Geodemographics of Student List Purchases by Public Universities:

A First Look

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Introduction

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In the enrollment management industry, the "enrollment funnel" is a conceptual model that describes stages in the process of recruiting students. Depicted in Figure 1, the funnel begins with a large pool of "prospects" that the university would like to "convert" into customers.

At each successive stage – inquiries, applicants, admits – the funnel narrows in order to convey the assumption of "melt" (e.g., a subset of "inquiries" will apply), ending with the cohort of enrolled students. Practically, the enrollment funnel informs interventions that increase the probability of "conversion" from one stage to another (Campbell, 2017). For example, emails and brochures encourage prospects and inquiries to apply. Financial aid packages – institutional grant aid and loan guidance – convert admits to enrolled students.

At the top of the enrollment funnel, universities identify leads by buying "student lists," which contain the contact information of prospective students. Sometimes referred to as "names," student lists are the fundamental input for recruiting interventions that target individual prospects via mail, email, text, and on social media. The two dominant student list vendors are the College Board and ACT, which create student list products based on their database of standardized test takers. In fall 2021, the College Board Search and ACT Encoura student list products both charged $0.50 per name (The College Board, 2021a). These products enable universities to control which prospects they purchase through the use of search filters (e.g., test score range, high school GPA range, zip code).

Figure 1

The enrollment funnel

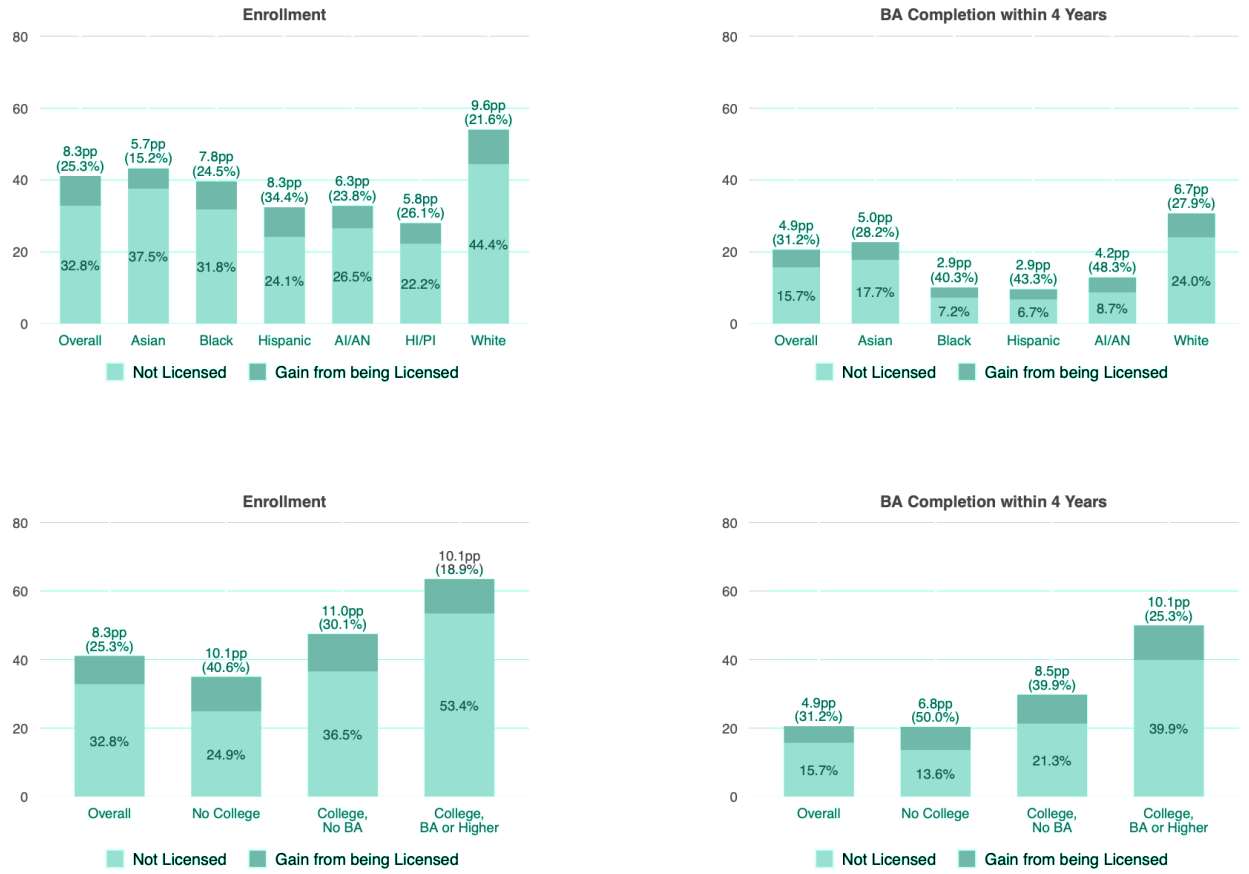
Funnel graphic TBD

Student lists and student outcomes

Research suggests that student lists substantially affect college access outcomes – and in turn degree completion outcomes – for millions of students each year (Howell, Hurwitz, Mabel, & Smith, 2021; Moore, 2017). College Board encourages test takers to opt into the Colege Board Student Search Service, which enables "accredited colleges, universities, nonprofit scholarship programs, and nonprofit educational organizations" (The College Board, n.d.) to "license" their contact information. Howell et al. (2021) analyzed the college access and degree completion outcomes of SAT test-takers who graduated from high school between 2015-2018, comparing students who opted into Student Search Service to students who opted out. After controlling for covariates – including gender/sex, race/ethnicity, parental education, SAT score, and high school – 58.0% of students who participated in Search attended

Figure 2

Effects of College Board Student Search Service



Note: AI/AN = American Indian or Alaska Native. HI/PI = Hawaiian or Pacific Islander. The sample for enrollment outcomes includes all SAT takers in the 2015–2018 high school graduation cohorts. The sample for completion outcomes is restricted to students in the 2015–2016 cohorts. Completion results are not reported for HI/PI students due to very small sample size (N=2,749), which returns imprecise estimates. Results are estimated from regressions that include student-level controls for: sex, race/ethnicity, SAT score, parental education level, last Student Search Service opt-in status, and graduation cohort and high school fixed effects. All differences between students whose names were licensed and those whose names were not licensed are statistically significant at the 1% level.

any college compared to 50.2% of students who opted out of Search, representing a 15.5% relative increase in the probability of college enrollment ((58-50.2)/50.2=15.5).

Figure 2 – reproduced from Howell et al. (2021) – presents results for four-year college enrollment and degree completion. 41.1% of students who participated in Search attended a 4-year college compared to 32.8% of students who opted out, representing a 25.3% relative increase in the probability of attending a 4-year college. Furthermore, change in the relative probability of attending a four-year college associated with opting in to Search out was higher for students who identified as Black (24.5%), Hispanic (34.4%), American Indian or Alaska Native (AI/AN) (23.8%), and Native Hawaiian or Pacific Islander (26.1%) than it was for students who identified as White (21.6%) or Asian (15.2%). Similarly, change in the relative probability of attending a four-year college was higher for students whose parents did not attend college (40.6%) than it was for students whose parents had a BA (18.9%).

With respect to BA degree completion, the bottom panel of Figure 2 shows that 20.6% of students who participated in Search obtained a BA compared within four years to 15.7% of students who opted out, representing a relative increase of 31.2% ((20.6-15.7)/15.7=31.2). Additionally, the relative increase in the probability of obtaining a BA within four years was higher for Black, Hispanic, and AI/AN students than it was for White and Asian students and higher for first-generation students than for students whose parents had a BA.

A similar study compared the college access outcomes of students who opted into versus opted out of ACT's Educational

Opportunity Service (EOS) (Moore, 2017). EOS enables accredited postsecondary institutions and scholarship organizations to license the contact information of students who opt in. After controlling for covariates – including ACT score, number of colleges the student sent scores to, family income, parental education, degree aspirations, race/ethnicity, state – Moore (2017) found that students who opted into EOS had a 3.7 times higher likelihood (odds ratio = 3.7) of attending college than students who opted out. A second model, which restricted the sample to students who attended college, found that students who opted into EOS had 8.7% higher odds of attending a four-year college rather than a two-year college.

Policy concerns.

Considering these findings, which suggest that student lists profoundly affect college access for groups who are underrepresented in higher education, the policy concern is which students are being excluded from student lists. We argue that this policy concern is primarily about student list products rather than how customers (universities) use these products.

> *We are concerned that several commonly used filters systematically exclude protected classes and other populations that are underrepresented in higher education (e.g., rural students).*

Student list products exclude students in two ways. First, universities cannot purchase the contact information of prospects who are not included in the underlying database. While students who opt out of College Board Student Search Service are making a conscious decision, students cannot opt in unless they take a College Board Assessment (PSAT, SAT, AP). College Board and ACT assessments have been criticized for racial and socioeconomic bias (Dixon-Román, Everson, & Mcardle, 2013; Freedle, 2003; Hedges, 1998; Smith & Reeves, 2020; Walpole, McDonough, & Bauer, 2005). Test-taking rates differ substantially across race and class (Hyman, 2017), leading to systematic racial and socioeconomic inequality in which prospective students are included in the underlying databases that College Board and ACT student list products pull from. About 1.5 million students from the high school class of 2021 took the SAT compared to about 2.2 million students from the high school class of 2020 (The College Board, 2021b) and about 1.3 million student from the high school class of 2021 took the ACT compared to about 1.7 million students from the high school class of 2020. These declines were driven by the Covid Pandemic and by the growth in test-optional and test-blind admissions policies. To the extent that student lists are an important mechanism for college access, the test-optional movement may have the unintended consequence of creating a college access crisis, in which the long-term decline in test-takers leads to fewer prospective students included in College Board/ACT student list databases which causes college access to decline.

Second, student list products exclude students by creating filters that enable universities to purchase some names but not others. While universities choose filters based on their preferences, these choices are structured by what the product allows. We are concerned that several commonly used filters systematically exclude protected classes and other populations that are underrepresented in higher education (e.g., rural students). Second, the filters on student list products enable universities to target prospects based on criteria that may systematically exclude populations that are underrepresnted in higher education. For example, College Board and ACT student list products enable universities to filter prospects by zip code, which is highly correlated with race. College Board allows universities to target prospects based on their score in some set of AP exams, but which students attend high schools with widespread access to AP classes? An emerging trend is the creation of “geodemographic” filters that enable universities to select prospects based on the past behavior of students from their high school or neighborhood (e.g., how many students from this school attended an out-of-state university?) (The College Board, 2011). Student list products enable universities to explicitly search for underrepresented groups (e.g., by race/ethnicity), but when used in conjunction with additional filters (e.g., test score range, high school characteristics) these searches tend to target more privileged members of the group.

Although research sanctioned by College Board and ACT highlights the positive relationship between opting into student list products and college access (Howell et al., 2021; Moore, 2017; Smith, Howell, & Hurwitz, 2021), prior research has not examined which filter criteria universities select when purchasing student lists, what are the characteristics of purchased prospects, or the relationship between filter criteria

[1] *Footnote example here Cia que plis doluptae simusam, cuscillaut expeliquamus ad quat exere vendisit aut occus vercima simagnis culluptia cidellu ptatis eatius. nem doluptas eos dolor aceptatur accabor untoris cullis cusciate el esseque si ad maxim sequatiunt aci dolestio. Ut essitas pelibus ea nihilla volessit ad magnis accabor ruptas autecab*