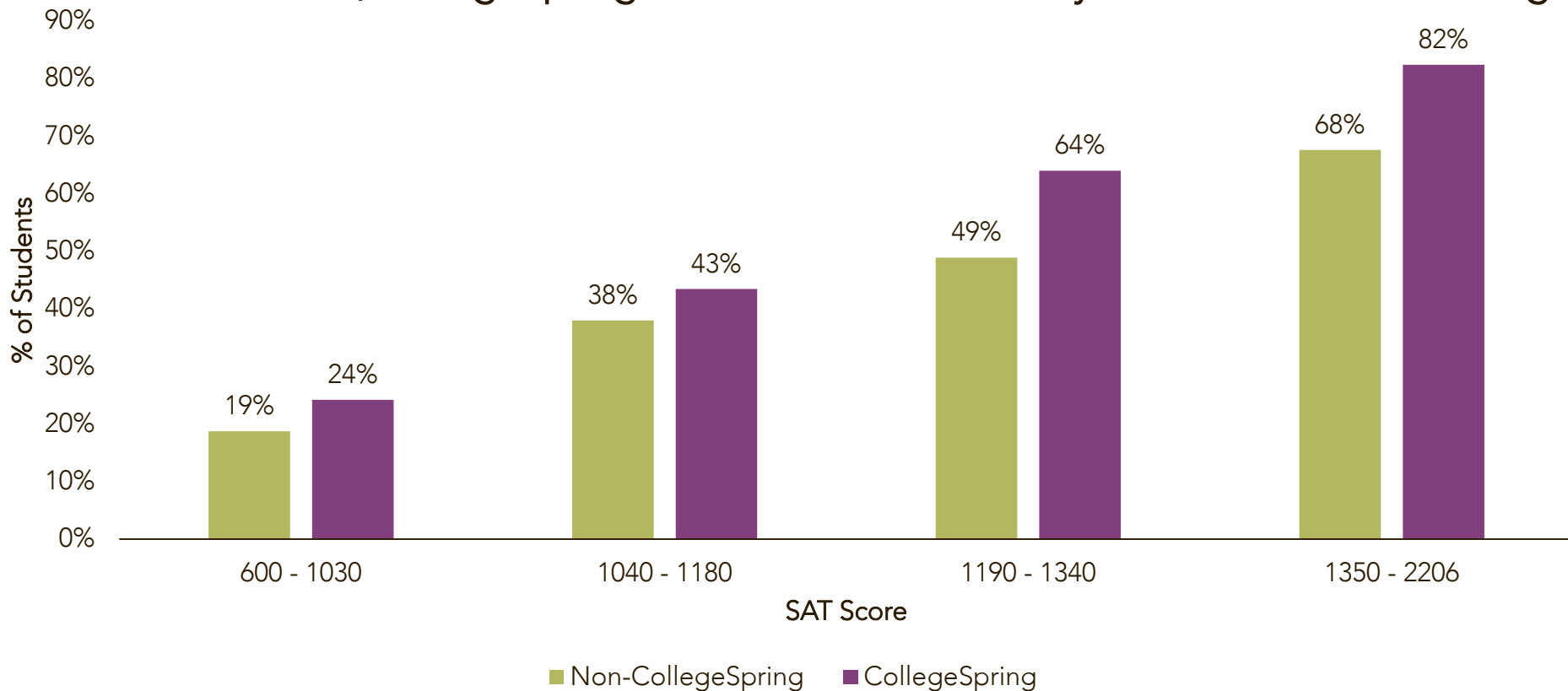


However, raising SAT scores is not the end of the story. CollegeSpring's high-touch programming gives students the confidence and information they need to live up to their potential.

Low-income students tend to **undermatch** for college – they attend less selective schools than they likely could attend based on their academic profile⁷. These students lose the benefit of attending a more selective school with better resources. The scatterplot on the left uses data from 1,691 California charter school students to show the relationship between SAT scores and the selectivity of the colleges in which students enroll. The highlighted portion shows that many students with high SAT scores still attend non 4-year colleges with a 100% admissions rate. This indicates that students need more than just scores to successfully enroll in a well-matched college.

We then compared the selectivity of schools students should have been able to attend given their academic profile⁸ and the average selectivity of schools to which they were accepted. We found that **students who did not complete the CollegeSpring program were more likely to undermatch than were CollegeSpring students**. Likewise, **CollegeSpring students were more likely to overmatch than were students who did not complete CollegeSpring**.

Across SAT Scores, CollegeSpring Students are More Likely to Enroll in 4-Year College



We expected that CollegeSpring students would be more likely to enroll in college at every level of SAT scores – demonstrating that **CollegeSpring offers students more than score increases**.

Indeed, this is what we found among a sample of 1,599 California charter high school graduates. Students who had completed the CollegeSpring program were **more likely to have enrolled in a 4-year college** after graduating high school than were those students who did not complete the CollegeSpring program.

This difference was particularly pronounced among students with higher SAT scores. This could indicate that, in addition to academically preparing students for college, **CollegeSpring gives students the non-academic skills and motivation they need to successfully enroll**.

Endnotes

1. Executive Office of the President (2014, January). Increasing college opportunity for low-income students: Promising models and a call to action. Retrieved May 2nd, 2014 from http://www.whitehouse.gov/sites/default/files/docs/white_house_report_on_increasing_college_opportunity_for_low-income_students.pdf.
2. A recent report from the California Department of Education cites the College Board SAT benchmark as a goal for college readiness in the state. California Dept. of Ed (2014, April). Measures for a college and career indicator: Research brief on SAT & ACT. Retrieved June 23, 2013 from <http://www.cde.ca.gov/ta/ac/pa/documents/apr14item06ho2.pdf>.
3. College Board (2011). The SAT college and career readiness benchmark: User guidelines. Retrieved June 23, 2014 from http://media.collegeboard.com/digitalServices/pdf/sat/12b_6661_SAT_Benchmarks_PR_120914.pdf.
4. To calculate the probability of four-year college acceptance, we used a multilevel logistic model (clustered by graduation year) to predict four-year college acceptance (0 = no acceptance, 1 = acceptance) from SAT score and GPA among a sample of students from high-minority, low-income charter high schools who had applied to college (N = 6626). There was a significant interaction of SAT and GPA, resulting in the following predictive model: $\log(p/1-p) = -11.19 + 3.72 \times \text{GPA} + .004 \times \text{SAT} - .0001 \times \text{GPA} \times \text{SAT}$. We then calculated the expected values (converted to probabilities) for combinations of SAT scores and GPAs to generate the probability graph.
5. To assess the probability of four-year college acceptance students would have had had they gone through the CollegeSpring program, we used data from the most recent completed CollegeSpring academic year cycle to obtain the average student score increase from junior year baseline to best SAT score ($M = 161$). We then subtracted 40 points from that number to account for the average amount The College Board has found that students increase their SAT scores over the course of one academic year (<http://professionals.collegeboard.com/testing/sat-reasoning/scores/retake>; Final Adjustment = +121). We then generated the predictive probability of four-year acceptance by running student GPA and SAT (both actual and projected had they gone through CollegeSpring) through the predictive model we generated for four-year college acceptance. We compared the probabilities generated for actual and projected SAT scores.
6. Earning potential was calculated by taking the difference between the average annual salary of high school grads and college grads (15k), multiplied by the expected number of additional students with a CSU acceptance after going through CollegeSpring (120). Numbers sourced from: <http://nces.ed.gov/fastfacts/display.asp?id=77>
7. Hoxby, C. M., & Avery, C. (2012, December). The missing "one-offs": The hidden supply of high-achieving, low income students. *National Bureau of Economic Research*, Working paper No. 18586.
8. To calculate the likely selectivity level of four-year colleges to which students would be accepted, we used a multilevel model (clustered by graduation year) to predict the most selective college to which students were admitted (numbers obtained from <http://colleges.usnews.rankingsandreviews.com/best-colleges/search?int=999f08>) from SAT score and GPA among a sample of students from high-minority, low-income charter high schools (N = 2,271). The cubic effect of SAT score was significant, resulting in the following predictive model: $Y = 176.95 - 13.09 \times \text{GPA} - .142 \times \text{SAT} + .0001 \times \text{SAT} \times \text{SAT} - .000000003 \times \text{SAT} \times \text{SAT} \times \text{SAT}$. We then calculated the expected values for combinations of SAT scores and GPAs to generate individual student expected selectivity. We then compared this to the average selectivity of schools to which students were actually admitted.