EXHIBIT B

REBUTTAL EXPERT REPORT OF PETER S. ARCIDIACONO

Students for Fair Admissions, Inc. v. Harvard
No. 14-cv-14176-ADB (D. Mass)

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1 Executive Summary

In my opening report, I explained my professional and academic background in econometrics and my prior scholarly work about the use of race/ethnicity in the admissions processes of colleges and universities. My report explained how, using my experience and expertise, I reviewed and analyzed six-years of admissions data obtained from Harvard College and built a model to test the effect that race/ethnicity has in the admissions process. The model included and controlled for more than 200 variables from Harvard's admissions data, and was constructed using standard techniques used in my field for statistical modeling. It produced a number of reliable conclusions about the way an applicant's race/ethnicity affects his or her admissions prospects at Harvard. Most importantly, I found:

- Asian-American applicants as a whole are stronger on many objective measures than any other racial/ethnic group, including test scores, academic achievement, and extracurricular activities.

- Harvard penalizes Asian-American applicants (relative to white applicants) in the scoring of applicants for admission, particularly in the personal and overall ratings assigned by Harvard's admissions officers.

- Harvard also penalizes Asian-American applicants (again, relative to white applicants) in the selection of applicants for admission.

- Race/ethnicity plays a significant role in admissions decisions. In addition to the racial penalties that Harvard imposes on Asian-American applicants, Harvard affords substantial racial preferences to Hispanic and African-American applicants. The combined effect of the penalties and preferences is of such great magnitude that, for example, a male non-disadvantaged Asian-American student with characteristics that would suggest a 25% probability of admission would see those chances rise to 95% if he were treated as an African American.

- Since the admissions cycle for the class of 2017, the admit rate for those applicants who identify as African American using the federal IPEDS (Integrated Postsecondary Education Data System) methodology, *i.e.*, single-

race African Americans, is almost identical to the admit rate of all other domestic applicants. The probability of this occurring without direct manipulation is less than 0.2%.

- Many of my conclusions are consistent with analyses performed by Harvard's own Office of Institutional Research (OIR), including my conclusions about (1) the relative strength of Asian-American applicants, (2) Harvard's discrimination against Asian Americans in the personal ratings, (3) the penalty Harvard imposes on Asian-American applicants, and (4) the disproportionate role race plays with respect to Hispanic and African-American applicants.

In his report on behalf of Harvard, Professor David Card generally agrees that the logit model I used is an appropriate way to analyze the effect of race/ethnicity in Harvard's admissions process. He does not dispute the objective indicia of quality regarding the strong qualifications of Asian-American applicants, particularly in academic achievements. Nor does he dispute that my findings are consistent with those of OIR.

Professor Card, however, makes a number of modeling choices that lead him to reach different conclusions than mine: in particular, he contends that the evidence of a penalty against Asian-American applicants is not compelling. Professor Card argues that the effect of race on admissions is smaller than I report—although he still concedes that the use of race substantially increases the admissions prospects of Hispanic and African-American applicants. Notably, he never challenges the overwhelming statistical evidence that Harvard has imposed a minimum floor for the admission of African-American applicants. Instead, Professor Card simply speculates that there is no reason for Harvard to do so.

None of Professor Card's arguments are persuasive. His modeling choices are inconsistent with standard econometric practices and appear designed to understate the effect of race in the admissions process generally, and on Asian-American applicants specifically. Moreover, his modeling is not robust—with small adjustments to his models to correct his methodological flaws, his models actually

confirm my findings and bolster the conclusion that Harvard imposes penalties on Asian-American applicants.

Among the key flaws in Professor Card's approach:

Professor Card's models are distorted by his inclusion of applicants for whom there is no reason to believe race plays any role.

As my opening report noted, there are several categories of applicants to whom Harvard extends preferences for reasons other than race: recruited athletes, children of faculty and staff, those who are on the Dean's List or Director's List (e.g., because they are related to a donor or other influential alumni), legacies, and those who apply for early admission.[1] Because of the significant advantage that each of these categories confers on applicants, my report analyzed the effect of race on an applicant pool without these special categories of applicants (the baseline dataset), which allowed me to test for the effect of race on the bulk of the applicant pool that did not fall into one of these categories.[2]

Professor Card, however, includes all of these applicants in his model, taking the remarkable position that there is no penalty against Asian-American applicants unless Harvard imposes a penalty on *every* Asian-American applicant. But this is an untenable position. I do not assert that Harvard uses race to penalize Asian-American applicants who are recruited athletes, children of donors (or others identified on the Dean's List), legacies, or other preferred categories. By including these special recruiting categories in his models, Professor Card obscures the extent to which race is affecting admissions decisions for all other applicants.

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[1] Giving preferences for early action is consistent with the yield rate being higher for early action applicants. However, unlike the other special recruiting categories, the penalty against Asian-American applicants who apply early action is similar to the penalty for those who apply regular action.

[2] I also analyzed a dataset that included the special categories of applicants (the expanded dataset). I included in this dataset interactions for some of the special categories and race, allowing for the possibility that racial preferences may operate differently for these special recruiting categories.

Professor Card further exacerbates this problem by including in his calculations the large majority of applicants whose characteristics guarantee rejection regardless of their race. Harvard admits a tiny fraction of applicants – only five or six percent in recent years. This means that a huge proportion of applicants have no realistic chance of admission. If an applicant has no chance of admission, regardless of his race, then Harvard obviously does not "discriminate" based on race in rejecting that applicant. Professor Card uses this obvious fact to assert that Harvard does not consider race at all in most of its admissions decisions. Further, he constructs his models in ways that give great weight to these applicants, again watering down the effect of race in Harvard's decisions where it clearly does matter. (To put it in simple terms, it is akin to reducing the value of a fraction by substantially increasing the size of its denominator.)

Professor Card removes interaction terms, which has the effect of understating the penalty Harvard imposes on Asian-American applicants.

As Professor Card notes, his model differs from mine in that he removes the interaction terms. An interaction term allows the effects of a particular factor to vary with another distinct factor. In the context of racial discrimination, interaction terms are especially helpful (and often necessary) in revealing where certain factors operate differently for subgroups within a particular racial or ethnic group. For example, if a law firm singled out African-American women for discriminatory treatment but treated African-American males and other women fairly, a regression model would probably not pick up the discrimination unless it included an interaction between African-American and female.

Professor Card rightly recognizes that interaction terms should be included in a model when there is evidence that racial preferences operate differently for particular groups of applicants; yet he nonetheless removes interaction terms for variables that satisfy this condition. The most egregious instance of this is Professor Card's decision not to interact race with disadvantaged status—even though the data clearly indicate that Harvard treats disadvantaged students differently by race.

Harvard gives a preference to disadvantaged applicants. But as I demonstrated in my opening report, the preference Harvard gives African-American and Hispanic applicants for disadvantaged status is much smaller than that given to Asian-American and white applicants (Hispanic applicants receive a modest preference for disadvantaged status, and African-American applicants receive no preference for disadvantaged status in the selection of applicants for admission). Arcidiacono Report 8, 64. The interaction term for race and disadvantage allows one to capture those distinctions. Without it, the size of the preference Harvard gives to disadvantaged Asian-American and white applicants is muted by the inclusion of African-American and Hispanic applicants. Since Asian-American applicants are more likely to be disadvantaged than white applicants, the practical implication of this is an understatement of the Asian-American penalty.

Professor Card includes the personal rating in many of his analyses, despite clear evidence that this rating is affected by racial preferences.

Professor Card includes Harvard's personal rating in his models—notwithstanding the clear finding yielded by my analysis (and that of OIR) that this rating shows strong evidence of racial bias. Professor Card contends that my model showing racial bias in the personal rating is a poor statistical fit, but that is demonstrably wrong. According to academic works discussing this measure of fit, my model achieves an "excellent" fit. And Professor Card ignores other indicators of racial penalties and preferences in the personal rating (such as the substantial preferences given to African-American and Hispanic applicants), instead assuming—against the evidence and the uniform testimony of Harvard's admissions officers—that Asian-American applicants as a group are weaker on unobserved personal qualities.

Professor Card commits other analytical errors that raise doubts about the reliability of his results.

- Professor Card claims that Asian-American applicants are weaker on non-academic measures. In an attempt to support this claim, however, he distorts the data in two ways. First, he includes legacies, recruited athletes, children of faculty and staff, and those on the Dean's/Director's List in his analysis, essentially crediting these applicants as having non-academic achievements.

But their higher admission rates are because they are members of these specially recruited groups, *not* because of their non-academic qualifications. Of course, the reason Professor Card includes them in his analysis is because Asian-American applicants are underrepresented in these categories, as compared to the overall applicant pool. This distorts the analysis in a way that allows Professor Card to make the non-academic qualifications of Asian-American applicants appear lower than they actually are. His inclusion of the personal rating further distorts his results; the racial bias in this rating artificially holds down the non-academic qualifications of Asian-American applicants and, at the same time, artificially boosts the non-academic qualifications of African-American and Hispanic applicants. Removing the personal rating from Professor Card's model shows (as does my model) that Asian-American applicants are at least as strong as white applicants on non-academic measures, and much stronger on academic measures.

- Professor Card's results are heavily influenced by his inclusion of "parental occupation" (i.e., the occupations of an applicant's parents) as a control variable. First, the data produced by Harvard for this field oscillates wildly from year-to-year, rendering the data unreliable and any results using it suspect. Second, there is no evidence in the records that Harvard's admissions office considers parental occupation important aside from its value as a measure of SES, which I already control for in my models.

- Professor Card also uses intended career as a control, even though this variable suffers from the same kind of inaccuracies as parental occupation.

- Professor Card also includes the staff interview rating variable. But staff interviews are offered only to a very small portion of the pool (2.2% of Professor Card's dataset); they disproportionately include applicants who fall within the special recruiting categories (recruited athlete, legacy, etc.); and those who receive an interview are admitted at a very high rate (roughly 50%). Moreover, the probability of getting a staff interview is much lower for Asian-American applicants than others, in part because these interviews are disproportionately given to recruited athletes and legacies. Because staff

interviews appear to be given on the basis of these other preferences, it is inappropriate as a control variable.

- In his yearly analysis, Professor Card also adds controls for reported extracurricular activities in a way seemingly designed to distort the extracurricular variable and thereby disfavor Asian-American applicants. He combines 29 reported categories of extracurricular activities into 12, in a somewhat arbitrary fashion. He then adds a control for the number of hours an applicant spends on "work" (i.e., a job). This choice, which ignores the bulk of the data provided by applicants on the hours they spend on non-academic activities, seems calculated to disfavor Asian-American applicants. Although "work" is only the eighth-most popular non-academic activity listed by white applicants, it is one of the few activities for which they report higher average hours than Asian-American applicants.

Making small corrections to Professor Card's own models results in the finding of a penalty against Asian-American applicants.

Professor Card's models show significant penalties against Asian-American applicants once corrective adjustments are made to remedy his various errors. As stated above, there is no evidence of a penalty against Asian-American applicants who are in one of the special recruiting categories so I remove applicants in those categories from Professor Card's model. For Professor Card's pooled analysis, making this one correction plus implementing ***any one*** of the following changes results in a statistically significant penalty against Asian-American applicants: (i) recognizing the fact that preferences for disadvantaged status vary with race and therefore interacting race with disadvantaged status; (ii) recognizing that the personal quality measure includes racial preference and therefore should not be included in the model; or (iii) recognizing that the parental occupation variables are unreliable and removing them from the analysis.

Professor Card's yearly models also show significant Asian-American penalties when small corrections are made. Once special recruiting categories are removed from his models, either removing the personal rating *or* the parental occupation variables yields evidence of an Asian-American penalty. When the extracurricular

measures are also corrected, then interacting race with disadvantaged status is enough to reveal a statistically significant penalty.[3]

Even Professor Card's flawed models suggest substantial racial preferences for Hispanics and African-Americans—preferences that increase once corrective adjustments are made.

Even Professor Card's analysis—with all of its flaws—confirms my opening report's finding that race plays a "significant role in admissions decisions at Harvard." Arcidiacono Report 7-8. Indeed, without making any adjustments to his approach, his models show that racial preferences are responsible for *tripling* the number of African-American admits and *doubling* the number of Hispanic admits. Professor Card attempts to explain away these effects, but these efforts can be easily shown to be both incorrect and very misleading; indeed, his arguments often prove the exact opposite of his conclusions.

Adopting many of Professor Card's variables into my models further confirms my initial findings.

As I have explained, making small corrective adjustments to Professor Card's methodology yields results that actually confirm my findings and bolster the conclusion that Harvard applies racial penalties against Asian-American applicants and affords large racial preferences to Hispanic and African-American applicants. On top of supporting my case, this proves the fragility of Professor Card's models. For the reasons I've described, Professor Card's approach is flawed among many dimensions, and appears designed, in many ways, to conceal the effect of Harvard's admissions process on Asian-American applicants.

My models, on the other hand, are robust. Indeed, adding many of the new variables suggested by Professor Card does not materially change my results. My updated models find that the size of the penalty on Asian-American applicants, and the size

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[3] When I refer to statistical significance, I am referring to whether we can be 95% certain that the measured effect is different from zero. Even without the corrections to the extracurricular activities, the estimated penalty is statistically significant at the 90% level in Professor Card's yearly models when special recruiting categories are removed and race is interacted with disadvantaged status.

of the preferences for African-American and Hispanic applicants, are just as high if not higher.

Professor Card offers no analysis to contradict my finding that Harvard has imposed a floor for admissions of those identifying as African-American via IPEDS.

In my opening report, I showed that Harvard maintained a floor on the admission rate for single-race African Americans (as identified by IPEDS) in the classes of 2017, 2018, and 2019. In each of these years, the admit rate of single-race African Americans was virtually *identical* to the admit rate of all other domestic applicants. The chance of this match occurring in three consecutive years (without direct manipulation) is less than *two-tenths of one percent*—making it a near certainty that Harvard was purposely setting a floor on the admission rate of those applicants.

Professor Card does not challenge that finding. Instead, he speculates that Harvard had no reason to use a non-public admission rate as a floor, no reason to institute the floor beginning with the class of 2017, and that Harvard has not set a floor under other metrics.

None of these responses is persuasive. *Why* Harvard chose to set a floor and why it did so in 2017 are not at all relevant to my analysis. But even if they were, there are a number of reasons in the record that would explain why Harvard would want to use the IPEDS metric as a floor, and why it did so beginning in 2017. Indeed, numerous pieces of evidence confirm that Harvard was very concerned about criticisms tied to its IPEDS data at the precise time the first evidence of the floor appears in the data. And the fact that Harvard chose to implement *this* floor, and not a floor based on another metric, does not change anything. What is certain—and undisputed—is that Harvard was purposely taking steps to ensure that the admission rate of single-race African-American applicants approximated or exceeded the overall admission rate of all other domestic applicants.

* * *

Professor Card's report changes none of my conclusions; to the contrary, given how easy it is to alter the results of his models and that my own models report the same results even incorporating a number of his controls, my opinions in this case have only been strengthened: Harvard penalizes Asian-American applicants; Harvard imposes heavy racial preferences in favor of Hispanic and African-American applicants; and Harvard has been manipulating its admission of single-race African-American applicants to ensure their admission rate approximates or exceeds the overall admission rate. Professor Card has demonstrated that it is possible to mask the true effects of race in Harvard's admission process by changing the scope of the analysis in incorrect ways and choosing inappropriate combinations of control variables. But Professor Card cannot reach these results by applying accepted statistical methods and treating the data fairly.

2 Professor Card and I agree on many aspects of my methodology, analysis, and conclusions

Although the bulk of this report will respond to and rebut criticisms of my work that Professor Card sets forth in his report, it is useful to note that there are substantial areas of agreement between the two of us.[4]

2.1 Professor Card and I largely agree on the relevant dataset

As discussed in my opening report, I reached my conclusions using a dataset containing Harvard admissions data for the 2014 through 2019 admission cycles. I then performed two general categories of analysis: (1) descriptive analysis, in which I drew conclusions based on simple calculations from my dataset; and (2) regression analysis, in which I used statistical models to estimate how various factors influence Harvard's admissions decisions and rating of the applicants.

Professor Card's analysis modifies my dataset to create a dataset he calls "Augmented Arcidiacono Data." Specifically, he creates his dataset by adding additional control variables to my dataset and then performing what he describes as "technical corrections" and fixing what he describes as "technical errors." Card Report 47-51.

Several of the additional variables that Professor Card adds are problematic in terms of relevance and reliability, as I explain *infra*, at 3.5, 7. Beyond that, except for one "technical error" with which I agree,[5] the rest of Card's modifications are not "errors" or "corrections," but merely judgment calls. Because his modifications are so minor, I have accepted the majority of them in the interest of avoiding unnecessary disputes.

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[4] In formulating my rebuttal report, I have not relied upon any data or material other than the material produced with Professor Card's report, the material cited in this report, and the data and materials identified in my opening report.

[5] When the SAT score is not present but an ACT score is present, I now use the ACT science section in my conversions in the same manner as Professor Card.

2.2 Professor Card does not challenge my descriptive analysis about the relative qualifications of students by race/ethnicity.

My descriptive analysis is contained primarily in Section 3.1.1 through Section 3.5.4 of my opening report. *See* Arcidiacono Report 24-53. Professor Card does not challenge the accuracy of any of this analysis. This is not surprising, because he has no substantive concerns with my dataset and the descriptive analysis involves straightforward assessments of the relevant data. Among the specific findings from the descriptive analysis that Professor Card does not dispute:

2.2.1 Asian-American applicants are, on average, significantly stronger academically than all other racial groups.

In terms of academic performance, Asian-American applicants are significantly stronger than all other racial groups. Asian-American applicants have (1) the highest test scores; (2) the highest high school GPAs; (3) taken more AP exams; and (4) scored higher on those AP exams than any other racial group. Arcidiacono Report 33.

Asian-American applicants also are rated higher on Harvard's metrics for assessing academic performance than all other racial groups. In particular, Asian-American applicants' academic indexes and academic ratings are higher than all other racial groups.[6] For example, in the baseline dataset,[7] 58.6% of Asian-American applicants have academic ratings of 3+ or higher, compared with 44.7% of whites, 14.7% of Hispanics, and 7.3% of African Americans. Arcidiacono Report 33, 36-37.

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[6] The "academic index" is a score derived from a formula combining standardized testing and high-school performance. The "academic rating" is a rating assigned by Harvard readers.

[7] The "baseline" dataset includes all domestic applicants minus certain applicants whose characteristics were associated with a preference (e.g., legacy, athlete), and the "expanded" dataset include all domestic applicants. For both datasets, I removed a small number of applicants who were missing certain information from their application (e.g., test scores). Arcidiacono Report 2.

2.2.2 Asian-American applicants are so strong academically that their admission rates would more than double in the baseline dataset if based on academics alone.

If a random lottery were conducted conditional on being in the top *N* academic index deciles, the share of Asian-American admits would rise significantly. For example, randomly drawing from all those in the top nine academic index deciles would increase the share of Asian-American admits from 24.9% to 30.4% in the baseline dataset, a jump of more than 22%. More dramatically, randomly drawing from the top academic index decile (in the baseline dataset) would cause Asian-American admits to more than double—resulting in *more than 51%* of the admitted class being Asian American. Arcidiacono Report 41-42, 44-45.

But even if the number of admits from all other groups besides whites and Asian Americans were held fixed and admits for whites and Asian Americans were randomly drawn from the top decile, the share of the class that was Asian American would still substantially increase, resulting in an Asian-American admitted share of 36.5%, a 47% increase. Arcidiacono Report 45. This occurs because Asian-American applicants dominate white applicants in their respective shares of the top academic decile.

2.2.3 Asian-American applicants are strong in non-academic categories.

Asian-American applicants excel in more than academics. They also have higher extracurricular ratings and overall alumni ratings than any other racial group. Asian-American applicants likewise are stronger than African-American and Hispanic applicants on counselor ratings, teacher 1 ratings, teacher 2 ratings, and alumni personal ratings, and have similar or slightly lower ratings than whites in these categories. Arcidiacono Report 37.

2.2.4 Despite their high academic and non-academic ratings, Asian-American applicants have lower scores in the subjective personal rating than all other racial groups.

Despite their superiority on more objective factors, Asian-American applicants have the *lowest* scores of the four major racial groups on Harvard's personal rating—the

most subjective of all the ratings.[8] These low scores on the personal rating are outliers in several respects.

First, they differ significantly from the scores Asian-American applicants receive from other individuals, including the ratings from alumni interviewers, teachers, and counselors. For example, alumni interviewers score Asian-American applicants higher on the personal rating than African-American and Hispanic applicants and only slightly lower than white applicants. Arcidiacono Report 37-38.

Second, the low scores Asian-American applicants receive on Harvard's personal rating do not square with the higher scores Asian-American applicants receive on other ratings. As I have shown, higher academic indexes are associated with higher academic ratings, higher extracurricular scores, and higher personal scores. Yet even though Asian-American applicants have the highest academic and extracurricular scores, they are ranked substantially lower in the personal category than the other groups in the same academic index decile. For example, Asian-American applicants receive a 2 or better on the personal score more than 20% of the time only in the top academic index decile. By contrast, white applicants receive a 2 or better on the personal score more than 20% of the time in the top *six* deciles, Hispanics receive such personal scores more than 20% of the time in the top *seven* deciles, and African Americans receive such scores more than 20% of the time in the top *eight* deciles. Arcidiacono Report 48-50 & Table 5.6.

[8] See, e.g., Chen Depo. at 72 ("Personal quality is one of the categories admissions readers are asked to assess. It is a subjective determination of a combination of many, many factors."); Walsh Depo. at 60-61 (The personal rating involves "[w]hether that student would contribute to the class, classroom, roommate group, to the class as a whole, their human qualities.… It is a little hard to talk about in general but sort of add it all up and get a feeling"); McGrath I Depo at 171 (The reading guidelines for rating the personal category are "not terribly helpful" and "readers will construe [it] in different ways"); McGrath II Depo at 360 (The personal rating "includes perhaps likability, also character traits, such as integrity, helpfulness, courage, kindness").

2.2.5 Despite their high scores on academic and non-academic ratings, Asian-American applicants are admitted at lower rates than all other racial groups.

The Asian-American admit rate was below the total admit rate *every year* from the Class of 2000 through the Class of 2019. Asian-American applicants had this low admit rate despite the fact that during this 20-year span they had higher test scores than all other racial groups *in every year*. Indeed, Asian-American *applicants* as a whole had higher test scores than both African-American and Hispanic *admits*. Arcidiacono Report 24-27 & Figure 1.2.

2.2.6 Among applicants with the same overall rating, Asian-American applicants are less likely to be admitted than all other racial groups.

Among those applicants with the *same* overall rating, Asian-American applicants are less likely to be admitted than any other racial group. For example, in the baseline dataset, 81.4% of African-American applicants with an overall rating of 2+, 2, or 2- were admitted; 76.0% of Hispanic applicants with this overall rating were admitted; 61.0% of white applicants with this overall rating were admitted; and only 59.4% of Asian-American applicants with this overall rating were admitted. The gap between white and Asian-American applicants is even larger in the expanded dataset. Arcidiacono Report 39.

Similarly, higher academic index deciles are associated with higher overall ratings by both Harvard readers and alumni interviewers. Asian-American applicants receive overall ratings similar to whites who are one decile lower in terms of their academic indexes. In the top three deciles, Hispanic applicants are between 2.5 and 4.5 times more likely to receive a 2 or better on the overall rating than Asian-American applicants, and African-American applicants are between 4.4 and 9.9 times more likely to receive such a score. Arcidiacono Report 50-52.

2.2.7 Higher academic indexes are associated with higher admit rates and higher reader ratings. Yet regular-decision Asian-American admit rates lag behind all other racial groups.

Higher academic index deciles are associated with higher admit rates and Asian-American applicants have the highest academic indexes. Yet regular-decision

Asian-American admit rates are lower than all other racial groups. Asian-American admit rates in any academic-index decile are roughly equivalent to white admit rates one academic index decile lower, Hispanic admit rates three deciles lower, and African-American admit rates five deciles lower. Arcidiacono Report 42-44.

2.2.8 My results are consistent with Harvard's own findings, as performed by the Office of Institutional Research (OIR).

Using data over ten years, OIR found that Harvard's admissions officers assigned substantially lower personal ratings to Asian-American applicants versus white applicants, especially when compared to the ratings assigned by teachers, counselors, and alumni interviewers. Arcidiacono Report 38. OIR also found that had the academic index and academic rating been used to evaluate the applicants, Asian Americans would have been 43% of the admitted class. These findings are consistent with my findings. In both my analysis and OIR's analysis, the number of Asian-American admits would more than double if admissions were based on these two criteria. Arcidiacono Report 45-46.

2.3 Professor Card generally agrees with my methodological approach to modeling Harvard's admissions decisions

In my opening expert report, I used regression analysis, and in particular logit models, to draw various conclusions about Harvard's admissions process and the way in which admissions decisions are affected by an applicant's race. My report describes the basic methodology and approach, as well as the supporting statistical equations. *See* Arcidiacono Report 17-23, Appendix A.

Professor Card "agrees with [my] general approach" because "[m]ultivariate regression analysis is a widely accepted and common statistical technique in both academia and litigation." In particular, Card concludes that a logit model like mine "is appropriate where, as here, the outcome of interest—in this case admission to Harvard—is binary, taking values of either zero (not admitted) or one (admitted)." Card Report 47.

Card instead disagrees with my specific "modeling decisions." Card Report 47. The nature of that disagreement, and why my analysis remains more appropriate and reliable, are described in the rest of this report.

3 There are several key flaws in Professor Card's modeling choices that drive his conclusions about the size of the Asian-American penalty.

Professor Card makes several fundamental errors in his approach that bear directly on his claims that (1) there is no statistically significant penalty against Asian-Americans, and (2) race plays a lesser role in Harvard's admissions decisions than I demonstrated in my opening report. These errors explain the difference in our conclusions.

3.1 Professor Card's results are skewed by his decision to include in the analysis many applicants who are unaffected by racial penalties and preferences.

In my opening report, I employed accepted statistical methods to demonstrate that Harvard applies racial penalties and preferences to various racial/ethnic groups. More particularly, I demonstrated that Harvard applies these penalties and preferences where they matter—within the band of applicants who are competitive for admission.

Professor Card's models operate to conceal these racial penalties and preferences by diminishing their magnitude. One of the principal ways Professor Card's models do so is by his inclusion of applicants who are not impacted by Harvard's racial penalties and preferences. The inclusion of such applicants has the practical effect of making these penalties and preferences appear to be of smaller magnitude than they actually are. (To put it in simple terms, it is akin to reducing the value of a fraction by substantially increasing the size of its denominator.)

3.1.1 Professor Card misleadingly includes non-competitive applicants in his models, which tends to obscure the racial penalties and preferences Harvard employs in its admissions process.

Harvard is a highly selective school. More than 90% of all domestic applicants were rejected over this period, and a substantial number of them are not at all competitive for admission. Those that are affected by racial preferences are competitive applicants. In my report, I showed that Asian-American applicants who had particular characteristics would see substantially higher probabilities of admission were it not for their race. For example, I showed that a male Asian-American applicant who was not disadvantaged with observed characteristics that

would dictate a 25% probability of admission would see his probability of admission rise to over 36% if treated as a white applicant and to over 95% if treated as an African-American applicant.

Professor Card argues that I am distorting the picture by examining the effects for competitive applicants. Professor Card's approach, however, seeks to dilute the estimates of preferences by including many applicants whose characteristics are such that rejection is assured.

Both Professor Card's and my models show that there is a set of observed characteristics that guarantee rejection; the models perfectly predict rejection without the use of race. While arguments can be made regarding the scope over the set of applicants where one should test for racial penalties and preference, it should be quite clear that this set should not include those who are sufficiently below the bar that race could not possibly enter into consideration. By including applicants who are perfect rejects in his models, Professor Card is able to artificially hold down the average marginal effect of race with respect to any particular racial group.

Professor Card's insistence on including perfect predictions in his model implies that he believes Harvard's discrimination against certain racial groups and in favor of others is of no consequence unless Harvard actually discriminates against or in favor of *every* applicant within the affected racial/ethnic groups. This is an absurd proposition. It is a given that Harvard's low admittance rate means a large number of applicants will be denied without their race ever becoming a factor. But that does not exonerate Harvard for its use of race among the competitive pool. "We don't *always* engage in racial discrimination" is not a defense.

A conservative position would be to focus the testing for racial preferences or penalties on all of those applicants who are not immediately ruled out—which would mean removing perfect predictions. Under this approach, there will be many applicants who will be included in the analysis even though their admission chances are miniscule, and for whom any effect of racial preferences and penalties will necessarily be small. Throughout my response to Professor Card's points, I take this conservative approach, showing the average marginal effects of race for all those who are not perfectly predicted to be rejected.

3.1.2 Professor Card errs by including in all of his models those applicants who are members of Harvard's special recruiting categories

Professor Card makes a similar modeling error by always including recruited athletes, children of faculty and staff, applicants who are on the Dean's List or Director's List, and legacies in his models. Harvard acknowledges that it affords significant preferences to applicants in these special recruiting categories. By including these special recruiting categories in his models, Professor Card is able to obscure the extent to which race is affecting admissions decisions for those not fortunate enough to belong to one of these groups.

The inclusion of applicants in these special categories specifically tends to obscure the penalty Harvard imposes on Asian-American applicants. Professor Card's inclusion of these applicants reflects his position that there is no penalty against Asian-American applicants unless Harvard imposes a penalty on *every* Asian-American applicant. But I am not claiming, for example, that Harvard penalizes recruited athletes who are Asian-American because of their race. My claim is that the effects of Harvard's use of race occur outside these special categories. There is no reason for their inclusion in his models (at least without interactions with race) other than to conceal the extent to which Harvard penalizes Asian-American applicants in the admissions process.

3.2 Professor Card errs in failing to include interaction terms.

In Section 5.1.1 of his report, Professor Card argues against the inclusion of interactions in my models. In discussing the interaction terms between race and disadvantaged status, Professor Card writes:

> The typical approach in a model trying to isolate the effect of Asian-American ethnicity on admissions outcomes would be to include an interaction between race and disadvantaged status only if the effect of being disadvantaged is different for Asian-American and white applicants (or, equivalently, if the effect of race is different for disadvantaged and non-disadvantaged applicants). Prof. Arcidiacono's results, however, show that is not the case.

Card Report 49.

As I discuss in sections 8.1 and 8.3, I believe the various interaction terms I include are all appropriate. But the one that deserves special attention here—because it is key to Professor Card's finding of no Asian-American penalty—is his removal of the interaction terms between race and disadvantaged status. Here, I show why it is inappropriate to exclude these interaction terms; in later sections, I show how their inclusion undermines the reliability of Professor Card's findings.

First, Professor Card is correct that an interaction between race and disadvantaged status makes sense when disadvantage has a different effect for different races. But his analysis becomes misleading when he suggests that the relevant races are only whites and Asian Americans. Understanding Harvard's use of race in evaluating domestic applicants involves distinctions drawn across *all four* major racial groups in the applicant pool: Asian Americans, whites, African Americans, and Hispanics. Indeed, Professor Card does not exclude these groups from his models. One of the major findings in my report is that although Harvard gives African-American applicants a large preference, it does not give *disadvantaged* African-American students any preference for being disadvantaged. Thus, the effect of being disadvantaged *is* different across racial lines—precisely the condition that Professor Card acknowledges would warrant inclusion of the race/disadvantage interaction terms. So long as African Americans are used in the estimation of the model, the model requires these interaction terms. Yet Professor Card does not include them in his model.

This is a relatively basic point; it is odd that Professor Card misses it. But perhaps the effect of his excluding these interaction terms from his models explains this. By excluding the interaction terms between race and disadvantaged status but keeping African-American applicants in the model, Professor Card significantly weakens the effect of disadvantage as an explanatory term. His regression model is essentially finding that disadvantaged status is a fuzzier phenomenon than it actually is and thus downgrades its role in the admissions process. And, because more Asian-American applicants than white applicants are disadvantaged, the weaker effect of disadvantaged status in his model in turn weakens the distinctions between white

and Asian-American applicants, thus tending to conceal the magnitude of discrimination against Asian-American applicants.

It follows that if one compares only Asian-American and white applicants—and excludes the other races from the analysis entirely—then whether the disadvantage/race interaction is included is less important. As I illustrate in section 4.2, estimating Professor Card's models using only white and Asian-American applicants yields similar penalties against Asian Americans as a model that includes all races, but interacts race with disadvantaged status. And in both cases, the penalties are substantially larger than when the same model is estimated using all races but the interaction terms are removed.

Relatedly, this is why I include interactions of race and disadvantaged status in my models of Harvard's ratings. If interactions are important for one racial group, then they need to be included any time that racial group is included in the analysis.

These interaction terms are helpful in diagnosing the extent to which racial preferences affect Harvard's ratings. Professor Card concedes that the overall rating (and the ultimate admissions decision itself) are affected by race/ethnicity for African-American and Hispanic applicants. Card Report 51, 81. Both the overall rating and the admissions decision show substantial preferences for African-American applicants, and smaller preferences for disadvantaged status. But both of these measures also show that African-American applicants either receive a diminished preference for being disadvantaged (in the ratings) or no preference at all (in the admissions outcome).[9]

Similarly, including interaction terms between race and disadvantaged status in the model more accurately captures the extent to which Harvard's personal ratings are affected by racial bias. As I described in my opening report, African-American applicants receive a larger preference through the personal rating and a smaller preference for disadvantaged status than other racial groups. That the same

[9] Statistically, this is demonstrated by the fact that the coefficient on the interaction term between African American and disadvantaged is negative, and either of the same magnitude or slightly smaller than the positive coefficient on disadvantage itself.

pattern occurs for the overall rating—and is not present in the other ratings models—provides additional evidence that racial preferences impact the personal rating. Because racial preferences impact the personal rating, that rating should not be used in the analysis—a point that Professor Card must concede, given his own exclusion of the overall rating because it is impacted by racial preferences.

3.3 Professor Card's models ignore the fact that Asian-American applicants face a penalty in the personal rating.

My opening report described how the personal rating assigned to applicants by Harvard's admissions officers showed clear evidence of racial preferences. Despite their general strength overall, Asian-American applicants have the lowest share of 1s or 2s (the best ratings) on the personal scores. And while academic qualifications are generally correlated with higher personal ratings, Asian-American applicants received lower personal ratings than white applicants despite having better academic and extracurricular ratings. And similarly situated African-American applicants receive much higher personal ratings than their Asian-American counterparts. African-American applicants in the third-worst decile receive higher personal ratings than Asian-American applicants in the *top* decile. *See* Arcidiacono Report 5-6, 53-61, Table 5.6.

In his report, Professor Card objects to my model that demonstrates a penalty against Asian-American applicants (compared to whites) and a preference in favor of African-American and Hispanic applicants. Specifically, he claims that my model of the personal rating fits the data poorly.

Professor Card's criticisms are misplaced; the personal rating model I rely upon fits the data quite well and I show it is within the range of what is considered to be an "excellent fit." And the model's conclusion of a penalty against Asian-American applicants is unmistakable. Moreover, this conclusion is consistent with similar findings by Harvard's own Office of Institutional Research (which Professor Card does not address). *See* HARV00065745. And Professor Card estimates no ratings models of his own to counter my findings and conclusions on this point. Finally, as I show in section 8.3, adding his additional variables has no effect on my findings of racial preferences and penalties in the personal rating.

3.3.1 According to standard statistical practice, my model is considered an excellent fit of the personal rating

The classic citation for what is considered an "excellent fit" based on the Pseudo R-square is McFadden (1979) page 307:

> Those unfamiliar with the ρ^2 index should be forewarned that its values tend to be considerably lower than those of the R^2 index and should not be judged by the standards for a 'good fit' in ordinary regression analysis. For example, values of 0.2 to 0.4 for ρ^2 represent an excellent fit.

D. McFadden, "Quantitative Methods for Analysing Travel Behavior: Some Recent Developments," Chapter 13 in Behavioral Travel Modeling, D.A. Hensher and P.R. Stopher, editors, Croom Helm Ltd., 1979.

The ρ^2 referred to above later became known as McFadden's R-Square, or the Pseudo R-square that I use in my analysis. Note that the value Professor Card criticizes as "unreliable"—0.28—is within the range characterizing an "excellent" fit.[10]

Professor Card further attempts to characterize my model as having a "poor" fit by using the probability in my model to predict applicant's personal ratings. He assigns each applicant the rating that has the highest probability for that applicant, and then assesses the percent correctly predicted for those who actually received a 1. Applying this "percent correctly predicted" method to my model assigns zero applicants a rating of 1. Professor Card criticizes my model for failing to predict a 1 for any of the 47 applicants out of 150,643 (or 0.03%) who actually received a 1 on the personal rating.

This attack is nonsensical. It is absurd for Professor Card to claim that a failure to predict the correct personal rating for 0.03% of applicants is evidence of a "poor" fit.

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[10] Professor Card makes a similar criticism of my model of the overall rating—where the fit is even better and thus (again) well within the range understood to be an "excellent fit." Card Report 154; Arcidiacono Report Table B.6.8.

My models assign higher probabilities to ratings that occur more often in the data. When only 0.03% of applicants receive a 1 on the personal rating, the chances of that rating having the highest probability for any applicant is miniscule.[11] Professor Card's use of the percentage correctly predicted method just naturally assigns zero applicants a personal rating of 1.

To further illustrate the absurdity of Card's standard for considering whether a model is a poor fit, consider my model of the academic rating, which he refers to as "more reliable" because of its higher Pseudo R-square. Card Report 70. There are 674 (out of 150,643) applicants who received a 1 on the academic rating, over 13 times the number of applicants who received a 1 on the personal rating. Yet Professor Card's method of using my model to assign ratings to individual applicants would result in zero applicants being assigned a 1.

Indeed, Professor Card's focus on the model's ability to correctly predict individual outcomes is a common error. The classic textbook on discrete choice model is by Professor Kenneth Train of the University of California, Berkeley. In discussing the inappropriateness of using the percent correctly predicted, Professor Train writes:

> Another goodness-of-fit statistic that is sometimes used, but should actually be avoided, is the 'percent correctly predicted'….
>
> Suppose an estimated model predicts choice probabilities of .75 and .25 in a two-alternative situation. Those probabilities mean that if 100 people faced the representative utilities that gave these probabilities (or one person faced these representative utilities 100 times), the researcher's best prediction of how many people would choose each alternative are 75 and 25. However, the 'percent correctly predicted' statistic is based on the notion that the best prediction for each person is the alternative with the highest probability. This notion would predict that one alternative would be chosen by all 100

[11] As another example, suppose data were available on the height of males in one of five bins, and the last bin was six feet nine inches and higher, something true for about 0.03% of men. Given virtually any set of observed characteristics outside of height itself, the probability associated with this bin will never be the highest.

> people while the other alternative would never be chosen. The procedure misses the point of probabilities, gives obviously inaccurate market shares, and seems to imply that the researcher has perfect information.

Kenneth E. Train, Discrete Choice Methods with Simulation, 69 (2d ed. 2009).

This issue is of course compounded when the events are extremely rare.

3.3.2 Because there is compelling evidence that racial preferences and penalties affect the personal rating, this rating should not be included in the analysis.

As explained in my original report, there is strong evidence that race affects the personal rating, penalizing applicants who are Asian-American and favoring African Americans and Hispanics. Professor Card does not dispute that Asian Americans receive disproportionately lower personal ratings. But he argues that Asian-American applicants have lower scores on the personal ratings because they have weaker average unobserved characteristics than white applicants.[12]

Crucially, Professor Card ignores the clear evidence of bias in the personal ratings *in favor of* African Americans and Hispanics. For example, Table 6.1 in my previous report showed that if African-American applicants were treated as whites their average probability of receiving a 2 or better would fall by 22%, and would fall by 35% if they were treated as Asian-American applicants. And here, I can readily

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[12] It is worth noting that no one in Harvard's admissions office has advanced Professor Card's arguments that Asian-American applicants, as a general matter, have some unobserved qualities that explain lower personal ratings. Indeed, numerous admissions officers—including Dean Fitzsimmons himself, who has worked in the admissions office for more than 30 years and reads files to this day—denied that there was any reason to believe that Asian-American applicants were less qualified on the "personal" metric than any other applicant. See, e.g., Fitzsimmons Depo. at 347-348; Ray Depo. at 22; Yong Depo at 234-235; Hansen Depo. at 110-111. Harvard's own materials likewise leave it to the subjective judgment of the reader as to how the score should be assigned. *See* HARV00021322 (instructing readers to assign the personal rating on the following scale: "1. Outstanding. 2. Very strong. 3. Generally positive. 4. Bland or somewhat negative or immature. 5. Questionable personal qualities. 6. Worrisome personal qualities"). If Professor Card has any support for *why* Asian-American applicants have weaker "personal qualities" than other racial groups, he does not provide it.

show that the observed characteristics of African-American and Hispanic applicants predict much weaker—not stronger—ratings vis-à-vis Asian-American and white applicants.

By Professor Card's reasoning, this should demonstrate that the personal rating incorporates racial preferences. If racial preferences are operating through the personal rating for these groups, then the personal rating is suspect in the same way that the overall rating is suspect—indeed, Professor Card concedes that the overall rating is suspect, and thus excludes from his own analysis. Because the data make clear that racial preferences do, in fact, affect the personal rating, it is unreasonable for Professor Card to conclude that the estimated negative effect for Asian-American applicants is not the result of racial penalties against Asian-American applicants.[13]

Finally, Professor Card makes a number of misleading arguments about what my ratings models show. First, Professor Card states that my finding of a positive and significant relationship between Asian-American applicants and academic and extracurricular activities, even after adding controls, somehow suggests that Harvard cannot be discriminating against Asian-American applicants on the personal and overall ratings. Card Report 71. But Asian-American applicants are stronger than any other racial group on the observed characteristics associated with higher scores on both these ratings. We would therefore also expect them to be stronger on unobservable characteristics, providing an explanation for why there is a statistically significant effect of being Asian American on both these activities.

As explained in my opening report, the case for discrimination is very strong when a group of applicants is strong on the observed characteristics associated with a particular rating, yet faces a penalty. And if a group of applicants is weak on the observed characteristics associated with a particular rating, yet receive a higher than expected rating, it further supports the conclusion that racial preferences

[13] And here too the interaction terms make the case that racial preferences are affecting the personal rating. That is, there is a substantial preference for being disadvantaged in the personal rating that is significantly diminished for African Americans, mirroring the pattern seen for both the overall rating and for admissions itself.

affect this rating. That is what the data show: Asian-American applicants have observed characteristics associated with higher personal ratings yet receive a penalty in their personal ratings, and African-American and Hispanic applicants have observed characteristics associated with lower personal ratings yet receive a preference in their personal ratings.

Second, Professor Card argues that as more controls are added, the penalty Asian Americans face on the personal rating is diminished and, therefore, if even more controls were added, the effect may go away. But it is not universally true that adding controls leads to lower estimated penalties for Asian-American applicants. Indeed, in my previous report, adding all the controls basically resulted in the same penalty for Asian-American applicants as in the model with no controls, implying that the order in which the controls are added matters. So the inclusion of over 200 controls as a whole does nothing to reduce the Asian-American penalty. Why would we expect that the next set of controls would lead to different results?

3.4 Professor Card's argument that Asian-American applicants are worse on nonacademic measures is misleading.

In my opening report, I noted that my findings of penalties against Asian-American applicants were particularly striking because these applicants are the strongest on observable measures. In particular, they have the highest academic ratings, their ratings on extracurricular activities were better than white applicants, and they generally received higher ratings on other dimensions with the exception of the athletic rating and personal rating. *See* supra, Section 2.

In response, Professor Card contends that Asian-American applicants are weaker than white applicants on nonacademic measures. Card Report 39, Exhibit 10. To arrive at this conclusion, Professor Card uses my estimated model of admissions to form an admissions index for how strong each applicant is based on observed characteristics. Professor Card then removes from this admissions index the variables associated with academics, forming a "non-academic" index. Professor Card finds that Asian-American applicants are generally worse than white applicants on this metric; more specifically, he finds that Asian-American applicants have the lowest share of the four major racial/ethnic groups in the top

decile of non-academic achievements.

The problem is that Professor Card's methodology is seriously flawed in two respects. First, Professor Card errs in using the expanded dataset. That model includes athletes, legacies, the children of faculty and staff, and the applicants on the Dean's and Director's Lists. This means that every student who receives a preference in one of these special recruiting categories is given a boost in Professor Card's measure of his "non-academic" achievements. But this makes no sense. White applicants are not stronger than Asian-American applicants on "non-academic" characteristics because they are more likely to be legacies and therefore treated preferentially in the admissions process. Since Asian-American applicants are substantially less likely to be in these special recruiting categories, Professor Card's classification works to their detriment. *See* Arcidiacono Report, Table B.3.2. As I will show, focusing on those who are not in one of these special categories (which again is where the Asian-American penalty is implemented) paints a markedly different picture.

In similar fashion, Professor Card includes the personal rating in his measure of "non-academic achievement." But as I have shown in Section 3.3.2, the personal rating incorporates preferences for African-American and Hispanic applicants and penalties against Asian-American applicants.[14] Using the personal rating as a marker for non-academic achievement is thus highly misleading.

In Table 3.1N, I show how each of these features results in a distorted picture of the strength of Asian-American applicants on non-academic measures.

[14] *See also* Arcidiacono Report 37-38. 48-50.

Table 3.1N: Asian-American applicants are strong on non-academic measures besides the personal rating

	Share in Each Non-Academic Index Decile			
	Whites	**Asian-Americans**	**Hispanics**	**African-Americans**
Professor Card's Exhibit 10				
5 or lower	46.33%	51.12%	56.91%	54.60%
6	10.17%	10.45%	9.01%	9.33%
7	10.22%	10.46%	8.55%	9.27%
8	10.45%	10.42%	8.40%	8.82%
9	10.84%	9.65%	8.71%	9.03%
10	11.99%	7.89%	8.42%	8.95%
Exclude Special Recruiting Categories				
5 or lower	47.62%	49.66%	53.55%	56.13%
6	10.42%	10.21%	9.26%	8.79%
7	10.29%	10.37%	9.31%	8.66%
8	10.52%	10.33%	8.59%	8.58%
9	10.55%	10.07%	9.17%	8.54%
10	10.59%	9.36%	10.12%	9.31%
Exclude Personal Rating				
5 or lower	47.58%	49.47%	53.78%	56.66%
6	10.59%	9.95%	9.09%	8.96%
7	10.76%	9.92%	8.84%	8.64%
8	10.49%	10.19%	9.04%	8.60%
9	10.53%	10.38%	8.76%	8.35%
10	10.04%	10.08%	10.49%	8.80%
Include only Non-Academic Ratings except the Personal Rating				
5 or lower	44.66%	44.86%	65.10%	68.93%
6	10.72%	10.95%	7.67%	7.18%
7	11.10%	10.55%	7.50%	6.76%
8	11.19%	10.64%	7.28%	6.61%
9	11.05%	11.44%	6.26%	5.66%
10	11.29%	11.55%	6.19%	4.86%

Panels 2-4 remove special recruiting categories. The non-academic ratings in panel 4 are: extracurricular, athletic, counselor, teacher1, teacher2, alumni personal, and alumni overall.

The first panel of Table 3.1N shows Professor Card's results from Exhibit 10. The second panel reflects Professor Card's Exhibit 10, while also removing those who are in one of the special recruiting categories. The third panel does the same and also removes the personal rating. The fourth panel looks only at the non-academic ratings assigned by Harvard's admissions officers or alumni interviewers.

The third panel shows that Asian-American applicants are just as strong as white applicants on non-academic measures once the personal rating and special recruiting categories are removed, and substantially stronger than African-American applicants.[15] Yet when the personal rating is in the model (second panel), the share of Asian-American applicants in the top decile of the admissions index is similar to that of African-American applicants and much lower than white applicants. This further illustrates that racial preferences influence the personal rating. Including it significantly improves the relative position of African-American applicants in Professor Card's non-academic index. And including the personal rating substantially weakens the relative position of Asian-American applicants in Professor Card's non-academic index, despite the fact that they have higher academic ratings and similar non-academic qualifications to whites when the personal rating is not included.

But even this third panel incorporates various forms of preferences. Some of these will favor Asian-American applicants relative to whites (such as disadvantaged status) and some will not (such as geography). In the fourth panel, I use the portion of the admissions index that comes from Harvard's ratings that are not inherently academic in nature with the exception of the personal rating (having already shown that this rating is biased).[16] These ratings include the following: extracurricular, athletic, teacher1, teacher2, counselor, alumni personal, and alumni overall. As panel 4 shows, Asian-American applicants are just as strong as white applicants on these non-academic ratings.

Note that the findings in the fourth panel also speak directly to Professor Card's selective comparisons of white and Asian-American ratings in section 4.2 of his report. Here he gives equal weight to Harvard's four profile ratings and ignores the other ratings measures (school support and the alumni ratings). First, this

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[15] Note that Hispanics do well on this measure, at least in the top admissions decile, as the remaining "non-academic" factors are also affected by preferences, for example, for disadvantaged status and geography.

[16] These ratings include the following: extracurricular, athletic, teacher1, teacher2, counselor, alumni personal, and alumni overall.

overweights the athletic rating; in practice, the athletic rating is not as important to the admissions decision as the other ratings once recruited athletes are removed. Second, it includes the personal rating, which is affected by racial preferences. In the fourth panel, the weights associated with each rating measure are determined by how Harvard values them in the admissions process. Here Asian-American applicants are just as strong as white applicants on the non-academic measures and, as shown in the previous report, substantially stronger on the academic measures.

3.5 Parental occupation varies in highly unusual and unexplained ways over time, undermining its reliability as a variable and its usefulness as a control.

There also are substantive issues with Professor Card's additional variables. His finding of no statistically significant discrimination against Asian Americans hinges in part on adding these as controls. *See* Card Report 62-75. But the unusual variations among some of these variables raise serious doubts about their reliability.

Parental occupation is one example. Professor Card aggregates mother's and father's occupations into 24 categories. Table 3.2N shows the number of mothers and fathers in each of these categories for five of the occupations conditional on being in Professor Card's pooled dataset; the rest of the occupations are shown in Appendix Tables B.3.1N, B.3.2N.

Table 3.2N: Mother's and father's occupations vary in non-credible ways over time

	Admissions Class					
	2014	2015	2016	2017	2018	2019
Mother's occupations						
Other	1266	4703	4339	4280	5666	5958
Homemaker	3476	4292	3967	4042	4629	3847
Unemployed	1449	2350	2274	2360	10	9
Low Skill.	1097	37	18	12	24	20
Self-Employed	0	991	989	928	1076	1138
Father's occupations						
Other	1593	4608	4268	4587	4941	5663
Homemaker	44	56	50	61	101	71
Unemployed	963	1493	1390	1300	5	8
Low Skill.	1098	42	33	34	15	27
Self-Employed	0	2134	2148	2108	2335	2432

The yearly variations among these five occupations point toward these variables either being the result of incorrect mappings across years, or being recorded incorrectly. No mother or father is listed as self-employed in 2014, yet over 900 mothers and over 2,100 fathers are listed as self-employed in each of the other years. Over 1,000 of mothers and fathers each are listed as low-skilled in 2014, but in every other year, no more than 50 mothers and fathers were recorded as low-skilled.[17]

The problems with this variable are not confined to inconsistencies between 2014 and the other years of data. Consider the unemployed category. In 2018 and 2019 there are 10 or fewer unemployed mothers and fathers in each of the years. From 2015 to 2017, however, the number of unemployed mothers was always above 2,200 and the number of unemployed fathers was at least 1,300.

These inconsistencies raise doubts about the reliability of the field and its

[17] A review of Professor Card's analysis shows an incorrect translation between some of the coded occupations and how Professor Card aggregates occupations. For example, on the summary sheet of applicant 1759088, both the applicant's mother and father were listed as "Laborer, unskilled." Handwritten notes show the occupations as "caregiver" and "newspaper deliveryman". Yet Professor Card's classification scheme results in this applicant being coded as "Skilled Trades Incl. Construction." The error for this occupation appears to be in the mapping Professor Card provides in ca_occupation_to_bls_minorg.xlsx.

usefulness as a control. If there is little reason to trust the accuracy of a factor, incorporating it into a model will not inform the resulting estimates. Professor Card nowhere offers an explanation for why these data would vary so wildly across these years. Nor does he provide a particularly compelling explanation for how parental occupation categories influence admissions decisions. To the extent there is testimony about this topic in the record, it suggests that parental occupation is useful mainly to help identify disadvantaged students[18]—and the model I use already accounts for any applicants that Harvard identified as disadvantaged. As a result, I see no reason why the parental occupation Professor Card uses would increase our understanding about the admissions process at Harvard—let alone serve as a firm basis for opining that there is no significant discrimination against Asian-American applicants in Harvard's admissions process

4 Professor Card's models, once corrected of their key flaws, show that Harvard imposes a penalty against Asian-American applicants.

In Sections 3.6 and 3.7 of my opening report, I employed statistical methods to demonstrate that Harvard imposes a penalty against Asian-American applicants in both the scoring and selection of applicants for admission. In Section 5 of his report, Professor Card contends that his analysis reveals no significant penalty against Asian-American applicants. Card Report 46-80.

In analyzing this question, Professor Card employs two versions of his models—one that pools the six-years of data and analyzes it as a whole (my preferred approach) and the other separately analyzes each year (Professor Card's preferred approach).

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[18] Harvard Response to Interrogatory Number 14 ("[A]dmissions officers evaluate the contents of the entire application file to attempt to ascertain whether an applicant appears to be from a modest economic background. Admissions officers may consider an applicant's **parents' occupations** and educational background . . . , information about the socioeconomic characteristics of an applicant's high school . . . and town or city of residence, whether the applicant requested a waiver of the application fee, and other information about the applicant's economic circumstances and family background that may be apparent from various parts of the application . . . . If, based on this review of the application file, an admissions officer concludes that the applicant is likely to be socioeconomically disadvantaged, the admissions officer may so indicate by using the DISADVANTAGED field of the APPLICANTS table in the database.") (emphasis added); see also Fitzsimmons Depo. at 201; Donahue Depo. at 46-47, 52.

This is one of the most important modeling differences between us, so I will begin by explaining why the pooled model is the better approach, before demonstrating that under *either* approach, making some basic corrections to the models confirms that there is a penalty against Asian-American applicants.

4.1 Professor Card's preferred yearly model is less sound than a pooled approach.

Professor Card contends that regression models of discrimination in Harvard admissions should focus on individual years, rather than pooling the six years of data Harvard has disclosed. This is his key rationale:

> First, the admissions process at Harvard is, by its nature, an annual process. Each applicant is compared to other applicants who applied in that year. A pooled analysis does not reflect how the process actually works, because it effectively compares applicants from different years to each other.

Card Report 51.

Professor Card is wrong for two principal reasons. First, he is wrong that all applicants each year are compared to all other applicants. That is certainly not true with respect to recruited athletes, who are compared only to other athletes, and it is largely untrue for legacies. Many of the early action applicants are not compared to those in the regular admission pool. And, as I have noted earlier, a large proportion of applicants do not meet minimal Harvard admissions criteria and are thus eliminated from consideration at an early stage (e.g., their applications do not receive a second read).

Second, the main effect of using a yearly instead of pooled analysis is that it reduces the statistical power of the sample. Statistics is largely driven by the law of large numbers; in any quantitative analysis, the ease of distinguishing random variations from systematic factors rises in proportion to the square root of the sample size. In any analysis of discrimination, it is logical and important to use the largest sample that is relevant to the comparisons involved.

To see this, consider the example of a large firm that discriminates against women in making promotions to partnership. Suppose that data disclosed by the firm show that over a six-year period, women with similar evaluation scores to men, with similar billings, and so on, are promoted at a substantially lower rate. Suppose there is substantial corroborating evidence of discrimination in evaluations and work assignments. Suppose then that the firm's response is that it is inappropriate to attack it for a pattern manifest over a six-year period. "Decisions to promote associates to partnership are made on an annual basis," the firm's expert says. "One must analyze one year at a time." Doing so would, of course, reduce the statistical significance of findings of discrimination, but it would not make any sense.

Finally, Professor Card contends that a yearly model is more appropriate because admit rates for the same rating profile are different across years. Professor Card gives as an example that those who receive a 2 on all four profile ratings (academic, personal, extracurricular, and athletic) have admission rates that vary between 61% and 77% across admissions cycles. Card Report 54. This is misleading: just because admission rates vary across years for this rating combination does not mean a pooled model should be ruled out. In fact, my pooled model actually does an excellent job in predicting these exact fluctuations. Specifically, for those who receive this rating combination, the correlation between my model's prediction of the yearly admission rates and the actual yearly admission rates is extremely high (0.91). My model is able to explain the differences across years through a variety of channels, including that admissions are becoming more competitive over time (as captured by year effects) and in how the other characteristics vary across years for those who received this particular rating combination (e.g., racial composition, disadvantaged status).

By using a yearly model, Professor Card achieves results that weaken the effect of race in Harvard's admissions process by adding noise to the estimated racial preferences and penalties. But making even a few adjustments to both his pooled and yearly models result in significant findings of an Asian-American penalty, and even more substantial racial preferences than even Professor Card finds to exist for Hispanic and African-American applicants.

4.2 Professor Card's pooled results, with small corrections, show that Harvard imposes a penalty against Asian-American applicants.

Professor Card first pools the six years of admissions data and runs logit models similar to mine. But he chooses a different set of controls and, importantly, substantially restricts how race affects the admissions process. Professor Card's pooled results have a number of flaws, many of which have been discussed above, and all of which have the effect of concealing the extent of Harvard's discrimination against Asian-American applicants.

First, Professor Card improperly relies upon the assumption that Harvard's discrimination against regular Asian-American applicants is irrelevant unless the same level of discrimination is present with respect to Asian-American applicants who are athletes, legacies, and/or members of other special (preferred) recruiting categories. Including these variables in the analysis—and also ignoring how race interacts with these variables—serves only to conceal the impact of the penalty Harvard imposes on Asian-American applicants. It is thus essential to either (1) remove these applicants from the analysis; or (2) allow for the possibility that the effect of race is different for these applicants (i.e., interacting these variables with race).[19] By failing to do either, Professor Card makes it impossible to fairly consider the effects of the racial preferences and penalties Harvard employs in its admissions process.

Second, Professor Card errs in assuming that racial preferences operate the same way for disadvantaged students as they do for advantaged students. As noted in section 3.7 of my opening report, African-American and Hispanic applicants receive a smaller preference for disadvantaged status than Asian-American and white applicants, and including them in the analysis without interacting race weakens the distinctions between white and Asian-American applicants.

Third, Professor Card errs in including Harvard's personal rating in his models. *See* Card Report 69-74. As discussed above, it is clear that racial preferences affect the

[19] Note that removing these observations is equivalent to allowing the coefficients of the model to be fully interacted with special recruiting status.

personal rating. By ignoring this evidence, Professor Card's regressions simply spread Harvard's discrimination across multiple variables, making the main effect (Asian-American discrimination) smaller and thus harder to measure as statistically significant.

Fourth, Professor Card errs by including data for parental occupation that, as shown in section 3.5, is unreliable, given the wide variation in yearly patterns. *See* Card Report 43-45.

Table 4.1N shows that, after removing those in the special recruiting categories, corrective adjustments to Professor Card's models that account for *any* of these issues results in significant estimates of discrimination against Asian-American applicants.

Table 4.1N: Small corrective adjustments to Professor Card's model show penalties against Asian-American applicants

		Average Marginal Effect	
(1)	Base Model	-0.14%	
(2)	No Specials	-0.22%	
(3)	Interact disadvantaged	-0.32%	*
(4)	White & Asian Apps	-0.34%	*
(5)	Exclude disadvantaged	-0.35%	*
(6)	No personal rating	-0.65%	*
(7)	No parental occupations	-0.37%	*
(8)	Interact disadvantaged, no parental occupations, no personal rating	-0.95%	*

*=statistically different from zero at the 95% level. Marginal effects are calculated without perfect predictions.

The first row of Table 4.1N reports the marginal effect for Professor Card's pooled model. This is the average marginal effect of Asian-American status itself for all Asian-American applicants who have a non-zero probability of admission.[20] The

[20] Throughout Professor Card's report when he calculates marginal effects he includes those whose characteristics are so bad that rejection is guaranteed regardless of their race. This serves to lessen the actual penalty or preference by averaging in zeros from those who are clearly not competitive. I have removed those applicants in this analysis to get a more accurate measure of the marginal effects.

average effect in this first row is small and statistically insignificant. The second row removes those in the special recruiting categories. The average marginal effect increases by 61%, but the coefficient remains insignificant—meaning that we cannot rule out that the effect is different from zero at the 95% level.

The next three rows illustrate how Professor Card's decision to drop the interaction of disadvantaged status with race affects the magnitude and statistical significance of the penalty Asian-American applicants face. Row 3 adds interactions between race and disadvantaged status, allowing the preference for disadvantaged applicants to vary by race. Once that is done, it reveals a statistically significant penalty for Asian-American applicants. In other words, Professor Card's conclusion that there is no Asian-American penalty hinges on his error in failing to include interactions between race and disadvantaged status.

Rows 4 and 5 in Table 4.1N underscore how Professor Card's model ignores the way that Harvard's racial preferences operate in practice. If I estimate the model only on white and Asian-American applicants (row 4), it shows a statistically significant penalty against Asian-American applicants. Note how close the estimated marginal effect is to the one where race is interacted with disadvantaged status. This confirms that Professor Card's model downplays the effect of race by ignoring Harvard's differential treatment of disadvantaged students. Row 5 further illustrates this point: by estimating only on students who are *not* disadvantaged—including African Americans and Hispanics—Professor Card's model once again shows a statistically significant penalty against Asian-American applicants. All of this demonstrates the fragility of Professor Card's models, exposing the unreliability of his finding that there is no Asian-American penalty.

The same effect occurs if we discard Professor Card's use of the personal rating, which shows compelling evidence of bias on the part of Harvard's admission officers. *See* Section 3.3.2, supra. Row 6 of Table 4.1N retains Professor Card's flawed application of disadvantaged status, but removes the personal rating. Once again, there is a statistically significant penalty against Asian Americans.

Professor Card's use of unreliable data on parental occupation likewise skews his results. In row 7 of Table 4.1N, I keep Professor Card's flawed application of

disadvantaged status and the personal rating, but instead remove the parental occupation variables. Making this change alone once again reveals a statistically significant penalty against Asian-American applicants.

This exercise reveals the extent to which small adjustments to Professor Card's pooled model expose his flawed conclusions. It underscores that his model is not robust, and that his analysis appears carefully constructed to downplay the extent to which Harvard's process penalizes Asian Americans. The next section reveals the same shortcomings in Professor Card's yearly model.

4.3 Professor Card's yearly models, with small corrections, confirm that Harvard imposes a penalty against Asian-American applicants.

In my report, I analyzed Harvard's admissions process over the full six-year period. I chose to pool the data because Harvard's admissions process (and its use of race) underwent no material changes during this time, and the six-year period ensures a larger overall sample size, increasing the confidence in the results.

Professor Card claims that it is inappropriate to analyze the results of Harvard's application process by pooling six years of data, and that instead every year should be treated independently. *See* Card Report 51-54. I disagree, in part because treating each year separately decreases the sample size and thus makes it more difficult to measure the effects of race in Harvard's admissions decisions. But even using Professor Card's yearly approach confirms that Harvard imposes a penalty against Asian-American applicants, once the key flaws in his model are corrected.

To demonstrate this, I estimated slightly modified versions of Professor Card's yearly models, correcting his models for the key flaws I have identified and explained elsewhere. As before, I removed those applicants in special recruiting categories, and otherwise adopted the alternative versions of Professor Card's models described in the pooled analysis (interacting race with disadvantaged status; discarding the biased personal rating;[21] and discarding the unreliable parental

[21] Professor Card does do some limited analysis with the personal rating included in his yearly models. But he presents his results in a misleading way. Namely, his results with the personal rating in the model) *show a statistically significant penalty against Asian*

occupation variables).

The first column of Table 4.2N shows the results of these slight corrective adjustments to Professor Card's yearly model. Any one of these adjustments reveals that the estimated penalty against Asian-American applicants is substantially higher than Professor Card suggests. The models in rows 2 through 7 show a statistically significant penalty against Asian-American applicants at the 90% level, with the last three also statistically significant at the 95% level.

Table 4.2N: Small corrective adjustments to Professor Card's yearly model show penalties against Asian-American applicants

		Card Yearly		Card yearly with Corrected Extracurriculars		Card Pooled	
(1)	No Specials	-0.18%		-0.24%		-0.22%	
(2)	Interact disadvantaged	-0.29%		-0.36%	*	-0.32%	*
(3)	White & Asian Apps	-0.37%		-0.47%	*	-0.34%	*
(4)	Exclude disadvantaged	-0.29%		-0.37%	*	-0.35%	*
(5)	No personal rating	-0.56%	*	-0.62%	*	-0.65%	*
(6)	No parental occupations	-0.39%	*	-0.47%	*	-0.37%	*
(7)	Interact disadvantaged, no parent occupations, no personal rating	-0.90%	*	-0.98%	*	-0.95%	*

*=statistically different from zero at the 95% level. Marginal effects are calculated without perfect predictions.

Again, the models I report take the additional variables that Professor Card has added at face value, ignoring that these additional variables actually distort the analysis in ways that tend to conceal the discrimination against Asian-American applicants. In particular, these models include Professor Card's questionable use of the data on extracurricular activities.

Americans—even with all their other flaws. Professor Card claims that this evidence is nonetheless weak because in only one of the individual years is it statistically significant. But because Professor Card's model is estimated at the yearly level, the imprecision of the estimates becomes much larger. This makes it impossible to rule out the possibility of even very large penalties in any given year. Professor Card also argues that once 2018—*the year that preceded the SFFA lawsuit*—is removed, the average over the remaining five years is no longer significant. But it is arbitrary to remove 2018 in this manner. One could just as easily remove 2019, and Card's model shows significant estimates across the remaining years. The upshot is that Professor Card's models that include the personal rating show a penalty against Asian-American applicants even *with no other adjustments to the model.*

Data on extracurricular activities come from applicants listing (1) each activity they participated in, (2) the years in which they participated in this activity, (3) the hours per week and weeks per year they participated in the activity, and (4) whether their participation was during the school year or outside the school year. Each of the activities is assigned to one of 29 categories (*e.g.*, work, academics, musical instruments).

In his analysis of these activities, Professor Card considers the first two activities listed, aggregating the listed activities into one of twelve groups in a somewhat arbitrary manner. For example, Card aggregates some large categories like religious and volunteer activities, groups some categories like "school spirit" and "LGBT" into an "other" category, and leaves "Junior ROTC"—one of the smallest categories—by itself.

More importantly, the level of participation of the activity is done only for the work category, where Professor Card calculates the total hours in work activities over the course of the applicant's high school career. This distorts the analysis in two ways. First, it overemphasizes the weight that work is given in the process, as work activities are only the eighth most popular activity listed for whites. *See* Card Report 180, Exhibit 66. Second, white applicants work significantly more hours than Asian-American applicants. Yet there are many activities where Asian-American applicants invest substantially more hours than white applicants.[22] Professor Card provides no explanation in his report for this idiosyncratic approach to extracurricular activities.

I make the following adjustments to Professor Card's extracurricular activities in order to more accurately account for their effect on admissions decisions:

- Rather than use Professor Card's groupings when constructing indicators for each of the first two listed activities, I use the original 29 activity categories.

[22] This is presumably among the reasons why Asian-American applicants tend to have higher scores than white applicants on Harvard's extracurricular rating.

- Rather than use the total hours of work over the course of the applicant's high school career, I consider broader groupings of categories and measure participation both by (1) counting the number of grades in which the applicant participated in each activity and (2) indicating whether the applicant's total accumulated hours in a category was above the median for those who had any positive hours in the category.

Making these adjustments more precisely accounts for the impact of extracurricular activities on admissions decisions. This more accurate picture of extracurricular activities reveals that the penalty against Asian-American applicants is higher than Professor Card suggests. The results of the models using additional measures of extracurricular involvement are given in the second column of Table 4.2N. For each model, the Asian-American penalty is larger in column 2 than in column 1. Further, all of the deviations that are in rows 2-7 are statistically significant at the 95% level. All Professor Card demonstrates is that one can selectively choose and count extracurricular activities in a way that disadvantages Asian-American applicants—and thereby conceal the discriminatory nature of Harvard's admissions process. But accounting for the full distribution of activities shows that my finding of an Asian-American penalty is robust.

Finally, column 3 of Table 4.2N shows the results using the various corrective adjustments to Professor Card's models to the six-year pool as a whole, rather than year-by-year. Examining the marginal effects shows that, if anything, the effects on Asian-American applicants are more often *larger* in the year-by-year model.

I suspect that Professor Card prefers the yearly model for the same reason he prefers to add other irrelevant or unreliable information to his model: it introduces more noise into the estimates by adding many more variables, all of which tend to conceal the degree to which Harvard discriminates against Asian-American applicants. Consider the estimated penalties (marginal effects) in column 1 for the model using only white and Asian-American applicants. The estimated penalty is bigger than the corresponding penalty from the pooled model in column 3 (-0.37% versus -0.34%), yet is not statistically significant at the 95% level.

Professor Card actually shows many results of the marginal effect of being Asian

American for his yearly models where the effects are rarely significant at the 95% level (see Exhibits 19, 21, 22, 23, and 25). But because Professor Card has effectively introduced a lot of noise into his models, it is also not possible to rule out large penalties against Asian-American applicants. In all the years except for 2019, the 95% confidence interval in Professor Card's yearly model with just the special recruiting categories removed contains an Asian-American penalty of 0.9 percentage points. This is a large change given the admit rate is 5.1% for Asian-American applicants who are not within the special recruiting categories.

In fact, 2019 consistently shows the smallest Asian-American penalty of all the yearly models (or, in some cases, no penalty at all). It also is the first (and only) admissions cycle *after* the SFFA lawsuit. In the first column of Table 4.3N, I show the marginal effects of being Asian American (the Asian-American penalty) by year for each of the models.

Table 4.3N: The year-over-year evidence of an Asian-American penalty

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	No Special Recruiting	White & Asian Apps	Exclude Disadvantaged	Interact Disadvantaged	No Personal Rating	No Parental Occupations	No Parental Occupations No Personal
2014	-0.31%	-0.38%	-0.28%	-0.38%	-0.79%	-0.69%	-1.23%
2015	-0.33%	-0.98%	-0.38%	-0.41%	-0.74%	-0.60%	-1.07%
2016	-0.02%	-0.13%	-0.01%	-0.16%	-0.72%	-0.34%	-1.12%
2017	-0.23%	-0.26%	-0.60%	-0.30%	-0.34%	-0.32%	-0.64%
2018	-0.57%	-0.96%	-0.73%	-0.71%	-0.97%	-0.75%	-1.33%
2019	0.37%	0.51%	0.28%	0.22%	0.19%	0.34%	-0.03%
Average without 2019	-0.29%	-0.54% *	-0.40% *	-0.39% *	-0.71% *	-0.54% *	-1.08% *

*=statistically different from zero at the 95% level. Marginal effects are calculated without perfect predictions.

Note that this is the specification that uses Professor Card's extracurricular measures. In every specification that does not include the special recruiting categories, the marginal effect is negative in all years but 2019. In 2019, the estimate is positive for all specifications, except in the last column that implements all three corrections: interacting disadvantage with race, removing parental occupations, and removing the personal rating.

The last row of Table 4.3N shows the average marginal effect excluding 2019. Now the marginal effects are significant at the 95% level for specifications (2) through

(4)—even when Professor Card's extracurricular controls are used.

Professor Card also argues that the evidence is even weaker for discrimination against Asian-American applicants when considering particular subgroups, namely those on California dockets and females.[23] But there are problems with his subgroup analyses. First, the same criticisms of Professor Card's yearly and pooled analyses apply here. It is incorrect to include special recruiting categories; it is incorrect to ignore racial interactions with disadvantaged status; the parental occupation variable is unreliable; and the personal rating is biased. Second, Professor Card uses his yearly model to generate his findings. These yearly models have very large standard errors that increase when significantly less data are used in the analysis. What Professor Card has failed to show is whether any of his subgroup analyses yield results that are statistically different from his other findings. Third, Professor Card controls for each unique rating combination, aggregating combinations with less than 100 applicants by how similar they are in their admission rates. This too serves to hide racial preferences and penalties, an issue that becomes more salient for smaller estimation samples (which is the case in his subgroup analysis). As I show in section 7.2, these aggregations in the *yearly* models are inappropriate but are surely worse when these aggregations are done at the *yearly subgroup* level.[24]

4.4 Professor Card's analysis of applicants whose race is missing further confirms the existence of an Asian-American penalty

Professor Card makes another argument that inadvertently shows a penalty against Asian-American applicants. In my opening report, I noted that the impact of racial preferences on Asian-American applicants is likely understated due to some Asian Americans choosing not to report their race. Without racial preferences, some of those applicants would see their probabilities of admission rise, as would be the case for all applicants who are not underrepresented minorities.

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[23] As I show in section 9.3, there is actually evidence of discrimination against dockets that have a higher share of Asian-American applicants.

[24] The impact of these aggregations on the magnitude of racial preferences in my pooled model is substantial. *See* Table 8.2N.

In an attempt to undermine my argument, Professor Card shows that, using other sources, it is possible to identify the race for some of the applicants who choose not to report. Card Report 55. Professor Card notes that when he uses this information to classify many of those who do not report a race to particular racial groups and estimates his model, the estimated penalty for Asian-American applicants goes down.

But Card's analysis does not undermine my argument at all—it actually shows that Harvard does not impose a racial penalty on those Asian-American applicants who do not identify their race.[25] That the penalty against Asian-American applicants *falls* when some of this group is included as Asian American in the analysis necessarily means that this group is actually treated *better* than those who report their race as Asian-American.

5 Professor Card's Analysis Actually Demonstrates That Race Is a Determinative Factor in Harvard's Admissions Decisions.

I previously demonstrated that race plays a "significant role in admissions decisions at Harvard." Arcidiacono Report 7-8. Professor Card does not disagree. *See* Card Report 10, 81, 93. Professor Card instead claims that race is not a "determinative factor" in admissions decisions. He attempts to support this claim by showing the average marginal effect of race by year for Asian Americans, African Americans, Hispanics, and applicants who do not identify their race using his preferred yearly model. *See* Card Report 81 & Exhibit 26. But in doing so, *Professor Card actually demonstrates that race is in fact a determinative factor in admissions decisions*.

Average marginal effects of race show how, on average, admission probabilities change as a result of the applicant's race/ethnicity. This is what Professor Card shows in his Exhibit 26. But what Professor Card leaves out is that average marginal effects must be interpreted relative to the baseline probability of

[25] Indeed, this coincides with anecdotal evidence that some Asian-American applicants hide their race on college applications to avoid discrimination. *See, e.g., Fearing discrimination, Asian college applicants don't always declare ethnicity*, Associated Press (Dec. 3, 2011), www.nydailynews.com/ news/national/fearing-discrimination-asian-college-applicants-don-declare-ethnicity-article-1.986416.

admission. To illustrate, consider the case of a relatively moderately selective college, where the average admit rate for a particular racial group is fifty percent in the absence of racial preferences. If the average marginal effect of race for that group were six percentage points, then the average admission probability with racial preferences would be fifty-six percent—*i.e.*, the effect of racial preferences would amount to a 12% increase in the number of admitted students in this racial group.

But the impact of racial preferences resulting in a six-percentage-point effect is much greater at a highly selective school—where the baseline probability of admission is much lower. For example, if the average admit rate for a specific racial group were three percent in the absence of racial preferences and the average marginal effect of race were (again) six percent, that would mean that the average admission probability with racial preferences would be nine percent. In this scenario, the effect of racial preferences would be massive—a *tripling* of the admit rate and thus the predicted number of individuals admitted for that specific racial group.

Professor Card's analysis of his own preferred yearly model shows this very scenario at Harvard. Table 5.1N below replicates Professor Card's results for African Americans and Hispanics in Exhibit 26, but includes the average probability of admission for these groups—both with and without racial preferences—in order to illustrate the effect of racial preferences as compared against the baseline. Professor Card's own models show that racial preferences are responsible for *tripling* the number of African-American admits and *doubling* the number of Hispanic admits.[26]

[26] For purposes of this analysis, and consistent with Professor Card's approach, I am including within the Hispanic category those applicants whose race/ethnicity is identified as Native American, Hawaiian/Pacific, or "Other."

Table 5.1N: Admission probabilities and marginal effects for African Americans and Hispanics in Professor Card's yearly models

	African American				Hispanic			
	If treated as:		Average		If treated as:		Average	
Class	White	African American	Marginal Effect		White	Hispanic	Marginal Effect	
2014	3.38%	10.81%	7.43%	*	4.16%	7.97%	3.81%	*
2015	2.39%	8.86%	6.47%	*	3.43%	7.47%	4.04%	*
2016	2.66%	7.86%	5.20%	*	3.54%	6.71%	3.17%	*
2017	2.98%	8.83%	5.85%	*	3.08%	7.24%	4.16%	*
2018	2.62%	8.81%	6.19%	*	3.31%	7.43%	4.13%	*
2019	2.83%	8.61%	5.78%	*	3.38%	6.50%	3.12%	*
Overall	2.79%	8.91%	6.12%	*	3.46%	7.19%	3.73%	*

*indicates statistically significant at the 95% level.

To illustrate, consider domestic applicants for the class of 2014 (in the first row of Table 5.1N). Absent racial preferences, African-American applicants would be treated as white applicants. Professor Card's models predict that if racial preferences were removed, the average admit rate for African-American applicants would be 3.38%. This is the baseline (i.e. the starting point absent racial preferences). Compared against this baseline, Professor Card's average marginal effect of race for African-American applicants (7.43%) would increase the admit rate for African-American applicants to 10.81%, more than tripling the admit rate for African-American applicants in 2014. And this is not an outlier. Professor Card's overall average marginal admit rate for the entire six-year period is 6.12%. Compared with a baseline of 2.79% (the average admit rate absent racial preferences for the six-year period), the tripling effect exists for the entire period. Professor Card's own preferred model and analysis thus reveal that racial preferences *more than triple* the admit rate for African-American applicants.

Professor Card is undoubtedly aware of the multiplying effect that racial preferences have on African-American and Hispanic admit rates. The fact that he fails to address them is revealing. His analysis—which demonstrates that racial preferences alone are responsible for doubling and tripling the admit rates for African-American and Hispanic applicants—quite obviously demonstrates that race is a determinative factor in admissions decisions at Harvard.

So how does Professor Card come to the conclusion that race is not a determinative factor in admissions decisions at Harvard? Professor Card resorts to three misleading and/or plainly incorrect arguments, claiming that:

- A model with race as the only control does a poorer job of explaining admissions decisions than other sets of controls (e.g. profile ratings, dockets) *See* Card Report 83, Exhibit 27.

- For most African-American and Hispanic applicants, the average marginal effect of racial preferences is small. *See* Card Report 84, Exhibit 28.

- Unmeasured factors are more important than racial preferences. *See* Card Report 86-87, Exhibits 29 and 30.

Below I show that each of these arguments is incorrect or misleading. In doing so, I rely *only* on Professor Card's models. As I show in Section 8.2, my preferred model shows even larger estimates of racial preferences.

5.1 A model with race as the only control would be expected to perform poorly relative to other factors.

Professor Card's first argument can be ruled out almost immediately. As I showed in my opening report, there are vast differences in academic preparation across racial/ethnic groups. For example, in the expanded data set, over 37% of African-American applicants are in the bottom decile of the academic index compared to fewer than 4% of Asian-American applicants. And less than 1% of African-American applicants are in the top decile of the academic index compared to almost 18% of Asian-American applicants *See* Arcidiacono Report, at Table B.5.1. Because race is generally correlated with academic preparation, one would expect that race would have at least *some* explanatory power with respect to the admissions results. Professor Card's findings in Exhibit 27—that race alone explains little variation in admissions—actually suggests, as a statistical matter, that racial preferences are quite large.

To more clearly see this, suppose Harvard had a strict quota system, accepting the

best 10% of each racial group. Estimating a model of admission where the *only* control was race would have *zero* explanatory power even though an explicit quota was in place. In order to properly evaluate the role of race in the admissions process, it is *paramount* that one controls for the relevant factors in the admissions decision. Professor Card's analysis in Exhibit 27 does nothing to support his claims.

5.2 Professor Card's argument that racial preferences are not relevant for most African-American and Hispanic applicants misleadingly focuses on uncompetitive applicants.

Professor Card's second argument is that, for the majority of Harvard applicants, race is not relevant to the admissions decision. This argument is a dodge. Of course race is not relevant for a large number of applicants. No one would claim otherwise, given that Harvard is a highly selective school where more than 90% of all applicants are rejected. *See* Section 3.1, *supra*.

A further example may help illustrate the point. Suppose Harvard sent automatic rejection letters to the 80 percent of its applicant pool with the lowest standardized test scores. Further assume that, among the remaining twenty percent, half (ten percent of the pool) were admitted. Of those who were admitted, suppose Harvard did so using a specific quota for each racial group, and admitted the other half based on purely non-racial factors, such as academics, extra-curricular achievement, and so on. It would still be true that race did not affect most application decisions; indeed, race would only affect 5% of Harvard's decisions. But this would be no defense to the way race was used in admitting the *competitive* applicants. The fact that the majority of all applicants are rejected regardless of their race tells us nothing about the effect race has among those applicants who are seriously considered for admission to Harvard.

This fallacy can be seen in Exhibit 28 of Professor Card's report (which is reproduced in the first two columns of Table 5.2N, below). Here, Professor Card ranks applicants according to their *admissions index* which, given the estimates of his yearly models, describes the strength of applicants based on how the applicant's observed characteristics translate into admissions. Professor Card does this ranking

separately by race, implying that 10% of each racial group is in each decile.[27]

Table 5.2N: Average marginal effects of race by within race and across race admission index deciles using Professor Card's yearly models

	Average Marginal Effect				Share of Admits			
	Within Race Deciles		Across Race Deciles		Within Race Deciles		Across Race Deciles	
Predicted Probability of Admission Decile	African-American Applicants	Hispanic or Other Applicants	African-American Applicants	Hispanic or Other Applicants	African-American Applicants	Hispanic or Other Applicants	African-American Applicants	Hispanic or Other Applicants
1 (Weakest)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
3	0.00%	0.00%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%
4	0.00%	0.00%	0.25%	0.05%	0.00%	0.00%	0.15%	0.00%
5	0.00%	0.01%	0.99%	0.19%	0.00%	0.00%	0.29%	0.15%
6	0.02%	0.05%	3.08%	0.64%	0.00%	0.00%	1.83%	1.03%
7	0.18%	0.22%	9.00%	1.88%	0.07%	0.22%	4.99%	1.54%
8	1.24%	1.08%	24.72%	5.93%	0.66%	1.69%	13.65%	7.26%
9	12.65%	7.05%	54.10%	22.04%	17.02%	13.43%	34.34%	25.61%
10 (Strongest)	47.08%	28.85%	41.28%	30.53%	82.25%	84.67%	44.75%	64.42%
Average	6.12%	3.73%	6.12%	3.73%	100.00%	100.00%	100.00%	100.00%

The first five rows of column 1 show no effect of race for African-American applicants in the bottom five deciles. The reason there is no effect in the bottom five deciles is that Professor Card's yearly models predict that more than 50% of African-American applicants have other observed characteristics (combinations of test scores, Harvard ratings, etc.) where everyone who has these characteristics is rejected. And I agree that racial preferences are not relevant for uncompetitive applicants.

I further agree with Professor Card that racial preferences are most salient for the competitive applicants. But Professor Card makes a mistake when he describes who is affected by racial preferences:

> [T]he applicants with the largest estimated positive effect of race on their likelihood of admission are the strongest applicants—i.e., those

[27] Part of the note to Exhibit 30 reads *"Deciles are constructed by race based on the predicted probabilities of admission when the race factor is turned off."* Note that whether the race factor is turned off or not has *zero* relevance as to who is assigned to what decile, when the deciles themselves are constructed by race.

> whose estimated likelihood of admission is in the top 10% of the applicant pool absent consideration of race.

Card Report 84.

But Professor Card's calculations are not for those who are in the top 10% of the applicant pool, but instead for the top 10% of *African-American applicants*. The third and fourth columns of Table 5.2N show the average marginal effects by admissions index decile where the deciles are constructed across all racial groups and where racial preferences are turned off.[28] Racial preferences are relevant for the top 10% of African-American applicants (column 1), who are distributed across the top 30% of the applicant pool (column 3). Given that the admission rate across all racial groups over this period is slightly over 7%, it is not surprising to find smaller effects of racial preferences for those in the bottom 70% of applicants.

To further illustrate this point, the last four columns show the share of African-American and Hispanic admits in each of the academic index deciles. Using the within-race deciles, over 82% of African-American admits are in the top decile (the top 10% of African-American applicants). But this is exactly where the marginal effects of race are enormous: Professor Card estimates the marginal effect for this group to be over 47%, as shown in column 1.

5.3 Professor Card's method of calculating the importance of unobserved factors is incorrect and substantially overstates their importance.

Professor Card next claims that unobserved characteristics are more important than race, again suggesting that race is not a determinative factor. Card Report 85-86. Professor Card reaches this conclusion using erroneous methods. Properly accounting for the role of unobserved characteristics shows that Professor Card vastly overstates the importance of unobserved characteristics relative to race for

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[28] Professor Card defines his admissions indexes for this table without accounting for differences in admission rates by year. Hence, the same applicant would have a higher index in 2014 than in 2019 as admission rates as a whole were higher in 2014. To form the across-race deciles, I remove the effects of year by creating the deciles at the year level; each decile has 10% of each year's applications. While my method is the correct one, this has little effect on the patterns shown in Table 5.2N.

African-American and Hispanic applicants. Indeed, I will show that unobserved characteristics are decidedly *less* important than race for these two groups.

Professor Card attributes the share unobserved characteristics play in the admissions decision as the absolute value of the difference between the predicted probability of admission and the actual admit decision. But this *does not* equate to the share of the admissions decisions explained by unobserved characteristics. What it *does* give—at least for admits—is whether the applicant has unobservable characteristics above a particular percentile. Knowing that the unobservable is above a particular percentile is useful, but not in the way Professor Card uses it.

The predicted probability of admission indicates how often we would expect an applicant to be admitted given a random draw from the distribution of unobserved characteristics. Some of those random draws would result in rejection, others in acceptance. When an applicant is rejected, this tells us that the set of possible unobserved characteristics had to lie in some range, but not the exact value of the unobserved characteristic. For example, suppose an applicant has characteristics associated with a 90% chance of admission and that applicant was admitted. This means that the applicant's unobserved characteristics were above the 10th percentile. Professor Card's method, however, would imply that unobserved characteristics explains 10% of the admissions decision, *which is simply false.*

Knowing that an applicant was admitted and his or her predicted probability of admission tells us the range of possible values for the applicant's unobserved characteristic. Because both Professor Card and I use logit models to estimate the admissions decisions, our models assume that the unobserved characteristic comes from a particular distribution. I can use these three pieces of information—the distribution of the unobserved characteristic, the predicted probability of admission, and the actual admission decisions—to show:[29]

- How often the expected value of the unobserved characteristic is larger than the preferences for a particular racial/ethnic group; and

[29] The derivations of the formulas are given in Appendix A.1.

- The probability of the unobserved characteristic being larger than the preferences for a particular racial/ethnic group.

Table 5.3N shows both Professor Card's incorrect method, as well as my calculations.

Table 5.3N: Racial preferences are more important than unobserved factors for African-American and Hispanic admits using Professor Card's models

	Fraction with Absolute Deviation Greater than or Equal to Absolute Value of Marginal Effect		Fraction with Expected Unobserved Factor Greater than Racial Preference	Average Probability that Unobserved Factor is Larger than Racial Preference
Race	Applicants	Admits	Admits	Admits
Hispanic or Other	96%	44%	24%	34%
African American	94%	30%	4%	10%

The first column replicates Professor Card's result in the last column of Exhibit 29 for Hispanics and African Americans. Here it is important to note that Professor Card does two misleading things in reporting his results. First, he includes perfect predictions in his estimates as though (tautologically) their unobserved characteristics were at least as important as race to their admissions chances. But these observations provide no information on whether race is more or less important than unobserved characteristics. With over 50% of African Americans having *observed* characteristics that result in a 100% chance of rejection, Professor Card's inclusion of these applicants in his calculations substantially overstates his actual findings, even aside from his incorrect method.

Second, Professor Card does not break out the results by admitted and rejected applicants. Column 2 uses Professor Card's method but reports the results only for admits. The differences are striking: Professor Card claims that for 94% of African-American *applicants*, unobserved characteristics are more important than race. But, even under Professor Card's own model, unobserved characteristics are more important than race for only 30% of African-American *admits*.

Moreover, even this 30% figure is a gross overstatement. In column 3, I show how

often the expected value of the unobserved characteristic for each admit is bigger than the estimated racial preference. Using this measure, the unobserved characteristic is bigger than the racial preference only 4% of the time for African-American admits. In column 4, I instead show how often admitted applicants could expect to draw an unobserved characteristic that was bigger than their racial preference. The average probability of an African-American admit drawing an unobserved characteristic that was bigger than their racial preference is 10%. The corresponding shares are larger for Hispanic admits as racial preferences for Hispanics are weaker than those for African Americans. Nonetheless, both measures show that racial preferences are more important than unobserved characteristics more than 65% of the time. Clearly, then, unobserved characteristics are substantially *less* important than racial preferences for these two groups.

6 Professor Card Fails to Refute the Overwhelming Statistical Evidence of a Floor for African-American Admissions.

In my report, I showed that Harvard maintained a floor on the admission rate for single-race African-Americans in the classes of 2017, 2018, and 2019. In each of these years, the admit rate for single-race African Americans (as identified under the federal Integrated Postsecondary Education Data System (IPEDS))[30] was virtually identical to the admit rate for all other domestic applicants, as reflected in Table 6.1N below:

Table 6.1N: The admit rate for single-race African Americans is implausibly close to the admit rate for other domestic applicants

Year	Single-race admits	Single-race admit rate	All other domestic admits	All other domestic admit rate	Difference
2017	172	0.06399	1,665	0.06424	-0.00025
2018	177	0.06585	1,657	0.06521	0.00064
2019	176	0.06059	1,677	0.06084	-0.00025

[30] IPEDS counts an individual as African American *only* if the individual marks "Not Hispanic; Black or African American only." If the individual marks, for example, Hispanic and African American, the individual is counted as Hispanic. And if the individual marks White and African American, the individual is reported as "two or more races." *See* Collecting Race and Ethnicity Data from Students and Staff Using the New Categories, National Center for Educational Statistics, https://nces.ed.gov/ipeds/Section/collecting_re.

The difference in these two sets of rates is never larger than .00064—about as small a divergence as is possible, especially given the size of the applicant pool. I found that the chance of this match occurring in three consecutive years (without direct manipulation) is less than 0.2%, and arguably much smaller. See Arcidiacono Report 29.

In response to my analysis, Professor Card has three responses, arguing that:

1) It makes no sense that Harvard would impose a floor on the African-American admit rate based on IPEDS metrics, because the admission rate by race is never publicly reported. *See* Card Report 88-89.

2) Because Harvard began reporting its results using the federal IPEDS method before 2017, there is no reason why it would impose a floor during that year. *See* Card Report 88-89.

3) Under a variety of alternative measures of race and alternative places where a floor could be implemented, there is no evidence of a floor. *See* Card Report 89-93.

None of these responses is persuasive. Indeed, none of them even address the compelling statistical evidence I present. To begin, Professor Card makes no attempt to contest the near mathematical certainty that Harvard is, in fact, manipulating the admissions rate for single-race African Americans to match its overall rate. That is my primary claim based on the statistical evidence.

Instead, Professor Card provides irrelevant responses, focusing on other admissions statistics and racial categories that say nothing about what Harvard was doing with IPEDS admissions rates and single-race African-American applicants beginning with the Class of 2017. Moreover, further examination of the characteristics of single-race, African-American admitted applicants confirms that a change occurred with the 2017 cycle, and further bolsters my conclusion that Harvard was in fact taking steps to ensure its admission rate for these applicants was at least as high as the overall admission rate.

6.1 Professor Card's speculation that Harvard would not want to use a floor based on a non-public admissions rate misses the point.

Professor Card notes that under the IPEDS reporting process, admissions rates by racial group are not publicly reported by the federal government, and Harvard has declined to make the data public on its own. He assumes that Harvard would have no reason for imposing a floor that the public would never see.

To begin, there are undoubtedly many ways Harvard could impose racial floors. They could impose a floor based on the expected number of admits, the share of admits of a particular race, or the relative acceptance rates of particular races. Alternatively, Harvard could impose a floor based on the expected number of enrollees of a particular race. Furthermore, Harvard could do this using a variety of different measures of race. Invariably, each of these different ways and different measures would result in different patterns in the data.

However, my claim is that the data show that Harvard implemented a particular kind of floor using a particular definition of race. *Why* Harvard chose this particular way of imposing a floor is irrelevant as a statistical matter.

That said, there are several reasons why Harvard might use a floor that is tied to a metric not publicly reported:

- Because rigid floors and other racial quotas are plainly illegal, it seems logical that if Harvard were attempting to ensure a minimum level of admissions for a particular race, it would *want* to use a metric that was not publicly available, lest its unlawful conduct be detected.
- Although the IPEDS admissions rates are not publicly reported, they are tracked within the admissions office and could be used internally—for example, to rebut any allegations that the admissions office was not admitting African Americans at a sufficient rate. Indeed, there is evidence that Harvard was very concerned about the way its IPEDS enrollment numbers were being perceived by the public in early 2013 (during the consideration of applications for the class of 2017).[31]

[31] *See* HARV00023588 (Feb. 6, 2013 email to Dean Michael Smith) ("[This] is a piece that explains how we collect and report demographic data, as per federal guidelines.");

- Harvard shares IPEDS admissions data by race with other institutions. For example, Harvard shares annual admissions data by racial group—including admissions rates—on an annual basis through the Consortium on Financing Higher Education (COFHE), a voluntary association of 35 selective, private liberal arts colleges and universities. *See, e.g.,* HARV00004736-38 (setting forth Harvard admissions rates by racial group and overall admission rates under IPEDS method); HARV00009158-59 (describing COFHE's use of IPEDS data).

- Likewise, admissions officers from Harvard attend semi-annual meetings of the Association of Black Admissions and Financial Aid Officers of the Ivy League and Sister Schools (ABAFAOILSS), at which Harvard officers bring data on admissions rates—including IPEDS data—and other institutions appear to share IPEDS admission rates by racial group during the admissions cycle. *See* HARV00014684-868; HARV00067679.

Ultimately, Harvard's reason (or combination of reasons) for establishing a floor for single-race African-American admissions based on IPEDS metrics is outside both my (and Professor Card's) expertise. The data demonstrate that this racial floor exists. Professor Card does not and cannot dispute that Harvard maintained a floor on the admission rate for single-race African-Americans in the classes of 2017, 2018, and 2019.

6.2 Contrary to Professor Card's arguments, there is additional evidence that Harvard began implementing the floor in 2017.

Professor Card notes that Harvard changed their reporting of race to the federal government, using the IPEDS method, before the 2017 cycle. Again, this is irrelevant to the fact that Harvard maintained a floor on the admission rate for single-race African Americans in the classes of 2017, 2018, and 2019.

There is evidence that the IPEDS numbers became salient to the admissions office during the 2017 cycle. For example, Harvard has produced numerous examples of "one-pagers"—statistical summaries of the applicant pool and admitted class that are provided on a regular basis to the leadership of the admissions office—from the

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HARV00023594 ("[T]he IPEDS reporting system leads to significantly underreported percentages for all ethnicities except Hispanic Americans. The method used by Harvard and many peer institutions gives a more complete report of the way many students, especially those of mixed heritage, actually view their racial and ethnic identities.").

2017 and 2018 admissions cycles. Early versions of the one-pagers during the 2017 cycle lack any IPEDS data. *See, e.g.,* HARV00014628 (one-pager from January 7, 2013). It appears that IPEDS numbers are reported on a one-pager for the first time on or about January 12, 2013. *See* HARV00019910 (one-pager dated January 12, 2013, comparing early admits for 2016 with early admits for 2017).[32] And again, this change coincides precisely with evidence reflecting increased concern within the admissions office about IPEDS reporting and the admission of students by race.[33]

6.3 Professor Card's analysis of other data does nothing to undermine my claim that Harvard maintained a floor on the admission rate for single-race African-American applicants.

In Exhibits 31 through 34, Professor Card shows changes in the fraction of admitted students by race/ethnicity over time. He concludes that because these numbers vary over time, there must not be a floor. But all of Professor Card's exhibits use a measure of race that is *not* the one I claim that Harvard used in imposing a floor on the admission rate of single-race African-American applicants. Further, it uses an outcome measure—the *fraction of admitted students* of a particular race/ethnicity—that is unrelated to my claim. None of these exhibits have anything to do with my claim. To repeat, my claim is that there was a floor on the admit rate of *single-race African-American applicants* for the classes of 2017 to 2019.

Professor Card also argues that a post-2016 floor cannot be occurring because the estimated marginal effect of race on African-American admissions (including both single-race and multi-race African Americans) is smaller in the period between 2017-2019 than in the period 2014-2016. Professor Card's argument on this point is misleading, for several reasons:

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[32] Further evidence of the then-emerging salience of the IPEDS measure of race is that the variables used to construct the IPEDS measure were not included in the main data file Harvard produced for years prior to 2017. After reviewing Professor Card's report, I discovered that IPEDS numbers for the pre-2017 years were located in other spreadsheets provided by Harvard. Its absence from the main data file further indicates that the admissions office changed its tracking of these data in 2017.

[33] *See* HARV00026562; HARV00030511; HARV00023613.

- First, and most importantly, the race measure Professor Card uses is (again) not the one upon which my observation of a floor is based.

- Second, Professor Card overstates the difference in the marginal effects. The marginal effects he estimates across years are similar in magnitude and not statistically different from one another. A similar pattern emerges if the marginal effects are averaged over the two periods. The difference in the average marginal effects is small and statistically indistinguishable from zero.

- Third, because overall admit rates have been falling over time, it is no surprise that the marginal effects would be slightly smaller in later years (though, as noted above, not significantly different).

- Finally, as explained above, *see supra* Section 5, how meaningful marginal effects are necessarily depends on how competitive the pool is: a difference of six percentage points is much more meaningful when the baseline admit rate is 5% than when it is 10%.

6.4 Differences in the characteristics of admitted single-race African Americans after 2016 further support evidence of a floor.

While Professor Card's response does not address my key claims, there is another way to test whether Harvard changed its admissions practices with respect to single-race African Americans in 2017: compare the difference in characteristics between *single-race* African-American admits and *multi-race* African-American admits in the admitted classes of 2014-16 and the 2017-19 cycles. Because my claim is that there was a shift in focus towards the admit rate of single-race African Americans, I would expect to see a change in the strength of admitted single-race African Americans relative to their multi-race counterparts. I focus on the academic index as a measure of applicant strength because it is a continuous measure with a well-defined formula.

Table 6.2N: Mean academic index for admitted single-race and multi-race African Americans by class

	Single-Race	Multi-Race	Difference	
2014	0.169	0.183	-0.014	
2015	0.180	0.103	0.077	
2016	0.259	0.280	-0.021	
Average Dif.			0.014	
2017	0.192	0.291	-0.098	
2018	0.290	0.354	-0.064	
2019	0.199	0.388	-0.189	*
Average Dif.			-0.117	*
Double Dif.			-0.131	*

*=statistically significant at 95% level. Academic index is in standard deviation units. Difference refers to the single-race academic index minus the multi-race academic index.

Table 6.2N shows the average academic index, in standard deviation units, for admitted single-race and multi-race African Americans by year. The difference between the average academic index for single-race African-American admits and multi-race African-American admits is presented in the third column. There is no significant difference between the academic index of single-race and multi-race African American admits in any of the pre-2017 cycles and, as shown in the last row of the first panel, aggregating across the three pre-2017 cycles shows no significant differences.

But the results for the post-2016 cycles, shown in the bottom panel, indicate a markedly different pattern. In each case the difference is negative, and more negative than any of the differences in the pre-2017 cycles. This gap is significant for 2019 as well as for the period as a whole. These differences show that Harvard was admitting single-race African Americans with significantly lower academic indexes than their multi-race counterparts *beginning in the post-2016 period.* This is striking because it is precisely what would be expected if Harvard began imposing a floor on single-race African-American admit rates after 2016.

Examining the admit rates of single-race and multi-race African Americans in the different admission cycles further confirms that Harvard changed its practices in 2017. These admit rates are shown in Table 6.3N.

Table 6.3N: Admit rates for single-race and multi-race African Americans by class

	Single-Race	Multi-Race	Difference		Ratio
2014	0.0744	0.1144	-0.0400	*	1.5707
2015	0.0652	0.0903	-0.0251	*	1.3759
2016	0.0556	0.0880	-0.0325	*	1.5454
Average Dif./Ratio			-0.0325	*	1.4973
2017	0.0640	0.0812	-0.0172	*	1.2439
2018	0.0658	0.0795	-0.0136	*	1.2157
2019	0.0606	0.0785	-0.0179	*	1.3120
Average Dif./Ratio			-0.0163	*	1.2572
Double Dif.			0.0163	*	

*=statistically significant at 95%level. Difference refers to the single-race admit rate minus the multi-race admit rate. Ratio refers to the multi-race admit rate divided by the single-race admit rate.

Single-race African-American admit rates are 3.2 percentage points lower than multi-race African-American admit rates in the pre-2017 period. After 2016, however, the difference narrows substantially to 1.6 percentage points. Put another way, the average admit rate for multi-race African Americans is 50% higher than the single-race African American admit rate in the pre-2017 period, but only 26% higher in the post-2016 period.

This additional statistical evidence further confirms that Harvard changed its admissions practices in 2017 in a manner consistent with the existence of a floor on admission rates of single-race African Americans such that it was equivalent to the admission rates for all other domestic applicants. Professor Card has not challenged the statistical evidence I used in my opening report, instead choosing to focus on data and racial categories that are irrelevant to the question at hand. The evidence on this point is thus both statistically compelling and unrebutted.

7 A Number of the Other Variables Added by Professor Card Are of Questionable Reliability and Undermine the Confidence of His Conclusions.

Thus far, I have highlighted the numerous errors and questionable modeling choices that undermine Professor Card's analysis of the racial penalty Harvard imposes on

Asian-American applicants and the racial preferences Harvard affords to African-American and Hispanic applicants. Professor Card's findings and conclusions are further undermined by his inclusion of several variables of questionable reliability.

In his report, Professor Card argues that increasing the number of variables analyzed in a model necessarily yields more complete results. See Card Report 40-50. But that is true only if the variables are (1) relevant to the analysis, (2) correctly specified (i.e., accurate), and (3) not themselves influenced by racial preferences.

Some of the variables that Professor Card uses violate at least one of these criteria. One of them is parental occupation, as explained above in Section 3.5. Other variables that are less important to Professor Card's result, but still too questionable to rely on, include intended career and staff interviews. The weaknesses in these variables are what led me to exclude them from my original analysis. Further, I disagree with Professor Card's approach to the ratings data, believing it introduces unnecessary noise into the model and disguises racial preferences. In this section, I describe those variables that (in addition to parental occupation) I choose not to incorporate in my preferred analysis—though in section 8, I show that even including these faulty measures do not affect my findings.

7.1 Intended career varies in highly unusual and unexplained ways over time, undermining its reliability as a variable and its usefulness as a control.

Like parental occupation, the applicant's intended career also varies in ways that are inconsistent over time, casting doubts upon the reliability of this metric and further undermining Professor Card's models. There are fourteen intended career categories in the Harvard database for these admissions cycles. Table 7.1N shows the number in each of these categories for five of the intended careers; the full set of intended careers are shown in the Appendix, see Table B.4.1N.

Table 7.1N: Intended career varies in non-credible ways over time

	2014	2015	2016	2017	2018	2019
Academic	1,723	25	19	15	2,247	13
Business	2,189	2,385	2,486	2,556	1,918	2,906
Health	234	95	85	107	4,944	96
Law	2,093	1,963	1,787	1,639	708	1,484
Medicine	6,254	6,185	5,879	5,863	3	5,977
Teaching	167	660	598	598	17	514

The differences across years are enormous for the same intended career. For academics, the number of applicants who are listed ranges from 13 to 2,247; for law it ranges from 708 to 2,093. Medicine varies from a low of 3 in 2018 to a high of 6,254 in 2014. Health varies from a low of 85 in 2016 to 4,944 in 2018. Again, Professor Card provides no explanation as to why he would be confident about the accuracy of this information or why it varies so widely.

7.2 Professor Card's approach to using the rating variables suffers from a small-population problem and masks racial preferences, which undermine its reliability.

In my original report, I included indicators for each of Harvard's profile ratings. Professor Card argues instead that all combinations of the profile ratings should be included. In Professor Card's pooled dataset, there are 287 combinations of athletic, personal, extracurricular, and academic ratings. Of the 287 combinations, 26 of these combinations yield a perfect prediction of admission—meaning every applicant who receives these combinations of scores is admitted. Another 153 combinations yield a perfect prediction of rejection—all of the applicants with these combinations are rejected. This is in part mechanical: of the 179 combinations that perfectly predict rejection, 53 of the combinations contain only one applicant, and the median number of applicants in a combination is 13. Professor Card then pools rating combinations based on their admission rates when the number of applicants in that category is less than 100.

There are a number of problems with this approach. The first problem is that aggregating combinations with very small populations leads to admissions patterns that are inconsistent with Harvard's ratings. For example, consider the admit

profile 4341, where the first number is the athletic rating, the second the personal rating, the third the extracurricular rating, and the fourth the academic rating. Two individuals were assigned this rating over this period; both were white, and both were admitted. Yet there are ratings that are objectively higher on Harvard's scale that nonetheless have substantially lower admit rates:

- 4321 is a rating profile that is two points higher on the extracurricular rating and identical on the other three ratings. The 65 applicants that received this rating profile had an average admit rate of 73.0%;[34]
- 4331 has a rating profile that is one point higher on the extracurricular and identical on the other three ratings. The 126 applicants that received this rating profile had an admit rate of 42.1%;
- 3331 has a rating profile that is one point higher on both the athletic and extracurricular ratings. The 96 applicants that received this ranking had an admit rate of 37.5%.

The second problem with this approach is that racial preferences are embedded in the ratings aggregation. To see this, suppose a particular ratings combination had more African-American applicants than another ratings combination, but the admit rates for the two combinations were the same. The average admit rates for the two groups are in part due to the strength of the rating profiles, but also in part due to the share of African-American applicants in the two groups. In this example, the rating profile associated with the second group is actually the better profile as the admit rate for the first rating profile was more affected by racial preferences. Professor Card's aggregation method, then, works to conceal the true effect of racial preferences.[35]

These issues are compounded in the yearly analysis, where there are even fewer numbers in each of the ratings combinations. Across the six admission cycles, 244 of

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[34] Throughout this section, when I refer to the average admit rate, I am referring to the average admit rate for the category to which this rating combination was assigned.

[35] I show how Professor Card's rating scheme conceals racial preferences in Table 8.2N and Section 8.3.

the 287 categories show up as perfect predictions in at least one of the years. Further underscoring the small-sample problem, 15 of the categories *perfectly predict admission in one of the years and perfectly predict rejection in at least one of the other years*.

Constructing ratings groupings at the yearly level results in dramatic fluctuations in the year-by-year admit rates for the same rating, and again in ways that are inconsistent with higher ratings being associated with higher admit rates. This is illustrated in Table 7.2N, which shows by year the average admit rates for those applicants who received each of the following four ratings combinations: 4311, 3321, 4312, and 3312. It also shows the number of observations in each year for that category.

Table 7.2N: Using Professor Card's rating combinations for his yearly regressions leads to inconsistent patterns

Rating combination		Admissions Class 2014	2015	2016	2017	2018	2019	Overall
4321	Admit Rate	1.00	0.636	0.839	0.929	0.872	0.297	0.730
	Number of App.	11	9	15	6	10	14	65
3321	Admit Rate	0.768	0.841	0.678	0.703	0.872	0.619	0.730
	Number of App.	12	15	15	5	7	10	64
4312	Admit Rate	0.414	0.636	0.314	0.472	0.172	0.445	0.423
	Number of App.	13	18	16	25	16	16	104
3312	Admit Rate	0.572	0.478	0.678	0.703	0.297	0.297	0.469
	Number of App.	3	7	11	6	8	7	42

The admission rates for the same rating combination fluctuate substantially across years. The admit rates for 4321 range from 29.7% to 100%; the admit rates for 4312 range from 17.2% to 63.6%. These large fluctuations result because of sampling variability: using such few observations leads to large sampling error.

Comparing the top two rows to one another as well as the bottom two rows to one another shows the inconsistent patterns in how the ratings profiles translate into admission rates. We would expect those who receive a 3321 to be admitted at a higher rate than those who receive a 4321; it is by all accounts a better score. Yet in half of the years, this is not the case. And in two of the four years, admission rates are higher for 4312 than for 3312. The inconsistency itself raises red flags about

using the ratings data in this way; the fact that it also reflects Harvard's racial preferences (as described above) further shows the inappropriateness of Professor Card's approach to using the ratings data.

7.3 Staff interviews are selectively given and thus should not be used as a control.

[redacted][36]

Who are these fortunate few who receive staff interviews? Table 7.3N shows the number and fraction of each of the four main racial/ethnic groups who receive a staff interview by whether or not they were in one of Harvard's special recruiting categories.[37]

Table 7.3N: Staff interviews vary substantially by race and special recruiting status

	White	African American	Hispanic	Asian American	Total
Athletes, legacies, Dean's Director	0.207	0.257	0.177	0.171	0.204
children of faculty and staff	5002	440	413	841	6696
All others	0.016	0.013	0.010	0.009	0.013
	57582	15664	17970	40415	131631
Total	0.031	0.019	0.014	0.012	0.022
	62584	16104	18383	41256	138327

[36] There is an error in how Professor Card codes the scoring of the staff interviews in his pooled analysis. Namely, Professor Card creates a flag for whether someone received some combination of 1's and 2's on the staff interviewers overall rating and personal rating, another flag for a combination of 2 on one and a 3 on the other, and finally a flag for two 3's. Those who receive one 1 and one 3 are then effectively treated as though they had *no* staff interview. This error, however, has virtually no effect on the results due to the small number of applicants in this category.

[37] Special categories are athletes, legacies, faculty or staff children, and Dean's/Director's List selections.

Twenty percent of those who fall into any one of Harvard's special recruiting categories receive staff interviews. Those who are in these special recruiting categories are disproportionately white.[38] For applicants not in one of these categories, the probability of receiving a staff interview is less than 1.3%. Asian-American applicants are least likely to receive a staff interview, both overall and conditional on the special recruitment status.

Because these interviews clearly depend on preferences, I do not include them in my analysis.

8 Incorporating Most of Professor Card's Variables Into My Preferred Model Confirms My Findings Regarding the Effect of Harvard's Racial Penalties and Preferences.

To recap, we can divide Professor Card's analysis of my report into two broad parts. In one part, he constructs a model to show that Harvard does not discriminate against Asian-American applicants vis-à-vis white applicants. As I have shown, this model is dependent upon many inaccurate assumptions and poor modeling choices. Moreover, it is not robust: if I change just one or two of these assumptions and choices, Professor Card's model no longer supports his findings and conclusions; in particular, his model confirms the penalty against Asian-American applicants.

In the other part, Professor Card tries to show that Harvard's racial preferences in favor of African-American and Hispanic applicants are not substantial or pervasive. But as I have shown, this analysis is exceedingly weak; even when we use Professor Card's own model results, they show that Harvard gives African-American and Hispanic applicants heavy racial preferences.

For some of the arguments and model specifications Professor Card uses, there is simply no sound justification for the choices, and it is hard to imagine any reason for their use other than to intentionally conceal the effects of race in Harvard admissions. Other adjustments suggested by Professor Card are reasonable, and for still others there is at least a weak case for inclusion. The question is, are my

[38] 8.0% of white applicants are in one of these categories, compared to 2.7% of African Americans, 2.2% of Hispanics, and 2.0% of Asian Americans.

results as fragile as Professor Card's? Or are they robust and consistent when we incorporate specific changes suggested by him? In this section, I examine the robustness of my model in the context of Professor Card's analysis.

8.1 Changes advocated by Professor Card that I incorporate in my updated model

In my updated model, I adopted six general types of revisions that reflect unobjectionable choices made by Professor Card.

1. ***Modifying variables.*** Professor Card codes several variables in a different way than my original model. My update incorporates these changes:

- I treat profile ratings of 7, 8, and 9 as missing values;
- I include blank teacher ratings as a missing category;
- When the SAT score is not present but an ACT score is present, I use the ACT science section in my conversions the same way Professor Card does;
- I no longer remove from the analysis those who are missing the overall rating.

2. ***Adding variables***. I incorporate dozens of additional variables that Professor Card uses in his analysis, so long as they meet three conditions:

- They must not be themselves measures contaminated by apparent racial or other preferences (e.g., I exclude the personal rating and staff interviews);
- They must display consistent patterns over time, thus demonstrating reliability;
- They must be present in each year of the data, so that they can be included in the pooled analysis.

Many of the additional variables used by Professor Card meet all these restrictions, and I thus incorporate them in my updated model. These include Professor Card's College Board variables on the characteristics of applicant high schools and home neighborhoods; whether the mother or father is deceased; whether a parent attended an Ivy League university (other than Harvard); whether a parent attended graduate school at Harvard; and the type of high school the applicant attended.

As an alternative to Professor Card's flawed use of the various combinations of ratings data to capture the multidimensionality of the applicant, I create indicators for whether the applicant had each possible combination of a two or better on Harvard's four profile ratings, indicators for whether the applicant had two or three 2's or better on their school support measures, and an indicator for whether the applicant had 2's or better on both of the alumni ratings.[39]

3. ***Including early admission applicants in my baseline model.*** In my original report, my baseline model excluded recruited athletes, legacies, faculty and staff children, those on the Dean's/Director's list, and applicants for early admission, in order to focus on the part of the admissions process where anti-Asian discrimination was concentrated, and not on applicants who were subject to special admissions procedures. Professor Card's model includes all applicants in a single model. As I have pointed out, this produces misleading results because Harvard does not discriminate against Asian-American applicants who are in the special recruiting categories. But I do not have similar objections about including early applicants. Although the early admissions process necessarily involves different considerations than the bulk of the application process, Harvard's racial penalties and preferences largely apply in this process the same way they do in the regular admissions process. I thus include early admission applicants in my updated baseline model, which is intended to include all applicants whom I believe are at risk of discrimination.

4. ***Racial definitions.*** Professor Card collapses racial categories in a different manner than I did in my original report. In my updated model, I use his definitions, which place Native Americans and Hawaiian/Pacific Islanders into the "Hispanic" category.

5. ***Interactions with year.*** Professor Card claims that a yearly model is appropriate in part because the composition of the pool changes from year-to-year, and Harvard may pay attention to this. Indeed, we know exactly how Harvard pays

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[39] Note that these are in addition to indicators for each possible value of the individual ratings (e.g. 2 on the academic rating) that were in my original model.

attention to it through their "one-pagers," which provides admissions officials with a snapshot of the current admissions process compared to the prior year. Although Professor Card errs in employing a yearly model, I can account for year-to-year changes in my pooled model by including in my model interactions with year and the characteristics listed on these one-pagers: female, disadvantaged status, intended major, dockets, and, in some specifications, race.

6. ***Reporting results.*** Professor Card emphasizes the marginal effects of race in discussing results—in other words, how many percentage points does membership in a particular race increase or decrease one's admissions rate? The numbers below adopt this approach, reporting these marginal effects, but only for those whose characteristics are such that rejection is not guaranteed (i.e., the perfect predictions are removed).

8.2 The results of the updated preferred model confirm my previous findings and conclusions

Table 8.1N, below, shows the marginal effects of race in my original model and my updated model for my baseline dataset that includes early action applicants.[40]

Table 8.1N: Basic racial penalties and preferences under my original and revised model

	Average Marginal Effects	
	Original	Revised
African American	6.98%*	7.29%*
Hispanic or Other	3.81%*	4.19%*
Asian American	-0.99%*	-1.02%*

*=statistically significant at the 95% level. Marginal effects calculated without perfect predictions.

As Table 8.1N shows, the numbers in the updated model are slightly different than in the original model, but the story is unchanged. African-American applicants receive extremely large preferences, on average 7.29% off a base of 2.25%; more

[40]In order to calculate the marginal effects from my original model, I use the results from the original report that included both the special recruiting categories and early action applicants. I then remove the special recruiting categories to calculate the marginal effects.

than *quadrupling* their chances of admission. Hispanic applicants experience large preferences, 4.17% on average off a base of 2.97%, increasing their chances of admission by 2.4 times. Asian-American applicants experience a substantial admissions penalty that lowers their chances of admission by a full percentage point; Asian-American admission rates would be 19% higher if they were treated as white applicants.

8.3 Even incorporating many of Professor Card's manifestly unsound modeling choices does not alter the result of my model.

I now address the modeling choices that Professor Card made and which I find to be unsound or indefensible. I have dissected many of these choices earlier in the report. My goal in this section is to explain the degree to which I think Professor Card's choices would substantively change the results of my basic analyses, and thereby make clear which assumptions really matter.

In the first column of the first panel of Table 8.2N, I show marginal effects for each racial group in the baseline dataset. The rest of the entries show that my findings are robust along a number of dimensions.

- ***Including the personal rating.*** As noted in earlier sections, Harvard's personal rating of applicants is severely contaminated with racial bias; ratings are inflated for preferred racial groups, and penalized for Asian Americans. They therefore cannot be included in any sound model of Harvard admissions that is trying to separate out discriminatory effects. Nevertheless, as I show in the bottom panel of Table 8.2N, including the personal rating makes the discriminatory effects in my model smaller (as one would expect), but it does not make them statistically insignificant, or change their basic pattern.

- ***Including questionable variables***. I now show that my model is robust to the inclusion of the parental occupation and intended career variables, despite their flaws. As the results in the second column of Table 8.2N show, including these questionable variables does not materially alter my key results.

- ***Interaction terms.*** As noted earlier, Professor Card excludes several interaction terms used in my model. The most important of these is the interaction of race and disadvantage status. As I have explained previously, *see supra* Section 3.2, this interaction requires inclusion because Harvard takes a student's disadvantaged status into account differently for applicants of different races. Throughout, I keep these interactions in my model.[41]

  My original and updated models also include interactions for gender and race, and gender and intended major. Including these interactions matters less for my basic results (as shown in column 3 of Table 8.2N), but they are an important part of the evidence along other dimensions. They show, for example, that Harvard significantly penalizes African-American women relative to African-American men in the personal rating, perhaps because Harvard wishes to balance out the gender disparity among African-American applicants (female African-American applicants substantially outnumber male African-American applicants).

- ***Interacting ratings variables.*** My updated model also declines to follow Professor Card's methodology for interacting various ratings combinations. As shown in section 7.2, the groupings Professor Card uses are too fine and are based on the false premise that small sets of ratings that have similar admit rates should be pooled together. They should not be pooled, because the small sample sizes produce a phenomenon known as "over-fitting"—with many combinations guaranteed to either be rejected or admitted—and because their associated admit rates depend on other characteristics of the applicants. For example, if a particular rating group has a disproportionate number of African-American applicants, and African Americans receive large

[41] I also continue to include interactions between missing SAT2 and race and missing alumni interview and race. I do this because the missing indicators effectively assign the same score or rating for all those who are missing. The interactions allow the data to assign different values based on the race of the applicant.

preferences, then pooling that rating group will both distort the effect of that rating and will disguise the effect of race.

As shown in column 4 of Table 8.2N, significant penalties and preferences are still present when I use Professor Card's ratings variables from his pooled analysis. But, consistent with my criticism, the effects of race are attenuated, and this is especially true for African-American and Hispanic applicants. Given that adding controls virtually always leads to an increase in the estimated preferences for African-American applicants, this suggests that Professor Card's use of the ratings masks racial preferences.

Finally, the last column of Table 8.2N shows that even if *all four* changes are implemented in my preferred model—including the personal rating, controlling for Professor Card's suspect variables, removing interactions between gender and race and gender and major, and using Professor Card's rating controls—it still results in substantial racial preferences for African-American and Hispanic applicants and significant penalties for Asian-American applicants.

Table 8.2N: The racial penalties and preferences I estimate for admissions are robust to Professor Card's key changes

	Preferred Model	Additional Card Variables	Remove Gender Interactions	Use Card Ratings	All 3 Permutations
Exclude Personal Rating					
African American	7.29%*	7.34%*	7.28%*	6.28%*	6.29%*
Hispanic or Other	4.19%*	4.22%*	4.20%*	3.91%*	3.91%*
Asian American	-1.02%*	-0.75%*	-1.03%*	-0.95%*	-0.69%*
Include Personal Rating					
African American	7.09%*	7.16%*	7.09%*	5.95%*	6.00%*
Hispanic or Other	4.01%*	4.02%*	4.01%*	3.60%*	3.61%*
Asian American	-0.54%*	-0.34%*	-0.54%*	-0.52%*	-0.32%*

*=statistically significant at the 95% level. Marginal effects calculated without perfect predictions.

9 My Updated Preferred Model Yields Additional Reasons to Doubt Professor Card's Approach

In this final section, I show three additional results from my updated preferred model that underscore the weaknesses of Professor Card's approach and demonstrate that his findings and conclusions are untenable. First, I show how the penalties against Asian-American applicants vary with how competitive the

applicant is. Second, I show that, contrary to Professor Card's claims, Asian-American applicants are as strong as white applicants on non-academic measures. Third, there is evidence that Asian-American applicants are hurt by other preferences that Harvard employs. Namely, I show that dockets that have a higher share of Asian-American applicants have lower admit rates.[42]

9.1 The penalties Asian-American applicants face are substantial

The estimated effects of the Asian-American penalty depend on the strength of the applicant. As I have already noted, some applicants are rated in such a way that no matter their race or their unobserved characteristics, they will be rejected. Hence for certain applicants, there is no penalty or—in the case of African-American and Hispanic applicants—no preference. Similarly, Asian-American applicants that only have very small probabilities of being admitted will see their admissions chances only slightly improve if Asian-American penalties are removed.

Table 9.1 shows how the Asian-American penalty differs depending on the strength of the observed characteristics of the applicants. In particular, I use the baseline dataset to calculate deciles of the Asian-American admissions index for those who have positive predicted probabilities of admission. These are the applicants affected by the Asian-American penalty. The deciles are calculated such that 10% of these Asian-American applicants are in each decile. The first set of columns shows the results for my preferred model; the second set shows the results for my preferred model with the personal rating also included.

[42] A more detailed discussion of my updated preferred model is included in Section 3 of Appendix A

Table 9.1: The effects of the Asian-American penalty at different admissions deciles

	Preferred Model				Preferred Model with Personal rating	
Admission Index Decile	Marginal Effect (size of penalty)	Admission Probability with penalty	Admission Probability with No Asian Penalty	Pct. Increase if penalty was removed	Marginal Effect (size of penalty)	Pct. Increase if penalty was removed
5 and Below	-0.02%	0.04%	0.06%	40.24%	-0.01%	24.18%
6	-0.13%	0.32%	0.44%	39.81%	-0.05%	24.37%
7	-0.31%	0.77%	1.08%	39.98%	-0.13%	24.18%
8	-0.78%	2.03%	2.82%	38.63%	-0.34%	23.39%
9	-2.45%	7.01%	9.46%	34.98%	-1.19%	21.17%
10	-6.19%	41.68%	47.87%	14.84%	-3.53%	8.01%
Average	-0.99%	5.20%	6.20%	19.11%	-0.53%	10.13%

Columns 4 and 6 show the percentage increase in admissions chances if the penalty were removed. The average penalty faced across all deciles in my preferred model is almost one percentage point. Because the overall Asian-American admit rate is 5.2%, removing the penalty would increase the Asian-American admit rate by 19.2%.

As would be expected, the effect varies substantially across the admissions index deciles. The biggest percentage point increases are for the most competitive applicants; these applicants see a 6.2 percentage point increase in their admissions probabilities, a 14.8% increase. The percentage point increases are smaller in the lower deciles, but as their base probability of admission is smaller, the percentage increases are higher: those in the bottom deciles only see a 0.02 percentage point penalty, but removing this penalty would increase their admission rate by 40%.

9.2 Estimates of my admissions and personal ratings models show that Asian-American applicants are strong on non-academic measures.

Throughout his report, Professor Card claims that the Asian-American penalties found in my models of both admissions and the personal rating can be explained by Asian-American applicants being weaker on non-academic dimensions. As I showed using a corrected version of Professor Card's Exhibit 10, this is not supported by the data in my original model. *See* Table 3.1N. It is also not supported in my updated model.

As before, I construct an admissions index which assesses applicants' strengths based on how their observed characteristics translate into a probability of

admission, after removing race and year effects. I then construct deciles of the admissions index, with higher deciles associated with stronger observed characteristics. Based on the admissions deciles for my updated baseline dataset and my preferred model, Asian-American applicants are the strongest group overall, with 13.1% of Asian-American applicants in the top decile. As shown in the first panel of Appendix C, Table 7.3R, this is higher than the respective numbers of white (10.5%), Hispanic/Other (5.7%), and African-American applicants (4.1%). The second panel shows that even with the personal rating included, Asian-American applicants are the strongest group.

But to further test Professor Card's claim that Asian-American applicants are actually weak on non-academic characteristics (which he claims are more likely to be in the unobservables), I create a non-academic index following Professor Card's approach in Exhibit 10, removing those variables that are explicitly academic in nature (*e.g.*, test scores, grades, academic ratings).[43] Results from my preferred model are shown in the first panel of Appendix C, Table 7.4R. Asian-American and white applicants have the same share in the top decile (11.3%); Asian-American applicants have a greater share of the following decile, and have smaller shares in the bottom deciles. It is thus clear that on non-academic measures other than the personal rating, Asian-American applicants are at least as strong as white applicants. The second panel illustrates the bias when the personal rating is included—only then do Asian-American applicants fall behind white applicants on non-academic measures.

The same point can be illustrated through the effects of Harvard's other ratings besides personal and academic. These include the following ratings: extracurricular, athletic, teacher1, teacher2, counselor, and both of the alumni ratings. Creating the admissions index using these variables alone shows the same pattern as seen in Appendix C, Table 7.5R. Asian Americans have greater representation in the top deciles than white applicants as long as the personal rating is not included; when it

[43] Since I am using the baseline dataset, I am not vulnerable to the mistake Professor Card makes by including preferences for special recruiting categories as part of his non-academic index.

is included, they have the lowest share in the top decile. This is yet another indication that the personal rating exhibits bias.

The same point is demonstrated when I examine the non-race variables that affect the personal rating. I create personal indexes in a similar manner to the admission indexes described above; higher indexes are associated with higher probabilities of receiving a high rating on the personal quality measure. In Appendix D, Table B.6.13R, I show the representation of each racial group in the resulting deciles (using the baseline dataset without academic factors.)[44] Under this approach, Asian-American applicants are actually 0.07 standard deviations stronger than white applicants—even without considering any academic factors. Looking instead at deciles of the non-academic rating components, Asian-American applicants are slightly worse than whites, but the margin is less than -0.02 standard deviations. These results make clear that any differences between white and Asian-American applicants on non-academic ratings is quite small, and—contrary to Professor Card—could not possibly explain the substantial differences in their personal ratings.

9.3 Dockets with high shares of Asian-American applicants are penalized.

Harvard could also impose racial preferences or penalties through indirect channels, such as geographic preferences based on the demographics of the targeted areas. If certain dockets have high shares of Asian American applicants, and Harvard want to disfavor them, it could simply penalize these dockets.

To investigate this possibility, I examined the relationship between the estimated docket by year fixed effects and the Asian-American share of domestic applicants from each docket-year combination. Using the docket-by-year effects from my preferred model and expanded dataset, I find that the larger the share of Asian-American applicants in that docket-year combination, the more negative the

[44] Results with the academic factors included are shown in Appendix D, Table B.6.11R. Here, too, Asian-American applicants are at least as strong as white applicants on the observed characteristics associated with higher personal ratings.

estimated docket-year fixed effect will be. More precisely, a one-standard deviation in the share of Asian-American applicants in a docket-year leads to a reduction in the admissions index of 0.14.[45] This reflects the penalty Harvard imposes on dockets with a high share of Asian-American applicants, and it is more than one-third the magnitude of the Asian-American penalty Harvard already imposes on Asian-American applicants.[46] Put differently, Harvard imposes a penalty on applicants from any docket with a high share of Asian-American applicants, and that penalty is more than a third of the direct penalty Harvard imposes on Asian-American applicants generally.

To be clear, this penalty is not imposed solely on Asian-American applicants; its effects extend to any applicant from that docket regardless of race. But because this penalty is imposed only on those applicants in dockets with a high share of Asian-American applicants, this strongly indicates that its real target is Asian-American applicants themselves. There are two important points here: first, it appears that Harvard penalizes Asian-American applicants in indirect ways on top of the already substantial penalties it imposes on Asian-American applicants; second, my findings thus tend to understate the true magnitude of the penalties Harvard imposes on Asian-American applicants.

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[45] This is the penalty using the expanded dataset; the penalty is larger in the baseline dataset.

[46]The coefficient on Asian American is -0.39 using my preferred model with the expanded dataset. Note that this is the coefficient for male Asian-American applicants who are not disadvantaged.

Dated: January 29, 2018

s/ Peter S. Arcidiacono

Peter S. Arcidiacono

APPENDIX A

1 Expected errors conditional on choices

In Appendix A of my original report, I defined a latent index π_i where i indexes individuals and where

$$\pi_i = X_i\gamma + \varepsilon_i \tag{1}$$

The university accepts individual i if $\pi_i > 0$. In the above equation, X_i represents attributes about candidate i that I observe in the data. The ε_i represents the unobserved characteristic of the individual. To characterize the role of unobservables, I need to be able to calculate the expected value of ε_i conditional on the admission decision.

A mathematically equivalent model–one that leads to same the estimation procedure and model predictions–would be instead to define the payoff the university receives from accepting the applicant and rejecting the applicant respectively as u_{1i} and u_{0i} and where:

$$\begin{aligned} u_{1i} &= X_i\gamma + \epsilon_{1i} \\ u_{0i} &= \epsilon_{0i} \end{aligned}$$

The university admits the applicants when $u_{1i} - u_{0i} > 0$. Note that ε in equation (1) is then identical to $\epsilon_{1i} - \epsilon_{0i}$. I want to recover $E(\varepsilon|y = 1)$ where y indicates admission. This is the same as recovering $E(\epsilon_1 - \epsilon_0|y = 1)$ but this second way is mathematically easier to derive the expectation.

Under this second way of expressing the logit model, ϵ_1 and ϵ_0 are distributed Type 1 extreme value. This error distribution has the following property:

$$E(\epsilon_0) = \gamma = Pr(y = 0)E(\epsilon_0|y = 0) + Pr(y = 1)E(\epsilon_0|y = 1) \tag{2}$$

where γ is Euler's constant.

Rearranging terms yields:

$$E(\epsilon_0|y = 1) = \frac{\gamma - Pr(y = 0)E(\epsilon_0|y = 0)}{Pr(y = 1)} \tag{3}$$

The previous literature has shown that $E(\epsilon_0|y = 0)$ can be expressed as:[1]

$$E(\epsilon_0|y = 0) = \gamma - \ln(Pr(y = 0)) \tag{4}$$

Substituting (4) into (3) yields:

$$\begin{aligned} E(\epsilon_0|y = 1) &= \frac{\gamma - Pr(y = 0)[\gamma - \ln(Pr(y = 0))]}{Pr(y = 1)} &(5)\\ &= \gamma + \frac{Pr(y = 0)\ln(Pr(y = 0))}{Pr(y = 1)} &(6) \end{aligned}$$

Recognizing that:

$$E(\epsilon_1|y = 1) = \gamma - \ln(Pr(y = 1)) \tag{7}$$

[1] See, for example, V.J. Hotz and R.A. Miller "Conditional Choice Probabilities and the Estimation of Dynamic Models", *Review of Economic Studies*, Vol. 60, No.3, July 1993., page 504.

we can form $E(\epsilon_1 - \epsilon_0 | y = 1)$ using:

$$E(\epsilon_1 - \epsilon_0 | y = 1) = -\ln(Pr(y = 1)) - \frac{Pr(y = 0)\ln(Pr(y = 0))}{Pr(y = 1)} \tag{8}$$

The individual probabilities of admission ($Pr(y = 1)$) and rejection ($Pr(y = 0)$) then translate directly into how strong we expect the applicant to be on unobserved characteristics conditional on being admitted. This can then be compared to the estimated admissions preference which I label μ (this is the coefficient on race in the logit model) to see how often the expected unobserved characteristic is bigger than the racial preference.

2 Probability of unobserved draws

The previous section showed how to calculate the expected value of the unobservable characteristic conditional on three pieces of information: (i) the distribution of the unobserved characteristic, (ii) the probability the individual was admitted, and (iii) whether the individual was actually admitted. These three pieces of information can also be used to calculate the probability the unobserved characteristic is bigger than the racial preference for each applicant.

The probability of the unobserved factor being greater than μ is given by one minus the logistic cumulative distribution function.

$$Pr(\epsilon > \mu) = 1 - \frac{1}{1 + \exp(-\mu)} \tag{9}$$

The probability of the unobserved factor being greater than μ conditional on being admitted given observed characteristics x, where these observed characteristics x translate into an admit probability of $Pr(y = 1)$, is given by:

$$Pr(\epsilon > \mu | y = 1, x) = \min \left\{ \frac{1 - \frac{1}{1+\exp(-\mu)}}{Pr(y = 1)}, 1 \right\} \tag{10}$$

The reason for the min operator is that some individuals would have x's such that is assured that their unobservable characteristics had to be bigger than μ.

3.

In this Appendix, I document the results of my analysis from moving to my updated models. While my results are generally robust to the changes I have made, there are three important points to keep in mind regarding the samples under consideration.

First, because I have adopted Professor Card's controls from the College Board data, information for the U and V dockets are dropped from the analysis. U and V dockets contain data on applicants who are living abroad, and the College Board data only contain information on those attending high school domestically. This works to lower the sample sizes (as well as the number of seats in the counterfactuals).

Second, I now include early action applicants in my baseline dataset. This increases the number of observations in the baseline dataset, and thus correspondingly increases the number of seats in the counterfactuals. It also changes some of the descriptive statistics, for two reasons. First, early action applicants tend to be stronger than regular decision applicants, which is one reason they have higher admit rates. Second, Asian-American applicants are more likely to apply early action (once special recruiting categories are removed). This changes the baseline descriptive tables, showing that when early action applicants are included in the baseline dataset, admit rates for Asian-American applicants are sometimes higher than the admit rates for white applicants.

Third, I no longer include athletes in my expanded model. Athletes by far have the highest admit rates and it is clear that the admission process for this group is very different.[1]

[1] Additional time and analysis has underscored the extent to which recruited athletes are truly outliers, even within the special recruiting categories. For example, the probability of getting admitted with an academic rating of 4 is minuscule for non-athletes (.076%) and nearly *a thousand times* greater for athletes (70.46%). One in seven admitted athletes have an academic rating of 4 or worse; the rate for non-athletes is one in every 600. Recruited athletes also make up a much

In the next three sections I summarize the findings of my updated models, and how they relate to my original conclusions.

3.1 The role of race in the scoring of applicants for admission

In my opening report, I showed that there is a significant penalty against Asian-American applicants in the scoring of applicants for admission despite the fact that Asian-American applicants are stronger on the observed characteristics than all the other races/ethnicities. I also showed that there is a significant preference given to African-American and Hispanic applicants in both the personal and overall ratings.

These findings are unaltered when I use the updated sample and employ additional control variables. Tables B.6.1R through B.6.8R in Appendix D present a series of ordered logit estimates of the probability of receiving a particular rating on one of Harvard's components.[2] For ease of tracking multiple variables, the ratings have been recoded so that higher values are associated with better ratings.

Consistent with my original report, my revised regressions indicate that the personal and overall ratings are biased against Asian-American applicants, and not the product of having better unobserved characteristics (as Professor Card contends). They further show that preferences are given to African-American and Hispanic applicants in these ratings:

- As objective controls are added to the models for the academic and extracurricular ratings, the race coefficients tend to become smaller in magnitude. This suggests that if more observables were added, the effect of race would continue to diminish.

- A very different pattern emerges for more subjective ratings, such as the personal and overall ratings. As additional controls are added to

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smaller portion of the applicant pool than legacies or early action applicants.

[2]Moving across the columns within a particular Harvard component rating (academic, for example) shows how the results change as more controls are added.

the model, the race coefficients tend to increase in magnitude, with the racial preference for African-American and Hispanic applicants getting larger and the racial penalty for Asian-American applicants becoming stronger. This pattern is inconsistent with the notion that racial preferences simply reflect the impact of unobserved characteristics.

- Appendix C Table 6.1R shows how the probability of receiving a personal rating of two or better would change for each race/ethnicity if they were treated like each of the other races/ethnicities. Had Asian American applicants been treated as white applicants, the probability of receiving a two or better personal rating would increase by 4 percentage points, reflecting a 21% increase. If treated like Hispanic applicants, their probability of receiving a two or better would rise by 38%, and if treated like African-Americans, it would rise by 58%. Similar patterns exist for the overall rating.

While the racial penalty Harvard imposes on Asian-American applicants is especially stark for the personal and overall rating, there is some evidence that Harvard penalizes Asian-American applicants in Harvard's scoring of the teacher and counselor reports. In each of these models, Asian-American applicants are subjected to a penalty despite being stronger than all other racial groups on the observed characteristics associated with high ratings. *See* Appendix D, Tables B.6.11R and B.6.12R.

My updated models thus confirm that racial preferences work throughout the admissions process, not simply at the final decision point. Professor Card concedes that the overall rating contains racial preferences; Tables B.6.3R and B.6.4R shows that the pattern of racial preferences/penalties is extremely similar for the overall and personal ratings models. This is why it is improper for Professor Card to control for the personal rating in the admissions model.

2.2 The role of race in the selection of applicants for admission

My opening report showed that Harvard imposes a penalty on Asian-

American applicants in the selection of applicants for admission—a penalty that is separate and apart from the penalty that Harvard imposes against them in the scoring of applicants for admission. This Asian-American penalty in the selection of applicants is unaltered by the changes in the sample and control variables discussed previously.

Appendix D Table B.7.1R and Table B.7.2R display estimates of a series of logit models of admission for the updated baseline and expanded dataset, respectively. Model 5 is the preferred specification, as it includes all controls other than the personal rating. The changes in the race coefficients as additional controls are included mimic the patterns seen in the personal rating. The race coefficients for African-American and Hispanic applicants become larger and positive as additional applicant characteristics are included. This occurs because African-American and Hispanic applicants are weaker on the observed characteristics that predict admission, meaning that the racial preference has to grow to explain the admissions decisions.

Table 7.2R in Appendix C puts the admissions penalty against Asian-American applicants in context. It shows that Asian-American admit rates would increase by 19% if Asian Americans were treated as whites in the preferred model. The preferences for African-American and Hispanic applicants are even larger in magnitude than the Asian-American penalty. In the preferred model, admit rates for Asian American applicants in the baseline dataset would increase almost three-fold if they were treated like Hispanic applicants, and over five-fold if they were treated like African-American applicants.

Similar to the ratings models, my updated models assess whether the penalties Asian Americans suffer could reasonably be attributed to unobservable characteristics. Indexes can be constructed net of year and race that give the strength of the applicant based on the controls, effectively aggregating all the measures Harvard uses and weighting them the same way the data indicates that Harvard weighs them in their admissions decisions. These indexes are not well defined for those who have

characteristics that perfectly predict rejection and admission, so I focus on deciles of the admissions indexes where those who have characteristics that guaranteed rejection were assigned to the bottom decile, and characteristics that guaranteed admission to the top decile.[3] These deciles then give the strength of the application based on how the characteristics of the applicant translate into admissions probabilities net of race/ethnicity.

Appendix C Table 7.3R shows the share of each racial/ethnic group that is in each of the deciles for the preferred model, as well as a variation that includes the overall and personal ratings for the baseline and expanded models, respectively. These deciles show that, based on observables, Asian-American applicants are substantially less likely to be in the bottom five deciles and are substantially more likely to be in the top deciles. For the preferred model, the share of Asian-American applicants rises steadily with every decile; the opposite trend occurs for African-American applicants. And even when the personal rating is added, Asian Americans are still overrepresented at the top of the distribution. Selection on unobservables would have to be working in the opposite direction of selection on observables to explain the negative Asian-American coefficient.

2.3 How the removal of preferences would impact the admitted class

As in my opening report, I evaluate how the removal of penalties and preferences for particular racial groups would affect admissions rates, fixing the overall admissions rate in a particular year for a particular dataset (baseline or expanded) to match with the data. For example, turning off the penalty against Asian-American applicants would increase the number of Asian Americans admitted. If no other adjustments were made, then Harvard's admitted class would be larger than Harvard intended. The constant term in the logit admissions models is thus lowered for all groups until the model-predicted overall probability of admission is the same as the

[3] Note that I include perfect predictions here to show the total strength of the applicant pool by race. Including the perfect predictions in this instance is appropriate because we are looking at the full distribution of the effects.

probability of admission in the data.[4] Results for these models are given in Appendix C, Tables 8.1R and 8.2R.

Similar to my previous report, I find that the removal of racial penalties and preferences has a profound impact on the admitted class:

- Using the updated baseline dataset and my preferred model, removing the Asian-American penalty in admissions results in increased Asian-American admits in all years. The model predicts 261 more Asian-American admits over this six-year period, a 13% increase.

- Removing preferences for African-American and Hispanic applicants (but keeping the penalty against Asian American applicants) results in even larger gains, with 537 more Asian-American admits over the period, an increase of more than 26%. And removing all racial preferences and penalties—treating everyone as though they were white—raises the number of Asian Americans by 799, a 40% increase.

The second panel of Table 8.1R in Appendix C looks at the share of the admitted class by race/ethnicity under the different policies. Again, the results are striking:

- In the preferred model, removing the penalty against Asian Americans increases their share of the admitted class by at least 2.3 percentage points in all years, with the largest change in 2018 of 4.7 percentage points.

- Treating all applicants in a manner similar to whites has dramatic effects: the share of admits who are Asian American increases by more than 10 percentage points (a 40% increase in share), while the share of admits who are African American falls by over 11 percentage points (a 72% decrease in share).

- The fact that the racial composition of Harvard's admitted class depends so strongly on racial preferences indicates that race is a determinative factor in admissions decisions.

My updated model again finds that the effect of removing racial preferences

[4] To perform this exercise, I re-estimate the preferred model (Model 5) and the model that includes the personal rating (Model 6) but now allowing for race times year effects. Including these interactions ensures that, in each year, the admissions rate for each racial/ethnic group matches the actual admit rate for that group.

on African Americans and Hispanics admit rates depends on disadvantaged status. The estimates show that Harvard has a preference for disadvantaged applicants, but that preference is smaller for Hispanics, who already receive a large preference, and nonexistent for African Americans. With the removal of racial preferences, disadvantaged African Americans and Hispanics receive the same preference as other disadvantaged applicants. As shown in Appendix C Table 8.3R (using Models 5 and 6), this preference is smaller than the preference with racial preferences, but nonetheless substantial:

- Disadvantaged African-American applicants see a 52% fall in the number of admitted students in the preferred model.
- For non-disadvantaged African-American applicants, the decline is much larger at 80%. This occurs because the added boost that non-disadvantaged African-American applicants receive because of their race is significantly smaller than the added boost disadvantaged African-American applicants receive because of their race. As a result, the share of African-American admits who are disadvantaged shifts from 29% to 50%.
- Similar patterns, though not quite as stark, occur for Hispanic applicants: the drop in admits is 60% for non-disadvantaged students and below 36% for disadvantaged students.

Using the expanded dataset and incorporating athletes[5] brings additional insight into how all of the preferences Harvard employs (race, legacy, athlete, etc.) work against Asian-American applicants. Appendix C Table 8.2R shows how the admitted class would change as racial and other preferences are eliminated. Focusing on the preferred model and the scenario where race, legacy, and athlete preferences are eliminated:

[5] Recall that my updated expanded model no longer includes athletes. Hence all counterfactuals that do not involve athletes treat the admissions decisions for athletes as unchanged. When I do counterfactuals with athletes included, I replace their athletic rating and extracurricular rating with 2s and then use the model to predict their admissions probabilities.

- The total number of Asian-American admits would rise by over 1,200 over the six-year period, or more than 50%.
- In contrast, African-American admits would fall by 939 over the same six-year window, a decline of over 68%.[6]

[6] The number of white admits would increase by only 3% in this scenario. This occurs because while the removal of racial preferences tends to favor white applicants, the removal of legacy and athlete preferences harms white applicants.

APPENDIX B

Table B.3.1N: Mother Occupations by Class Year

	2014	2015	2016	2017	2018	2019
Other	1266	4703	4339	4280	5666	5958
Homemaker	3476	4292	3967	4042	4629	3847
Unemployed	1449	2350	2274	2360	10	9
Skilled Trades	234	668	672	716	815	652
Low Skill.	1097	37	18	12	24	20
Self-Employed	0	991	989	928	1076	1138
Business Executive	897	1625	1690	1698	1721	1992
Other Management	844	296	257	245	259	265
Business and Financial	1249	813	795	813	819	1021
Computer and Mathematical	775	589	660	630	692	792
Architecture and Engi	442	629	660	698	747	826
Life, Physical and Social Sciences	763	570	610	587	645	702
Counselors, Social Workers	460	409	395	373	370	465
Lawyers, Judges	660	655	713	727	671	813
Postsecondary Teacher	561	485	475	480	514	557
Pre-K through Grade 12	2030	2042	1926	1888	1900	2199
Entertainers, Performers	118	95	76	86	92	87
Art, Design and Media	706	483	478	427	410	450
Health Diagnosing	2399	1722	1623	1683	1739	1901
Other Healthcare Occs	361	1286	1204	1183	1195	1456
Protective Service	46	30	39	39	32	51
Sales and Related	866	461	458	474	411	493
Administrative Support	1478	751	698	719	739	819
Military	12	25	21	25	30	47
Total	22189	26007	25037	25113	25206	26560

Table B.3.2N Father Occupations by Class Year

	2014	2015	2016	2017	2018	2019
Other	1593	4608	4268	4587	4941	5663
Homemaker	44	56	50	61	101	71
Unemployed	963	1493	1390	1300	5	8
Skilled Trades	1310	1436	1444	1466	1760	1557
Low Skill.	1098	42	33	34	15	27
Self-Employed	0	2134	2148	2108	2335	2432
Business Executive	2205	3633	3554	3612	3820	3845
Other Management	1261	272	259	251	254	252
Business and Financial	1633	542	423	418	437	485
Computer and Mathematical	1523	1164	1161	1212	1308	1380
Architecture and Engi	2047	2889	2814	2867	2922	3153
Life, Physical and Social Sciences	1060	857	859	792	830	785
Counselors, Social Workers	275	264	270	255	235	269
Lawyers, Judges	1226	1223	1229	1160	1143	1137
Postsecondary Teacher	818	877	827	823	772	810
Pre-K through Grade 12	413	475	426	434	453	514
Entertainers, Performers	127	70	85	79	91	95
Art, Design and Media	367	233	209	220	224	216
Health Diagnosing	2234	2398	2209	2138	2238	2182
Other Healthcare Occs	142	160	167	121	127	166
Protective Service	271	200	210	205	205	280
Sales and Related	1066	677	686	643	648	781
Administrative Support	410	133	132	112	145	157
Military	103	171	184	215	197	295
Total	22189	26007	25037	25113	25206	26560

Table B.4.1N: Intended Career by Class Year

	2014	2015	2016	2017	2018	2019
Academic	1,723	25	19	15	2,247	13
Arts	846	331	321	284	390	283
Business	2,189	2,385	2,486	2,556	1,918	2,906
Communications	695	741	634	528	229	491
Design	283	161	131	101	82	105
Government	1,604	1,785	1,695	1,683	1,610	1,617
Health	234	95	85	107	4,944	96
Law	2,093	1,963	1,787	1,639	708	1,484
Library	63	0	0	0	0	0
Medicine	6,254	6,185	5,879	5,863	3	5,977
Religion	42	2	0	1	0	0
Science	3,268	5,242	5,437	5,519	9,182	7,394
Trade	2	7	8	7	6	9
Social Service	339	41	51	47	0	52
Teaching	167	660	598	598	17	514
Other	445	1,275	1,210	1,223	231	1,857
Undecided	1,821	5,022	4,614	4,887	3,537	3,661
Unknown	121	87	82	55	102	101
Total	22,189	26,007	25,037	25,113	25,206	26,560

APPENDIX C

Table 1.1R: Single-race African American admit rates and all other domestic admit rates by admissions cycle

		IPEDS Admit
2019	African American	0.06059
	Non-African American	0.06084
	Difference	-0.00025
2018	African American	0.06585
	Non-African American	0.06521
	Difference	0.00064
2017	African American	0.06399
	Non-African American	0.06424
	Difference	-0.00025

Table 2.1R Admission Decisions for the Baseline and Expanded Samples by Race/Ethnicity

	Admission Status			
Race/Ethnicity	Rejected	Waitlist Rejected	Admit	Observations
Panel 1: Baseline Sample				
White	84.5	10.6	4.9	57,582
African American	87.6	4.8	7.6*	15,664
Hispanic	86.7	7.2	6.2*	17,970
Asian	83.5	11.4	5.1	40,415
Total	84.8	9.7	5.5	142,728
Panel 2: Baseline Sample without Early Applicants				
White	85.0	10.8	4.2	52,370
African American	88.6	5.0	6.5*	14,230
Hispanic	87.4	7.4	5.2*	16,468
Asian	84.8	11.3	3.9	36,705
Total	85.7	9.8	4.5	129,646
Panel 3: Expanded Sample				
White	81.1	12.1	6.8*	61,657
African American	87.1	5	7.9*	15,959
Hispanic	85.7	7.5	6.7*	18,322
Asian	82.7	11.6	5.7	41,142
Total	82.8	10.6	6.6	148,769

A * indicates statistically different at the 5% level
* Constructed using results from basicFreqs.do

Table 3.1R: Application summary statistics by race, baseline sample

	White			African American			Hispanic			Asian American		
	Reject	Admit	Total	Reject	Admit	Total	Reject	Admit	Total	Reject	Admit	Total
Admitted	0.00	100.00	4.89	0.00	100.00	7.58	0.00	100.00	6.16	0.00	100.00	5.13
Disadvantaged	5.94	14.61	6.36	29.27	28.48	29.21	23.47	37.40	24.33	10.26	21.86	10.85
SAT1 math (z-score)	0.12	0.56	0.15	-1.17	0.14	-1.07	-0.69	0.28	-0.63	0.41	0.77	0.43
	(0.82)	(0.50)	(0.81)	(1.07)	(0.67)	(1.10)	(1.05)	(0.64)	(1.05)	(0.73)	(0.37)	(0.72)
SAT1 verbal (z-score)	0.31	0.72	0.33	-0.77	0.41	-0.68	-0.45	0.44	-0.39	0.31	0.74	0.33
	(0.76)	(0.43)	(0.75)	(1.07)	(0.56)	(1.08)	(1.05)	(0.59)	(1.05)	(0.80)	(0.41)	(0.79)
SAT2 avg (z-score)	-0.01	0.58	0.03	-1.24	0.15	-1.10	-0.61	0.41	-0.53	0.32	0.81	0.35
	(0.86)	(0.50)	(0.85)	(1.13)	(0.62)	(1.17)	(1.04)	(0.54)	(1.04)	(0.82)	(0.38)	(0.81)
High school GPA (z-score)	0.17	0.50	0.18	-0.51	0.31	-0.45	-0.08	0.45	-0.04	0.21	0.52	0.22
	(0.86)	(0.52)	(0.85)	(1.18)	(0.76)	(1.17)	(0.97)	(0.62)	(0.97)	(0.82)	(0.47)	(0.81)
Academic index (z-score)	0.16	0.76	0.19	-1.23	0.33	-1.11	-0.63	0.50	-0.56	0.39	0.91	0.42
	(0.80)	(0.38)	(0.79)	(1.12)	(0.52)	(1.16)	(1.01)	(0.46)	(1.02)	(0.78)	(0.32)	(0.77)
Number of AP tests taken	4.08	5.91	4.16	2.11	5.06	2.33	3.52	6.20	3.68	5.60	7.50	5.68
	(3.91)	(3.85)	(3.93)	(3.14)	(3.85)	(3.29)	(3.82)	(3.83)	(3.87)	(4.07)	(3.38)	(4.06)
Average score of AP tests	4.39	4.74	4.41	3.78	4.51	3.88	3.96	4.55	4.02	4.48	4.82	4.50
	(0.59)	(0.34)	(0.58)	(0.78)	(0.42)	(0.78)	(0.75)	(0.47)	(0.75)	(0.56)	(0.28)	(0.55)
N	54,768	2,814	57,582	14,477	1,187	15,664	16,863	1,107	17,970	38,343	2,072	40,415

*Constructed using results from sumStatsTablesPoolRej.do
*Subset of the results in Table B.3.1

Table 3.2R: Application summary statistics for special treatment by race, expanded sample

	White			African American			Hispanic			Asian American		
	Reject	Admit	Total	Reject	Admit	Total	Reject	Admit	Total	Reject	Admit	Total
Admitted	0.00	100.00	6.77	0.00	100.00	7.95	0.00	100.00	6.71	0.00	100.00	5.69
Early action applicant	8.94	31.59	10.47	8.13	24.76	9.45	7.65	25.79	8.87	8.22	33.60	9.67
Legacy	3.44	24.50	4.87	1.12	5.21	1.45	0.93	7.16	1.35	0.77	6.92	1.12
Faculty child	0.03	0.79	0.08	0.00	0.00	0.00	0.01	0.16	0.02	0.00	0.56	0.03
Staff child	0.13	1.03	0.19	0.05	0.16	0.06	0.05	0.49	0.08	0.11	1.11	0.17
Dean / Director's List	1.60	15.92	2.57	0.38	2.13	0.52	0.46	4.56	0.73	0.37	5.64	0.67
N	57,481	4,176	61,657	14,691	1,268	15,959	17,093	1,229	18,322	38,800	2,342	41,142

*Constructed using results from sumStatsTablesPoolRej.do
*Subset of the results from Table B.3.2

Table 4.1R: Application rating summary statistics by race, baseline sample

	White			African American			Hispanic			Asian American		
	Reject	Admit	Total	Reject	Admit	Total	Reject	Admit	Total	Reject	Admit	Total
Academic rating												
<3-	10.39	0.04	9.88	54.91	0.08	50.75	37.77	0.00	35.44	8.42	0.00	7.99
=3-, 3, or 3+	46.56	11.19	44.83	40.02	40.52	40.06	48.68	34.60	47.81	33.22	5.60	31.80
>3+	43.05	88.77	45.29	5.07	59.39	9.19	13.55	65.40	16.74	58.36	94.40	60.21
Extracurricular rating												
<3-	3.74	0.71	3.59	8.02	0.76	7.47	5.98	1.26	5.69	2.02	0.19	1.93
=3-, 3, or 3+	74.39	26.18	72.03	79.40	47.22	76.96	79.79	42.10	77.46	72.43	21.53	69.82
>3+	21.87	73.11	24.38	12.58	52.02	15.57	14.23	56.64	16.85	25.54	78.28	28.25
Athletic rating												
<3-	33.58	33.00	33.56	43.65	36.49	43.11	43.36	40.96	43.22	46.98	48.22	47.04
=3-, 3, or 3+	53.93	45.64	53.52	50.04	49.10	49.97	49.57	43.53	49.20	48.31	44.50	48.11
>3+	12.49	21.37	12.92	6.30	14.41	6.92	7.07	15.52	7.59	4.71	7.28	4.84
Personal rating												
<3-	0.45	0.00	0.43	0.50	0.00	0.47	0.51	0.00	0.48	0.51	0.00	0.48
=3-, 3, or 3+	81.49	16.24	78.30	85.02	25.61	80.52	84.70	22.13	80.85	84.86	26.74	81.88
>3+	18.06	83.76	21.27	14.47	74.39	19.01	14.79	77.87	18.68	14.63	73.26	17.64
Teacher 1 rating												
<3-	0.57	0.00	0.54	1.11	0.00	1.02	0.90	0.00	0.84	0.51	0.00	0.48
=3-, 3, or 3+	70.57	22.60	68.16	83.60	40.44	79.97	78.61	36.50	75.80	70.39	25.35	68.03
>3+	28.86	77.40	31.31	15.28	59.56	19.01	20.49	63.50	23.35	29.10	74.65	31.49
Teacher 2 rating												
<3-	0.48	0.00	0.45	0.80	0.00	0.72	0.82	0.00	0.76	0.51	0.05	0.48
=3-, 3, or 3+	69.24	22.97	66.57	82.42	41.76	78.23	77.56	33.05	74.05	69.99	24.59	67.36
>3+	30.28	77.03	32.98	16.78	58.24	21.06	21.61	66.95	25.20	29.50	75.36	32.16
School counselor rating												
<3-	0.63	0.00	0.60	1.99	0.00	1.82	1.28	0.00	1.20	0.64	0.00	0.61
=3-, 3, or 3+	75.44	23.25	72.78	86.42	41.73	82.65	83.59	40.73	80.74	75.85	26.30	73.22
>3+	23.93	76.75	26.62	11.60	58.27	15.54	15.13	59.27	18.07	23.51	73.70	26.17
Alumni Personal rating												
<3-	7.40	0.51	6.98	10.55	1.12	9.62	10.24	0.28	9.41	8.26	0.34	7.77
=3-, 3, or 3+	31.43	5.89	29.89	35.82	9.13	33.19	35.55	6.54	33.11	31.55	6.38	29.98
>3+	61.17	93.60	63.13	53.62	89.75	57.19	54.21	93.19	57.48	60.19	93.28	62.25
Alumni Overall rating												
<3-	18.60	0.84	17.52	41.29	2.25	37.34	34.14	1.84	31.37	16.90	0.44	15.87
=3-, 3, or 3+	37.47	10.45	35.83	35.45	22.39	34.13	36.81	16.41	35.06	34.70	7.57	32.99
>3+	43.92	88.71	46.65	23.26	75.37	28.53	29.05	81.75	33.57	48.39	91.99	51.14
N	54,768	2,814	57,582	14,477	1,187	15,664	16,863	1,107	17,970	38,343	2,072	40,415

*Constructed using results from sumStatsSubRatTablesPoolRej.do

Table 4.2R: Admission shares by race and overall rating, baseline sample

	White		African American		Hispanic		Asian American	
Score	Admit Share	Pop. Share	Admit Share	Pop. Share	Admit Share	Pop. Share	Admit Share	Pop. Share
Panel 1: Baseline Sample								
<3	0.02	42.62	0.02	65.07	0.01	57.43	0.01	37.82
3	1.94	39.52	5.75	21.41	4.06	28.78	1.79	42.77
3+	8.89	13.42	22.50	8.23	19.14	9.92	7.96	14.58
2	65.48	4.39	84.63	5.23	79.48	3.85	65.51	4.76
1	100.00	0.04	100.00	0.05	100.00	0.03	100.00	0.08
Panel 2: Expanded Sample								
<3	0.10	40.93	0.02	64.65	0.02	56.70	0.01	37.48
3	2.94	39.60	6.01	21.49	4.35	28.98	2.05	42.63
3+	11.32	13.91	23.15	8.31	20.41	10.16	8.64	14.69
2	71.34	5.51	84.82	5.49	80.64	4.12	67.65	5.12
1	100.00	0.06	100.00	0.06	100.00	0.04	100.00	0.08

Table 5.1R: Number and Share of Applicants by Race/Ethnicity and Academic Index Decile, Baseline Sample

	Number of Applicants in Each Decile					Share of Applicants in each Decile				
Academic Index Decile	Whites	African American	Hispanic	Asian American	Total	Whites	African American	Hispanic	Asian American	Total
1	2,822	5,921	3,583	1,511	14,593	4.91	37.95	19.98	3.75	10.25
2	4,404	3,600	3,755	2,045	14,658	7.67	23.08	20.94	5.07	10.3
3	6,073	2,291	2,926	2,644	15,014	10.57	14.68	16.32	6.56	10.55
4	6,359	1,285	2,182	3,020	13,865	11.07	8.24	12.17	7.49	9.74
5	7,658	897	1,719	3,874	15,426	13.33	5.75	9.59	9.61	10.84
6	5,924	508	1,077	3,614	12,110	10.31	3.26	6.01	8.97	8.51
7	7,053	445	949	4,527	14,145	12.28	2.85	5.29	11.23	9.94
8	6,478	326	820	5,316	14,253	11.28	2.09	4.57	13.19	10.01
9	5,717	196	539	6,532	14,303	9.95	1.26	3.01	16.21	10.05
10	4,963	132	380	7,225	13,989	8.64	0.85	2.12	17.92	9.83
Total	57,451	15,601	17,930	40,308	142,356					

Table 5.2R: Admit Rates by Race/Ethnicity and Academic Index Decile, Baseline Sample

Academic Index Decile	Whites	African American	Hispanic	Asian American	Total
1	0.00%	0.03%	0.00%	0.00%	0.01%
2	0.39%	1.03%	0.32%	0.20%	0.53%
3	0.56%	5.19%	1.95%	0.64%	1.65%
4	1.82%	12.76%	5.50%	0.86%	3.29%
5	2.57%	22.41%	9.13%	1.86%	4.40%
6	4.20%	29.72%	13.65%	2.49%	5.64%
7	4.79%	41.12%	17.28%	3.98%	6.61%
8	7.53%	44.48%	22.93%	5.12%	8.22%
9	10.77%	54.59%	26.16%	7.55%	10.40%
10	15.27%	56.06%	31.32%	12.69%	14.58%
Average	4.90%	7.58%	6.16%	5.14%	5.46%

Table 5.3R: Share of admits of each race/ethnicity if equally drawn from different academic index deciles

	Whites	African American	Hispanic	Asian American
Actual Share of Admitted Class	37.61	15.81	14.90	24.86
Randomly sampling from:				
Top 9 deciles	42.76	7.58	11.23	30.37
Top 8 deciles	44.41	5.38	9.36	32.49
Top 7 deciles	45.01	3.86	7.82	34.77
Top 6 deciles	44.87	2.97	6.51	36.91
Top 5 deciles	43.80	2.34	5.47	39.56
Top 4 deciles	42.71	1.94	4.74	41.63
Top 3 deciles	40.33	1.54	4.09	44.83
Top 2 deciles	37.75	1.16	3.25	48.63
Top decile	35.48	0.94	2.72	51.65

Table 5.4R: Share Receiving a Two or Higher on the Academic and Extracurricular Ratings by Race/Ethnicity and Academic Index Decile, Baseline Sample

	Academic Rating					Extracurricular Rating				
Academic Index Decile	Whites	African American	Hispanic	Asian American	Total	Whites	African American	Hispanic	Asian American	Total
1	0.11%	0.02%	0.03%	0.00%	0.05%	11.41%	9.02%	9.27%	12.97%	10.09%
2	0.41%	0.08%	0.05%	0.54%	0.25%	16.35%	13.75%	12.73%	15.99%	14.75%
3	1.91%	0.96%	0.68%	1.36%	1.44%	20.14%	18.86%	15.86%	18.57%	18.92%
4	9.14%	6.07%	4.45%	7.98%	7.88%	22.02%	23.27%	18.74%	21.59%	21.61%
5	26.26%	23.08%	17.04%	26.36%	25.24%	23.83%	22.85%	20.65%	23.67%	23.61%
6	50.19%	48.43%	43.83%	51.08%	49.98%	25.08%	26.38%	23.31%	25.51%	25.36%
7	68.37%	68.54%	64.28%	71.46%	69.39%	26.64%	27.42%	27.61%	28.34%	27.39%
8	82.73%	80.37%	79.63%	86.16%	83.98%	27.31%	27.91%	24.63%	29.78%	28.11%
9	93.30%	93.37%	91.47%	95.12%	94.20%	30.45%	32.65%	28.94%	34.92%	32.76%
10	97.16%	94.70%	95.26%	98.08%	97.63%	33.04%	38.64%	29.21%	37.98%	35.96%
Average	45.32%	9.18%	16.75%	60.21%	42.30%	24.38%	15.56%	16.84%	28.27%	23.73%

Table 5.5R: Share Receiving a Two or Higher on School Support Measures by Race/Ethnicity and Academic Index Decile, Baseline Sample

	Teacher 1					Teacher 2					Counselor				
Academic Index Decile	Whites	African American	Hispanic	Asian American	Total	Whites	African American	Hispanic	Asian American	Total	Whites	African American	Hispanic	Asian American	Total
1	7.76%	7.75%	8.85%	7.41%	8.06%	6.20%	5.46%	6.42%	6.55%	6.02%	4.64%	4.88%	5.72%	5.76%	5.20%
2	13.42%	13.97%	13.87%	14.18%	13.69%	10.24%	11.50%	11.00%	11.69%	11.00%	8.99%	10.86%	10.15%	9.19%	9.84%
3	19.00%	19.38%	20.03%	16.98%	18.92%	15.46%	16.98%	17.77%	13.80%	15.95%	14.49%	16.72%	14.83%	12.25%	14.46%
4	23.87%	25.06%	23.60%	21.03%	23.27%	21.21%	22.41%	20.81%	18.01%	20.54%	18.49%	20.31%	17.32%	14.93%	17.69%
5	26.39%	29.65%	30.19%	23.00%	26.20%	23.31%	31.55%	25.54%	20.26%	23.30%	22.06%	26.42%	21.06%	17.84%	21.12%
6	32.41%	36.42%	31.94%	26.59%	30.65%	27.53%	35.43%	28.97%	24.29%	27.09%	25.59%	32.87%	25.26%	22.61%	24.89%
7	34.64%	40.22%	35.62%	30.22%	33.37%	31.04%	35.06%	32.77%	26.18%	29.49%	29.24%	35.73%	30.35%	24.96%	28.01%
8	39.72%	46.63%	37.68%	33.09%	36.72%	36.66%	39.88%	37.32%	29.67%	33.61%	34.39%	38.04%	34.15%	27.69%	31.40%
9	44.92%	47.45%	43.60%	39.73%	42.24%	41.47%	42.86%	38.59%	36.15%	38.66%	39.16%	43.88%	34.32%	33.88%	36.32%
10	50.17%	55.30%	49.47%	46.64%	48.02%	47.11%	50.76%	49.74%	41.90%	44.10%	44.63%	49.24%	45.00%	38.34%	40.87%
Average	30.46%	17.15%	21.60%	30.84%	27.90%	27.16%	14.83%	18.86%	27.44%	24.77%	25.29%	13.86%	16.49%	25.16%	22.79%

Table 5.6R: Share Receiving a Two or Higher on the Personal Rating and Alumni Interview Personal Rating by Race/Ethnicity and Academic Index Decile, Baseline Sample

	Personal					Alumni Personal				
Academic Index Decile	Whites	African American	Hispanic	Asian American	Total	Whites	African American	Hispanic	Asian American	Total
1	8.11%	9.49%	8.48%	8.01%	8.81%	26.33%	30.96%	26.29%	28.13%	28.25%
2	12.58%	15.75%	13.16%	12.91%	13.57%	33.72%	39.83%	33.42%	32.03%	34.89%
3	16.25%	23.35%	17.77%	13.46%	17.16%	39.77%	46.84%	38.59%	36.35%	40.06%
4	18.62%	28.95%	20.39%	14.24%	18.91%	44.27%	55.56%	43.86%	40.66%	44.64%
5	20.40%	33.89%	25.60%	15.69%	20.56%	48.43%	59.98%	50.32%	44.24%	48.28%
6	22.72%	35.04%	28.41%	16.46%	21.69%	51.84%	62.20%	54.50%	46.96%	51.18%
7	22.59%	40.00%	30.03%	18.11%	22.01%	54.08%	69.89%	56.90%	51.93%	54.07%
8	26.10%	39.57%	32.20%	17.93%	23.20%	58.20%	67.48%	62.44%	53.78%	56.77%
9	28.23%	40.31%	30.24%	20.87%	24.74%	62.20%	70.92%	62.89%	57.46%	60.18%
10	29.62%	46.97%	34.21%	22.20%	25.46%	64.98%	73.48%	71.05%	63.61%	64.49%
Average	21.29%	19.01%	18.69%	17.65%	19.52%	49.79%	42.79%	41.25%	50.21%	48.09%

*Note that those who do not have an alumni interview are coded as not having received a 2 or higher on the alumni overall rating

Table 5.7R: Share Receving a Two or Higher on Overall Rating and Alumni Interviewer Overall Rating by Race/Ethnicity and Academic Index Decile, Baseline Sample

	Final Reader Overall Rating					Alumini Interviewer Overall Rating				
Academic Index Decile	Whites	African American	Hispanic	Asian American	Total	Whites	African American	Hispanic	Asian American	Total
1	0.00%	0.00%	0.00%	0.00%	0.00%	7.26%	7.31%	7.14%	7.35%	7.34%
2	0.18%	0.47%	0.08%	0.15%	0.22%	13.35%	14.89%	11.82%	12.22%	13.37%
3	0.26%	2.05%	0.68%	0.23%	0.63%	19.38%	23.88%	19.07%	17.51%	19.86%
4	0.69%	7.16%	2.15%	0.40%	1.54%	26.23%	33.46%	24.84%	23.11%	26.12%
5	1.57%	15.50%	4.54%	1.34%	2.71%	32.68%	43.48%	35.08%	29.71%	32.87%
6	2.95%	23.82%	8.82%	1.80%	4.05%	38.07%	51.38%	39.65%	36.08%	38.34%
7	4.15%	30.79%	12.01%	3.11%	5.22%	42.62%	56.18%	44.89%	42.37%	43.30%
8	7.63%	37.42%	15.61%	4.61%	7.39%	49.26%	59.20%	50.98%	46.95%	48.50%
9	10.97%	45.41%	19.67%	7.59%	10.12%	56.69%	61.22%	59.18%	54.16%	55.91%
10	15.64%	46.97%	27.37%	12.93%	14.70%	63.13%	66.67%	64.47%	63.10%	63.28%
Average	4.44%	5.29%	3.88%	4.85%	4.60%	36.50%	20.82%	23.64%	40.91%	34.59%

*Note that those who do not have an alumni interview are coded as not having received a 2 or higher on the alumni overall rating

Table 6.1R: Probability of Receiving a 2 or Higher on Personal Rating for own race/ethnicity and counterfactual race/ethnicity, preferred model

Race/Ethnicity	Own Race	if White	if African American	if Hispanic	if Asian American
Panel 1: Baseline sample					
White	0.214		0.283	0.245	0.176
African American	0.193	0.152		0.174	0.126
Hispanic	0.192	0.168	0.217		0.138
Asian American	0.178	0.216	0.283	0.247	
Panel 2: Expanded sample					
White	0.227		0.299	0.257	0.190
African American	0.197	0.155		0.177	0.129
Hispanic	0.196	0.172	0.223		0.143
Asian American	0.181	0.219	0.286	0.250	

*created using ologitpersonal.do

Table 6.2R: Probability of receiving each overall rating for own race/ethnicity and counterfactual race/ethnicity, preferred model, baseline sample

		Own Race	if White	if African American	if Hispanic	if Asian American
White	<3	0.425		0.265	0.310	0.434
	3	0.392		0.346	0.396	0.397
	3+	0.136		0.206	0.190	0.125
	>3+	0.047		0.183	0.105	0.043
African American	<3	0.649	0.750		0.678	0.755
	3	0.210	0.188		0.218	0.188
	3+	0.087	0.049		0.074	0.045
	>3+	0.054	0.013		0.030	0.012
Hispanic	<3	0.565	0.658	0.526		0.664
	3	0.289	0.254	0.274		0.255
	3+	0.103	0.069	0.122		0.063
	>3+	0.043	0.019	0.079		0.017
Asian American	<3	0.375	0.366	0.221	0.259	
	3	0.425	0.418	0.338	0.400	
	3+	0.148	0.161	0.231	0.219	
	>3+	0.052	0.056	0.210	0.122	

*calculated using gologitComponentsExpIndices.do

Table 7.1R: Probability of admission for an Asian American if treated like other races/ethnicities when base probability is 0.25

		Probability of admission			
		Baseline sample		Expanded Sample	
	Counterfactual group	Preferred Model	+Overall and Personal	Preferred Model	+Overall and Personal
Asian/male/no disadvantage	Black	0.958	0.957	0.947	0.944
	Hispanic	0.790	0.779	0.768	0.754
	White	0.347	0.317	0.330	0.301
Asian/female/no disadvantage	Black	0.943	0.944	0.931	0.927
	Hispanic	0.771	0.761	0.751	0.734
	White	0.297	0.275	0.293	0.261
Asian/male/disadvantaged	Black	0.805	0.805	0.759	0.759
	Hispanic	0.646	0.629	0.604	0.596
	White	0.315	0.286	0.296	0.271
Asian/female/disadvantaged	Black	0.748	0.756	0.703	0.702
	Hispanic	0.620	0.605	0.581	0.571
	White	0.268	0.247	0.261	0.234
Asian/male/no disadvantage	White legacy			0.807	0.816
	White double legacy			0.893	0.903

Table 7.2R: Average Probability of admission for Asian American applicants if treated like other races/ethnicities

	Probability of admission			
	Baseline sample		Expanded Sample	
	Preferred Model	+Personal	Preferred Model	+Personal
Data				
Model	0.052	0.052	0.052	0.052
White Preferences	0.062	0.057	0.061	0.057
African American Preferences	0.271	0.243	0.267	0.238
Hispanic Preferences	0.152	0.135	0.150	0.133

Table 7.3R: Share of each race/ethnicity in each admissions index decile, baseline sample

		Preferred Model		
Admissions Decile	White	African American	Hispanic	Asian American
5 or lower	0.458	0.786	0.695	0.381
6	0.111	0.051	0.069	0.113
7	0.112	0.042	0.060	0.120
8	0.107	0.039	0.059	0.128
9	0.107	0.041	0.059	0.128
10	0.105	0.041	0.057	0.131

		+Personal Ratings		
Admissions Decile	White	African American	Hispanic	Asian American
5 or lower	0.458	0.786	0.697	0.377
6	0.109	0.047	0.070	0.116
7	0.112	0.038	0.058	0.123
8	0.106	0.039	0.055	0.132
9	0.107	0.044	0.056	0.127
10	0.107	0.046	0.065	0.124

* created using admissionsLogitsIndices.do.

Table 7.4R: Share of each race/ethnicity in each admissions, non-academic ratings component score index decile, baseline sample

		Preferred Model		
Admissions Decile	White	African American	Hispanic	Asian American
5 or lower	0.457	0.684	0.642	0.439
6	0.105	0.072	0.074	0.113
7	0.109	0.073	0.080	0.106
8	0.108	0.065	0.073	0.111
9	0.108	0.057	0.068	0.117
10	0.113	0.050	0.063	0.113

		+Personal Ratings		
Admissions Decile	White	African American	Hispanic	Asian American
5 or lower	0.460	0.666	0.627	0.447
6	0.105	0.072	0.078	0.111
7	0.107	0.063	0.072	0.115
8	0.106	0.062	0.071	0.116
9	0.107	0.068	0.075	0.110
10	0.114	0.068	0.077	0.101

* created using admissionsLogitsIndicesRatings.do.

Table 7.5R: Share of each race/ethnicity in each admissions non-academic component score index decile, baseline sample

		Preferred Model		
Admissions Decile	White	African American	Hispanic	Asian American
5 or lower	0.480	0.599	0.569	0.466
6	0.106	0.080	0.088	0.104
7	0.104	0.082	0.085	0.107
8	0.104	0.080	0.081	0.109
9	0.103	0.075	0.084	0.110
10	0.103	0.084	0.094	0.104

		+Personal Ratings		
Admissions Decile	White	African American	Hispanic	Asian American
5 or lower	0.479	0.584	0.555	0.477
6	0.104	0.076	0.086	0.109
7	0.104	0.080	0.085	0.108
8	0.104	0.079	0.085	0.108
9	0.105	0.086	0.087	0.103
10	0.105	0.095	0.101	0.095

* created using admissionsLogitsIndices.do.

Table 8.1R: Admissions levels and shares by race/ethnicity under different admissions policies, baseline sample

		Preferred Model							Include Personal Rating						
		2014	2015	2016	2017	2018	2019	Total	2014	2015	2016	2017	2018	2019	Total
Panel 1: Changes in Admissions Levels															
	Model	369	356	346	315	300	327	2013	369	356	346	315	300	327	2013
Asian	No Asian-American penalty	421	405	390	350	355	354	2274	403	383	364	335	332	337	2154
American	No African American or Hispanic preferences	455	458	418	399	399	422	2550	452	451	415	394	392	418	2522
	No racial preferences	513	508	457	430	458	445	2812	489	480	431	413	428	426	2666
	Model	198	219	178	180	195	193	1163	198	219	178	180	195	193	1163
African	No Asian-American penalty	190	211	172	175	185	188	1121	193	215	176	177	189	191	1141
American	No African American or Hispanic preferences	58	66	62	56	52	55	349	63	74	64	62	58	58	379
	No racial preferences	55	61	57	52	47	52	324	60	71	62	60	55	57	365
	Model	189	215	182	194	217	191	1188	189	215	182	194	217	191	1188
Hispanic	No Asian-American penalty	180	206	174	187	205	185	1137	183	210	179	190	210	189	1161
	No African American or Hispanic preferences	104	113	105	96	105	101	624	108	122	109	99	116	107	660
	No racial preferences	98	105	97	90	96	95	581	103	118	105	95	110	104	636
	Model	572	526	460	401	390	355	2704	572	526	460	401	390	355	2704
White	No Asian-American penalty	538	497	436	383	362	342	2557	550	510	450	391	373	350	2624
	No African American or Hispanic preferences	703	670	558	512	525	464	3433	699	659	556	507	515	459	3397
	No racial preferences	660	624	517	477	479	438	3195	671	635	539	489	489	448	3271
Panel 2: Changes in Admission Shares															
	Model	0.271	0.264	0.272	0.265	0.256	0.284	0.269	0.271	0.264	0.272	0.265	0.256	0.284	0.269
Asian	No Asian-American penalty	0.309	0.300	0.306	0.295	0.302	0.307	0.303	0.296	0.285	0.286	0.281	0.283	0.292	0.287
American	No African American or Hispanic preferences	0.334	0.340	0.329	0.335	0.340	0.366	0.340	0.331	0.335	0.326	0.331	0.334	0.363	0.336
	No racial preferences	0.376	0.378	0.359	0.362	0.390	0.387	0.375	0.359	0.356	0.339	0.347	0.364	0.370	0.356
	Model	0.145	0.163	0.140	0.151	0.166	0.168	0.155	0.145	0.163	0.140	0.151	0.166	0.168	0.155
African	No Asian-American penalty	0.140	0.157	0.135	0.147	0.158	0.163	0.150	0.142	0.159	0.138	0.149	0.161	0.166	0.152
American	No African American or Hispanic preferences	0.043	0.049	0.049	0.047	0.044	0.048	0.047	0.046	0.055	0.050	0.053	0.050	0.050	0.051
	No racial preferences	0.040	0.045	0.045	0.044	0.040	0.045	0.043	0.044	0.053	0.049	0.051	0.047	0.049	0.049
	Model	0.139	0.160	0.143	0.163	0.185	0.166	0.158	0.139	0.160	0.143	0.163	0.185	0.166	0.158
Hispanic	No Asian-American penalty	0.132	0.153	0.137	0.157	0.174	0.161	0.152	0.134	0.156	0.141	0.160	0.179	0.164	0.155
	No African American or Hispanic preferences	0.077	0.084	0.083	0.081	0.089	0.087	0.083	0.079	0.091	0.085	0.083	0.099	0.093	0.088
	No racial preferences	0.072	0.078	0.076	0.076	0.082	0.083	0.078	0.076	0.087	0.083	0.080	0.094	0.090	0.085
	Model	0.420	0.390	0.362	0.337	0.332	0.308	0.361	0.420	0.390	0.362	0.337	0.332	0.308	0.361
White	No Asian-American penalty	0.395	0.369	0.343	0.322	0.308	0.297	0.341	0.404	0.378	0.354	0.329	0.318	0.304	0.350
	No African American or Hispanic preferences	0.516	0.497	0.439	0.430	0.448	0.403	0.458	0.513	0.489	0.437	0.427	0.439	0.398	0.453
	No racial preferences	0.484	0.463	0.406	0.401	0.408	0.380	0.426	0.492	0.471	0.423	0.412	0.417	0.389	0.436

Table 8.2R: Admissions levels and shares by race/ethnicity under different admissions policies, expanded sample

		Preferred Model							Include Personal Rating						
		2014	2015	2016	2017	2018	2019	Total	2014	2015	2016	2017	2018	2019	Total
Panel 1: Changes in Admissions Levels															
	Model	403	404	406	379	364	402	2358	403	404	406	379	364	402	2358
Asian	No Asian-American penalty	457	448	442	402	419	422	2591	439	426	417	388	396	403	2470
American	No African and Hispanic preference	483	502	472	462	457	496	2870	479	496	468	457	450	493	2843
	No racial preferences	543	550	503	481	517	514	3108	520	520	478	465	486	492	2961
	No legacy preferences	426	427	421	395	378	411	2458	425	428	420	394	377	412	2456
	No athlete preferences	445	443	435	411	394	441	2569	444	443	434	410	394	441	2566
	No race/legacy/athlete	634	642	565	549	589	586	3564	606	607	536	527	552	560	3389
	Model	231	246	201	228	226	235	1367	231	246	201	228	226	235	1367
African	No Asian-American penalty	224	239	196	225	217	232	1332	226	243	200	227	221	235	1351
American	No African and Hispanic preference	84	86	82	93	77	88	511	89	94	85	101	86	90	544
	No racial preferences	81	82	79	91	73	85	491	86	92	84	100	83	90	534
	No legacy preferences	242	256	210	236	234	245	1423	242	257	210	235	234	245	1423
	No athlete preferences	232	251	201	219	229	233	1366	233	251	201	219	228	233	1365
	No race/legacy/athlete	74	78	73	71	62	70	428	80	89	78	82	73	76	478
	Model	212	246	207	222	245	233	1365	212	246	207	222	245	233	1365
Hispanic	No Asian-American penalty	203	238	201	218	234	229	1323	206	242	205	220	239	233	1345
	No African and Hispanic preference	128	136	134	118	128	132	776	132	144	137	120	138	138	808
	No racial preferences	122	130	127	114	120	128	741	127	141	135	118	133	137	791
	No legacy preferences	223	259	217	232	256	242	1428	222	259	216	231	255	242	1424
	No athlete preferences	226	258	220	239	270	248	1462	227	258	220	240	270	247	1461
	No race/legacy/athlete	131	136	135	123	136	132	792	138	150	144	128	151	143	853
	Model	945	865	805	748	760	679	4802	945	865	805	748	760	679	4802
White	No Asian-American penalty	909	838	785	735	729	668	4664	921	851	798	743	742	678	4734
	No African and Hispanic preference	1088	1025	908	874	911	806	5613	1084	1016	906	870	900	801	5577
	No racial preferences	1043	985	872	849	865	783	5397	1054	997	894	861	874	796	5476
	No legacy preferences	903	821	774	716	728	655	4598	904	820	775	719	731	655	4605
	No athlete preferences	895	818	757	704	700	625	4499	895	818	758	704	700	625	4500
	No race/legacy/athlete	960	902	799	784	784	718	4947	972	915	825	800	796	732	5041
Panel 2: Changes in Admission Shares															
	Model	0.217	0.220	0.229	0.219	0.213	0.238	0.223	0.217	0.220	0.229	0.219	0.213	0.238	0.223
Asian	No Asian-American penalty	0.247	0.244	0.249	0.232	0.246	0.251	0.245	0.237	0.232	0.236	0.224	0.232	0.239	0.233
American	No African and Hispanic preference	0.260	0.274	0.266	0.267	0.268	0.294	0.271	0.259	0.270	0.264	0.264	0.264	0.292	0.269
	No racial preferences	0.293	0.300	0.284	0.278	0.303	0.305	0.294	0.280	0.284	0.270	0.269	0.285	0.292	0.280
	No legacy preferences	0.230	0.233	0.237	0.228	0.221	0.244	0.232	0.229	0.233	0.237	0.228	0.221	0.244	0.232
	No athlete preferences	0.240	0.242	0.245	0.238	0.231	0.261	0.243	0.240	0.242	0.245	0.237	0.231	0.261	0.243
	No race/legacy/athlete	0.342	0.350	0.319	0.317	0.345	0.347	0.337	0.327	0.331	0.302	0.305	0.324	0.332	0.320
	Model	0.125	0.134	0.113	0.132	0.133	0.139	0.129	0.125	0.134	0.113	0.132	0.133	0.139	0.129
African	No Asian-American penalty	0.121	0.131	0.111	0.130	0.127	0.137	0.126	0.122	0.132	0.113	0.131	0.130	0.139	0.128
American	No African and Hispanic preference	0.046	0.047	0.047	0.054	0.045	0.052	0.048	0.048	0.051	0.048	0.058	0.050	0.054	0.051
	No racial preferences	0.044	0.045	0.045	0.052	0.043	0.051	0.046	0.046	0.050	0.047	0.058	0.049	0.053	0.051
	No legacy preferences	0.130	0.140	0.118	0.136	0.138	0.145	0.134	0.130	0.140	0.118	0.136	0.137	0.145	0.134
	No athlete preferences	0.125	0.137	0.114	0.127	0.134	0.138	0.129	0.125	0.137	0.114	0.127	0.134	0.138	0.129
	No race/legacy/athlete	0.040	0.042	0.041	0.041	0.036	0.042	0.040	0.043	0.049	0.044	0.047	0.043	0.045	0.045
	Model	0.114	0.134	0.117	0.128	0.144	0.138	0.129	0.114	0.134	0.117	0.128	0.144	0.138	0.129
Hispanic	No Asian-American penalty	0.110	0.130	0.113	0.126	0.137	0.136	0.125	0.111	0.132	0.116	0.127	0.140	0.138	0.127
	No African and Hispanic preference	0.069	0.074	0.075	0.068	0.075	0.078	0.073	0.071	0.079	0.077	0.069	0.081	0.082	0.076
	No racial preferences	0.066	0.071	0.072	0.066	0.070	0.076	0.070	0.069	0.077	0.076	0.068	0.078	0.081	0.075
	No legacy preferences	0.120	0.141	0.122	0.134	0.150	0.144	0.135	0.120	0.141	0.122	0.134	0.149	0.143	0.135
	No athlete preferences	0.122	0.141	0.124	0.138	0.159	0.147	0.138	0.122	0.141	0.124	0.139	0.158	0.147	0.138
	No race/legacy/athlete	0.071	0.074	0.076	0.071	0.079	0.078	0.075	0.074	0.082	0.081	0.074	0.088	0.085	0.081
	Model	0.510	0.472	0.454	0.432	0.446	0.403	0.454	0.510	0.472	0.454	0.432	0.446	0.403	0.454
White	No Asian-American penalty	0.490	0.457	0.443	0.425	0.428	0.396	0.441	0.497	0.464	0.451	0.430	0.435	0.402	0.447
	No African and Hispanic preference	0.587	0.559	0.512	0.505	0.534	0.478	0.531	0.585	0.554	0.511	0.503	0.528	0.475	0.527
	No racial preferences	0.563	0.537	0.492	0.491	0.507	0.465	0.510	0.568	0.544	0.504	0.498	0.513	0.472	0.518
	No legacy preferences	0.487	0.448	0.437	0.414	0.427	0.388	0.435	0.488	0.447	0.437	0.416	0.429	0.389	0.435
	No athlete preferences	0.483	0.446	0.427	0.407	0.410	0.371	0.425	0.483	0.446	0.428	0.407	0.411	0.371	0.425
	No race/legacy/athlete	0.518	0.492	0.451	0.453	0.460	0.426	0.468	0.524	0.499	0.466	0.463	0.467	0.434	0.476

Table 8.3R: The Effects of Removing Racial/Ethnic Preferences and Penalties by Race/Ethnicity and Disadvantaged Status, baseline sample

	Preferred Model (Model 5)			Add Personal Rating (Model 6)		
	Advantaged admits	Disadvantaged Admits	Share Disadvantaged	Advantaged admits	Disadvantaged Admits	Share Disadvantaged
Asian Americans						
Model	1564	449	0.223	1564	449	0.223
Removal Racial Preferences	2255	556	0.198	2130	536	0.201
African Americans						
Model	829	334	0.287	829	334	0.287
Removal Racial Preferences	163	161	0.497	194	171	0.469
Hispanics						
Model	754	434	0.365	754	434	0.365
Removal Racial Preferences	302	280	0.481	341	295	0.464
Whites						
Model	2303	401	0.148	2303	401	0.148
Removal Racial Preferences	2742	453	0.142	2809	462	0.141

APPENDIX D

Table A.1: Coding decisions made for irregular ratings and their frequencies in the expanded sample

Original Rating	Imputed Final Reader Score	Frequency
122	1	2
212	2	1
213	2	1
222	2	70
223	2	35
232	2	225
233	2	179
253	2	1
322	3+	180
323	3+	427
332	3	35
333	3	73
334	3	3
342	3	1
343	3	8
433	4	1
554	5	1
604	4	2
622	2	1
623	2	6
632	3+	8
633	3	210
634	3	3
643	3	52
644	4	45
645	5	1
653	3	3
654	4	2
655	4	4
Observations		1580

Table A.2R: Applicants and Admit Rate by Preferred Group

	Number of Applicants	Admit Rate
Not Athlete	165,353	0.060
Athlete	1374	0.860
Not Legacy	162,083	0.059
Legacy	4644	0.336
Not Child of Faculty or Staff	166,406	0.066
Child of Faculty or Staff	321	0.467
Not Dean and Director's Interest List	164,226	0.061
Dean and Director's Interest List	2501	0.422

*created using actionpools2.do

Table A.3R: Applicants, Admits, and Admit Rate by Year and Regular vs. Early

	Regular Action			Early Action		
	Applicants	Admits	Admit rate	Applicants	Admits	Admit Rate
2014	24,376	1,986	0.081	0	0	
2015	28,260	1,923	0.068	0	0	
2016	25,696	1,012	0.039	3,582	825	0.230
2017	23,604	870	0.037	4,111	947	0.230
2018	23,390	817	0.035	3,958	971	0.245
2019	24,757	790	0.032	4,993	991	0.198

Table A.4R: Applicants, Admits, and Admit Rate by Year, Regular vs. Early, and Special Circumstances

	Regular Action						Early Action					
	Regular Applicant			Special Circumstances			Regular Applicant			Special Circumstances		
	Applicants	Admits	Admit Rate	Applicants	Admits	Admit Rate	Applicants	Admits	Admit Rate	Applicants	Admits	Admit Rate
2014	23,176	1,471	0.063	1,200	515	0.429	0	0		0	0	
2015	27,016	1,408	0.052	1,244	515	0.414	0	0		0	0	
2016	24,968	857	0.034	728	155	0.213	2,982	458	0.154	600	367	0.612
2017	22,963	754	0.033	641	116	0.181	3,448	487	0.141	663	460	0.694
2018	22,799	709	0.031	591	108	0.183	3,272	520	0.159	686	451	0.657
2019	24,134	690	0.029	623	100	0.161	4,238	524	0.124	755	467	0.619

*Sample excludes foreign applicants and transfers. Applications Harvard labels as withdrawals, incompletes, or departed are excluded. Ony first time applications are included.
*Results based on actionPools.do

Table A.5R: Sample Cuts

	Admits Removed	Applicants Removed	Remaining Obs.
Non-transfer, non-foreign sample size	0	0	171,840
Withdraws, Incompletes, Departed	0	4,512	167,328
Repeat Applicant	0	601	166,727
Missing a Rating Profile (AEAP)	64	3,636	163,091
Academic or Personal Rating>5	0	192	162,899
SAT Math or SAT Verbal Missing	5	7,079	155,820
Academic Index Missing	59	5,708	150,112
Athlete	1,179	1,343	148,769
Additional Baseline Cuts			
Legacy	1,479	4,371	144,398
Staff or Faculty Child	113	248	144,150
Dean/Director Preference	449	1,422	142,728

*Results based on sampeCuts.do

Table A.6: Harvard s Assignment of Race/Ethnicity under the Old Methodology

	Race/Ethn c ty							
Member n Wh ch Group	Wh te	Afr can Amer can	H span c	As an Amer can	Nat ve Amer can	Hawa an	M ss ng	Tota
A	0	3	1	55,331	0	0	1	55,336
A,B	0	526	0	0	0	0	0	526
A,B,P	0	6	0	0	0	0	0	6
A,B,P,W	0	5	0	0	0	0	0	5
A,B,W	0	139	0	0	0	0	0	139
A,P	0	0	0	160	0	0	0	160
A,P,W	0	0	0	106	0	0	0	106
A,W	0	0	0	5,446	0	0	3	5,449
B	0	19,378	0	0	0	0	3	19,381
B,P	0	33	0	0	0	0	0	33
B,P,W	0	12	0	0	0	0	0	12
B,W	0	1,685	0	0	0	0	2	1,687
N	0	0	492	0	620	0	0	1,112
N,A	0	0	0	32	1	0	0	33
N,A,B	0	24	0	0	0	0	0	24
N,A,B,P	0	5	0	0	0	0	0	5
N,A,B,P,W	0	2	0	0	0	0	0	2
N,A,B,W	0	33	0	0	0	0	0	33
N,A,P	0	0	0	4	0	0	0	4
N,A,P,W	0	0	0	7	0	0	0	7
N,A,W	0	0	0	133	1	0	0	134
N,B	0	486	0	0	0	0	2	488
N,B,P	0	5	0	0	0	0	0	5
N,B,P,W	0	1	0	0	0	0	0	1
N,B,W	0	369	0	0	0	0	0	369
N,P	0	0	0	0	0	3	0	3
N,P,W	0	0	0	0	0	4	0	4
N,W	1	0	429	0	1,108	0	4	1,542
P	0	0	0	0	0	244	0	244
P,W	0	0	0	1	0	132	0	133
W	75,492	2	13,331	2	5	1	5	88,838
Tota	75,493	22,714	14,253	61,222	1,735	384	20	175,821

Table A.7R: Descriptive Statistics by Admit Status for Baseline and Expanded Sample

	Baseline Sample			Expanded Sample		
	Reject	Admit	Total	Reject	Admit	Total
Admitted	0.00	100.00	5.45	0.00	100.00	6.60
Female	49.23	48.73	49.21	49.20	48.66	49.17
Disadvantaged	12.03	22.11	12.58	11.74	17.82	12.14
First-generation college	8.77	8.54	8.76	8.56	7.01	8.46
Early action applicant				8.60	31.07	10.09
Legacy				2.08	15.05	2.94
Faculty child				0.01	0.61	0.05
Staff child				0.11	0.87	0.16
Dean's / Director's List				0.95	10.08	1.56
Mother highest ed: no college	29.42	25.86	29.23	28.84	21.48	28.35
Mother highest ed: BA degree	32.86	28.75	32.63	32.74	27.89	32.42
Mother highest ed: MA degree	24.29	28.49	24.52	24.48	29.20	24.79
Mother highest ed: PhD/JD/MD degree	10.07	13.73	10.27	10.62	18.58	11.14
Mother highest ed: Missing	0.03	0.03	0.03	0.03	0.03	0.03
Father highest ed: no college	27.52	26.23	27.45	26.90	21.47	26.54
Father highest ed: BA degree	24.09	19.84	23.86	23.96	18.95	23.63
Father highest ed: MA degree	24.93	25.41	24.96	25.03	27.02	25.16
Father highest ed: PhD/JD/MD degree	19.36	24.74	19.66	20.07	29.31	20.68
Father highest ed: Missing	0.04	0.04	0.04	0.04	0.03	0.04
Application read by 3rd reader	11.84	95.57	16.41	12.88	94.36	18.26
Missing alumni rating	23.00	2.12	21.86	22.62	2.33	21.28
Waiver	16.93	19.75	17.08	16.53	15.93	16.49
Financial Aid	78.42	79.07	78.45	77.41	67.99	76.78
SAT1 math (z-score)	-0.03	0.51	0.00	-0.03	0.50	0.00
	(1.00)	(0.57)	(0.99)	(1.00)	(0.57)	(0.98)
SAT1 verbal (z-score)	0.09	0.64	0.12	0.10	0.63	0.13
	(0.94)	(0.50)	(0.93)	(0.93)	(0.49)	(0.92)
SAT2 avg (z-score)	-0.08	0.55	-0.04	-0.07	0.54	-0.03
	(1.01)	(0.55)	(1.00)	(1.00)	(0.55)	(0.99)
Never took SAT2	12.62	1.63	12.02	12.42	1.42	11.69
Standardized high school GPA (z-score)	0.07	0.47	0.09	0.06	0.39	0.08
	(0.93)	(0.57)	(0.92)	(0.94)	(0.62)	(0.92)
Academic index (z-score)	-0.02	0.69	0.01	0.48	0.71	0.50
	(1.01)	(0.46)	(1.00)	(0.29)	(0.22)	(0.29)
Academic index percentile	0.49	0.73	0.50	-0.02	0.66	0.02
	(0.29)	(0.21)	(0.29)	(1.00)	(0.47)	(0.99)
Number of AP tests taken	4.28	6.27	4.37	4.25	5.89	4.35
	(4.02)	(3.81)	(4.04)	(4.02)	(3.84)	(4.03)
Average score of AP tests	4.34	4.70	4.36	4.34	4.71	4.37
	(0.65)	(0.38)	(0.64)	(0.64)	(0.37)	(0.63)
N	134,944	7,784	142,728	138,944	9,825	148,769

*Constructed using results from sumStatsTablesPoolRej.do

Table A.8R: Harvard Rankings by Admit Status for Baseline and Expanded Sample

	Baseline Sample			Expanded Sample		
	Reject	Admit	Total	Reject	Admit	Total
Academic rating						
<3-	18.16	0.04	17.17	17.93	0.16	16.76
=3-, 3, or 3+	41.86	17.86	40.55	42.09	18.65	40.54
>3+	39.98	82.10	42.28	39.98	81.19	42.70
Extracurricular rating						
<3-	3.96	0.67	3.78	3.92	0.64	3.70
=3-, 3, or 3+	74.93	30.30	72.50	74.84	33.08	72.08
>3+	21.11	69.04	23.72	21.24	66.28	24.21
Athletic rating						
<3-	40.17	39.07	40.11	39.80	36.21	39.56
=3-, 3, or 3+	51.12	45.61	50.82	51.23	46.18	50.90
>3+	8.71	15.32	9.07	8.97	17.61	9.54
Personal rating						
<3-	0.49	0.00	0.46	0.49	0.02	0.46
=3-, 3, or 3+	83.36	22.11	80.02	83.10	24.14	79.21
>3+	16.14	77.89	19.51	16.41	75.84	20.33
Teacher 1 rating						
<3-	0.64	0.00	0.61	0.64	0.00	0.60
=3-, 3, or 3+	72.86	28.68	70.45	72.85	30.86	70.08
>3+	26.49	71.32	28.93	26.51	69.14	29.33
Teacher 2 rating						
<3-	0.55	0.01	0.52	0.55	0.03	0.52
=3-, 3, or 3+	71.77	28.20	69.39	71.72	30.54	69.00
>3+	27.68	71.79	30.09	27.73	69.43	30.48
School counselor rating						
<3-	0.86	0.00	0.81	0.84	0.00	0.78
=3-, 3, or 3+	77.75	29.93	75.14	77.69	31.52	74.64
>3+	21.39	70.07	24.04	21.47	68.48	24.57
Alumni Personal rating						
<3-	8.34	0.50	7.91	8.26	0.67	7.76
=3-, 3, or 3+	32.39	6.78	30.99	32.25	8.17	30.66
>3+	59.28	92.73	61.10	59.49	91.16	61.58
Alumni Overall rating						
<3-	22.08	1.08	20.93	21.81	1.40	20.46
=3-, 3, or 3+	36.25	12.35	34.95	36.28	14.00	34.81
>3+	41.67	86.57	44.12	41.91	84.60	44.73
N	134,944	7,784	142,728	138,944	9,825	148,769

* Constructed using results from sumStatsSubRatTablesPoolRej.do

Table B.1.1R: Single-race African American admit rates and all other domestic admit rates by admissions cycle

		IPEDS Admit	Admit Total
2019	Non-African American	0.06084	1,677
	African American	0.06059	176
	Difference	0.00025	1,853
2018	Non-African American	0.06521	1,657
	African American	0.06585	177
	Difference	-0.00064	1,834
2017	Non-African American	0.06424	1,665
	African American	0.06399	172
	Difference	0.00025	1,837
2016	Non-African American	0.06763	1,713
	African American	0.05556	147
	Difference	0.01207	1,860
2015	Non-African American	0.06832	1,780
	African American	0.06519	188
	Difference	0.00313	1,968
2014	Non-African American	0.07937	1,839
	African American	0.07439	172
	Difference	0.00498	2,011

Table B.1 2R: Admit rates for single-race African Americans and other domestic applicants by day, 2017

Date	Single-race African American admits	All other domestic admits	Single-race African American app icants	All other domestic applicants	Single-race African American admit rate	Other domestic admit rate	Single-race African American admit rate-Other domestic admit rate
3/1/13	136	845	1552	8774	0.16095	0.17689	-0.0159395
3/2/13	137	2688	1556	259 8	0.05097	0.06004	-0.0090682
3/3/13	137	2688	1556	259 8	0.05097	0.06004	-0.0090682
3/4/13	140	2688	1597	259 8	0.05208	0.06162	-0.0095341
3/5/13	143	2688	1618	259 8	0.05320	0.06243	-0.0092283
3/6/13	146	2688	1653	259 8	0.05432	0.06378	-0.0094626
3/7/13	151	2688	1679	259 8	0.05618	0.06478	-0.0086056
3/8/13	161	2688	1719	259 8	0.05990	0.06632	-0.0064287
3/9/13	162	2688	1727	259 8	0.06027	0.06663	-0.0063654
3/10/13	162	2688	1727	259 8	0.06027	0.06663	-0.0063654
3/11/13	166	2688	1758	259 8	0.06176	0.06783	-0.0060734
3/12/13	173	2688	1779	259 8	0.06436	0.06864	-0.0042794
3/13/13	177	2688	1785	259 8	0.06585	0.06887	-0.0030228
3/15/13	171	2688	1702	259 8	0.06362	0.06567	-0.0020526
3/16/13	171	2688	1702	259 8	0.06362	0.06567	-0.0020526
3/17/13	171	2688	1702	259 8	0.06362	0.06567	-0.0020526
3/18/13	167	2688	1586	259 8	0.06213	0.06119	0.0009350
3/19/13	172	2688	1650	259 8	0.06399	0.06366	0.0003258
3/20/13	172	2688	1649	259 8	0.06399	0.06362	0.0003644
3/21/13	172	2688	1650	259 8	0.06399	0.06366	0.0003258
3/22/13	172	2688	1650	259 8	0.06399	0.06366	0.0003258
3/23/13	172	2688	1650	259 8	0.06399	0.06366	0.0003258
3/24/13	172	2688	1650	259 8	0.06399	0.06366	0.0003258
3/25/13	172	2688	1650	259 8	0.06399	0.06366	0.0003258
3/26/13	172	2688	1649	259 8	0.06399	0.06362	0.0003644
3/27/13	172	2688	1649	259 8	0.06399	0.06362	0.0003644
3/28/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
3/29/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
3/30/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
3/31/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/1/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/2/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/3/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/4/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/5/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/6/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/7/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/8/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/9/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/10/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/11/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/12/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/13/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/14/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/15/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/16/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/17/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/18/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/19/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/20/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/21/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/22/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/23/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/24/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/25/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/26/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/27/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/28/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/29/13	172	2688	1648	259 8	0.06399	0.06359	0.0004029
4/30/13	172	2688	1649	259 8	0.06399	0.06362	0.0003644
5/1/13	172	2688	1650	259 8	0.06399	0.06366	0.0003258
5/2/13	172	2688	1650	259 8	0.06399	0.06366	0.0003258
5/3/13	172	2688	1650	259 8	0.06399	0.06366	0.0003258
5/6/13	172	2688	1650	259 8	0.06399	0.06366	0.0003258
5/7/13	172	2688	1652	259 8	0.06399	0.06374	0.0002486
5/8/13	172	2688	1652	259 8	0.06399	0.06374	0.0002486
5/9/13	**172**	**2688**	**1654**	**259 8**	**0.06399**	**0.06382**	**0.0001714**
5/10/13	**172**	**2688**	**1657**	**259 8**	**0.06399**	**0.06393**	**0.0000557**
5/13/13	**172**	**2688**	**1658**	**259 8**	**0.06399**	**0.06397**	**0.0000171**
5/14/13	172	2688	1649	259 8	0.06399	0.06362	0.0003644
5/15/13	172	2688	1649	259 8	0.06399	0.06362	0.0003644
5/16/13	172	2688	1649	259 8	0.06399	0.06362	0.0003644
5/17/13	172	2688	1649	259 8	0.06399	0.06362	0.0003644
5/20/13	172	2688	1649	259 8	0.06399	0.06362	0.0003644
5/21/13	172	2688	1649	259 8	0.06399	0.06362	0.0003644
5/22/13	172	2688	1649	259 8	0.06399	0.06362	0.0003644
5/23/13	172	2688	1649	259 8	0.06399	0.06362	0.0003644
5/24/13	172	2688	1649	259 8	0.06399	0.06362	0.0003644
5/27/13	172	2688	1649	259 8	0.06399	0.06362	0.0003644
5/28/13	172	2688	1649	259 8	0.06399	0.06362	0.0003644
5/29/13	172	2688	1649	259 8	0.06399	0.06362	0.0003644
5/30/13	172	2688	1649	259 8	0.06399	0.06362	0.0003644
5/31/13	172	2688	1649	259 8	0.06399	0.06362	0.0003644
6/2/13	172	2688	1649	259 8	0.06399	0.06362	0.0003644
6/3/13	172	2688	1649	259 8	0.06399	0.06362	0.0003644
6/4/13	172	2688	1649	259 8	0.06399	0.06362	0.0003644
6/5/13	172	2688	1662	259 8	0.06399	0.06413	-0.0001372
6/6/13	**172**	**2688**	**1659**	**259 8**	**0.06399**	**0.06401**	**-0.0000215**
6/7/13	**172**	**2688**	**1659**	**259 8**	**0.06399**	**0.06401**	**-0.0000215**
6/10/13	**172**	**2688**	**1659**	**259 8**	**0.06399**	**0.06401**	**-0.0000215**
6/11/13	**172**	**2688**	**1659**	**259 8**	**0.06399**	**0.06401**	**-0.0000215**
6/12/13	**172**	**2688**	**1659**	**259 8**	**0.06399**	**0.06401**	**-0.0000215**
6/13/13	**172**	**2688**	**1659**	**259 8**	**0.06399**	**0.06401**	**-0.0000215**
6/14/13	**172**	**2688**	**1659**	**259 8**	**0.06399**	**0.06401**	**-0.0000215**
6/16/13	**172**	**2688**	**1659**	**259 8**	**0.06399**	**0.06401**	**-0.0000215**
6/17/13	**172**	**2688**	**1659**	**259 8**	**0.06399**	**0.06401**	**-0.0000215**
6/18/13	**172**	**2688**	**1659**	**259 8**	**0.06399**	**0.06401**	**-0.0000215**
6/20/13	**172**	**2688**	**1659**	**259 8**	**0.06399**	**0.06401**	**-0.0000215**
6/24/13	**172**	**2688**	**1659**	**259 8**	**0.06399**	**0.06401**	**-0.0000215**
6/25/13	**172**	**2688**	**1659**	**259 8**	**0.06399**	**0.06401**	**-0.0000215**
6/26/13	**172**	**2688**	**1659**	**259 8**	**0.06399**	**0.06401**	**-0.0000215**
6/27/13	172	2688	1662	259 8	0.06399	0.06413	-0.0001372
6/28/13	172	2688	1662	259 8	0.06399	0.06413	-0.0001372
6/29/13	172	2688	1662	259 8	0.06399	0.06413	-0.0001372
6/30/13	172	2688	1662	259 8	0.06399	0.06413	-0.0001372
7/1/13	172	2688	1663	259 8	0.06399	0.06416	-0.0001758
7/3/13	172	2688	1663	259 8	0.06399	0.06416	-0.0001758
7/5/13	172	2688	1663	259 8	0.06399	0.06416	-0.0001758
7/6/13	172	2688	1663	259 8	0.06399	0.06416	-0.0001758
7/8/13	172	2688	1663	259 8	0.06399	0.06416	-0.0001758
7/9/13	172	2688	1663	259 8	0.06399	0.06416	-0.0001758
7/11/13	172	2688	1663	259 8	0.06399	0.06416	-0.0001758
7/22/13	172	2688	1663	259 8	0.06399	0.06416	-0.0001758
7/24/13	172	2688	1666	259 8	0.06399	0.06428	-0.0002916
7/25/13	172	2688	1666	259 8	0.06399	0.06428	-0.0002916
7/26/13	172	2688	1666	259 8	0.06399	0.06428	-0.0002916
7/30/13	172	2688	1666	259 8	0.06399	0.06428	-0.0002916
8/5/13	172	2688	1666	259 8	0.06399	0.06428	-0.0002916
8/6/13	172	2688	1666	259 8	0.06399	0.06428	-0.0002916
8/16/13	172	2688	1666	259 8	0.06399	0.06428	-0.0002916
8/19/13	172	2688	1666	259 8	0.06399	0.06428	-0.0002916
8/26/13	172	2688	1666	259 8	0.06399	0.06428	-0.0002916
8/29/13	172	2688	1665	259 8	0.06399	0.06424	-0.0002530

*Bolded rows indicate the difference between the two admit rates is minimized given the number of applicants of each race and the total number of admits

Table B.1 3R: Admit rates for single-race African Americans and other domestic applicants by day, 2018

Date	Single-race African American admits	All other domestic admits	Single-race African American app icants	All other domestic applicants	Single-race African American admit rate	Other domestic admit rate	Single-race African American admit rate-Other domestic admit rate
3/1/14	159	1600	826	7931	0.19249	0.20174	-0.0092461
3/2/14	159	1600	2688	25411	0.05915	0.06296	-0.0038131
3/3/14	160	1608	2688	25411	0.05952	0.06328	-0.0037559
3/4/14	164	1632	2688	25411	0.06101	0.06422	-0.0032123
3/5/14	168	1658	2688	25411	0.06250	0.06525	-0.0027473
3/6/14	170	1684	2688	25411	0.06324	0.06627	-0.0030265
3/7/14	172	1707	2688	25411	0.06399	0.06718	-0.0031875
3/8/14	172	1711	2688	25411	0.06399	0.06733	-0.0033449
3/9/14	172	1711	2688	25411	0.06399	0.06733	-0.0033449
3/10/14	177	1745	2688	25411	0.06585	0.06867	-0.0028228
3/11/14	187	1792	2688	25411	0.06957	0.07052	-0.0009522
3/12/14	188	1808	2688	25411	0.06994	0.07115	-0.0012098
3/13/14	188	1824	2688	25411	0.06994	0.07178	-0.0018395
3/14/14	190	1826	2688	25411	0.07068	0.07186	-0.0011741
3/15/14	190	1826	2688	25411	0.07068	0.07186	-0.0011741
3/16/14	190	1826	2688	25411	0.07068	0.07186	-0.0011741
3/17/14	179	1659	2688	25411	0.06659	0.06529	0.0013056
3/18/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
3/19/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
3/20/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
3/21/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
3/22/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
3/23/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
3/24/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
3/25/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
3/26/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
3/27/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
3/28/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
3/29/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
3/30/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
3/31/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/1/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/2/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/3/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/4/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/5/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/6/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/7/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/8/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/9/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/10/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/11/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/12/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/13/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/14/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/15/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/16/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/17/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/18/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/19/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/20/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/21/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/22/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/23/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/24/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/25/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/26/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/27/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/28/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/29/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
4/30/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
5/1/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
5/2/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
5/3/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
5/4/14	178	1633	2688	25411	0.06622	0.06426	0.0019567
5/5/14	178	1632	2688	25411	0.06622	0.06422	0.0019961
5/6/14	178	1631	2688	25411	0.06622	0.06418	0.0020354
5/7/14	178	1631	2688	25411	0.06622	0.06418	0.0020354
5/8/14	178	1634	2688	25411	0.06622	0.06430	0.0019174
5/9/14	178	1640	2688	25411	0.06622	0.06454	0.0016813
5/12/14	178	1643	2688	25411	0.06622	0.06466	0.0015632
5/13/14	178	1644	2688	25411	0.06622	0.06470	0.0015238
5/14/14	178	1644	2688	25411	0.06622	0.06470	0.0015238
5/15/14	178	1644	2688	25411	0.06622	0.06470	0.0015238
5/16/14	178	1644	2688	25411	0.06622	0.06470	0.0015238
5/17/14	178	1644	2688	25411	0.06622	0.06470	0.0015238
5/18/14	178	1644	2688	25411	0.06622	0.06470	0.0015238
5/19/14	178	1644	2688	25411	0.06622	0.06470	0.0015238
5/20/14	178	1644	2688	25411	0.06622	0.06470	0.0015238
5/21/14	178	1644	2688	25411	0.06622	0.06470	0.0015238
5/22/14	178	1654	2688	25411	0.06622	0.06509	0.0011303
5/23/14	178	1654	2688	25411	0.06622	0.06509	0.0011303
5/24/14	178	1654	2688	25411	0.06622	0.06509	0.0011303
5/26/14	178	1654	2688	25411	0.06622	0.06509	0.0011303
5/27/14	178	1654	2688	25411	0.06622	0.06509	0.0011303
5/28/14	178	1654	2688	25411	0.06622	0.06509	0.0011303
5/29/14	178	1654	2688	25411	0.06622	0.06509	0.0011303
5/30/14	178	1654	2688	25411	0.06622	0.06509	0.0011303
6/2/14	178	1654	2688	25411	0.06622	0.06509	0.0011303
6/3/14	178	1654	2688	25411	0.06622	0.06509	0.0011303
6/4/14	178	1654	2688	25411	0.06622	0.06509	0.0011303
6/5/14	178	1654	2688	25411	0.06622	0.06509	0.0011303
6/9/14	178	1654	2688	25411	0.06622	0.06509	0.0011303
6/10/14	178	1654	2688	25411	0.06622	0.06509	0.0011303
6/11/14	178	1658	2688	25411	0.06622	0.06525	0.0009729
6/12/14	178	1658	2688	25411	0.06622	0.06525	0.0009729
6/13/14	178	1658	2688	25411	0.06622	0.06525	0.0009729
6/15/14	178	1658	2688	25411	0.06622	0.06525	0.0009729
6/16/14	178	1658	2688	25411	0.06622	0.06525	0.0009729
6/17/14	178	1659	2688	25411	0.06622	0.06529	0.0009336
6/18/14	178	1659	2688	25411	0.06622	0.06529	0.0009336
6/19/14	178	1659	2688	25411	0.06622	0.06529	0.0009336
6/20/14	178	1659	2688	25411	0.06622	0.06529	0.0009336
6/21/14	178	1659	2688	25411	0.06622	0.06529	0.0009336
6/22/14	178	1659	2688	25411	0.06622	0.06529	0.0009336
6/23/14	178	1659	2688	25411	0.06622	0.06529	0.0009336
6/24/14	178	1659	2688	25411	0.06622	0.06529	0.0009336
6/25/14	178	1659	2688	25411	0.06622	0.06529	0.0009336
6/26/14	178	1659	2688	25411	0.06622	0.06529	0.0009336
6/29/14	178	1659	2688	25411	0.06622	0.06529	0.0009336
7/1/14	178	1660	2688	25411	0.06622	0.06533	0.0008942
7/2/14	178	1660	2688	25411	0.06622	0.06533	0.0008942
7/3/14	178	1660	2688	25411	0.06622	0.06533	0.0008942
7/4/14	178	1660	2688	25411	0.06622	0.06533	0.0008942
7/7/14	178	1659	2688	25411	0.06622	0.06529	0.0009336
7/8/14	178	1659	2688	25411	0.06622	0.06529	0.0009336
7/9/14	178	1659	2688	25411	0.06622	0.06529	0.0009336
7/11/14	178	1659	2688	25411	0.06622	0.06529	0.0009336
7/17/14	178	1658	2688	25411	0.06622	0.06525	0.0009729
7/23/14	178	1658	2688	25411	0.06622	0.06525	0.0009729
7/28/14	178	1658	2688	25411	0.06622	0.06525	0.0009729
8/15/14	178	1658	2688	25411	0.06622	0.06525	0.0009729
8/24/14	178	1657	2688	25411	0.06622	0.06521	0.0010123
8/25/14	178	1657	2688	25411	0.06622	0.06521	0.0010123
8/26/14	178	1657	2688	25411	0.06622	0.06521	0.0010123
8/27/14	177	1657	2688	25411	0.06585	0.06521	0.0006402

Table B.1.4R: Admit rates for single-race African Americans and other domestic applicants by day, 2019

Date	Single-race African American admits	All other domestic admits	Single-race African American applicants	All other domestic applicants	Single-race African American admit rate	Other domestic admit rate	Single-race African American admit rate-Other domestic admit rate
3/1/15	153	1521	2899	27520	0.05278	0.05527	-0.0024921
3/2/15	153	1520	2899	27520	0.05278	0.05523	-0.0024557
3/4/15	153	1519	2899	27520	0.05278	0.05520	-0.0024194
3/6/15	153	1519	2899	27520	0.05278	0.05520	-0.0024194
3/8/15	153	1519	2899	27520	0.05278	0.05520	-0.0024194
3/9/15	153	1529	2899	27530	0.05278	0.05554	-0.0027626
3/10/15	153	1530	2899	27531	0.05278	0.05557	-0.0027969
3/11/15	153	1530	2899	27531	0.05278	0.05557	-0.0027969
3/12/15	153	1530	2899	27531	0.05278	0.05557	-0.0027969
3/13/15	153	1531	2899	27532	0.05278	0.05561	-0.0028312
3/14/15	192	1785	2904	27556	0.06612	0.06478	0.0013385
3/16/15	192	1784	2904	27556	0.06612	0.06474	0.0013748
3/17/15	192	1784	2904	27556	0.06612	0.06474	0.0013748
3/18/15	177	1651	2905	27565	0.06093	0.05989	0.0010346
3/19/15	171	1581	2905	27565	0.05886	0.05736	0.0015087
3/20/15	176	1600	2905	27565	0.06059	0.05804	0.0025406
3/23/15	176	1600	2905	27565	0.06059	0.05804	0.0025406
3/24/15	176	1600	2905	27565	0.06059	0.05804	0.0025406
3/25/15	176	1600	2905	27566	0.06059	0.05804	0.0025427
3/26/15	176	1600	2905	27566	0.06059	0.05804	0.0025427
3/30/15	176	1600	2905	27566	0.06059	0.05804	0.0025427
3/31/15	177	1600	2905	27566	0.06093	0.05804	0.0028869
4/1/15	177	1600	2905	27566	0.06093	0.05804	0.0028869
4/2/15	177	1600	2905	27566	0.06093	0.05804	0.0028869
4/3/15	177	1600	2905	27566	0.06093	0.05804	0.0028869
4/5/15	177	1600	2905	27566	0.06093	0.05804	0.0028869
4/6/15	177	1600	2905	27566	0.06093	0.05804	0.0028869
4/7/15	177	1600	2905	27566	0.06093	0.05804	0.0028869
4/8/15	177	1600	2905	27566	0.06093	0.05804	0.0028869
4/9/15	177	1600	2905	27566	0.06093	0.05804	0.0028869
4/10/15	177	1600	2905	27566	0.06093	0.05804	0.0028869
4/12/15	177	1600	2905	27566	0.06093	0.05804	0.0028869
4/13/15	177	1600	2905	27566	0.06093	0.05804	0.0028869
4/14/15	177	1600	2905	27566	0.06093	0.05804	0.0028869
4/15/15	177	1600	2905	27566	0.06093	0.05804	0.0028869
4/16/15	177	1600	2905	27566	0.06093	0.05804	0.0028869
4/17/15	177	1600	2905	27566	0.06093	0.05804	0.0028869
4/20/15	177	1600	2905	27566	0.06093	0.05804	0.0028869
4/21/15	177	1599	2905	27566	0.06093	0.05801	0.0029232
4/22/15	177	1599	2905	27566	0.06093	0.05801	0.0029232
4/24/15	177	1599	2905	27566	0.06093	0.05801	0.0029232
4/27/15	177	1599	2905	27566	0.06093	0.05801	0.0029232
4/28/15	176	1597	2905	27566	0.06059	0.05793	0.0026515
4/29/15	176	1597	2905	27566	0.06059	0.05793	0.0026515
4/30/15	176	1597	2905	27566	0.06059	0.05793	0.0026515
5/1/15	176	1597	2905	27566	0.06059	0.05793	0.0026515
5/2/15	176	1597	2905	27566	0.06059	0.05793	0.0026515
5/4/15	176	1597	2905	27566	0.06059	0.05793	0.0026515
5/5/15	176	1597	2905	27566	0.06059	0.05793	0.0026515
5/7/15	176	1597	2905	27566	0.06059	0.05793	0.0026515
5/11/15	176	1597	2905	27566	0.06059	0.05793	0.0026515
5/12/15	176	1597	2905	27566	0.06059	0.05793	0.0026515
5/14/15	176	1645	2905	27566	0.06059	0.05967	0.0009102
5/15/15	176	1645	2905	27566	0.06059	0.05967	0.0009102
5/18/15	176	1645	2905	27566	0.06059	0.05967	0.0009102
5/19/15	176	1645	2905	27566	0.06059	0.05967	0.0009102
5/20/15	176	1645	2905	27566	0.06059	0.05967	0.0009102
5/21/15	176	1645	2905	27566	0.06059	0.05967	0.0009102
5/22/15	176	1645	2905	27566	0.06059	0.05967	0.0009102
5/26/15	176	1645	2905	27566	0.06059	0.05967	0.0009102
5/27/15	176	1645	2905	27566	0.06059	0.05967	0.0009102
5/28/15	176	1645	2905	27566	0.06059	0.05967	0.0009102
6/1/15	176	1645	2905	27566	0.06059	0.05967	0.0009102
6/2/15	176	1645	2905	27566	0.06059	0.05967	0.0009102
6/3/15	176	1663	2905	27566	0.06059	0.06033	0.0002573
6/4/15	176	1662	2905	27566	0.06059	0.06029	0.0002935
6/5/15	176	1662	2905	27566	0.06059	0.06029	0.0002935
6/8/15	176	1662	2905	27566	0.06059	0.06029	0.0002935
6/9/15	176	1667	2905	27566	0.06059	0.06047	0.0001121
6/10/15	**176**	**1668**	**2905**	**27566**	**0.06059**	**0.06051**	**0.0000759**
6/11/15	**176**	**1668**	**2905**	**27566**	**0.06059**	**0.06051**	**0.0000759**
6/15/15	**176**	**1668**	**2905**	**27566**	**0.06059**	**0.06051**	**0.0000759**
6/16/15	**176**	**1668**	**2905**	**27566**	**0.06059**	**0.06051**	**0.0000759**
6/17/15	**176**	**1668**	**2905**	**27566**	**0.06059**	**0.06051**	**0.0000759**
6/19/15	**176**	**1668**	**2905**	**27566**	**0.06059**	**0.06051**	**0.0000759**
6/22/15	**176**	**1668**	**2905**	**27566**	**0.06059**	**0.06051**	**0.0000759**
6/23/15	**176**	**1668**	**2905**	**27566**	**0.06059**	**0.06051**	**0.0000759**
6/30/15	176	1678	2905	27566	0.06059	0.06087	-0.0002869
7/2/15	176	1678	2905	27566	0.06059	0.06087	-0.0002869
7/6/15	176	1678	2905	27566	0.06059	0.06087	-0.0002869
7/7/15	176	1678	2905	27566	0.06059	0.06087	-0.0002869
7/8/15	176	1678	2905	27566	0.06059	0.06087	-0.0002869
7/10/15	176	1678	2905	27566	0.06059	0.06087	-0.0002869
7/13/15	176	1678	2905	27566	0.06059	0.06087	-0.0002869
8/3/15	176	1678	2905	27566	0.06059	0.06087	-0.0002869
8/17/15	176	1678	2905	27566	0.06059	0.06087	-0.0002869
8/19/15	176	1678	2905	27566	0.06059	0.06087	-0.0002869
8/24/15	176	1678	2905	27566	0.06059	0.06087	-0.0002869

Table B.1.5R: Admit rates for single-race African Americans and other domestic applicants by day, 2014 (pre-IPEDS)

Date	Single-race African American admits	All other domestic admits	Single-race African American applicants	All other domestic applicants	Single-race African American admit rate	Other domestic admit rate	Single-race African American admit rate-Other domestic admit rate
3/1/10	126	1526	2209	22509	0.05704	0.06780	-0.01076
3/2/10	127	1597	2311	23169	0.05495	0.06893	-0.01397
3/3/10	129	1618	2311	23169	0.05582	0.06983	-0.01401
3/4/10	129	1637	2311	23169	0.05582	0.07065	-0.01483
3/5/10	143	1680	2311	23169	0.06188	0.07251	-0.01063
3/6/10	143	1681	2311	23169	0.06188	0.07255	-0.01068
3/8/10	153	1761	2311	23169	0.06621	0.07601	-0.00980
3/9/10	156	1800	2311	23169	0.06750	0.07769	-0.01019
3/10/10	158	1812	2311	23169	0.06837	0.07821	-0.00984
3/11/10	171	1855	2311	23169	0.07399	0.08006	-0.00607
3/12/10	180	1874	2311	23169	0.07789	0.08088	-0.00300
3/13/10	184	1894	2311	23169	0.07962	0.08175	-0.00213
3/15/10	183	1910	2311	23169	0.07919	0.08244	-0.00325
3/16/10	183	1911	2311	23169	0.07919	0.08248	-0.00329
3/17/10	183	1926	2312	23168	0.07915	0.08313	-0.00398
3/18/10	168	1803	2312	23168	0.07266	0.07782	-0.00516
3/19/10	164	1718	2312	23168	0.07093	0.07415	-0.00322
3/20/10	169	1755	2312	23168	0.07310	0.07575	-0.00265
3/21/10	169	1755	2312	23168	0.07310	0.07575	-0.00265
3/22/10	169	1755	2312	23168	0.07310	0.07575	-0.00265
3/23/10	170	1755	2312	23168	0.07353	0.07575	-0.00222
3/24/10	170	1755	2312	23168	0.07353	0.07575	-0.00222
3/25/10	170	1755	2312	23168	0.07353	0.07575	-0.00222
3/26/10	170	1755	2312	23168	0.07353	0.07575	-0.00222
3/29/10	170	1755	2312	23168	0.07353	0.07575	-0.00222
3/30/10	170	1753	2312	23167	0.07353	0.07567	-0.00214
3/31/10	170	1753	2312	23167	0.07353	0.07567	-0.00214
4/1/10	170	1753	2312	23168	0.07353	0.07566	-0.00214
4/6/10	170	1753	2312	23169	0.07353	0.07566	-0.00213
4/7/10	170	1754	2312	23170	0.07353	0.07570	-0.00217
4/12/10	170	1754	2312	23171	0.07353	0.07570	-0.00217
4/14/10	170	1754	2312	23171	0.07353	0.07570	-0.00217
4/15/10	170	1754	2312	23171	0.07353	0.07570	-0.00217
4/28/10	170	1754	2312	23171	0.07353	0.07570	-0.00217
4/29/10	170	1754	2312	23171	0.07353	0.07570	-0.00217
4/30/10	170	1754	2312	23171	0.07353	0.07570	-0.00217
5/3/10	170	1754	2312	23171	0.07353	0.07570	-0.00217
5/4/10	170	1756	2312	23171	0.07353	0.07578	-0.00225
5/5/10	170	1754	2312	23171	0.07353	0.07570	-0.00217
5/6/10	170	1754	2312	23171	0.07353	0.07570	-0.00217
5/7/10	170	1754	2312	23171	0.07353	0.07570	-0.00217
5/10/10	170	1754	2312	23171	0.07353	0.07570	-0.00217
5/11/10	170	1773	2312	23171	0.07353	0.07652	-0.00299
5/12/10	171	1801	2312	23171	0.07396	0.07773	-0.00376
5/13/10	171	1801	2312	23171	0.07396	0.07773	-0.00376
5/14/10	171	1801	2312	23170	0.07396	0.07773	-0.00377
5/17/10	171	1801	2312	23170	0.07396	0.07773	-0.00377
5/18/10	171	1801	2312	23171	0.07396	0.07773	-0.00376
5/19/10	171	1801	2312	23171	0.07396	0.07773	-0.00376
5/26/10	171	1802	2312	23171	0.07396	0.07777	-0.00381
6/1/10	171	1803	2312	23171	0.07396	0.07781	-0.00385
6/2/10	171	1803	2312	23171	0.07396	0.07781	-0.00385
6/3/10	171	1821	2312	23171	0.07396	0.07859	-0.00463
6/4/10	171	1821	2312	23171	0.07396	0.07859	-0.00463
6/8/10	171	1821	2312	23171	0.07396	0.07859	-0.00463
6/18/10	171	1821	2312	23171	0.07396	0.07859	-0.00463
6/25/10	172	1836	2312	23171	0.07439	0.07924	-0.00484
6/28/10	172	1835	2312	23171	0.07439	0.07919	-0.00480
6/29/10	172	1835	2312	23171	0.07439	0.07919	-0.00480
7/1/10	172	1835	2312	23171	0.07439	0.07919	-0.00480
7/22/10	172	1837	2312	23171	0.07439	0.07928	-0.00489
7/30/10	172	1838	2312	23171	0.07439	0.07932	-0.00493
8/2/10	172	1839	2312	23171	0.07439	0.07937	-0.00497
8/4/10	172	1838	2312	23171	0.07439	0.07932	-0.00493
8/9/10	172	1840	2312	23171	0.07439	0.07941	-0.00502
8/11/10	172	1840	2312	23171	0.07439	0.07941	-0.00502
8/17/10	172	1839	2312	23171	0.07439	0.07937	-0.00497

Table B.1.6R: Admit rates for single-race African Americans and other domestic applicants by day, 2015 (pre-IPEDs)

Date	Single-race African American admits	All other domestic admits	Single-race African American applicants	All other domestic applicants	Single-race African American admit rate	Other domestic admit rate	African American admit rate-Other domestic admit rate
3/2/11	177	1612	2884	26048	0.06137	0.06189	-0.00051
3/3/11	175	1613	2884	26048	0.06068	0.06192	-0.00124
3/4/11	177	1677	2884	26048	0.06137	0.06438	-0.00301
3/5/11	176	1683	2884	26048	0.06103	0.06461	-0.00359
3/6/11	176	1683	2884	26048	0.06103	0.06461	-0.00359
3/7/11	182	1731	2884	26048	0.06311	0.06645	-0.00335
3/8/11	191	1795	2884	26048	0.06623	0.06891	-0.00268
3/9/11	201	1847	2884	26048	0.06969	0.07091	-0.00121
3/10/11	200	1881	2884	26048	0.06935	0.07221	-0.00286
3/11/11	201	1943	2884	26048	0.06969	0.07459	-0.00490
3/12/11	205	1965	2884	26048	0.07108	0.07544	-0.00436
3/14/11	207	1989	2884	26048	0.07178	0.07636	-0.00458
3/15/11	209	2004	2884	26048	0.07247	0.07693	-0.00447
3/16/11	210	2010	2884	26048	0.07282	0.07717	-0.00435
3/17/11	196	1875	2884	26048	0.06796	0.07198	-0.00402
3/18/11	186	1748	2884	26049	0.06449	0.06710	-0.00261
3/19/11	188	1747	2884	26049	0.06519	0.06707	-0.00188
3/20/11	188	1747	2884	26049	0.06519	0.06707	-0.00188
3/21/11	188	1747	2884	26049	0.06519	0.06707	-0.00188
3/22/11	188	1748	2884	26049	0.06519	0.06710	-0.00192
3/23/11	188	1748	2884	26050	0.06519	0.06710	-0.00191
3/24/11	188	1750	2884	26050	0.06519	0.06718	-0.00199
3/25/11	188	1751	2884	26050	0.06519	0.06722	-0.00203
3/28/11	188	1751	2884	26052	0.06519	0.06721	-0.00202
3/29/11	188	1750	2884	26052	0.06519	0.06717	-0.00199
3/30/11	188	1751	2884	26052	0.06519	0.06721	-0.00202
4/8/11	188	1751	2884	26052	0.06519	0.06721	-0.00202
4/28/11	188	1749	2884	26052	0.06519	0.06713	-0.00195
5/4/11	188	1755	2884	26052	0.06519	0.06737	-0.00218
5/5/11	188	1757	2884	26052	0.06519	0.06744	-0.00225
5/6/11	188	1761	2884	26052	0.06519	0.06760	-0.00241
5/9/11	188	1765	2884	26052	0.06519	0.06775	-0.00256
5/10/11	188	1765	2884	26052	0.06519	0.06775	-0.00256
5/11/11	188	1769	2884	26052	0.06519	0.06790	-0.00272
5/12/11	188	1760	2884	26052	0.06519	0.06756	-0.00237
5/13/11	188	1760	2884	26052	0.06519	0.06756	-0.00237
5/16/11	188	1760	2884	26052	0.06519	0.06756	-0.00237
5/17/11	188	1760	2884	26052	0.06519	0.06756	-0.00237
5/19/11	188	1760	2884	26052	0.06519	0.06756	-0.00237
5/31/11	188	1769	2884	26052	0.06519	0.06790	-0.00272
6/1/11	188	1768	2884	26052	0.06519	0.06786	-0.00268
6/2/11	188	1768	2884	26052	0.06519	0.06786	-0.00268
6/3/11	188	1768	2884	26052	0.06519	0.06786	-0.00268
6/6/11	188	1768	2884	26052	0.06519	0.06786	-0.00268
6/14/11	188	1778	2884	26052	0.06519	0.06825	-0.00306
6/16/11	188	1775	2884	26052	0.06519	0.06813	-0.00295
6/17/11	188	1775	2884	26052	0.06519	0.06813	-0.00295
6/20/11	188	1775	2884	26052	0.06519	0.06813	-0.00295
6/21/11	188	1775	2884	26052	0.06519	0.06813	-0.00295
6/22/11	188	1775	2884	26052	0.06519	0.06813	-0.00295
6/23/11	188	1775	2884	26052	0.06519	0.06813	-0.00295
6/24/11	188	1775	2884	26052	0.06519	0.06813	-0.00295
6/25/11	188	1775	2884	26052	0.06519	0.06813	-0.00295
6/26/11	188	1775	2884	26052	0.06519	0.06813	-0.00295
6/27/11	188	1775	2884	26052	0.06519	0.06813	-0.00295
6/28/11	188	1779	2884	26052	0.06519	0.06829	-0.00310
6/29/11	188	1780	2884	26052	0.06519	0.06832	-0.00314
6/30/11	188	1780	2884	26052	0.06519	0.06832	-0.00314
7/1/11	188	1780	2884	26052	0.06519	0.06832	-0.00314
7/2/11	188	1780	2884	26052	0.06519	0.06832	-0.00314
7/5/11	188	1780	2884	26052	0.06519	0.06832	-0.00314
7/6/11	188	1780	2884	26052	0.06519	0.06832	-0.00314
7/8/11	188	1780	2884	26052	0.06519	0.06832	-0.00314
7/18/11	188	1780	2884	26052	0.06519	0.06832	-0.00314
7/22/11	188	1780	2884	26052	0.06519	0.06832	-0.00314
8/5/11	188	1780	2884	26052	0.06519	0.06832	-0.00314
8/15/11	188	1780	2884	26052	0.06519	0.06832	-0.00314
8/18/11	188	1780	2884	26052	0.06519	0.06832	-0.00314
8/29/11	188	1780	2884	26052	0.06519	0.06832	-0.00314

Table B.1.7R: Admit rates for single-race African Americans and other domestic applicants by day, 2016 (pre-IPEDS)

Date	Single-race African American admits	All other domestic admits	Single-race African American applicants	All other domestic applicants	Single-race African American admit rate	Other domestic admit rate	Single-race African American admit rate-Other domestic admit rate
3/1/12	142	1600	2567	24877	0.05532	0.06432	-0.00900
3/2/12	142	1594	2567	24881	0.05532	0.06406	-0.00875
3/3/12	140	1569	2567	24881	0.05454	0.06306	-0.00852
3/4/12	140	1569	2567	24882	0.05454	0.06306	-0.00852
3/5/12	141	1611	2645	25329	0.05331	0.06360	-0.01029
3/6/12	144	1641	2645	25329	0.05444	0.06479	-0.01035
3/7/12	144	1657	2645	25328	0.05444	0.06542	-0.01098
3/8/12	147	1677	2645	25328	0.05558	0.06621	-0.01063
3/9/12	150	1713	2645	25328	0.05671	0.06763	-0.01092
3/10/12	152	1753	2645	25328	0.05747	0.06921	-0.01175
3/11/12	152	1753	2645	25328	0.05747	0.06921	-0.01175
3/12/12	153	1775	2645	25328	0.05784	0.07008	-0.01224
3/13/12	157	1802	2645	25328	0.05936	0.07115	-0.01179
3/14/12	162	1807	2645	25328	0.06125	0.07134	-0.01010
3/15/12	166	1844	2645	25328	0.06276	0.07280	-0.01004
3/16/12	168	1860	2645	25328	0.06352	0.07344	-0.00992
3/17/12	163	1779	2645	25328	0.06163	0.07024	-0.00861
3/18/12	163	1779	2645	25328	0.06163	0.07024	-0.00861
3/19/12	148	1661	2645	25328	0.05595	0.06558	-0.00962
3/20/12	147	1675	2645	25328	0.05558	0.06613	-0.01056
3/21/12	147	1673	2645	25328	0.05558	0.06605	-0.01048
3/22/12	147	1673	2645	25328	0.05558	0.06605	-0.01048
3/23/12	147	1673	2646	25328	0.05556	0.06605	-0.01050
3/24/12	147	1673	2646	25328	0.05556	0.06605	-0.01050
3/25/12	147	1673	2646	25328	0.05556	0.06605	-0.01050
3/26/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
3/27/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
3/28/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
3/29/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
3/30/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
3/31/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/1/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/2/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/3/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/4/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/5/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/6/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/7/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/8/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/9/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/10/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/11/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/12/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/13/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/14/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/15/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/16/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/17/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/18/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/19/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/20/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/21/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/22/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/23/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/24/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/25/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/26/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/27/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/28/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/29/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
4/30/12	147	1673	2646	25329	0.05556	0.06605	-0.01050
5/1/12	147	1672	2646	25329	0.05556	0.06601	-0.01046
5/2/12	147	1672	2646	25329	0.05556	0.06601	-0.01046
5/3/12	147	1671	2646	25329	0.05556	0.06597	-0.01042
5/4/12	147	1671	2646	25329	0.05556	0.06597	-0.01042
5/7/12	147	1671	2646	25329	0.05556	0.06597	-0.01042
5/8/12	147	1671	2646	25329	0.05556	0.06597	-0.01042
5/9/12	147	1671	2646	25329	0.05556	0.06597	-0.01042
5/10/12	147	1688	2646	25329	0.05556	0.06664	-0.01109
5/11/12	147	1701	2646	25329	0.05556	0.06716	-0.01160
5/14/12	147	1692	2646	25329	0.05556	0.06680	-0.01125
5/15/12	147	1692	2646	25329	0.05556	0.06680	-0.01125
5/16/12	147	1692	2646	25329	0.05556	0.06680	-0.01125
5/17/12	147	1692	2646	25329	0.05556	0.06680	-0.01125
5/18/12	147	1692	2646	25329	0.05556	0.06680	-0.01125
5/19/12	147	1692	2646	25329	0.05556	0.06680	-0.01125
5/20/12	147	1692	2646	25329	0.05556	0.06680	-0.01125
5/21/12	147	1692	2646	25329	0.05556	0.06680	-0.01125
5/22/12	147	1692	2646	25329	0.05556	0.06680	-0.01125
5/23/12	147	1692	2646	25329	0.05556	0.06680	-0.01125
5/24/12	147	1692	2646	25329	0.05556	0.06680	-0.01125
5/25/12	147	1692	2646	25329	0.05556	0.06680	-0.01125
5/26/12	147	1692	2646	25329	0.05556	0.06680	-0.01125
5/28/12	147	1692	2646	25329	0.05556	0.06680	-0.01125
5/29/12	147	1692	2646	25329	0.05556	0.06680	-0.01125
5/30/12	147	1692	2646	25329	0.05556	0.06680	-0.01125
5/31/12	147	1708	2646	25329	0.05556	0.06743	-0.01188
6/1/12	147	1702	2646	25329	0.05556	0.06720	-0.01164
6/2/12	147	1702	2646	25329	0.05556	0.06720	-0.01164
6/4/12	147	1702	2646	25329	0.05556	0.06720	-0.01164
6/5/12	147	1702	2646	25329	0.05556	0.06720	-0.01164
6/6/12	147	1702	2646	25329	0.05556	0.06720	-0.01164
6/7/12	147	1702	2646	25329	0.05556	0.06720	-0.01164
6/8/12	147	1702	2646	25329	0.05556	0.06720	-0.01164
6/9/12	147	1702	2646	25329	0.05556	0.06720	-0.01164
6/11/12	147	1702	2646	25329	0.05556	0.06720	-0.01164
6/12/12	147	1707	2646	25329	0.05556	0.06739	-0.01184
6/13/12	147	1707	2646	25329	0.05556	0.06739	-0.01184
6/15/12	147	1707	2646	25329	0.05556	0.06739	-0.01184
6/16/12	147	1707	2646	25329	0.05556	0.06739	-0.01184
6/17/12	147	1707	2646	25329	0.05556	0.06739	-0.01184
6/18/12	147	1707	2646	25329	0.05556	0.06739	-0.01184
6/19/12	147	1707	2646	25329	0.05556	0.06739	-0.01184
6/20/12	147	1707	2646	25329	0.05556	0.06739	-0.01184
6/21/12	147	1707	2646	25329	0.05556	0.06739	-0.01184
6/22/12	147	1707	2646	25329	0.05556	0.06739	-0.01184
6/24/12	147	1707	2646	25329	0.05556	0.06739	-0.01184
6/25/12	147	1707	2646	25329	0.05556	0.06739	-0.01184
6/26/12	147	1711	2646	25329	0.05556	0.06755	-0.01200
6/28/12	147	1711	2646	25329	0.05556	0.06755	-0.01200
6/29/12	147	1711	2646	25329	0.05556	0.06755	-0.01200
6/30/12	147	1711	2646	25329	0.05556	0.06755	-0.01200
7/2/12	147	1711	2646	25329	0.05556	0.06755	-0.01200
7/3/12	147	1713	2646	25329	0.05556	0.06763	-0.01207
7/5/12	147	1713	2646	25329	0.05556	0.06763	-0.01207
7/9/12	147	1713	2646	25329	0.05556	0.06763	-0.01207
7/11/12	147	1713	2646	25329	0.05556	0.06763	-0.01207
7/13/12	147	1713	2646	25329	0.05556	0.06763	-0.01207
8/2/12	147	1713	2646	25329	0.05556	0.06763	-0.01207
8/10/12	147	1713	2646	25329	0.05556	0.06763	-0.01207
8/17/12	147	1713	2646	25329	0.05556	0.06763	-0.01207
8/20/12	147	1713	2646	25329	0.05556	0.06763	-0.01207

Table B.2.1R Admission Decisions by Race/Ethnicity and Year for the Baseline Sample

	Admission Status			
Race	Rejected	Waitlist Rejected	Admit	Observations
2014				
White	81.7	12.0	6.3	9,371
African American	86.1	4.6	9.4*	2,158
Hispanic	85.8	7.4	6.7	2,459
Asian American	81.8	12.1	6.2	6,186
2015				
White	83.5	11.2	5.3	10,416
African American	87.0	5.1	7.9*	2,810
Hispanic	86.4	7.0	6.6*	3,139
Asian American	83.6	11.3	5.1	7,184
2016				
White	84.4	10.5	5.1	9,417
African American	87.6	5.4	7.0*	2,604
Hispanic	86.7	7.6	5.6	2,904
Asian American	83.1	11.4	5.5	6,436
2017				
White	86.5	9.0	4.5	9,315
African American	90.0	3.0	7.0*	2,615
Hispanic	87.9	5.9	6.2*	2,911
Asian American	85.0	10.0	5.0	6,430
2018				
White	85.1	10.6	4.2	9,488
African American	87.4	4.9	7.7*	2,651
Hispanic	85.2	8.2	6.6*	3,086
Asian American	84.1	11.5	4.4	7,095
2019				
White	85.8	10.3	3.9*	9,575
African American	87.6	5.5	6.9*	2,826
Hispanic	87.8	6.8	5.4	3,471
Asian American	83.4	11.8	4.8	7,084

A * indicates statistically different at the 5% level

* Constructed using results from basicFreqs.do

Table B.2.2R Admission Decisions by Race/Ethnicity and Year for the Expanded Sample

	Admission Status			
Race	Rejected	Waitlist Rejected	Admit	Observations
2014				
White	78.5	13.2	8.2*	10,055
African American	85.3	4.9	9.8*	2,204
Hispanic	85.1	7.8	7.1	2,496
Asian American	81.2	12.3	6.5	6,288
2015				
White	80.3	12.9	6.8*	11,101
African American	86.6	5.2	8.1*	2,858
Hispanic	85.6	7.4	7.0*	3,191
Asian American	82.9	11.6	5.5	7,284
2016				
White	80.8	12.2	7.0*	10,111
African American	87.3	5.6	7.1	2,653
Hispanic	85.7	8.2	6.1	2,970
Asian American	82.1	11.8	6.1	6,559
2017				
White	82.9	10.5	6.6*	9,979
African American	89.3	3.1	7.6*	2,666
Hispanic	87.1	6.2	6.7	2,963
Asian American	84.0	10.3	5.7	6,553
2018				
White	81.7	12.0	6.3*	10,174
African American	86.8	5.2	7.9*	2,697
Hispanic	84.1	8.6	7.3*	3,162
Asian American	83.2	11.8	5.0	7,213
2019				
White	82.5	11.8	5.7	10,237
African American	86.9	5.6	7.5*	2,881
Hispanic	86.8	7.2	6.1	3,540
Asian American	82.4	12.0	5.6	7,245

A * indicates statistically different at the 5% level

* Constructed using results from basicFreqs.do

Table B.2.3R Admission Decisions by Race/Ethnicity and Year for the Baseline Sample without Early Applicants

		Admission Status		
Race	Rejected	Waitlist Rejected	Admit	Observations
2014				
White	81.7	12.0	6.3	9,371
African American	86.1	4.6	9.4*	2,158
Hispanic	85.8	7.4	6.7	2,459
Asian American	81.8	12.1	6.2	6,186
2015				
White	83.5	11.2	5.3	10,416
African American	87.0	5.1	7.9*	2,810
Hispanic	86.4	7.0	6.6*	3,139
Asian American	83.6	11.3	5.1	7,184
2016				
White	85.7	10.4	3.9	8,253
African American	89.3	5.7	5.0*	2,291
Hispanic	88.2	7.5	4.3	2,585
Asian American	85.4	10.8	3.8	5,626
2017				
White	87.6	9.1	3.2	8,058
African American	91.4	2.8	5.8*	2,271
Hispanic	89.2	5.9	4.9*	2,575
Asian American	87.4	9.6	3.0	5,541
2018				
White	86.1	11.0	2.9	8,225
African American	89.1	5.5	5.5*	2,306
Hispanic	86.2	8.9	4.9*	2,738
Asian American	86.0	11.6	2.4	6,178
2019				
White	86.6	10.8	2.6	8,047
African American	88.9	6.0	5.1*	2,394
Hispanic	88.6	7.4	4.0*	2,972
Asian American	85.2	12.0	2.8	5,990

A * indicates statistically different at the 5% level

* Constructed using results from basicFreqs.do

Table B.3.1R: Application summary statistics by race, baseline sample

	White			African American			Hispanic			Asian American			Total		
	Reject	Admit	Total	Reject	Admit	Total	Reject	Admit	Total	Reject	Admit	Total	Reject	Admit	Total
Admitted	0.00	100.00	4.89	0.00	100.00	7.58	0.00	100.00	6.16	0.00	100.00	5.13	0.00	100.00	5.45
Female	45.75	43.14	45.62	59.98	55.01	59.61	50.70	45.98	50.41	49.12	52.65	49.30	49.23	48.73	49.21
Disadvantaged	5.94	14.61	6.36	29.27	28.48	29.21	23.47	37.40	24.33	10.26	21.86	10.85	12.03	22.11	12.58
First-generation college	4.29	4.05	4.28	14.41	7.67	13.90	22.03	19.96	21.90	7.98	9.65	8.07	8.77	8.54	8.76
Mother highest ed: no college	21.98	18.27	21.80	44.47	29.06	43.30	52.01	43.99	51.51	25.93	26.06	25.93	29.42	25.86	29.23
Mother highest ed: BA degree	37.92	33.65	37.71	27.33	27.46	27.34	25.70	26.29	25.73	30.87	23.46	30.49	32.86	28.75	32.63
Mother highest ed: MA degree	25.74	29.00	25.90	18.73	27.30	19.38	14.51	18.61	14.76	27.80	33.20	28.08	24.29	28.49	24.52
Mother highest ed: PhD/JD/MD degree	12.12	17.24	12.37	6.82	13.65	7.34	5.83	8.94	6.02	9.83	11.58	9.92	10.07	13.73	10.27
Mother highest ed: Missing	0.02	0.02	0.02	0.03	0.03	0.03	0.02	0.02	0.02	0.06	0.06	0.06	0.03	0.03	0.03
Father highest ed: no college	21.29	20.22	21.23	51.02	32.69	49.63	51.29	46.43	50.99	18.98	21.38	19.10	27.52	26.23	27.45
Father highest ed: BA degree	29.79	25.27	29.57	20.68	20.22	20.65	20.71	19.33	20.62	19.10	12.69	18.77	24.09	19.84	23.86
Father highest ed: MA degree	24.71	26.26	24.79	15.94	22.49	16.43	15.03	17.80	15.20	31.86	29.34	31.73	24.93	25.41	24.96
Father highest ed: PhD/JD/MD degree	21.65	26.12	21.86	9.17	20.22	10.00	10.50	14.27	10.73	23.03	30.26	23.40	19.36	24.74	19.66
Father highest ed: Missing	0.03	0.02	0.03	0.03	0.04	0.03	0.02	0.02	0.02	0.07	0.06	0.07	0.04	0.04	0.04
Application read by 3rd reader	10.94	94.78	15.03	11.69	95.11	18.02	13.76	97.11	18.90	12.18	96.14	16.48	11.84	95.57	16.41
Missing alumni rating	22.10	2.38	21.14	26.87	2.44	25.02	29.98	1.99	28.25	20.25	1.79	19.30	23.00	2.12	21.86
Applied for fee waiver	8.00	12.15	8.20	43.81	28.14	42.63	35.57	35.59	35.58	12.88	18.39	13.16	16.93	19.75	17.08
Financial Aid	73.83	72.17	73.75	93.68	90.73	93.46	88.54	88.98	88.56	76.37	77.27	76.41	78.42	79.07	78.45
SAT1 math (z-score)	0.12	0.56	0.15	-1.17	0.14	-1.07	-0.69	0.28	-0.63	0.41	0.77	0.43	-0.03	0.51	0.00
	(0.82)	(0.50)	(0.81)	(1.07)	(0.67)	(1.10)	(1.05)	(0.64)	(1.05)	(0.73)	(0.37)	(0.72)	(1.00)	(0.57)	(0.99)
SAT1 verbal (z-score)	0.31	0.72	0.33	-0.77	0.41	-0.68	-0.45	0.44	-0.39	0.31	0.74	0.33	0.09	0.64	0.12
	(0.76)	(0.43)	(0.75)	(1.07)	(0.56)	(1.08)	(1.05)	(0.59)	(1.05)	(0.80)	(0.41)	(0.79)	(0.94)	(0.50)	(0.93)
SAT2 avg (z-score)	-0.01	0.58	0.03	-1.24	0.15	-1.10	-0.61	0.41	-0.53	0.32	0.81	0.35	-0.08	0.55	-0.04
	(0.86)	(0.50)	(0.85)	(1.13)	(0.62)	(1.17)	(1.04)	(0.54)	(1.04)	(0.82)	(0.38)	(0.81)	(1.01)	(0.55)	(1.00)
Never took SAT2	12.35	1.74	11.83	28.28	2.44	26.32	17.87	2.35	16.91	5.16	0.34	4.91	12.62	1.63	12.02
Standardized high school GPA (z-score)	0.17	0.50	0.18	-0.51	0.31	-0.45	-0.08	0.45	-0.04	0.21	0.52	0.22	0.07	0.47	0.09
	(0.86)	(0.52)	(0.85)	(1.18)	(0.76)	(1.17)	(0.97)	(0.62)	(0.97)	(0.82)	(0.47)	(0.81)	(0.93)	(0.57)	(0.92)
Academic index (z-score)	0.16	0.76	0.19	-1.23	0.33	-1.11	-0.63	0.50	-0.56	0.39	0.91	0.42	-0.02	0.69	0.01
	(0.80)	(0.38)	(0.79)	(1.12)	(0.52)	(1.16)	(1.01)	(0.46)	(1.02)	(0.78)	(0.32)	(0.77)	(1.01)	(0.46)	(1.00)
Academic index percentile	0.52	0.75	0.53	0.19	0.56	0.21	0.30	0.63	0.32	(0.78)	0.83	0.63	0.49	0.73	0.50
	(0.26)	(0.19)	(0.26)	(0.18)	(0.21)	(0.21)	(0.23)	(0.21)	(0.24)	(0.27)	(0.16)	(0.27)	(0.29)	(0.21)	(0.29)
Number of AP tests taken	4.08	5.91	4.16	2.11	5.06	2.33	3.52	6.20	3.68	5.60	7.50	5.68	4.28	6.27	4.37
	(3.91)	(3.85)	(3.93)	(3.14)	(3.85)	(3.29)	(3.82)	(3.83)	(3.87)	(4.07)	(3.38)	(4.06)	(4.02)	(3.81)	(4.04)
Average score of AP tests	4.39	4.74	4.41	3.78	4.51	3.88	3.96	4.55	4.02	4.48	4.82	4.50	4.34	4.70	4.36
	(0.59)	(0.34)	(0.58)	(0.78)	(0.42)	(0.78)	(0.75)	(0.47)	(0.75)	(0.56)	(0.28)	(0.55)	(0.65)	(0.38)	(0.64)
N	54,768	2,814	57,582	14,477	1,187	15,664	16,863	1,107	17,970	38,343	2,072	40,415	134,944	7,784	142,728

*Constructed using results from sumStatsTablesPoolRej.do

Table B.3.2R: Application summary statistics by race, expanded sample

	White			African American			Hispanic			Asian American			Total		
	Reject	Admit	Total	Reject	Admit	Total	Reject	Admit	Total	Reject	Admit	Total	Reject	Admit	Total
Admitted	0.00	100.00	6.77	0.00	100.00	7.95	0.00	100.00	6.71	0.00	100.00	5.69	0.00	100.00	6.60
Female	45.76	44.37	45.67	59.87	55.60	59.53	50.71	46.14	50.40	49.13	51.84	49.29	49.20	48.66	49.17
Disadvantaged	5.69	10.03	5.99	28.98	26.89	28.82	23.23	34.01	23.95	10.16	19.73	10.71	11.74	17.82	12.14
First-generation college	4.14	3.11	4.07	14.27	7.18	13.70	21.79	18.06	21.54	7.91	8.67	7.95	8.56	7.01	8.46
Early action applicant	8.94	31.59	10.47	8.13	24.76	9.45	7.65	25.79	8.87	8.22	33.60	9.67	8.60	31.07	10.09
Legacy	3.44	24.50	4.87	1.12	5.21	1.45	0.93	7.16	1.35	0.77	6.92	1.12	2.08	15.05	2.94
Faculty child	0.03	0.79	0.08	0.00	0.00	0.00	0.01	0.16	0.02	0.00	0.56	0.03	0.01	0.61	0.05
Staff child	0.13	1.03	0.19	0.05	0.16	0.06	0.05	0.49	0.08	0.11	1.11	0.17	0.11	0.87	0.16
Dean / Director's List	1.60	15.92	2.57	0.38	2.13	0.52	0.46	4.56	0.73	0.37	5.64	0.67	0.95	10.08	1.56
Mother highest ed: no college	21.27	13.58	20.75	44.14	27.52	42.82	51.54	40.44	50.79	25.73	23.70	25.62	28.84	21.48	28.35
Mother highest ed: BA degree	37.58	31.59	37.18	27.21	26.89	27.19	25.68	25.39	25.66	30.79	23.19	30.36	32.74	27.89	32.42
Mother highest ed: MA degree	26.00	29.86	26.26	18.79	27.21	19.46	14.68	19.93	15.04	27.85	33.30	28.16	24.48	29.20	24.79
Mother highest ed: PhD/JD/MD degre	12.95	23.32	13.65	7.24	15.93	7.93	6.11	12.04	6.51	10.07	14.26	10.31	10.62	18.58	11.14
Mother highest ed: Missing	0.02	0.02	0.02	0.03	0.02	0.03	0.02	0.02	0.02	0.06	0.06	0.06	0.03	0.03	0.03
Father highest ed: no college	20.49	14.46	20.08	50.54	31.07	48.99	50.76	42.23	50.19	18.80	19.39	18.83	26.90	21.47	26.54
Father highest ed: BA degree	29.37	22.82	28.93	20.65	19.79	20.58	20.69	18.23	20.53	19.04	12.47	18.67	23.96	18.95	23.63
Father highest ed: MA degree	24.90	28.26	25.13	16.07	22.63	16.59	15.14	19.45	15.43	31.80	30.49	31.72	25.03	27.02	25.16
Father highest ed: PhD/JD/MD degree	22.73	32.78	23.41	9.56	22.32	10.58	10.88	17.90	11.35	23.34	31.77	23.82	20.07	29.31	20.68
Father highest ed: Missing	0.03	0.02	0.02	0.03	0.04	0.03	0.03	0.02	0.02	0.07	0.06	0.07	0.04	0.03	0.04
Application read by 3rd reader	12.72	93.39	18.18	12.07	94.40	18.61	14.23	96.42	19.74	12.60	95.35	17.31	12.88	94.36	18.26
Applied for fee waiver	7.71	8.48	7.76	43.41	26.74	42.09	35.21	32.22	35.01	12.77	16.52	12.98	16.53	15.93	16.49
Financial Aid	72.27	56.54	71.20	93.32	88.01	92.90	88.03	82.83	87.68	75.94	71.56	75.69	77.41	67.99	76.78
Missing alumni rating	21.49	2.71	20.22	26.70	2.37	24.77	29.72	2.12	27.87	20.11	1.84	19.07	22.62	2.33	21.28
SAT1 math (z-score)	0.12	0.52	0.15	-1.17	0.13	-1.06	-0.69	0.28	-0.62	0.41	0.75	0.43	-0.03	0.50	0.00
	(0.81)	(0.52)	(0.80)	(1.07)	(0.67)	(1.10)	(1.05)	(0.64)	(1.05)	(0.73)	(0.39)	(0.72)	(1.00)	(0.57)	(0.98)
SAT1 verbal (z-score)	0.31	0.69	0.34	-0.77	0.41	-0.67	-0.44	0.45	-0.38	0.31	0.73	0.33	0.10	0.63	0.13
	(0.75)	(0.44)	(0.74)	(1.07)	(0.57)	(1.08)	(1.05)	(0.58)	(1.05)	(0.80)	(0.42)	(0.79)	(0.93)	(0.49)	(0.92)
SAT2 avg (z-score)	0.00	0.55	0.04	-1.23	0.14	-1.09	-0.60	0.41	-0.52	0.32	0.79	0.35	-0.07	0.54	-0.03
	(0.85)	(0.52)	(0.85)	(1.13)	(0.62)	(1.17)	(1.04)	(0.54)	(1.04)	(0.82)	(0.40)	(0.81)	(1.00)	(0.55)	(0.99)
Never took SAT2	12.00	1.39	11.28	28.14	2.29	26.09	17.73	2.12	16.68	5.13	0.34	4.86	12.42	1.42	11.69
Standardized high school GPA (z-score	0.15	0.36	0.16	-0.51	0.28	-0.45	-0.08	0.42	-0.05	0.20	0.48	0.22	0.06	0.39	0.08
	(0.87)	(0.61)	(0.85)	(1.18)	(0.76)	(1.17)	(0.97)	(0.63)	(0.96)	(0.83)	(0.51)	(0.81)	(0.94)	(0.62)	(0.92)
Academic index (z-score)	0.52	0.72	0.53	0.19	0.55	0.22	0.30	0.63	0.32	0.62	0.82	0.63	0.48	0.71	0.50
	(0.26)	(0.20)	(0.26)	(0.18)	(0.21)	(0.21)	(0.23)	(0.21)	(0.24)	(0.27)	(0.17)	(0.27)	(0.29)	(0.22)	(0.29)
Academic index percentile	0.15	0.69	0.19	-1.23	0.32	-1.10	-0.62	0.50	-0.55	0.39	0.89	0.41	-0.02	0.66	0.02
	(0.79)	(0.44)	(0.79)	(1.12)	(0.52)	(1.16)	(1.01)	(0.46)	(1.02)	(0.78)	(0.35)	(0.77)	(1.00)	(0.47)	(0.99)
Number of AP tests taken	4.05	5.44	4.13	2.10	4.85	2.31	3.52	6.04	3.68	5.58	7.18	5.66	4.25	5.89	4.35
	(3.90)	(3.83)	(3.91)	(3.13)	(3.88)	(3.28)	(3.81)	(3.85)	(3.87)	(4.07)	(3.53)	(4.06)	(4.02)	(3.84)	(4.03)
Average score of AP tests	4.40	4.75	4.42	3.78	4.51	3.89	3.97	4.57	4.03	4.48	4.81	4.50	4.34	4.71	4.37
	(0.58)	(0.34)	(0.58)	(0.78)	(0.42)	(0.78)	(0.75)	(0.46)	(0.75)	(0.56)	(0.28)	(0.55)	(0.64)	(0.37)	(0.63)
N	57,481	4,176	61,657	14,691	1,268	15,959	17,093	1,229	18,322	38,800	2,342	41,142	138,944	9,825	148,769

* Constructed using results from sumStatsTablesPoolRej.do

*Taken from Table 6

Table B.4.1R: Application rating summary statistics by race, expanded sample

	White			African American			Hispanic			Asian American		
	Reject	Admit	Total	Reject	Admit	Total	Reject	Admit	Total	Reject	Admit	Total
Academic rating												
<3-	10.24	0.26	9.57	54.78	0.08	50.44	37.49	0.00	34.97	8.42	0.00	7.94
=3-, 3, or 3+	46.73	14.37	44.54	40.15	41.56	40.27	48.80	34.09	47.81	33.32	6.62	31.80
>3+	43.02	85.37	45.89	5.06	58.36	9.30	13.71	65.91	17.21	58.26	93.38	60.26
Extracurricular rating												
<3-	3.68	0.62	3.47	7.95	0.79	7.38	5.96	1.30	5.65	2.02	0.21	1.92
=3-, 3, or 3+	74.23	31.92	71.37	79.34	46.96	76.77	79.70	42.72	77.22	72.45	23.57	69.66
>3+	22.09	67.46	25.16	12.71	52.25	15.85	14.33	55.98	17.13	25.53	76.22	28.42
Athletic rating												
<3-	33.21	29.83	32.98	43.44	35.99	42.84	43.16	39.32	42.90	46.82	46.15	46.78
=3-, 3, or 3+	53.99	46.57	53.49	50.19	48.68	50.07	49.66	44.29	49.30	48.37	45.29	48.20
>3+	12.80	23.60	13.53	6.38	15.32	7.09	7.18	16.39	7.80	4.81	8.56	5.02
Personal rating												
<3-	0.45	0.05	0.42	0.51	0.00	0.47	0.51	0.00	0.48	0.51	0.00	0.48
=3-, 3, or 3+	81.11	20.62	77.01	84.85	25.24	80.12	84.55	23.52	80.46	84.79	28.22	81.57
>3+	18.44	79.33	22.57	14.63	74.76	19.41	14.94	76.48	19.06	14.71	71.78	17.95
Teacher 1 rating												
<3-	0.57	0.00	0.53	1.11	0.00	1.01	0.90	0.00	0.83	0.51	0.00	0.48
=3-, 3, or 3+	70.61	27.59	67.61	83.61	40.06	79.77	78.55	38.24	75.63	70.43	27.04	67.90
>3+	28.83	72.41	31.86	15.28	59.94	19.21	20.55	61.76	23.54	29.06	72.96	31.61
Teacher 2 rating												
<3-	0.47	0.05	0.44	0.82	0.00	0.73	0.81	0.00	0.74	0.50	0.04	0.47
=3-, 3, or 3+	69.24	28.09	66.00	82.43	41.66	78.07	77.53	34.15	73.81	69.97	26.57	67.19
>3+	30.28	71.86	33.56	16.75	58.34	21.21	21.66	65.85	25.45	29.53	73.39	32.34
School counselor rating												
<3-	0.62	0.00	0.58	1.97	0.00	1.80	1.27	0.00	1.18	0.63	0.00	0.60
=3-, 3, or 3+	75.39	27.88	72.04	86.42	41.70	82.47	83.45	40.59	80.35	75.87	27.44	73.02
>3+	23.99	72.12	27.39	11.61	58.30	15.74	15.28	59.41	18.47	23.49	72.56	26.38
Alumni Personal rating												
<3-	7.30	0.74	6.76	10.49	1.13	9.52	10.16	0.42	9.28	8.26	0.56	7.73
=3-, 3, or 3+	31.22	8.51	29.34	35.79	9.67	33.10	35.46	6.48	32.83	31.49	6.90	29.79
>3+	61.48	90.75	63.90	53.72	89.20	57.38	54.38	93.11	57.90	60.24	92.53	62.47
Alumni Overall rating												
<3-	18.30	1.33	16.89	41.04	2.43	36.95	33.83	1.75	30.85	16.90	0.83	15.78
=3-, 3, or 3+	37.39	13.85	35.43	35.52	22.96	34.19	36.89	16.38	34.99	34.73	8.44	32.90
>3+	44.31	84.82	47.68	23.44	74.62	28.85	29.28	81.88	34.16	48.37	90.74	51.33
N	57,481	4,176	61,657	14,691	1,268	15,959	17,093	1,229	18,322	38,800	2,342	41,142

* Constructed using results from sumStatsSubRatTablesPoolRej.do

Table B.5.1R: Number and Share of Applicants by Race/Ethnicity and Academic Index Decile, Expanded Sample

	Numer of Applicants in Each Decile					Share of Applicants in each Decile				
Academic Index Decile	Whites	African American	Hispanic	Asian American	Total	Whites	African American	Hispanic	Asian American	Total
1	2,948	5,997	3,600	1,528	14,847	4.79	37.73	19.69	3.72	10.01
2	4,690	3,659	3,799	2,087	15,130	7.62	23.02	20.78	5.09	10.20
3	6,475	2,335	2,974	2,696	15,632	10.52	14.69	16.27	6.57	10.53
4	6,832	1,315	2,228	3,087	14,556	11.11	8.27	12.19	7.52	9.81
5	8,196	944	1,764	3,968	16,224	13.32	5.94	9.65	9.67	10.93
6	6,421	519	1,118	3,698	12,818	10.44	3.26	6.12	9.01	8.64
7	7,556	462	984	4,613	14,843	12.28	2.91	5.38	11.24	10.00
8	6,940	330	850	5,406	14,891	11.28	2.08	4.65	13.17	10.03
9	6,160	197	564	6,631	14,939	10.01	1.24	3.09	16.16	10.07
10	5,303	138	401	7,321	14,512	8.62	0.87	2.19	17.84	9.78
Total	61,521	15,896	18,282	41,035	148,392					

Table B.5.2R: Admit Rates by Race/Ethnicity and Academic Index Decile, Expanded Sample

Academic Index Decile	Whites	African American	Hispanic	Asian American	Total
1	0.27%	0.07%	0.00%	0.07%	0.10%
2	1.11%	1.12%	0.45%	0.34%	0.84%
3	1.56%	5.57%	2.05%	0.85%	2.20%
4	3.26%	13.38%	6.01%	1.36%	4.26%
5	4.12%	23.73%	9.98%	2.32%	5.58%
6	6.34%	30.25%	14.67%	3.11%	7.19%
7	6.87%	42.64%	18.39%	4.66%	8.11%
8	10.19%	44.85%	23.88%	5.92%	9.91%
9	14.09%	54.82%	26.95%	8.28%	12.37%
10	17.95%	57.25%	34.66%	13.35%	16.24%
Average	6.79%	7.95%	6.71%	5.70%	6.61%

Table B.5.3R: Share Receiving a Two or Higher on the Academic and Extracurricular Ratings by Race/Ethnicity and Academic Index Decile, Expanded Sample

	Academic Rating					Extracurricular Rating				
Academic Index Decile	Whites	African American	Hispanic	Asian American	Total	Whites	African American	Hispanic	Asian American	Total
1	0.10%	0.02%	0.03%	0.00%	0.05%	11.64%	9.09%	9.33%	13.09%	10.21%
2	0.41%	0.08%	0.05%	0.53%	0.24%	16.84%	13.94%	12.87%	15.91%	15.02%
3	1.92%	0.94%	0.71%	1.37%	1.47%	20.69%	18.97%	15.97%	18.81%	19.30%
4	9.66%	6.24%	4.53%	8.07%	8.25%	22.44%	23.80%	18.81%	21.77%	21.96%
5	27.16%	23.09%	17.74%	26.66%	25.91%	24.34%	24.15%	20.98%	23.61%	24.01%
6	51.55%	48.75%	43.92%	51.46%	50.88%	26.04%	26.40%	23.97%	25.77%	25.97%
7	68.99%	68.61%	64.94%	71.84%	69.88%	27.81%	28.14%	27.95%	28.51%	28.14%
8	83.23%	80.61%	80.12%	86.31%	84.27%	28.29%	28.18%	24.82%	30.10%	28.69%
9	93.62%	93.40%	91.49%	95.16%	94.34%	31.48%	32.49%	29.43%	35.15%	33.33%
10	97.28%	94.93%	95.51%	98.09%	97.69%	34.04%	39.86%	30.42%	38.21%	36.47%
Average	45.93%	9.29%	17.22%	60.26%	42.72%	25.16%	15.84%	17.13%	28.44%	24.22%

Table B.5.4R: Share Receiving a Two or Higher on School Support Measures by Race/Ethnicity and Academic Index Decile, Expanded Sample

	Teacher 1					Teacher 2					Counselor				
Academic Index Decile	Whites	African American	Hispanic	Asian American	Total	Whites	African American	Hispanic	Asian American	Total	Whites	African American	Hispanic	Asian American	Total
1	7.73%	7.80%	8.86%	7.40%	8.10%	6.24%	5.47%	6.42%	6.61%	6.05%	4.68%	4.94%	5.75%	5.76%	5.23%
2	13.41%	13.94%	13.90%	13.99%	13.65%	10.51%	11.48%	11.13%	11.69%	11.10%	9.34%	10.85%	10.27%	9.20%	9.95%
3	19.17%	19.53%	19.94%	17.25%	19.06%	15.69%	17.13%	17.82%	13.91%	16.11%	14.69%	16.96%	14.93%	12.50%	14.64%
4	24.30%	25.78%	23.79%	21.15%	23.64%	21.66%	22.74%	21.01%	18.33%	20.98%	19.25%	20.53%	17.64%	15.06%	18.19%
5	26.88%	29.87%	30.22%	22.88%	26.46%	23.88%	31.78%	25.74%	20.19%	23.63%	22.63%	27.01%	21.43%	17.84%	21.57%
6	32.89%	36.42%	31.84%	26.66%	31.04%	28.27%	35.65%	28.71%	24.36%	27.47%	26.51%	32.56%	25.40%	22.88%	25.54%
7	35.49%	40.91%	35.77%	30.48%	34.00%	31.55%	35.28%	33.13%	26.51%	29.99%	30.21%	36.58%	31.10%	25.19%	28.73%
8	40.76%	46.97%	38.00%	33.44%	37.47%	37.41%	40.30%	37.65%	30.00%	34.22%	35.36%	38.48%	34.71%	28.12%	32.16%
9	45.78%	47.72%	43.97%	40.05%	42.89%	42.60%	42.64%	39.36%	36.54%	39.51%	40.29%	44.16%	35.46%	34.17%	37.12%
10	50.74%	56.52%	50.37%	46.71%	48.44%	47.82%	50.72%	50.37%	42.04%	44.57%	45.75%	50.00%	47.38%	38.61%	41.67%
Average	31.04%	17.36%	21.79%	30.97%	28.32%	27.77%	14.98%	19.13%	27.62%	25.22%	26.08%	14.06%	16.89%	25.37%	23.34%

Table B.5.5R: Share Receiving a Two or Higher on the Personal Raing and Alumni Interview Personal Rating by Race/Ethnicity and Academic Index Decile, Expanded Sample

	Personal					Alumni Personal				
Academic Index Decile	Whites	African American	Hispanic	Asian American	Total	Whites	African American	Hispanic	Asian American	Total
1	8.45%	9.70%	8.50%	8.18%	9.02%	26.80%	31.17%	26.33%	28.53%	28.48%
2	13.41%	15.96%	13.40%	12.84%	13.94%	34.65%	39.96%	33.59%	32.20%	35.29%
3	17.10%	23.68%	17.82%	13.69%	17.67%	40.82%	47.07%	38.97%	36.57%	40.72%
4	20.16%	29.43%	20.92%	14.58%	19.90%	45.67%	55.89%	44.39%	41.08%	45.56%
5	21.80%	34.96%	26.08%	15.83%	21.53%	49.78%	60.28%	51.02%	44.66%	49.27%
6	24.22%	35.26%	28.62%	16.98%	22.79%	53.20%	62.62%	55.37%	47.57%	52.22%
7	24.11%	40.69%	30.79%	18.40%	23.05%	55.43%	69.91%	57.52%	52.27%	54.95%
8	27.54%	40.00%	32.35%	18.41%	24.20%	59.37%	67.58%	62.71%	54.25%	57.59%
9	29.76%	40.61%	30.67%	21.31%	25.74%	63.07%	71.07%	63.48%	57.64%	60.76%
10	30.61%	48.55%	36.41%	22.50%	26.22%	65.87%	74.64%	71.82%	63.88%	65.07%
Average	22.58%	19.41%	19.08%	17.97%	20.35%	50.97%	43.08%	41.77%	50.53%	48.86%

*Note that those who do not have an alumni interview are coded as not having received a 2 or higher on the alumni overall rating

Table B.5.6R: Share Receving a Two or Higher on Overall Rating and Alumni Interviewer Overall Rating by Race/Ethnicity and Academic Index Decile, Expanded Sample

	Final Reader Overall Rating					Alumni Interviewer Overall Rating				
Academic Index Decile	Whites	African American	Hispanic	Asian American	Total	Whites	African American	Hispanic	Asian American	Total
1	0.03%	0.00%	0.00%	0.00%	0.01%	7.60%	7.44%	7.14%	7.46%	7.48%
2	0.21%	0.49%	0.08%	0.14%	0.23%	13.90%	15.00%	12.00%	12.31%	13.65%
3	0.45%	2.27%	0.71%	0.33%	0.77%	20.19%	24.33%	19.50%	17.77%	20.41%
4	1.29%	7.60%	2.29%	0.42%	1.90%	27.52%	33.76%	25.13%	23.39%	26.95%
5	2.26%	16.31%	4.82%	1.39%	3.20%	34.11%	43.86%	35.88%	29.96%	33.82%
6	4.11%	24.47%	9.30%	2.30%	4.94%	39.78%	51.64%	40.25%	36.61%	39.50%
7	5.65%	32.47%	12.50%	3.64%	6.32%	44.00%	56.71%	45.63%	42.81%	44.26%
8	9.54%	37.88%	16.24%	5.27%	8.64%	50.76%	59.39%	51.41%	47.50%	49.51%
9	13.31%	45.69%	20.74%	8.14%	11.58%	57.73%	61.42%	59.57%	54.34%	56.54%
10	17.86%	48.55%	29.43%	13.41%	16.01%	64.17%	66.67%	65.84%	63.30%	63.88%
Average	5.58%	5.56%	4.16%	5.22%	5.30%	37.74%	21.14%	24.19%	41.17%	35.38%

*Note that those who do not have an alumni interview are coded as not having received a 2 or higher on the alumni overall rating

Table B.5.7R: Number and Share of Applicants by Race/Ethnicity, Year, and Academic Index Decile, Baseline Sample

	Number of Applicants in Each Decile					Share of Applicants in Each Decile				
Academic Index Decile	Whites	African American	Hispanic	Asian American	Total	Whites	African American	Hispanic	Asian American	Total
2014										
1	375	841	483	206	2,017	4.01	39.08	19.65	3 33	9.6
2	723	517	534	304	2,195	7.72	24.02	21.72	4 92	10.45
3	968	311	417	420	2,232	10.34	14.45	16.97	6.8	10.63
4	1,087	161	299	514	2,180	11.61	7.48	12.16	8 32	10.38
5	1,274	116	234	605	2,324	13.61	5.39	9.52	9.79	11.06
6	1,042	69	159	605	1,950	11.13	3.21	6.47	9.79	9.28
7	1,120	70	119	709	2,086	11.96	3.25	4.84	11.47	9.93
8	1,040	32	102	821	2,054	11.11	1.49	4.15	13 29	9.78
9	950	27	60	984	2,074	10.15	1.25	2.44	15 92	9.87
10	783	8	51	1,011	1,893	8.36	0.37	2.07	16 36	9.01
2015										
1	464	1,153	638	257	2,642	4.46	41.08	20.33	3 58	10.66
2	784	666	699	350	2,641	7.53	23.73	22.28	4 87	10.65
3	1,180	377	525	460	2,732	11.33	13.43	16.73	6.41	11.02
4	1,192	216	356	584	2,498	11.45	7.7	11.34	8.13	10.08
5	1,456	169	278	767	2,841	13.98	6.02	8.86	10.68	11.46
6	1,145	74	185	734	2,257	11	2.64	5 9	10 22	9.1
7	1,268	71	175	833	2,462	12.18	2.53	5.58	11.6	9.93
8	1,124	44	133	994	2,398	10.8	1.57	4.24	13 84	9.67
9	1,001	21	84	1,144	2,327	9.61	0.75	2.68	15 93	9.39
10	798	16	65	1,058	1,991	7.66	0.57	2.07	14.73	8.03
2016										
1	505	1,094	636	219	2,594	5.36	42.08	21.92	3.4	10.93
2	785	569	613	340	2,475	8.34	21.88	21.12	5 29	10.43
3	1,063	387	454	415	2,543	11.29	14.88	15.64	6.45	10.71
4	1,154	185	366	547	2,497	12.26	7.12	12.61	8.5	10.52
5	1,270	128	276	608	2,560	13.49	4.92	9.51	9.45	10.78
6	965	76	166	574	2,025	10.25	2.92	5.72	8 92	8.53
7	1,131	69	148	760	2,363	12.01	2.65	5.1	11 82	9.95
8	1,017	42	131	842	2,330	10.8	1.62	4.51	13 09	9.82
9	816	31	71	1,036	2,249	8.67	1.19	2.45	16.11	9.47
10	708	19	41	1,091	2,101	7.52	0.73	1.41	16 96	8.85
2017										
1	462	968	548	249	2,357	4.99	37.25	18.92	3.9	9.93
2	737	597	623	348	2,464	7.96	22.97	21.51	5.45	10.38
3	964	401	459	459	2,508	10.41	15.43	15.85	7.19	10.57
4	958	229	354	430	2,198	10.35	8.81	12.22	6.73	9.26
5	1,230	128	289	611	2,531	13.29	4.92	9.98	9 57	10.66
6	926	89	180	598	2,033	10	3.42	6.22	9 37	8.56
7	1,156	69	152	658	2,318	12.49	2.65	5.25	10 31	9.77
8	1,007	56	131	815	2,354	10.88	2.15	4.52	12.76	9.92
9	1,012	30	102	1,064	2,563	10.93	1.15	3.52	16.66	10.8
10	804	32	58	1,153	2,411	8.69	1.23	2	18 06	10.16
2018										
1	467	903	536	279	2,278	4.94	34.33	17.45	3 95	9.55
2	686	608	601	356	2,369	7.26	23.12	19.56	5 05	9.93
3	939	384	524	442	2,425	9.93	14.6	17.06	6 26	10.16
4	986	232	389	500	2,224	10.43	8.82	12.66	7 09	9.32
5	1,225	175	323	646	2,575	12.96	6.65	10.51	9.16	10.79
6	937	105	191	579	1,939	9.91	3.99	6.22	8 21	8.13
7	1,193	72	167	780	2,393	12.62	2.74	5.44	11 05	10.03
8	1,157	82	156	934	2,542	12.24	3.12	5.08	13 24	10.65
9	1,018	42	108	1,194	2,593	10.77	1.6	3.52	16 92	10.87
10	847	27	77	1,346	2,526	8.96	1.03	2.51	19 08	10.58
2019										
1	549	962	742	301	2,705	5.75	34.2	21.42	4 25	10.72
2	689	643	685	347	2,514	7.21	22.86	19.77	4.9	9.97
3	959	431	547	448	2,574	10.04	15.32	15.79	6 33	10.2
4	982	262	418	445	2,268	10.28	9.31	12.07	6 29	8.99
5	1,203	181	319	637	2,595	12.59	6.43	9.21	9	10.29
6	909	95	196	524	1,906	9.52	3.38	5.66	7.41	7.56
7	1,185	94	188	787	2,523	12.41	3.34	5.43	11.12	10
8	1,133	70	167	910	2,575	11.86	2.49	4.82	12 86	10.21
9	920	45	114	1,110	2,497	9.63	1.6	3.29	15.69	9.9
10	1,023	30	88	1,566	3,067	10.71	1.07	2.54	22.13	12.16

Table B.5.8R: Number and Share of Applicants by Race/Ethnicity, Year, and Academic Index Decile, Expanded Sample

	Number of Applicants in Each Decile					Share of Applicants in Each Decile				
Academic Index Decile	Whites	African American	Hispanic	Asian American	Total	Whites	African American	Hispanic	Asian American	Total
2014										
1	399	855	484	211	2,063	3.97	38.90	19.40	3.36	9.41
2	767	526	539	313	2,266	7.63	23.93	21.60	4.98	10 34
3	1,057	315	423	427	2,347	10.52	14.33	16.95	6.80	10.71
4	1,169	166	303	527	2,292	11.64	7.55	12.14	8.39	10.45
5	1,365	123	237	623	2,449	13.59	5.60	9.50	9.92	11.17
6	1,136	72	167	621	2,076	11.31	3.28	6.69	9.89	9.47
7	1,206	74	119	721	2,192	12.00	3.37	4.77	11.48	10 00
8	1,102	32	107	832	2,137	10.97	1.46	4.29	13.25	9.75
9	1,024	27	63	992	2,161	10.19	1.23	2.53	15.79	9 86
10	821	8	53	1,014	1,940	8.17	0.36	2.12	16.14	8 85
2015										
1	490	1,166	639	259	2,688	4.42	40.84	20.03	3.56	10.44
2	835	678	707	357	2,726	7.52	23.75	22.16	4.90	10 59
3	1,247	386	533	472	2,840	11.24	13.52	16.71	6.48	11 03
4	1,268	222	364	591	2,606	11.43	7.78	11.41	8.12	10.12
5	1,550	175	287	779	2,972	13.97	6.13	9.00	10.70	11 54
6	1,239	75	188	742	2,372	11.17	2.63	5.89	10.19	9 21
7	1,351	72	177	839	2,555	12.17	2.52	5.55	11.52	9 92
8	1,202	44	138	1,013	2,505	10.83	1.54	4.33	13.91	9.73
9	1,068	21	89	1,160	2,423	9.62	0.74	2.79	15.93	9.41
10	847	16	68	1,069	2,062	7.63	0.56	2.13	14.68	8 01
2016										
1	533	1,107	639	221	2,645	5.27	41.79	21.53	3.37	10.66
2	841	579	620	346	2,562	8.32	21.86	20.89	5.28	10 33
3	1,126	395	465	429	2,653	11.14	14.91	15.67	6.54	10.70
4	1,254	190	378	556	2,642	12.41	7.17	12.74	8.48	10.65
5	1,353	136	281	627	2,698	13.39	5.13	9.47	9.57	10 88
6	1,050	78	173	591	2,156	10.39	2.94	5.83	9.02	8.69
7	1,208	71	160	771	2,479	11.95	2.68	5.39	11.76	9 99
8	1,098	42	135	852	2,433	10.86	1.59	4.55	13.00	9 81
9	880	32	74	1,056	2,353	8.71	1.21	2.49	16.11	9.49
10	765	19	43	1,106	2,183	7.57	0.72	1.45	16.87	8 80
2017										
1	475	979	551	254	2,392	4.79	36.94	18.69	3.90	9.67
2	780	608	631	356	2,539	7.87	22.94	21.40	5.47	10 26
3	1,019	408	465	462	2,599	10.28	15.40	15.77	7.10	10 50
4	1,041	232	361	443	2,315	10.50	8.75	12.25	6.81	9 35
5	1,309	138	292	627	2,655	13.20	5.21	9.91	9.63	10.73
6	1,004	90	185	612	2,146	10.13	3.40	6.28	9.40	8.67
7	1,236	74	160	676	2,443	12.46	2.79	5.43	10.39	9 87
8	1,099	57	137	827	2,478	11.08	2.15	4.65	12.71	10 01
9	1,092	30	107	1,076	2,674	11.01	1.13	3.63	16.53	10 80
10	861	34	59	1,175	2,508	8.68	1.28	2.00	18.05	10.13
2018										
1	487	911	544	282	2,317	4.80	34.04	17.28	3.93	9 31
2	728	616	609	361	2,443	7.18	23.02	19.35	5.03	9 82
3	1,007	395	531	449	2,527	9.93	14.76	16.87	6.26	10.16
4	1,051	240	395	513	2,328	10.36	8.97	12.55	7.15	9 36
5	1,328	180	338	656	2,713	13.10	6.73	10.74	9.14	10 91
6	1,005	106	198	591	2,033	9.91	3.96	6.29	8.24	8.17
7	1,287	73	174	799	2,525	12.69	2.73	5.53	11.14	10.15
8	1,226	84	162	944	2,639	12.09	3.14	5.15	13.16	10.61
9	1,108	42	114	1,215	2,719	10.93	1.57	3.62	16.94	10 93
10	913	29	83	1,364	2,630	9.00	1.08	2.64	19.01	10 57
2019										
1	564	979	743	301	2,742	5.52	34.14	21.03	4.16	10.43
2	739	652	693	354	2,594	7.24	22.73	19.62	4.89	9 87
3	1,019	436	557	457	2,666	9.98	15.20	15.77	6.32	10.14
4	1,049	265	427	457	2,373	10.27	9.24	12.09	6.32	9 03
5	1,291	192	329	656	2,737	12.64	6.69	9.31	9.07	10.41
6	987	98	207	541	2,035	9.66	3.42	5.86	7.48	7.74
7	1,268	98	194	807	2,649	12.41	3.42	5.49	11.15	10 07
8	1,213	71	171	938	2,699	11.88	2.48	4.84	12.96	10 27
9	988	45	117	1,132	2,609	9.67	1.57	3.31	15.64	9 92
10	1,096	32	95	1,593	3,189	10.73	1.12	2.69	22.01	12.13

Table B.5.9R: Admit Rates by Race/Ethnicity and Academic Index Decile

	Baseline Sample				Expanded Sample			
Academic Index Decile	Whites	African American	Hispanic	Asian American	Whites	African American	Hispanic	Asian American
2014								
1	0.00%	0.00%	0.00%	0.00%	0.25%	0.12%	0.00%	0.47%
2	0.41%	1.35%	0.56%	0.33%	1.30%	1.52%	0.93%	0.64%
3	1.34%	7.40%	2.64%	0.24%	2.65%	7.62%	2.60%	0.23%
4	1.66%	19.88%	5.35%	1.75%	3.17%	21.08%	5.94%	2.28%
5	3.61%	31.03%	12.82%	1.49%	5.42%	32.52%	13.50%	1.93%
6	5.09%	46.38%	13.84%	2.64%	7.48%	47.22%	15.57%	3.22%
7	6.61%	51.43%	21.85%	4.80%	8.87%	51.35%	21.85%	4.85%
8	8.75%	53.13%	24.51%	7.19%	11.07%	53.13%	24.30%	7.93%
9	15.05%	48.15%	20.00%	10.77%	18.46%	48.15%	19.05%	11.09%
10	19.28%	75.00%	39.22%	14.54%	21.32%	75.00%	41.51%	14.60%
2015								
1	0.00%	0.00%	0.00%	0.00%	0.61%	0.00%	0.00%	0.00%
2	0.38%	1.20%	0.14%	0.29%	0.84%	1.33%	0.14%	0.28%
3	0.17%	7.16%	0.95%	1.09%	0.88%	7.77%	0.94%	1.48%
4	2.85%	15.28%	8.15%	0.51%	4.18%	15.77%	8.52%	0.85%
5	2.20%	27.81%	10.43%	2.22%	3.42%	28.00%	11.15%	2.57%
6	4.10%	32.43%	13.51%	3.00%	6.21%	33.33%	14.36%	3.37%
7	4.73%	43.66%	21.71%	4.08%	6.66%	44.44%	22.60%	4.29%
8	8.45%	52.27%	24.81%	4.83%	10.32%	52.27%	26.09%	5.63%
9	12.29%	71.43%	33.33%	8.48%	15.17%	71.43%	32.58%	8.97%
10	19.05%	75.00%	30.77%	12.85%	20.90%	75.00%	33.82%	13.28%
2016								
1	0.00%	0.00%	0.00%	0.00%	0.75%	0.00%	0.00%	0.00%
2	0.38%	1.76%	0.33%	0.29%	1.19%	1.73%	0.48%	0.58%
3	0.47%	5.68%	2.20%	0.48%	1.15%	5.82%	2.37%	0.93%
4	1.82%	10.81%	5.74%	0.73%	3.43%	11.58%	6.08%	1.26%
5	2.60%	16.41%	8.33%	1.64%	4.58%	16.18%	8.90%	2.55%
6	4.35%	31.58%	10.84%	2.26%	6.76%	30.77%	11.56%	3.05%
7	5.22%	40.58%	15.54%	4.47%	6.62%	42.25%	17.50%	5.06%
8	8.75%	54.76%	26.72%	4.63%	11.75%	54.76%	27.41%	5.40%
9	11.40%	64.52%	29.58%	8.59%	15.11%	65.63%	29.73%	9.28%
10	18.79%	63.16%	24.39%	14.76%	21.44%	63.16%	25.58%	15.10%
2017								
1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2	0.27%	0.50%	0.16%	0.29%	0.90%	0.66%	0.16%	0.28%
3	0.52%	3.99%	3.70%	1.09%	1.47%	4.66%	3.87%	1.52%
4	1.04%	13.10%	5.08%	1.16%	3.27%	13.79%	4.99%	1.81%
5	3.01%	25.00%	9.34%	1.64%	4.35%	26.81%	9.93%	1.91%
6	4.32%	26.97%	12.78%	2.34%	6.57%	27.78%	14.05%	3.10%
7	4.24%	39.13%	18.42%	4.41%	6.31%	43.24%	20.63%	5.33%
8	7.05%	32.14%	21.37%	5.52%	10.46%	33.33%	24.09%	6.53%
9	9.29%	46.67%	21.57%	6.20%	12.73%	46.67%	23.36%	6.88%
10	13.81%	59.38%	27.59%	12.92%	16.96%	61.76%	28.81%	14.04%
2018								
1	0.00%	0.22%	0.00%	0.00%	0.00%	0.33%	0.00%	0.00%
2	0.29%	0.49%	0.00%	0.00%	1.10%	0.65%	0.33%	0.00%
3	0.53%	3.39%	1.15%	0.23%	1.89%	3.54%	1.13%	0.22%
4	1.62%	9.48%	4.11%	0.60%	2.47%	10.00%	4.81%	1.17%
5	1.47%	18.29%	8.05%	1.70%	3.01%	19.44%	9.47%	1.83%
6	2.88%	27.62%	16.23%	2.42%	4.38%	27.36%	16.16%	3.05%
7	4.44%	38.89%	15.57%	2.82%	7.46%	39.73%	16.67%	4.01%
8	7.17%	46.34%	24.36%	4.18%	9.87%	46.43%	24.69%	4.66%
9	8.84%	57.14%	28.70%	5.61%	12.73%	57.14%	30.70%	6.75%
10	12.75%	44.44%	38.96%	11.44%	16.32%	44.83%	43.37%	12.10%
2019								
1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2	0.58%	0.93%	0.73%	0.00%	1.35%	0.92%	0.72%	0.28%
3	0.42%	4.18%	1.46%	0.67%	1.47%	4.59%	1.80%	0.66%
4	1.73%	10.31%	4.78%	0.45%	2.86%	10.57%	5.85%	0.88%
5	2.58%	18.23%	6.90%	2.35%	4.03%	21.35%	7.90%	3.05%
6	4.40%	18.95%	14.29%	2.10%	6.48%	20.41%	15.94%	2.77%
7	3.63%	35.11%	12.23%	3.43%	5.36%	36.73%	12.89%	4.58%
8	5.21%	37.14%	17.37%	4.62%	7.91%	38.03%	18.13%	5.65%
9	7.93%	46.67%	23.68%	6.13%	10.53%	46.67%	24.79%	7.16%
10	10.07%	43.33%	26.14%	10.86%	12.86%	46.88%	31.58%	11.93%

Table B.6.1R: Ordered logit estimates of Harvard's Academic and Extracurricular Ratings, baseline sample

	Academic						Extracurricular					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
African American	-1.685	0.085	0 038	0.047	-0.006	-0.001	-0.503	0.034	-0.066	-0.069	-0.217	-0.291
	(0.019)	(0.027)	(0 039)	(0.041)	(0.043)	(0.044)	(0.023)	(0.027)	(0.040)	(0.042)	(0.044)	(0.045)
Hispanic	-0.944	-0.188	-0.146	-0.103	-0.112	-0.109	-0.302	-0.102	-0.146	-0.136	-0.146	-0.177
	(0.017)	(0.024)	(0 033)	(0.035)	(0.037)	(0.037)	(0.021)	(0.023)	(0.032)	(0.034)	(0.036)	(0.036)
Asian American	0.614	0.017	0 026	0.090	0.136	0.132	0.246	0.120	0.103	0.172	0.171	0.198
	(0.014)	(0.019)	(0 027)	(0.029)	(0.031)	(0.031)	(0.015)	(0.016)	(0.023)	(0.024)	(0.026)	(0.026)
Missing	0.318	0.058	0 075	0.062	0.082	0.075	0.133	0.075	0.041	0.075	0.077	0.099
	(0.023)	(0.032)	(0 046)	(0.048)	(0.051)	(0.051)	(0.025)	(0.026)	(0.038)	(0.040)	(0.043)	(0.043)
Female	-0.272	0.109	0.164	0.150	0.116	0.117	0.207	0.261	0.151	0.135	0.021	0.004
	(0.011)	(0.014)	(0 033)	(0.034)	(0.034)	(0.034)	(0.012)	(0.013)	(0.029)	(0.030)	(0.031)	(0.031)
Disadvantaged	0.131	0.025	0.117	0.147	0.048	0.055	0.372	0.343	0.350	0.378	0.202	0.132
	(0.020)	(0.024)	(0 044)	(0.045)	(0.046)	(0.046)	(0.024)	(0.024)	(0.042)	(0.043)	(0.045)	(0.045)
First generation	-0.209	-0.020	-0.016	-0.009	-0.016	-0.015	-0.013	0.049	0.051	0.036	0.025	0.023
	(0.022)	(0.027)	(0 027)	(0.028)	(0.028)	(0.028)	(0.027)	(0.027)	(0.027)	(0.028)	(0.029)	(0.029)
Early Decision	0.437	0.173	0 029	0.037	-0.037	-0.035	0.458	0.357	0.275	0.271	0.188	0.163
	(0.020)	(0.025)	(0 038)	(0.039)	(0.040)	(0.040)	(0.021)	(0.021)	(0.032)	(0.033)	(0.035)	(0.035)
Waiver	-0.713	-0.060	-0.061	-0.069	-0.054	-0.054	-0.250	-0.046	-0.046	-0.082	-0.102	-0.104
	(0.018)	(0.022)	(0 022)	(0.024)	(0.024)	(0.024)	(0.022)	(0.022)	(0.022)	(0.024)	(0.024)	(0.024)
Applied for Financial Aid	-0.128	-0.087	-0.089	-0.012	-0.010	-0.011	-0.063	-0.069	-0.064	0.012	0.002	-0.003
	(0.014)	(0.019)	(0 019)	(0.020)	(0.021)	(0.021)	(0.015)	(0.015)	(0.015)	(0.017)	(0.018)	(0.018)
Humanities	0.048	0.035	0 073	0.054	0.032	0.032	0.076	0.065	0.111	0.085	0.024	0.032
	(0.018)	(0.023)	(0 036)	(0.037)	(0.038)	(0.038)	(0.020)	(0.020)	(0.031)	(0.032)	(0.033)	(0.034)
Biology	0.099	0.020	0 038	0.059	0.100	0.099	-0.493	-0.527	-0.573	-0.579	-0.540	-0.524
	(0.015)	(0.019)	(0 028)	(0.029)	(0.030)	(0.030)	(0.017)	(0.017)	(0.025)	(0.026)	(0.027)	(0.027)
Physical Sciences	0.727	0.151	0.177	0.188	0.223	0.222	-0.436	-0.594	-0.668	-0.683	-0.708	-0.679
	(0.024)	(0.032)	(0 042)	(0.043)	(0.044)	(0.044)	(0.027)	(0.027)	(0.035)	(0.036)	(0.037)	(0.038)
Engineering	0.386	-0.026	-0.027	-0.015	0.065	0.064	-0.553	-0.656	-0.763	-0.779	-0.688	-0.664
	(0.018)	(0.023)	(0 030)	(0.031)	(0.032)	(0.032)	(0.020)	(0.021)	(0.027)	(0.028)	(0.029)	(0.029)
Mathematics	0.499	0.038	0.121	0.106	0.134	0.133	-0.516	-0.627	-0.725	-0.744	-0.765	-0.727
	(0.026)	(0.034)	(0 045)	(0.046)	(0.047)	(0.047)	(0.029)	(0.030)	(0.039)	(0.040)	(0.041)	(0.041)
Computer Science	0.438	-0.060	-0.049	-0.021	0.030	0.026	-0.568	-0.685	-0.751	-0.752	-0.759	-0.718
	(0.030)	(0.039)	(0 046)	(0.048)	(0.049)	(0.049)	(0.034)	(0.034)	(0.041)	(0.042)	(0.043)	(0.043)
Unspecified	-0.504	-0.092	-0.055	-0.060	0.027	0.026	-0.649	-0.504	-0.537	-0.568	-0.464	-0.459
	(0.029)	(0.037)	(0 053)	(0.055)	(0.055)	(0.055)	(0.035)	(0.035)	(0.051)	(0.052)	(0.053)	(0.054)
Academic index		3.842	3 845	3.882	3.746	3.746		0.467	0.468	0.455	0.081	0.085
		(0.047)	(0 047)	(0.049)	(0.049)	(0.049)		(0.039)	(0.039)	(0.040)	(0.044)	(0.044)

Table B.6.1R Continued: Ordered logit estimates of Harvard's Academic and Extracurricular Ratings, baseline sample

	Academic						Extracurricular					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
AI Sq. X (AI>0)		1.200	1.198	1.187	1.136	1.132		0.173	0.165	0.181	0.064	0.096
		(0.044)	(0 044)	(0.045)	(0.046)	(0.046)		(0.025)	(0.025)	(0.026)	(0.030)	(0.030)
AI Sq. X (AI<0)		0.428	0.428	0.441	0.430	0.430		0.011	0.010	0.006	-0.020	-0.021
		(0.009)	(0 009)	(0.009)	(0.009)	(0.009)		(0.007)	(0.007)	(0.007)	(0.008)	(0.008)
Female X Humanities			-0.067	-0.059	-0.036	-0.036			-0.060	-0.036	-0.006	-0.004
			(0 047)	(0.048)	(0.049)	(0.049)			(0.041)	(0.042)	(0.044)	(0.044)
Female X Biology			-0.035	-0.031	-0.048	-0.050			0.088	0.100	0.095	0.099
			(0 038)	(0.039)	(0.040)	(0.040)			(0.034)	(0.035)	(0.036)	(0.036)
Female X Phys Sci			-0.054	-0.061	-0.068	-0.067			0.164	0.179	0.199	0.203
			(0 064)	(0.066)	(0.067)	(0.067)			(0.055)	(0.056)	(0.058)	(0.058)
Female X Engineering			0 023	0.019	-0.047	-0.049			0.256	0.278	0.234	0.231
			(0 047)	(0.048)	(0.049)	(0.049)			(0.041)	(0.042)	(0.044)	(0.044)
Female X Math			-0.189	-0.149	-0.146	-0.148			0.218	0.237	0.299	0.285
			(0 067)	(0.069)	(0.070)	(0.070)			(0.059)	(0.060)	(0.062)	(0.062)
Female X Comp Sci			-0.009	-0.059	-0.071	-0.072			0.176	0.182	0.203	0.194
			(0 089)	(0.091)	(0.093)	(0.093)			(0.076)	(0.078)	(0.081)	(0.081)
Female X Unspec			-0.067	-0.056	-0.080	-0.080			0.062	0.099	0.081	0.102
			(0 073)	(0.075)	(0.076)	(0.076)			(0.070)	(0.072)	(0.074)	(0.074)
Female X African American			0 051	0.064	0.097	0.095			0.150	0.178	0.216	0.235
			(0 043)	(0.044)	(0.045)	(0.045)			(0.044)	(0.045)	(0.046)	(0.047)
Female X Hispanic			-0.065	-0.070	-0.051	-0.051			0.048	0.042	0.079	0.076
			(0 040)	(0.041)	(0.042)	(0.042)			(0.039)	(0.041)	(0.042)	(0.042)
Female X Asian American			-0.063	-0.063	-0.068	-0.068			0.012	0.006	0.002	0.002
			(0 035)	(0.036)	(0.037)	(0.037)			(0.029)	(0.030)	(0.031)	(0.031)
Female X Missing			-0.057	-0.049	-0.066	-0.065			0.064	0.036	0.010	0.008
			(0 060)	(0.062)	(0.063)	(0.063)			(0.050)	(0.051)	(0.053)	(0.054)
Disadv X African American			-0.083	-0.121	-0.120	-0.127			0.032	0.014	0.106	0.129
			(0 058)	(0.060)	(0.061)	(0.061)			(0.059)	(0.060)	(0.062)	(0.062)
Disadv X Hispanic			-0.207	-0.226	-0.262	-0.266			0.088	0.062	0.076	0.067
			(0 058)	(0.059)	(0.060)	(0.060)			(0.057)	(0.059)	(0.060)	(0.061)
Disadv X Asian American			-0.060	-0.060	-0.092	-0.091			-0.104	-0.098	-0.073	-0.064
			(0 059)	(0.060)	(0.061)	(0.061)			(0.054)	(0.055)	(0.057)	(0.057)
Disadv X Missing			-0.104	-0.046	-0.008	-0.010			-0.112	-0.048	0.020	0.037
			(0.106)	(0.110)	(0.111)	(0.111)			(0.097)	(0.100)	(0.103)	(0.104)
Early X African American			0.198	0.183	0.182	0.187			0.022	0.034	-0.011	-0.029
			(0 075)	(0.078)	(0.079)	(0.079)			(0.073)	(0.075)	(0.077)	(0.077)
Early X Hispanic			0 266	0.258	0.238	0.239			-0.026	0.003	-0.065	-0.065
			(0 073)	(0.075)	(0.077)	(0.077)			(0.068)	(0.070)	(0.072)	(0.073)
Early X Asian American			0 284	0.255	0.218	0.216			0.237	0.233	0.158	0.168
			(0 065)	(0.066)	(0.067)	(0.067)			(0.048)	(0.049)	(0.051)	(0.052)
Early X Missing			0.188	0.187	0.177	0.180			0.099	0.125	0.111	0.113
			(0.103)	(0.106)	(0.108)	(0.108)			(0.076)	(0.078)	(0.082)	(0.082)
Observations	142728	142728	142728	136208	136208	136208	142728	142728	142728	136208	136208	136208
Pseudo R Sq.	0.161	0.547	0 547	0.551	0.565	0.565	0.041	0.066	0.066	0.071	0.128	0.138

Table B.6.2R: Ordered logit estimates of Harvard's School Support Measures, baseline sample

	Teacher 1						Teacher 2						Counselor					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
African American	-0.606	0.049	0.086	0.120	0.012	-0.105	-0.551	0.082	0.173	0.211	0.104	-0.009	-0.577	0.187	0.186	0.250	0.164	0.002
	(0.024)	(0.028)	(0.043)	(0.045)	(0.048)	(0.049)	(0.026)	(0.030)	(0.046)	(0.048)	(0.051)	(0.052)	(0.026)	(0.030)	(0.046)	(0.049)	(0.052)	(0.054)
Hispanic	-0.289	-0.006	-0.030	-0.028	-0.023	-0.074	-0.256	0.011	0.021	0.008	0.024	-0.027	-0.289	0.034	-0.007	0.021	0.017	-0.050
	(0.021)	(0.023)	(0.033)	(0.034)	(0.037)	(0.037)	(0.023)	(0.025)	(0.035)	(0.037)	(0.039)	(0.040)	(0.023)	(0.025)	(0.036)	(0.037)	(0.040)	(0.042)
Asian American	-0.048	-0.256	-0.280	-0.188	-0.159	-0.104	-0.086	-0.289	-0.328	-0.239	-0.203	-0.150	-0.054	-0.263	-0.297	-0.155	-0.095	-0.022
	(0.015)	(0.016)	(0.022)	(0.024)	(0.026)	(0.026)	(0.016)	(0.017)	(0.024)	(0.026)	(0.028)	(0.028)	(0.016)	(0.017)	(0.024)	(0.026)	(0.028)	(0.029)
Missing	-0.015	-0.128	-0.149	-0.105	-0.080	-0.031	-0.063	-0.169	-0.180	-0.143	-0.115	-0.069	-0.048	-0.159	-0.198	-0.136	-0.116	-0.057
	(0.025)	(0.026)	(0.038)	(0.040)	(0.043)	(0.044)	(0.026)	(0.028)	(0.040)	(0.042)	(0.046)	(0.046)	(0.027)	(0.028)	(0.041)	(0.043)	(0.047)	(0.048)
Female	-0.001	0.062	0.117	0.152	0.093	0.065	-0.027	0.041	0.124	0.142	0.085	0.060	0.032	0.105	0.067	0.103	0.034	-0.004
	(0.012)	(0.013)	(0.030)	(0.031)	(0.032)	(0.033)	(0.013)	(0.014)	(0.032)	(0.033)	(0.035)	(0.035)	(0.013)	(0.014)	(0.032)	(0.034)	(0.035)	(0.036)
Disadvantaged	0.430	0.420	0.358	0.386	0.188	0.087	0.453	0.438	0.429	0.458	0.278	0.180	0.451	0.429	0.341	0.400	0.168	0.024
	(0.024)	(0.025)	(0.042)	(0.043)	(0.045)	(0.045)	(0.026)	(0.027)	(0.045)	(0.046)	(0.048)	(0.049)	(0.026)	(0.027)	(0.045)	(0.047)	(0.049)	(0.050)
First generation	0.028	0.090	0.084	0.029	0.017	0.015	0.000	0.070	0.064	0.012	0.003	0.003	0.027	0.107	0.095	0.072	0.068	0.065
	(0.028)	(0.028)	(0.028)	(0.029)	(0.030)	(0.031)	(0.030)	(0.031)	(0.031)	(0.033)	(0.034)	(0.034)	(0.031)	(0.031)	(0.032)	(0.033)	(0.034)	(0.035)
Early Decision	0.486	0.361	0.297	0.296	0.153	0.100	0.531	0.400	0.355	0.340	0.182	0.134	0.623	0.488	0.389	0.386	0.222	0.154
	(0.021)	(0.021)	(0.033)	(0.033)	(0.035)	(0.035)	(0.022)	(0.023)	(0.035)	(0.036)	(0.037)	(0.038)	(0.022)	(0.022)	(0.034)	(0.035)	(0.037)	(0.038)
Waiver	-0.194	0.034	0.035	-0.096	-0.076	-0.083	-0.197	0.033	0.035	-0.087	-0.069	-0.082	-0.177	0.103	0.103	-0.011	0.038	0.026
	(0.022)	(0.023)	(0.023)	(0.025)	(0.026)	(0.026)	(0.024)	(0.025)	(0.026)	(0.027)	(0.028)	(0.028)	(0.025)	(0.026)	(0.026)	(0.027)	(0.029)	(0.029)
Applied for Financial Aid	-0.017	-0.027	-0.026	-0.054	-0.041	-0.045	0.000	-0.009	-0.009	-0.027	-0.010	-0.012	-0.107	-0.128	-0.126	-0.068	-0.054	-0.060
	(0.015)	(0.016)	(0.016)	(0.017)	(0.018)	(0.018)	(0.016)	(0.017)	(0.017)	(0.019)	(0.019)	(0.019)	(0.016)	(0.017)	(0.017)	(0.018)	(0.019)	(0.020)
Humanities	0.094	0.087	0.161	0.167	0.134	0.141	0.077	0.062	0.175	0.173	0.139	0.152	0.048	0.047	0.085	0.068	0.015	0.020
	(0.021)	(0.021)	(0.032)	(0.034)	(0.035)	(0.035)	(0.022)	(0.023)	(0.035)	(0.036)	(0.037)	(0.038)	(0.022)	(0.023)	(0.035)	(0.036)	(0.038)	(0.039)
Biology	-0.022	-0.076	-0.052	-0.066	0.023	0.043	-0.058	-0.105	-0.059	-0.081	-0.001	0.025	-0.046	-0.117	-0.144	-0.148	-0.042	-0.013
	(0.017)	(0.018)	(0.026)	(0.027)	(0.028)	(0.028)	(0.018)	(0.019)	(0.028)	(0.029)	(0.030)	(0.030)	(0.018)	(0.019)	(0.028)	(0.029)	(0.030)	(0.031)
Physical Sciences	0.253	0.038	0.095	0.055	0.124	0.168	0.244	0.035	0.098	0.061	0.126	0.168	0.195	-0.048	-0.055	-0.079	0.003	0.061
	(0.026)	(0.027)	(0.034)	(0.035)	(0.037)	(0.037)	(0.027)	(0.028)	(0.036)	(0.038)	(0.039)	(0.039)	(0.028)	(0.029)	(0.037)	(0.038)	(0.040)	(0.041)
Engineering	0.015	-0.123	-0.122	-0.157	-0.038	-0.003	0.010	-0.119	-0.112	-0.141	-0.018	0.023	0.033	-0.134	-0.195	-0.223	-0.073	-0.025
	(0.020)	(0.021)	(0.028)	(0.028)	(0.029)	(0.030)	(0.022)	(0.023)	(0.030)	(0.030)	(0.032)	(0.032)	(0.022)	(0.023)	(0.030)	(0.031)	(0.032)	(0.033)
Mathematics	0.176	0.033	0.116	0.069	0.124	0.181	0.178	0.043	0.145	0.085	0.132	0.190	0.180	0.000	0.005	-0.045	0.033	0.106
	(0.028)	(0.029)	(0.038)	(0.039)	(0.040)	(0.041)	(0.030)	(0.031)	(0.040)	(0.041)	(0.043)	(0.043)	(0.030)	(0.031)	(0.040)	(0.042)	(0.044)	(0.045)
Computer Science	0.032	-0.122	-0.106	-0.109	0.016	0.086	0.016	-0.136	-0.086	-0.098	0.024	0.101	-0.059	-0.244	-0.266	-0.244	-0.086	0.014
	(0.033)	(0.034)	(0.041)	(0.042)	(0.043)	(0.044)	(0.035)	(0.036)	(0.043)	(0.044)	(0.046)	(0.046)	(0.036)	(0.037)	(0.044)	(0.046)	(0.048)	(0.049)
Unspecified	-0.311	-0.174	-0.154	-0.167	-0.071	-0.063	-0.230	-0.094	-0.011	-0.042	0.073	0.086	-0.316	-0.143	-0.162	-0.201	-0.085	-0.081
	(0.038)	(0.039)	(0.055)	(0.056)	(0.058)	(0.058)	(0.040)	(0.041)	(0.057)	(0.059)	(0.061)	(0.062)	(0.041)	(0.042)	(0.058)	(0.060)	(0.063)	(0.064)
Academic index		0.502	0.503	0.571	0.151	0.162		0.500	0.501	0.568	0.149	0.163		0.545	0.546	0.583	0.000	0.026
		(0.043)	(0.043)	(0.044)	(0.048)	(0.049)		(0.047)	(0.047)	(0.049)	(0.053)	(0.053)		(0.046)	(0.046)	(0.048)	(0.053)	(0.054)

Table B.6.2R Continued: Ordered logit estimates of Harvard's School Support Measures, baseline sample

	Teacher 1						Teacher 2						Counselor					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
AI Sq. X (AI>0)		0.340	0.335	0.401	0.215	0.247		0.346	0.345	0.400	0.228	0.256		0.307	0.303	0.362	0.211	0.249
		(0.027)	(0.027)	(0.028)	(0.031)	(0.031)		(0.029)	(0.030)	(0.031)	(0.033)	(0.034)		(0.028)	(0.028)	(0.030)	(0.033)	(0.034)
AI Sq. X (AI<0)		0.014	0.014	0.006	-0.010	-0.012		0.016	0.017	0.008	-0.007	-0.007		-0.018	-0.017	-0.022	-0.072	-0.071
		(0.010)	(0.010)	(0.010)	(0.011)	(0.012)		(0.012)	(0.012)	(0.012)	(0.014)	(0.014)		(0.009)	(0.009)	(0.010)	(0.011)	(0.011)
Female X Humanities			-0.130	-0.134	-0.093	-0.090			-0.201	-0.195	-0.170	-0.167			-0.057	-0.070	-0.016	-0.005
			(0.043)	(0.044)	(0.046)	(0.047)			(0.046)	(0.048)	(0.049)	(0.050)			(0.046)	(0.048)	(0.050)	(0.052)
Female X Biology			-0.048	-0.044	-0.045	-0.042			-0.091	-0.076	-0.080	-0.081			0.052	0.053	0.062	0.066
			(0.035)	(0.036)	(0.038)	(0.038)			(0.038)	(0.039)	(0.040)	(0.041)			(0.038)	(0.039)	(0.041)	(0.042)
Female X Phys Sci			-0.135	-0.122	-0.132	-0.132			-0.139	-0.122	-0.135	-0.128			0.010	0.021	0.038	0.046
			(0.054)	(0.056)	(0.058)	(0.059)			(0.058)	(0.060)	(0.062)	(0.062)			(0.058)	(0.060)	(0.063)	(0.064)
Female X Engineering			0.016	0.024	-0.023	-0.032			0.009	0.025	-0.025	-0.037			0.155	0.161	0.123	0.113
			(0.042)	(0.043)	(0.045)	(0.045)			(0.045)	(0.046)	(0.048)	(0.048)			(0.045)	(0.047)	(0.049)	(0.050)
Female X Math			-0.196	-0.207	-0.177	-0.199			-0.237	-0.221	-0.175	-0.195			-0.020	-0.026	0.041	0.013
			(0.058)	(0.060)	(0.062)	(0.063)			(0.063)	(0.064)	(0.067)	(0.067)			(0.062)	(0.064)	(0.067)	(0.069)
Female X Comp Sci			-0.005	-0.023	-0.016	-0.040			-0.108	-0.127	-0.141	-0.171			0.061	0.036	0.042	0.001
			(0.077)	(0.079)	(0.082)	(0.083)			(0.082)	(0.085)	(0.088)	(0.089)			(0.084)	(0.086)	(0.090)	(0.092)
Female X Unspec			-0.042	-0.037	-0.029	-0.010			-0.169	-0.122	-0.120	-0.101			0.034	0.067	0.113	0.149
			(0.077)	(0.079)	(0.081)	(0.082)			(0.082)	(0.084)	(0.087)	(0.088)			(0.082)	(0.085)	(0.088)	(0.091)
Female X African American			-0.095	-0.099	-0.068	-0.030			-0.127	-0.126	-0.096	-0.071			-0.031	-0.057	-0.012	0.038
			(0.048)	(0.050)	(0.051)	(0.052)			(0.053)	(0.054)	(0.056)	(0.057)			(0.052)	(0.054)	(0.056)	(0.058)
Female X Hispanic			-0.039	-0.037	0.007	0.010			-0.074	-0.080	-0.053	-0.053			-0.017	-0.042	0.003	0.004
			(0.041)	(0.042)	(0.044)	(0.044)			(0.044)	(0.046)	(0.047)	(0.048)			(0.045)	(0.046)	(0.048)	(0.050)
Female X Asian American			0.023	0.021	0.033	0.027			0.048	0.037	0.056	0.050			0.007	-0.006	0.000	-0.008
			(0.030)	(0.030)	(0.031)	(0.032)			(0.032)	(0.033)	(0.034)	(0.034)			(0.032)	(0.033)	(0.034)	(0.035)
Female X Missing			0.031	0.023	0.006	-0.004			0.061	0.083	0.062	0.052			0.097	0.099	0.098	0.091
			(0.050)	(0.052)	(0.054)	(0.055)			(0.053)	(0.055)	(0.057)	(0.058)			(0.054)	(0.056)	(0.059)	(0.060)
Disadv X African American			0.093	0.044	0.122	0.180			-0.032	-0.096	-0.053	0.004			0.067	-0.046	0.009	0.101
			(0.061)	(0.064)	(0.066)	(0.067)			(0.067)	(0.070)	(0.072)	(0.073)			(0.067)	(0.069)	(0.072)	(0.074)
Disadv X Hispanic			0.195	0.080	0.093	0.105			0.086	-0.014	-0.033	-0.028			0.270	0.154	0.186	0.205
			(0.057)	(0.059)	(0.061)	(0.062)			(0.062)	(0.064)	(0.066)	(0.067)			(0.062)	(0.065)	(0.068)	(0.070)
Disadv X Asian American			0.015	0.008	0.017	0.022			0.005	0.007	0.002	0.006			0.096	0.108	0.126	0.141
			(0.054)	(0.055)	(0.057)	(0.058)			(0.057)	(0.059)	(0.061)	(0.062)			(0.058)	(0.060)	(0.062)	(0.064)
Disadv X Missing			-0.095	-0.002	0.041	0.057			-0.147	-0.113	-0.075	-0.059			-0.208	-0.145	-0.128	-0.116
			(0.098)	(0.100)	(0.104)	(0.106)			(0.105)	(0.108)	(0.112)	(0.113)			(0.108)	(0.111)	(0.116)	(0.119)
Early X African American			0.041	0.062	0.008	-0.009			-0.062	-0.055	-0.102	-0.115			0.195	0.229	0.213	0.192
			(0.078)	(0.080)	(0.084)	(0.085)			(0.086)	(0.089)	(0.092)	(0.094)			(0.082)	(0.084)	(0.088)	(0.091)
Early X Hispanic			0.060	0.126	0.085	0.090			0.064	0.138	0.108	0.105			0.001	0.022	-0.003	-0.005
			(0.069)	(0.071)	(0.074)	(0.075)			(0.075)	(0.078)	(0.081)	(0.082)			(0.075)	(0.078)	(0.082)	(0.084)
Early X Asian American			0.141	0.126	0.031	0.055			0.156	0.149	0.045	0.067			0.248	0.235	0.171	0.201
			(0.049)	(0.050)	(0.052)	(0.053)			(0.052)	(0.054)	(0.056)	(0.057)			(0.051)	(0.052)	(0.055)	(0.056)
Early X Missing			0.112	0.086	0.072	0.071			-0.070	-0.091	-0.145	-0.146			0.064	0.038	0.025	0.045
			(0.076)	(0.078)	(0.082)	(0.083)			(0.083)	(0.085)	(0.089)	(0.090)			(0.081)	(0.083)	(0.088)	(0.090)
Observations	136958	136958	136958	130733	130733	130733	115618	115618	115618	110195	110195	110195	134341	134341	134341	128288	128288	128288
Pseudo R Sq.	0.03	0.078	0.078	0.088	0.142	0.163	0.029	0.074	0.075	0.083	0.137	0.156	0.046	0.103	0.103	0.116	0.185	0.219

Table B.6.3R: Ordered logit estimates of Harvard's Personal Rating and Alumni Personal Rating, baseline sample

	Personal Rating					Alumni Personal Rating					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
African American	-0.108	0.481	0.693	0.706	0.682	-0.132	0.300	0.421	0.463	0.236	0.207
	(0.025)	(0.029)	(0.043)	(0.045)	(0.053)	(0.021)	(0.024)	(0.035)	(0.037)	(0.041)	(0.041)
Hispanic	-0.075	0.174	0.188	0.213	0.279	-0.111	0.073	0.071	0.073	0.062	0.051
	(0.023)	(0.025)	(0.036)	(0.037)	(0.044)	(0.019)	(0.021)	(0.029)	(0.030)	(0.034)	(0.034)
Asian American	-0.346	-0.486	-0.559	-0.482	-0.398	-0.010	-0.140	-0.166	-0.100	-0.181	-0.165
	(0.018)	(0.019)	(0.027)	(0.029)	(0.034)	(0.014)	(0.015)	(0.021)	(0.022)	(0.025)	(0.025)
Missing	-0.237	-0.324	-0.396	-0.369	-0.347	0.019	-0.057	-0.057	-0.040	-0.129	-0.116
	(0.029)	(0.031)	(0.047)	(0.049)	(0.056)	(0.023)	(0.024)	(0.036)	(0.036)	(0.041)	(0.041)
Female	0.170	0.224	0.207	0.201	0.161	0.177	0.237	0.203	0.205	0.240	0.232
	(0.014)	(0.015)	(0.033)	(0.034)	(0.039)	(0.011)	(0.012)	(0.027)	(0.028)	(0.032)	(0.032)
Disadvantaged	0.754	0.744	0.745	0.791	0.553	0.172	0.146	0.105	0.113	-0.075	-0.105
	(0.026)	(0.026)	(0.044)	(0.045)	(0.052)	(0.022)	(0.022)	(0.039)	(0.039)	(0.044)	(0.044)
First generation	0.010	0.074	0.059	0.034	0.013	0.048	0.098	0.091	0.074	0.036	0.034
	(0.030)	(0.031)	(0.031)	(0.032)	(0.036)	(0.025)	(0.025)	(0.025)	(0.025)	(0.028)	(0.028)
Early Decision	0.648	0.557	0.505	0.504	0.287	0.251	0.177	0.166	0.165	0.120	0.102
	(0.022)	(0.023)	(0.035)	(0.036)	(0.041)	(0.019)	(0.019)	(0.029)	(0.030)	(0.034)	(0.034)
Waiver	-0.182	0.019	0.021	-0.020	0.028	-0.032	0.133	0.135	0.087	0.061	0.060
	(0.025)	(0.025)	(0.025)	(0.027)	(0.031)	(0.020)	(0.020)	(0.020)	(0.022)	(0.024)	(0.024)
Applied for Financial Aid	-0.129	-0.137	-0.140	-0.020	0.025	-0.056	-0.051	-0.049	-0.006	0.006	0.005
	(0.017)	(0.018)	(0.018)	(0.020)	(0.023)	(0.014)	(0.014)	(0.014)	(0.016)	(0.018)	(0.018)
Humanities	0.010	0.002	0.060	0.014	-0.066	0.001	-0.010	0.022	0.009	0.000	0.000
	(0.023)	(0.023)	(0.036)	(0.037)	(0.043)	(0.019)	(0.019)	(0.030)	(0.030)	(0.034)	(0.034)
Biology	-0.230	-0.274	-0.281	-0.264	-0.140	-0.169	-0.196	-0.223	-0.221	-0.140	-0.135
	(0.019)	(0.020)	(0.029)	(0.030)	(0.034)	(0.016)	(0.016)	(0.024)	(0.024)	(0.027)	(0.027)
Physical Sciences	-0.207	-0.370	-0.378	-0.368	-0.294	-0.149	-0.289	-0.331	-0.337	-0.345	-0.332
	(0.030)	(0.031)	(0.040)	(0.042)	(0.047)	(0.025)	(0.025)	(0.032)	(0.033)	(0.037)	(0.037)
Engineering	-0.233	-0.345	-0.409	-0.412	-0.240	-0.194	-0.276	-0.334	-0.333	-0.224	-0.215
	(0.023)	(0.024)	(0.032)	(0.032)	(0.037)	(0.019)	(0.019)	(0.025)	(0.025)	(0.029)	(0.029)
Mathematics	-0.262	-0.382	-0.420	-0.421	-0.365	-0.230	-0.334	-0.365	-0.373	-0.387	-0.371
	(0.033)	(0.034)	(0.045)	(0.046)	(0.052)	(0.026)	(0.027)	(0.035)	(0.036)	(0.041)	(0.041)
Computer Science	-0.523	-0.644	-0.717	-0.685	-0.517	-0.295	-0.403	-0.483	-0.478	-0.460	-0.439
	(0.041)	(0.042)	(0.051)	(0.052)	(0.058)	(0.031)	(0.031)	(0.037)	(0.038)	(0.042)	(0.042)
Unspecified	-0.414	-0.278	-0.189	-0.198	-0.027	-0.432	-0.313	-0.275	-0.271	-0.006	-0.006
	(0.041)	(0.041)	(0.058)	(0.059)	(0.067)	(0.033)	(0.033)	(0.047)	(0.048)	(0.053)	(0.053)
Academic index		0.403	0.403	0.379	-0.154		0.442	0.442	0.427	-0.395	-0.391
		(0.047)	(0.047)	(0.048)	(0.057)		(0.036)	(0.036)	(0.037)	(0.044)	(0.044)

Table B.6.3R Continued: Ordered logit estimates of Harvard's Personal Rating and Alumni Personal Rating, baseline sample

	Personal Rating					Alumni Personal Rating					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
AI Sq. X (AI>0)		0.007	0.018	0.014	-0.189		0.183	0.184	0.208	-0.183	-0.169
		(0.030)	(0.030)	(0.031)	(0.038)		(0.024)	(0.024)	(0.024)	(0.031)	(0.031)
AI Sq. X (AI<0)		0.014	0.016	0.015	0.000		0.021	0.021	0.019	-0.018	-0.019
		(0.010)	(0.010)	(0.010)	(0.012)		(0.007)	(0.007)	(0.007)	(0.009)	(0.009)
Female X Humanities			-0.091	-0.070	0.003			-0.044	-0.036	-0.019	-0.018
			(0.047)	(0.048)	(0.056)			(0.039)	(0.040)	(0.045)	(0.045)
Female X Biology			0.015	0.009	-0.004			0.053	0.058	0.001	0.002
			(0.039)	(0.040)	(0.046)			(0.032)	(0.032)	(0.037)	(0.037)
Female X Phys Sci			0.018	0.002	-0.002			0.098	0.102	0.095	0.096
			(0.063)	(0.064)	(0.073)			(0.050)	(0.051)	(0.058)	(0.058)
Female X Engineering			0.154	0.160	0.072			0.136	0.136	-0.008	-0.010
			(0.047)	(0.048)	(0.055)			(0.038)	(0.039)	(0.044)	(0.044)
Female X Math			0.093	0.088	0.141			0.068	0.072	0.167	0.163
			(0.067)	(0.069)	(0.078)			(0.054)	(0.055)	(0.062)	(0.062)
Female X Comp Sci			0.262	0.220	0.245			0.282	0.270	0.261	0.254
			(0.090)	(0.092)	(0.104)			(0.071)	(0.072)	(0.081)	(0.081)
Female X Unspec			-0.178	-0.166	-0.184			-0.079	-0.089	-0.190	-0.181
			(0.082)	(0.084)	(0.095)			(0.065)	(0.066)	(0.074)	(0.074)
Female X African American			-0.258	-0.265	-0.239			-0.172	-0.165	-0.066	-0.056
			(0.049)	(0.050)	(0.057)			(0.040)	(0.040)	(0.045)	(0.046)
Female X Hispanic			-0.074	-0.077	-0.015			-0.034	-0.038	-0.021	-0.022
			(0.044)	(0.045)	(0.051)			(0.036)	(0.037)	(0.041)	(0.041)
Female X Asian American			0.084	0.085	0.095			0.023	0.014	0.053	0.050
			(0.035)	(0.036)	(0.040)			(0.027)	(0.028)	(0.031)	(0.031)
Female X Missing			0.130	0.133	0.118			0.028	0.040	0.034	0.031
			(0.059)	(0.061)	(0.069)			(0.046)	(0.047)	(0.054)	(0.054)
Disadv X African American			-0.231	-0.292	-0.324			-0.002	0.004	0.101	0.122
			(0.061)	(0.063)	(0.073)			(0.053)	(0.054)	(0.061)	(0.061)
Disadv X Hispanic			0.096	0.027	-0.048			0.139	0.124	0.174	0.181
			(0.059)	(0.060)	(0.070)			(0.052)	(0.053)	(0.060)	(0.060)
Disadv X Asian American			0.118	0.101	0.058			0.033	0.029	0.087	0.089
			(0.057)	(0.058)	(0.067)			(0.049)	(0.050)	(0.056)	(0.056)
Disadv X Missing			-0.089	-0.032	0.068			-0.010	0.005	0.078	0.077
			(0.104)	(0.106)	(0.123)			(0.089)	(0.090)	(0.101)	(0.101)
Early X African American			0.126	0.103	0.050			-0.092	-0.078	-0.057	-0.053
			(0.075)	(0.078)	(0.091)			(0.063)	(0.064)	(0.073)	(0.073)
Early X Hispanic			-0.007	0.007	-0.071			-0.070	-0.052	-0.128	-0.123
			(0.071)	(0.073)	(0.085)			(0.060)	(0.062)	(0.070)	(0.070)
Early X Asian American			0.114	0.090	-0.059			0.121	0.105	0.015	0.023
			(0.054)	(0.055)	(0.064)			(0.044)	(0.045)	(0.052)	(0.052)
Early X Missing			0.061	0.024	0.029			-0.100	-0.093	-0.127	-0.125
			(0.084)	(0.087)	(0.101)			(0.070)	(0.072)	(0.082)	(0.082)
Observations	142728	142728	142728	136208	136208	111524	111524	111524	108054	108054	108054
Pseudo R Sq.	0.06	0.088	0.089	0.097	0.289	0.012	0.027	0.028	0.031	0.341	0.342

Table B.6.4R: Ordered logit estimates of Harvard's Overall Rating and Alumni Overall Rating, baseline sample

	Overall Rating						Alumni Overall Rating					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
African American	-0.821	0.950	1.137	1.212	1 503	1.451	-0.664	0.254	0.373	0.412	0.126	0.126
	(0.019)	(0.022)	(0.032)	(0.034)	(0 038)	(0.038)	(0.020)	(0.024)	(0.035)	(0.037)	(0 040)	(0.040)
Hispanic	-0.237	0.549	0.621	0.683	0 922	0.906	-0.358	0.030	0.037	0.048	0 001	0.000
	(0.016)	(0.019)	(0.026)	(0.027)	(0 030)	(0.030)	(0.019)	(0.021)	(0.029)	(0.030)	(0 033)	(0.033)
Asian American	0.160	-0.238	-0.290	-0.179	-0.136	-0 081	0.232	-0.042	-0.045	0.025	0.160	0.159
	(0.012)	(0.014)	(0.019)	(0.020)	(0 022)	(0.022)	(0.014)	(0.015)	(0.021)	(0.022)	(0 024)	(0.024)
Missing	0.095	-0.117	-0.133	-0.098	-0.086	-0 035	0.187	0.039	0.042	0.070	0.165	0.165
	(0.020)	(0.022)	(0.032)	(0.033)	(0 036)	(0.036)	(0.023)	(0.024)	(0.035)	(0.036)	(0 040)	(0.040)
Female	-0.017	0.196	0.180	0.176	0.117	0.092	-0.027	0.133	0.119	0.112	-0.094	-0.094
	(0.010)	(0.011)	(0.025)	(0.025)	(0 027)	(0.027)	(0.011)	(0.012)	(0.027)	(0.028)	(0 031)	(0.031)
Disadvantaged	0.603	0.650	0.852	0.900	0.743	0.671	0.191	0.143	0.159	0.165	0 068	0.068
	(0.019)	(0.020)	(0.035)	(0.036)	(0 038)	(0.038)	(0.021)	(0.022)	(0.038)	(0.039)	(0 043)	(0.043)
First generation	-0.170	0.016	0.009	-0.004	0 004	0.008	-0.023	0.091	0.087	0.078	0 030	0.030
	(0.021)	(0.022)	(0.022)	(0.023)	(0 024)	(0.024)	(0.024)	(0.025)	(0.025)	(0.025)	(0 028)	(0.028)
Early Decision	0.683	0.564	0.466	0.470	0 291	0.249	0.291	0.153	0.112	0.114	-0.047	-0.047
	(0.018)	(0.018)	(0.027)	(0.028)	(0 029)	(0.029)	(0.019)	(0.019)	(0.029)	(0.030)	(0 033)	(0.033)
Waiver	-0.533	0.034	0.032	-0.010	0 079	0.078	-0.237	0.121	0.123	0.071	0 031	0.031
	(0.017)	(0.018)	(0.018)	(0.019)	(0 020)	(0.021)	(0.020)	(0.020)	(0.020)	(0.021)	(0 024)	(0.024)
Applied for Financial Aid	-0.090	-0.091	-0.099	-0.013	0 013	0.012	-0.073	-0.050	-0.050	-0.005	0 003	0.003
	(0.013)	(0.013)	(0.013)	(0.014)	(0 015)	(0.015)	(0.014)	(0.014)	(0.014)	(0.016)	(0 017)	(0.017)
Humanities	0.075	0.061	0.085	0.051	0 005	0.014	0.021	0.010	0.046	0.027	-0.003	-0.002
	(0.017)	(0.018)	(0.027)	(0.028)	(0 029)	(0.029)	(0.019)	(0.019)	(0.029)	(0.030)	(0 033)	(0.033)
Biology	-0.078	-0.205	-0.208	-0.207	-0.073	-0 055	-0.066	-0.127	-0.160	-0.159	0 035	0.035
	(0.014)	(0.014)	(0.021)	(0.022)	(0 023)	(0.023)	(0.016)	(0.016)	(0.023)	(0.024)	(0 026)	(0.026)
Physical Sciences	0.266	-0.174	-0.210	-0.221	-0.069	-0 026	0.183	-0.124	-0.139	-0.151	0.168	0.168
	(0.021)	(0.022)	(0.029)	(0.030)	(0 031)	(0.031)	(0.024)	(0.025)	(0.032)	(0.033)	(0 036)	(0.036)
Engineering	0.104	-0.218	-0.275	-0.281	-0.064	-0 035	0.013	-0.184	-0.256	-0.254	0 041	0.041
	(0.016)	(0.017)	(0.022)	(0.023)	(0 024)	(0.024)	(0.018)	(0.019)	(0.025)	(0.025)	(0 028)	(0.028)
Mathematics	0.125	-0.228	-0.208	-0.231	-0.109	-0 058	0.077	-0.165	-0.146	-0.155	0.188	0.188
	(0.023)	(0.024)	(0.032)	(0.033)	(0 034)	(0.034)	(0.026)	(0.027)	(0.035)	(0.036)	(0 040)	(0.040)
Computer Science	0.019	-0.340	-0.373	-0.361	-0.109	-0 043	0.052	-0.182	-0.227	-0.226	0 228	0.228
	(0.027)	(0.028)	(0.033)	(0.034)	(0 035)	(0.035)	(0.031)	(0.031)	(0.037)	(0.038)	(0 042)	(0.042)
Unspecified	-0.529	-0.216	-0.219	-0.226	-0.076	-0 073	-0.536	-0.328	-0.351	-0.352	-0.207	-0.207
	(0.027)	(0.029)	(0.040)	(0.041)	(0 043)	(0.044)	(0.032)	(0.033)	(0.046)	(0.047)	(0 052)	(0.052)
Academic index		1.605	1.615	1.609	0.497	0.514		0.935	0.934	0.931	0.750	0.750
		(0.032)	(0.032)	(0.033)	(0 037)	(0.037)		(0.036)	(0.036)	(0.037)	(0 043)	(0.043)

Table B.6.4R Continued: Ordered logit estimates of Harvard's Overall Rating and Alumni Overall Rating, baseline sample

	Overall Rating						Alumni Overall Rating					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
AI Sq. X (AI>0)		-0.177	-0.167	-0.136	-0.136	-0 084		0.362	0.360	0.388	0 339	0.339
		(0.022)	(0.022)	(0.023)	(0 026)	(0.026)		(0.024)	(0.024)	(0.025)	(0 030)	(0.030)
AI Sq. X (AI<0)		0.079	0.084	0.088	0 082	0.083		0.020	0.021	0.019	-0.016	-0.016
		(0.007)	(0.007)	(0.007)	(0 008)	(0.008)		(0.007)	(0.007)	(0.007)	(0 009)	(0.009)
Female X Humanities			-0.035	-0.020	0 033	0.036			-0.054	-0.044	0 004	0.004
			(0.036)	(0.037)	(0 038)	(0.039)			(0.039)	(0.040)	(0 044)	(0.044)
Female X Biology			0.010	0.020	0 002	0.006			0.062	0.069	0 045	0.044
			(0.029)	(0.029)	(0 031)	(0.031)			(0.032)	(0.032)	(0 035)	(0.035)
Female X Phys Sci			0.087	0.101	0 097	0.102			0.028	0.040	-0.025	-0.026
			(0.046)	(0.047)	(0 049)	(0.049)			(0.050)	(0.051)	(0 056)	(0.056)
Female X Engineering			0.150	0.160	0 063	0.065			0.179	0.180	0.112	0.111
			(0.034)	(0.035)	(0 037)	(0.037)			(0.038)	(0.038)	(0 042)	(0.042)
Female X Math			-0.055	-0.033	-0.030	-0 043			-0.058	-0.051	-0.137	-0.139
			(0.049)	(0.050)	(0 053)	(0.053)			(0.054)	(0.054)	(0 060)	(0.060)
Female X Comp Sci			0.120	0.077	0 064	0.034			0.140	0.119	-0.110	-0.109
			(0.063)	(0.064)	(0 067)	(0.068)			(0.070)	(0.071)	(0 079)	(0.079)
Female X Unspec			0.009	0.014	0 065	0.086			0.040	0.034	0.144	0.144
			(0.056)	(0.058)	(0 061)	(0.061)			(0.064)	(0.066)	(0 072)	(0.072)
Female X African American			-0.140	-0.155	-0.163	-0.130			-0.170	-0.162	-0.085	-0.085
			(0.036)	(0.037)	(0 040)	(0.040)			(0.039)	(0.040)	(0 044)	(0.044)
Female X Hispanic			-0.083	-0.093	-0.013	-0 008			-0.043	-0.053	-0.014	-0.014
			(0.032)	(0.033)	(0 035)	(0.035)			(0.036)	(0.037)	(0 040)	(0.040)
Female X Asian American			0.030	0.026	0 040	0.034			-0.023	-0.029	-0.062	-0.062
			(0.025)	(0.025)	(0 026)	(0.027)			(0.027)	(0.028)	(0 030)	(0.030)
Female X Missing			0.041	0.023	0 011	0.001			0.006	0.002	-0.041	-0.041
			(0.042)	(0.043)	(0 045)	(0.045)			(0.046)	(0.047)	(0 052)	(0.052)
Disadv X African American			-0.637	-0.670	-0.684	-0.646			-0.070	-0.050	-0.066	-0.066
			(0.049)	(0.050)	(0 053)	(0.053)			(0.052)	(0.053)	(0 059)	(0.059)
Disadv X Hispanic			-0.303	-0.356	-0.353	-0 344			0.046	0.031	-0.077	-0.076
			(0.047)	(0.048)	(0 051)	(0.051)			(0.051)	(0.053)	(0 058)	(0.058)
Disadv X Asian American			0.083	0.059	0.100	0.105			-0.036	-0.040	-0.060	-0.059
			(0.045)	(0.046)	(0 048)	(0.049)			(0.049)	(0.049)	(0 054)	(0.054)
Disadv X Missing			-0.252	-0.218	-0.155	-0.161			-0.056	-0.021	-0.071	-0.070
			(0.082)	(0.084)	(0 088)	(0.088)			(0.087)	(0.089)	(0 098)	(0.098)
Early X African American			0.249	0.242	0 200	0.196			-0.048	-0.043	0 006	0.005
			(0.061)	(0.062)	(0 065)	(0.066)			(0.063)	(0.064)	(0 071)	(0.071)
Early X Hispanic			0.098	0.091	0 007	0.015			-0.007	0.022	0 090	0.090
			(0.056)	(0.057)	(0 060)	(0.060)			(0.060)	(0.061)	(0 067)	(0.067)
Early X Asian American			0.180	0.157	-0.006	0.015			0.156	0.132	0 038	0.038
			(0.042)	(0.043)	(0 044)	(0.045)			(0.044)	(0.045)	(0 050)	(0.050)
Early X Missing			0.069	0.071	0 056	0.063			-0.019	-0.016	0 047	0.048
			(0.066)	(0.068)	(0 071)	(0.072)			(0.070)	(0.071)	(0 080)	(0.080)
Observations	142701	142701	142701	136183	136183	136183	111524	111524	111524	108054	108054	108054
Pseudo R Sq.	0.059	0.195	0.196	0.201	0 331	0.346	0.035	0.095	0.096	0.1	0 375	0.375

Table B.6.5R: Ordered logit estimates of Harvard's Academic and Extracurricular Ratings, expanded sample

	Academic						Extracurricular					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
African American	-1.693	0 084	0.043	0.049	-0.006	0.000	-0.499	0.037	-0.059	-0.059	-0.208	-0.283
	(0.019)	(0 027)	(0.039)	(0.041)	(0 043)	(0.043)	(0 023)	(0.026)	(0.040)	(0 042)	(0.044)	(0.044)
Hispanic	-0 941	-0.190	-0.140	-0.098	-0.109	-0.105	-0.303	-0.104	-0.137	-0.126	-0.136	-0.167
	(0.017)	(0 024)	(0.033)	(0.034)	(0 037)	(0.037)	(0 021)	(0.023)	(0.032)	(0 033)	(0.036)	(0.036)
Asian American	0.607	0 013	0.025	0.086	0.131	0.128	0 241	0.115	0.106	0.178	0.175	0.200
	(0.014)	(0 019)	(0.027)	(0.029)	(0 031)	(0.031)	(0 015)	(0.016)	(0.022)	(0 024)	(0.026)	(0.026)
Missing	0.303	0 051	0.068	0.055	0 075	0.069	0.123	0.064	0.038	0 075	0.076	0.098
	(0.022)	(0 031)	(0.045)	(0.047)	(0 051)	(0.051)	(0 024)	(0.025)	(0.038)	(0 039)	(0.042)	(0.042)
Female	-0 268	0.108	0.170	0.154	0.118	0.119	0 206	0.257	0.155	0.140	0.024	0.005
	(0.011)	(0 014)	(0.032)	(0.033)	(0 034)	(0.034)	(0 012)	(0.013)	(0.028)	(0 029)	(0.030)	(0.030)
Disadvantaged	0.132	0 029	0.123	0.156	0 056	0.063	0 372	0.344	0.346	0 372	0.196	0.126
	(0.019)	(0 024)	(0.044)	(0.045)	(0 046)	(0.046)	(0 024)	(0.024)	(0.042)	(0 043)	(0.044)	(0.045)
First generation	-0 209	-0.019	-0.015	-0.008	-0.015	-0.014	-0.013	0.049	0.050	0 035	0.025	0.023
	(0.022)	(0 027)	(0.027)	(0.028)	(0 028)	(0.028)	(0 027)	(0.027)	(0.027)	(0 028)	(0.029)	(0.029)
Early Decision	0.478	0.187	0.060	0.069	-0.009	-0.005	0.462	0.353	0.290	0 287	0.204	0.181
	(0.019)	(0 024)	(0.036)	(0.037)	(0 038)	(0.038)	(0 019)	(0.020)	(0.030)	(0 030)	(0.032)	(0.032)
Legacy	-0 232	0 016	0.045	-0.126	-0.160	-0.154	0 072	0.146	0.205	0.148	0.112	0.087
	(0.035)	(0 046)	(0.055)	(0.067)	(0 068)	(0.068)	(0 038)	(0.038)	(0.045)	(0 053)	(0.056)	(0.056)
Double Legacy	0.358	0.111	0.117	0.117	0.113	0.115	0 045	-0.024	-0.020	-0.078	-0.024	-0.052
	(0.082)	(0.105)	(0.105)	(0.109)	(0.111)	(0.111)	(0 082)	(0.083)	(0.083)	(0 086)	(0.090)	(0.090)
Faculty or Staff Child	0.369	0 360	0.450	0.481	0.470	0.461	0 005	-0.020	-0.185	-0.160	-0.071	-0.061
	(0.124)	(0.158)	(0.289)	(0.291)	(0 295)	(0.295)	(0.123)	(0.124)	(0.225)	(0 227)	(0.238)	(0.239)
Dean's/Director's List	0.029	0.179	0.295	0.268	0.175	0.178	0 235	0.275	0.085	0 070	0.086	0.055
	(0.044)	(0 058)	(0.339)	(0.342)	(0 347)	(0.346)	(0 046)	(0.047)	(0.264)	(0 266)	(0.279)	(0.280)
Waiver	-0.714	-0.061	-0.063	-0.071	-0.055	-0.055	-0.250	-0.047	-0.047	-0.079	-0.099	-0.101
	(0.018)	(0 022)	(0.022)	(0.024)	(0 024)	(0.024)	(0 022)	(0.022)	(0.022)	(0 023)	(0.024)	(0.024)
Applied for Financial Aid	-0.136	-0.095	-0.096	-0.020	-0.016	-0.017	-0.063	-0.068	-0.065	0 008	-0.002	-0.006
	(0.014)	(0 018)	(0.018)	(0.020)	(0 020)	(0.020)	(0 015)	(0.015)	(0.015)	(0 017)	(0.017)	(0.017)
Humanities	0.047	0 042	0.084	0.066	0 039	0.039	0 079	0.068	0.113	0 089	0.021	0.029
	(0.017)	(0 022)	(0.035)	(0.036)	(0 036)	(0.036)	(0 019)	(0.019)	(0.030)	(0 031)	(0.032)	(0.032)
Biology	0.109	0 028	0.049	0.070	0.110	0.109	-0.497	-0.533	-0.574	-0.580	-0.544	-0.527
	(0.014)	(0 019)	(0.028)	(0.029)	(0 029)	(0.029)	(0 017)	(0.017)	(0.025)	(0 026)	(0.026)	(0.027)
Physical Sciences	0.743	0.162	0.192	0.207	0 242	0.240	-0.436	-0.597	-0.676	-0.692	-0.718	-0.689
	(0.024)	(0 031)	(0.041)	(0.042)	(0 043)	(0.043)	(0 026)	(0.026)	(0.034)	(0 035)	(0.036)	(0.037)
Engineering	0.398	-0.019	-0.020	-0.008	0 072	0.071	-0.558	-0.662	-0.767	-0.785	-0.695	-0.670
	(0.017)	(0 023)	(0.030)	(0.031)	(0 031)	(0.031)	(0 020)	(0.020)	(0.027)	(0 028)	(0.028)	(0.029)
Mathematics	0.517	0 046	0.140	0.126	0.153	0.152	-0.514	-0.628	-0.727	-0.744	-0.768	-0.731
	(0.025)	(0 033)	(0.045)	(0.046)	(0 046)	(0.046)	(0 028)	(0.029)	(0.038)	(0 039)	(0.040)	(0.040)
Computer Science	0.447	-0.063	-0.050	-0.022	0 030	0.026	-0.569	-0.688	-0.752	-0.753	-0.760	-0.718
	(0.030)	(0 039)	(0.046)	(0.047)	(0 048)	(0.048)	(0 033)	(0.033)	(0.040)	(0 041)	(0.042)	(0.042)
Unspecified	-0.482	-0.091	-0.053	-0.057	0 027	0.025	-0.640	-0.505	-0.542	-0.574	-0.477	-0.469
	(0.028)	(0 036)	(0.052)	(0.053)	(0 054)	(0.054)	(0 034)	(0.034)	(0.049)	(0 050)	(0.052)	(0.052)
Academic index		3 856	3.860	3.895	3.757	3.757		0.485	0.486	0.475	0.095	0.096
		(0 046)	(0.046)	(0.048)	(0 049)	(0.049)		(0.039)	(0.039)	(0 040)	(0.043)	(0.044)
AI Sq. X (AI>0)		1.197	1.195	1.183	1.127	1.122		0.180	0.172	0.189	0.065	0.096
		(0 043)	(0.043)	(0.045)	(0 046)	(0.046)		(0.025)	(0.025)	(0 026)	(0.029)	(0.029)
AI Sq. X (AI<0)		0.432	0.431	0.445	0.434	0.435		0.011	0.010	0 007	-0.019	-0.020
		(0 009)	(0.009)	(0.009)	(0 009)	(0.009)		(0.007)	(0.007)	(0 007)	(0.008)	(0.008)

Table B.6.5R Continued: Ordered logit estimates of Harvard's Academic and Extracurricular Ratings, expanded sample

	Academic						Extracurricular					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Female X Humanities			-0.075	-0.068	-0.042	-0.042			-0.058	-0.036	-0.003	-0.001
			(0.045)	(0.047)	(0 047)	(0.048)			(0.039)	(0 040)	(0.042)	(0.042)
Female X Biology			-0.041	-0.038	-0.054	-0.057			0.081	0 092	0.089	0.094
			(0.037)	(0.038)	(0 039)	(0.039)			(0.033)	(0 034)	(0.035)	(0.036)
Female X Phys Sci			-0.067	-0.076	-0.085	-0.085			0.183	0.198	0.212	0.217
			(0.063)	(0.065)	(0 066)	(0.066)			(0.053)	(0 054)	(0.056)	(0.057)
Female X Engineering			0.024	0.020	-0.046	-0.048			0.253	0 276	0.233	0.231
			(0.046)	(0.047)	(0 048)	(0.048)			(0.040)	(0 041)	(0.043)	(0.043)
Female X Math			-0.214	-0.181	-0.176	-0.178			0.219	0 232	0.295	0.282
			(0.066)	(0.068)	(0 069)	(0.069)			(0.058)	(0 059)	(0.061)	(0.061)
Female X Comp Sci			-0.011	-0.064	-0.081	-0.081			0.176	0.179	0.191	0.183
			(0.088)	(0.090)	(0 091)	(0.091)			(0.074)	(0 076)	(0.079)	(0.080)
Female X Unspec			-0.071	-0.062	-0.085	-0.085			0.073	0.109	0.094	0.112
			(0.071)	(0.073)	(0 074)	(0.074)			(0.068)	(0 070)	(0.072)	(0.072)
Female X African American			0.053	0.068	0.102	0.100			0.134	0.163	0.201	0.223
			(0.043)	(0.044)	(0 045)	(0.045)			(0.044)	(0 045)	(0.046)	(0.046)
Female X Hispanic			-0.075	-0.078	-0.057	-0.058			0.034	0 027	0.062	0.062
			(0.039)	(0.041)	(0 041)	(0.041)			(0.039)	(0 040)	(0.041)	(0.041)
Female X Asian American			-0.067	-0.065	-0.067	-0.067			0.005	-0.001	-0.003	-0.003
			(0.035)	(0.036)	(0 036)	(0.036)			(0.029)	(0 029)	(0.030)	(0.031)
Female X Missing			-0.053	-0.044	-0.062	-0.061			0.063	0 036	0.009	0.005
			(0.058)	(0.060)	(0 061)	(0.061)			(0.048)	(0 050)	(0.052)	(0.052)
Disadv X African American			-0.086	-0.128	-0.127	-0.135			0.037	0 021	0.114	0.137
			(0.058)	(0.060)	(0 061)	(0.061)			(0.058)	(0 060)	(0.062)	(0.062)
Disadv X Hispanic			-0.212	-0.234	-0.270	-0.275			0.093	0 071	0.086	0.078
			(0.057)	(0.059)	(0 060)	(0.060)			(0.057)	(0 059)	(0.060)	(0.061)
Disadv X Asian American			-0.061	-0.064	-0.097	-0.096			-0.099	-0.091	-0.066	-0.057
			(0.058)	(0.060)	(0 061)	(0.061)			(0.054)	(0 055)	(0.057)	(0.057)
Disadv X Missing			-0.098	-0.044	-0.008	-0.010			-0.087	-0.023	0.044	0.053
			(0.106)	(0.109)	(0.111)	(0.111)			(0.096)	(0 099)	(0.102)	(0.103)
Early X African American			0.175	0.159	0.159	0.164			0.021	0 033	-0.017	-0.039
			(0.073)	(0.075)	(0 077)	(0.077)			(0.070)	(0 072)	(0.074)	(0.075)
Early X Hispanic			0.238	0.230	0 220	0.219			-0.054	-0.030	-0.094	-0.094
			(0.070)	(0.073)	(0 074)	(0.074)			(0.065)	(0 067)	(0.069)	(0.070)
Early X Asian American			0.255	0.231	0.198	0.194			0.203	0.196	0.124	0.133
			(0.062)	(0.064)	(0 065)	(0.065)			(0.046)	(0 047)	(0.049)	(0.049)
Early X Missing			0.191	0.171	0.168	0.167			0.068	0 086	0.077	0.082
			(0.096)	(0.099)	(0.101)	(0.101)			(0.071)	(0 073)	(0.077)	(0.077)
Legacy X African American			-0.213	-0.193	-0.206	-0.200			0.160	0.145	0.198	0.137
			(0.165)	(0.170)	(0.172)	(0.172)			(0.155)	(0.160)	(0.167)	(0.169)
Legacy X Hispanic			-0.128	-0.150	-0.154	-0.153			-0.097	-0.108	-0.122	-0.104
			(0.164)	(0.170)	(0.172)	(0.172)			(0.144)	(0.150)	(0.155)	(0.156)
Legacy X Asian American			0.035	0.020	0 026	0.030			-0.283	-0.328	-0.305	-0.304
			(0.141)	(0.149)	(0.153)	(0.153)			(0.110)	(0.116)	(0.121)	(0.122)
Legacy X Missing			0.007	0.060	0.112	0.104			-0.244	-0.207	-0.185	-0.174
			(0.153)	(0.160)	(0.163)	(0.164)			(0.123)	(0.128)	(0.134)	(0.134)
Special X African American			-0.275	-0.268	-0.359	-0.359			0.205	0 085	-0.023	0.001
			(0.257)	(0.267)	(0 271)	(0.271)			(0.243)	(0 253)	(0.262)	(0.265)
Special X Hispanic			0.057	-0.066	-0.072	-0.071			0.120	0.123	0.026	0.054
			(0.212)	(0.222)	(0 226)	(0.226)			(0.184)	(0.193)	(0.198)	(0.199)
Special X Asian American			0.017	0.051	0 031	0.045			0.200	0 244	0.148	0.159
			(0.172)	(0.187)	(0.190)	(0.190)			(0.130)	(0.139)	(0.145)	(0.145)
Special X Missing			-0.183	-0.225	-0.251	-0.241			0.121	0.112	0.021	-0.009
			(0.193)	(0.202)	(0 205)	(0.205)			(0.153)	(0.159)	(0.166)	(0.167)
Observations	148769	148769	148769	141852	141852	141852	148769	148769	148769	141852	141852	141852
Pseudo R Sq.	0.161	0 547	0.547	0.552	0 565	0.566	0 042	0.067	0.068	0 073	0.131	0.14

Table B.6.6R: Ordered logit estimates of Harvard's School Support Measures, expanded sample

	Teacher 1						Teacher 2						Counselor					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
African American	-0.602	0.059	0.093	0.127	0 015	-0.103	-0.551	0.089	0.175	0.212	0.100	-0.014	-0.573	0.198	0.195	0.261	0.176	0 012
	(0 024)	(0.028)	(0.042)	(0.044)	(0 047)	(0.048)	(0.026)	(0.030)	(0 045)	(0.048)	(0.051)	(0.052)	(0 026)	(0.030)	(0.046)	(0.048)	(0 051)	(0 053)
Hispanic	-0.289	-0.008	-0.021	-0 021	-0 018	-0.069	-0.256	0.013	0 026	0.012	0.026	-0.026	-0.280	0.044	-0.001	0.027	0 021	-0.048
	(0 021)	(0.023)	(0.032)	(0.034)	(0 036)	(0.037)	(0.022)	(0.024)	(0 035)	(0.036)	(0.039)	(0.040)	(0 022)	(0.025)	(0.035)	(0.037)	(0 040)	(0 041)
Asian American	-0.049	-0.255	-0.275	-0.182	-0.152	-0.098	-0.084	-0 284	-0.320	-0.231	-0.197	-0.144	-0.054	-0.261	-0.295	-0.152	-0 094	-0.022
	(0 015)	(0.016)	(0.022)	(0.024)	(0 026)	(0.026)	(0.016)	(0.017)	(0 024)	(0.025)	(0.027)	(0.028)	(0 016)	(0.017)	(0.024)	(0.026)	(0 028)	(0 028)
Missing	-0.006	-0.114	-0.149	-0.104	-0 078	-0.030	-0.055	-0.155	-0.172	-0.137	-0.106	-0.061	-0.048	-0.151	-0.199	-0.135	-0.112	-0.053
	(0 024)	(0.025)	(0.038)	(0.039)	(0 042)	(0.043)	(0.025)	(0.027)	(0 040)	(0.041)	(0.045)	(0.045)	(0 026)	(0.027)	(0.041)	(0.042)	(0 046)	(0 047)
Female	0 003	0.064	0.120	0.152	0 092	0.064	-0.024	0.043	0.125	0.141	0.079	0.054	0 032	0.103	0.075	0.110	0 043	0 004
	(0 012)	(0.013)	(0.029)	(0.030)	(0 031)	(0.032)	(0.013)	(0.014)	(0 031)	(0.032)	(0.033)	(0.034)	(0 013)	(0.014)	(0.031)	(0.032)	(0 034)	(0 035)
Disadvantaged	0.433	0.424	0.364	0.394	0.197	0.095	0.450	0.435	0.422	0.450	0.270	0.171	0.448	0.426	0.339	0.400	0.170	0 025
	(0 024)	(0.025)	(0.041)	(0.043)	(0 044)	(0.045)	(0.026)	(0.027)	(0 045)	(0.046)	(0.047)	(0.048)	(0 026)	(0.027)	(0.045)	(0.046)	(0 049)	(0 050)
First generation	0 028	0.090	0.083	0.028	0 015	0.013	0.004	0.073	0 067	0.016	0.006	0.007	0 029	0.108	0.097	0.071	0 066	0 063
	(0 027)	(0.028)	(0.028)	(0.029)	(0 030)	(0.031)	(0.030)	(0.031)	(0 031)	(0.032)	(0.033)	(0.034)	(0 031)	(0.031)	(0.031)	(0.033)	(0 034)	(0 035)
Early Decision	0 511	0.373	0.336	0.334	0.185	0.136	0.546	0.404	0 367	0.352	0.180	0.135	0.640	0.492	0.406	0.399	0 219	0.155
	(0 019)	(0.020)	(0.030)	(0.031)	(0 032)	(0.032)	(0.021)	(0.022)	(0 032)	(0.033)	(0.034)	(0.035)	(0 021)	(0.021)	(0.031)	(0.032)	(0 034)	(0 035)
Legacy	-0.026	0.104	0.074	-0 016	-0 068	-0.121	-0.039	0.090	0 097	0.012	-0.009	-0.063	-0.059	0.092	0.082	-0.002	-0 067	-0.136
	(0 037)	(0.039)	(0.045)	(0.054)	(0 056)	(0.057)	(0.039)	(0.041)	(0 047)	(0.057)	(0.059)	(0.060)	(0 039)	(0.040)	(0.047)	(0.056)	(0 059)	(0 060)
Double Legacy	0.112	0.002	0.008	-0 061	-0 048	-0.075	0.083	-0 026	-0.026	-0.058	-0.038	-0.059	0.112	-0.006	-0.007	-0.050	-0 027	-0.065
	(0 081)	(0.083)	(0.083)	(0.087)	(0 090)	(0.091)	(0.085)	(0.087)	(0 087)	(0.091)	(0.094)	(0.096)	(0 083)	(0.086)	(0.086)	(0.089)	(0 094)	(0 096)
Faculty or Staff Child	0.109	0.089	0.029	0.054	0 033	0.021	0.125	0.093	0.163	0.227	0.253	0.230	0.114	0.093	-0.166	-0.027	-0.101	-0.130
	(0.119)	(0.123)	(0.220)	(0.222)	(0 230)	(0.234)	(0.124)	(0.128)	(0 218)	(0.220)	(0.228)	(0.231)	(0.121)	(0.126)	(0.223)	(0.226)	(0 235)	(0 240)
Dean's/Director's List	0.132	0.225	0.120	0.144	0 083	0.030	0.218	0.328	0.488	0.495	0.499	0.434	0 298	0.422	0.085	0.043	-0.110	-0.207
	(0 046)	(0.047)	(0.259)	(0.262)	(0 272)	(0.275)	(0.047)	(0.048)	(0 263)	(0.266)	(0.275)	(0.278)	(0 046)	(0.048)	(0.263)	(0.266)	(0 277)	(0 283)
Waiver	-0.195	0.033	0.035	-0 099	-0 079	-0.086	-0.196	0.035	0 037	-0.086	-0.070	-0.082	-0.178	0.102	0.104	-0.012	0 036	0 026
	(0 022)	(0.023)	(0.023)	(0.025)	(0 026)	(0.026)	(0.024)	(0.025)	(0 025)	(0.027)	(0.028)	(0.028)	(0 025)	(0.026)	(0.026)	(0.027)	(0 028)	(0 029)
Applied for Financial Aid	-0.019	-0.030	-0.028	-0 054	-0 037	-0.041	-0.005	-0 014	-0.014	-0.032	-0.013	-0.015	-0.115	-0.137	-0.135	-0.072	-0 054	-0.059
	(0 015)	(0.015)	(0.015)	(0.017)	(0 017)	(0.018)	(0.016)	(0.016)	(0 016)	(0.018)	(0.019)	(0.019)	(0 016)	(0.016)	(0.016)	(0.018)	(0 019)	(0 019)
Humanities	0.106	0.102	0.175	0.180	0.143	0.151	0.086	0.074	0.181	0.174	0.134	0.146	0 055	0.057	0.105	0.085	0 028	0 034
	(0 020)	(0.021)	(0.031)	(0.032)	(0 033)	(0.034)	(0.021)	(0.022)	(0 033)	(0.034)	(0.036)	(0.036)	(0 021)	(0.022)	(0.033)	(0.034)	(0 036)	(0 037)
Biology	-0.012	-0.067	-0.044	-0 058	0 030	0.050	-0.052	-0.101	-0.058	-0.083	-0.006	0.020	-0.037	-0.110	-0.132	-0.137	-0 031	-0.002
	(0 017)	(0.017)	(0.025)	(0.026)	(0 027)	(0.028)	(0.018)	(0.019)	(0 027)	(0.028)	(0.029)	(0.030)	(0 018)	(0.019)	(0.027)	(0.028)	(0 030)	(0 030)
Physical Sciences	0 263	0.044	0.095	0.056	0.126	0.171	0.252	0.038	0 085	0.047	0.108	0.151	0 216	-0.031	-0.042	-0.070	0 017	0 077
	(0 025)	(0.026)	(0.033)	(0.034)	(0 036)	(0.036)	(0.027)	(0.028)	(0 036)	(0.037)	(0.038)	(0.038)	(0 027)	(0.028)	(0.036)	(0.037)	(0 039)	(0 040)
Engineering	0 021	-0.118	-0.120	-0.156	-0 036	0.000	0.020	-0.112	-0.109	-0.143	-0.020	0.021	0 039	-0.131	-0.191	-0.222	-0 070	-0.022
	(0 020)	(0.021)	(0.027)	(0.028)	(0 029)	(0.029)	(0.021)	(0.022)	(0 029)	(0.030)	(0.031)	(0.031)	(0 021)	(0.022)	(0.029)	(0.030)	(0 031)	(0 032)
Mathematics	0.190	0.042	0.123	0.074	0.129	0.187	0.189	0.047	0.139	0.074	0.115	0.174	0.189	0.003	0.014	-0.037	0 044	0.118
	(0 027)	(0.028)	(0.037)	(0.038)	(0 039)	(0.040)	(0.029)	(0.030)	(0 039)	(0.040)	(0.042)	(0.042)	(0 029)	(0.030)	(0.039)	(0.041)	(0 043)	(0 044)
Computer Science	0 031	-0.127	-0.117	-0.122	0 005	0.078	0.024	-0.131	-0.090	-0.106	0.020	0.100	-0.067	-0.257	-0.279	-0.258	-0 094	0 011
	(0 032)	(0.034)	(0.040)	(0.041)	(0 043)	(0.043)	(0.034)	(0.036)	(0 042)	(0.043)	(0.045)	(0.045)	(0 035)	(0.037)	(0.043)	(0.045)	(0 047)	(0 048)
Unspecified	-0.289	-0.161	-0.143	-0.156	-0 060	-0.047	-0.213	-0 087	-0.012	-0.042	0.067	0.084	-0.300	-0.142	-0.149	-0.188	-0 073	-0.061
	(0 036)	(0.037)	(0.053)	(0.054)	(0 056)	(0.056)	(0.039)	(0.040)	(0 055)	(0.057)	(0.059)	(0.059)	(0 039)	(0.040)	(0.056)	(0.058)	(0 060)	(0 062)
Academic index		0.523	0.524	0.588	0.162	0.170		0.500	0 501	0.564	0.138	0.148		0.549	0.550	0.589	-0 001	0 017
		(0.042)	(0.042)	(0.044)	(0 047)	(0.048)		(0.046)	(0 046)	(0.048)	(0.052)	(0.052)		(0.045)	(0.045)	(0.047)	(0 052)	(0 053)
AI Sq. X (AI>0)		0.334	0.329	0.394	0 202	0.235		0.357	0 357	0.413	0.244	0.273		0.314	0.311	0.372	0 220	0 260
		(0.027)	(0.027)	(0.028)	(0 030)	(0.031)		(0.029)	(0 029)	(0.030)	(0.033)	(0.033)		(0.028)	(0.028)	(0.029)	(0 032)	(0 033)
AI Sq. X (AI<0)		0.018	0.019	0.010	-0 008	-0.011		0.017	0 018	0.009	-0.006	-0.007		-0.016	-0.016	-0.021	-0 073	-0.073
		(0.010)	(0.010)	(0.010)	(0 011)	(0.011)		(0.012)	(0 012)	(0.012)	(0.014)	(0.014)		(0.009)	(0.009)	(0.010)	(0 011)	(0 011)

Table B.6.6R Continued: Ordered logit estimates of Harvard's School Support Measures, expanded sample

	Teacher 1						Teacher 2						Counselor					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Female X Humanities			-0.131	-0.137	-0.092	-0.088			-0.193	-0.181	-0.151	-0.146			-0.076	-0.090	-0.037	-0.025
			(0 041)	(0.043)	(0.044)	(0.045)			(0 044)	(0.046)	(0.047)	(0.048)			(0.044)	(0.046)	(0.048)	(0.049)
Female X Biology			-0.048	-0.045	-0.045	-0.041			-0.085	-0.070	-0.071	-0.070			0.041	0.043	0.049	0.056
			(0 035)	(0.036)	(0.037)	(0.037)			(0 037)	(0.038)	(0.040)	(0.040)			(0.037)	(0.038)	(0.040)	(0.041)
Female X Phys Sci			-0.123	-0.112	-0.132	-0.133			-0.104	-0.085	-0.097	-0.093			0.023	0.033	0.039	0.045
			(0 053)	(0.054)	(0.056)	(0.057)			(0 056)	(0.058)	(0.060)	(0.061)			(0.056)	(0.058)	(0.061)	(0.062)
Female X Engineering			0 019	0.025	-0.023	-0.030			0 015	0.035	-0.013	-0.023			0.151	0.160	0.117	0.112
			(0 041)	(0.043)	(0.044)	(0.045)			(0 044)	(0.045)	(0.047)	(0.047)			(0.044)	(0.046)	(0.048)	(0.049)
Female X Math			-0.194	-0.206	-0.175	-0.196			-0.215	-0.197	-0.143	-0.164			-0.034	-0.043	0.016	-0.010
			(0 057)	(0.059)	(0.061)	(0.062)			(0 061)	(0.063)	(0.065)	(0.066)			(0.060)	(0.062)	(0.065)	(0.067)
Female X Comp Sci			0 014	0.000	0.006	-0.018			-0.081	-0.094	-0.112	-0.142			0.070	0.049	0.044	0.005
			(0 075)	(0.078)	(0.080)	(0.081)			(0 080)	(0.083)	(0.086)	(0.087)			(0.082)	(0.085)	(0.089)	(0.091)
Female X Unspec			-0.040	-0.039	-0.031	-0.015			-0.155	-0.112	-0.100	-0.085			0.007	0.036	0.075	0.104
			(0 074)	(0.076)	(0.079)	(0.080)			(0 079)	(0.081)	(0.084)	(0.085)			(0.079)	(0.082)	(0.085)	(0.088)
Female X African American			-0.096	-0.100	-0.067	-0.025			-0.134	-0.135	-0.100	-0.073			-0.036	-0.065	-0.016	0.037
			(0 048)	(0.049)	(0.051)	(0.052)			(0 052)	(0.054)	(0.055)	(0.056)			(0.051)	(0.053)	(0.055)	(0.057)
Female X Hispanic			-0.040	-0.036	0.009	0.015			-0.077	-0.083	-0.054	-0.051			-0.022	-0.050	-0.003	0.002
			(0 040)	(0.041)	(0.043)	(0.044)			(0 043)	(0.045)	(0.046)	(0.047)			(0.044)	(0.045)	(0.047)	(0.049)
Female X Asian American			0 016	0.015	0.030	0.024			0 030	0.018	0.040	0.035			0.003	-0.011	0.000	-0.007
			(0 029)	(0.030)	(0.031)	(0.031)			(0 031)	(0.032)	(0.033)	(0.033)			(0.031)	(0.032)	(0.034)	(0.034)
Female X Missing			0 036	0.030	0.012	-0.001			0 052	0.078	0.059	0.047			0.093	0.095	0.091	0.080
			(0 049)	(0.051)	(0.052)	(0.053)			(0 052)	(0.054)	(0.055)	(0.056)			(0.052)	(0.054)	(0.057)	(0.058)
Disadv X African American			0 085	0.036	0.112	0.171			-0.024	-0.087	-0.045	0.014			0.067	-0.042	0.010	0.104
			(0 061)	(0.063)	(0.065)	(0.067)			(0 067)	(0.069)	(0.071)	(0.073)			(0.066)	(0.069)	(0.072)	(0.074)
Disadv X Hispanic			0.194	0.076	0.089	0.102			0 094	-0.006	-0.027	-0.019			0.269	0.154	0.183	0.205
			(0 057)	(0.059)	(0.061)	(0.062)			(0 061)	(0.064)	(0.066)	(0.067)			(0.062)	(0.064)	(0.067)	(0.070)
Disadv X Asian American			0 013	0.004	0.012	0.018			0 007	0.010	0.004	0.008			0.099	0.113	0.130	0.146
			(0 053)	(0.055)	(0.057)	(0.058)			(0 057)	(0.059)	(0.061)	(0.062)			(0.058)	(0.059)	(0.062)	(0.064)
Disadv X Missing			-0.082	0.004	0.042	0.048			-0.127	-0.097	-0.065	-0.057			-0.219	-0.155	-0.153	-0.150
			(0 097)	(0.099)	(0.103)	(0.105)			(0.104)	(0.107)	(0.111)	(0.112)			(0.107)	(0.110)	(0.115)	(0.119)
Early X African American			0 028	0.048	-0.008	-0.035			-0.022	-0.015	-0.047	-0.065			0.192	0.227	0.213	0.182
			(0 075)	(0.077)	(0.080)	(0.082)			(0 082)	(0.085)	(0.088)	(0.090)			(0.078)	(0.081)	(0.085)	(0.088)
Early X Hispanic			-0.002	0.060	0.025	0.027			0 035	0.103	0.088	0.082			0.013	0.034	0.040	0.033
			(0 066)	(0.068)	(0.071)	(0.072)			(0 072)	(0.074)	(0.077)	(0.078)			(0.071)	(0.074)	(0.078)	(0.080)
Early X Asian American			0.100	0.084	-0.003	0.016			0.149	0.144	0.061	0.079			0.214	0.204	0.156	0.181
			(0 046)	(0.047)	(0.049)	(0.050)			(0 050)	(0.051)	(0.053)	(0.054)			(0.048)	(0.050)	(0.052)	(0.054)
Early X Missing			0 076	0.051	0.047	0.052			-0.108	-0.127	-0.173	-0.166			0.068	0.048	0.055	0.083
			(0 071)	(0.073)	(0.076)	(0.078)			(0 077)	(0.080)	(0.083)	(0.084)			(0.075)	(0.078)	(0.082)	(0.084)
Legacy X African American			0 066	0.060	0.106	0.070			0 097	0.132	0.167	0.136			0.015	0.004	0.040	-0.003
			(0.169)	(0.175)	(0.180)	(0.184)			(0.179)	(0.184)	(0.190)	(0.193)			(0.176)	(0.182)	(0.190)	(0.194)
Legacy X Hispanic			-0.091	-0.094	-0.059	-0.012			-0.252	-0.266	-0.273	-0.229			0.146	0.088	0.156	0.221
			(0.148)	(0.153)	(0.159)	(0.161)			(0.156)	(0.162)	(0.168)	(0.170)			(0.150)	(0.158)	(0.165)	(0.169)
Legacy X Asian American			0.147	0.076	0.121	0.104			0 030	-0.010	-0.004	-0.002			0.080	0.051	0.067	0.046
			(0.111)	(0.117)	(0.122)	(0.124)			(0.116)	(0.123)	(0.128)	(0.130)			(0.116)	(0.122)	(0.129)	(0.132)
Legacy X Missing			0.181	0.131	0.165	0.173			0 093	0.021	0.027	0.051			-0.026	-0.084	-0.069	-0.043
			(0.122)	(0.128)	(0.133)	(0.135)			(0.129)	(0.136)	(0.141)	(0.143)			(0.129)	(0.135)	(0.142)	(0.145)
Special X African American			0 547	0.662	0.786	0.816			-0.125	-0.143	-0.255	-0.232			0.056	0.050	-0.010	0.006
			(0 242)	(0.252)	(0.261)	(0.267)			(0 288)	(0.304)	(0.315)	(0.317)			(0.267)	(0.281)	(0.308)	(0.314)
Special X Hispanic			-0.250	-0.197	-0.298	-0.265			0 230	0.251	0.252	0.284			0.120	0.117	0.121	0.173
			(0.189)	(0.198)	(0.204)	(0.207)			(0.186)	(0.196)	(0.201)	(0.206)			(0.185)	(0.195)	(0.202)	(0.209)
Special X Asian American			-0.122	-0.076	-0.191	-0.217			0 215	0.286	0.239	0.210			0.081	0.042	-0.054	-0.091
			(0.133)	(0.142)	(0.147)	(0.150)			(0.133)	(0.143)	(0.149)	(0.150)			(0.132)	(0.143)	(0.149)	(0.153)
Special X Missing			0.128	0.123	0.050	0.032			0 315	0.266	0.218	0.204			0.248	0.148	0.088	0.080
			(0.151)	(0.158)	(0.165)	(0.166)			(0.157)	(0.165)	(0.171)	(0.172)			(0.155)	(0.163)	(0.171)	(0.173)
Observations	142945	142945	142945	136326	136326	136326	120968	120968	120968	115189	115189	115189	140271	140271	140271	133831	133831	133831
Pseudo R Sq.	0.031	0 079	0.08	0 09	0.144	0.165	0.03	0 076	0 076	0.085	0.138	0.158	0 048	0.106	0.107	0.119	0.189	0.223

Table B.6.7R: Ordered logit estimates of Harvard's Personal Rating and Alumni Personal Rating, expanded sample

	Personal Rating					Alumni Personal Rating					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
African American	-0.103	0.482	0.693	0.714	0.691	-0.136	0.294	0.418	0.462	0.234	0.204
	(0.024)	(0.028)	(0.042)	(0.045)	(0.053)	(0.020)	(0.024)	(0.035)	(0.036)	(0.041)	(0.041)
Hispanic	-0.074	0.170	0.198	0.220	0.286	-0.106	0.077	0.068	0.072	0.066	0.055
	(0.022)	(0.025)	(0.035)	(0.037)	(0.043)	(0.019)	(0.020)	(0.029)	(0.030)	(0.033)	(0.033)
Asian American	-0.343	-0.477	-0.547	-0.472	-0.391	-0.012	-0.138	-0.165	-0.102	-0.179	-0.164
	(0.017)	(0.019)	(0.027)	(0.029)	(0.033)	(0.014)	(0.015)	(0.021)	(0.022)	(0.025)	(0.025)
Missing	-0.231	-0.312	-0.390	-0.366	-0.343	0.021	-0.050	-0.068	-0.052	-0.141	-0.128
	(0.028)	(0.030)	(0.046)	(0.047)	(0.055)	(0.023)	(0.024)	(0.035)	(0.036)	(0.040)	(0.040)
Female	0.168	0.218	0.213	0.203	0.162	0.180	0.237	0.206	0.208	0.242	0.233
	(0.014)	(0.014)	(0.032)	(0.032)	(0.037)	(0.011)	(0.012)	(0.026)	(0.027)	(0.031)	(0.031)
Disadvantaged	0.754	0.745	0.746	0.794	0.560	0.172	0.147	0.103	0.109	-0.074	-0.105
	(0.026)	(0.026)	(0.043)	(0.044)	(0.051)	(0.022)	(0.022)	(0.039)	(0.039)	(0.044)	(0.044)
First generation	0.014	0.076	0.061	0.035	0.014	0.052	0.101	0.095	0.077	0.034	0.032
	(0.030)	(0.031)	(0.031)	(0.032)	(0.036)	(0.024)	(0.025)	(0.025)	(0.025)	(0.028)	(0.028)
Early Decision	0.652	0.553	0.512	0.504	0.268	0.261	0.180	0.174	0.178	0.125	0.107
	(0.021)	(0.022)	(0.032)	(0.032)	(0.038)	(0.018)	(0.018)	(0.027)	(0.028)	(0.031)	(0.031)
Legacy	0.350	0.442	0.421	0.259	0.255	0.109	0.172	0.175	0.105	-0.055	-0.069
	(0.039)	(0.040)	(0.047)	(0.056)	(0.065)	(0.034)	(0.034)	(0.040)	(0.048)	(0.055)	(0.055)
Double Legacy	0.183	0.111	0.108	0.064	0.171	0.129	0.071	0.068	-0.014	-0.088	-0.101
	(0.084)	(0.086)	(0.086)	(0.089)	(0.102)	(0.075)	(0.075)	(0.075)	(0.078)	(0.089)	(0.089)
Faculty or Staff Child	0.320	0.311	0.049	0.064	0.064	-0.046	-0.073	-0.318	-0.279	-0.171	-0.178
	(0.124)	(0.127)	(0.221)	(0.224)	(0.253)	(0.108)	(0.109)	(0.194)	(0.195)	(0.231)	(0.230)
Dean's/Director's List	0.688	0.750	0.395	0.384	0.325	0.307	0.334	0.024	0.021	-0.079	-0.101
	(0.047)	(0.048)	(0.262)	(0.264)	(0.303)	(0.043)	(0.043)	(0.229)	(0.230)	(0.268)	(0.268)
Waiver	-0.185	0.013	0.016	-0.025	0.024	-0.032	0.133	0.135	0.087	0.063	0.062
	(0.024)	(0.025)	(0.025)	(0.027)	(0.030)	(0.020)	(0.020)	(0.020)	(0.021)	(0.024)	(0.024)
Applied for Financial Aid	-0.135	-0.144	-0.147	-0.028	0.019	-0.053	-0.049	-0.047	-0.008	0.008	0.007
	(0.017)	(0.017)	(0.017)	(0.019)	(0.022)	(0.014)	(0.014)	(0.014)	(0.015)	(0.017)	(0.017)
Humanities	0.005	0.000	0.060	0.019	-0.069	-0.001	-0.012	0.025	0.014	-0.010	-0.009
	(0.022)	(0.022)	(0.034)	(0.035)	(0.040)	(0.019)	(0.019)	(0.028)	(0.029)	(0.033)	(0.033)
Biology	-0.228	-0.274	-0.274	-0.260	-0.140	-0.161	-0.189	-0.217	-0.215	-0.136	-0.130
	(0.019)	(0.019)	(0.029)	(0.029)	(0.033)	(0.015)	(0.016)	(0.023)	(0.023)	(0.026)	(0.026)
Physical Sciences	-0.200	-0.363	-0.377	-0.373	-0.299	-0.152	-0.293	-0.337	-0.342	-0.351	-0.337
	(0.029)	(0.030)	(0.039)	(0.040)	(0.046)	(0.024)	(0.024)	(0.031)	(0.032)	(0.036)	(0.036)
Engineering	-0.239	-0.352	-0.412	-0.417	-0.247	-0.192	-0.276	-0.331	-0.333	-0.225	-0.215
	(0.022)	(0.023)	(0.031)	(0.032)	(0.036)	(0.018)	(0.019)	(0.024)	(0.025)	(0.028)	(0.028)
Mathematics	-0.266	-0.388	-0.427	-0.427	-0.373	-0.223	-0.328	-0.362	-0.372	-0.397	-0.380
	(0.032)	(0.033)	(0.044)	(0.045)	(0.051)	(0.026)	(0.026)	(0.034)	(0.035)	(0.040)	(0.040)
Computer Science	-0.544	-0.665	-0.737	-0.709	-0.532	-0.289	-0.397	-0.474	-0.469	-0.470	-0.447
	(0.040)	(0.041)	(0.049)	(0.050)	(0.056)	(0.030)	(0.031)	(0.036)	(0.037)	(0.041)	(0.041)
Unspecified	-0.402	-0.278	-0.195	-0.215	-0.062	-0.401	-0.288	-0.245	-0.246	0.020	0.022
	(0.039)	(0.040)	(0.056)	(0.057)	(0.065)	(0.032)	(0.032)	(0.045)	(0.046)	(0.051)	(0.051)
Academic index		0.419	0.418	0.396	-0.132		0.455	0.454	0.441	-0.380	-0.377
		(0.046)	(0.046)	(0.047)	(0.056)		(0.036)	(0.036)	(0.037)	(0.043)	(0.043)
AI Sq. X (AI>0)		0.002	0.015	0.011	-0.198		0.177	0.178	0.204	-0.187	-0.173
		(0.029)	(0.030)	(0.030)	(0.037)		(0.023)	(0.023)	(0.024)	(0.030)	(0.030)
AI Sq. X (AI<0)		0.015	0.018	0.018	0.005		0.022	0.022	0.021	-0.017	-0.018
		(0.010)	(0.010)	(0.010)	(0.012)		(0.007)	(0.007)	(0.007)	(0.008)	(0.008)

Table B.6.7R Continued: Ordered logit estimates of Harvard's Personal Rating and Alumni Personal Rating, expanded sample

	Personal Rating					Alumni Personal Rating					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Female X Humanities			-0.097	-0.081	-0.005			-0.052	-0.050	-0.017	-0.016
			(0.044)	(0.046)	(0.053)			(0.038)	(0.038)	(0.043)	(0.043)
Female X Biology			0.003	0.000	-0.013			0.055	0.058	0.004	0.005
			(0.038)	(0.039)	(0.045)			(0.031)	(0.032)	(0.036)	(0.036)
Female X Phys Sci			0.033	0.022	0.005			0.103	0.103	0.099	0.099
			(0.060)	(0.062)	(0.071)			(0.049)	(0.050)	(0.056)	(0.056)
Female X Engineering			0.146	0.155	0.062			0.129	0.130	-0.010	-0.011
			(0.046)	(0.047)	(0.054)			(0.037)	(0.038)	(0.043)	(0.043)
Female X Math			0.094	0.094	0.143			0.076	0.079	0.185	0.181
			(0.065)	(0.067)	(0.076)			(0.053)	(0.053)	(0.060)	(0.060)
Female X Comp Sci			0.265	0.233	0.236			0.277	0.265	0.283	0.275
			(0.088)	(0.090)	(0.102)			(0.069)	(0.071)	(0.080)	(0.080)
Female X Unspec			-0.170	-0.149	-0.151			-0.090	-0.098	-0.202	-0.194
			(0.079)	(0.081)	(0.092)			(0.063)	(0.064)	(0.072)	(0.072)
Female X African American			-0.274	-0.282	-0.257			-0.173	-0.164	-0.065	-0.055
			(0.048)	(0.049)	(0.056)			(0.039)	(0.040)	(0.045)	(0.045)
Female X Hispanic			-0.090	-0.090	-0.029			-0.035	-0.038	-0.029	-0.029
			(0.043)	(0.044)	(0.050)			(0.035)	(0.036)	(0.041)	(0.041)
Female X Asian American			0.070	0.072	0.087			0.020	0.012	0.048	0.045
			(0.034)	(0.035)	(0.039)			(0.027)	(0.027)	(0.031)	(0.031)
Female X Missing			0.142	0.146	0.132			0.048	0.062	0.048	0.045
			(0.057)	(0.059)	(0.067)			(0.045)	(0.046)	(0.052)	(0.052)
Disadv X African American			-0.232	-0.293	-0.327			0.001	0.008	0.108	0.130
			(0.061)	(0.063)	(0.073)			(0.053)	(0.054)	(0.060)	(0.060)
Disadv X Hispanic			0.091	0.021	-0.060			0.141	0.127	0.174	0.182
			(0.058)	(0.060)	(0.070)			(0.052)	(0.053)	(0.059)	(0.059)
Disadv X Asian American			0.117	0.101	0.053			0.037	0.032	0.086	0.089
			(0.056)	(0.058)	(0.067)			(0.049)	(0.050)	(0.056)	(0.056)
Disadv X Missing			-0.054	0.014	0.111			0.000	0.017	0.071	0.068
			(0.102)	(0.104)	(0.120)			(0.088)	(0.090)	(0.100)	(0.100)
Early X African American			0.150	0.131	0.087			-0.099	-0.089	-0.050	-0.049
			(0.072)	(0.074)	(0.087)			(0.061)	(0.062)	(0.071)	(0.071)
Early X Hispanic			-0.021	-0.003	-0.046			-0.077	-0.064	-0.126	-0.123
			(0.068)	(0.070)	(0.081)			(0.058)	(0.059)	(0.067)	(0.067)
Early X Asian American			0.099	0.086	-0.035			0.106	0.087	-0.004	0.004
			(0.051)	(0.052)	(0.060)			(0.042)	(0.043)	(0.049)	(0.049)
Early X Missing			-0.006	-0.040	-0.031			-0.102	-0.103	-0.124	-0.120
			(0.078)	(0.081)	(0.094)			(0.066)	(0.067)	(0.077)	(0.077)
Legacy X African American			0.186	0.229	0.222			-0.291	-0.339	-0.201	-0.213
			(0.158)	(0.163)	(0.187)			(0.136)	(0.138)	(0.158)	(0.158)
Legacy X Hispanic			-0.021	-0.064	-0.082			0.113	0.086	-0.025	-0.019
			(0.146)	(0.152)	(0.176)			(0.127)	(0.131)	(0.151)	(0.151)
Legacy X Asian American			0.155	0.150	0.146			0.061	0.058	0.246	0.241
			(0.117)	(0.123)	(0.143)			(0.101)	(0.106)	(0.120)	(0.120)
Legacy X Missing			-0.038	-0.036	-0.017			-0.003	-0.021	0.235	0.238
			(0.131)	(0.136)	(0.157)			(0.112)	(0.116)	(0.131)	(0.131)
Special X African American			-0.098	-0.183	-0.272			0.271	0.247	-0.017	-0.005
			(0.255)	(0.267)	(0.307)			(0.226)	(0.231)	(0.259)	(0.258)
Special X Hispanic			-0.176	-0.170	-0.329			0.470	0.378	0.300	0.318
			(0.185)	(0.194)	(0.223)			(0.170)	(0.176)	(0.201)	(0.202)
Special X Asian American			0.052	0.193	0.170			0.123	0.209	-0.098	-0.104
			(0.135)	(0.144)	(0.166)			(0.119)	(0.127)	(0.145)	(0.145)
Special X Missing			0.173	0.177	0.059			0.279	0.287	0.267	0.265
			(0.156)	(0.163)	(0.190)			(0.141)	(0.146)	(0.167)	(0.168)
Observations	148769	148769	148769	141852	141852	117109	117109	117109	113323	113323	113323
Pseudo R Sq.	0.068	0.095	0.096	0.104	0.294	0.013	0.028	0.028	0.032	0.341	0.342

Table B.6.8R: Ordered logit estimates of Harvard's Overall Rating and Alumni Overall Rating, expanded sample

	Overall Rating						Alumni Overall Rating					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
African American	-0.822	0.944	1.132	1.211	1.500	1.444	-0.669	0.247	0.371	0.414	0.129	0.129
	(0.018)	(0.022)	(0.032)	(0.034)	(0.037)	(0 037)	(0.020)	(0.023)	(0.035)	(0.036)	(0.040)	(0 040)
Hispanic	-0.235	0.541	0.628	0.689	0.928	0 911	-0.355	0.031	0.030	0.043	-0.007	-0.008
	(0.016)	(0.018)	(0.025)	(0.027)	(0.030)	(0 030)	(0.018)	(0.020)	(0.029)	(0.030)	(0.032)	(0 032)
Asian American	0.156	-0.240	-0.287	-0.175	-0.135	-0.081	0.226	-0.043	-0.047	0.022	0.155	0.155
	(0.012)	(0.013)	(0.019)	(0.020)	(0.022)	(0 022)	(0.014)	(0.015)	(0.020)	(0.022)	(0.024)	(0 024)
Missing	0.090	-0.116	-0.134	-0.098	-0.083	-0.031	0.177	0.038	0.033	0.062	0.168	0.167
	(0.020)	(0.021)	(0.031)	(0.032)	(0.035)	(0 036)	(0.022)	(0.023)	(0.035)	(0.035)	(0.039)	(0 039)
Female	-0.014	0.196	0.182	0.177	0.114	0 088	-0.024	0.133	0.123	0.116	-0.092	-0.091
	(0.010)	(0.010)	(0.024)	(0.025)	(0.026)	(0 026)	(0.011)	(0.011)	(0.026)	(0.027)	(0.030)	(0 030)
Disadvantaged	0.600	0.649	0.848	0.899	0.743	0.671	0.189	0.142	0.156	0.160	0.065	0 065
	(0.019)	(0.020)	(0.035)	(0.036)	(0.037)	(0 038)	(0.021)	(0.022)	(0.038)	(0.039)	(0.042)	(0 042)
First generation	-0.165	0.021	0.014	0.001	0.010	0 014	-0.017	0.096	0.093	0.083	0.037	0 036
	(0.021)	(0.022)	(0.022)	(0.023)	(0.024)	(0 024)	(0.024)	(0.025)	(0.025)	(0.025)	(0.028)	(0 028)
Early Decision	0.731	0.586	0.513	0.514	0.313	0 273	0.310	0.158	0.124	0.127	-0.047	-0.047
	(0.017)	(0.017)	(0.025)	(0.026)	(0.027)	(0 027)	(0.018)	(0.018)	(0.027)	(0.027)	(0.030)	(0 030)
Legacy	0.620	0.964	0.998	0.834	0.977	0 953	0.105	0.231	0.269	0.185	0.166	0.166
	(0.033)	(0.034)	(0.039)	(0.047)	(0.049)	(0 050)	(0.033)	(0.034)	(0.040)	(0.048)	(0.053)	(0 053)
Double Legacy	0.440	0.257	0.265	0.151	0.256	0 251	0.236	0.131	0.129	0.050	0.094	0 094
	(0.073)	(0.074)	(0.074)	(0.077)	(0.080)	(0 081)	(0.073)	(0.074)	(0.074)	(0.076)	(0.086)	(0 086)
Faculty or Staff Child	0.920	0.827	0.935	0.989	1.203	1 254	0.002	-0.053	-0.234	-0.175	-0.088	-0.089
	(0.106)	(0.107)	(0.195)	(0.195)	(0.203)	(0 205)	(0.106)	(0.107)	(0.190)	(0.192)	(0.219)	(0 219)
Dean's/Director's List	0.606	0.781	0.945	0.917	0.980	0 946	0.266	0.322	0.122	0.117	0.076	0 075
	(0.040)	(0.041)	(0.228)	(0.228)	(0.239)	(0 241)	(0.041)	(0.042)	(0.224)	(0.226)	(0.257)	(0 257)
Waiver	-0.530	0.035	0.033	-0.008	0.083	0 083	-0.239	0.119	0.121	0.070	0.029	0 029
	(0.017)	(0.018)	(0.018)	(0.019)	(0.020)	(0 020)	(0.020)	(0.020)	(0.020)	(0.021)	(0.023)	(0 023)
Applied for Financial Aid	-0.105	-0.108	-0.115	-0.024	0.004	0 004	-0.075	-0.051	-0.051	-0.010	-0.001	-0.001
	(0.012)	(0.013)	(0.013)	(0.014)	(0.015)	(0 015)	(0.014)	(0.014)	(0.014)	(0.015)	(0.017)	(0 017)
Humanities	0.071	0.063	0.088	0.056	0.000	0 011	0.024	0.014	0.060	0.041	0.015	0 015
	(0.016)	(0.017)	(0.026)	(0.027)	(0.028)	(0 028)	(0.018)	(0.018)	(0.028)	(0.029)	(0.032)	(0 032)
Biology	-0.075	-0.206	-0.208	-0.207	-0.075	-0.056	-0.061	-0.123	-0.155	-0.155	0.035	0 035
	(0.013)	(0.014)	(0.021)	(0.021)	(0.022)	(0 022)	(0.015)	(0.015)	(0.023)	(0.023)	(0.026)	(0 026)
Physical Sciences	0.276	-0.171	-0.217	-0.226	-0.075	-0.030	0.183	-0.126	-0.139	-0.151	0.176	0.176
	(0.021)	(0.022)	(0.028)	(0.029)	(0.030)	(0 031)	(0.024)	(0.024)	(0.031)	(0.032)	(0.035)	(0 035)
Engineering	0.108	-0.219	-0.277	-0.282	-0.064	-0.033	0.015	-0.183	-0.253	-0.252	0.044	0 044
	(0.016)	(0.017)	(0.022)	(0.022)	(0.023)	(0 024)	(0.018)	(0.018)	(0.024)	(0.025)	(0.027)	(0 027)
Mathematics	0.138	-0.225	-0.206	-0.227	-0.108	-0.053	0.090	-0.155	-0.132	-0.143	0.207	0 207
	(0.023)	(0.024)	(0.031)	(0.032)	(0.033)	(0 034)	(0.025)	(0.026)	(0.034)	(0.035)	(0.039)	(0 039)
Computer Science	0.020	-0.347	-0.379	-0.366	-0.105	-0.035	0.065	-0.170	-0.207	-0.205	0.253	0 253
	(0.026)	(0.027)	(0.032)	(0.033)	(0.034)	(0 035)	(0.030)	(0.030)	(0.036)	(0.037)	(0.041)	(0 041)
Unspecified	-0.512	-0.220	-0.213	-0.223	-0.076	-0.065	-0.513	-0.313	-0.330	-0.335	-0.211	-0.212
	(0.027)	(0.028)	(0.039)	(0.040)	(0.042)	(0 042)	(0.031)	(0.032)	(0.045)	(0.045)	(0.050)	(0 050)
Academic index		1.590	1.600	1.592	0.475	0.488		0.943	0.943	0.941	0.748	0.748
		(0.032)	(0.032)	(0.033)	(0.036)	(0 036)		(0.036)	(0.036)	(0.037)	(0.042)	(0 042)
AI Sq. X (AI>0)		-0.156	-0.146	-0.116	-0.131	-0.076		0.362	0.360	0.388	0.344	0 344
		(0.022)	(0.022)	(0.023)	(0.025)	(0 025)		(0.024)	(0.024)	(0.024)	(0.029)	(0 029)
AI Sq. X (AI<0)		0.076	0.082	0.087	0.081	0 081		0.020	0.021	0.020	-0.016	-0.016
		(0.007)	(0.007)	(0.007)	(0.007)	(0 007)		(0.007)	(0.007)	(0.007)	(0.009)	(0 009)

Table B.6.8R Continued: Ordered logit estimates of Harvard's Overall Rating and Alumni Overall Rating, expanded sample

	Overall Rating						Alumni Overall Rating					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Female X Humanities			-0.038	-0.027	0.034	0 038			-0.070	-0.064	-0.013	-0.013
			(0.034)	(0.036)	(0.037)	(0 037)			(0.037)	(0.038)	(0.042)	(0 042)
Female X Biology			0.007	0.016	0.002	0 007			0.059	0.065	0.039	0 039
			(0.028)	(0.029)	(0.030)	(0 030)			(0.031)	(0.031)	(0.035)	(0 035)
Female X Phys Sci			0.108	0.119	0.108	0.112			0.026	0.034	-0.040	-0.040
			(0.045)	(0.046)	(0.048)	(0 048)			(0.049)	(0.050)	(0.055)	(0 055)
Female X Engineering			0.151	0.162	0.065	0 069			0.175	0.175	0.109	0.108
			(0.034)	(0.034)	(0.036)	(0 036)			(0.037)	(0.038)	(0.041)	(0 041)
Female X Math			-0.054	-0.038	-0.030	-0.045			-0.067	-0.061	-0.159	-0.160
			(0.048)	(0.049)	(0.051)	(0 052)			(0.052)	(0.053)	(0.059)	(0 059)
Female X Comp Sci			0.116	0.074	0.053	0 023			0.118	0.095	-0.145	-0.143
			(0.062)	(0.063)	(0.066)	(0 067)			(0.069)	(0.070)	(0.077)	(0 077)
Female X Unspec			-0.012	-0.005	0.046	0 063			0.029	0.023	0.142	0.142
			(0.055)	(0.056)	(0.059)	(0 060)			(0.062)	(0.064)	(0.070)	(0 070)
Female X African American			-0.129	-0.144	-0.145	-0.108			-0.172	-0.163	-0.086	-0.086
			(0.036)	(0.037)	(0.039)	(0 039)			(0.039)	(0.039)	(0.044)	(0 044)
Female X Hispanic			-0.089	-0.097	-0.014	-0.007			-0.038	-0.047	-0.004	-0.004
			(0.031)	(0.032)	(0.034)	(0 034)			(0.035)	(0.036)	(0.040)	(0 040)
Female X Asian American			0.025	0.022	0.040	0 036			-0.022	-0.027	-0.055	-0.055
			(0.024)	(0.025)	(0.026)	(0 026)			(0.027)	(0.027)	(0.030)	(0 030)
Female X Missing			0.048	0.031	0.015	0 002			0.022	0.020	-0.038	-0.038
			(0.041)	(0.042)	(0.044)	(0 044)			(0.044)	(0.046)	(0.050)	(0 050)
Disadv X African American			-0.636	-0.667	-0.684	-0.646			-0.071	-0.049	-0.071	-0.071
			(0.049)	(0.050)	(0.053)	(0 053)			(0.052)	(0.053)	(0.059)	(0 059)
Disadv X Hispanic			-0.300	-0.352	-0.351	-0.342			0.048	0.034	-0.074	-0.074
			(0.047)	(0.048)	(0.051)	(0 051)			(0.051)	(0.053)	(0.058)	(0 058)
Disadv X Asian American			0.085	0.059	0.095	0.100			-0.032	-0.035	-0.054	-0.054
			(0.045)	(0.046)	(0.048)	(0 048)			(0.048)	(0.049)	(0.054)	(0 054)
Disadv X Missing			-0.234	-0.192	-0.141	-0.157			-0.032	-0.001	-0.053	-0.052
			(0.081)	(0.083)	(0.087)	(0 087)			(0.086)	(0.088)	(0.097)	(0 097)
Early X African American			0.245	0.237	0.200	0.192			-0.065	-0.063	-0.014	-0.015
			(0.059)	(0.060)	(0.063)	(0 064)			(0.061)	(0.062)	(0.069)	(0 069)
Early X Hispanic			0.064	0.054	-0.001	0 005			-0.015	0.007	0.089	0 089
			(0.054)	(0.055)	(0.058)	(0 058)			(0.058)	(0.059)	(0.065)	(0 065)
Early X Asian American			0.134	0.116	-0.015	0 005			0.149	0.125	0.055	0 054
			(0.040)	(0.041)	(0.042)	(0 043)			(0.042)	(0.043)	(0.048)	(0 048)
Early X Missing			0.028	0.024	0.019	0 036			-0.022	-0.026	0.042	0 042
			(0.062)	(0.064)	(0.067)	(0 067)			(0.065)	(0.067)	(0.075)	(0 075)
Legacy X African American			-0.297	-0.371	-0.527	-0.570			-0.193	-0.227	-0.050	-0.051
			(0.139)	(0.142)	(0.150)	(0.151)			(0.134)	(0.136)	(0.153)	(0.153)
Legacy X Hispanic			-0.321	-0.355	-0.402	-0.399			0.175	0.127	0.135	0.135
			(0.122)	(0.126)	(0.132)	(0.133)			(0.123)	(0.128)	(0.144)	(0.144)
Legacy X Asian American			0.109	0.086	0.204	0.181			-0.182	-0.161	-0.277	-0.277
			(0.097)	(0.102)	(0.107)	(0.108)			(0.099)	(0.104)	(0.115)	(0.115)
Legacy X Missing			-0.028	-0.025	-0.010	0 016			-0.160	-0.192	-0.315	-0.316
			(0.106)	(0.110)	(0.115)	(0.116)			(0.109)	(0.112)	(0.126)	(0.126)
Special X African American			-0.342	-0.354	-0.367	-0.362			0.280	0.286	0.270	0 272
			(0.215)	(0.223)	(0.231)	(0 234)			(0.221)	(0.227)	(0.251)	(0 251)
Special X Hispanic			-0.280	-0.300	-0.376	-0.330			0.186	0.223	-0.059	-0.060
			(0.160)	(0.167)	(0.173)	(0.173)			(0.164)	(0.170)	(0.190)	(0.190)
Special X Asian American			0.074	0.097	-0.024	-0.079			0.265	0.341	0.309	0 310
			(0.114)	(0.122)	(0.129)	(0.131)			(0.119)	(0.126)	(0.141)	(0.141)
Special X Missing			0.053	0.025	-0.020	-0.013			0.191	0.181	-0.070	-0.069
			(0.134)	(0.140)	(0.146)	(0.147)			(0.137)	(0.143)	(0.160)	(0.160)
Observations	148742	148742	148742	141827	141827	141827	117109	117109	117109	113323	113323	113323
Pseudo R Sq.	0.065	0.199	0.2	0.206	0.335	0 349	0.035	0.096	0.096	0.101	0.375	0 375

Table B.6.9R: Generalized Ordered Logit Model of Harvard's Overall Rating

	Baseline				Expanded			
	Model 5		Model 6		Model 5		Model 6	
	Coeff.	Std. Error	Coeff.	Std. Error	Coeff.	Std. Error	Coeff.	Std. Error
African American	1.370	(0.049)	1.320	(0.050)	1.368	(0.048)	1 313	(0.049)
aditional advantage at 3/3+ cutoff	0.521	(0.042)	0.518	(0.043)	0.544	(0.041)	0.545	(0.043)
addiitional advantage at 3+/2 cutoff	1.043	(0.057)	1.109	(0.060)	0.990	(0.056)	1.054	(0.058)
Hispanic/Other	0.911	(0.038)	0.903	(0.038)	0.920	(0.037)	0 910	(0.038)
aditional advantage at 3/3+ cutoff	0.178	(0.037)	0.174	(0.038)	0.186	(0.036)	0.186	(0.038)
addiitional advantage at 3+/2 cutoff	0.398	(0.056)	0.432	(0.058)	0.324	(0.054)	0 356	(0.056)
Asian American	-0.096	(0.026)	-0.054	(0.027)	-0.097	(0.026)	-0.057	(0.026)
aditional disadvantage at 3/3+ cutoff	-0.101	(0.026)	-0.064	(0.027)	-0.076	(0.026)	-0.036	(0.026)
addiitional disadvantage at 3+/2 cutoff	-0.055	(0.041)	0.005	(0.042)	-0.088	(0.039)	-0.030	(0.040)
Disadvantaged	0.826	(0.043)	0.745	(0.043)	0.826	(0.043)	0.745	(0.043)
DisadvantagedXAfrican American	-0.672	(0.065)	-0.638	(0.065)	-0.676	(0.065)	-0 641	(0.065)
DisadvantagedXHispanic	-0.377	(0.060)	-0.371	(0.060)	-0.373	(0.059)	-0 365	(0.060)
DisadvantagedXAsian American	0.058	(0.055)	0.062	(0.055)	0.054	(0.054)	0.059	(0.055)
First generation	0.070	(0.030)	0.075	(0.030)	0.076	(0.030)	0.080	(0.030)
Waiver	0.172	(0.025)	0.174	(0.025)	0.174	(0.024)	0.178	(0.025)
Applied for financial aid	0.003	(0.016)	0.001	(0.017)	-0.005	(0.016)	-0.006	(0.016)
Humanities	0.028	(0.033)	0.040	(0.033)	0.023	(0.031)	0.036	(0.032)
Biological Sciences	-0.066	(0.026)	-0.046	(0.026)	-0.069	(0.025)	-0.047	(0.025)
Physical Science	-0.070	(0.034)	-0.023	(0.035)	-0.073	(0.034)	-0.024	(0.034)
Engineering	-0.061	(0.027)	-0.027	(0.027)	-0.059	(0.026)	-0.023	(0.027)
Mathematics	-0.099	(0.038)	-0.041	(0.038)	-0.096	(0.037)	-0.036	(0.037)
Computer Science	-0.104	(0.040)	-0.027	(0.040)	-0.099	(0.039)	-0.019	(0.039)
Female	0.129	(0.030)	0.104	(0.030)	0.124	(0.029)	0.099	(0.029)
FemaleXHumanities	0.000	(0.043)	0.006	(0.044)	-0.001	(0.042)	0.005	(0.042)
FemaleXBiological Sciences	-0.036	(0.035)	-0.032	(0.035)	-0.035	(0.034)	-0.029	(0.035)
FemaleXPhysical Science	0.097	(0.054)	0.102	(0.055)	0.107	(0.053)	0.111	(0.053)
FemaleXEngineering	0.070	(0.041)	0.071	(0.041)	0.070	(0.040)	0.072	(0.041)
FemaleXMathematics	-0.021	(0.059)	-0.036	(0.059)	-0.021	(0.057)	-0.038	(0.058)
FemaleXComputer Science	0.056	(0.075)	0.027	(0.076)	0.044	(0.074)	0.016	(0.075)
FemaleXUnspecified	0.081	(0.074)	0.095	(0.074)	0.060	(0.071)	0.068	(0.072)
FemaleXAfrican American	-0.080	(0.049)	-0.052	(0.049)	-0.060	(0.048)	-0.026	(0.049)
FemaleXHispanic	0.027	(0.041)	0.023	(0.041)	0.029	(0.040)	0.029	(0.040)
FemaleXAsian American	0.043	(0.029)	0.035	(0.029)	0.043	(0.029)	0.037	(0.029)
Early action	0.353	(0.032)	0.310	(0.032)	0.401	(0.030)	0 362	(0.030)
Early actionXAfrican American	0.080	(0.077)	0.068	(0.078)	0.045	(0.074)	0.026	(0.075)
Early ActionXHispanic	-0.012	(0.068)	0.002	(0.069)	-0.035	(0.065)	-0.025	(0.066)
Early ActionXAsian American	0.048	(0.049)	0.067	(0.049)	0.018	(0.046)	0.034	(0.047)
Legacy					1.010	(0.052)	0 998	(0.053)
Double legacy					0.247	(0.086)	0 259	(0.087)
LegacyXAfrican American					-0.555	(0.166)	-0 609	(0.169)
LegacyXHispanic					-0.518	(0.141)	-0.531	(0.143)
LegacyXAsian American					0.320	(0.117)	0 294	(0.118)
Faculty or Staff child					1.608	(0.236)	1.722	(0.241)
Dean's/Director's List					1.227	(0.274)	1 241	(0.280)
Special recruiting					-0.642	(0.282)	-0.751	(0.287)
Special recruitingXAfrican American					-0.477	(0.281)	-0.435	(0.286)
Special recruitingXHispanic American					-0.418	(0.187)	-0 387	(0.189)
Special recruitingXAsian American					0.084	(0.139)	0.010	(0.142)
Observations	136183		136183		141827		141827	
Pseudo R-sq	0.360		0.378		0.366		0 385	

Table B.6.10R: Probability of receiving each overall rating for own race/ethnicity and counterfactual race/ethnicity

		Own Race	if White	if African American	if Hispanic	if Asian American
Panel 1: Baseline sample, including personal rating						
White	<3	0.425		0.270	0.312	0.429
	3	0.392		0.357	0.401	0.395
	3+	0.136		0.203	0.186	0.129
	>3+	0.047		0.169	0.100	0.047
African American	<3	0.649	0.745		0.676	0.746
	3	0.210	0.189		0.218	0.190
	3+	0.087	0.052		0.075	0.050
	>3+	0.054	0.014		0.031	0.014
Hispanic	<3	0.565	0.656	0.529		0.658
	3	0.289	0.253	0.276		0.255
	3+	0.103	0.072	0.119		0.068
	>3+	0.043	0.020	0.076		0.020
Asian American	<3	0.375	0.371	0.229	0.265	
	3	0.425	0.421	0.356	0.412	
	3+	0.148	0.155	0.229	0.213	
	>3+	0.052	0.052	0.187	0.111	
Panel 2: Expanded sample, preferred model						
White	<3	0.409		0.261	0.300	0.412
	3	0.392		0.351	0.398	0.392
	3+	0.140		0.205	0.191	0.137
	>3+	0.059		0.183	0.111	0.059
African American	<3	0.645	0.741		0.671	0.742
	3	0.211	0.191		0.220	0.191
	3+	0.088	0.052		0.076	0.051
	>3+	0.056	0.016		0.032	0.016
Hispanic	<3	0.558	0.648	0.523		0.651
	3	0.291	0.256	0.276		0.256
	3+	0.105	0.073	0.121		0.071
	>3+	0.046	0.023	0.080		0.022
Asian American	<3	0.372	0.368	0.226	0.262	
	3	0.423	0.422	0.354	0.412	
	3+	0.149	0.153	0.228	0.213	
	>3+	0.056	0.057	0.191	0.113	
Panel 3: Expanded sample, including personal rating						
White	<3	0.408		0.255	0.298	0.417
	3	0.392		0.340	0.392	0.394
	3+	0.141		0.207	0.194	0.134
	>3+	0.059		0.197	0.116	0.055
African American	<3	0.645	0.746		0.674	0.750
	3	0.211	0.190		0.220	0.190
	3+	0.088	0.049		0.075	0.047
	>3+	0.056	0.015		0.031	0.014
Hispanic	<3	0.558	0.651	0.520		0.657
	3	0.291	0.257	0.274		0.257
	3+	0.106	0.070	0.123		0.066
	>3+	0.046	0.022	0.083		0.020
Asian American	<3	0.372	0.363	0.256	0.261	
	3	0.423	0.418	0.400	0.415	
	3+	0.150	0.158	0.219	0.215	
	>3+	0.056	0.061	0.125	0.108	

*calculated using gologitComponentsExpIndices.do

Table B.6.11R: The Role of Observed and Unobserved Factors in Racial/Ethnic Differences in Component Scores, Baseline sample

					Preferred Model				
	Overall	Academic	Extracurricular	Teacher 1	Teacher 2	Counselor	Alumni Personal	Alumni Overall	Personal
Linear Index (z-score) Differences (relative to whites)									
African American	-1.129	-1.237	-0.663	-0.759	-0.722	-0.849	-0.253	-0.637	-0.374
Hispanic	-0.712	-0.791	-0.427	-0.451	-0.415	-0.514	-0.191	-0.421	-0.268
Asian American	0.120	0.259	0.109	0.142	0.116	0.049	0.027	0.073	0.020
Coefficients									
African American	1.503	-0.006	-0.217	0.012	0.104	0.164	0.236	0.126	0.682
Hispanic	0.922	-0.112	-0.146	-0.023	0.024	0.017	0.062	0.001	0.279
Asian American	-0.136	0.136	0.171	-0.159	-0.203	-0.095	-0.181	0.160	-0.398

					Include Personal Rating			
	Overall	Academic	Extracurricular	Teacher 1	Teacher 2	Counselor	Alumni Personal	Alumni Overall
Linear Index (z-score) Differences (relative to whites)								
African American	-1.099	-1.237	-0.605	-0.677	-0.635	-0.755	-0.245	-0.627
Hispanic	-0.696	-0.791	-0.393	-0.402	-0.361	-0.460	-0.187	-0.423
Asian American	0.102	0.260	0.086	0.093	0.069	0.006	0.020	0.074
Coefficients								
African American	1.451	-0.001	-0.291	-0.105	-0.009	0.002	0.207	0.126
Hispanic	0.906	-0.109	-0.177	-0.074	-0.027	-0.050	0.051	0.000
Asian American	-0.081	0.132	0.198	-0.104	-0.150	-0.022	-0.165	0.159

*Constructed using results from ologitComponentsIndices.do

Table B.6.12R: The Role of Observed and Unobserved Factors in Racial/Ethnic Differences in Component Scores, Expanded sample

					Preferred Model				
	Overall	Academic	Extracurricular	Teacher 1	Teacher 2	Counselor	Alumni Personal	Alumni Overall	Personal
Linear Index Differences (relative to whites)									
African American	-1.145	-1.249	-0.678	-0.771	-0.736	-0.870	-0.267	-0.651	-0.399
Hispanic	-0.724	-0.795	-0.443	-0.460	-0.426	-0.527	-0.200	-0.427	-0.290
Asian American	0.098	0.247	0.082	0.121	0.098	0.026	0.014	0.058	-0.010
Coefficients									
African American	1.500	-0.006	-0.208	0.015	0.100	0.176	0.234	0.129	0.691
Hispanic	0.928	-0.109	-0.136	-0.018	0.026	0.021	0.066	-0.007	0.286
Asian American	-0.135	0.131	0.175	-0.152	-0.197	-0.094	-0.179	0.155	-0.391

					Include Personal Rating			
	Overall	Academic	Extracurricular	Teacher 1	Teacher 2	Counselor	Alumni Personal	Alumni Overall
Linear Index Differences (relative to whites)								
African American	-1.115	-1.249	-0.622	-0.689	-0.650	-0.776	-0.259	-0.641
Hispanic	-0.709	-0.795	-0.412	-0.414	-0.375	-0.475	-0.196	-0.429
Asian American	0.078	0.249	0.058	0.072	0.049	-0.018	0.006	0.059
Coefficients								
African American	1.444	0.000	-0.283	-0.103	-0.014	0.012	0.204	0.129
Hispanic	0.911	-0.105	-0.167	-0.069	-0.026	-0.048	0.055	-0.008
Asian American	-0.081	0.128	0.200	-0.098	-0.144	-0.022	-0.164	0.155

*Constructed using results from ologitComponentsIndices.do

Table B.6.13R: The Role of Non-Acacadmic Characteristics in Racial/Ethnic Differences in Personal Rating Component Scores

Non-Academic Index (z-score) Differences (relative to whites)

	All non-academic characteristics included	Include only non-academic ratings
African American	-0.390	-0.502
Hispanic	-0.295	-0.388
Asian American	0.073	-0.017
Coefficients		
African American	0.682	0.682
Hispanic	0.279	0.279
Asian American	-0.398	-0.398

Table B.7.1R: Logit estimates of Harvard's admission decision, baseline sample

	Admit					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
African American	0.531	2.417	2.671	2.851	3.772	3.876
	(0.040)	(0.050)	(0.074)	(0.078)	(0.105)	(0.112)
Hispanic	0.425	1.273	1.286	1.339	1.959	2.027
	(0.039)	(0.044)	(0.063)	(0.067)	(0.085)	(0.091)
Asian American	0.057	-0.434	-0.565	-0.378	-0.466	-0.330
	(0.032)	(0.035)	(0.052)	(0.055)	(0.070)	(0.074)
Missing	0.012	-0.283	-0.348	-0.330	-0.379	-0.211
	(0.054)	(0.057)	(0.093)	(0.099)	(0.122)	(0.128)
Year=2015	-0.227	-0.098	-0.094	-0.159	-0.875	-0.654
	(0.169)	(0.179)	(0.179)	(0.223)	(0.277)	(0.296)
Year=2016	-0.526	-0.432	-0.429	-0.405	-0.701	-0.727
	(0.181)	(0.191)	(0.191)	(0.234)	(0.287)	(0.307)
Year=2017	-0.490	-0.498	-0.501	-0.393	-0.528	-0.729
	(0.177)	(0.189)	(0.189)	(0.233)	(0.290)	(0.307)
Year=2018	-0.676	-0.894	-0.908	-0.818	-1.102	-1.392
	(0.180)	(0.191)	(0.191)	(0.237)	(0.298)	(0.315)
Year=2019	-0.760	-0.743	-0.745	-0.733	-1.142	-1.350
	(0.176)	(0.186)	(0.187)	(0.231)	(0.289)	(0.307)
Female	-0.044	0.254	0.228	0.271	0.163	0.141
	(0.025)	(0.027)	(0.064)	(0.088)	(0.110)	(0.116)
Disadvantaged	1.183	1.257	1.497	1.606	1.660	1.535
	(0.042)	(0.048)	(0.071)	(0.108)	(0.138)	(0.147)
First Generation	-0.004	0.174	0.161	-0.018	-0.014	0.058
	(0.052)	(0.059)	(0.059)	(0.127)	(0.167)	(0.178)
Early Decision	1.616	1.456	1.371	1.348	1.410	1.440
	(0.032)	(0.035)	(0.055)	(0.084)	(0.104)	(0.110)
Waiver	-0.153	0.484	0.499	0.387	0.697	0.717
	(0.041)	(0.047)	(0.046)	(0.049)	(0.063)	(0.067)
Applied for Financial Aid	0.054	0.073	0.057	0.114	0.343	0.405
	(0.032)	(0.033)	(0.034)	(0.081)	(0.101)	(0.107)
Humanities	0.133	0.145	0.208	0.251	0.206	0.256
	(0.039)	(0.043)	(0.064)	(0.109)	(0.137)	(0.145)
Biology	-0.269	-0.403	-0.347	-0.262	-0.031	0.037
	(0.035)	(0.038)	(0.055)	(0.102)	(0.128)	(0.136)
Physical Sciences	0.305	-0.189	-0.187	-0.081	0.027	0.159
	(0.047)	(0.051)	(0.066)	(0.133)	(0.173)	(0.183)
Engineering	-0.043	-0.348	-0.397	-0.451	-0.082	0.041
	(0.040)	(0.044)	(0.058)	(0.119)	(0.149)	(0.159)
Mathematics	0.161	-0.191	-0.135	-0.236	-0.276	-0.106
	(0.053)	(0.057)	(0.073)	(0.150)	(0.192)	(0.203)
Computer Science	-0.023	-0.390	-0.469	-0.262	0.191	0.462
	(0.068)	(0.073)	(0.090)	(0.214)	(0.274)	(0.294)
Unspecified	-0.721	-0.418	-0.474	-2.103	-1.297	-1.227
	(0.089)	(0.097)	(0.136)	(1.053)	(1.146)	(1.149)

Table B.7.1R Continued: Logit estimates of Harvard's admission decision, baseline sample

	Admit					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Academic index		2.011	1.937	1.930	0.673	0.646
		(0.137)	(0.136)	(0.142)	(0.189)	(0.200)
AI Sq. X (AI>0)		0.268	0.339	0.390	0.108	0.195
		(0.078)	(0.079)	(0.082)	(0.106)	(0.113)
AI Sq. X (AI<0)		-0.950	-0.926	-0.933	-1.236	-1.355
		(0.167)	(0.165)	(0.171)	(0.219)	(0.230)
Female X Humanities			-0.116	-0.095	0.070	0.042
			(0.085)	(0.089)	(0.110)	(0.116)
Female X Biology			-0.103	-0.107	-0.132	-0.211
			(0.075)	(0.077)	(0.096)	(0.102)
Female X Phys Sci			-0.002	-0.018	-0.101	-0.125
			(0.104)	(0.108)	(0.136)	(0.144)
Female X Engineering			0.136	0.131	0.062	0.003
			(0.087)	(0.090)	(0.111)	(0.118)
Female X Math			-0.130	-0.153	0.028	-0.052
			(0.117)	(0.121)	(0.154)	(0.163)
Female X Comp Sci			0.285	0.216	0.284	0.125
			(0.155)	(0.159)	(0.202)	(0.213)
Female X Unspecified			0.117	0.060	0.215	0.182
			(0.191)	(0.203)	(0.251)	(0.266)
Female X African American			-0.035	-0.067	-0.099	-0.088
			(0.086)	(0.089)	(0.114)	(0.121)
Female X Hispanic			0.063	0.068	0.117	0.098
			(0.079)	(0.082)	(0.104)	(0.110)
Female X Asian American			0.107	0.095	0.229	0.200
			(0.065)	(0.067)	(0.082)	(0.087)
Female X Missing			0.106	0.130	0.074	0.005
			(0.112)	(0.118)	(0.146)	(0.153)
Disadv X African American			-0.984	-1.094	-1.577	-1.540
			(0.107)	(0.111)	(0.143)	(0.151)
Disadv X Hispanic			-0.270	-0.350	-0.582	-0.583
			(0.098)	(0.104)	(0.133)	(0.140)
Disadv X Asian American			0.015	0.006	0.144	0.147
			(0.092)	(0.095)	(0.119)	(0.126)
Disadv X Missing			-0.204	-0.061	-0.035	-0.008
			(0.167)	(0.173)	(0.222)	(0.230)
Early X African American			-0.017	-0.009	0.039	0.037
			(0.113)	(0.118)	(0.152)	(0.162)
Early X Hispanic			-0.070	-0.026	0.031	0.042
			(0.103)	(0.108)	(0.139)	(0.150)
Early X Asian American			0.256	0.225	-0.048	-0.017
			(0.077)	(0.079)	(0.100)	(0.106)
Early X Missing			0.129	0.165	0.192	0.172
			(0.122)	(0.127)	(0.162)	(0.169)

Table B.7.1R Continued: Logit estimates of Harvard's admission decision, baseline sample

	Admit					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Disadvantaged X Year=2015				0.044	-0.041	0.012
				(0.123)	(0.157)	(0.167)
Disadvantaged X Year=2016				-0.002	-0.263	-0.232
				(0.129)	(0.165)	(0.174)
Disadvantaged X Year=2017				-0.011	-0.240	-0.246
				(0.134)	(0.171)	(0.182)
Disadvantaged X Year=2018				-0.262	-0.496	-0.409
				(0.138)	(0.175)	(0.185)
Disadvantaged X Year=2019				-0.493	-0.541	-0.631
				(0.131)	(0.165)	(0.174)
Early X Year=2016				-0.097	-0.304	-0.303
				(0.101)	(0.128)	(0.135)
Early X Year=2017				0.002	-0.171	-0.188
				(0.101)	(0.126)	(0.134)
Early X Year=2018				0.215	0.241	0.247
				(0.101)	(0.127)	(0.134)
Academic Rating=4					-3.990	-3.915
					(0.626)	(0.633)
Academic Rating=2					1.425	1.941
					(0.090)	(0.128)
Academic Rating=1					4.094	5.122
					(0.156)	(0.185)
Extracurricular Rating=5					1.147	1.109
					(0.215)	(0.227)
Extracurricular Rating=4					-1.301	-1.122
					(0.393)	(0.408)
Extracurricular Rating=2					1.990	1.810
					(0.082)	(0.108)
Extracurricular Rating=1					4.232	4.215
					(0.169)	(0.187)
Athletic Rating=5					0.761	0.734
					(0.087)	(0.092)
Athletic Rating=4					-0.182	-0.043
					(0.038)	(0.041)
Athletic Rating=2					1.368	1.354
					(0.114)	(0.155)
>=2 Academic and Extracurricular					-0.143	-0.041
					(0.088)	(0.095)
>=2 Academic and Athletic					-0.149	-0.153
					(0.116)	(0.125)
>=2 Extracurricular and Athletic					-0.446	-0.444
					(0.101)	(0.107)
Personal Rating=2						2.415
						(0.118)
Personal Rating=1						3.594
						(0.538)
>=2 Academic and Personal						-0.433
						(0.112)
>=2 Personal and Extracurricular						0.026
						(0.080)
>=2 Personal and Athletic						-0.053
						(0.117)
Observations	142728	142700	142700	136061	128422	128082
Pseudo R Sq.	0.078	0.26	0.262	0.283	0.556	0.604

Table B.7.2R: Logit estimates of Harvard's admission decision, expanded sample

	Admit					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
African American	0.486	2.290	2.604	2.815	3.596	3.674
	(0.038)	(0.047)	(0.071)	(0.075)	(0.097)	(0.103)
Hispanic	0.393	1.190	1.271	1.338	1.908	1.959
	(0.037)	(0.042)	(0.061)	(0.064)	(0.081)	(0.086)
Asian American	0.047	-0.400	-0.529	-0.321	-0.389	-0.257
	(0.030)	(0.032)	(0.050)	(0.053)	(0.066)	(0.070)
Missing	0.010	-0.233	-0.290	-0.264	-0.272	-0.108
	(0.048)	(0.051)	(0.087)	(0.092)	(0.112)	(0.116)
Year=2015	-0.207	-0.073	-0.068	-0.210	-0.825	-0.615
	(0.164)	(0.172)	(0.173)	(0.213)	(0.260)	(0.277)
Year=2016	-0.536	-0.434	-0.434	-0.430	-0.629	-0.664
	(0.176)	(0.185)	(0.185)	(0.223)	(0.268)	(0.285)
Year=2017	-0.542	-0.544	-0.544	-0.428	-0.596	-0.789
	(0.174)	(0.185)	(0.185)	(0.223)	(0.273)	(0.288)
Year=2018	-0.697	-0.909	-0.922	-0.836	-1.014	-1.243
	(0.174)	(0.183)	(0.184)	(0.224)	(0.278)	(0.292)
Year=2019	-0.814	-0.786	-0.794	-0.746	-1.089	-1.284
	(0.173)	(0.182)	(0.183)	(0.221)	(0.271)	(0.288)
Female	-0.025	0.245	0.247	0.258	0.177	0.155
	(0.023)	(0.025)	(0.058)	(0.081)	(0.099)	(0.105)
Disadvantaged	1.172	1.243	1.494	1.616	1.640	1.527
	(0.041)	(0.047)	(0.070)	(0.106)	(0.132)	(0.139)
First generation	0.012	0.180	0.165	-0.033	-0.066	-0.001
	(0.051)	(0.057)	(0.058)	(0.124)	(0.159)	(0.168)
Early Decision	1.632	1.448	1.394	1.426	1.480	1.531
	(0.029)	(0.032)	(0.047)	(0.075)	(0.092)	(0.096)
Legacy	1.238	1.650	1.697	1.720	2.141	2.329
	(0.046)	(0.051)	(0.059)	(0.123)	(0.155)	(0.164)
Double Legacy	0.511	0.372	0.377	0.337	0.689	0.738
	(0.090)	(0.101)	(0.101)	(0.106)	(0.130)	(0.135)
Faculty or Staff	1.260	1.410	1.692	1.875	2.472	2.630
	(0.139)	(0.159)	(0.310)	(0.319)	(0.359)	(0.353)
Dean's/Director's List	1.495	1.931	2.379	2.449	3.301	3.246
	(0.053)	(0.059)	(0.356)	(0.366)	(0.417)	(0.417)
Waiver	-0.147	0.453	0.464	0.365	0.619	0.632
	(0.041)	(0.046)	(0.045)	(0.048)	(0.060)	(0.064)
Applied for Financial Aid	-0.066	-0.043	-0.056	0.022	0.200	0.247
	(0.028)	(0.030)	(0.030)	(0.073)	(0.090)	(0.095)
Humanities	0.136	0.149	0.203	0.260	0.213	0.242
	(0.035)	(0.038)	(0.057)	(0.099)	(0.123)	(0.130)
Biology	-0.241	-0.380	-0.335	-0.247	-0.029	0.028
	(0.032)	(0.035)	(0.051)	(0.095)	(0.117)	(0.124)
Physical Sciences	0.308	-0.186	-0.185	-0.076	0.034	0.140
	(0.044)	(0.048)	(0.062)	(0.125)	(0.158)	(0.166)
Engineering	-0.033	-0.341	-0.378	-0.368	0.046	0.133
	(0.038)	(0.041)	(0.054)	(0.110)	(0.136)	(0.145)
Mathematics	0.174	-0.198	-0.175	-0.278	-0.286	-0.115
	(0.049)	(0.054)	(0.069)	(0.142)	(0.177)	(0.185)
Computer Science	-0.006	-0.379	-0.456	-0.435	0.063	0.293
	(0.064)	(0.068)	(0.083)	(0.211)	(0.260)	(0.275)
Unspecified	-0.566	-0.357	-0.363	-2.048	-1.302	-1.281
	(0.076)	(0.084)	(0.116)	(1.039)	(1.127)	(1.159)
Academic index		1.811	1.740	1.730	0.472	0.428
		(0.121)	(0.120)	(0.126)	(0.163)	(0.171)
AI Sq. X (AI>0)		0.323	0.401	0.444	0.186	0.285
		(0.069)	(0.069)	(0.072)	(0.092)	(0.097)
AI Sq. X (AI<0)		-0.554	-0.535	-0.531	-0.669	-0.730
		(0.115)	(0.114)	(0.120)	(0.154)	(0.160)

Table B.7.2R Continued: Logit estimates of Harvard's admission decision, expanded sample

	Admit					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Female X Humanities			-0.108	-0.103	0.044	0.022
			(0.077)	(0.080)	(0.098)	(0.103)
Female X Biology			-0.088	-0.092	-0.118	-0.170
			(0.070)	(0.072)	(0.088)	(0.093)
Female X Phys Sci			-0.020	-0.045	-0.195	-0.233
			(0.098)	(0.101)	(0.125)	(0.130)
Female X Engineering			0.101	0.109	0.003	-0.033
			(0.082)	(0.085)	(0.103)	(0.109)
Female X Math			-0.061	-0.105	0.079	0.000
			(0.108)	(0.113)	(0.140)	(0.148)
Female X Comp Sci			0.272	0.200	0.218	0.052
			(0.145)	(0.150)	(0.185)	(0.194)
Female X Unspecified			0.027	0.020	0.107	0.081
			(0.166)	(0.177)	(0.217)	(0.227)
Female X African American			-0.065	-0.099	-0.111	-0.092
			(0.081)	(0.084)	(0.105)	(0.110)
Female X Hispanic			0.018	0.028	0.079	0.076
			(0.074)	(0.078)	(0.096)	(0.101)
Female X Asian American			0.063	0.047	0.172	0.141
			(0.060)	(0.062)	(0.076)	(0.080)
Female X Missing			0.113	0.127	0.038	-0.038
			(0.101)	(0.107)	(0.130)	(0.135)
Disadv X African American			-1.023	-1.121	-1.582	-1.565
			(0.104)	(0.108)	(0.135)	(0.142)
Disadv X Hispanic			-0.278	-0.356	-0.618	-0.616
			(0.096)	(0.102)	(0.127)	(0.133)
Disadv X Asian American			0.020	0.023	0.159	0.162
			(0.090)	(0.093)	(0.115)	(0.121)
Disadv X Missing			-0.182	-0.006	0.026	0.024
			(0.162)	(0.168)	(0.210)	(0.218)
Early X African American			-0.008	-0.054	-0.092	-0.134
			(0.104)	(0.109)	(0.137)	(0.145)
Early X Hispanic			-0.081	-0.091	-0.036	-0.055
			(0.095)	(0.100)	(0.125)	(0.133)
Early X Asian American			0.212	0.149	-0.083	-0.069
			(0.070)	(0.073)	(0.090)	(0.095)
Early X Missing			0.016	0.018	0.037	0.030
			(0.109)	(0.113)	(0.142)	(0.147)
Legacy X African American			-0.725	-0.716	-0.792	-0.872
			(0.214)	(0.223)	(0.281)	(0.297)
Legacy X Hispanic			-0.536	-0.672	-0.779	-0.736
			(0.183)	(0.192)	(0.235)	(0.240)
Legacy X Asian American			0.398	0.331	0.626	0.612
			(0.142)	(0.150)	(0.187)	(0.195)
Legacy X Missing			-0.080	-0.074	0.156	0.092
			(0.161)	(0.171)	(0.215)	(0.219)
Other Special X African American			-0.882	-0.788	-1.261	-1.267
			(0.349)	(0.364)	(0.485)	(0.529)
Other Special X Hispanic			-0.729	-0.692	-1.343	-1.328
			(0.230)	(0.243)	(0.287)	(0.295)
Other Special X Asian American			0.377	0.491	0.515	0.471
			(0.160)	(0.175)	(0.208)	(0.219)
Other Special X Missing			0.253	0.436	0.348	0.291
			(0.191)	(0.203)	(0.247)	(0.253)

Table B.7.2R Continued: Logit estimates of Harvard's admission decision, expanded sample

	Admit					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Disadvantaged X Year=2015				0.026	-0.065	-0.026
				(0.120)	(0.150)	(0.158)
Disadvantaged X Year=2016				-0.049	-0.289	-0.274
				(0.126)	(0.157)	(0.165)
Disadvantaged X Year=2017				-0.022	-0.223	-0.241
				(0.131)	(0.163)	(0.172)
Disadvantaged X Year=2018				-0.240	-0.413	-0.342
				(0.135)	(0.167)	(0.176)
Disadvantaged X Year=2019				-0.475	-0.507	-0.576
				(0.127)	(0.157)	(0.164)
Early X Year=2016				-0.167	-0.382	-0.421
				(0.093)	(0.115)	(0.120)
Early X Year=2017				0.013	-0.142	-0.161
				(0.093)	(0.114)	(0.120)
Early X Year=2018				0.196	0.146	0.142
				(0.093)	(0.114)	(0.120)
Legacy X Year=2015				0.059	0.264	0.209
				(0.158)	(0.198)	(0.207)
Legacy X Year=2016				-0.291	-0.283	-0.406
				(0.161)	(0.200)	(0.208)
Legacy X Year=2017				-0.308	-0.242	-0.311
				(0.161)	(0.201)	(0.211)
Legacy X Year=2018				-0.513	-0.424	-0.571
				(0.165)	(0.204)	(0.216)
Legacy X Year=2019				-0.349	-0.474	-0.668
				(0.162)	(0.201)	(0.210)
Academic Rating=4					-2.426	-2.328
					(0.291)	(0.299)
Academic Rating=2					1.206	1.512
					(0.077)	(0.102)
Academic Rating=1					3.806	4.573
					(0.145)	(0.163)
Extracurricular Rating=5					0.931	0.881
					(0.203)	(0.211)
Extracurricular Rating=4					-0.952	-0.739
					(0.289)	(0.296)
Extracurricular Rating=2					1.689	1.417
					(0.070)	(0.092)
Extracurricular Rating=1					3.795	3.672
					(0.157)	(0.171)
Athletic Rating=5					0.713	0.694
					(0.082)	(0.086)
Athletic Rating=4					-0.164	-0.041
					(0.035)	(0.037)
Athletic Rating=2					1.362	1.357
					(0.093)	(0.123)
>=2 Academic and Extracurricular					0.076	0.216
					(0.076)	(0.081)
>=2 Academic and Athletic					-0.158	-0.148
					(0.098)	(0.104)
>=2 Extracurricular and Athletic					-0.483	-0.465
					(0.091)	(0.097)
Personal Rating=4						-3.346
						(1.334)
Personal Rating=2						2.075
						(0.095)
Personal Rating=1						3.276
						(0.485)
>=2 Academic and Personal						-0.224
						(0.091)
>=2 Personal and Extracurricular						0.117
						(0.071)
>=2 Personal and Athletic						-0.109
						(0.099)
Observations	148769	148741	148741	141701	134365	134349
Pseudo R Sq.	0.136	0.294	0.297	0.318	0.555	0.599

Table B.7.3R: Share of each race/ethnicity in each admissions index decile, expanded sample

		Preferred Model		
Admissions Decile	White	African American	Hispanic	Asian American
5 or lower	0.451	0.781	0.690	0.397
6	0.111	0.053	0.071	0.112
7	0.111	0.044	0.062	0.118
8	0.108	0.041	0.061	0.125
9	0.109	0.042	0.059	0.124
10	0.109	0.039	0.057	0.125

		+Personal Rating		
Admissions Decile	White	African American	Hispanic	Asian American
5 or lower	0.452	0.780	0.688	0.395
6	0.110	0.048	0.072	0.115
7	0.111	0.040	0.062	0.121
8	0.108	0.041	0.055	0.128
9	0.109	0.047	0.058	0.123
10	0.112	0.045	0.064	0.117

* created using admissionsLogitsIndices.do.

Table B.8.1R: Logit estimates of Harvard's admission decision with interactions between race and year

	Baseline dataset		Expanded dataset	
	Model 5	Model 6	Model 5	Model 6
African American	3.894	3.992	3.659	3.722
	(0.165)	(0.175)	(0.153)	(0.160)
2015 X African American	-0.011	-0.108	0.017	-0.047
	(0.195)	(0.206)	(0.181)	(0.190)
2016 X African American	-0.359	-0.240	-0.328	-0.225
	(0.208)	(0.221)	(0.193)	(0.203)
2017 X African American	-0.191	-0.187	-0.049	-0.040
	(0.210)	(0.222)	(0.194)	(0.204)
2018 X African American	-0.028	-0.052	-0.003	-0.021
	(0.204)	(0.216)	(0.189)	(0.199)
2019 X African American	-0.200	-0.111	-0.023	0.093
	(0.209)	(0.221)	(0.194)	(0.204)
Hispanic	1.850	1.978	1.728	1.802
	(0.148)	(0.158)	(0.139)	(0.147)
2015 X Hispanic	0.138	-0.003	0.239	0.157
	(0.185)	(0.196)	(0.173)	(0.182)
2016 X Hispanic	-0.190	-0.203	-0.173	-0.170
	(0.196)	(0.209)	(0.183)	(0.193)
2017 X Hispanic	0.247	0.268	0.353	0.416
	(0.195)	(0.207)	(0.182)	(0.192)
2018 X Hispanic	0.348	0.219	0.408	0.322
	(0.193)	(0.205)	(0.179)	(0.189)
2019 X Hispanic	0.063	-0.012	0.240	0.217
	(0.200)	(0.212)	(0.186)	(0.196)
Asian American	-0.524	-0.411	-0.490	-0.390
	(0.112)	(0.119)	(0.106)	(0.112)
2015 X Asian American	0.042	0.068	0.076	0.114
	(0.140)	(0.148)	(0.132)	(0.140)
2016 X Asian American	0.075	0.147	0.146	0.213
	(0.149)	(0.159)	(0.139)	(0.148)
2017 X Asian American	0.128	0.123	0.235	0.240
	(0.152)	(0.162)	(0.143)	(0.152)
2018 X Asian American	-0.042	0.005	-0.001	0.056
	(0.155)	(0.163)	(0.145)	(0.152)
2019 X Asian American	0.200	0.212	0.248	0.293
	(0.156)	(0.165)	(0.145)	(0.153)
Observations	122,303	119,896	149,425	144,189
Pseudo R Sq.	0.531	0.623	0.569	0.649

*Standard errors in parentheses. Bold and italicized coefficients are statistically different from zero at the 5% level

*See Figure 7.1 For the full set of controls

Table C.1R: Difference in characteristics for those labeled Standard Strong by race/ethnicity

	White	African American	Hispanic	Asian American
Share Standard Strong	0.120**	0.010*	0.036*	0.151
Academic Index	227.04*	206.40*	220.86*	230.56
SAT Math	749.84*	625.00*	733.64*	769.50
SAT Verbal	758.06	615*	685.45*	758.67
Share Academic 2 or better	0.500*	0.333	0.417**	0.684
Share Extracurricular 2 or better	0.159	0.000	0.083	0.175
Share Personal 2 or better	0.087	0.000	0.083	0.096
Number labeled Standard Strong	127	3	12	114

*indicates statistically different from Asian American rating at the 95% level