

Quantitative Reasoning, Equity, and the Law

Christopher Edley, Jr.

Honorable William H. Orrick, Jr. Distinguished Professor of Law and Former Dean,
U.C. Berkeley School of Law; Co-Founder, The Opportunity Institute
Statement to the CSU Board of Trustees • August 29, 2019

Thank you for this opportunity, and I hope I can be helpful. My principal academic interests are government regulation, civil rights, and education policy. I have been a law professor for 38 years, including 23 at Harvard and then 15 at Berkeley. I have served on many study committees for the National Academies of Sciences, and most recently chaired a committee which designed a national system of K-12 educational equity. Immediately before that, I chaired a committee charged by the US Department of Education with evaluating the methodology used to set NAEP performance levels. Most important for your purposes, my college major was mathematics, with a specialty in the mathematics of quantum theory. Like many students of mathematics, my most powerful spiritual experience to date was learning Euler's Identity.

I have four points and two recommendations.

1. As a civil rights expert, I want to underscore the fact that **no evidence has been produced that this policy would not have a disparate impact**. In fact, all the evidence I've seen presented suggests that if adopted it would have a disparate impact on African American and Latinx students (as well as low-income students). If you adopt a policy with a disparate impact, there will be civil rights litigation, even if the impact is unintended. In that case, you would need to demonstrate that there is an educational necessity for the policy you're adopting. Since you've noted previously that your new remedial math policies are validating the preparation levels of your students, it is hard to see what goal this proposed policy would be accomplishing other than making the CSU more selective.

2. Second, as a Berkeley professor and founder of the Opportunity Institute, I was faculty co-director of the *Stanford-led Getting Down to Facts* project, which released 36 technical reports and 19 policy briefs almost one year ago. I co-authored a paper synthesizing the major equity-related challenges in the state's K-12 system. The full body of research quantified substantial disparities in student outcomes and in genuine access to many educational resources or opportunities, such as credentialed and experienced teachers, and quality curriculum. Math instruction is an especially acute concern. Unsurprisingly, these inequities are pronounced along racial, ethnic, and

socioeconomic lines. **I believe that the proposed eligibility policy would exacerbate rather than ameliorate these inequities, which would be a shameful doubling down on the state's *de facto* strategy of unequal educational opportunity.** That said, policy change with stakes this high should be based on evidence rather than mere beliefs, supposition, or intuition--whether they are mine, some other expert's, or those of college math teachers whose jobs and expertise do not extend to the big picture of opportunity for Californians.

3. Neither the trustees nor CSU leaders have adequate evidence about the equity consequences of the proposal. **Indeed, the proposal implicitly rests on key propositions for which there is little or no evidence.** Consider the claim that math or quantitative reasoning courses are somehow necessary for students to even be considered by CSU, regardless of their intended field of study. Or, that extra math is tied to college success by anything more than mere statistical correlations. (I say math courses because most of the research presented is about math courses rather than quantitative reasoning.) Or the assumption that math opportunities--curriculum *and* instruction--are equitably distributed within schools, within districts, and across the state.

Advanced math course-taking is highly associated with privilege. Obviously, we want to ensure broader access to, and even encourage, math course-taking. But I cannot imagine that any higher education leader intends to change eligibility or admissions to add another plus factor for privilege.

To the best of my knowledge, **no one in the education equity community would endorse the proposed policy change without answering such empirical questions more definitively. Neither should the Trustees.** I have heard that CSU has requested that advocates be "reasonable" in their requests for data. Given that this proposed change to admissions was first made, by CSU faculty, three and a half years ago, and that the Academic Senate resolution asked that the CSU "investigate the impact" of the proposed requirements on students from "underserved populations," any fair observer who values evidence over intuition and faculty politics would agree that that the public and the trustees reasonably deserve answers about fairness.

4. This problem cannot be cured with some kind of a waiver mechanism unless we know in advance what the waiver criteria will be, and there are credible, enforceable assurances that waiver authority would be used in a non-arbitrary fashion and without any burden on students to seek that waiver.

RECOMMENDATIONS:

1. Rather than waivers, use a certification system. CSU should not apply the proposed policy to applicants from a school district unless the CDE has certified that the conditions of math opportunity are equitable, as defined by the State Board of Education. This judgment should not be made by CSU staff or faculty, since they are not experts in K-12 education. If the trustees in their wisdom decide to go forward with this or a similar proposal, I will certainly urge advocacy groups and school districts to seek legislation along these lines.

2. There is strong disagreement over the likelihood of a disparate impact. Your decision should await clear and substantial evidence. These are all researchable questions. Do the research, independently.

Thank you.