An educational policy brief:



The Civil Rights Project Proyecto Derechos Civiles

Proposition 16 and a Brighter Future for All Californians:

A synthesis of research on affirmative action, enrollment, educational attainment and careers at the University of California



Engineering commencement at UC Berkeley

October 2020

William C. Kidder⁺

I.	Introduction	.1
II.	Why Prop 16 matters to California's future	1
III	. UC's freshmen enrollment pathway	2
IV	. Graduation rates and career success	.3
V.	Learning benefits and campus climate	4
VI	. Healthy professions and a healthy California	5

I. Introduction

Between now and November 3rd, California voters are deciding the fate of Proposition 16, which proposes to repeal a 1996 ballot initiative ("Prop 209") and thereby allow some consideration of race/ethnicity, sex and national origin in public education, employment and contracting so long as such programs are consistent with federal and state equal protection laws. A central question for voters and policymakers is what impact Prop 209 has had on patterns of enrollment, degree attainment and subsequent success/earnings in the workforce for students and graduates of the University of California (UC). This policy brief synthesizes research on enrollment, graduation and career success for traditionally underrepresented students, the benefits of diverse learning environments including campus racial climate, and the need to increase diversity in UC professional and graduate schools to better serve the health and wellbeing of all Californians.

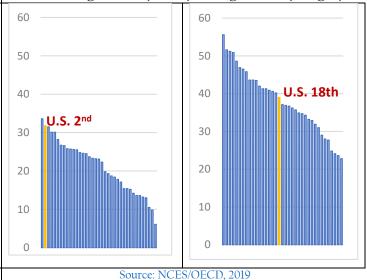
In racially and ethnically diverse California where onefifth of the population has limited English proficiency, the ongoing COVID-19 pandemic underscores the compelling need for diverse health professions. Latinx, African American and Pacific Islander physicians are more likely to practice in medially underserved areas. But Prop 209 has depressed diversity levels within UC medical schools for over twenty years, a legacy that unfortunately contributes to worse racial/ethnic health disparities in California today.

II. Why Prop 16 matters: Next generation opportunity gaps and California's future

Even before the COVID pandemic, in California fulltime workers with a bachelor's degree or higher earned twice as much (\$81,000) as the typical worker with some college education (\$42,000), and this gap has widened in recent decades. (PPIC, 2020) Those who are able to obtain a high-quality bachelor's degrees and beyond end up with far lower unemployment levels, higher tax contributions and greater civic participation in the Golden State and elsewhere. (Johnson et al., 2018; Douglass 2016; Douglass & King 2018)

If today's diverse generation of young people is to continue to propel the economic engine of opportunity that is California, we must reverse some troubling trends. California is slipping behind by national and international standards with respect to "generational progress" – the share of young adults with a BA degree or higher relative to the share of older workers with higher education (Johnson 2016). PPIC estimates that among the 30 largest states, California ranks 21st in generational progress, far behind New York, Illinois and Massachusetts (Johnson 2016).

Adding the context of international competitiveness reveals even greater urgency to this situation (see chart below). For older workers age 55-64, among advanced OECD countries the U.S. ranks second in the world, behind only Switzerland, in higher education attainment. But for younger workers age 25-34 the U.S. <u>ranks 18th</u> among OECD countries because many other advanced nations have progressed faster than the U.S. in their commitment to higher education as a driver of economic opportunity (chart below). The situation will likely be even more difficult for our next generation of Californian workers – students currently in grades 7-12. The U.S. was a world leader in higher education a generation ago, but what about young adults today?: How the U.S. ranks among OECD Countries in 2018, % of population with bachelor's degree or higher, workers age 55-64 (at left) and age 25-34 (at right)



As is demonstrated further below, the constraints of Prop 209, in effect for over twenty years, have undermined cumulative higher education attainment opportunities for Latinx, African American and American Indian students in California. Since these "underrepresented" groups now comprise three-fifths of all California public high school graduates, as their future prospects dim or brighten, so too will the interconnected fates of all Californians and California's economy. This policy brief also provides concrete examples where many underserved Asian American and Pacific Islander communities could directly benefit from the greater flexibility afforded by Prop 16.

In the undergraduate and graduate/professional school contexts discussed below, "race neutral" alternatives are not sufficiently workable substitutes, despite UC's extensive and commendable efforts in the face of Prop 209 (Long & Bateman, 2020; Orfield et al. 2017; Kidder, 2016, 2013; Alon 2015; Jayakumar & Garces 2015; UC President/Chancellor's *Fisher* brief, 2015).

Finally, while opponents of Prop 16 invoke racial dog whistles in claiming that URM students are not "qualified," note that Prop 16 and affirmative action are about giving full and equitable consideration *among qualified students*, URM or otherwise. Today at UC the number of "admission by exception" cases is exceedingly small –and most of those students are not URMs (e.g., white or international student-athletes, UC Audit 2020). Thus, the policy implications of Prop 16 at the University are really about leveling the playing field and defining merit in ways so that young people from *all* corners of California have a fair shot at success.

III. UC's freshmen enrollment pathway

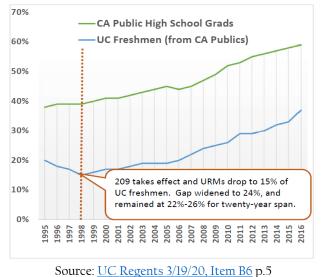
The U.S. Supreme Court declared in *Grutter v. Bollinger*:

In order to cultivate a set of leaders with legitimacy in the eyes of the citizenry, it is necessary that the path to leadership be visibly open to talented and qualified individuals of every race and ethnicity. All members of our heterogeneous society must have confidence in the openness and integrity of the educational institutions that provide this training.

Underrepresented minorities (URMs) were 38% of California public high school graduates in 1995 and this increased steadily to 45% by 2005 and 59% by 2016. Before Prop 209, URMs were 20% of UC freshmen from these same California schools in 1995, which dropped by one quarter (to 15%) when Prop 209 took effect in 1998 (see chart below).

While the proportion of URMs in UC's freshman class has inched back up in subsequent years, as reported recently to the UC Regents, it is still the case that "while the proportion of public high school graduates becomes more diverse, freshman enrollment at the University has not kept pace with the state's diversity" (UC Regents 2020, p. 5) (*see also* Long & Bateman, 2020; Kidder & Gandara 2015; Kurlaender et al., 2015:96-97; Kidder 2013:104-105). Bleemer estimates "Prop 209 caused an annual decline in URM UC enrollment of about 800 students in 1998-99, or 14 percent" (Bleemer 2020a: 19 n.65).

URM Students in California and UC, 1995-2016



Compared to the chart of the UC system, Prop 209 had even more of a negative impact on freshmen admissions

and enrollment at the most selective campuses, UC Berkeley and UCLA (using a range of methodologies, *see e.g.*, Bleemer 2020a; Kidder & Gandara 2015; Kurlaender et al., 2015).

Another harmful impact of Prop 209, one which implicates California taxpayers' investments in the young people of this state, is that after Prop 209 URMs admitted to UC as freshmen with top credentials more frequently chose to enroll at selective private universities with affirmative action (Geiser & Caspary, 2005; Kidder 2012; Bleemer, 2020a:2; *cf.* Grodsky & Kurlaender, 2010).

IV. Graduation rates and career success

Opponents of Prop 16 present thin and cherry-picked evidence to argue that "mismatch" due to affirmative action "reduces minority graduation rates" and that "attending nonelite schools is not harmful to one's career." (Sander & Taylor, 2012: chapters 6, 7, 9; *see also* Heriot 2015)

However, a strong preponderance of peer-reviewed research, using a variety of empirical strategies, counters the core claim that affirmative action harms African American and Latinx overall graduation rates at selective U.S. universities or that Prop 209 (net of other trends like changes in UC admissions selectivity¹) was a boon to Black and Latinx degree attainment in California (Dillon & Smith 2020, 2017; Bleemer 2020; Lutz et al. 2018, 2019; Eller & DiPrete, 2018; cf. Goodman et al. 2017; Alon 2015; Kidder & Lempert 2015; Hinrichs 2014; Arcidiacono & Koedel 2014; Golann et al. 2013; cf. Kurlaender & Grodsky, 2013; Cortes 2010; Chang & Rose 2010; Bowen et al. 2009; Espenshade & Radford 2009; Melguizo 2008; Fisher & Massey 2007; Massey & Mooney 2007; Small & Winship 2007; Alon & Tienda 2005; Bowen & Bok 1998; Kane 1998).

In addition to the rather technical research literature on graduation rates and "mismatch" controlling for other factors, a more intuitive "seeing is believing" way of showing the weakness of the "mismatch" hypothesis is with descriptive statistics comparing academically similar public universities with and without affirmative action. The "top dozen" ranked public universities in U.S. News & World Report includes six UC campuses and three others that do not consider race as a plus factor affirmative action, as well as three public universities that do allow modest consideration of race. The chart below shows that the top publics with affirmative action have *higher* Black 6-year graduation rates (87% v. 78%) and *smaller* Black-White gaps in graduation rates (6 points v. 10 points) compared to the UCs and other to top publics without affirmative action.

Top Dozen Public Universities in 2020 U.S. News: Black Graduation Rates with without affirmative action (latest four freshman cohorts combined, n = 9,029)²

African Am/Black rate Black-White gap 100 90 14 12 1210.1 80 11 9 70 60 50 90 8787.3 85 40 80 83 80 80 77 76 75 76 75 30 20 10 0 U Virginia UCLA UC Santa Barbara UC Irvine UNC-CH William & Mary AVG w/ affirm action U Michigan Georgia Tech U Florida UC Davis UC Berkeley AVG w/out affirm action UC San Diego*

Source: NCAA, https://web3.ncaa.org/aprsearch/gsrsearch

Where obstacles to graduation do exist, if Prop 16 is passed by the voters, UC will have "more in the toolkit" to take legally permissible and educationally appropriate targeted intervention measures to help all students succeed. For example, closer attention to disaggregated data reveal that UC's Asian American and Pacific Islander student population is anything but monolithic, and as Ochi and Poon observe, "The most underserved AAPIs need race-conscious admissions policies and disaggregated data to achieve educational equity for all AAPIs..." (2020: 38)

In this light, an underappreciated reality is that for all Hmong students entering UC since 2010 as freshmen and transfers, Hmong graduation rates are consistently lower at UC than for e.g., African Americans and other

¹Researchers point out that the upward trend in UC graduation rates in the 1990s and 2000s due to factors such as increased admissions selectivity is something to properly distinguish from Prop 209-related changes (Chang & Rose 2010:83; Chingos 2013; Kidder 2013:105-108; Kidder & Onwuachi-Willig 2014: 912-915). Similarly, Bleemer (2020b:

⁴⁶⁻⁴⁸⁾ finds that Arcidiacono et al.'s (2014) estimates of Prop 209's reported positive effect on graduation rates fades away when more robust controls are introduced.

² * In the 2009-12 freshmen cohorts reflected in this chart, UCSD was the only campus that was not in NCAA Division I, but in later years UCSD transitioned to Division I.

traditionally defined URM groups (UCOP 2020) Of equal concern, the number of Hmong bachelor's degree recipients dropped by nearly one quarter since 2017 at a time when overall degrees awarded held steady. (UCOP 2020) Restrictions imposed by Prop 209 can straitjacket efforts to identify, discuss and take action to ameliorate such educational challenges in areas where "race-neutral" and "color-mute" approaches are not working. (Ochi & Poon 2020; Garces 2016; Carbado & Harris, 2008; Pollack 2004) This is especially so for addressing entrenched intersectional challenges of race, gender and beyond, where affirmative action could play more of a positive role in the absence of Prop 209. (Carbado & Crenshaw, 2019)

Turning to earnings as a measure of post-graduation career success, Bleemer recently found that "Prop 209 led URM UC applicants to earn five percent lower average annual wages between ages 24 and 34 than they would have earned had affirmative action continued..." (Bleemer 2020a:3) The weight of peer-reviewed research finds that affirmative action is associated with positive labor market outcomes/earnings for African American and Latinx attendees of selective U.S. colleges and universities, often using a variety of methods to control for selection bias (Dillon & Smith 2020; Dale & Krueger 2014; Long 2010; Daniel et al. 2001). The Dale & Krueger "matching" methodology is notable because it was previously celebrated by leading affirmative action critics (Sander & Taylor 2012:108; Sander 2005:1972). Yet Dale & Krueger found larger wage benefits for African Americans and Latinx students (2014:325-26) than for others. Relatedly, other studies show labor market benefits (for URMs and/or others) of attending a public flagship university compared to similar students attending other institutions, or attending four-year publics versus community colleges, etc. (Andrews et al. 2016, 2020; Smith et al. 2020; Cohodes & Goodman, 2014; Hoekstra 2009; Black et al. 2005).

V. Learning benefits and campus climate

Accentuating the earlier points about enrollment access and positive graduation outcomes, during these difficult times of racial and political polarization, it is important for voters to recognize, as did our U.S. Supreme Court in *Grutter v. Bollinger*, that diversity in higher education "promotes 'cross-racial understanding,' helps to break down racial stereotypes, and 'enables [students] to better understand persons of different races..." 539 U.S. 306, 330 (2003).

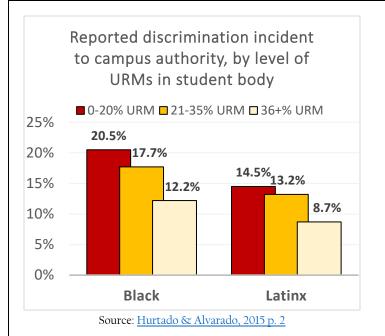
In their authoritative synthesis (meta-analysis) of 500+ studies, Pettigrew and Tropp (2006, 2011) show that greater intergroup contact and cross-racial interaction is associated with lower levels of prejudice. This important finding is very robust in the peer-reviewed research, and a recent replication meta-analysis finds additional cultural factors and that "positive contact most effectively reduces prejudice in high-prejudice individuals" (Kende et al. 2018:893; *see also* Brannon & Walton, 2013; Lemmer & Wagner, 2015; Dovidio et al. 2017).

Greater diversity contributes to more cross-group friendships (Davies et al. 2011; Zhou et al. 2019; Fischer 2008). In addition, relevant to the discussion earlier in Section II about California's higher education needs in the global economy, greater diversity spurs growth in cognitive skills (Bowman 2010; Hodson et al. 2018; Chang et al. 2006), academic engagement (Victorino et al. 2019) and innovative problem-solving (Page 2007).

The aforementioned studies confirm significant educational benefits for white and Asian American/ Pacific Islander students. As one important study of college seniors found, "Asian students' contact with Hispanics was related to improved attitudes toward Blacks, their contact with Blacks was related to improved attitudes toward Hispanics, and their contact with Whites was related to improved attitudes toward Blacks." (Bowman & Griffin 2012:38)

An additional consideration for voters around Prop 16 is that low diversity levels and affirmative action bans can create more inhospitable learning conditions and racial climate for URM students, including specifically African American and Latinx students at UC post-209 reporting a greater sense of stigmatic harm, racial isolation and not feeling welcome (Kidder 2012; Chapman 2020; Kidder & Onwuachi-Willig 2014; Onwuachi-Willig et al. 2008; Contreras et al. 2018; Solorzano et al. 2002).

The chart below shows results from a study of nearly 8,900 URM students at 58 U.S. public and private fouryear universities administering the Diverse Learning Environments (DLE) survey (Hurtado and Alvarado, 2015). Compared to a baseline of 12.6% percent of students reporting discrimination or harassment to a campus authority, on lower diversity campuses where URM students are one-fifth or less of the student body, 20.5% of African American students and 14.5% Latinx students reported at least one discriminatory incident to campus authorities, which the authors describe as "just the tip of the iceberg since most instances of perceived bias and discrimination go unreported." (p.2). The chart also shows that African Americans and Latinx students are less likely to report such discrimination incidents to authorities when there are higher representation levels.



A healthy campus racial climate for URM students is also one in which White students have better prospects for maturation around experiences of racialized vulnerability and ultimately the "development of antiracist and humanizing identities and relationships." (Jayakumar et al. 2018; see also Ledesma 2016; Garces & Jayakumar 2014).

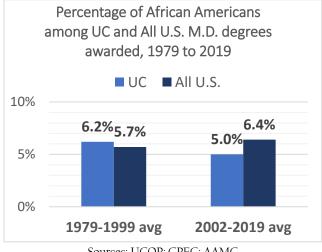
VI. Healthy professions and a healthy California

In California across many medical specialty areas African American, Latinx and Pacific Islander physicians in California are more likely (controlling for other characteristics) to practice in medically underserved areas and in areas with shortages of primary care physicians as compared to white physicians (Walker et al. 2012; Grumbach et al. 2008), as is the case more generally across the U.S. (U.S. H.H.S. 2006; Smedley et al. 2001; Komaromy et al. 1996) And for complex sociocultural reasons, in both clinical practice and randomized studies, underrepresented minority patients have better interactions, communications and better health outcomes with physicians from their racial/ethnic background (Saha & Beach 2020; Alsan et al. 2018; Saha et al. 2008; U.S. H.H.S. 2006)

Today California has a worse ratio of Latinx resident physicians to the Latinx population as compared New York, Texas and Florida, including in internal medicine, obstectrics/gynecology and pediatrics (Bustamante et al. 2020: 21-22). Relatedly, there is a strong need for more

physicians in California with proficiency in several non-English languages spoken in California, most acutely Spanish but also with Tagalog, Thai/Lao and Vietnamese (Hsu et al. 2018:2; Garcia et al. 2019), and the "increased difficulties with in-person access to care during the COVID-19 health crisis have further complicated health care for linguistic minorities." (Ortega et al. 2020)

All of these conditions were predictably worsened by Prop 209 in California and the relative decline in underrepresented minorities admitted to UC medical schools (Mickey-Pabello & Garces 2018; Garces & Mickey-Pabello, 2015; Smith et al.2009; Saha & Shipman 2008; Steinecke et al. 2007).³ As shown in the chart below, for medical school graduates who entered in the twenty years before Prop 209, African Americans were awarded 6.2% of the M.D. degrees at UC, higher than the national average for all AAMC medical schools (5.7%). For all the post-209 cohorts graduating between 2002 and 2019, African Americans dropped to 5.0% of UC's M.D. degrees, even as the figure for U.S. medical schools rose (to 6.4%). Thus, in the two decades before Prop 209 UC had a Black M.D. production rate (109%) that exceeded the average of U.S. medical schools, but in the last two decades with Prop 209 UC's M.D. production rate for African Americans dropped to 78% of national figures.⁴



Sources: UCOP; CPEC; AAMC

Given the example that for African American men in Oakland, a recent randomized study estimated that "black doctors would reduce mortality from cardiovascular disease by 16 deaths per 100,000 per year, accounting for 19% of the black-white gap in

⁴ The chart is a conservative benchmark for comparison, as the national average for 2002-2019 incorporates affirmative action bans in several other states.

³ Nationwide URM enrollments to U.S. medical schools dropped after 1996, which corresponds to passage of California's Prop 209 and other developments weakening affirmative action (Cohen 2003).

cardiovascular mortality" (Alsan et al. 2018), the cumulative impacts of Prop 209 on vulnerable communities of color in California are far from "raceneutral" and exacerbate racial/ethnic health disparities.

Moreover, similar to the discussion earlier in Section V, better racial diversity within medical school can create "win-win" conditions that accentuate the cross-cultural competencies/learning and lessen implicit bias for medical students who are not necessarily from underrepresented groups (Burke et al., 2017; van Ryn et al. 2015, 2011; Milem et al. 2012), including at UCSF specifically (Whitla et al. 2003).

While the focus above is on medical school and physicians, Prop 209 in fact had a negative impact on underrepresented minority enrollment across all UC professional degree programs combined, which spans law, nursing, pharmacy, dentistry, business, public policy, and so on (Kidder & Gándara, 2015:31). Declines in racial diversity under Prop 209 have been substantial at UC law schools (J.D.s) and business schools (M.B.A.s) (Kidder 2013:118-123). Moreover, academic doctoral degree programs are central to UC's mission under the California Master Plan, and declines in doctoral student diversity carry the added harm of further eroding long-term progress in diversifying the professoriate (Jayakumar et al. 2018; Kidder & Gándara, 2015:31; Garces 2013).

Finally, adding to the earlier discussion in Section IV about undergraduate "mismatch," claims asserting law school mismatch (Sander 2004, 2019; *see also* Williams, 2013) are likewise refuted by a strong preponderance of empirical research –including a range of replication efforts – which call into question the soundness of Sander's findings, conclusions about causal inference and/or methods. (Bjerk 2019; Yoon 2017; Xiang & Rubin 2015; Kidder & Lempert 2015; Empirical Scholars *Fisher v. UT Austin* brief 2013; Camilli & Welner 2011; Camilli & Jackson 2011; Rothstein & Yoon 2008a, 2008b; Chambers et al. 2005; Ayres & Brooks 2005; Ho 2005; Kidder 2005).

+ William C. Kidder (B.A. and J.D., UC Berkeley) is a research associate at the UCLA Civil Rights Project who has published extensively on affirmative action. This policy brief represents his personal research views and is <u>not</u> intended to represent the administration of UC Santa Cruz (or of the UC system) where he is employed.



California's future depends on intergenerational progress in higher education

<u>References</u>

Alon, Sigal. 2015. *Race, class, and affirmative action*. <u>Russell</u> <u>Sage Foundation</u>.

Alon, Sigal and Tienda, Marta. 2005. "Assessing the 'Mismatch' Hypothesis: Differences in College Graduation Rates by Institutional Selectivity." <u>Sociology of Education</u> <u>78(4):294–315</u>.

Alsan, Marcella, Owen Garrick, and Grant C. Graziani. 2018. "Does diversity matter for health? Experimental evidence from Oakland." <u>National Bureau of</u> <u>Economic Research, working paper 24787</u>.

American Association of Medical Colleges (AAMC). 2016. <u>"Table 11. U.S. Medical Schools Graduates by Race and Ethnicity, 1971–72 to 2013–14."</u>

American Association of Medical Colleges (AAMC). 2019. "Table B-4: Total U.S. Medical School Graduates by Race/Ethnicity (Alone) and Sex, 2014-2015 through 2018-2019."

Andrews, Rodney J., Jing Li, and Michael F. Lovenheim. 2016. "Quantile treatment effects of college quality on earnings." *Journal of Human Resources* 51, no. 1 (2016): 200-238.

Andrews, Rodney J., Scott A. Imberman, and Michael F. Lovenheim. 2020. "Recruiting and supporting low-income, high-achieving students at flagship universities." <u>Economics of Education Review 74: 101923</u>.

Antonovics, Kate L., and Richard H. Sander. 2013. "Affirmative Action Bans and the 'Chilling Effect." 2013. *American Law and Economics Review* 15: 252-299.

Arcidiacono, Peter, Esteban Aucejo, Patrick Coate, and V. Joseph Hotz. 2014 "Affirmative action and university fit: Evidence from Proposition 209." <u>IZA Journal of Labor</u> <u>Economics 3, no. 1: 7</u>.

Arcidiacono, Peter, and Cory Koedel. 2014. "Race and college success: Evidence from Missouri." <u>American Economic</u> Journal: <u>Applied Economics 6, no. 3: 20-57.</u>

Ayres, Ian, and Richard Brooks. 2005 "Does affirmative action reduce the number of black lawyers." <u>Stanford Law</u> *Review* 57: 1807-1854.

Bjerk, David. 2019. "Replication of mismatch research: Ayers, Brooks, and Ho'(Comment)." *International Review of Law and Economics* 58: 3-5.

Black, Dan, Kermit Daniel, and Jeffrey Smith. 2005. "College quality and wages in the United States." <u>German</u> <u>Economic Review 6, no. 3: 415-443</u>.

Bleemer, Zachary. 2020a. "Affirmative Action, Mismatch, and Economic Mobility After California's Proposition 209." UC Berkeley <u>CSHE ROPS paper</u>.

Bleemer, Zachary. 2020b. "Affirmative Action, Mismatch, and Economic Mobility After California's Proposition 209." <u>Extended version</u>.

Bowen, William, Chingos, Matthew and McPherson, Michael. 2009. <u>Crossing the Finish Line: Completing College at</u> <u>America's Public Universities</u>. Princeton, NJ: Princeton University Press.

Bowen, William and Bok, Derek. 1998. The Shape of the River: Long-Term Consequences of Considering Race in College and University Admissions. Princeton, NJ: Princeton University Press.

Bowman, Nicholas A. 2010. "College diversity experiences and cognitive development: A meta-analysis." <u>Review of</u> <u>Educational Research 80, no. 1: 4-33</u>.

Bowman, Nicholas A., and Tiffany M. Griffin. 2012. "Secondary transfer effects of interracial contact: The moderating role of social status." <u>Cultural Diversity and Ethnic</u> <u>Minority Psychology 18, no. 1: 35-44.</u>

Brannon, Tiffany N., and Gregory M. Walton. 2013. "Enacting cultural interests: How intergroup contact reduces prejudice by sparking interest in an out-group's culture." <u>Psychological Science 24, no. 10: 1947-1957</u>.

Burke, Sara E., John F. Dovidio, Sylvia P. Perry, Diana J. Burgess, Rachel R. Hardeman, Sean M. Phelan, Brooke A. Cunningham, Mark W. Yeazel, Julia M. Przedworski, and Michelle van Ryn. 2017. "Informal training experiences and explicit bias against African Americans among medical students." <u>Social psychology quarterly</u> 80, no. 1: 65-84.

Bustamante, Arturo Vargas, Laura E. Martinez and Yohualli Balderas-Medina Anaya. 2020. "California Physician Shortage White Paper." <u>UCLA Latino Policy &</u> <u>Politics Initiative.</u>

California Postsecondary Education Commission (CPEC). Archival website on UC degrees awarded in 1970s-1990s.

Camilli, Gregory, Darrell D. Jackson, Chia-Yi Chiu, and Ann Gallagher. 2011. "The mismatch hypothesis in law school admissions." <u>Widener Journal of Law, Economics & Race</u> <u>2</u>.

Camilli, Gregory, and Kevin G. Welner. 2011. "Is There a Mismatch Effect in Law School, Why Might It Arise, and What Would It Mean." <u>Journal of College & University Law 37:</u> 491.

Carbado, Devon W., and Kimberlé W. Crenshaw. 2019. "An Intersectional Critique of Tiers of Scrutiny: Beyond Either/or Approaches to Equal Protection." <u>Yale Law Journal</u> <u>Forum 129: 108</u>.

Carbado, Devon W., and Cheryl I. Harris. 2008. "The new racial preferences." <u>*California Law Review* 96: 1139-1214.</u>

Chambers, David L., Timothy T. Clydesdale, William C. Kidder, and Richard O. Lempert. "The real impact of eliminating affirmative action in American law schools: An empirical critique of Richard Sander's study." <u>Stanford Law</u> <u>Review</u>, 57: 1855-1898.

Chang, Mitchell J., Nida Denson, Victor Saenz, and Kimberly Misa. 2006. "The educational benefits of sustaining cross-racial interaction among undergraduates." <u>The Journal of Higher Education 77, no. 3: 430-455</u>.

Chang, Tongshan, and Heather Rose. 2010. "A portrait of underrepresented minorities at the University of California, 1994–2008." In <u>Equal opportunity in higher education:</u> <u>the past and future of California's Proposition 209</u> (E. Grodsky & M. Kurlaender, eds.): 83-102.

Chapman, Thandeka K., Frances Contreras, Eddie Comeaux, Eligio Martinez Jr, and Gloria M. Rodrigiez. 2020. <u>High Achieving African American Students and the College</u> <u>Choice Process: Applying Critical Race Theory</u>. Routledge.

Chingos, Matthew M. 2013. Are Minority Students Harmed by Affirmative Action?. <u>Brown Center Chalkboard series</u> at Brookings.

Cohodes, Sarah R., and Joshua S. Goodman. 2014. "Merit aid, college quality, and college completion: Massachusetts' Adams scholarship as an in-kind subsidy." <u>American</u> <u>Economic Journal: Applied Economics 6, no. 4: 251-85</u>.

Cohen, Jordan J. 2003. The consequences of premature abandonment of affirmative action in medical school admissions." *JAMA* 289, no. 9: 1143-1149.

Contreras, Frances, Thandeka K. Chapman, Eddie Comeaux, Gloria M. Rodriguez, Eligio Martinez Jr, and Malo Hutson. 2018. "African American students' college choice processes in a post 209 era." <u>International Journal of</u> <u>Qualitative Studies in Education 31, no. 8: 747-768</u>. Dale, Stacy Berg and Krueger, Alan. 2014. "Estimating the Effects of College Characteristics over the Career Using Administrative Earnings Data." *Journal of Human Resources* <u>49(2):323–58.</u>

Daniel, Kermit, Dan A. Black, and Jeffrey Smith. 2001. "Racial differences in the effects of college quality and student body diversity on wages." In <u>Diversity Challenged</u> <u>(Gary Orfield ed.)</u>. Cambridge: Harvard Education Publishing Group.

Davies, Kristin, Linda R. Tropp, Arthur Aron, Thomas F. Pettigrew, and Stephen C. Wright. 2011. "Cross-group friendships and intergroup attitudes: A meta-analytic review." *Personality and Social Psychology Review* 15, no. 4: 332-351.

Dillon, Eleanor Wiske and Jeffrey Andrew Smith. 2020. "The Consequences of Academic Match between Students and Colleges." *Journal of Human Resources* 55 (3):767–808.

Dillon, Eleanor, and Jeffrey Smith. 2017. "Determinants of the Match between Student Ability and College Quality." *Journal of Labor Economics* 35(1):45–66.

Douglass, John A. 2016. "Knowledge based economic areas and flagship universities: A Look at the New Growth Ecosystems in the US and California." <u>CSHE paper 9.16</u>.

Douglass, John Aubrey, C. Judson King 2018. "The Role of Universities in Economic Competitiveness in California." (2018). <u>CSHE report to the Catalan Association of Public</u> <u>Universities</u>.

Dovidio, John F., Angelika Love, Fabian MH Schellhaas, and Miles Hewstone. 2017. "Reducing intergroup bias through intergroup contact: Twenty years of progress and future directions." <u>Group Processes & Intergroup Relations 20,</u> no. 5: 606-620.

Eller, Christina Ciocca and Thomas A. DiPrete. 2018. "The paradox of persistence: explaining the black-white gap in bachelor's degree completion." <u>American Sociological Review</u> 83, no. 6: 1171-1214.

Espenshade, Thomas J., and Alexandria Walton Radford. 2009. <u>No Longer Separate, Not Yet Equal.</u> Princeton, NJ: Princeton University Press.

Fischer, Mary J., and Douglas S. Massey. 2007. "The effects of affirmative action in higher education." <u>Social Science</u> <u>Research 36, no. 2: 531-549</u>.

Garces, Liliana M. 2016. "Lessons from Social Science for Kennedy's Doctrinal Inquiry in Fisher v. University of Texas II." <u>UCLA Law Review Discourse 64: 17.</u>

Garces, Liliana M. 2013. "Understanding the impact of affirmative action bans in different graduate fields of study." *American Educational Research Journal* 50, no. 2: 251-

<u>284</u>.

Garces, Liliana M., and David Mickey-Pabello. 2015. "Racial diversity in the medical profession: The impact of affirmative action bans on underrepresented student of color matriculation in medical schools." <u>The Journal of higher</u> <u>education 86, no. 2: 264-294</u>.

Garces, L. M., & Jayakumar, U. M. 2014. "Dynamic diversity toward a contextual understanding of critical mass." <u>Educational Researcher</u>, 43(3), 115–124.

Garcia, Maria E., Andrew B. Bindman, and Janet Coffman. 2019. "Language-concordant primary care physicians for a diverse population: the view from California." <u>Health</u> <u>Equity 3, no. 1: 343-349.</u>

Geiser, Saul, and Kyra Caspary. 2005. "'No Show' Study: College Destinations of University of California Applicants and Admits Who Did Not Enroll, 1997-2002." <u>Educational</u> <u>Policy 19, no. 2: 396-417</u>.

Golann, Joanne W. Kerstin Gentsch, Chang Y. Chung, and Thomas J. Espenshade. 2013. "Does the 'Mismatch Hypothesis' Apply to Hispanic Students at Selective Colleges?" In B. Gastic & R.R. Verdugo (eds.) *The Education of the Hispanic Population: Selected Essays.* Charlotte, NC: Information Age Publishing.

Goodman, Joshua, Michael Hurwitz, and Jonathan Smith. 2017. "Access to 4-year public colleges and degree completion." *Journal of Labor Economics* 35, no. 3: 829-867.

Grodsky, Eric and Kurlaender, Michal. 2010. "The demography of higher education in the wake of affirmative action." In <u>Equal opportunity in higher education: the past and</u> <u>future of California's Proposition 209</u> (E. Grodsky & M. Kurlaender, eds.): 33-58.

Grumbach, Kevin, Kara Odom, Gerardo Moreno, Eric Chen, Christopher Vercammen-Grandjean, and Elizabeth Mertz. 2008. "Physician diversity in California: New findings from the California Medical Board survey." <u>UCSF</u> <u>Center for California Health Workforce Studies</u>.

Grutter v. Bollinger, 536 U.S. 306 (2003)

Heriot, Gail L. 2015. "A 'Dubious Expediency': How Race-Preferential Admissions Policies on Campus Hurt Minority Students." <u>Heritage Foundation, Special Report</u>.

Hinrichs, Peter. 2014. "Affirmative action bans and college graduation rates." *Economics of Education Review* 42: 43-52.

Hodson, Gordon, Richard J. Crisp, Rose Meleady, and Megan Earle. 2018. "Intergroup contact as an agent of cognitive liberalization." <u>*Perspectives on Psychological Science*</u> <u>13, no. 5: 523-548.</u> Hoekstra, Mark. 2009. "The effect of attending the flagship state university on earnings: A discontinuity-based approach." <u>*The Review of Economics and Statistics* 91, no. 4: 717-724</u>.

Hoxby, Caroline M. 2009. "The changing selectivity of American colleges." *Journal of Economic perspectives* 23, no. 4: <u>95-118</u>.

Hsu, Paul, Balderas-Medina Anaya, Yohualli, Anglin Leslie, Hayes-Bautista, David E. 2018. "California's language concordance mismatch: clear evidence for increasing physician diversity." <u>UCLA Latino Policy &</u> <u>Politics Initiative</u>.

Hurtado, Sylvia, and Adriana Ruiz Alvarado. 2015. "Discrimination and bias, underrepresentation, and sense of belonging on campus." <u>UCLA HERI research brief.</u>

Jayakumar, U. M., Garces, L. M., Park, J. J. (2018). Reclaiming diversity: Advancing the next generation of diversity research toward racial equity. In Paulsen, M. B. (Ed.), <u>Higher Education: Handbook of Theory and</u> <u>Research (pp. 11–79).</u>

Jayakumar, Uma M. 2008. Can higher education meet the needs of an increasingly diverse and global society? Campus diversity and cross-cultural workforce competencies. *Harvard Educational Review*, 78, 615–651.

Jayakumar, Uma M., Liliana M. Garces, and Julie J. Park. 2018. "Reclaiming diversity: Advancing the next generation of diversity research toward racial equity." <u>In Higher</u> <u>education: Handbook of theory and research, pp. 11-79</u>. Springer.

Jayakumar, Uma M., Liliana M. Garces, with Frank Fernandez. 2015. <u>Affirmative action and racial equity: Considering</u> <u>the Fisher case to forge the path ahead</u>. Routledge.

Johnson, Hans. 2016. "A Generational Challenge for Higher Education." Public Policy Institute of California. <u>PPIC</u> <u>Blog, July 7</u>.

Johnson, Hans P., Marisol Cuellar Mejia, and Sarah Bohn. 2018. *Higher education as a driver of economic mobility*. <u>Public Policy Institute of California</u>.

Kane, Thomas J. 1998. "<u>Racial and ethnic preferences in</u> <u>college admissions</u>." In C. Jencks & M. Phillips (eds.), *The Black–White test score gap* (p. 431–456). Brookings Institution Press.

Kende, Judit, Karen Phalet, Wim Van den Noortgate, Aycan Kara, and Ronald Fischer. 2018. "Equality revisited: A cultural meta-analysis of intergroup contact and prejudice." <u>Social Psychological and Personality Science 9, no. 8</u> (2018): 887-895. Kidder, William C. 2016. "How workable are class-based and race neutral alternatives at leading American universities." <u>UCLA Law Review Discourse</u> 64: 99-134.

Kidder, William C. 2013. "Misshaping the river: Proposition 209 and lessons for the Fisher case." <u>Journal of</u> <u>College & University Law 39: 53-126</u>.

Kidder, William. 2012. "The salience of racial isolation: African Americans' and Latinos' perceptions of climate and enrollment choices with and without Prop 209" <u>UCLA</u> <u>Civil Rights Project working paper</u>.

Kidder, William C. 2005. "Does Affirmative Action Really Hurt Blacks and Latinos In U.S. Law Schools?" <u>Tomás</u> <u>Rivera Policy Institute policy brief (USC)</u>.

Kidder, William C., and Patricia Gándara. 2015. "Two decades after the affirmative action ban: Evaluating the University of California's race-neutral efforts." <u>ETS policy</u> report.

Kidder, William C., and Angela Onwuachi-Willig. 2014. "Still Hazy after All These Years: The Data and Theory behind Mismatch." <u>Texas Law Review</u>, 92:895-941.

Kidder, William C. and Lempert, Richard O. 2015. "The Mismatch Myth in U.S. Higher Education: A Synthesis of the Empirical Evidence at the Law School and Undergraduate Levels" in <u>Affirmative Action and Racial Equity:</u> <u>Considering the Evidence in Fisher to Forge the Path Ahead</u>, Uma M. Jayakumar and Liliana M. Garces (eds.). <u>Expanded</u> <u>version available at SSRN</u>.

Komaromy M, Grumbach K, Drake M, Vranizan MA, Lurie N, Keane D, et al. 1996. "The role of black and Hispanic physicians in providing health care for underserved populations." <u>New England Journal of Medicine</u>, 334:1305–10.

Kurlaender, Michal, & Grodsky, Eric. 2013. "Mismatch and the paternalistic justification for selective college admissions." <u>Sociology of Education, 86(4): 294-310</u>.

Kurlaender, Michal, Elizabeth Friedmann, and Tongshan Chang. 2015. "Access and diversity at the University of California in the post-affirmative action era." In *Uma* M. *Jayakumar*, & Liliana M. Garces, with Frank Fernandez (Eds.), <u>Affirmative action and racial equity: Considering the Fisher case to</u> forge the path ahead: 80-101.

Ledesma, M. C. 2016. "Complicating the binary: Toward a discussion of campus climate health." Journal Committed to Social Change on Race and Ethnicity, 1, 6–35.

Lemmer, Gunnar, and Ulrich Wagner. 2015. "Can we really reduce ethnic prejudice outside the lab? A meta-analysis of direct and indirect contact interventions." *European Journal* of Social Psychology 45, no. 2: 152-168.

Long, Mark. 2010. "Changes in the Returns to Education and College Quality." <u>Economics of Education Review</u>, 29(3):338–47.

Long, Mark and Nicole A. Bateman. 2020. "Long-Run Changes in Underrepresentation After Affirmative Action Bans in Public Universities." <u>Educational Evaluation and Policy</u> <u>Analysis 42 (2):188–207.</u>

Lutz, Amy, Pamela R. Bennett, and Rebecca Wang. 2019. "How Affirmative Action Context Shapes Collegiate Outcomes at America's Selective Colleges and Universities." *Journal of Law and Social Policy* 31, no. 1: 71-91.

Lutz, Amy, Pamela R. Bennett, and Rebecca Wang. 2018. "Mismatch and academic performance at America's selective colleges and universities." <u>Ethnic and Racial Studies</u> <u>41, no. 14: 2599-2614</u>.

Massey, Douglas S., and Margarita Mooney. 2007. "The effects of America's three affirmative action programs on academic performance." <u>Social Problems 54, no. 1: 99-117</u>.

Melguizo, Tatiana. 2008. "Quality matters: Assessing the impact of attending more selective institutions on college completion rates of minorities." <u>Research in Higher Education</u> 49, no. 3: 214-236.

Mickey-Pabello, David, and Liliana M. Garces. 2018. "Addressing Racial Health Inequities: Understanding the Impact of Affirmative Action Bans on Applications and Admissions in Medical Schools." <u>American Journal of</u> <u>Education 125, no. 1: 79-108</u>.

Milem, Jeffrey F., Celia O'Brien, Danielle Miner, W. Patrick Bryan, Farah Sutton, Laura Castillo-Page, and Sarah Schoolcraft. 2012. "The important role that diverse students play in shaping the medical school curriculum." <u>U. of Arizona College of Education, policy</u> <u>brief</u>.

Ochi, Nicole Gon, and OiYan Poon. 2020. "Asian Americans and Affirmative Action—UNC Amicus Brief." *Asian Pacific American Law Journal* 24, no. 1: 29-59.

Onwuachi-Willig, Angela, Emily Houh, and Mary Campbell. 2008. "Cracking the Egg: Which Came First: Stigma or Affirmative Action?." <u>California Law Review: 1299-</u> <u>1352</u>.

Orfield, Gary, Stella M. Flores, Catherine L. Horn, William C. Kidder, Patricia Gándara, and Mark C. Long. 2017. "Alternative Paths to Diversity: Exploring and Implementing Effective College Admissions Policies." <u>ETS</u> <u>Policy Information Report and Research Report Series No.</u> <u>RR-17-40.</u>

Ortega, Pilar, Tiffany M. Shin, Cristina Pérez-Cordón, and Glenn A. Martínez. 2020. "Virtual Medical Spanish Education at the *Corazón* of Hispanic/Latinx Health During COVID-19." <u>Medical Science Educator: 1-6</u>.

Page, Scott E. 2007. <u>The difference: How the power of diversity</u> <u>creates better groups, firms, schools, and societies-new edition.</u> Princeton University Press.

Pettigrew, Thomas F., and Linda R. Tropp. 2006. "A metaanalytic test of intergroup contact theory." *Journal of personality and social psychology* 90, no. 5 (2006): 751-783.

Pettigrew, Thomas F., and Linda R. Tropp. 2011. <u>When</u> <u>groups meet: The dynamics of intergroup contact</u>. Psychology Press.

Pollock, Mica. 2004. *Colormute: Race talk dilemmas in an American school*. Princeton University Press.

Public Policy Institute of California. 2020. Higher education is a driver of economic mobility in California. <u>PPIC policy brief</u>. Rothstein, Jesse, and Albert Yoon. 2008a. "Affirmative Action in Law School Admissions: What Do Racial Preferences Do?." *University of Chicago Law Review* 75:649-714.

Rothstein, Jesse, and Albert Yoon. 2008b. *Mismatch in law school*. <u>National Bureau of Economic Research, working paper</u>.

Saha, Somnath, and Mary Catherine Beach. 2020. "Impact of Physician Race on Patient Decision-Making and Ratings of Physicians: a Randomized Experiment Using Video Vignettes." *Journal of General Internal Medicine*: 1-8.

Saha, Somnath, and Scott A. Shipman. 2008. "Race-neutral versus race-conscious workforce policy to improve access to care." <u>*Health Affairs* 27, no. 1: 234-245</u>.

Saha, Somnath, Gretchen Guiton, Paul F. Wimmers, and LuAnn Wilkerson. 2008. "Student body racial and ethnic composition and diversity-related outcomes in US medical schools." *Jama* 300, no. 10: 1135-1145.

Sander, Richard H. 2004. "A systemic analysis of affirmative action in American law schools." <u>Stanford Law</u> <u>Review 57: 367-483</u>.

Sander, Richard. 2019. "Replication of mismatch research: Ayres, Brooks and Ho." <u>International Review of Law and</u> <u>Economics 58: 75-88</u>.

Sander, Richard H. 2005. "A reply to critics." *Stanford Law Review* <u>57: 1963-2016</u>.

Sander, Richard, and Stuart Taylor Jr. 2012. <u>Mismatch: How</u> <u>Affirmative Action Hurts Students It's Intended to Help, and Why</u> <u>Universities Won T Admit It</u>. Basic Books. Small, Mario L., and Christopher Winship. 2007. "Black students' graduation from elite colleges: Institutional characteristics and between-institution differences." <u>Social</u> <u>Science Research 36</u>, no. 3: 1257-1275.

Smedley, Brian D., Adrienne Y. Stith, Lois Colburn, and Clyde H. Evans. 2001. The right thing to do, the smart thing to do: enhancing diversity in the health professions–summary of the symposium on diversity in health professions in honor of Herbert W. Nickens, MD. <u>National Academies Press.</u>

Smith, Jonathan, Joshua Goodman, and Michael Hurwitz. 2020. "The Economic Impact of Access to Public Four-Year Colleges." NBER No. w27177. <u>National Bureau of Economic</u> <u>Research paper</u>.

Smith, Sonya G., Phyllis A. Nsiah-Kumi, Pamela R. Jones, and Rubens J. Pamies. 2009. "Pipeline programs in the health professions, part 2: the impact of recent legal challenges to affirmative action." *Journal National Medical Association* 101(9):852-63.

Solórzano, Daniel, Walter R. Allen, and Grace Carroll. 2002. "Keeping race in place: Racial microaggressions and campus racial climate at the University of California, Berkeley." <u>*Chicano-Latino Law Review* 23: 15-111</u>.

Steinecke, Ann, James Beaudreau, Ruth B. Bletzinger, and Charles Terrell. 2007. "Race-neutral admission approaches: Challenges and opportunities for medical schools." *Academic Medicine* 82, no. 2: 117-126.

UC Audit. 2020. <u>UC system and campus "Phase II" audit reports on admissions.</u>

UC Office of the President. 2020. <u>Infocenter</u>, <u>disaggregated data.</u>

UC Office of the President. 2020. <u>Infocenter, degrees</u> <u>awarded.</u>

UC President and Chancellors. 2015. <u>U.S. S.Ct. Brief of</u> <u>Amici Curiae in Fisher v. UT Austin in support of</u> <u>Respondent</u>.

UC Regents, March 19, 2020 discussion item B.6.

U.S. Department of Health and Human Services. 2006. "The rationale for diversity in the health professions: A review of the evidence." <u>Health Resources and Services</u> <u>Administration, Bureau of Health Professions</u>.

van Ryn, Michelle, Rachel Hardeman, Sean M. Phelan, John F. Dovidio, Jeph Herrin, Sara E. Burke, David B. Nelson, Sylvia Perry, Mark Yeazel, and Julia M. Przedworski. 2015. "Medical school experiences associated with change in implicit racial bias among 3547 students: a medical student CHANGES study report." *Journal of General Internal Medicine* 30, no. 12: 1748-1756. Van Ryn, Michelle, Diana J. Burgess, John F. Dovidio, Sean M. Phelan, Somnath Saha, Jennifer Malat, Joan M. Griffin, Steven S. Fu, and Sylvia Perry. 2011. "The impact of racism on clinician cognition, behavior, and clinical decision making." *Du Bois review: social science research on race* 8, no. 1: 199.

Victorino, Christine, Nida Denson, Marsha Ing, and Karen Nylund-Gibson. 2019. "Comparing STEM Majors by Examining the Relationship Between Student Perceptions of Campus Climate and Classroom Engagement." <u>Journal of</u> <u>Hispanic Higher Education: 1-16</u>.

Walker, Kara Odom, Gerardo Moreno, and Kevin Grumbach. 2012. "The association among specialty, race, ethnicity, and practice location among California physicians in diverse specialties." *Journal of the National Medical Association* 104, no. 1-2: 46-52.

Whitla, Dean K., Gary Orfield, William Silen, Carole Teperow, Carolyn Howard, and Joan Reede. 2003. "Educational benefits of diversity in medical school: a survey of students." <u>Academic Medicine 78, no. 5: 460-466</u>.

Williams, E. Douglas. 2013. "Do racial preferences affect minority learning in law school?" *Journal of Empirical Legal Studies*, 10(2): 171-195.

Xiang, Alice, and Donald B. Rubin. 2015. "Assessing the potential impact of a nationwide class-based affirmative action system." <u>Statistical Science: 297-327</u>.

Yoon, Albert. 2017. "The legal profession and the market for lawyers." <u>The Oxford Handbook of Law and Economics</u>: Volume 3: Public Law and Legal Institutions: 259-279.

Zhou, Shelly, Elizabeth Page-Gould, Arthur Aron, Anne Moyer, and Miles Hewstone. 2019. "The extended contact hypothesis: A meta-analysis on 20 years of research." *Personality and Social Psychology Review* 23, no. 2: 132-160.