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Advancing College Access with Class-Based Affirmative Action

The Colorado Case

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I n November 2008, Amendment 46 arrived on Colorado ballots. This voter referendum, popularly known as the "Colorado Civil Rights Initiative," sought to prohibit the consideration of race in public education, public contracting, and employment decisions. In short, Amendment 46 aimed to outlaw race-based affirmative action at public universities in Colorado. In the past two decades, likeminded initiatives have passed by wide margins in every state (California, Washington, Michigan, Nebraska, Arizona, and Oklahoma) where they have reached the ballot.[1]

Colorado's Amendment 46—and the successful track record of similar initiatives that came before it—generated serious concern among admissions officers at the state's flagship school, the University of Colorado Boulder (CU). It is the policy of CU to recruit and admit students who have overcome significant adversity, and the school is committed to building a

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racially and socioeconomically diverse student body. With the passage of Amendment 46, CU feared it would lose a critical admissions tool for accomplishing these goals. As such, in anticipation of the vote, CU's Office of Admissions developed a race-neutral, class-based affirmative action system that would serve the university's interest in enrolling a diverse class while complying with the proposed ban on race-conscious admissions. This chapter gives an overview of the development and implementation of CU's class-based system, devoting particular attention to controlled experiments designed to forecast the impact of putting the system into practice.

Devising Class-Based Admissions Measures

When affirmative action is threatened, universities begin thinking seriously about admissions preferences based on socioeconomic status (SES), rather than race.[2] This response to external pressure is understandable. Universities have long sought racial and ethnic diversity,[3] and admissions departments may be able to support it via race-neutral means by capitalizing on the large overlap between socioeconomic hardship and minority status.[4] The Colorado case is no exception. Amendment 46 posed an existential threat to race-conscious admissions, and in turn catalyzed CU's implementation of class-based affirmative action.

Still, it should be self-evident that principled class-based admissions policies should focus on socioeconomic class; while they do contribute substantially toward racial diversity, they should not be contorted into elaborate proxies for race. To that end, I offer five questions that may be instructive for universities seeking to develop class-conscious admissions policies. These questions are intentionally generic; they are meant to speak to the purpose of any preference in college admissions. In the context of class-based affirmative action, they may help a university shape a policy that suits its goals and reflects its social purpose.

1. What is your university's mission?
2. How does your admissions policy support your mission?
3. What applicant traits do you value?
4. How will you measure those traits and incorporate those measures in admissions decisions?
5. What are your intended outcomes, and to what extent do you achieve them?

The design of CU's class-based admission system was guided by the five questions above and grounded in the university's mission, as articulated by the Office of Diversity, Equity, and Community Engagement:

> We envision a campus that addresses the special needs of groups and individuals who historically have faced institutional barriers, where the quality of education is enhanced and enriched by a diverse campus community, and where the entire campus benefits from participation in a multicultural community.[5]

In service of this vision, CU sought to grant special consideration to academically qualified[6] applicants who had faced substantial socioeconomic disadvantage and had persevered despite difficult circumstances. Of course, to reward these traits, CU first had to measure them. To do so, two metrics were developed—the Disadvantage Index and the Overachievement Index. In this chapter, I describe CU's class-conscious admissions indexes conceptually. For a more technical treatment of the statistical models and empirical data that underlie these measures, readers should consult my work with CU law professor Melissa Hart.[7]

The Disadvantage Index quantifies the socioeconomic obstacles applicants have faced. It flags students whose socioeconomic characteristics have reduced the probability they will enroll in college. The Overachievement Index, on the other hand, quantifies the extent to which students have overcome the obstacles they have faced. Building on the work of education policy analyst Roger Studley,[8] it flags applicants whose academic credentials—high school GPA (HSGPA), ACT, or SAT scores—far exceed those of students from similar socioeconomic backgrounds.

Each index is based on a statistical model relating applicants' socioeconomic characteristics to either their high school academic credentials (the Overachievement Index) or their likelihood of college enrollment (the Disadvantage Index). Socioeconomic characteristics were measured at both the student and high school level, and included the applicant's native language, single-parent status, parents' education level, family income level, the number of dependents in the family, whether the applicant attended a rural high school, the percentage of students from the applicant's high school eligible for free or reduced-price lunch (FRL), the school-wide student-to-teacher ratio, and the size of the twelfth-grade class. Estimating these models required a nationally representative longitudinal dataset.[9] For this purpose the university used the Education Longitudinal Study of 2002,[10] which provided the most comprehensive

TABLE 14.1. Identification Categories under the Disadvantage and Overachievement Indexes

Disadvantage Index		Overachievement Index (SAT)	
No Disadvantage	Greater than –6.3%	No Overachievement	Less than 151
Moderate Disadvantage	–6.3% to –19.0%	High Overachievement	151 to 273
Severe Disadvantage	–19.0% or Less	Extraordinary Overachievement	273 or Greater
Overachievement Index (HSGPA)		Overachievement Index (ACT)	
No Overachievement	Less than 0.57	No Overachievement	Less than 3.9
High Overachievement	0.57 to 1.06	High Overachievement	3.9 to 7.5
Extraordinary Overachievement	1.06 or Greater	Extraordinary Overachievement	7.5 or Greater

data available for estimating the relationships between SES, high school academic achievement, and college access.[11]

Before the indexes could be applied in admissions decisions, thresholds were established along each index's scale to form successive categories of disadvantage (none/moderate/severe) and overachievement (none/high/ extraordinary). This step was taken because the indexes' scales were unfamiliar to CU admissions officers, and defining categories helped users understand which values represented substantial disadvantage or overachievement. The thresholds were set in consultation with senior admissions officers familiar with the socioeconomic makeup of the CU applicant pool, and the resulting categories are presented in Table 14.1.

Applicants identified by the Disadvantage or Overachievement Indexes are granted additional consideration (that is, a boost) in the admissions process. The size of the boost depends on the level of disadvantage or overachievement. In some cases, identification by the indexes can constitute a *primary factor* for admission (on par with high school grades and course-taking patterns). When an applicant exhibits only high over-achievement or moderate disadvantage, the admissions boost constitutes a *secondary factor* (on par with minority or legacy status). Table 14.2 details these decision rules.

Given sufficient disadvantage, overachievement, or both, the class-based admissions boost can be quite substantial. For example, holding constant HSGPA and standardized test scores, applicants identified in any way by the Indexes are 2.2 times more likely to be admitted as those

TABLE 14.2. Using the Disadvantage and Overachievement Indexes in Admissions Decisions

	No Overachievement	High Overachievement	Extraordinary Overachievement
No Disadvantage	No Boost	Secondary Factor Boost	Primary Factor Boost
Moderate Disadvantage	Secondary Factor Boost	Primary Factor Boost	Primary Factor Boost
Severe Disadvantage	Primary Factor Boost	Primary Factor Boost	Primary Factor Boost

Note: "High Overachievement" and "Extraordinary Overachievement" refer to any of the Overachievement Index values (GPA or test scores). An applicant need only overachieve on one of these measures to earn an admissions boost.

not identified. Applicants identified for *primary factor* consideration are 5.7 times more likely to be admitted. By contrast, under CU's race-based policy, underrepresented minority applicants (URMs)[12] are 1.4 times more likely than non-URMs to be admitted.[13] The significant admissions weight placed on CU's class-based indexes is important for understanding the system's effects on campus diversity; I will return to this point in subsequent sections.

Before we turn attention to the effects of putting this system into practice, it may help to discuss two hypothetical applicants—one disadvantaged, one overachieving—to more clearly illustrate the sort of students these indexes flag. To that end, let us first consider James. James's parents make between $15,000 and $35,000 per year. He is a native English speaker, and there are three dependents in his family. Both of James's parents finished high school and attended some college, but neither graduated. Seventy percent of the students at his high school are FRL-eligible. James attends a rural high school, with one hundred students in the twelfth-grade class and a school-wide student-to-teacher ratio of fifteen to one. His HSGPA is 2.7, and he scored 20 on the ACT. Relative to the average CU applicant, James's socioeconomic characteristics have reduced his probability of enrolling in college by 24.5 percentage points. James therefore exhibits "severe disadvantage." He would be located in the left-hand column, bottom row of Table 14.2.[14]

Next we consider Sandra. Her mother makes between $35,000 and $60,000 annually. Sandra is a native English speaker, and she is an only child living with a single parent. Her mother attended some college, but

did not graduate. Sandra attends an urban high school where 40 percent of the students are eligible for free or reduced-price lunch. There are five hundred students in her twelfth-grade class, and the school-wide student-to-teacher ratio is fifteen to one. Sandra has earned a 3.1 GPA in high school and scored 1170 on the SAT. Based on the average performance of students with similar socioeconomic backgrounds, Sandra scored 282 points higher on the SAT than we would have predicted. She has thus demonstrated "extraordinary overachievement," and would be located in the right-hand column, first row of Table 14.2. Both Sandra and James therefore earn primary factor boosts through identification by CU's class-based indexes, which will considerably increase their chances of admission.

Putting Class-Based Affirmative Action into Practice: Effects on Diversity

In 2008, Colorado became the first (and still the only) state to defeat an anti-affirmative-action ballot initiative. Voters' rejection of Amendment 46 afforded CU the opportunity to further "beta-test" its class-based system before using it in all official admissions decisions. To forecast the impact of implementing class-based affirmative action, CU conducted two experiments. The experiments differ in terms of their aims and design, so I will describe each separately.

Replacing Race with Class

The first experiment focused on CU's class-based admissions system was conducted in 2009. It was designed to estimate the impact of replacing race-based affirmative action with class-based affirmative action, in terms of acceptance rates for both low-SES and URM applicants.[15] Five hundred applications were randomly sampled from the full applicant pool and then reviewed twice—once using race only (traditional affirmative action), and again using class only (the Disadvantage and Overachievement Indices, with all race identifiers removed from the applications). Results are presented in Table 14.3.

The results in Table 14.3 suggest replacing race with class in college admissions can improve acceptance rates for low-SES applicants. While this is may be a worthwhile goal on its own merits for schools seeking to increase socioeconomic diversity, it is not surprising in the CU context, because the Disadvantage and Overachievement Indexes were designed to

TABLE 14.3. Acceptance Rates under Class-Based and Race-Based Affirmative Action

| Applicant Type | N | Acceptance Rate | | |
		Class-Based	Race-Based	Difference
Low SES	156	82%	70%	12%**
URM	48	65%	56%	9%

*$p < 0.05$; **$p < 0.01$.

flag low-SES applicants for additional consideration. The URM results, however, seem to contradict prevailing research on affirmative action, which suggests class-based systems will produce less racial diversity than the race-based policies they replace.[16] The results for URMs actually underscore the importance of the boost, or the size of the preference, attached to class-based admissions metrics. In the Colorado case, the Disadvantage and Overachievement Indexes by design can be more influential in an admissions decision than an applicant's race. In this sense, CU's class-based measures are privileged relative to race. The interpretation of the URM result is therefore fairly straightforward: Although not every URM applicant is identified by the indexes, those that are identified usually receive a bigger boost than they would have received under race-based affirmative action. This finding is of course limited to the Colorado context, but it suggests that an end to race-based affirmative action need not be devastating for campus racial diversity.

Using Class and Race

While it is important to consider the impact of replacing race with class in college admissions, it is also important to acknowledge that may not be the most interesting research question for many university admissions departments. In Colorado and in most other states, race-conscious admissions policies remain legal. A more relevant near-term question, therefore, might focus on the impact of *adding* class to an existing race-based policy. This was the rationale for a second experiment at CU, conducted in 2010, which compares race-based and "class-plus-race" affirmative action. In this iteration, 2,000 applications were randomly sampled from the full applicant pool, and each was randomly assigned to either race-based or class-plus-race affirmative action (that is, traditional race-based affirmative action plus the Disadvantage and Overachievement Indexes). Results are presented in Table 14.4.

TABLE 14.4. Acceptance Rates under Class-Plus-Race and Race-Based Affirmative Action

		Acceptance Rate			
Applicant Type	*N*	*Class-Plus-Race*	*N*	*Race-Based*	*Difference*
Low SES	266	58%	250	48%	10%*
URM	118	62%	118	45%	17%**

*p < 0.05; **p < 0.01.

As expected, acceptance rates for low-SES applicants increase under class-plus-race affirmative action, relative to a race-only alternative. In addition, acceptance rates for URM applicants increase under a class-plus-race policy. In and of itself, the direction of the class-plus-race effect for URMs was unsurprising. Prior research suggests adding class-based considerations to a race-based admissions policy will boost acceptance rates for URMs.[17] The magnitude, however (17 percentage points), was larger than anticipated.[18] Again, two features of CU's class-based system may help explain these results. First, the measures: the Disadvantage and Overachievement Indexes utilize multiple applicant- and high-school-level variables such as parental education, native language, and single-parent status, whereas other heavily researched class-based systems do not.[19] More importantly, the boost: Class-based affirmative action at CU is not an afterthought. When students exhibit severe disadvantage or extraordinary overachievement, they earn a significant leg up in the admissions process. This point bears emphasis: intuitively, for a class-conscious admissions policy to have a noticeable effect, it must be taken seriously by the admissions officers who implement it.

College Outcomes for Class-Based Admits

At this juncture it may be useful to return to the guiding questions for universities seeking to implement class-based affirmative action. Specifically, the final question focuses on intended outcomes, and the extent to which they are realized. Results thus far suggest CU's class-based policy holds promise for two of its intended outcomes—boosting socioeconomic diversity and cushioning racial diversity against the blow of an affirmative action ban. There is another question, however, that will inevitably confront the architects of class-based policies: How well can we expect the beneficiaries of these policies to perform in college? Quite simply, it is

TABLE 14.5. College Outcomes for Historical Surrogates

Group	N	Cumulative GPA	Credit Hours Earned	% Graduating 4 Years	% Graduating 5 Years	% Graduating 6 Years
Surrogates	2,704	2.50 (0.76)	25.9 (9.9)	28.3%	44.3%	52.9%
Baseline	18,422	2.83 (0.77)	31.6 (12)	39.8%	61.4%	66.0%

insufficient to design admissions preferences for disadvantaged students without considering whether those students are ready to handle college-level work.

The 2009 experiment was critical for gauging the college prospects for beneficiaries of class-based affirmative action. Recall that under that experimental framework, applications were reviewed twice—once using race only, and once again using class only. Thirty-one applicants were accepted under the class-based policy but *not* under the race-based policy. These are the students I call "class-based admits." They would not have been admitted without class-based affirmative action, and their predicted college outcomes are the focus of this section.

Class-based admits from the 2009 experiment were statistically matched[20] on the basis of high school academic preparation and socioeconomic characteristics to the 21,126 students who enrolled at CU between 2003 and 2007. The historical matches are termed "surrogates," because they fit the socioeconomic and academic profile of class-based admits, and therefore represent the best available prediction of college outcomes for the beneficiaries of class-based admissions preferences.[21] Table 14.5 presents college outcomes for this group, including grades, credit hours earned, and graduation rates. Outcomes are also presented for everyone in the historical data *not* identified as a surrogate, to establish a baseline for comparison. Standard deviations are included parenthetically.

Table 14.5 suggests that on average, class-based admits can be expected to perform worse in college than typical undergraduates. Their GPAs, earned credit hours, and graduation rates lag behind those of typical peers. These patterns should not be terribly surprising, given that class-based admits are "borderline" applicants—students on the cusp of admission whose academic credentials are not stellar, and whose personal qualities weigh more heavily in an admissions decision. In fact,

TABLE 14.6. College Outcomes for Historical Surrogates, by Index Classification

Group	N	Cumulative GPA	Credit Hours Earned	% Graduating 4 Years	% Graduating 5 Years	% Graduating 6 Years
Surrogates (Overachievers)	601	2.95 (0.72)	32.7 (10.4)	44.9%	66.4%	70.0%
Surrogates (Disadvantaged)	1,352	2.25 (0.73)	22.3 (9.1)	18.2%	30.9%	42.6%
Baseline	18,422	2.83 (0.77)	31.6 (12)	39.8%	61.4%	66.0%

universities regularly admit students whose projected college performance is below average,[22] because their personal qualities represent valuable additions to the campus environment. For example, first-generation college students and URMs have historically performed below average at CU, with cumulative GPAs (2.58 for first-generation students; 2.55 for URMs) and six-year graduation rates (54 percent for first-generation students; 55 percent for URMs) lower than those of typical undergraduates. Colorado nonetheless recruits and admits these students (and supports their academic progress in college) to achieve the educational benefits of racial, ethnic, and socioeconomic diversity.

It is also important to point out that not all class-based admits perform the same in college. Their outcomes may vary depending upon how they were identified by the indexes. Specifically, those identified only by the Overachievement Index may demonstrate strong academic performance in college, while those identified only by the Disadvantage Index are more likely to struggle. Table 14.6 presents these disaggregated outcomes.

Table 14.6 reveals important information about who can be expected to thrive in college, and who will need support to succeed. Across outcomes, strictly overachieving class-based admits can be expected to perform quite well—better, in fact, than typical undergraduates. The forecasts for strictly disadvantaged admits, however, are not as encouraging. Their GPAs, graduation rates, and earned credit hours lag far behind the baseline. This said, given additional time in college, disadvantaged admits' graduation rates accelerate comparatively quickly, more than doubling between four years (18.2 percent) and six years (42.6 percent), thereby narrowing the graduation gap. It is also worth noting that as of

2011, students identified by the Disadvantage Index and admitted to CU are immediately referred to the McNeill Academic Program—CU's structured academic and social support system for disadvantaged students.

To sum, analysis of college outcomes for historical surrogates suggest college success for class-based admits is possible, but it is far from guaranteed. The implementation of class-based affirmative action will introduce a new cohort of students to the college ranks. Those students' odds of success may hinge on whether colleges identify them, support their academic development, and track their progress toward graduation.

Implications and Future Directions

Research from the University of Colorado Boulder reveals some key lessons about the prospects for class-based affirmative action in selective university admissions. First, CU's experience suggests forecasting the impact of class-based systems is not difficult with adequate planning. Colorado conducted two controlled experiments and an analysis of historical student records to determine what effect its indexes might have on campus diversity, and how well the system's beneficiaries would perform in college. Of course, the successes and failures of class-conscious admissions will ultimately be judged on the basis of enrollment numbers, not experiments. In that respect, trends at CU are promising. Colorado's class-plus-race system was implemented for official admissions decisions in 2011. In the fall of that year, CU enrolled the most diverse freshman class in its history.[23]

Preliminary analysis of college outcomes for current students admitted under CU's policy suggest similar patterns to those observed in historical data: class-based admits identified by the Overachievement Index are keeping pace with typical undergraduates, and those identified by the Disadvantage Index have lower grades and persistence rates.[24] The present data tell an incomplete story, of course, because CU's class-based admits have only been in college for two full years. Subsequent analyses will examine not only their progress toward graduation, but also the effectiveness of academic support programs in keeping severely disadvantaged students on a path toward degree attainment. Future research will also consider the feasibility of adding new socioeconomic variables to the indexes. For example, multiple studies have shown that wealth in assets, above and beyond annual income, is an important determinant of educational opportunity and upward mobility.[25] Information about applicants'

wealth is difficult to collect through a national dataset such as ELS, but as more detailed longitudinal socioeconomic data become widely available, an applicant's family wealth may become an important component of CU's class-based indices.

Final Thoughts

Politically and methodologically, class-based affirmative action is complex. Best practices in the field are not widely documented, because college admissions policies tend to be closely guarded secrets. This is understandable, given the high stakes and controversy that attend admissions preferences. However, if class-based admissions policies are to have a meaningful impact on college access for disadvantaged students, we can no longer afford to work in an empirical vacuum. It is my hope that as class-conscious college admission becomes more commonly accepted, this body of research will expand.

To that end, it is unfortunate that only when race-based affirmative action comes under attack do we contemplate admissions preferences for socioeconomically disadvantaged students. First, this approach to admissions policymaking ensures that class-based systems will come into existence hurriedly and haphazardly, primarily under the threat of legal action. Second, it positions class-based affirmative action as an enemy of racial justice. In fact, there are good reasons not to think of class solely as a replacement for race in college admissions. The challenges associated with the two are not identical. Affirmative action need not be an either-or proposition; CU's experiments show that using class and race jointly can substantially boost racial and socioeconomic diversity.

The U.S. Supreme Court, however, may one day shut the door on race. Alternatively, more statewide bans could further limit the practice. In either case, class-based affirmative action may have to serve as the best available substitute. Whatever the courts or individual states decide, this research demonstrates the promise for class-conscious admissions to open pathways to higher education to students of all races who have faced social, economic, and institutional barriers.