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THINKING HARD ABOUT "RACE-NEUTRAL" ADMISSIONS

Richard Sander* & Aaron Danielson**

INTRODUCTION

The Supreme Court's June 2013 decision in *Fisher v. University of Texas at Austin* held that universities may not use racial preferences until they have convincingly proven that "race-neutral" alternatives cannot produce a level of student diversity consistent with the university's educational mission.[1] Earlier Supreme Court decisions have seemed to restrict the use of race in higher education admissions,[2] but without much measureable effect.[3] Though the differences are subtle, the language in *Fisher* seems significantly tougher and harder to evade than the language of earlier Court decisions. It is plausible—and "plausible" will become "very likely" if new *Fisher*-like lawsuits are filed—that higher education leaders will take the new opinion seriously and start looking more closely at race-neutral alternatives and how they might work.[4]

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1. 133 S. Ct. 2411, 2420 (2013) ("The reviewing court must ultimately be satisfied that no workable race-neutral alternatives would produce the educational benefits of diversity. If a nonracial approach . . . could promote the substantial interest about as well and at tolerable administrative expense, then the university may not consider race.") (citations and internal quotation marks omitted).

2. *See* Regents of Univ. of Cal. v. Bakke, 438 U.S. 265, 316–21 (1978) (prohibiting racial quotas in university admissions while authorizing the use of race as a "plus factor"); Gratz v. Bollinger, 539 U.S. 244, 270 (2003) (prohibiting universities from allocating fixed points to students based on their race). *But see* Grutter v. Bollinger, 539 U.S. 306, 335–36 (2003) (permitting race to be considered as a variable factor in individual admissions).

3. *See generally* SUSAN WELCH & JOHN GRUHL, AFFIRMATIVE ACTION AND MINORITY ENROLLMENTS IN MEDICAL AND LAW SCHOOLS 107–32 (1998) (demonstrating that the growth in minority enrollments in medical and law schools after *Bakke* was negligible and that *Bakke* "largely served to institutionalize existing patterns and practices"). Our research suggests that, if anything, racial preferences used by universities *increased* after these decisions. *See* Richard Sander, *Why Strict Scrutiny Requires Transparency: The Practical Effects of* Bakke, Gratz, *and* Grutter, *in* NEW DIRECTIONS IN JUDICIAL POLITICS 277 (Kevin T. McGuire ed., 2012).

4. For example, the Lumina Foundation and the Century Foundation sponsored a conference in Indianapolis in August 2013, attended by a range of higher education leaders, devoted to assessing the impact of *Fisher* and the possible ways universities can adapt to the post-*Fisher* environment.

Yet the available research on "race-neutral" affirmative action is surprisingly thin.[5] When one contemplates how a particular university might pursue "race-neutrality," a number of questions suggest themselves, and higher education officials have almost no place to turn for useful answers. Consider a few of the complications:

1) It is axiomatic that no "race-neutral" factor or system can be as *efficient* as using race itself to achieve racial diversity through an admissions program. Thus, for example, if a selective university is currently using racial preferences to achieve a student body that is eight percent African American and there is a large gap in the average academic credentials between black and other applicants, then there is no way to use a "race-neutral" alternative to achieve an eight percent black entering class (from the same applicant pool) without these alternative preferences being both larger and broader than the racial preferences. The question of "race-efficiency" in race-neutral systems is thus an important one, but one on which there is little or no available literature.

2) The predominant construction of "diversity" in higher education focuses on race or, specifically, on "underrepresented minorities."[6] It rarely explicitly includes socioeconomic (SES) diversity,[7] and officials often assume that SES diversity follows naturally from racial diversity, despite the overwhelming evidence otherwise.[8] Yet many of the rationales for diversity on campus apply with at least equal force to SES diversity. This raises a host of questions—for which few good answers are available—

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5.   For a few examples, see generally Anthony P. Carnevale & Stephen J. Rose, *Socioeconomic Status, Race/Ethnicity, and Selective College Admissions, in* America's Untapped Resource: Low-Income Students in Higher Education 101 (Richard D. Kahlenberg ed., 2004) (using longitudinal data from the National Center for Education Statistics and related data to analyze outcomes at the 146 most competitive four-year colleges); Richard H. Sander, *Experimenting with Class-Based Affirmative Action,* 47 J. Legal Educ. 472 (1997) (evaluating some of the results of the UCLA School of Law's decision to incorporate detailed class-based preferences into its admission system in 1996).

6.   *See* Richard Kahlenberg, The Remedy 16–42 (1996) (detailing the rise of the diversity narrative in affirmative action).

7.   *See generally* William Bowen et al., Equity and Excellence in American Higher Education 73–136 (2006) (exploring the exclusion of SES diversity and documenting the virtual absence of SES preferences at selective institutions).

8.   *See* Richard H. Sander, *Class in American Legal Education,* 88 Denv. U. L. Rev. 631, 631–33 (documenting the intersection of race and socioeconomic status at American law schools). Sander shows, for instance, that approximately two-thirds of blacks at elite American law schools come from families in the top quartile of the SES distribution. *Id.* at 652.

about the relationship between racial and SES diversity, the tradeoffs created by racial versus SES preferences, and clearer articulation of just what diversity goals we are trying to achieve. There is, for example, a good deal of legal discussion about "critical mass,"[9] a notion at issue in both *Grutter* and *Fisher*.[10] Why should critical mass not involve SES considerations as well as racial ones?

3) Many states and university systems have banned the use of race in university admissions,[11] and both researchers and policymakers tend to assume that these schools are ideal exemplars of the operation and effects of race-neutral policies.[12] Yet, a small but growing body of research suggests that compliance with race-preference bans is irregular; "race-neutral" universities often do appear to give weight—sometimes substantial weight—to race.[13] This means we should be cautious in making assumptions about how and why these universities are able to maintain racial diversity. It also means that when voters, courts, or government agencies promulgate policies restricting the use of race, they cannot take compliance for granted and

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9. *See, e.g.*, Adeno Addis, *Concept of Critical Mass in Legal Discourse*, 29 Cardozo L. Rev. 97, 97–103 (2007).

10. Grutter v. Bollinger, 539 U.S. 306, 335–36 (2003) (deciding whether the goal of attaining a "critical mass" of underrepresented minorities constitutes a quota); Fisher v. Univ. of Tex. at Austin, 133 S. Ct. 2411, 2415 (2013) (providing that the University of Texas had committed itself to achieving a "critical mass," which involved increasing racial minority enrollment on campus).

11. Voters in California, Washington, Michigan, Nebraska, Arizona, and Oklahoma have passed statewide bans on racial preferences in government programs, and Florida enacted a similar ban by executive order, as did New Hampshire's legislature. Richard D. Kahlenberg & Halley Potter, A Better Affirmative Action: State Universities that Created Alternatives to Racial Preferences, Century Foundation 31–66 (2012), *available at* http://tcf .org/assets/downloads/tcf-abaa.pdf. ("[I]n two states (Texas and Georgia), lower court orders struck down the use of race for a period of time, and leading institutions in those states . . . chose not to reinstate racial affirmative action programs, even after the U.S. Supreme Court cleared the way for them to do so."). *Id.* at 4.

12. *See id.* at 11–26 (discussing the states and schools that have banned the use of race and adopted new programs).

13. *See infra, Part IV, for examples; for prior research see, e.g.*, Danny Yagan, Law School Admissions Under the UC Affirmative Action Ban 25 (Dec. 2012) (unpublished manuscript) (on file with author), *available at* http://emlab.berkeley.edu/users/webfac/moretti/e251_ s13/yagan.pdf (finding that the 1996 UC affirmative action ban reduced the black admission rate to thirty-one percent, four times the estimated eight percent rate that would have prevailed if all pre-ban applicants had been subject to white admission standards); Marc Luppino, Partial Compliance with Affirmative Action Bans: Evidence from University of California Admissions 22 (Oct. 29, 2013) (unpublished manuscript) (on file with author), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2347148 (finding that most UC campuses did not fully eliminate preferences for minority applicants after the UC affirmative action ban).

must recognize the importance and difficulty of enforcing those policies.

4)   Over the past decade, research on the effects of preferences on student learning and outcomes has dramatically increased. The "mismatch hypothesis," still controversial but endorsed as important by a growing range of influential observers and policy-makers,[14] posits that a student's learning and interactions with other students are harmed if the student's academic preparation is too far below her classmates'.[15] Most of those who are concerned about mismatch agree that small preferences may have no harmful effects or that positive effects may significantly outweigh negative ones.[16] It seems prudent that any reasonable conversation about preferences should be very concerned about the size of those preferences; but this issue, too, is often entirely absent from discussions of affirmative action.

5)   Finally, discussions about university admissions policies tend to focus on single institutions and admissions offices in isolation and thus overlook the extraordinary interconnectedness of what universities do. The degree to which any change in policy is successful, or can even be seriously contemplated, depends in important ways upon what a school's peers are doing. Current public policy restricts cooperation among schools,[17] but collective action problems are pervasive.

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14.   *See infra* Part II.D and accompanying text (showing studies in peer-reviewed social science journals and related materials finding strong evidence of mismatch effects). *The Journal of Economic Literature* and the *Annual Review of Economics* have both commissioned reviews of the mismatch literature for 2014 issues, a sure sign of a major emerging topic. Influential commentators such as David Books and Malcolm Gladwell have written about mismatch, noting the controversy on the topic but nonetheless finding the evidence compelling. *See* David Brooks, *Speed of Ascent*, N.Y. Times, June 25, 2013, at A25; Malcolm Gladwell, David and Goliath 91–93 (2013).

15.   *See generally* Richard H. Sander & Stuart Taylor, Jr., Mismatch: How Affirmative Action Hurts Students It's Intended to Help, and Why Universities Won't Admit It 3–13 (2012) (introducing the mismatch hypothesis).

16.   I noted this possibility in my earliest work on racial preferences. *See* Richard H. Sander, *A Systemic Analysis of Affirmative Action in American Law Schools*, 57 Stan. L. Rev. 367, 373 (2004). This idea is regularly mentioned in academic discussions of mismatch, including the mismatch panel at this Symposium. *See also Affirmative Action on Campus Does More Harm than Good*, Intelligence Squared U.S. Debate Series (Feb. 27, 2014), http://intelligencesquaredus.org/debates/past-debates/item/1054-affirmative-action-on-campus-does-more-harm-than-good.

17.   *See* discussion *infra* Part IV.

Though each of these questions are complicated and our analysis is exploratory rather than definitive, we find that even a relatively simple examination of these problems yields striking insights and suggests many basic, common-sense principles and policy prescriptions. Indeed, many of these policy implications are ones that transcend some of the current ideological battle-lines on affirmative action, and thus might catalyze compromise and consensus in an often contentious debate.

Our exploration is organized as follows. In Part I, we sympathetically consider the very difficult dilemmas facing higher education leaders. Understanding the often irreconcilable pressures that constrain university administrators is essential if we are to envision the plausible policies they might undertake. In Part II, we draw on a range of data to illustrate some of the "properties" of admissions systems and, in particular, the ways in which race, SES, and academic preparation interact dynamically both within individual schools and across the educational spectrum. Partly because the questions we examine here have been so little studied, ideal data does not exist, but there are enough government and university sources of data to grasp many key dynamics. In Part III, we turn to the "compliance" question—how have major schools conformed with or evaded the requirement of race-neutral policies? We examine in some depth admissions data from the University of California and the University of Michigan and find strong evidence of non-compliance in both cases. What does their conduct tell us about the operation of these policies? In Part IV, we detail a tentative policy agenda that follows from our findings.

I. The University's Perspective

A. *What Universities Try to Maximize*

Although the vast majority of educational institutions are non-profits, it is a great mistake to assume that colleges and universities are therefore largely immune to market forces. A dominant fact of life for most selective institutions is that they operate in a highly competitive marketplace for students.[18] Indeed, selective colleges

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18. *See generally* Derek Bok, Higher Education in America 18–19 (2013) (discussing competition in higher education); *see also* Robert Klitgaard, Choosing Elites: Selecting the "Best and Brightest" at Top Universities and Elsewhere 1–84 (1985) (discussing the admissions processes at the nation's elite universities). Perhaps the other dominant concern of university leaders is the competition for faculty, which raises some analogous issues but is largely separable from the competition for students.

and professional schools operate in an admissions market so stylized as to push schools towards very elemental forms of competition. Unlike, say, an electronics company, which can compete by delivering unusually high quality products or by innovating entirely new product categories, most higher education institutions compete on only a few, crucial characteristics, including "level of eliteness" (or "ranking"), school size, and geographic region.[19]

Of course, colleges pursue an array of strategies to strengthen themselves; they decided to emphasize certain curricular areas, target certain kinds of faculty recruitment, build distinctive facilities, and so on. But administrators at selective colleges we have spoken to tend to see admissions decisions as more tightly constrained.

As innumerable college catalogs proclaim, elite schools are indeed interested in "well-rounded" students.[20] Their ideal student is energetic, highly motivated, very smart, passionate about some special interests, athletic, and socially skilled. Such students tend to do well in the admissions competition if they can distinguish themselves from the thousands of other applicants trying to convey those same qualities. But within the general search for the well-rounded star, universities feel intense pressure to satisfy more specific goals. They have athletic coaches to satisfy, orchestras to fill, and alumni parents to placate. They have a limited amount of scholarship money. There is the diversity imperative, which generally means that the proportion of black and Hispanic students admitted should at least approximate, and preferably exceed, those students' proportions in the applicant pool. And, above all, the university must admit a group of students with strong enough conventional criteria to preserve the university's academic stature.

This last task can be an incredibly specific, even obsessive, quest. It is not uncommon for law schools, for example, to finely calibrate admissions, weeks before the academic year begin, to search for individual students and an exact class size that will give the entering class a particular LSAT median score to report to national ranking systems.[21] Such things are thought to matter because each year's

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19.   *See* Russell B. Korobkin, *In Praise of Law School Rankings: Solutions to Coordination and Collective Action Problems*, 77 TEX. L. REV. 403, 417–18 (1998); Gianni De Fraja & Elisabetta Iossa, *Competition Among Universities and the Emergence of the Elite Institution*, 54 BULLETIN OF ECON. RESEARCH 275, 275–78 (2002), *available at* http://dspace.brunel.ac.uk/bitstream/ 2438/877/1/00-09.pdf.

20.   *See* JEROME KARABEL, THE CHOSEN: THE HIDDEN HISTORY OF ADMISSION AND EXCLUSION AT HARVARD, YALE, AND PRINCETON 4–6 (2006) (exploring the origins of the "well-rounded" ideal in university admissions).

21.   This was particularly obvious in the fall of 2013, when many law schools, as a result of smaller applicant pools, shrank the size of their entering classes so as to keep the median credentials of their students high. *See generally* Jacob Gershman, *LSAT Scores at Top Law*

ranking influences next year's applicant pool. Every school wants a "virtuous cycle," where steady improvements in ranking produce steady increases in the size of the applicant pool. This permits the school to be even more selective and thus further improve its ranking.[22] Nearly every school fears that it will slip into the opposite, "negative cycle," where a drop in the "objective" quality of the admitted pool hurts the school's rankings, leads to fewer applications, reduces the school's selectivity, and sets off an unending round of declines.

Consider, now, the dilemmas the "diversity" constraint pose. Unlike athletics (where only some selective schools really have reputations that require constant vigilance), nearly all elite schools feel bound to have reasonable diversity numbers. This is so not merely because minority constituencies at the school closely watch each year's level of minority enrollment, but also because racial diversity has become a sort of proxy for the school's level of social responsibility[23] and a signal that it does care about things other than test scores and selectivity ranking. Falling below the acceptable diversity range risks very bad publicity and is a concrete danger to any campus leader.[24]

For virtually all selective colleges, however, the diversity constraint involves significant compromises for the school's academic standards. At such schools, the median SAT score of black applicants is about a full standard deviation (roughly two hundred points on the traditional 1600 point scale) below the median white applicant's score.[25] The black/white gap in high school grades (measured in national percentiles) is only a little smaller.[26] American Indian and Hispanic applicants have more modest, but still

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Schools Hold Steady Amid Applicant Plunge, WALL ST. J.L. BLOG (Aug. 21, 2013, 11:06 AM), http://blogs.wsj.com/law/2013/08/21/lsat-scores-at-top-law-schools-hold-steady-amid-appli cant-plunge; Joe Palazzolo & Chelsea Phipps, *With Profession Under Stress, Law Schools Cut Admissio*ns, WALL ST. J. (June 11, 2012, 6:45 PM), http://online.wsj.com/news/articles/SB1000 1424052702303444204577458411514818378.

22.   *See* Eric Hoover, *Application Inflation*, CHRON. OF HIGHER EDUC. (Nov. 5, 2010, 8:24 AM), http://chronicle.com/article/Application-Inflation/125277/; *see also* U.S. DEP'T OF EDUC., INST. OF EDUC. SCIS., NAT'L CENTER OF EDUC. STATISTICS, THE NATION'S REPORT CARD: HIGH SCHOOL TRANSCRIPT STUDY 2009, RACE/ETHNICITY: GRADE POINT AVERAGE, *available at* http://nationsreportcard.gov/hsts_2009/race_gpa.aspx.

23.   *See* Nancy Leong, *Racial Capitalism*, 126 HARV. L. REV. 2151, 2155 (2013) (discussing how the idea of racial diversity has come to be understood as a social good).

24.   *See, e.g.*, SANDER & TAYLOR, *supra* note 15, at 175–84 (discussing diversity pressures on college administrators).

25.   COLLEGE BOARD, 2011 COLLEGE-BOUND SENIORS: TOTAL GROUP PROFILE REPORT 3 tbl. 8 (2011), *available at* http://professionals.collegeboard.com/profdownload/cbs2011_total_ group_report.pdf.

26.   *Id.*; *see also* U.S. DEP'T OF EDUC., *supra* note 22.

sizeable, weaknesses in academic preparation.[27] This means that minority admissions will tend to lower the school's mean credentials. It also means, substantively, that minority admits will have greater academic difficulties: lower grades, higher attrition from the sciences, and probably lower graduation rates than other students.[28] Schools are caught in a bind between satisfying the diversity constraint and avoiding harm to either the general academic standing of the school or the particular students admitted.

Schools often deal with this conflict by admitting the strongest students who nominally satisfy the "diversity" constraint.[29] When colleges first introduced large racial preferences, they justified them as a means of rectifying a long-standing neglect of disadvantaged populations and often launched significant outreach efforts to find and admit students from truly distressed environments.[30] The results were often academically disastrous, in part because colleges gave little thought to providing academic support to the new students.[31] Over time, the black and Hispanic students admitted to select colleges generally came from a much more privileged group.[32] Colleges also began to admit many more of their "diversity" students from overseas or from immigrant populations and counted multiracial students as minorities.[33] These shifts somewhat mitigated the academic dilemmas the diversity constraint created, but they also lessened the nexus between "diversity" and "disadvantage."

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27.   *Id.*; *see also* COLLEGE BOARD, 2012 COLLEGE-BOUND SENIORS: TOTAL GROUP PROFILE REPORT (2012), *available at* http://media.collegeboard.com/digitalServices/pdf/research/TotalGroup-2012.pdf.

28.   *See* Brief for Richard Sander as Amicus Curiae Supporting Petitioner at 15–34, Schuette v. Coalition to Defend Affirmative Action, 133 S. Ct. 1633 (2013), *available at* http://sblog.s3.amazonaws.com/wp-content/uploads/2013/07/Sander-Schuette-Brief-6-28-2013-6-copy.pdf (providing a concise discussion of studies explaining that minorities admitted to universities will face greater academic difficulties).

29.   Sander, *supra* note 8, at 631, 655–56 (2011).

30.   SANDER & TAYLOR, *supra* note 15, at 247–58; ABIGAIL THERNSTROM & STEVEN THERNSTROM, AMERICA IN BLACK AND WHITE 393–97 (1999).

31.   *Cf.* Michael D. Rappaport, *The Legal Educational Opportunity Program at UCLA: Eight Years of Experience*, 4 NAT'L BLACK L.J. 506, 518–20 (1975) (providing a candid discussion of academic performance after the introduction of racial preferences in law school admissions).

32.   *See* SANDER & TAYLOR, *supra* note 15, at 249.

33.   Douglas S. Massey et al., *Black Immigrants and Black Natives Attending Selective Colleges and Universities in the United States*, 113 AM. J. EDUC. 243, 244–47 (2007).

B. *The Tensions Race-Neutrality Creates With These Goals*

When courts or policy-makers talk about race-neutral admissions policies, they almost always mean policies that will increase the presence of under-represented groups on college campuses without explicitly evaluating individual applicants using "race." Most commonly, such policies use socioeconomic criteria in admissions to increase the number of students from disadvantaged backgrounds and create a "racial dividend" for the university.[34] From the university's point of view, race-neutral methods can have three significant disadvantages:

—First, if the racial dividend is less than one hundred percent (as is inevitable), the school must admit significantly more students with the "race-neutral" criteria to achieve its diversity constraint, thus broadening the use of preferences;

—Second, the university may have to use larger preferences with its race-neutral criteria to achieve an acceptable racial dividend (a point we will demonstrate in Part II), thus *deepening* existing preferences;

—Third, to the extent that the race-neutral critieria produce a larger number of economically disadvantaged students, the college will have to provide more financial aid to enroll those students.

Each of these probable conditions is a significant deterrent for colleges considering (or being pushed toward) race-neutral criteria. If preferences broaden, this threatens the school's ranking and selectivity. If preferences deepen, they increase the academic challenges the school faces and may lower the school's academic output. If more students need financial aid, this directly undermines the school's ability to use merit scholarships to attract high-credential students that will burnish the school's academic reputation.

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34.   Scott Warner, Pete Land, Kendra Berner, *The U.S. Supreme Court's Decision in* Fisher v. University of Texas at Austin: *What It Tells Us (and Doesn't Tell Us) About the Consideration of Race in College and University Admissions and Other Contexts*, 60 Fed. Law. 48, 56 (2013) ("Examples of race-neutral alternatives that have been considered by various institutions include: basing decisions on applicants' socioeconomic status, admitting a certain percentage from each high school in the state (i.e., Texas's Top Ten Percent Law), removing any preference for "legacy" students, enhancing recruitment of and financial aid programs for financially challenged students, establishing partnerships with K-12 schools in locations with populations more likely to enhance diversity, and facilitating community college transfers.").

These are some of the leading reasons why colleges are not enthusiastic about "race-neutral" admissions, why they have generally maneuvered around the strictures of past Supreme Court decisions that seemingly restricted race-conscious admissions,[35] and why many schools flout the law in states that explicitly ban the use of race in college admissions.[36] This has created a "culture of resistance" in higher education that makes it even harder to change existing university practices.

C. Changing the University World-View

A key to reforming university admissions is to encourage a change in mind-set from the single institution to higher education's collective goals and effects. This does not mean that universities should stop giving priority to their own interests—that would be unrealistic and perhaps not even desirable. But it does mean we should work towards institutional arrangements and incentives that encourage constructive and deter destructive forms of competition.

An obvious example is merit aid. Over the past generation, universities increased the share of their budgets dedicated to scholarships aimed at luring academically gifted students to their campuses either tuition-free or with steep discounts.[37] Merit aid has become such a large cost that it fuels tuition increases to finance it, which in turn further increase the cost of merit aid.[38] Academic scholarships also directly compete with need-based aid, which suffers greatly as a result.[39] College presidents realize that merit-based aid produces little net improvement in collective educational opportunity and has a variety of ill effects.[40] Yet current federal policy places no limitations on merit aid and restricts colleges from cooperating to limiting merit-based aid.[41]

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35.   *See* Sander, *supra* note 8, at 667–68 (discussing the claim that despite Supreme Court decisions restricting the use of race in admissions, racial preferences seem to have increased in university admissions).

36.   *See* discussion *infra* Part III and supra, note 13.

37.   *See generally* Donald E. Heller & Patricia Marin, Harv. C.R. Project, Who Should We Help? The Negative Social Consequences of Merit Scholarships (2002). *See also* Jennie H. Woo & Susan P. Choy, Merit Aid for Undergraduates: Trends from 1995-96 to 2007-08, U.S. Dep't of Educ., Inst. of Educ. Scis., Nat'l Center of Educ. Statistics (2011), *available at* http://nces.ed.gov/pubs2012/2012160.pdf.

38.   *See* Donald E. Heller & Patricia Marin, Harv. C.R. Project, Who Should We Help? The Negative Social Consequences of Merit Scholarships 113–16 (2002).

39.   *Id.*

40.   *See id.*

41.   *A Brief History of Overlap and the Antitrust Suit*, MIT News (Sept. 3, 1992), http://web.mit.edu/newsoffice/1992/history-0903.html; United States v. Brown Univ., 805 F. Supp.

Similar dynamics arise in the pursuit of racial diversity. As Stuart Taylor and Sander demonstrated in *Mismatch*, competition for minority students among colleges produces a number of perverse effects.[42] When the most elite schools use preferences to meet their diversity constraint, they actually increase the size of preferences that slightly-less elite schools must use to meet their objectives, and this "cascade" continues down the spectrum of schools.[43] But since this problem runs up against colleges' concern with admitting students who cannot succeed, second- and third-tier schools end up having significantly fewer minority students than top-tier schools.[44] This not only reduces optimal sorting from a "diversity" point of view, but it also can undermine minority student achievement.[45]

Yet, when we pull back from the dilemmas faced by individual colleges competing in a marketplace, and consider the collective goals of these institutions, the commonality of vision is striking. Most higher education leaders (and commentators) would like the largest possible percentage of students who can benefit from a college education to enroll. We would especially like to increase college enrollment among low-SES students, who currently have a much lower enrollment rate than any other identifiable group (when we control for their level of academic preparation).[46] We would like financial aid to be related to need as closely as possible. We would like every campus to have significant diversity, both racially and socioeconomically, and we would like diversity to be structured to so that it has the maximum social and educational benefit on all the students. We would also like every student to attend the school that maximizes their likelihood of both short-term and long-term success. And we would, of course, like to maximize the amount of learning that occurs at colleges.

288, 301–07 (E.D. Pa. 1992), *rev'd sub nom.*, 5 F.3d 658 (3d Cir. 1993); *see also* David Johnston, *Price-Fixing Inquiry at 20 Elite Colleges*, N.Y. TIMES, Aug. 10, 1989, http://www.nytimes.com/1989/08/10/us/price-fixing-inquiry-at-20-elite-colleges.html.

42. *See* SANDER & TAYLOR, *supra* note 15, at 19–26.

43. *Id.* at 23–24 (explaining that the most selective schools are in the unique position to admit the top black students—who require no preference—as well as using modest preferences to admit other strong black candidates; the next tier must use larger preferences and nonetheless ends up with fewer black enrollees). *See also* Peter Arcidiacono, Shakeeb Khan, Jacob L. Vigdor, *Representation Versus Assimilation: How Do Preferences in College Admissions Affect Social Interactions?*, 95 J. PUB. ECON. 1, 3 fig. 1 (2011).

44. *See* Arcidiacono, Khan, Vigdor, *Representation Versus Assimilation: How Do Preferences in College Admissions Affect Social Interaction?*, 95 J. PUB. ECON. 1, 3 fig. 1 (2011).

45. *See* discussion of mismatch *infra* Part II.D.

46. *See* Anthony P. Carnevale & Jeff Strohl, *How Increasing College Access Is Increasing Inequality, and What to Do about It, in* REWARDING STRIVERS: HELPING LOW-INCOME STUDENTS SUCCEED IN COLLEGE 170 tbl. 37 (Richard D. Kahlenberg ed., 2010).

This disconnect between the common values universities share, and the strategies they individually feel constrained to adopt from competitive pressure, suggests a need to think about these problems in system-wide terms. We need to make it easier for colleges to cooperate to achieve collective goals, to increase transparency, and to improve our measures of college outcomes. Then, it is easier for all players to see which institutions do a better job and which environments are optimal "matches" for particular students. We also need to develop incentives that push college policies to serve the public interest rather than the ranking game. After looking at individual school dilemmas more closely in Parts II and III, we will try to spell out a systemic policy approach in Part IV.

II. Empirical and Structural Principles of Race-Neutral Admissions

A. *The Race/SES Paradox*

In the run-up to the Supreme Court's *Fisher* oral arguments, the Century Foundation released a report advocating for the wider use of socioeconomic preferences.[47] The report was deservedly influential on many counts, but it featured a graph that left some readers scratching their heads.[48] The chart reported that the "cost of disadvantage" for black students was equivalent to fifty-six points on the SAT I, but that the comparable "cost of disadvantage" for low-SES students was 399 points.[49] What implication should one draw from such a claim: that being low-SES is six times as great a hardship as being black in American society or that socioeconomic preferences should be seven times greater than racial ones? Neither of those inferences is correct; however, the Century Foundation figure does illustrate the ease with which discussions of race and class can become tangled.

The raw black-white gap in test scores, as measured in innumerable studies, is about one standard deviation.[50] This means, for example, that the median black student taking the SAT in high school gets a score equivalent to a white student in the sixteenth

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47. Kahlenberg & Potter, *supra* note 11, at 5.

48. *Id.* at 5 fig. 1.

49. *Id.*

50. Although the racial test-score gap closed sharply between the late 1950s and early 1980s, the gap for twelfth-graders has been roughly constant for the past generation. *See* U.S. Dep't of Educ., Inst. of Educ. Scis., Nat'l Center for Educ. Statistics, The Nation's Report Card: NAEP 2008 Trends in Academic Progress 15 fig. 4 (2009), *available at* http://nces.ed.gov/nationsreportcard/pdf/main2008/2009479_1.pdf.

percentile—a difference of about two hundred points on the traditional (1600-point) SAT scale.[51] In secondary school achievement tests, the median black high school senior scores at a level comparable to the median white eighth-grader.[52] Somewhat more than half of this gap remains when one controls for a range of standard socioeconomic characteristics, such as parental income and education.[53] As for the "socioeconomic" test gap, much depends on just how "wide" a comparison one makes. The test-score gap between someone in the twenty-fifth and seventy-fifth percentiles of a standard SES scale—a reasonable definition of "high" and "low" SES—is about one-half of a standard deviation.[54] But the gap between someone in the tenth SES percentile and someone in the ninety-fifth SES percentile can be as large as 1.2 standard deviation.

If racial differences in test-score performance are entirely driven by environmental factors—as is the consensus among social scientists and the weight of available research—then true racial differences are zero. In 2004, using data from an especially careful longitudinal study, Roland Fryer and Steven Levitt found that controlling for seven background characteristics could essentially eliminate the test-score gap between black and white five-year-olds.[55] The factors they controlled included not only conventional SES measures but also other environmental factors, such as the number of books at home, the number of hours a television is on at home, and the child's birthweight.[56] Some of these factors—as well as other things that have been linked to test score differences, such as consistent bedtimes and the number of different words parents use around their young children—are partly cultural and are thus "socioeconomic" only in a very broad reading of that term.[57]

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51.   *See* College Board, SAT Percentile Ranks for 2013 for College-Bound Seniors (2013), *available at* http://media.collegeboard.com/digitalServices/pdf/research/SAT-Percentile-Ranks-By-Gender-Ethnicity-2013.pdf (providing the most recent data on the gap).

52.   *See* U.S. Dep't of Educ., Inst. of Educ. Scis., Nat'l Center for Educ. Statistics, The Nation's Report Card: NAEP 2008 Trends in Academic Progress 15 (2009), *available at* http://nces.ed.gov/nationsreportcard/pdf/main2008/2009479_1.pdf.

53.   *See* Wayne J. Camara & Amy Elizabeth Schmidt, Group Differences in Standardized Testing and Social Stratification 7 (College Board 1999), *available at* http://research.collegeboard.org/sites/default/files/publications/2012/7/researchreport-1999-5-group-differences-standardized-testing-social-stratification.pdf (discussing various differences that persist when parental income and education are held constant).

54.   Analysis by the authors using data from the National Educational Longitudinal Study data ("NELS"). *See also* College Board, *supra* note 27.

55.   Roland Fryer & Steven Levitt, *Understanding the Black-White Test Score Gap in the First Two Years of School*, 86 Rev. Econ. & Stat. 447, 551–55 (2004).

56.   *Id.* at 447–48.

57.   *See* Christopher Jencks & Meredith Phillips, The Black-White Test Score Gap 24 (1998) ("[C]hanges in parenting practices might do more to reduce the white-black test score gap than changes in parents' educational attainment or income."). It is now common

This context helps explain the Century Foundation's numbers. If one controls for enough individual variations in background and compares the most and least advantaged percentiles of Americans, one obtains a very large "SES" gap and only a very small, unexplained racial residual. But in the actual world of higher education admissions, administrators have only a limited set of indicia to work with, and these are of varying reliability.[58] In this world, making race irrelevant is considerably more difficult.

B. Class Underrepresentation is More Pervasive Than Racial Underrepresentation in Contemporary Higher Education

Blacks typically make up about five to nine percent of enrollment at selective and very selective schools.[59] Since blacks make up about fourteen percent of the college-age population,[60] this means that they are significantly underrepresented in colleges and professional schools by a factor of *one-and-a-half to nearly three.* This is certainly a problem. But compare this with low-SES students. Students from the bottom quartile of the American socioeconomic distribution make up only about three percent of enrollment at selective and very selective schools.[61] This translates to an underrepresentation factor of *eight.* Even middle-income students are far less well-represented at America's most selective schools than blacks.[62]

Another way of seeing this point is to consider a high school senior's chances of attending a four-year college given all his or her predictive characteristics, including school performance. In this

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for thoughtful commentators discussing performance gaps and educational performance to note the need for attention to parenting practices. *See, e.g.*, Nicholas Kristof, *Do We Invest in Preschools or Prisons?*, N.Y. TIMES, Oct. 26, 2013, at SR13.

58.   In my own recent survey of university admissions practices, in which I sought undergraduate admissions data from sixty selective public universities, the handful of schools that actually collected and appeared to consider SES in a systematic way most commonly relied only on parental education (often only the "highest degree" attained by either parent) and self-reported income. Typically, large percentages of applicants did not report even these limited data.

59.   Peter Arcidiacono, Shakeeb Khan, and Jacob L. Vigdor, "Representation versus Assimilation: How do Preference in College Admissions Affect Social Interactions?" 95 JOURNAL OF PUBLIC ECONOMICS 1 (2011), Figure 1.

60.   U.S. CENSUS BUREAU, STATE AND COUNTY QUICKFACTS (Apr. 3, 2014), *available at* http://quickfacts.census.gov/qfd/states/00000.html.

61.   *See* Carnevale & Rose, *supra* note 5, at 106 (demonstrating that only three percent of students in the top tier of college selectivity come from the lowest socioeconomic quartile); Sander, *supra* note 8 at 646–49 (discussing the "relative representation" of various groups in law schools).

62.   Recall that this partly reflects the high level of affluence of most blacks at elite schools. *See* Sander, *supra* note 8 and accompanying text.

analysis, blacks, as a group, are *more* likely than whites to go on to a four-year college by a margin of about thirty percent.[63] The same analysis by "class" finds that low-SES students (regardless of race) are about seventy percent less likely to attend a four-year college than high-SES students.[64]

These patterns should not surprise anyone involved in admissions at most selective schools, which often do not even ask applicants about their social or economic background. As discussed in Part I, these schools operate under a powerful racial constraint and have strong incentives to respect it. They are under no comparable pressure to pay attention to socioeconomic diversity, and they have had important (financial) reasons to avoid it. There are exceptions: Harvard, Amherst, Columbia, and several other selective schools have all made significant recent efforts to improve outreach, admissions decision-making, and financial aid— all with a view towards improving their SES diversity.[65] Public universities in states that have banned or limited the use of racial preferences have often used similar outreach efforts.[66] In general, however, most elite institutions seem oblivious to the overwhelmingly privileged character of their student bodies.

C. How Efficient are Conventional Metrics of SES?

Suppose a college decides to increase socioeconomic diversity and asks applicants to report their parents' income. Let us assume that students know and report this information accurately. The school translates this income data into an index, averages this index in with other indices it uses to assess the academic and extracurricular strengths of applicants, and then uses this aggregated index to make its admissions decisions. How well will this approach create a more socioeconomically diverse student body?

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63. SANDER & TAYLOR, *supra* note 15, at 251. However, blacks have far higher attrition from college than whites, for a variety of reasons, including fewer financial resources and mismatch effects. So blacks are about twenty percent *less* likely than comparable whites to actually earn a bachelor's degree.

64. *Id.* at 253.

65. Sander, *supra* note 8, at 632. For a list of financial aid initiatives at high-ranking schools, see *High-Ranking Colleges and Universities Strengthen Financial Aid*, J. BLACKS IN HIGHER EDUC. (2008), http://www.jbhe.com/news_views/59_financialaid.html. *See also* David Leonhardt, *Top Colleges, Largely for the Elite*, N.Y.TIMES, May 25, 2011, at B1 (discussing Amherst College's efforts to attrack low- and middle-income students); Christopher Avery, *Cost Should Be No Barrier: An Evaluation of the First Year of Harvard's Finacial Aid Initiative* (Nat'l Bureau of Econ. Research, Working Paper No. 12029, 2006) (discussing Harvard College's financial aid initiative).

66. KAHLENBERG & POTTER, *supra* note 11, at 26–62.

For a number of reasons, this approach will probably not work well. First, family income is a rather noisy measure, not least because it varies significantly from year to year (this is particularly true at the low and high ends of the economic spectrum).[67] A household that has a poverty-line income in Year One may have a lower-middle-class income in Year Two. Second, a child with low-to-moderate income parents and strong enough academic qualifications to win admission is disproportionately more likely to have better-educated parents than that child's similarly financially-situated peers.[68] Third, even within the pool of academically strong high school students from low-income backgrounds, those who have the confidence, know-how, and desire to effectively *apply* to an elite college are disproportionately likely to have other socioeconomic traits that, in effect, make them less disadvantaged, such as an affluent grandparent or uncle or access to an unusually good secondary education. Legal scholar Deborah Malamud has called this problem "the return of the repressed."[69]

The comparisons made below in Table 1 between a national sample of high school students conducted in the 1990s and applicants to the Berkeley campus of the University of California during the same period illustrate this idea. Students are classified according to their parents' income quartile (quartile "1" means, for example, that a student's parents had a total household income that placed

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67.   Particularly at the top and bottom end of the economic spectrum, transitory changes in income (due at the bottom to such factors as unemployment, or at the top to such factors as capital gains) make annual income figures somewhat unreliable. Thus, the U.S. Department of Labor's Survey of Consumer Expenditures for 2012 shows that, for the lowest-income twenty percent of American households, expenditures were more than double reported income. This in large measure reflects the substantial year-to-year variation in income at the bottom of the distribution; short-term increases in income are used to pay off debts incurred when there is little or no income. *See* U.S. BUREAU OF LABOR STATISTICS, BLS REPORTS 8 (Mar. 2014). Some authors argue that income fluctuations are large enough to produce significant overestimates of society-wide levels of income inequality. *See, e.g.*, Ezro F.P. Luttmer, Measuring Economic Mobility and Inequlailty: Disentangling Real Events from Noisy Data 30–33 (May 2002) (unpublished manuscript) (on file with the National Bureau of Economics Research), *available at* http://users.nber.org/~luttmer/mobility.pdf.

68.   Eric F. Dubow, Paul Boxer & L. Rowell Huesmann, *Long-term Effects of Parents' Education on Children's Educational and Occupational Success: Mediation by Family Interactions, Child Aggression, and Teenage Aspirations*, 55 MERRILL-PALMER QUARTERLY 224, 240–44 (2009), *available at* http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2853053.

69.   Malamud accordingly argues that socioeconomic preferences are very flawed strategies for achieving educational diversity and that schools are better off relying on traditional racial preferences. Deborah C. Malamud, *Class-Based Affirmative Action: Lessons and Caveats*, 74 TEX. L. REV. 1847, 1897 (1996). But there are two flaws in Malamud's argument. First, this same "return of the repressed" occurs when race alone is used as a measure of diversity (because the most affluent, biracial, non-African American blacks will tend to be those admitted). Second, one can improve SES measures by making them multi-dimensional. *See* SANDER & TAYLOR, *supra* note 15, at 247–58.

them in the first quartile of all family households in the United States), which is then cross-tabulated with the highest educational level achieved by either of the student's parents. If we examine the data closely, two interesting patterns emerge. On the one hand, low-income Berkeley graduates were far more likely to have a college-educated parent (compare columns b and d)—illustrating Malamud's argument. On the other hand, a great many Berkeley applicants from low-income backgrounds also had poorly-educated parents (compare columns a and c). In other words, "income" by itself not only seems to identify many students with multiple hardships, but also identifies a significant number of students who are, at least arguably, "false positives."[70]

TABLE 1:
PARENTAL INCOME, PARENTAL EDUCATION, AND PRESENCE
IN THE ORBIT OF A SELECTIVE SCHOOL

INCOME QUARTILE	PARENTS OF NELS (NATIONAL) SAMPLE		PARENTS OF BERKELEY APPLICANTS	
	(A) % HS DIPLOMA OR LESS	(B) % COLLEGE GRADS	(C) % HS DIPLOMA OR LESS	(D) % COLLEGE GRADS
1	59%	2%	53%	27%
2	35%	5%	43%	35%
3	21%	12%	25%	54%
4	11%	32%	6%	85%

Source: Analysis of NELS and UCOP data by Dr. Yana Kucheva.

Increasing the number and sophistication of SES indicators used to determine someone's level of disadvantage can greatly ameliorate the problem of "false positives." We can (and some existing preference programs do[71]) take into account not only family income, but also parental education, family wealth, neighborhood, and schooling quality. Moreover, we can develop good algorithms

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70. In part, the "false positives" we observe are an inevitable part of what statisticians call "regression to the mean." If a student has parents with incomes at the twentieth percentile, and that student's test scores place him at the ninetieth percentile (within the Berkeley pool), then it would is not only plausible, but probable, that the student's parental education will fall somewhere between those two extremes.

71. At UCLA Law School, Sander helped to develop an SES diversity program that used seven distinct measures of each applicant's SES status. The program was not particularly complex to administer and produced dramatic gains in SES diversity. *See* Sander, *supra* note 8, at 472–73.

to assess how well our targeting works.[72] Schools can also develop auditing mechanisms to ensure that student self-reports of SES characteristics are accurate.

The take-away here is that simple, one-dimensional measures of socioeconomic diversity are likely to be unreliable indicators of true disadvantage. Colleges and universities should instead develop multi-dimensional measures of SES diversity and should adopt auditing mechanisms to ensure both the internal and external validity of the measures they use.

D. *When Do Preferences Become Too Large?*

The "mismatch" literature that has arisen over the past decade or so, gathering considerable steam in the past few years, considers the effect on students when they are admitted as a result of large admissions preferences.[73] Three sorts of consequences have attracted most of the research: learning effects, competition effects, and social effects. Let us consider each of these briefly in turn.

"Learning mismatch" can occur if teachers calibrate the difficulty of instruction to the "middle" of their classes.[74] If there is a wide range of academic preparation among students in a classroom, then those at the top end of the spectrum will be bored and those at the bottom will be lost. Students at either extreme would learn more in a classroom where they were closer to the middle—i.e., where they are close in academic preparation to most of their

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72.   Consider a simple numerical example. Suppose that we scaled each of the SES variables we use on a 1-to-100 scale. Thus, a parental income of $30,000 might have a scale value of 20, because 20% of all adults with college-age children have family incomes of $30,000 or less. The tendency for privilege to seep back into the system means that if our only SES measure is parental income, and we give a preference to (and admit) a student who scores a "20" on the parental income scale, that student's parents probably have a significantly higher education than others at the same income level. The parents' education level might score a "60" on our scale. The large 40-point gap between the factor we consider (income) and the factor we don't consider (education) signifies a poorly-targeted program. Suppose we then broaden our measures, using parental income, parental wealth, father's education and the median income of the census tract of the student, and suppose we admit a student who scores an average of "20" on these factors. We would predict that when we then look at a previously unobserved characteristic (e.g., mother's educational level), that score will be much closer to 20 than before (though it will still tend, on average, to be higher than 20). If it is, say, 30, then we can be satisfied that we have a rather well-targeted system.

73.   *See* Sander & Taylor, *supra* note 15, at 33–111 (discussing the primary strands of mismatch research in science and academia, law school, social interaction, and career success).

74.   *See* Doug Williams, *Do Racial Preferences Affect Minority Learning in Law Schools?*, 10 J. Empirical Legal Stud. 171, 176–78 (2013) (explaining the concept and theory behind mismatch).

peers. Learning mismatch has been demonstrated experimentally in classrooms,[75] but it is generally hard to measure this effect in American higher education because few have attempted to measure learning in a uniform way across college classrooms. Such measures do exist in American legal education, where nearly all graduates are required to take a bar exam to become licensed attorneys. Sander published an analysis in 2005 that used bar passage data to argue that learning mismatch effects were significant and serious for African Americans receiving large preferences to law schools.[76] Although this claim has been hotly debated and remains controversial,[77] its critics have been effectively rebutted,[78] and the most authoritative study of this issue concludes that law school mismatch effects are real and sizeable.[79]

"Competition mismatch" is perhaps best illustrated by the problem of "science" mismatch.[80] Suppose that a high school senior

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75.   *See generally* Esther Duflo et al., *Peer Effects, Teacher Incentives, and the Impact of Tracking: Evidence from a Randomized Evaluation in Kenya*, 101 AMER. ECON. REV. 1739 (2011) (presenting and discussing a randomized tracking study demonstrating learning mismatch in Kenyan primary schools).

76.   *See generally* Sander, *supra* note 15, at 425–83.

77.   *See generally* Ian Ayres & Richard Brooks, *Does Affirmative Action Reduce the Number of Black Lawyers?*, 57 STAN. L. REV. 1807 (2006); Jesse Rothstein & Albert H. Yoon, *Affirmative Action in Law School: What Do Racial Preferences Do?* (Nat'l Bureau Econ. Research, Working Paper No. 14276, 2008). Neither paper tackles the learning mismatch issue directly—indeed, none of the empirical critiques do so.

78.   *See* Williams, *supra* note 74, at 173–76, 187–93 (directly rebutting the Ayres & Brooks and Rothstein & Yoon papers); Sander, *supra* note 8, at 933–50 (directly rebutting both papers). In the fall of 2012, in response to an amicus brief submitted by Sander & Taylor to the U.S. Supreme Court, a group of empirical scholars submitted a brief (the "Empirical Scholars Brief") which purported to rebut mismatch generally and law school mismatch in particular. But this appeared to be chiefly a rhetorical exercise. None of the central critiques of the brief were even factually accurate, as one of us pointed out to the authors of the brief in a July 2013 letter; none of the authors have responded and there has been, so far as we know, no follow-up attempt by the authors to publish their claims. For a discussion of the affair, see Richard Sander, *Mismatch and the Empirical Scholars Brief*, 48 VALPARAISO UNIV. L. REV. (forthcoming, June 2014).

79.   *See generally* Williams, *supra* note 74, at 178–93. The Williams paper is powerful because it (a) uses models that directly build upon those of the leading critics, and shows that such models generally produce strong evidence of mismatch; (b) shows that its mismatch results are powerful by testing (and presenting full results for) several dozen different models; and (c) was published in perhaps the leading peer-reviewed journal for empirical legal studies (none of the critiques were published in peer-reviewed journals). *Id.*

80.   *See* SANDER & TAYLOR, *supra* note 15, at 33–44 (introducing the science mismatch issue). "Competition mismatch" is also well-illustrated by the problem of "academic mismatch," where students who aspire to academic careers and receive a large admissions preference into college see their grades suffer from the greater competition and lose interest in an academic career. *See* STEPHEN COLE & ELINOR BARBER, INCREASING FACULTY DIVERSITY: THE OCCUPATIONAL CHOICES OF HIGH-ACHIEVING MINORITY STUDENTS 13–17, 22–25, 187–212 (2003) (examining academic fit as one possible determining factor in black students' career selection, particularly as to academia).

aspires to become a chemist. If she has a solid high school perform-
ance and attends a good college, the odds are about four in ten that
she will attain a bachelor's degree in chemistry or some other
"STEM" field.[81] But what if she receives a large admissions prefer-
ence and attends an even better college, where most of her peers
have higher test scores and more advanced preparation in the sci-
ences? In that case, she is likely to struggle in her first-year science
courses (which are generally graded on a tough curve) and, be-
cause these courses teach a series of topics that build upon one
another, difficulty in the first month will likely lead to even greater
difficulty in the months ahead. The result can be low grades in
STEM courses, disenchantment with science, and a decision to ei-
ther transfer out of the sciences or to drop out of college
altogether.[82]

A growing number of unrebutted studies have shown that the
effect on science students is pervasive and serious among those who
receive preferences to selective schools.[83] Students of any race who
wish to pursue a STEM degree and who receive a large preference
to a selective school are at a dramatically greater risk of dropping
out of science or of college altogether than students who are other-
wise identical but do not receive a preference (or receive a smaller
one).[84] Science mismatch increasingly seems like a leading suspect
in explaining a long-standing paradox: even though African Ameri-
can high school seniors have greater interest in STEM careers than

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81.   *See* A. Christopher Strenta et al., *Choosing and Leaving Science in Highly Selective Institu-
tions*, 35 Res. in Higher Educ. 513, 541–44 (1994).

82.   *Id.*

83.   *See generally* Frederick L. Smyth & John J. McArdle, *Ethnic and Gender Differences in
Science Graduation at Selective Colleges with Implications for Admission Policy and College Choice*, 45
Res. in Higher Educ. 353, 372–76 (2004) (providing a particularly powerful analysis of the
effects of science mismatch); *see also* Rogers Elliott et al., *The Role of Ethnicity in Choosing and
Leaving Science in Highly Selective Institutions*, 37 Res. in Higher Educ. 681 (1996); Peter
Arcidiacono, Esteban M. Aucejo, Ken Spenner, *What Happens After Enrollment? An Analysis of
the Time Path of Racial Differences in GPA and Major Choice*, IZA J. Lab. Econ. (2012) (examin-
ing the role of science mismatch primarily in black students' choice of college major and the
resulting effect on GPA spreads across all ethnicities); Peter Arcidiacono, Esteban M. Aucejo,
V. Joseph Hotz, *University Differences in the Graduation of Minorities in STEM Fields: Evidence from
California* (Nat'l Bureau of Econ. Research Working Paper No. 18799, Feb. 2013), *available at*
http://public.econ.duke.edu/~psarcidi (demonstrating that science mismatch has a greater
effect on students who receive admissions preference than students who receive no admis-
sions preference and that more black students would graduate with science degrees if they
had attended less selective universities).

84.   Smyth & McArdle, *supra* note 83, estimate that a large preference reduces by roughly
half the odds of a student achieving a STEM degree.

do white seniors, blacks are only about one-seventh as likely as whites to achieve a doctorate in a STEM field.[85]

Research on "social mismatch" examines how large preferences affect social dynamics on campus. Scholars at Duke have found that college students at selective schools, regardless of race, tend to form friendships with other students who have similar levels of academic preparation before college and that such friendships tend to last longer.[86] Thus, many white-black friendships formed during students' first months at Duke disappeared by junior year as students sorted themselves into friendships according to academic interests and proficiency.[87] The end result was that African American students at Duke had no more interracial friendships in college than in high school, even though nominally the college was far more racially diverse than most of the students' high schools.[88]

The social mismatch literature has profound implications for the effect of large preferences for the general campus environment as well as the students who receive them. A central rationale for affirmative action—and seemingly the principal legal rationale—is that a diverse student body confers important educational benefits on all students. But if large preferences undermine student friendships and if an easily-identified group on campus is primarily there by virtue of large preferences, then affirmative action can have the effect of fostering segregation and even cross-racial hostility or negative stereotyping. Uniformly, the extensive pro-preference literature on the "educational benefits of diversity" fails to take into account the way that preference levels affect social dynamics and inter-racial learning on campus, which is one reason this literature is often dismissed as ideologically biased and unscientific.

All three forms of mismatch suggest that preferences can be harmful if they are very large. But importantly, none of the mismatch literature contends that small preferences are harmful, and there are good empirical and theoretical reasons to think that small admissions preferences might avoid all of these harms or at least

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85.   U.S. Comm'n Civil Rights, Encouraging Minority Students to Pursue Science, Technology, Engineering and Math Careers 8, 12, 44–46, 51–52, 83 (2010), *available at* http://files.eric.ed.gov/fulltext/ED524622.pdf.

86.   *See* Arcidiacono, Aucejo, Spenner, *supra* note 83, at 2, 7–10, 13; *see also* Arcidiacono et al., *Racial Segregation Patterns in Selective Universities*, 56 J. L. & Econ. 1039, 1058–59 (forthcoming 2014).

87.   *See* Arcidiacono et al., *Racial Segregation Patterns in Selective Universities*, 56 J. L. & Econ. 1039, 1058–59 (forthcoming 2014).

88.   *Id.*

that in those cases the benefits are greater than the harms.[89] A crucial question, then, is when preferences shift from helpful or benign to mostly harmful. Thus far, mismatch literature has generally not identified such thresholds, partly because the available data is generally too blurry to allow analysts to draw such distinctions.[90]

Any prudent university leader, we think, should draw two conclusions from the current literature on mismatch: first, that there are compelling reasons to be very wary of large preferences, regardless of the basis on which they are offered, and second, that universities should foster the sort of data transparency and research that would help social scientists determine the "sweet spot" above which preferences have predominantly beneficial effects.

D. What are the Racial Dividends of Socioeconomic Preferences?

The degree to which socioeconomic ("SES") preferences can provide "race-neutral" diversity is, for many in higher education, the beginning and end of their interest in such preferences.[91] This is not true of the general public, which has long supported "class" over "race" as a basis for preferences.[92] And the much-discussed increase in economic inequality and the apparent decline of class mobility in America has probably contributed to the marked increase in value some education leaders attach to SES diversity in recent years.[93] Nonetheless, the degree to which SES preferences produce racial diversity is a central question we must address.

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89.   *See* Duflo et al., *supra* note 75. In the experiment described by this paper, students were divided by skill level into two "tracks," and their learning sharply increased compared to untracked control groups. Since there was a continuum of student skill levels, there were students within each track who had academic skills well below the mean of their peers, but the level of potential "mismatch" was effectively cut in half. The implication is that mismatch effects are curvilinear and decline disproportionately as the size of the credential disparity within the classroom is reduced.

90.   The limitations in current data on law school mismatch and the effects of those limitations are nicely discussed in Williams, *supra* note 74. Williams notes that much more accurate analysis would be possible if the California Bar would make its extensive dataset on bar scores available. In December 2013, the California Supreme Court ruled that there was a public right of access to this very data, so it is possible that accurate estimates of the relationship between preference size and mismatch effect will be forthcoming. Sander v. State Bar of California, 314 P.3d 488, 504–06 (2013).

91.   *See, e.g.*, SANDER & TAYLOR, *supra* note 15, at 188; *see also* RANDALL KENNEDY, FOR DISCRIMINATION: RACE, AFFIRMATIVE ACTION, AND THE LAW 242–43 (2013).

92.   SANDER & TAYLOR, *supra* note 15, at 188.

93.   *See* discussions of the need for colleges to act as drivers of social mobility. *E.g.*, Emily DeRuy, *Why Few Poor Kids at Top Colleges Matters*, NAT'L J. (Dec. 4, 2013), http://www.national journal.com/next-america/education/why-few-poor-kids-at-top-colleges-matters-20131204; Catharine Hill, *Improving Socioeconomic Diversity at Top Colleges and Universities*, HUFFINGTON

A good place to start is by thinking about the strength of the association between SES measures and race. It turns out that this association varies greatly, depending on the particular measure of SES and the particular race under consideration. We commonly use *correlations* to measure the strength of association between two *continuous* variables, but racial categories are *dichotomous* (someone either is or is not of a particular race), and many SES variables are *categorical* (taking on one of limited number of defined values, such as one's level of educational achievement). Sophisticated measures exist that are specifically designed to evaluate the association between such variables,[94] but we will use correlations here in the interest of keeping this discussion straightforward and reasonably intuitive, even though this oversimplifies and to some extent distorts the actual relationships.

As most readers know, correlations can vary from -1 to 1; a correlation between two factors of 1.0 (or -1.0) means that they predict one another perfectly; a correlation of 0 means that the two factors are not associated at all. If an SES factor were correlated with a particular race at 1.0, then its racial dividend would be 100% and it would be a fungible substitute for race.

Many observers tend to assume that the correlation between social disadvantage and race is extremely high; that is why, for example, many educators erroneously assume that racial preferences do a good job of creating SES diversity on campus.[95] They might point out that median black household income in the United States is still only a little more than sixty percent of the "white" (non-Hispanic white) median; surely this must mean that household income and race are highly correlated? But group correlations are often a very poor predictor of individual-level correlations; the actual correlation between black/non-black and household income, for a typical national sample of households, is about .20[96]—a level that, as we will see, implies a pretty poor dividend either when race is used to produce income diversity or vice versa.

POST BLOG (Apr. 5, 2013, 1:04 PM), http://www.huffingtonpost.com/catharine-hill/improving-socioeconomic-d_b_3015590.html.

94.   For example, one could use "rank-order" correlation instead of a Pearson's correlation to compare ordered groups. *See* PERRY HINTON, STATISTICS EXPLAINED 207–15 (2d ed. 2004).

95.   This, of course, was the point of departure for Richard Kahlenberg's landmark book, *The Remedy* (1996).

96.   See Table 2, *infra*.

The limitations of race as a surrogate for class are exacerbated by the tendency of SES to converge across races for high-achieving students. Racial inequality in America is far more severe at the bottom of the SES distribution than at the top; being black and the child of high school dropouts is associated with far more severe racial consequences than being black and the child of college graduates.[97] Yet it is the latter group that supplies most of the relatively high-achieving students that elite colleges would like to admit. The following table illustrates the dilemma:

TABLE 2:

CORRELATION OF A GENERAL MEASURE OF SES WITH BLACK/WHITE, NATIONAL SAMPLE OF STUDENTS, 1992

SES QUARTILE	SES CORRELATION WITH BLACK/WHITE
Bottom	.22
Lower-middle	.15
Upper-middle	.13
Top	.08
All quartiles	.20

Source: Analysis of NELS data by Yana Kucheva for the authors.

There is some good news, however. Richer measures of socioeconomic disadvantage suggest that such factors as household wealth and neighborhood poverty are important positive and negative predictors of a child's long-term outcomes, and these measures are more closely associated with race.[98] These factors can improve the SES/race correlation and increase the validity of our SES measures of disadvantage.[99] These can increase our SES/race correlation to

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97. We obtained this data from UCLA through a public records request, and have posted it here (the "pre-holistic, 2004–06 UCLA admissions data): http://seaphe.org/?page_id=678.

98. The close nexus of wealth and race is developed in MELVIN L. OLIVER & THOMAS M. SHAPIRO, BLACK WEALTH/WHITE WEALTH: A NEW PERSPECTIVE ON RACIAL INEQUALITY (2d ed. 2006). *See also* Joseph G. Altonji & Ulrich Doraszelski, *The Role of Permanent Income and Demographics in Black/White Differences in Wealth* (ECON. PERSPECTIVES, Working Paper, Sept. 2003) (on file with authors), *available at* http://www.econ.yale.edu/~jga22/website/research_papers/altonji_doraszelski_black-white.pdf.

99. *See generally* DALTON CONLEY, BEING BLACK, LIVING IN THE RED: RACE, WEALTH AND SOCIAL POLICY IN AMERICA (2009) (making a strong case that differences in wealth, and the indirect effects of wealth differences, have a powerful effect on life outcomes). In the United States, wealth is significantly more correlated with race than is household income. On the effect of neighborhood environment on life outcomes, see Christopher Jencks & Susan E. Mayer, *The Social Consequences of Growing Up in a Poor Neighborhood, in* INNER-CITY POVERTY IN THE UNITED STATES (Laurence E. Lynn & Michael G.H. McGeary eds., 1990).

the neighborhood of .45—perhaps somewhat higher or lower, depending on the sophistication of the measures, the part of the country from which applicants are drawn, and other intangible factors.

To understand the practical import of these issues, it is useful to explore in some depth a fairly realistic example. Tables 3 and 5 present the results of a series of simulations using data adapted from UCLA's undergraduate admissions over three years, from 2003–04 through 2005–06. UCLA is a useful example because it gathers an unusually broad array of socioeconomic data and—during the period we use—developed them into innovative indices of disadvantage. If we consider just black and white applicants in UCLA's applicant pool, the correlation between "white" and "parent's educational attainment" is about .25; the correlation between "white" and "parental income" is about .31; and the correlation between "black" and a "life challenges" score, assigned by admissions officers based on reading applicants' files, is .39. We made slight modifications to these three SES measures so that they had "weak," "medium," and "strong" correlations with race of .15, .30, and .45 respectively.[100]

For the simulations in Tables 3 and 5, we assumed that twenty percent of the applicants were "underrepresented minorities" and that the majority and minority applicants had the same distribution of academic credentials as white and black applicants to UCLA. We assigned each applicant an "academic index"—a weighted combination of SAT I scores and high school grades—that is scaled by the performance of all high school seniors. Thus, a value of ninety on this scale means that a student's credentials put him at roughly the ninetieth percentile of all high school seniors. From this pool, our hypothetical school admits twenty percent of its applicants.[101]

For each of the twelve simulations in Table 3, we report several types of outcome. Let us illustrate these by discussing the first two rows. Simulation (a) bases admission strictly on the academic credentials of applicants; they are arrayed from highest academic index to lowest and admitted from the top. This produces a class

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100. The point is to illustrate the range of likely correlations that SES indices might have with race. The "modifications" consisted of mixing a random element into the educational variable (to lower its correlation from .25 to .15) and mixing in a small sampling of the race variable into the income and life-challenge indices to slightly raise them (from .31 to .35, and from .39 to .45, respectively).

101. During this period, UCLA in fact admitted about twenty-two percent of its applicants, and the mean credential of its students was at about the ninety-second to ninety-third percentiles. For calculations by the authors from UCLA's released admissions data, see UCLA Undergraduate Admission, Profile of Admitted Freshmen, http://www.admissions .ucla.edu/prospect/adm_fr/frosh_prof.htm (last visited Apr. 1, 2014).

that has few minority students (only 4% of the admits, though minorities are 20% of the applicants) and few students from the bottom half of the SES spectrum (only 6% of the admits, though they are also about 20% of the applicants). Admitting only by academic index of course maximizes the credential eliteness of the school's student population (ninety-fifth percentile, as reported in column 4), and it means that no students are admitted who fall below the ninety-first percentile (column 5). Finally, column 6 tells us about the average academic gap between majority and minority students. Since there are no preferences in this simulation, that gap is small—only about three percentile points.

TABLE 3:
ADMISSIONS TO A HYPOTHETICAL SCHOOL

METHOD	WEIGHT (1)	MINORITY PRESENCE (2)	MODERATE SES PRESENCE (3)	MEAN ACADEMIC PERCENTILE (4)	PERCENTILE CUTOFF FOR ADMISSIONS (5)	MEAN RACE ACADEMIC GAP IN PERCENTILES (6)
a. Academic index only	n/a	4%	6%	95	91	3
b. Racial preferences	n/a	20%	9%	93	66	16
c. SES, (w/ race corr .15)	10%	4%	8%	95	89	4
d.	30%	4.5%	13%	93	83	5.5
e.	50%	7%	24%	90	70	7
f. SES (w/ race corr. .30)	10%	4%	8%	94	89	4
g.	30%	6%	13%	93	83	5.5
h.	50%	10%	24%	90	70	7
i. SES (w/race corr. .45)	10%	4.5%	8%	94	89	4.5
j.	30%	7%	13%	93	83	6
k.	40%	8.5%	18%	91	76	8
l.	50%	12%	24%	89	70	10
m.	60%	19%	34%	83	65	10

Source: Calculations by the authors; see text for methods.

Simulation (b) is a simplified version of an admissions system that relies predominantly on racial preferences to achieve diversity. The simulation admits the top 20% of "majority" applicants and the top 20% of "minority" applicants. Minorities are thus represented among admittees (column 2) at the same rate as they are applicants. This approach generates a little bit of extra socioeconomic diversity, but not much, since most of the minority applicants with the strongest academics are from affluent households. It also produces a very large gap in the academic credentials of "majority" and "minority" students. In this simulation, the majority is even stronger academically than in simulation (a), because the school is admitting fewer such students and is thus more selective. But simulation (b) replicates among admits the large gap between average majority and minority credentials in the admissions pool. The mean "minority" admit is roughly at the eighty-first percentile of

academic qualifications, and some students are admitted with cre-
dentials as low as the seventy-second percentile. This system thus
has very high potential for mismatch effects.

Simulations (c) through (m) rely purely on socioeconomic pref-
erences to achieve diversity. These ten variations use three SES
measures that have progressively higher correlations with race;
these in turn are each applied with three progressively higher
weights in the balance with academic factors. Thus, in simulation
(c), the SES index has a correlation of .15 with race (quite weak),
and admissions officers give an SES index that is one standard
deviation above the applicant mean one-tenth the weight of a one
standard deviation increase in the academic index.[102] If the SES
index weight is one-tenth, and the academic index weight is nine-
tenths, then this means we give nine times as much weight to aca-
demics as to SES. Table 4 illustrates how this plays out for several
alternative weights. Note a fundamental difference in our treat-
ment of SES and race: with race, there is no "weighting" race
against academic credentials, because admissions decisions essen-
tially operate independently for majority and minority applicants.
In our simplified model, this looks very much like a quota. While
racial quotas have been held unconstitutional by the Supreme
Court,[103] most selective schools that explicitly account for race use
other techniques, such as targets or race-norming that have very
much the same effect.[104] Socioeconomic factors are different: they
are matters of degree, rather than fixed characteristics. One could
simply define a socioeconomically disadvantaged group and use
targets to admit that specific group, but few universities do this and
that is not the approach we take here. One can better understand
the nature of an SES preference system and its interaction with
other factors by treating it as something that varies across a wide
spectrum, thus considering each applicant's relative contribution to
SES diversity. That is essentially what this weighting system does.

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102. Since the weighting is done by standard deviations, there is no need for the SES and
academic measures to be on the same scale; they must simply be made as "continuous" as
possible.

103. *Bakke, supra* note 2, at 316–21 (1978).

104. *See* Sander, *supra* note 15, at 390–410; Sander, *supra* note 3, at 289–95.

TABLE 4:
ILLUSTRATING THE WEIGHTS IN TABLES 3 AND 5

WEIGHTING LEVEL	SES WEIGHT	ACADEMIC WEIGHT	ACADEMIC TO SES RATIO
10%	10%	90%	9
30%	30%	70%	2 1/3
50%	50%	50%	1
60%	60%	40%	2/3

In considering these simulation results, several interesting patterns emerge. Note that very small SES preferences (i.e., those with a weight of ten percent) have only modest effects on the SES composition of the class and make trivial contributions to racial diversity. Moderate preferences (weight thirty percent) do produce meaningful SES diversity and, when there is a relatively high SES/race correlation in the index (e.g., simulation (j)), they produce nearly twice as many minority admittees as the race-blind system (simulation (a)). Giving SES preferences a weight of .5 produces very substantial SES diversity. In scenarios (e), (h), and (l), applicants from roughly the bottom half of the SES distribution make up twenty-four percent of the admitted class (and since they are only twenty percent of applicants, they are slightly overrepresented in that sense).

Just as important as the racial and socioeconomic effects of these various strategies are the academic effects. Here, several patterns are notable. First, there is a large academic price to be paid for using substantial SES preferences, at least in this admissions pool. This is partly because SES preferences potentially affect a much larger proportion of applicants than do preferences for a racial minority, and also, seemingly paradoxically, because the proportion of low-SES students in this applicant pool is modest. Thus, a very large proportion of applicants receive some kind of SES boost in many of these simulations. We can also see in the data a fundamental challenge in any system that uses race-neutral methods to achieve racial diversity: the academic costs of augmenting the racial dividend go up at an increasing rate. That is, each additional minority admit exacts a slightly higher academic cost to the overall strength of the student body. This is not nearly as true of traditional racial preferences, since the size of the preference in those systems has no direct effect on how majority students are chosen.

On the other hand, the mere fact that these preferences lower the average academic strength of the admitted students and the fact that preferences are not limited to racial minorities mean that the

academic gap between majority and minority students is much smaller in all of these simulations than it is under the racial preference regime.

The high academic cost of the larger SES preferences in these models would, we think, render it unpalatable to most selective schools. A college that rejected so many of its academically strongest applicants would find that, in the next admissions cycle, its applicant pool was not quite so strong, and the school would be in great danger of entering the negative feedback loop we discussed in Part I.

This then leads to an interesting question: What happens if we mix small racial preferences into a system largely based on SES preferences? Table 5 illustrates several possibilities, focusing on SES measures that start out with a high racial correlation (i.e., of .45).

TABLE 5:
ADDING SMALL RACIAL PREFERENCES TO SES PREFERENCES

METHOD	WEIGHT WEIGHT (1)	MINORITY PRESENCE (2)	MODERATE SES PRESENCE (3)	MEAN ACADEMIC PERCENTILE (4)	PERCENTILE CUTOFF FOR ADMISSIONS (5)	MEAN RACE ACADEMIC GAP IN PERCENTILES (6)
Small race pref., using SES preferences with a race correlation of .45	n. .3	7.5%	14%	94	85	6
	o. .35	10%	16%	93	82	7
	p. .4	12%	20%	92	78	7
	q. .45	15.5%	23%	90	74	9
	r. .5	18%	27%	89	70	9

In these five simulations, we incorporate a racial preference that is about one-third as large as the SES preference. As we would expect, the direct use of race increases the minority presence, but, perhaps unexpectedly, the racial impact is relatively large (raising minority numbers some forty percent above their levels from an otherwise similar SES system). Despite this jump, the effect on the mean racial credential gap (column 6) is quite modest compared to a system of pure racial preferences.

Thus, for example, simulation (p) manages to balance several goals. The mean academic percentile is only slightly lower than that of a pure racial preference system; it is within the bounds of the tradeoffs selective colleges currently make between academic and non-academic admissions goals.[105] The combined number of

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105. That is to say, few colleges today simply maximize the academic strength of their student body; most accept a loss that, in effect, lowers the "average percentile" of their students by 2 to 4 points in pursuing other admissions goals, including of course goals other than racial and SES diversity. *See generally* WILLIAM G. BOWEN & DEREK BOK, THE SHAPE OF THE RIVER (1998).

minorities and low-to-moderate SES students is also comparable to that of a pure racial preference system, and it is more balanced between racial and SES goals. Notably, the weakest students in this regime (column 5) are significantly stronger than those in a pure racial preference system, and the racial preparation gap is far smaller. This follows directly from using multiple factors to achieve diversity rather than relying on one student characteristic and reaching as deeply as necessary into the applicant pool to meet that specific diversity goal.

E. What Happens if We Deepen the Pool?

As we noted earlier, low-SES students are far less likely than high-SES students to attend a four-year college, even when we hold the level of academic achievement constant.[106] Recent research has demonstrated a related fact: vast numbers of very talented low- and moderate-SES students do not even make it into the applicant pool for selective colleges and universities. This is partly a failure of high school counseling, partly a reflection of the low priority many selective schools give to finding low-SES students, and partly just the greater difficulty of locating high-promise, low-SES students compared to the relative ease of identifying upper-middle-class minorities. Table 6 illustrates this problem, using a simple and arbitrary measure of "high-achieving students" (those scoring above 1200 on the old-scale SAT I) and an arbitrary set of elite schools to show the dramatic disparities in the rates at which low-SES and high-SES students apply to these schools.

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106.   *See supra* Part II.

TABLE 6:
RATES AT WHICH HIGH-ACHIEVING STUDENTS APPLY TO VERY ELITE
COLLEGES BY RACE AND SOCIOECONOMIC STATUS, 1999

SOCIOECONOMIC QUINTILE	RACE			
	AFRICAN AMERICAN	ASIAN AMERICAN	LATINO	ANGLO
1	4	34	8	14
2	8	37	16	14
3	15	41	22	18
4	25	47	30	22
5	48	61	45	34

Note: The students analyzed here scored 1200 or higher on their combined SAT Math and Verbal tests in 1999; each cell describes the percentage of students in that cohort who applied to one of ten very elite colleges (the eight Ivy League colleges, plus Duke and Stanford). Calculations by Flori So for the authors, using 1999 College Board data.

These overlooked "diamonds in the rough" have gained greater visibility because of the powerful, influential work of Caroline Hoxby and Christopher Avery[107] and because of a series of *New York Times* articles by David Leonhardt, the paper's Pulitzer Prize-winning Washington bureau chief.[108] Colleges have real potential to develop new mechanisms—ideally collective mechanisms, as discussed in Part IV—to do a better job of making their applicant pools look like the actual pool of academically successful students in American society. The simulations in Table 7 illustrate just how important is the ability to reach more deeply into the talent pool. We use the same model ingredients as in Tables 3 and 5, except that within each tier of academic credentials, we have adjusted the applicant pool to reflect the actual socioeconomic and racial distribution of high school seniors with those qualifications. For example, in our original applicant pool (based closely, as noted earlier, on the UCLA applicant pool for 2004-06), about 80% of the students whose credentials place them in the eighty-eighth to ninetieth percentile of all American seniors are from the top quartile of the SES distribution; only 10% are from the bottom half. When we adjust the pool to reflect actual academic achievement among high

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107. *See* Caroline Hoxby & Christopher Avery, *The Missing "One-Offs": The Hidden Supply of High-Achieving, Low-Income Students*, BROOKINGS PAPERS ON ECON. ACTIVITY, Spring 2013; Caroline Hoxby & Sarah Turner, *Expanding College Opportunities for High-Achieving, Low Income Students*, STAN. INST. FOR ECON. POL'Y RES., http://siepr.stanford.edu/?q=/system/files/shared/pubs/papers/12-014paper.pdf; David Leonhardt, *A Simple Way to Send Poor Kids to Top Colleges*, N.Y. TIMES, Mar. 31, 2013, at SR5.

108. *See* David Leonhardt, *A Simple Way to Send Poor Kids to Top Colleges*, N.Y. TIMES, Mar. 31, 2013, at SR5; David Leonhardt, *Better Colleges Failing to Lure Talented Poor*, N.Y. TIMES, Mar. 17, 2013, at A1; David Leonhardt, *Delaware Seeks to Steer the Poor to Top Colleges*, N.Y. TIMES, Sept. 19, 2013, at A3.

school seniors, only 50% of the students are from the top quarter, and 25% are from the bottom half. This means that our SES preferences have many more students with which to work, and as a result the diversity effects of those preferences are far greater.

TABLE 7:

ADMISSION SIMULATIONS WITH A REPRESENTATIVE APPLICANT POOL

METHOD	WEIGHT (1)	MINORITY PRESENCE (2)	MODERATE SES PRESENCE (3)	MEAN ACADEMIC PERCENTILE (4)	PERCENTILE CUTOFF FOR ADMISSIONS (5)	MEAN RACE ACADEMIC GAP IN PERCENTILES (6)
s. Academic index only	n/a	5%	12%	95	91	3
t. Racial preferences	n/a	20%	15%	93	77	13
u. SES, (w/ race corr .45)	30%	10%	27%	92	83	5
v	40%	17%	40%	89	77	6
w.	50%	21%	24%	87	69	9
x. SES (w/ race corr. 45), plus small racial pref.	30%	14%	26%	92	80	7
y.	35%	17%	34%	91	78	7
z.	40%	20%	39%	89	75	7
aa.	45%	25%	45%	87	72	8
bb.	50%	29%	50%	84	69	8

Source: Calculated by the authors; see text and notes accompanying Table 3 for details.

The specific simulations shown in Table 7 correspond to the most promising simulations (in achieving multiple goals) from Tables 3 and 5, but here use the deepened applicant pools. Models (u) through (w) all use an SES preference that has a .45 correlation with race, apply varying weights, and eschew any racial preference. The final five of these ((x) through (bb)) include the same small racial preference used in Table 5 (equal to about one-third of the SES preference). Compared with our earlier simulations, these models produce far more socioeconomic diversity and significantly more racial diversity—in both cases because the applicant pools better reflect the actual talent pool. This makes it possible to create more diverse student bodies at lower academic cost and with generally less potential for mismatch.

Consider, for example, simulations (v) and (y). These models produce substantial racial diversity approaching the levels of a conventional "race only" system but have dramatically lower levels of mismatch potential (the racial gap in credentials is less than half what it is in simulation (b)) and dramatically higher levels of socioeconomic diversity—higher even than the SES diversity in Table 3 models that gave SES far greater weight. Moreover, they admit classes that have average academic credentials only one or two points lower than conventional race-preference systems. These strike us as

sweet spots, models that would appeal to university leaders as academically plausible, with attractive diversity levels and much healthier climates for diversity students to flourish.

We emphasize that these simulations are exploratory. If we used the applicant pool from a different selective college as our starting point, we might well get significantly different results. There are multiple ways of assigning preferences[109] and these alternative methods might also change the pattern of results here in meaningful ways. In particular, note that we have not specifically done simulations of "top x percent" plans, in which colleges achieve diversity by guaranteeing admission to students with top ranks in their high school classes.[110] Our simulations attempted to do something similar, by taking into account data on the home neighborhood and high school characteristics of applicants. But it is possible that in some states, high school segregation is so high that the use of high school proxies might produce higher correlations with race than in any of our simulations.

Nonetheless, we believe this exercise yields one general lesson and several more specific ones.

The general lesson is that we need a literature of admissions simulations. That literature must be specific enough and transparent enough for both scholars and university officials to easily replicate results and make direct comparisons across simulated systems. Understanding the contours of applicant pools, the choices in designing preferences, and the tradeoffs involved in various designs is essential to progress in this field, and the simulation is the basic tool of the trade.

As to the specific lessons, we advance the following as hypotheses our data and simulations support:

—Measures of SES have widely differing associations with race. Those measures that are multi-dimensional and take account of such factors as family wealth, neighborhood poverty, and school quality are likely both to be richer measures of disadvantage and to yield higher racial dividends.

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109. For example, the SES preference system inaugurated by UCLA in 1997, and used in some modified form for many years, awarded applicants preference points on the basis of seven distinct SES characteristics, only to those applicants who were at least one standard deviation below the applicant mean on that characteristic. *See* Sander, *supra* note 5, at 476–81.

110. The best known of these is the "top ten percent plan" used in Texas. An analysis of data from Texas that has some analogs to the analyses in this section is Marta Tienda and Angel Harris, *Hispanics in Higher Education and the Texas Top 10% Plan,* 4 RACE & SOC. PROBLEMS 57 (2012).

—SES preferences, at least when applied universally as in these examples, tend to impose a greater downward pull on the average academic credentials of an admitted class than do racial preferences. But they also tend, ceterus paribus, to create smaller academic gaps within a class across racial or SES lines.

—The academic cost of achieving specific gains in either racial or SES diversity goes up at an *increasing rate* as the racial/SES targets go up.

—A combination of small racial preferences with moderate SES preferences is more effective than either type of preference in isolation in achieving the multiple goals of maximizing diversity while minimizing the academic cost of preferences and the danger of mismatch.

—The applicant pools of selective schools tend not to capture vast numbers of low- and moderate-SES students with strong academic records. Capturing these "diamonds in the rough" greatly increases the power of SES preferences to diversify a selective college class at modest academic cost. Smoothing the path for such students is also intrinsically important on social justice grounds.

F. The "Collective Action" Problem in Reforming Preferences

When the University of California began to implement race-neutral policies in the late 1990s, the effects on racial diversity varied enormously from one setting to another. At UC Berkeley Law School (the system's most elite law school, hereinafter "UCBLS"), the number of enrolled blacks fell by ninety-five percent in the first year of race-neutrality and the number of Hispanics fell by half.[111] At UC's Irvine undergraduate campus, in contrast, the first year of race-neutrality brought a forty-five percent increase in black enrollment and a twenty-five percent increase in Hispanic enrollment.[112] It is true that Irvine had smaller racial preferences than UCBLS to begin with and was somewhat more proactive than UCBLS in developing strategies, such as SES preferences and improved outreach,

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111. Memorandum from the Univ. of Cal. Office of the President on Admissions Statistics for Berkeley, Davis, UCLA, Hastings, Texas, and Washington (circa 2000) (on file with author).

112. *See* Univ. of Cal. Office of the President, Student Affairs, Admissions, University of California Application, Admissions, and Enrollment of California Resident Freshmen for Fall 1989 Through 2012 (Mar. 2013), *available at* http://www.ucop.edu/news/factsheets/2012/flow-frosh-ca-12.pdf.

that would counterbalance the elimination of racial preferences.[113] However, their peers' behavior was the main driver behind the dramatic difference in outcomes between these institutions.

UCBLS is generally ranked as a top ten law school in the United States, and it competes on a national market with other top-ten schools—all of which were aggressively using racial preferences the year that UCBLS stopped. Minority students that eighth-ranked UCBLS might admit on race-neutral grounds would therefore be very likely to receive a preferential admission (and a recruitment scholarship to boot) from the "top three" law schools: Yale, Harvard, and Stanford. Indeed, UCBLS's yield on African American admits when it shifted to race neutrality fell from twenty-six percent to six percent.[114]

In contrast, UC Irvine drew the vast majority of its students from California.[115] Its main competitors—for reasons of cost, geography, and selectivity—were other UC schools, such as UC San Diego and UCLA, which were also operating under the effect of a racial preference ban.[116] Irvine consequently faced a much smaller threat of poaching by race-conscious competitors than UCBLS. Irvine's yield from African American and Hispanic admits thus went *up* sharply.[117]

This highlights a final important lesson about shifts to race-neutral admissions. The simulations we just presented in Section II.D all focused on who was *admitted*. But from the pool of admittees, who actually *enrolls* will be heavily driven by the degree to which one's competitors pursue similar or at least complementary policies. An institution that moves unilaterally from racial preferences to socioeconomic preferences will find its yield rate of racial minorities drops (because those students will receive, through racial preferences, better offers from more elite schools), and its yield rate from Anglos and Asians will rise (because SES-preferred Anglos and Asians are not receiving preferences from other schools). Thus, even a school's socioeconomic diversity could be skewed away from underrepresented minorities. In short, selective institutions

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113. Kate Antonovics and Ben Backes, *The Effect of Banning Affirmative Action on College Admissions Policies and Student Quality*, 49 J. of Hum. Resources (2014), discussed ways that UC Irvine's policies changed after Prop 209.

114. *See* Memorandum from the Univ. of Cal. Office of the President, *supra* note 111 (comparing UCBLS statistics for 1996 and 1997).

115. *See* Antonovics and Backes, *supra* note 113.

116. *Id.*

117. *See* Univ. of Cal. Office of the President, Student Affairs, Admissions (comparing Irvine statistics for 1997 and 1998).

contemplating reforms of their preferences face an important collective-action problem.

In at least one important way, however, schools moderating their use of racial preferences may reap an admissions dividend. Research on admissions patterns at the University of California found very powerful evidence that the minority "uptake" rate at UC campuses rose sharply when race-neutral policies were formally implemented. That is, black and Hispanic students admitted to UC schools after Proposition 209 went into effect were more likely to decide to enroll, other things being equal, than they were when racial preferences were used. The effect was strongest on those campuses that had previously used the largest racial preferences.[118] One can infer that the "chilling effect" of attending a campus with fewer minority students was, at least in this case, more than offset for black and Hispanic applicants by the "warming effect" of attending a campus without the stigma of being admitted via a racial preference.

In any case, the broader collective action problem remains. One conspicuous solution is for universities to cooperate in reforming their admissions policies. As Part I notes, there are significant policy barriers to intercollegiate cooperation on admissions matters. We will return in Part IV to this question and suggest ways that cooperation can be fostered rather than deterred.

III. Compliance with the Law

When reporters and scholars discuss measures to regulate the use of racial preferences, they assume (with surprising uniformity) that schools will obey these regulations.[119] This seems odd, because the history of civil rights law is generally a history of first achieving formal decisions or laws that embrace reform and then undertaking the arduous process of actually enforcing them.[120] No one assumed that the Supreme Court's decision in *Brown v. Board of Education*

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118. *See* Kate Antonovics & Richard Sander, *Affirmative Action Bans and the "Chilling Effect,"* 15 Am. L. & Econ. Rev. 252, 272 (2013); Univ. of Cal. Office of Financial Aid, University of California: Overview of Compliance with Proposition 209 (2001).

119. For example, see Richard Kahlenberg, The Century Foundation, A Better Affirmative Action (2012), which analyzes the effects of affirmative action bans on university behavior and assumes university compliance throughout. This is in no way exceptional; I am aware of no discussion by reporters or higher education reports that questions the assumption that bans on the use of preferences will be more or less automatically followed.

120. *See generally* Michael Klarman, From Jim Crow to Civil Rights (2004) (providing an exemplary account of the interplay between formal legal change, particularly as determined in Supreme Court decisions, and on-the-ground practice).

meant that southern school districts would promptly begin to integrate their schools—and indeed, only after the Kennedy and Johnson Justice Departments launched large-scale compliance efforts did widespread desegregation occur in the South.[121] Conversely, to consider another example, the passage of the federal Fair Housing Act in 1968 certainly had an impact on the behavior of housing market actors, but it took many years and the passage of stronger (and more expensive) enforcement mechanisms by Congress in 1988 before one could say that the vast majority of housing discrimination had been curtailed.[122]

It may initially seem farfetched to compare contemporary university administrators dealing with bans on racial preferences to southern school officials in the 1950s resisting *Brown,* but, in fact, the similarities are striking. In both cases, officials aggressively asserted their opposition to the elimination of discrimination, resented the restriction of their freedom of operation, probably considered the reforms immoral, and certainly faced intense political pressure to resist the new insistence on race neutrality.[123]

There is an important difference, of course. In the South, political pressure to resist desegregation came from the white citizenry.[124] Their resistance was fundamentally reactionary, in defense of a system which had no defensible moral underpinning. Intellectuals were largely united in opposing the South's resistance, and white public opinion in the North steadily solidified in opposition, too. The political forces facing university leaders today are more complicated. Public opinion is generally against racial preferences, but many university constituencies strongly favor it. Elites in government and industry also tend to favor the use of preferences or at least find support politically expedient. There are strong moral arguments on both sides, though the empirical argument against large preferences, as noted earlier, has gained considerable strength.[125]

This combination of pressures does not produce a single, predictable course of action among university leaders. Nearly all leaders express strong opposition to bans on racial preferences,

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121. *Id.* at 344–442.

122. Federal fair housing audit studies show a long, gradual decline in housing discrimination rates from the 1970s through 2010. MARGERY AUSTIN TURNER ET AL., U.S. DEP'T OF HOUSING & URBAN DEV., HOUSING DISCRIMINATION AGAINST RACIAL AND ETHNIC MINORITIES 2012 xix (June 2013).

123. *See generally* SANDER & TAYLOR, *supra* note 15, at 131–142, 155–174.

124. KLARMAN, *supra* note 120, at 408–42 (discussing the nature of "massive resistance" in the South of the 1950s and the 1960s, and its eventual fall).

125. SANDER & TAYLOR, *supra* note 15, at 185–90.

and most emphasize their continuing commitment to racial diversity in the face of bans.[126] But open defiance is unusual; most leaders seem to work with faculty and admissions officers to explore work-arounds that nominally comply with the law but, in fact, produce results that are hard to distinguish from the outright consideration of race. In this section, we consider a few examples of this interplay and the evidence that racial preferences continue in fact, if not in name.

A. University of California at Berkeley Law School

As we have noted, California's 1996 ban on racial preferences severely affected its leading public law school. UCBLS's sister institution, UCLA School of Law, responded to the race-preferences ban by adopting an aggressive system of socioeconomic preferences which greatly cushioned the racial effect of the new regime. But in the first year under the ban, UCBLS simply dropped its racial preferences. Because of the dynamic discussed in Part II—that is, the fact that UCBLS was virtually alone among its peer national law schools in not using large race preferences[127]—the effects were very dramatic: UCBLS enrolled only one African American freshman in 1997, compared with ten at UCLA and increases in black enrollment at many UC schools.[128] The dramatic shift at UCBLS prompted national media coverage and humiliated the school's leaders. The deans and faculty determined that this experience would not be repeated.[129] UCBLS announced that henceforth it would consider personal disadvantage in the admissions process, and it created faculty committees to review applications and assess the special characteristics and contributions of individual applicants. UCBLS's minority numbers immediately rose sharply—not to pre-ban levels, but to respectable levels—and have remained there ever since.[130]

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126. *See id.* at 132–35,155–57.

127. *See* Yagan, *supra* note 13, at 13 and 48 fig. III (comparing admission rates at Berkeley and at non-UC elite (top 15) law schools); Sander, *supra* note 15, at 416 (showing that the large academic gap between black and white students exists at all tiers of legal education).

128. *See* Univ. of Cal. Office of the President, *supra* note 135.

129. *Cf.* Robert Cole et al., Report of an Ad Hoc Task Force on Diversity in Admissions (Oct. 1997). We have an extensive cache of accompanying documents, none of which explain what UCBLS actually did but which show the intense focus of UCBLS on coming up with a new policy in 1997–98.

130. *See* http://data.universityofcalifornia.edu/student/grad-student-data/data-tables/Graduate-Applications-Admits-Enrollees-in-Selected-Programs-by-Ethnicity-2002-2009.pdf.

UCBLS is not transparent in its admissions. It strenuously opposed the efforts of scholars (including one of us) to study California Bar data, plausibly because that data would have revealed too much about both the operation of UCBLS's admissions and the mismatch consequences of its large *sub rosa* preferences.[131] UCBLS has also defied for the past two years our public records request for admissions data. But it did make some data available a decade ago, and that information shows a clear pattern of racial discrimination.[132] Table 8 shows one way of analyzing this data; it divides 2002 applicants to UCBLS into quintiles, based on their academic credentials, and reports the admissions rate of three racial groups within each quintile.

TABLE 8:
UCBLS ADMISSION RATES, 2002, BY QUINTILE OF
APPLICANT ACADEMIC INDICES

QUINTILE	BLACK	HISPANIC	WHITE
5	1.000	0.812	0.448
4	0.769	0.368	0.082
3	0.560	0.282	0.013
2	0.233	0.103	0.005
1	0.005	0.022	0.002

Source: Authors' analysis of data provided by UCBLS School of Law

As we can see, black applicants in the third quintile of the applicant pool had a 56% chance of being admitted to UCBLS; comparable white applicants had only a 1.3% chance of admission. The forty-fold advantage blacks enjoyed cannot be attributed to indirect measures, such as socioeconomic disadvantage. As we have seen, SES measures can virtually never exceed a race correlation of more than .45, and the UCBLS figures, if they are to be explained by a "race-neutral" measure, imply a correlation between "black" and that measure of over .95. Moreover, most race-neutral measures of disadvantage correlate more highly with Hispanic applicants than black ones, but UCBLS's numbers obviously show blacks being admitted at a much higher rate than academically comparable Hispanics.

131. UCBLS did not do so openly, but UCBLS administrators drafted a confidential letter to the State Bar which UCLA's Dean, Michael Schill, showed to Sander in early 2007.

132. In response to a request from Sander, UCBLS released in late 2003 an anonymized database showing the race, ethnicity, LSAT score, undergraduate GPA, UCBLS academic index, and admissions outcome for every applicant to the school in the 2001–02 and 2002–03 admissions cycles.

Another approach to evaluating UCBLS admissions is by using a logistic regression analysis to predict which applicants to the school are admitted. Table 9 shows such an analysis for the 2002 admissions cycle.

TABLE 9:
LOGISTIC REGRESSION OF 2002 ADMISSIONS, UC BERKELEY
LAW SCHOOL PREDICTED OUTCOME: ADMISSION

INDEPENDENT VARIABLES	ODDS RATIO
LSAT	1.32**
Undergraduate GPA	2905.7**
Resident	2.8**
Black	121.6**
Asian	1.6*
Hispanic	18.2**
Other nonwhite, non-reported	2.4**
Observations	6,568
Somers' D	.853

*p<.01 **p<.001

Logistic regressions are useful for explaining the factors that predict binary outcomes (such as admissions, which are either "admit" or "deny"). The Somers' D (in this case .853) measures how well the independent variables can predict the admissions outcome. In this case, UCBLS admitted about 12% of its applicants, so if one had no other information, one would guess that a given applicant had a 12% chance of admission and an 88% chance of rejection. The Somers' D improves our guessing ability by 85.3%, so that we could predict rejected cases with something like 98% accuracy.

All of the independent variables included in Table 9 prove to be highly statistically significant; that is, they all reliably help predict admissions outcomes. The "odds ratio" can be intuitively interpreted in this way: the square root of the odds ratio tells us by roughly what factor a one-point increase will increase one's chances of admissions. Thus, for the LSAT score, the odds ratio is 1.32. The square root of 1.32 is about 1.15, so on average, a one-point improvement in an applicant's LSAT score (e.g., from 160 to 161) is associated with a roughly 15% improvement in admissions chances. For undergraduate grades, the odds ratio is 2905, whose square root is about 54. This means that, on average, a one point

improvement in an applicant's UGPA (e.g., from 2.8 to 3.8) is associated with a 54-fold improvement in admissions chances. Although the UGPA coefficient is much larger than the LSAT coefficient, it turns out that this is merely because they operate on such different scales; a one-point improvement in UGPA is vast, while a one-point improvement in LSAT score is comparatively minor.

With this context, let us return to question of racial discrimination. The coefficient on "black" is just over 121; this means that, on average, a black applicant has eleven times the admissions chances of a white candidate with other identical observed characteristics (LSAT, UGPA, and residency in California). Comparing that ratio with the relative admission chances shown for blacks and whites in Table 8 demonstrates how these two measures compare. They are telling very similar stories, and the odds ratio creates an overall average of the differing odds at different points in the credential distribution of applicants. The very high odds ratio tells us that it is not plausible for non-racial factors to produce these outcomes, and the high Somers' D tells us that these few factors can account for the vast majority of admissions outcomes.

Another economist's research, which draws on detailed national law school applications from an elite college and which also found continuing use of racial preferences at UCBLS, corroborates our findings.[133] Additionally, current and former faculty at the law school have told us, confidentially, that a key mechanism for the cheating is the use of subjective "black-box" assessments by carefully chosen faculty members.[134]

B. UCLA Undergraduate Admissions

A second, more complicated example of this manipulation has occurred at UCLA and developed far more gradually. As we noted in Part II, the effects of the racial preferences ban were far milder at the University of California's undergraduate campuses than at its graduate professional programs, because the eight undergraduate campuses provided much of one another's competition. Many minorities remained within the UC system but cascaded to less elite campuses where their credentials were more similar to their majority classmates. In the UC system as a whole, black freshman enrollment fell only modestly in the first year of "race-neutrality"

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133. *See generally* Yagan, *supra* note 13.
134. This information was provided confidentially in personal communications with the authors.

and, with the introduction of much larger outreach programs and socioeconomic preferences, black enrollment reached record highs by the early 2000s.[135] Importantly, the better matching that came with the elimination of large racial preferences also substantially improved minority outcomes, so the numbers of black and Hispanic graduates rose rapidly as preferences were first reduced and then formally eliminated.[136]

Still, the most elite UC campuses chafed under the race-neutrality requirement. As the most selective schools, they had used the largest racial preferences before the ban arrived,[137] and they experienced the most significant drops in minority enrollment. Student groups regularly protested the declines and, perhaps to convey their solidarity, campus leaders consistently emphasized the drop in freshman minority numbers, while utterly ignoring the improvements in minority grades, graduation rates, and incoming transfers from other UC schools.[138]

As far as one can tell from statistical data, it appears that race continued to factor into the decisions of many UC campuses, especially the most elite ones. That, at least, is the conclusion of economists who have examined the data closely.[139] Since there is no doubt that admissions offices formally took a variety of steps to comply with the law, these early violations appear to have occurred subtly and at the margins.

Something much more systematic began at UCLA in the ninth year of formal race-neutrality. In 2006, largely for random reasons, the number of black freshmen entering UCLA dipped below one hundred (about two percent of the class). This was an important symbolic threshold.[140] A series of campus protests followed, accompanied by sympathetic media coverage and strong complaints from minority alumni. UCLA's acting Chancellor Norman Abrams met with the school's admissions policy committee and instructed them

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135. For a look at the UC-wide figures in the University of California Office of the President, see University of California Application, Admissions, and Enrollment of California Resident Freshmen for Fall 1989 through 2013, *available at* http://www.ucop.edu/news/factsheets/2012/flow-frosh-ca-12.pdf. Enrollment of black admits in the freshman class was 917 in 1997, the last year of racial preferences; it fell to 739 in 1998 but had rebounded to 832 in 2000 and rose to an average of 1250 from 2007 through 2010.

136. Sander & Taylor, *supra* note 15, at 131–54.

137. Antonovics, *supra* note 118, at 292; *see generally Bakke*, *supra* note 2, at 319-21.

138. *See* Sander & Taylor, *supra* note 15, at 155-174.

139. Kate Antonovics, Marc Luppino, and Peter Arcidiacono are all labor economists who have written about the impact of Proposition 209 and have all expressed this view in communication with the authors.

140. Sander & Taylor, *supra* note 15, at 161. One reason we believe this was random was that the number of black transfer students to UCLA rose the same year, so the total number of blacks arriving on campus was quite similar year-over-year.

on the importance of improving black representation at the school.[141] He urged the committee to adopt a new "holistic" admissions procedure under which specially trained readers would subjectively take into account dozens of factors and reduce an applicant's entire file to a single number, on which admissions decisions would be made. A majority of the committee supported the change and blocked a dissenting member's effort to allow faculty committee members to monitor the change statistically to ensure that the new system did not reintroduce race to admissions.[142]

UCLA's holistic system went into effect in 2007 and did indeed produce a dramatic doubling of black freshmen.[143] According to its proponents, this happened because the "holistic score" did a better job of capturing overall candidate experiences and potential. But analysis of the available data shows otherwise. Table 10, below, reports logistic regression analyses of admissions decisions before and after the 2006–07 changes in the process. Under the earlier "pre-holistic" system, readers assigned students three scores based on academic achievement, extra-curricular achievement, and personal disadvantage. In principle, those scores should have determined virtually all admissions outcomes, but in practice a variety of other applicant characteristics still predicted admission, including race. Quite incriminating is the fact that, even during the pre-holistic period, participating in one of the university's high school outreach programs was not associated with a greater likelihood of admission, but being black or Hispanic and participating in those programs (indicated by the "*" interaction terms in the Table 10 regression) *was* associated with a greater chance of admission. The odds ratios associated with race are, however, relatively modest.

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141. *Id.* at 161–67.

142. *See* TIM GROSECLOSE, REPORT ON SUSPECTED MALFEASANCE IN UCLA ADMISSIONS AND THE ACCOMPANYING COVER-UP (August 28, 2008), *available at* http://www.sscnet.ucla.edu/polisci/faculty/groseclose/CUARS.Resignation.Report.pdf. Groseclose recently published a book that expands on his earlier work: TIM GROSECLOSE, CHEATING: AN INSIDER'S REPORT ON THE USE OF RACE IN ADMISSIONS AT UCLA (2014).

143. The number most observers focused on—black freshmen from California high schools—exactly doubled, from 95 in 2006 to 190 in 2007. *See* data from the University of California, *supra* note 130.

TABLE 10:
LOGISTIC MODELS UCLA UNDERGRADUATE ADMISSIONS, BEFORE
AND AFTER THE SHIFT TO HOLISTIC ADMISSIONS

INDEPENDENT VARIABLE	PRE-HOLISTIC ADMISSIONS 2004, 2005, 2006 ODDS RATIOS	HOLISTIC ADMISSIONS 2007, 2008, 2009 ODDS RATIOS
Academic Rank	.07***	
Personal Achievement	.16***	
Life Challenges	.13***	
Holistic Score		.013***
Adjusted GPA	1.35*	.94
SAT 1	1.002***	1.005***
African American	2.55***	5.15***
Hispanic	2.04***	1.92***
North Asian	1.05	.85***
Outreach	.95	1.03
African American * Outreach	1.97**	1.53**
Hispanic * Outreach	1.71***	1.49***
North Asian * Outreach	1.14	1.08*
Summary Characteristics of Model		
Observations	96,824	117,851
Somers' D	.95	.93

As advertised, the holistic system introduced in 2006–07 merely replaced the academic, personal achievement, and life challenges scores with a single overall ("holistic") score. But, as Table 10 shows, a sharp increase in the "odds ratio" for African Americans accompanied the new system: black applicants were now more than twice as likely to be admitted to UCLA as white applicants with the same *holistic score!* It was noteworthy that while this increase occurred, there was no comparable increase in the Hispanic odds ratio, which remained essentially unchanged (there had been no comparable pressure on the university to increase Hispanic admissions, which had been gradually rising for years). The 2007–09 analysis also showed a statistically significant discrimination against Asian-Americans.

Closer analysis of the holistic system reveals how this change occurred. The readers who assigned holistic scores to applicants actually appeared to do their work in a very race-neutral way. Had UCLA simply relied on its new holistic system to make admissions decisions, the outcomes from that system would have been almost

identical to those of the pre-holistic system. However, the admissions office created a process-within-the-process known as "Supplemental Review."[144] Senior administrators could refer applicants whose holistic scores were too low for admission to Supplemental Review at their discretion, where applicants were invited to submit additional information for their files.[145] The original holistic scores, as well as traditional measures of academic achievement, became secondary and almost irrelevant factors. Table 11 reports logistic regressions, predicting admission to UCLA through the Supplemental Review process (for all applicants on the left, and for applicants with below-average academic credentials on the right). In the Supplemental Review process, the odds-advantage of being black increases sharply, as does the odds-disadvantage of being Asian-American.

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144. *See* Robert D. Mare, "Holistic Review in Freshman Admissions at UCLA," (2012), pp. 64–83, posted at http://www.senate.ucla.edu/committees/cuars/documents/UCLAReport onHolisticReviewinFreshmanAdmissions.pdf.

145. *Id.*

TABLE 11:
UCLA'S "SUPPLEMENTAL REVIEW" WITHIN THE HOLISTIC
ADMISSIONS SYSTEM

Outcome: Admission through Supplemental Review
Universe: Applicants not admitted through other admissions processes

INDEPENDENT VARIABLE	ALL APPLICANTS	APPLICANTS WITH ACADEMIC INDEX UNDER 700
Adjusted HSGPA	16.9***	6.3***
SAT I	1.002***	1.0002
African American	7.25***	17.5***
Hispanic	3.15***	7.4***
North Asian	.63***	.62*
VF	1.36	1.84
International	1.46*	1.02
Other	1.12	1.92
Outreach	1.51***	1.65*
African American * Outreach	1.68**	1.87*
Hispanic * Outreach	1,35*	1.35
North Asian * Outreach	1.30	1.60
VF * Outrech	1.39	2.39*
Other * Outreach	1.12	2.23
Family income over $100k	.26***	.22***
Family income $80-99	.31***	.32**
Family income $60-79	.39***	.49**
Family income $40-59	.59***	.80
Family income $20-39k	~1.0	~1.0
Fam education – grad degree	.39***	.23***
Fam education – B.A.	.41***	.43***
Fam education – some college	.62***	.55***
Fam education = H.S. or less	~1.0	~1.0
API 10	.20***	.13***
API 7 to 9	.23***	.21***
API 5 to 6	.34***	.35***
API 3 to 4	.57***	.55***
API 2	.88	.89
Observations	91,010	88,691
Somers' D	.66	.79

Note: "Income under $20k," "Parental education non high school," and "API 1" are omitted
*p < .1 **p < .01 ***p < .001

So far as we can tell, UCLA's admissions system has not notably changed since 2007–09. After a faculty member of the admissions committee resigned in protest over the apparent illegal consideration of race and the University's unwillingness to make its data and procedures transparent, the University agreed to retain a distinguished sociologist to evaluate the holistic system.[146] Professor Robert Mare's report found essentially the same patterns described

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146.   SANDER & TAYLOR, *supra* note 15, at 152–174.

here, though he did not attempt to draw any legal inferences from his findings.[147]

C. *The University of Michigan Undergraduate Admissions*

Our third example of legal evasion is the undergraduate program at the University of Michigan (UM). UM's system of racial preferences became famous in the United States when Jennifer Gratz sued the university in 1997. Discovery revealed that the college used a 150-point system in which one hundred points generally assured admission and which assigned students an automatic twenty points if they indicated they were African American or Hispanic on their application.[148] In *Gratz v. Bollinger*, the Supreme Court held that UM's system was unconstitutional.[149] The college eliminated its point system, but data from its 2005–06 admissions cycle suggested that functionally the college's preferences were even larger and, in some ways, just as mechanical as before the Court's decision.[150] Opponents of racial preferences put on the November 2006 an initiative, modeled on California's Proposition 209, to ban the use of race in state programs (including state university admissions). This Proposition 2 passed by a 58%/42% margin[151] and for practical purposes went into effect at the University of Michigan during the 2007-08 admissions cycle.

UM's president, Mary Sue Coleman, is a staunch advocate of racial preferences and actively opposed Proposition 2. The morning after its passage, she gave a defiant speech promising that the university would not waver in its commitment to student diversity.[152] University officials mentioned one particular strategy for doing this: a new College Board service called "Descriptor Plus."[153] Borrowing a technique sophisticated marketing companies used for decades, the College Board "clustered" students into categories with similar

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147. Mare, *supra* note 144.

148. Gratz v. Bollinger, 539 U.S. 244, 255–57 (2003).

149. *Id.* at 270–76.

150. Sander, "Why Strict Scrutiny Requires Transparency: The Practical Effects of Bakke, Gratz, and Grutter," chapter 15 of Kevin McGuire, ed., New Directions in Judicial Politics (2012).

151. Tamar Lewin, *Michigan Rejects Affirmative Action, and Backers Sue*, N.Y. Times, Nov. 9, 2006, http://www.nytimes.com/2006/11/09/us/politics/09michigan.html.

152. *See* Laurel Thomas Gnagey, *Coleman on Prop. 2: 'We will not be deterred'*, U. Record Online, Nov. 8, 2006, http://www.ur.umich.edu/0607/Nov06_06/23.shtml; *see also id.*

153. *See* College Board, Descriptor Plus: Focus on Your Best Prospects (2006), *available at* http://www.collegeboard.com/prod_downloads/highered/ra/descriptor-plus_06.pdf.

demographic profiles. The Descriptor Plus system assigned students to one of thirty "Neighborhood" profiles and one of thirty "School" profiles.[154] One criterion for the profiles was racial composition. By giving significant weight to applicants from neighborhoods or schools with heavily minority "ratings," the college could secure an unusually high racial dividend.

The Descriptor Plus strategy raised interesting legal issues,[155] and the Washington-based Center for Individual Rights (CIR), a conservative legal group that was heavily involved in past efforts to curtail UM's racial preferences, made public information requests that eventually obtained data from UM's undergraduate admissions cycle for 2007–08. This included data the University had obtained on its applicants' Descriptor Plus characteristics. CIR provided a copy of that data to us, and our analysis produced the surprising result captured by Table 12.

TABLE 12:
UNDERGRADUATE ADMISSIONS AT THE UNIVERSITY OF
MICHIGAN BEFORE AND AFTER PROPOSITION 2

Outcome: Admitted to the College

INDEPENDENT VARIABLE	2006 ADMISSIONS CYCLE ODDS RATIO	2008 ADMISSIONS CYCLE ODDS RATIO
SAT I	1.004***	1.002***
High school GPA	78.6***	27.8***
African American	35.1***	6.4***
Hispanic	34.0***	5.4***
Asian	.99	.83**
In-state resident	.58***	.94
Alumni relative	2.8***	2.8***
Somers' D	.87	.83
Observations	21,624	25,693

**p < .01   *** p<.0001

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154. *Id.*

155. For reasons of space, we have not examined in this article the question of whether socioeconomic preferences, if deliberately calibrated to produce particular racial results (as seemed to be the initial premise of the Descriptor Plus approach), would be legally vulnerable as a disguised form of racial discrimination. As the reader can infer, our view is that racial (or socioeconomic) admissions goals themselves should be permissible, so long as (a) the preferences used to achieve them are largely socioeconomic (b) the performance of discrete groups at college is reasonably close to performance levels of the rest of the class; and (c) there is transparency in both admissions and outcomes.

Only a few key variables from our admissions models are shown in Table 12, simply because the number of socioeconomic variables available was so large. There are thirty Descriptor Plus school categories and thirty Descriptor Plus neighborhood types. UM also gathered SES data including the number of parents in the applicants home, their education levels, and their income. Our models thus had roughly one hundred variables. We included dummy variables for missing values and imputed some values to avoid losing sample size. Strikingly, almost none of the SES variables had explanatory power in our full model. This might well be because there was a lot of multicolinearity with such a large number of overlapping SES variables; for eample, a measure of neighborhood affluence and a measure of family affluence might both lose significance because they correlate so closely with one another. We therefore used stepwise regression to identify the SES variables with the most explanatory power, but even then only a few variables were significant.

Table 12, however, strongly suggests that race continued to play a major role in UM's admissions decisions. Although the odds-ratios for blacks and Hispanics declined sharply from 2006 to 2008, it remained quite large—larger, indeed, then the overall odds-ratios for the same groups in the UCLA holistic system. In 2008, the odds-ratio for Asians fell below one and became statistically significant, indicating that the University of Michigan was discriminating against Asians vis-à-vis white applicants.

Our analysis suggests that Descriptor Plus was not a substitute for race, but rather a cover story to mask continuing reliance on race. UM probably did increase its use of socioeconomic factors after Proposition 2, and it appears to have reduced the size (or at least the consistency) of racial preferences. But, clearly, it did not adopt racial neutrality.

Either way, the University of Michigan experienced almost no change in black enrollment during the first year under Proposition 2. The University's Senior Vice Provost, Lester Monts, maintained this happened because of improved and targeted "outreach."[156] However, changes in the composition of the applicant pools cannot account for the admissions outcomes we observed. UM may well have improved outreach and it may have benefited from the same

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156. Robin Erb, *U-M African-American Enrollment Increases in Wake of Prop 2*, Detroit Free Press (Oct. 20, 2008, 12:49 PM), http://www.freep.com/article/20081020/NEWS06/810200 72/U-M-African-American-enrollment-increases-wake-Prop-2. Of course, if the provost's statement was correct and the University of Michigan could maintain racial diversity simply through improved outreach, then its defense of preferences in *Grutter* would have been in extremely bad faith.

kind of "warming effect" as the University of California, which lead to higher minority uptake rates after Proposition 2. But the University of Michigan did not discover a silver bullet for achieving racial diversity through purely non-racial means.

CONCLUSION

The lesson from these three examples is straightforward and harkens back to a central point of Part I. University leaders face strong pressures to preserve racial diversity on their campuses, and constraint can override the law when the two collide. A formal ban on racial preferences does not end racial preferences.

IV. POLICIES AND REFORMS

The basic structure of affirmative action at selective colleges and universities has barely changed since large preferences were instituted some forty years ago. Today, however, the pressure for change is increasing and now comes from multiple directions. Rising economic inequality and growing awareness of privilege at selective schools has increased pressure for elite colleges to increase SES diversity from both the public and intellectuals.[157] The roll call of states that have adopted preference bans has steadily lengthened.[158] Mismatch research has grown in influence and undermined many of the core rationales for universities' existing programs.[159] Meanwhile, the Supreme Court laid out in *Fisher* basic tests for racial preferences that nearly all selective schools would flunk.[160]

Yet, actual change in university practices has been incremental at best.[161] Even in jurisdictions that have banned racial preferences,

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157. *See, e.g.*, David Leonhardt, *The Liberals Against Affirmative Action*, N.Y. TIMES, March 9, 2013, at SR5.

158. *See* KAHLENBERG & POTTER, *supra* note 11.

159. *See supra* Part II.D.

160. The Supreme Court's holding in *Grutter* required colleges that use racial preferences to do [so] as a last resort. 539 U.S. at 341–42. *Fisher* made that requirement even more explicit, since colleges must investigate race-neutral alternatives for achieving diversity. 133 S. Ct. at 2420 ("[S]trict scrutiny imposes on the university the ultimate burden of demonstrating, before turning to racial classifications, that available, workable race-neutral alternatives do not suffice."). Yet a survey that Sander conducted in the fall of 2013 of a sample of selective state institutions, found that only a handful of these schools even collect socioeconomic data on applicants and almost none of the schools using racial preferences could point to any admissions planning document in which race-neutral alternatives were seriously considered.

161. *See* WELCH & GRUHL, *supra* note 3, at 107–32.

many institutions cling to the form of the old system. We have advanced here an explanation for this conservatism: universities do not see a viable path for reform. As discussed in Part I, university leaders have felt constrained by the powerful pressures that seem to limit their options and the problems that they see flowing from a move to socioeconomic preferences. Since the first-mover costs to any pioneering institution are particularly large, no one moves, and inertia and silence consume higher education.

Our analysis suggests seven reforms that together can shape a new path for university leaders:

A.   *More specific court doctrine.* Supreme Court regulation of racial preferences in higher education has been vague and ineffective. It rejects current practices without providing enough specific guidance for either lower courts or colleges themselves to reform.[162] Our analysis suggests several examples of standards that would make the Court's doctrine clearer. First, the Court should not permit universities to give greater weight to race than to socioeconomic disadvantage. For example, a regression predicting admissions outcomes should not show a larger coefficient for any race than it does for an index of SES factors used by the school. Second, the Court should not permit universities to admit any identifiable subset of students that have an average performance level below, say, the thirtieth percentile of their classmates.[163] This would be provide a powerful incentive for colleges to broaden the types of preferences they use (reducing credential gaps, as we saw in Part II), and an even stronger incentive to invest in the success of the students they do admit. Third, colleges that use racial preferences should provide sufficient transparency in their admissions process so that the first and second principles can be easily monitored.

B.   *Facilitating, rather than hindering, college cooperation.* A flourishing system of cooperation among elite colleges to establish need-blind admissions ran aground as a result of federal antitrust policy in the early 1990s.[164] While we agree that price-

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162.   *See* Sander, *supra* note 5.

163.   The current preferences at many law schools are so large that the median black student has grades at the fifth percentile of white classmates. *See* Sander, *supra* note 16 at 372–73.

164.   Anthony DePalma, *Ivy League Universities Deny Price-Fixing but Agree to Avoid it in the Future*, N.Y. Times, May 23, 1991, http://www.nytimes.com/1991/05/23/us/ivy-universities-deny-price-fixing-but-agree-to-avoid-it-in-the-future.html.

fixing is a bad thing, the first-mover problem in college admissions reform makes it important, and probably essential, that universities be able to cooperate on some aspects of admissions. The federal government can play a constructive role in overseeing and encouraging this type of cooperation, as it has recently shown signs of doing in areas other than higher education.[165] Two types of collective effort are particularly important: (a) broad plans to shift from traditional large racial preferences to more diversified and smaller preferences, in a series of gradual steps; and (b) cooperative efforts that encourage colleges to scale back their ruinous competition in merit-based aid[166] and focus financial resources on need-based aid instead.[167]

C.   Building diversity in the applicant pool. If we can build more inclusive applicant pools, social mobility in America will improve and reduce the size of preferences universities use. Universities should follow the example of UC schools in the wake of Proposition 209. But the challenge of reaching high-achieving but low-SES students is beyond the reach of any one school.[168] Here, again, cooperative systems built by universities and government agencies can do what a single school cannot. Outreach officers working for the consortium use available data to provide training and liaisons to counselors at every high school and make direct contact with promising students identified by a variety of factors.[169]

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165.   Discuss recent Obama Administration initiatives to create greater accountability in higher education. *See* Tamar Lewin, *Obama's Plan Aims to Lower Cost of College*, N.Y. Times, Aug. 22, 2013, http://www.nytimes.com/2013/08/22/education/obamas-plan-aims-to-lower-cost-of-college.html?_r=0; Eric Kelderman, *Public Colleges Endorse Obama Plans on Affordability and Accountability*, Chron. Higher Educ., Aug. 22, 2013, http://chronicle.com/article/Public-Colleges-Endorse-Obama/141231.

166.   *See* Heller & Marin, *supra* note 38, at 114–15.

167.   One of us has outlined a strategy for building cooperation while respecting antitrust goals in Richard Sander, *A Collective Path Upward, in* The Future of Affirmative Action: New Paths to Higher Education Diversity After Fisher v. University of Texas   (Richard Kahlenberg ed., forthcoming 2014); Hoxby & Avery, *supra* note 107 at 28.

168.   Id. for an outline of a strategy for building cooperative search and recruitment mechanisms.

169.   *See generally* Denise Quigley & Seth Leon, *The Early Academic Outreach Program (EAOP) and Its Impact on High School Students' Completion of the University of California's Preparatory Coursework: CSE Tech Report 589*, Ctr. for the Study of Evaluation, Nat'l Ctr. for Research on Evaluation, Standards and Student Testing (Feb. 2003) (examining the impact of California's early academic outreach program on UC's preparatory coursework), *available at* http://www.cse.ucla.edu/products/reports/TR589.pdf.

D.   Broadening the meaning of diversity. Several of the changes proposed here require a revised university mindset that de-emphasizes the competition of each school in maximizing its special "inputs" and instead tries to ensure that universities collectively serve important social interests. This shift could also be achieved by a move away from the current notion that every school should seek a particular type of diversity—one that revolves around a racial head-count of freshmen—to a definition that not only pursues a richer set of diversity values in each institution (e.g., pursuing SES as well as racial diversity) but also encourages individual schools to pursue distinct types of diversity. Some colleges could emphasize international students; others could emphasize political diversity. Some colleges could eschew any use of preferences so that students know they have been judged primarily on academic grounds. Importantly, the ability of selective schools to vary their diversity makeups can greatly ease the negative-sum competition for scarce minority students,[170] making it easier for other selective colleges to create highly-racially diverse student bodies with relatively smaller preferences.

E.   Fostering simulation research. A key conclusion we drew from Part II was the need for education leaders and scholars alike to foster and engage in simulation research that will make it easier to understand the nature of applicant pools, methods of selecting for diversity, and the tradeoffs different systems make between class diversity, racial diversity, academic strength, and academic gaps. Beyond this, however, is a need to build software systems that make it easy for admissions officers to understand these options and systems and for them to compare their actual student body characteristics with the talent pool that meets their admissions critieria.[171]

F.   Creating enforcement mechanisms. An important lesson from both the Supreme Court's affirmative action decisions and voter initiatives on the use of preferences is that policies in this field are anything but self-executing. Evasion is both widespread and ultimately destructive. Schools that are evading legal restrictions encourage secrecy and dissimulation, obscure the effects of policy for outsiders and foster feelings of betrayal

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170.   *See* Arcidiacono, Khan, Vigdor *supra* note 44, at 12-13; *see also* SANDER & TAYLOR *supra* note 15, at 15–32 (discussing the effects of competition).

171.   Sander, *supra* note 150, at 283-85.

and cynicism among minority and majority students alike. Enforcement mechanisms that deter, rather than wink at, noncompliance are essential.

G.   Building a regime of transparency. All of the goals we have described are enhanced and reinforced when educational institutions record and release comprehensive, anonymous data on their applicants, their students, and their students' outcomes. Transparency should be recognized as a fundamental value and goal of the system.

Our conversations with higher education leaders—as well as affirmative action critics—suggests that elements like the ones outlined here could form the basis of a grand compromise and reform on the long-contentious issue of affirmative action. If we are creative and collaborative, we can replace gridlock with win-win solutions that improve university climates, social mobility, and student choice all at once.