Intensive College Counseling and the College Enrollment Choices of Low Income Students

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Abstract Body

Limit 4 pages single-spaced.

Background / Context:

Description of prior research and its intellectual context.

While college enrollment among low-income students has increased steadily over the last decade, the share of students from the lowest-income families that enroll in college continues to lag considerably behind college entry rates among the highest income students (Baum, Ma, and Payea, 2013). Furthermore, gaps in college completion by family income have only widened over time (Bailey and Dynarski, 2012).

Despite substantial economic returns associated with completing college—especially for low-income students—there are various financial and informational barriers that may prevent economically-disadvantaged students from accessing higher education at all or from selecting institutions that are well-matched to their abilities and circumstances. Lower-income students and their families tend to over-state the net costs of going to college; may have difficulty identifying the full set of colleges and universities to which they would be academically admissible; and may not understand the variation in college quality or affordability among different higher education institutions (Avery and Kane, 2004; Horn, Chapmen, and Chen, 2003; Hoxby and Avery, 2012; Hoxby and Turner, 2013; Grodsky and Jones, 2007).

Historically, policy interventions to ameliorate socioeconomic inequalities in college entry and success have focused primarily on increasing college access among students from economically-disadvantaged backgrounds. However, the earnings premia associated with college primarily accrue not based on whether students have completed some college but rather based on whether they earn a degree (Baum, Ma, and Payea, 2013). Recent research suggests that students who attend higher-quality institutions, as measured by institutional characteristics like six-year graduation rates, are more likely to persist in college and earn a degree (Cohodes and Goodman, 2013; Hoxby and Turner, 2013). At the same time, as many as half of low-income students neither apply to nor attend the quality of institution at which they appear admissible based on their academic credentials (Avery and Hoxby, 2013; Bowen, Chingos, and McPherson, 2009; Smith, Pender, and Howell, 2013).

A more recent set of policy interventions has emerged to: (1) guide students to choose colleges where they have a good probability of earning a degree without incurring excessive debt, and (2) provide ongoing support to students once they have matriculated in college. Many communities rely on more intensive college advising models to improve both overall college access and choice among low-income students. Though community-based college advising programs have existed for decades, there is relatively little causal evidence documenting their impact on important student outcomes, including the quality and affordability of institution at which students enroll and whether they persist and succeed in college. Existing research evidence is mixed. (Avery, 2010; Avery 2013; Carrell and Sacerdote, 2013; Seftor, Mamun, and Schirm, 2009).

Purpose / Objective / Research Question / Focus of Study:

Description of the focus of the research.

Additional rigorous evidence on the efficacy of intensive college advising programs would be of considerable value to researchers and policy makers; while these programs cost much more than low-cost informational interventions, they may be more effective at improving postsecondary pathways for a more academically mainstream population of students. And to the extent that they

contribute to meaningful increases in degree attainment, the long-term benefits may justify sizeable upfront expenditures.

To address this gap in the literature, we evaluate the impact of an intensive college advising program called Bottom Line on low-income students' college enrollment and persistence.

Setting:

Description of the research location.

We conducted our analyses with Bottom Line, a non-profit organization that provides intensive college advising to students during their senior year of high school. Bottom Line operates in Boston and Worcester Massachusetts; New York City, New York; and Chicago Illinois. Our analyses focus on students participating in the Bottom Line program in Massachusetts.

Population / Participants / Subjects:

Description of the participants in the study: who, how many, key features, or characteristics.

Our sample consists of nearly 3,000 Bottom Line applicants from the classes of 2010 through 2012 who had valid (i.e. non-missing) GPAs and were successfully merged to the Massachusetts Dpeartment of Elementary and Secondary Education's data. Over two-thirds of applicants are female and a similar number are black or Hispanic. Nearly four-fifths are low income, as measured by receipt of subsidized lunch. Over half speak a language other than English at home. Given their family backgrounds, these students have high rates of enrollment, with 61% enrolling in a four-year college immediately after graduation and another 13% enrolling in a two-year college. Nearly three-fifths of Bottom Line applicants are continuously enrolled in a four-year college for two years.

Intervention / Program / Practice:

Description of the intervention, program, or practice, including details of administration and duration.

Bottom Line provides advising throughout the senior year of high school and its advisors meet individually with students to develop lists of well-matched colleges and universities to which they can apply. Advisors help students complete their college and financial aid applications and, once students have received acceptances, assist students in choosing which college to attend.

A somewhat unique feature of the Bottom Line model is its emphasis on encouraging students to apply to and attend a set of 20 target colleges and universities. Bottom Line has identified these schools as institutions where students have a greater probability of graduating without incurring excessive loan debt. For students who enroll at one of the target institutions, Bottom Line continues to provide individualized, campus-based support for up to six years following high school. Bottom Line also discourages students from attending a set of institutions where students are thought to have a lower chance of success or a greater likelihood of accumulating considerable debt. Bottom Line thus strives to affect not only whether students enroll in college but where they enroll as well.

Research Design:

Description of the research design.

Evaluating the impact of college guidance is generally difficult because the quantity and quality of guidance available to a given student is correlated with numerous other determinants of college enrollment and persistence, including school quality, parental involvement and the student's own aspirations. We address this challenge by exploiting the fact that, as part of its

selection process, Bottom Line uses a GPA threshold of 2.5 as a guideline for determining which students are qualified for its services.

We use this GPA threshold to implement a regression discontinuity design (RD) that compares the college outcomes of students just above and below that threshold. Such students are nearly identical both in terms of academic skills, as measured by GPA, and other observed and unobserved characteristics and should differ only in their access to the college guidance services provided by Bottom Line. This GPA cut-off was not well-publicized, nor do we find evidence of strategic positioning of students just above the eligibility threshold. We test whether the density of students just above the threshold looks similar to the density just below the threshold, as suggested by McCrary (2008). Such tests show no evidence that GPAs just above 2.5 are over-represented relative to GPAs just below 2.5, suggesting no obvious manipulation by students. We also confirm that nearly all observable covariates are balanced across the threshold. These facts suggest that students on either side of the threshold are quite similar in terms of both observable and unobservable characteristics, and reinforces our conclusion that students did not appear to strategically report their GPAs to be just above the qualifying threshold.

Data Collection and Analysis:

Description of the methods for collecting and analyzing data.

Data for this analysis come from Bottom Line, from the Massachusetts Department of Elementary and Secondary Education (DESE), and from the Integrated Postsecondary Education Data System (IPEDS).

Bottom Line rejected some students above the GPA threshold and accepted others below it. We therefore focus our analysis on a fuzzy RD in which we instrument the probability of treatment with program eligibility based on students' GPA. Our first stage regression has the form:

$$Treated_{isc} = \beta_0 + \beta_1 Above_{isc} + \beta_2 GPA_{isc} + \beta_3 Above\_GPA_{isc} + \delta_c + \varepsilon_{isc}$$

where *Treated* indicates acceptance into the Bottom Line program. We then estimate treatment impacts by running regressions of the form:

$$College_{isc} = \beta_0 + \beta_1 Treated_{isc} + \beta_2 GPA_{isc} + \beta_3 Above\_GPA_{isc} + \delta_c + \varepsilon_{isc}$$

where treatment status has been instrumented using the first stage equation above. The treatment coefficient thus represents a local average treatment effect for students granted access to Bottom Line's program because their GPAs were just high enough.

Findings / Results:

Description of the main findings with specific details.

Our regression discontinuity analysis yields four main findings. First, the intensive college advising offered by Bottom Line induces a substantial number of students to enroll in one of the encouraged four-year colleges rather than in discouraged four-year colleges or two-year colleges. Treated students are 41 percentage points more likely to enroll in one of Bottom Line's encouraged colleges immediately following high school graduation, relative to a control group enrollment rate at these colleges of 31% for students just below the GPA threshold. Treatment lowers the probability of enrolling in one of the discouraged colleges by 18 percentage points and lowers the probability of enrolling in a two-year college by 36 percentage points. Second,

this effect is particularly strong for students from families where English is not the first language. Third, treatment reduces the average net price of the institutions students are attending, likely lowering their financial burden. Bottom Line induces students to enroll in four-year colleges with average net prices $7,400 lower than they otherwise would have, a result shown visually in Figure 4. This is not an indication of the actual costs such students are paying because IPEDS' measure is an average across all students. It does, however, suggest that students are being diverted into four-year colleges with lower sticker prices, higher amounts of grant aid, or some combination thereof. We also find suggestive evidence that students are induced by Bottom Line into colleges with 3-year loan default rates 1.6 percentage points, or one-third, lower than they would otherwise attend. Fourth, we see suggestive but not conclusive evidence of increases in overall four-year college enrollment and persistence through the first two years of college. We argue that this evidence suggests that intensive college advising can have meaningful impacts on college enrollment decisions and may improve persistence and, ultimately, degree completion.

Conclusions:

Description of conclusions, recommendations, and limitations based on findings.

Improving college access and success for economically-disadvantaged students has emerged as a top policy priority at the federal level. Much attention has been devoted to low-cost, easily-scaled strategies to improve college entry and success for lower-income students. These informational and behavioral strategies have generated positive impacts for high-achieving students and for students who have already completed several key stages in the application process (e.g. getting accepted to college and applying for financial aid). It is an open question, however, whether these low-touch interventions would be similarly effective for students lower in the academic distribution or for students who are not as far along in the college process.

While Bottom Line clearly exerts a strong influence on *where* students enroll, it is less clear that the program generates overall increases in the rate at which students enter or persist at any four-year college or university. Though the direction and magnitude of the point estimates suggest that Bottom Line may have a sizable effect on overall enrollment and persistence in the four-year sector, we lack sufficient power to estimate these models with precision.

This pattern of results raises an interesting and policy-relevant question: Is shifting students' college choices beneficial, either for individuals or society, if doing so does not result in detectable differences in the probability that students persist in college? While Bottom Line did not appear to induce students to attend higher-quality institutions (as measured by six-year graduation rate), it had a clear impact of the affordability of institutions that students attended. Average net prices were 35 percent lower at the colleges and universities where students just above the Bottom Line threshold enrolled compared to the institutions where students just below the cut-off enrolled. The cohort default rates were lower by a similar magnitude, though these latter estimates were not statistically significant. By helping students enroll and persist at institutions where they were equally likely to succeed but at substantially lower average cost, Bottom Line may have reduced the financial burden students incurred to pursue a college degree. Given substantial policy attention to rising loan default rates and the negative impacts that loan repayments can have on asset accumulation and other outcomes, this is an encouraging finding.

Appendices

Not included in page count.

Appendix A. References

References are to be in APA version 6 format.

Appendix B. Tables and Figures

Not included in page count.