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Racial Category Usage in Education Research: Examining the Publications from AERA Journals

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Racial Categories and Education Research				

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Abstract

How scholars name different racial groups has powerful salience for understanding what researchers study. We explored how education researchers used racial terminology in recently published, high-profile, peer-reviewed studies. Our sample included all original empirical studies published in the non-review AERA journals from 2009 to 2019. We found two-thirds of articles used at least one racial category term, with an increase from about half to almost three-quarters of published studies between 2009 and 2019. Other trends include the increasing popularity of the term Black, the emergence of gender-expansive terms such as Latinx, the popularity of the term Hispanic in quantitative studies, and the paucity of studies with terms connoting missing race data or including terms describing Indigenous and multiracial peoples.

Racial Category Usage in Education Research: Examining the Publications from AERA Journals

Discussions referencing specific racial or ethnic groups are ubiquitous in education research. These descriptions are often superficial, like when a quantitative study includes race indicators as covariates, or tangential, as is the case when race is mentioned but not critically explored (Castillo & Gillborn, 2022; Garcia & Mayorga, 2018; James, 2001; Ladson-Billings, 2012). However, the ways in which we name and describe different racial/ethnic groups has powerful salience for understanding what researchers believe and what they study (Gillborn et al., 2018; Ladson-Billings, 2012; Ma et al., 2007). For instance, treating race as a variable within a quantitative empirical framework implies that race is objective and static instead of politically dependent and dynamic (Castillo & Gillborn, 2022; O'Connor et al., 2007). As described by O'Connor and colleagues (2007), a variable indicating "Black" racial identification is often included with a long list of covariates in a statistical model. In doing so, identifying as Black is reduced to a category whose membership is mediated through what are seen as sociocultural deficiencies while also obfuscating the historical and contemporary nature of the Black social identity (Ladson-Billings, 2012; O'Connor et al., 2007; Zuberi & Bonilla-Silva, 2008). Consequently, the decisions about how to name and describe race and ethnicity in education research have powerful salience for interpretation of the findings.

Even though racial data are expected measures in most analytical frameworks (e.g., "race without racism"; Harper, 2012), the education research community has little critical engagement with understanding contemporary usages of these terms in our research studies (Denton & Deane, 2010; Johnston-Guerrero, 2017). Better understanding how education researchers use

¹ We use "racial" to mean "ethnoracial" or "racial and ethnic" because the only ethnicity consistently distinguished from race in the US is Hispanic ethnicity (Viano & Baker, 2020). However, in the US, "ethnicities" function as "races" and vice versa – they are not separate phenomena (Hitlin et al., 2007; Viano & Baker, 2020). For this reason,

language to describe racial groups is paramount to broader efforts to create an inclusive education research community (Galvez & Muñoz, 2020; Salinas, 2020) as well as communicating education research more effectively.

While uncommon in education, researchers in other fields (e.g., biomedicine, demography) regularly examine how racial data are collected, categorized, and used (e.g., Caulfield et al., 2009; Rachul et al., 2011; Shanawani et al., 2006; Stevens et al., 2015). For example, Lee (2009) reviewed National Cancer Institute supported publications for their terminology related to race, finding that these studies commonly invoked racial terminology but rarely described definitions or operationalization. The education research community could similarly benefit from an explicit examination of how race is being categorized/discussed in scholarship as this, in turn, shapes how future researchers employ racial categorization and frame the implications of their findings.

Unlike prior work that critically analyzes how educational research often avoids recognizing racism as the cause of racial gaps (Harper, 2012; Kohli et al., 2017), this kind of exploration of the literature seeks to understand what specific language educational researchers are using to describe racial categories. For instance, Ma and colleagues (2007) demonstrate the wide variety of race categories used across the major biomedical journals with 116 different terms for racial categories including over 10 distinct terms for each of the following racial categories: White, Black, Hispanic, and Asian. This understanding of the variety of ways racial categories were discussed in biomedical articles allowed for suggestions of how biomedical researchers and journals can encourage data collection and reporting practices that are necessary

we generally use the phrase "racial" throughout this paper, referring to ethnoracial origins and racialized groupings are experienced within the U.S. context.

precursors to closing racial health gaps including reporting on how racial data were collected and establishing more consistent terminology (Ma et al., 2007).

The ways in which researchers write about racial categories is likely heterogeneous within fields for a variety of reasons including the expectations of journal editors, common practices of reporting by method, and trends in how others are writing about racial categories. First, both of the previously discussed studies recommend journals play a role in reinforcing requirements or norms around the discussion of racial categories, supporting the hypothesis that the journal publishing the article might partially determine how racial categories are described (Lee, 2009; Ma et al., 2007). Second, racial categorizations are dynamic with categories changing based on shifting social understandings about the boundaries between groups and fluctuating expectations around what is considered appropriate terminology (Denton & Deane, 2010; Ma et al., 2007; Williams, 1999). We might expect to see some shifts in language that might, nevertheless, fail to perpetuate field wide. Third, the differences in how qualitative and quantitative researchers theorize and analyze racial differences are well documented, with substantial criticism of the ways in which quantitative research often reinforces racial hierarchies instead of supporting justice-focused efforts to eliminate racial inequality (Kohli et al., 2017; O'Connor et al., 2007; Zuberi, 2001). To our knowledge, these observations have not yet been paired with an analysis of how qualitative or quantitative studies operationally describe racial categories. Exploring racial category usage across all three of these complicating factors would allow for a heightened understanding of how educational research has recently conceptualized these categories and potential reasons why these categorizations vary.

In this study, we explore how educational researchers have used racial terminology in published, peer-reviewed studies between 2009 and 2019. We focus on original research

published in journals from the American Educational Research Association (AERA) as these journals attract a wide variety of articles of different orientations and publish articles at the forefront of educational research (*AERA Journals Online*, n.d.). Our work addresses the following research questions:

- 1. To what extent are there trends over time in the rate of inclusion of racial categories in published educational research overall, within journal, and by research method?
- 2. What terminology does published educational research use to describe racial categories? Does that terminology differ by journal, research method, or over time?

By systematically exploring these published articles, we seek to make the following contributions: (1) quantify how often researchers acknowledge or omit race in education research, (2) provide a baseline understanding of which racial categories educational researchers use and their frequency, (3) investigate differences among journals, (4) explore trends over time for how language on racial groupings is changing, and (5) understand differences across methodologies. In doing so, we seek to spark a conversation about how we, as a community of education researchers, can represent racial groups in our research in ways that are both representative of our participants and reflective of broader efforts toward anti-racism and decolonization.

Conceptual Framework: Racial Categorization/Classification

Race, as we know it today in the United States, is impacted by histories of settler colonialism, enslavement, xenophobia, and systemic anti-Black, anti-Indigenous, and anti-immigrant legacies (Saucier & Woods, 2018; Mills, 1997; Zuberi & Bonilla-Silva, 2008). These significant social forces shape how race categories are constructed, and have real, material impacts on peoples' lives, their access to healthcare, schooling, employment, and housing

(Smedley & Smedley, 2005). In this section, we review prior research on the social process of classification and categorization, broadly. We then highlight the history of race categories and trouble the notion that shared understandings of race and racial categories can be taken for granted in education research. Finally, we demonstrate how other fields engage in auditing and reflecting on racial category usage. In doing so, we provide the framework for the present study, a field-level examination of the racial categories used in published, high-impact education research.

Origins of the Study of Categories and Classification

Classifying and categorizing is part of the human social experience (Bowker & Star, 2000). Humans draw lines and classify most everything in our social world – we divide land into towns, counties, states, and nations in similar fashion to how we categorize people by language, ancestry, religion, beliefs, etc. Categories are social phenomena, laden with the contextual, political, and social understandings of the people who create and use them. Consequently, categories play a central role in our lives, where they are often treated as static when, in fact, categorization is quite dynamic.

Social scientists spent fifty years suggesting theories about the origins of categories and classifications. Emile Durkheim and Marcel Mauss began this debate in 1963 when they argued societies had a single internally consistent system of classification (e.g. people, time, space) structured by the natural world. To demonstrate correspondence between symbolic and social classification, Durkheim and Mauss (1963) provided three comparative case studies from "primitive" societies: aboriginal people of Australia, the Zuni people (who live in the Zuni river

valley in New Mexico), ² and people living in rural China.³ For example, Durkheim and Mauss (1963) argued the Zuni people looked at the sky and saw seven sectors, so their social hierarchy had seven parts, and they arranged their houses in groups of seven. This thesis that the natural world drove social classifications was hotly contested and quickly debunked (Bowker & Star, 2000). For example, anthropologists noted that Zuni houses were sometimes in clusters of six, not always seven (e.g., Cushing, 1896). In fact, the backlash to Durkheim and Mauss's work prompted major intellectual advancements in the origins of social classifications.

Beginning in the 1970s, theorists formed frameworks for critically conceptualizing categorization as being socially constructed. David Bloor (1982) reframed Durkheim and Mauss's debunked theory to suggest people, not nature, make classifications. Categories are social products and inherently subjective, "the organization of a classificatory system is not, and cannot be, determined by the way world is. There is no such thing as a natural or uniquely objective classification" (Bloor, 1982, p. 269). Classificatory systems grow out of and are maintained by social institutions (Bloor, 1982). Michel Foucault (1970; 1982) took these ideas about social classifications, previously devoid of any analysis of power and domination, and infused them with a critical lens. Foucault argued that to understand society, one must understand the origins of social categories, how they were developed and the invisible structures that have the power to make, remake, and implement these categories. Importantly, categorizing and classifying people is a feature of the modern State (Foucault, 1991). Whether categorizing

² Durkhiem and Mauss (1963) wrote Zuñi, with an "ñ." However, the Zuni people do not pronounce the name of their group with an "ñ". We use Zuni instead of Zuñi, even though we acknowledge that differs from the original text.

³ "Primitive" is the word that they used in their work to describe societies outside of Europe. We added quotes to signal our resistance to this Euro-centric framing of the world.

the natural world or the social world, no taxonomy has ever been perfect, as there are always anomalous cases that sit at the "ambiguous frontier" between categories (Foucault, 1970, p. 161).

Particularly illustrative of these kinds of invisible structures are racial categories. Among all classifications in modern society, race is, arguably, one of the most dynamic and divisive.

Vast complicated legal systems have been devoted to racial categorization and the enforcement of racial hierarchies, notably including apartheid South Africa (Bowker & Star, 2000) and chattel slavery in the US (Hickman, 1996). We more specifically discuss racial classification in the following section.

A Short History of Racial Categories

Race, as a foundational vector of difference to define a person, is not a primordial concept. Rather, the idea of racial difference first came into being in Medieval Europe. Until the Middle Ages, religious intolerance was the major dividing human characteristic. For instance, antisemitism was limited to intolerance of religious beliefs; conversion to Christianity was celebrated and new converts embraced (Fredrickson, 2015; Chazan, 1997). In the late 14th century in Spain and Portugal, antisemitism shifted and hardened into racism (Marcus & Saperstein, 2016). Jewish people were perceived to be different from Christians, not only for their religious beliefs, but also because they were a different "race" of people, nullifying conversion as a method of assimilation (Trachtenberg, 1983; Fredrickson, 2015, p. 52). Here, the first seeds of modern Western racism were born and quickly took hold. This logic soon spread to racial categorizations based on skin color or country/region of origin with pseudoscientific support used to prop up these social constructions (Winfield, 2007). The belief that racial differences are rooted in biology, not social construction, persists with the American Medical Association only recently discouraging the use of race as diagnostic criteria (Butterfield, 2021).

We write about this history to highlight how racial categories (like all classifications) reflect political and social interests with the prevailing race category schema largely based on 18th century taxonomists (Haney López, 1997). European settler colonizers found the concept of racial difference a useful justification for the enslavement of Africans, indentured servitude of "lower White races," and the genocide of Indigenous peoples of the Americas. The logic was deadly simple: use pseudoscience to turn stereotypes about hair, skin color, and brain size into categorical racial difference that makes the "White race" superior and use this to justify conquest of land and capital all over the world (Lowe, 2015; Fields & Fields, 2022).

Increasingly, race scholars in sociology and political science are recognizing race as having multiple dimensions (Morning, 2009; Roth, 2018; Rockquemore et al., 2009; Sen & Wasow, 2016). A person has a racial identity – a rich tapestry of being and experiencing. A person has one or more racial categories with which they self-identify when confronted with a survey the prescribes discrete options (Rockquemore et al., 2009; Johnston et al., 2014). A person is racially appraised (or identified by observers) when they enter a classroom, walk down a street, or are seen at a hospital (López et al., 2018; Telles, 2014). A person's racial identity, racial category, and "street race" may all align or may differ significantly depending on the context (López et al., 2018). In many cases, there is fluidity among and between these dimensions of race over the life course and depending on the context.

In education scholarship, researchers employ racial categories as shorthand to describe a rich, complex web of racializing experiences. While these categories help to highlight group-level processes (places where systems of oppression are faced), the categories themselves hold power. Education researchers who use race categories without reflection risk reifying notions of innate racial difference. For instance, when studying the so-called "Black-White test score gap,"

it can be easy for categorization to suggest that the gap is produced by differences innate to Black and White students rather than one produced through systemic racism in and outside of the schoolhouse (Ladson-Billings, 2006; 2007; O'Connor et al., 2007; Welner & Carter, 2013). Researchers too often measure the effects of racism and attribute them to racial difference — reifying race and racism (Sewell, 2016; Zuberi, 2001). In summary, racial categories are created by people, either imposed or claimed, and are related to political and material interests. Racial categories have real, material impacts on peoples' lives, including the kinds of resources and opportunities that are available to them.

Other Fields' Consideration of Racial Categorization

While uncommon in education, other fields have engaged in systematic and critical reviews of which racial categories are being used by researchers. Demography, epidemiology, media studies, political science, and criminology have regularly examined how racial data are collected, categorized, and used in research (e.g., Garcia, 2017; Megyesi et al., 2011; Covington, 1995; Hahn et al., 1996; Gomez & Glaser, 2006; Kelly et al., 1996; Kanakamedala & Haga, 2012; Shrikant & Sambaraju, 2021). We will describe two examples from other fields to illustrate this point.

From epidemiology, Ma and colleagues (2007) systematically reviewed every research article published in *Annals of Internal Medicine*, *JAMA*, *The Lancet*, and *The New England Journal of Medicine* between 1999 and 2003 (n = 1,152) for the included racial categories. They found that researchers referred to White using 16 terms, 13 terms for Black, 16 terms for Asian, and 11 terms related to Latinx ancestry (Ma et al. 2007). After describing their results by journal and year, Ma and colleagues connect their systematic review of racial categories to larger issues of policy and practice in epidemiology. They wrote that, to meet the goals set forth by the

National Institute of Health (2005) and the American College of Physicians (Groman & Ginsburg, 2004), reflection and consistency across studies about how racial categories are used was a necessary "initial step to closing the health care gap" (Ma et al. 2005, p. 577).

A second illustrative example comes from demography. Stevens et al. (2015) analyzed the historical censuses of the US, Canada, and Australia to examine how the racial categories have shifted over time. These three nations were selected because they all share a similar history of having indigenous inhabitants, settler colonialism, and huge waves of global immigration in the 20th century. The authors identified three trends shared across these nations. First, new categories and new groupings of categories are added over time and reflect immigration patterns. For example, in the US, the category of "Hispanic" was introduced in 1980, in Canada the concept of "visible minority" came into use in 1990, and Australia began collecting parents' birthplace as well as birthplace of the individual. Second, European ethnic groups (e.g., Italian, German) were once used as different racial categories. As racial difference among White people of direct European descent became less socially salient, a single White category became more common (though in Canada and Australia, the national signifier "Canadian" and "Australian" is increasingly popular).

Third, each nation moved through several permutations of how to classify and categorize people with mixed race heritage. In the first century of each census, the enumerator (door-to-door census taker) would visually observe, assess, and record a single race of each person. Later, government agencies provided decision rules for how to classify the race of the individual. In the US, the race of the father was used in 1970 for a mixed-race person, but then the race of the mother was deemed a better indicator in 1980. Prior to the 1970s in Australia, the government asked fractions to be provided (e.g., "1/2 Aboriginal, 1/2 Chinese", Stevens et al., 2015, p. 25).

Between 1990 and 2000, the census categories for the three countries changed to accommodate the selection of two or more races. Stevens et al. (2015) conclude that these three countries have different conceptions of race measurement, but they all share common confusion because of the volatility and complexity of racial identification.

Scholars in fields outside of education value these previous analyses of how race categories vary because where race boundaries are drawn shapes how people understand their social realities and shapes the insights we can take away from the research. We use these insights to inform our analysis of published educational research, as described in the following section.

Current Study

This review of prior research has argued that it would be shortsighted for education researchers to take racial categories for granted. Doing so makes invisible power and political/social mores, leads to conceptual and methodological confusion, and, in some cases, can lead to faulty conclusions that can misinform policy/practice. This review of prior work reiterates that categories reflect the political and social interests of people, and, historically, race categories have been used to turn difference into a way to exclude and justify the oppression of people whose origins are not White/European.

In addition to drawing from theories and prior work on categorization/classification, we ground our study in the sociology of knowledge which focuses on studying the daily, taken for granted, shared assumptions, and rules about social life (e.g., Garfinkel, 1967). Many social scientists turn their scholarly attention to topics of social disruption, such as social movements, terrorism, or crime. In contrast, sociologists of knowledge argue that the deepest insights about the social world could be observed in studying what others see as mundane: such as the social norms, routines, and beliefs guiding daily life (Berger & Luckmann, 1967; Garfinkel, 1967;

Kuhn, 1970; Merton, 1972). And, if we are to extend this to the topic motivating this study: the race categories researchers routinely use.

In line with this theory tradition, we are denaturalizing the categories by examining them closely and carefully not as objective reality, but decisions that people make and remake until they shape our social reality. What categories are being used in education research? By what kinds of methodological researchers? How has it changed over time? These questions may seem basic, though, given our theoretical frame, troubling the basic is where the deep social insights reside. Indeed, our research questions are foundational, as the social process of categorization precedes all other research processes (Hirschman et al., 2016).

Given that race categories are not "natural," but the products of social and political decisions, we argue that researchers must pay attention to which categories are used and how they change, approaching these categories as political and social creations, rather than "facts of biology and/or fate" (Gillborn et al., 2018, p. 172). In contemporary education research, most empirical analyses use fixed categories for race without much consideration or reflection. While education journals have not engaged in this kind of examination of which race categories are used, we demonstrate that this need not be the case, as other fields carefully examine how scholars use racial categories in research. This study aims to bring this kind of systematic analysis and careful thinking about racial categories to education research.

Research Methods

Data Collection

A member of the research team compiled a list of all potential research articles published from 2009 to 2019 in the AERA journals that do not exclusively publish reviews: *AERA Open, American Educational Research Journal* (AERJ), *Educational Evaluation and Policy Analysis*

(EEPA), Educational Researcher (ER), and Journal of Educational and Behavioral Statistics (JEBS).⁴ We include original, empirical research to allow the authors of those articles more control over the racial categorization, since review articles would likely use the language of the articles they were reviewing. This search resulted in 1,623 articles.⁵

A different research team member created a coding frame focused on: 1) whether the article included original, empirical research; 2) key facts about the article (e.g., key words, first author's academic affiliation); 3) research methodology; 4) racial categories included for White, Black, Asian/Pacific Islander, Native American, Latinx, two or more race, and missing/unknown; and, 5) whether the article studied US-based populations (see the Appendix for the full coding frame which included additional items not analyzed in this study). For the racial categories, we began with a list of categories based on the U.S. Census during the analytical timeframe (2009-2019). As an example, for the Asian/Pacific Islander racial category, the form prompted: "Race/ethnicity category(ies) for Asian and Pacific Islander (used anywhere in the paper, check all that apply): (1) Asian, (2) Asian American, (3) Native Hawaiian, (4) Pacific Islander, (5) N/A, (6) Other (Free response)." Coders selected all options that applied to each article with original, empirical research.

To begin, all authors coded five randomly selected articles and met to reach consensus on all items and revise the coding frame based on the initial coding.⁶ Once the coding frame was

⁴ Each AERA journal serves a distinct purpose and audience focused on education research. AERA Open publishes open-access shorter articles. AERJ publishes full-length articles. EEPA publishes full-length, policy-focused articles. ER publishes short articles. JEBS publishes statistics and methods articles. For more information, see https://www.aera.net/Publications/Journals. Note that AERA publishes two journals focused on reviews, Review of Educational Research and Review of Research in Education, which we exclude due to our restriction on articles featuring primary data analyses.

⁵ We exclude any introductory articles for special issues or new editorial teams, reviews/essays, policy forums or briefs, errata, software reviews, book reviews, and tutorials.

⁶ As an example of revision to the coding frame, we added additional options for the ethnoracial categories for Black individuals based on the articles we coded.

finalized, the four authors split the remaining articles and coded them separately. Two authors completed their coding with the aid of trained research assistants. Once the research team completed coding the articles, a research team member created a 10% random sample from the list of articles assigned to each of the four authors (132 articles). A trained research assistant who had not conducted any of the original coding then double-coded all of the articles in the random sample, and we compared the two sets of coding to assess interrater reliability. The coding had an overall reliability of 93% (the primary and secondary coder had identical responses for 93% of their codes) with reliability by coder ranging from 84% to 93%. Since the 84% reliability was an outlier (the next lowest was 91%), two members of the research team completed a second round of coding for all the articles originally coded by the member with the lowest reliability rating. The first author then reconciled the original and second round of coding (either by retaining codes that matched across both coders or reviewing the article herself and making a final decision).

Once we removed articles that did not include original, empirical research, our final dataset included 1,427 articles. The majority, 1267 articles (88%), analyze U.S. domestic data. The number of articles published per year has been increasing, from 85 in 2009 to 221 in 2019 (includes the addition of AERA Open in 2015). The overwhelming majority of empirical articles use some type of quantitative method (approximately 80%). Finally, AERJ published the majority of articles during the analytical time period (456) though AERA Open has published an extraordinary amount since it only came into existence in 2015 with 224 articles (ER has 200, JEBS 262, and EEPA 285).

Analysis Methods

With the final analytical set of articles coded, we created measures of the different racial categories. Creating these categories was an iterative process that involved the first author creating measures based on categories in the coding frame as well as the text written as free response by individual coders. The first author would then present these categories, along with the full list of all raw codes, to the research team to discuss refinement of the analytical categories. Based on this iterative process, completed three different times, we created a final set of analytical categories which we outline in Table 1. Beyond the categories based on the U.S. Census, we included options like "Non-Hispanic" (e.g., "Non-Hispanic Black students"), gender expansive terms for Latinx (e.g., "Latino/a", "Latino/a/x"), and ethnic group, nationality, or region for Asian or Pacific Islander (e.g., "Vietnamese", "Filipino", "Chinese"). We created binary variables that equal 1 if the article mentions a term within each category.

We descriptively investigated the analytical set of articles using summary statistics focused on how frequently articles used terms for different racial categories. In addition to the racial categories, we included indicators of the journal outlet (AERA Open, AERJ, EEPA, ER, JEBS), year published, and research method (qualitative, quantitative, mixed). We then explored how the frequency of different racial categorizations differed by the journal, year published, and method. We conducted all of the analysis focused on specific racial categories solely on the articles that at least partially used data from the United States. We added this additional sample

⁷ For gender expansive terms within the Latinx category, we included the following options: Latino/a, Latino/a, Latino(a), Latinas(os), Latino/a/x, Latinx, Latina/o, Latinas/Latinos, Latinos/as, and Latinos/Latinas. For region or country within the Asian or Pacific Islander category, we included the following options: Vietnamese, Filipino, Chinese, Japanese, Korean, Malay, Indian, east, south, Hmong, Aleutian, Lao, Maori, Nepalese, Bengali, Pakistani, Sri Lankan, Cambodian, Guamanian, Thai, Indonesian, Fijian, Marshallese, Polynesian, Tahitian, Samoan, and Desi. ⁸ While the US Census considers Middle Eastern and North African (MENA) people as part of the White category, scholars and communities disagree (e.g., Maghbouleh et al., 2022). Due to this, we did not count the mentions of MENA categories in our set of articles within any of the analytic racial categorization (this affected five articles).

restriction for the analysis due to the variation in the sociopolitical context for race and ethnicity across countries (Marquardt & Herrera, 2015; Stevens et al., 2015).

Findings

In this section, we address both research questions while examining the use of any racial term and then specific racial categories.

Any Racial Category

We first review the trends in published education research using any racial term (regardless of the category). Approximately two-thirds of all the empirical articles published from 2009 to 2019 in AERA journals use any racial term. Figure 1 shows that a larger share of more recent articles use any racial term, from 53% in 2009 to 73% in 2019. Still, there is significant variation when examining article characteristics and use of racial terms. A little over 80% of the articles published by AERJ and EEPA use any racial term, with AERA Open following closely (75%). These journals publish noticeably more articles that use any racial term compared with ER (63%) and JEBS (13%).

Turning to temporal trends by outlet, Figure 2 is a heat plot that uses color gradient to visually show the percentage of articles that use at least one racial term over time by journal outlet. The 0-10% range is shown in yellow with the color gradient transitioning to green tones after 10% followed by a transition to blue and then purple tones at 50% and above. The darkest purple tone indicates 100% of articles in that journal in that timeframe included racial categories. AERA Open, which began publishing in 2015, consistently has over 50% of its articles use a racial term. This is similar for both AERJ and EEPA. We can visually observe the increase in the proportion of ER articles using racial terms over time with the cells between 2009 and 2011 being more of a yellow-greenish hue and the articles between 2016 and 2019 having a purple

hue. In contrast, JEBS has decreased its share of articles that use racial terms with cells between 2009 and 2013 having a greenish hue compared to articles post 2014 generally being yellow. In 2009, 18% of JEBS articles used any racial term and this decreased to 8% by 2019. While all research methodologies have a majority of articles that use a racial term, quantitative articles have a smaller share compared to qualitative or mixed method articles (64% compared to 75% and 71%). There is little evidence of temporal trend across the different methods.

Specific Racial Categories

Now that we have provided an overview of any racial term use, we turn to the categories we created for different groups looking solely at domestic data. Figure 3 shows the share of articles in each year that mention any of the terms in each racial category (as described in Table 1). Overall, use of the different racial categories has increased over time. The largest share of articles mention terms for White, Black, and Latinx categories, then the Asian/Pacific Islander category, with Indigenous and two or more races categories following. Terms denoting race missing is the smallest percentage every year.

Turning to the individual categories, we expand on the categories listed in Table 1 by examining data on the percentage of articles using the terms in each row within column (e.g., the proportion of articles using each term for Asian or Pacific Islander) overall, by year, by journal, and by method in Tables 2-8 with one table for each column of Table 1. We structure our discussion of the results by racial category alphabetically using our selected term representing each broader category. Table 2 shows the share of articles that mention any terms in the Asian or Pacific Islander category. Each row presents percentages for each subsample, starting with the overall total, then each publication year, the journal outlets, and research method. Interpreting one estimate as an example, we find that approximately 43% of articles use any Asian or Pacific

Islander term, with the majority term being "Asian" (42%) as compared to "Asian American" (8%), "Native Hawaiian" (4%), "Pacific Islander" (11%), "Non-Hispanic" (e.g., "non-Hispanic Asian," less than 1%), and ethnic group/nationality/region (3%). As shown in Figure 3, the use of any Asian or Pacific Islander term has increased over time with 35% of articles including any Asian/Pacific Islander category in 2009 to 50% of articles in 2019. While AERJ has the largest share of articles using any terms for the Asian category (58%), AERA Open has the largest share of articles using "Native Hawaiian" and "Pacific Islander" (8% and 18%, respectively). Quantitative research had the largest share of articles using "Asian", "Native Hawaiian", "Pacific Islander", and "Non-Hispanic" while qualitative research was more likely to use the terms "Asian American" and ethnic group/nationality/region specific terminology.

Table 3 shows the Black categories. We find that approximately 65% of all articles use any term for Black, with a general increase in use over time from 55% in 2009 to 73% in 2019. The largest share of articles use the term "Black" compared with "African American" and "Non-Hispanic" (51% compared to 36% and 2%, respectively). We can see the increase in the mention of any category for Black is driven by the term "Black" which appeared in only 36% of articles in 2009 and rose to 63% in 2019 while usage of "African American" declined with a high of 43% of articles in 2010 to a low of 29% in 2018. Turning to journal outlets, we find that AERJ generally has the highest percentage of articles that mention any term for the Black category. Though, articles published in AERA Open and EEPA are more likely to use the term "Black" while articles published in AERJ are more likely to use the term "African American". While quantitative research has the smallest percentage of articles using any Black category term (64% compared to 69% of qualitative and 68% of mixed methods), these articles have the highest percentage for "Non-Hispanic" (2%). Articles using quantitative research methods also have the

largest share of articles that use the term "Black" (52% compared to 48% for qualitative and 46% for mixed methods).

We explore the Indigenous category in Table 4. About a fifth of publications use any term for Indigenous with the most popular term being "Native American" (11%) closely followed by "American Indian" (10%) with "Alaskan Native" (5%), "Indigenous" (0.3%), and "Non-Hispanic" (0.2%) being less popular. Unlike the use of terms for Black and Asian, we do not observe a consistent increase in terms for Indigenous with the peak proportion of articles including an Indigenous category being in 2010 (26%), fluctuating between 15% and 25% thereafter. There are similar inconsistencies by term with use of "Native American" and "American Indian" fluctuating up and down by year although the use of "Alaskan Native" and "Indigenous" increased over time. Similar to the other racial categories, while AERJ has the largest share of articles using any term, AERA Open has the largest percentages for "American Indian" and "Alaskan Native". Quantitative research methods again had the highest percentage for "Non-Hispanic" as well as "American Indian" and "Alaskan Native," and only qualitative articles used the term "Indigenous."

Turning to the Latinx category, Table 5 presents the trends. While 60% of articles use any term for Latinx, the highest percentage of articles use "Hispanic" followed by "Latino" (49% and 23%). While each term generally (although inconsistently) increases over time, "Latinx" and the gender expansive category had an exceptional increase in representation in 2019 (from 3% in 2018 to 17% in 2019 for Latinx and 4% in 2018 to 20% in 2019 for any gender expansive term). Unlike the prior racial categories, AERA Open publishes the largest share of articles mentioning any Latinx term. While articles published in AERJ typically mentioned the previous categories at the highest rates, in the Latinx category, only "Latino" is the highest for AERJ. Continuing the

reverse, quantitative methods have the highest share of articles using any term for Latinx categories. This reversal in the trend is overwhelmingly driven by the use of the term "Hispanic" while qualitative and mixed methods articles were more likely to use the other terms.

Table 6 includes the usage of terms for the race missing category. The most consistent trend is that terms for the race missing category were infrequently used, appearing in only 2% of articles. The proportion of articles mentioning a race missing category has increased over time from 0% to 4-5% (depending on the year). Articles published in AERA Open are the most likely to include a race missing category, though the highest percentage for any individual terms is still less than 2%. We observe few differences between qualitative and quantitative articles with mixed methods articles being the most likely to include a race missing category.

We present the trends for the two or more races category in Table 7. While 14% of articles included any two or more races category, the majority of mentions in this category are "Multiracial" at 9%. Unlike most of the other categories, use of any term for the two or more races category consistently increases from 2014 (whereas the other categories generally increase but do have periods of decrease). Similar to the Latinx category, AERA Open articles have the largest share of terms for the two or more races category. Qualitative articles are most likely to mention any two or more races category, although qualitative and quantitative articles have similar proportions using the term "Multiracial".

The results for the final category, White, are presented in Table 8. Overall, 64% of articles use any White term, with the majority term being "White" (61%) as compared to "Caucasian" (6%), "Non-Hispanic" (5%), and "European" (2%). This increase is concentrated among the terms "White" and "Non-Hispanic" with no consistent changes in the use of "Caucasian" and "European." As shown in Figure 3, the use of any White term has increased

over time, with AERJ and AERA Open publishing the largest shares of articles with any White term (81% and 77%). Similar to the overall use of any racial term, qualitative and mixed methods research use White terms more frequently than quantitative research. Similar to some of the other racial categories, while most of the White category terms are less frequently used in quantitative research, "Non-Hispanic" is used more frequently in quantitative and mixed methods research than qualitative (5% for both compared to 2%).

Discussion

In this study, we conducted an analysis of how education researchers used racial terminology in published, peer-reviewed studies appearing in five AERA journals between 2009 and 2019. Based on the findings described above, we now highlight the complexities and overall contributions of the study. We organize the discussion around trends over time, less common terminology, how our findings relate to the Census, and differences across journals. Throughout the discussion, we rely on our conceptual framework on the construction of racial categorization to explain how our observations on researchers' use of racial terminology could be driven by political movements and the larger national social context.

This discussion of results has several inherent limitations to consider when interpreting our findings. First, we can only observe what authors wrote in the final publication. In other words, we do not observe their data or their original manuscript prior to the revision process. We do not know if the language we observe is a result of decisions during data collection that might not have been within the control of the authors. It is also possible that racial category language is influenced by the revision process such that the authors might have preferred different terminology than what was published. Second, our findings could be partially a reflection of journal word limits. AERJ accepting the longest manuscripts could mean more space for

including discussion of racial categories even if they are not a core aspect of the analysis. In journals like ER and AERA Open that accept shorter articles, these terms might only appear in supplementary material (which we did not analyze). We did not specifically measure the density or quality of discussion or use of racial category terminology, so the higher rate of racial category usage in AERJ could reflect room for longer tables that include covariates. Other journals could plausibly include a higher density of articles that authentically engage in discussions on racial categorization, which would not have been captured in our coding framework.

Trends in Categorical Usage Over Time

There is much to learn from the trends in the usage of particular racial categories. We found an overall increase over time in term usage across all categories. All categories seem to match a similar upward trend, with fluctuations over time. However, the two or more races category uniquely shows a consistent upward trajectory post-2013. Given the fact that it was not until 2010-11 that the U.S. Department of Education mandated institutional data collection to meet OMB Directive 15 guidelines for allowing students to report two or more races (Renn, 2009), perhaps this distinct trend is because of the potential lag in getting these data (or even data from the 2010 U.S. Census), before then moving toward publication. Moreover, the trend likely also reflects a steady increase in the representation of and consciousness around multiracial people across education (Harris, 2016; Howard, 2018), even with continued debate about the utility of such grouping for civil rights laws (Hernández, 2018). One additional insight is that "Multiracial" is the most used term within two or more races, which proves interesting given that naming practices are widely contested for this group. For example, some multiracial people

identify as mixed, biracial, or more specifically as Blasian (i.e., Black and Asian), Mexipina (i.e., Mexican and Filipina), etc.

Our findings also documented a trend in various categories used to describe Black populations, with a steady increase in the specific term "Black", while African American decreased over the analytical time period. This trend aligns with increasing consciousness around racial injustice and solidarity among Black peoples across the diaspora, especially as recent immigrants from the African continent and Caribbean, for instance, might see themselves as Black but not African American (Fries-Britt et al., 2014).

Similarly, the gender-expansive term "Latinx" first appeared in AERA journals in 2016 where only 2.05% of articles included it. By 2019, "Latinx" skyrocketed to 17.1% appearance across all journals except for JEBS, along with a substantial increase in the usage of other gender-neutral terms like Latin@. Our findings do not suggest that these gender-expansive terms are necessarily replacing other terms representing Hispanic/Latino groups as "Hispanic" has also increased and "Latino" has held steady across the ten years.

Relatedly, we found a general upward trend in use of any White category, from 53.3% in 2009 to 73.6% in 2019. Though this matches the general trend in all categories increasing, we highlight the importance of naming White/Whiteness as a racial category instead of deeming it the default or norm (Sue, 2004).

Lower Frequency Terminology

We highlight the significantly fewer articles in our dataset that engaged with the Asian/Pacific Islander, Indigenous, two or more races, and race missing categories. This lack could be reflective of demographic representation or a function of the prominence of the Black-White binary, though, with the increase in Latinx category usage, this raises a concern about

prioritization of different racialized groups of people in research in education. The model minority myth that Asian Americans (and Pacific Islanders as a result of collapsing groups together) are widely successful (Jang, 2018) may contribute to a larger narrative that research is not necessarily needed to support this community (when compared to others). Moreover, Indigenous population sizes have often relegated them to being merely an asterisk in research studies noting that their small sample size precludes them from being separated out in the analysis (Shotton et al., 2012), further emphasizing the colonial erasure of Indigenous peoples in education research.

Our findings show that the percentage of articles engaging the "race missing" category is *incredibly* small. This low engagement could be because, within the K-12 education administrative data landscape, there are no missing race or unknown students (Ford, 2019). Ford (2019) explained how school administrators must assign a racial category (through observer-identification) to students if they do not provide a racial self-identification. Yet, within the higher education sector, "race unknown" students are often clustered at the most and least selective institutions (Ford et al., 2021; Ford et al., 2022). More research is needed to understand the individual-level motivations and incentives for opting out, as well as the organizational practices of collecting/reporting data. For instance, Renn (2004) found a pattern of multiracial identity termed "extraracial", where students were opting out of racial categorization in an attempt to deconstruct race and exist beyond racial categories. However, other research suggests the race unknown category for college students is largely White students (e.g., Ford & Holland, 2020), which may signify a desire to distance oneself from Whiteness or lack of knowledge that "White" is a racial identity.

While the term is not extremely popular, appearing in about 5% of published educational research, the continual use of the term "Caucasian" is troubling given we know that "Caucasian" has a problematic history rooted in White supremacy. Mukhopadhyay (2018) traced the origins of this term to 18th Century Europeans desiring to classify peoples in an emerging "racial science" with Johann Blumenbach popularizing the term for Europeans to have origins in the Caucasus mountains because he saw the light-skinned people of this region as the most beautiful and ideal type of humans (in "God's image"). Blumenbach attributed value and character to these groupings which emboldened the racial hierarchy with "Caucasians" on top and all others denigrated.

In the US, key legal battles around which peoples could hold citizenship eventually led to "Caucasian" not just being a sociopolitical category, but a legal one with much consequence. The early 1920s U.S. Supreme Court cases *Ozawa v. United States* and *United States v. Thind* demonstrate the variability of justifications used to police and solidify the boundaries of Whiteness. While Japanese-born Takao Ozawa was denied naturalization because, despite his white skin color, his race was not deemed "Caucasian," the court later ruled against Bhagat Singh Thind that despite his "Caucasian" or Aryan origins, his brown skin meant he was not white (Haney López, 1997). Though the term "Caucasian" has been popularized as a polite or scientific term (Saini, 2019), it is likely that people who continue to conduct research using this term have little to no idea of its racist history. However, much more consciousness has been raised about the term and calls to discontinue its usage in alignment with a broadening body of Critical Whiteness Studies (Matias & Boucher, 2021) that spotlights power dynamics associated with whiteness. More attention is needed among education researchers to expose this term's racist pseudoscience origins in order to spur the discontinuation of its usage.

Following (or not) Census Categories

We found that "Non-Hispanic" was used more often as a qualifier when describing White categories (4.5%) and, to a lesser extent, Black categories (2.1%). Though this practice seems like an accurate reflection of the specific issues related to the two-part Hispanic ethnicity vs. race question used by the Census, it also, in some ways, mimics the policing of the boundaries of Whiteness and who counts as White; especially since we observed less use of the preface "Non-Hispanic" with Black populations despite warranting further nuance for AfroLatinx people (Dache et al., 2019). Moreover, the miniscule usage of "Non-Hispanic" with various Asian and Pacific Islander or Indigenous categories needs more attention. This dichotomy could lead to erasure of those who are both Hispanic and Asian and Pacific Islander or Indigenous. For instance, many Latin American countries have had long histories of immigration from Asian countries (e.g., Japanese in Peru; Filipinos in Mexico; Hu-DeHart & López, 2008). How can our current understandings of racial categories better capture this population? Moreover, how do the current racial categories reveal a more extensive history as well as the longstanding effects of colonization in education?

The finding that "Non-Hispanic" is primarily used by quantitative and mixed-methods researchers across all racial groups is also important to note. This is most likely because of alignment with how the U.S. Census collects its survey data given the separated Hispanic ethnicity vs. race questions. For qualitative research, this modifier of "non-Hispanic" may not be needed (and looks to not be used as often), illuminating the intricacies of racial category terms and the variability in usage, methodologically. For instance, "Hispanic" is used more in quantitative (52.22%) than qualitative (37.44%) studies while "Latinx" is used more in qualitative (8.72%) than quantitative (2.37%) studies. As mentioned above, the specific term

"Latinx" is becoming more widely used across education and in popular culture (Salinas, 2020), while there has also been some recent pushback. Given that the origins of the term Latinx are in Latin America, people in the U.S. may not as easily recognize or accept it. For instance, Pew researchers found that though 23% of surveyed Hispanics had heard of the term, only 3% used it to describe themselves (Noe-Bustamente et al., 2020). Moreover, there have been critiques that Latinx is unpronounceable in Spanish or is an elite term used by academics, despite its origins being from community activists and many users recognizing the "x" as relating more to their Indigenous roots (Salinas, 2020). Our study shows the large increase in both Latinx and genderneutral terms in 2019, demonstrating that researchers likely desire to recognize more expansive notions of gender yet do not find "Hispanic" as a good alternative (Viano & Baker, 2020). It will be interesting to see how this trend continues, or if Latinx might be replaced with Salinas' (2020) recommendation of Latin* or Latine (an option reflecting Spanish grammar conventions; Slemp, 2020), as more inclusive and disruptive alternatives, especially as identities become further negotiated.

Overall, the wide variability in usage of different categories suggests that education researchers are not actually strictly following the Census categories. Instead, it is more likely that they are sticking closely to the categories used on various surveys, some of which align with the Census while others may not. Yet, researchers have the ability to change the categories they use to better align with the lived experiences of minoritized people. For example, the Census does not use "Caucasian", yet this term continues to be used in education research.

Journal Differences – Why is JEBS an Outlier?

Our study found differences across journals in usage of different racial terms despite all being educational research journals within the same professional association (AERA). AERA Open published the largest share of articles mentioning any Latinx term, and specifically "Latinx." AERA Open articles also had the largest share of terms for the two or more races category, as well as the specific terms American Indian, Alaska Native, Native Hawaiian, Pacific Islander, and Multiracial. Given the open access nature of AERA Open, along with generally quicker review times, it may allow unique opportunities to more quickly adapt to changes in terminology. AERJ generally had the most racial term use except for Latinx, two or more, and "race missing" groups. Future studies could explore potential reasons for these differences like editorial board demographics or the "editor statements" that are published in the journals.

By not naming racial categories, education research tends to take a color evasive (Annamma et al., 2017) approach. This perspective might explain why JEBS had low rates of usage of racial categories. However, this approach perpetuates the false ideas that statistics is objective and neutral (Gillborn et al., 2018; Zuberi, 2001) when, in fact, statistics was born out of the 19th century eugenics movement (Saini, 2019; Zuberi, 2001; Zuberi & Bonilla-Silva, 2008). Social science research has a troubling history of using statistics to reinforce racial hierarchy with many core tools of educational psychology and statistics (e.g., IQ tests), created by eugenicists, still in use today (Zuberi & Bonilla-Silva, 2008). As long as educational and behavioral statistics ignore this problematic history by maintaining a false stance of neutrality, so will continue the complicated history and the legacy pushed onto non-White bodies as well as perpetuating the commodification and, in this case, the erasure of racial categories.

Conclusion

This study unveils the usage of racial categorization in high-profile, published educational research, and, in doing so, uncovers several key findings related to changes in language usage, differences across journal/methodology, and growth areas for future published

research. To the extent that the lack of discussion of racial category terminology in educational research has led to problems like the continued use of "Caucasian" or the low rates of using terms related to two or more races, Indigenous, and missing race categories, this study opens the door for more careful reflection on what is included and excluded in our empirical writing. Future research on racial categorization in published educational research could delve deeper into the density of discussion on racial categorization, the research interests/affiliations of writers, and include a wider set of journals. We are encouraged by many of the trends we observe in this study related to higher usage of racial categories. Still, without future research, it remains unclear whether shifts in language use are happening concurrent to shifts in deep engagement with the constructs of race and racism. Understanding how racialization occurs within published education research can hopefully lead to better field-wide norms on how to approach conducting and publishing research, which might then create better research evidence that can be more easily used by practitioners and policy actors.

We know that questioning the use of various categorical terms does not necessarily connect to the material realities of racial disparities in education. Categories provide opportunities for pride, community building, solidarity, and coalitions across minoritized racial groups. However, we simultaneously acknowledge how these racial categories are rooted in White supremacy and an oppressive legacy, thus perpetuating systems of power in education research. Researchers must apply stewardship in research design decision points regarding identity category and term usage.

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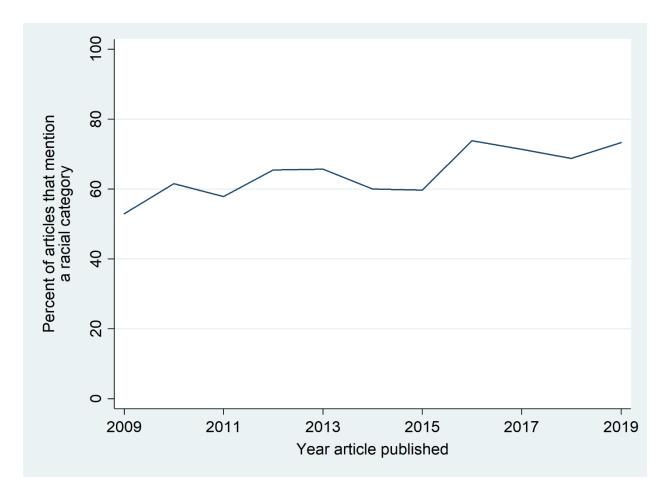
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Figure 1. Percentage of articles that use at least one racial term over time



Note: Overall annual percentage of empirical articles that mention any racial category by publication year.

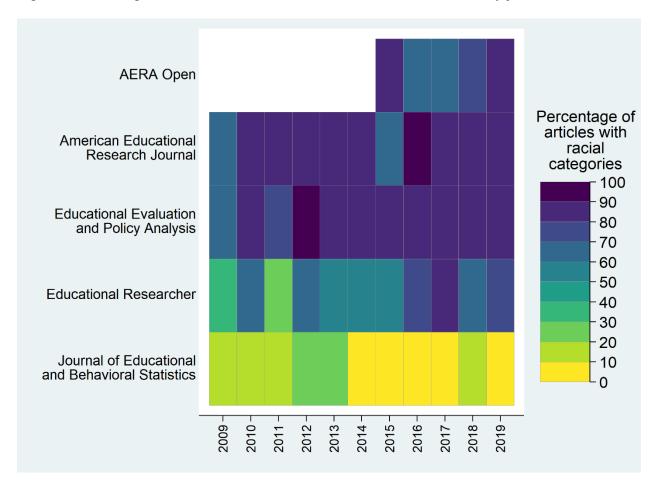


Figure 2. Percentage of articles that use at least one racial term over time by journal

Note: Rows are separated by journal. Columns are separated by publication year. Cell color gradient visually represents the percentage of articles within the respective journal and year that mention any racial category. AERA Open publishes its first article in 2015.

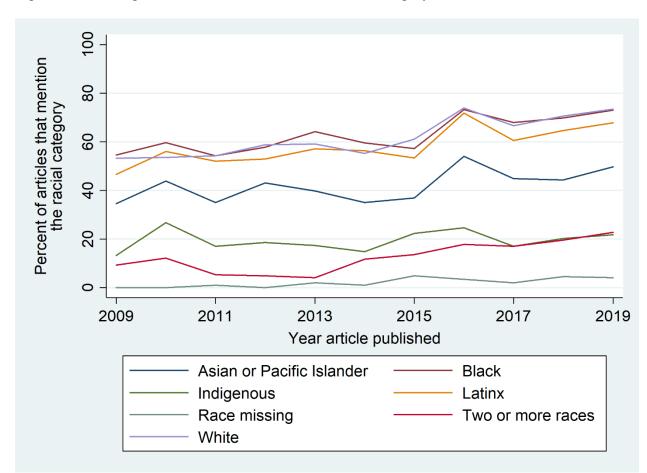


Figure 3. Percentage of articles that mention each racial category

Note: Overall annual percentage of empirical articles that mention each respective racial category (listed in alphabetical order) by publication year.

Table 1. Analytical Categories

	Asian or Pacific Islander	Black	Indigenous	Latinx	Missing	Two or more	White
1	Any Asian or Pacific Islander category is used	any Black category is used	Any Indigenous category is used	Any Latinx category is used	Any race missing category is used	Any two or more races category is used	any White category is used
2	"Asian" is used	"Black" is used	"Native American" is used	"Hispanic" is used	"unknown" is used	"Two or more races" is used	"White" is used
3	"Asian American" is used	"African American" is used	"American Indian" is used	"Latino" is used	"missing" is used	"Mixed race" is used	"Caucasian" is used
4	"Native Hawaiian" or "Hawaiian" is used	"Non- Hispanic" is used	"Alaska Native" or "Alaskan Native" is used	"Latinx" is used	Decline to report term is used	"Multiracial" is used	"Non-Hispanic" is used
5	"Pacific Islander" is used		"Indigenous" is used	Gender expansive term is used		"Multiethnic" is used	"eur" is used (for European or Eurasian)
6	"Non-Hispanic" is used		"Non-Hispanic" is used				,
7	Ethnic group, nationality or region is used		d A : D :C :			C II	71

Note: For region or country within the Asian or Pacific Islander category, we included the following options: Vietnamese, Filipino, Chinese, Japanese, Korean, Malay, Indian, east, south, Hmong, Aleutian, Lao, Maori, Nepalese, Bengali, Pakistani, Sri Lankan, Cambodian, Guamanian, Thai, Indonesian, Fijian, Marshallese, Polynesian, Tahitian, Samoan, and Desi. For gender expansive terms within the Latinx category, we included the following options: Latino/a, Latino(a), Latinas(os), Latino/a/x, Latina/o, Latinas/Latinos, Latinos/as, and Latinos/Latinas. For decline to report terms within the missing category, we included the following options: decline, respond (e.g., did not respond or not responding), prefer (e.g., prefer not to say), indicate (e.g., not indicated), not report (e.g., not reported), and not provided. We determined the options based on the coded responses for the articles included in the sample.

Table 2. Term use for the Asian or Pacific Islander category

	Any Asian or						Educia anno /
	Pacific Islander		Asian	Native	Pacific	Non-	Ethnic group/ nationality/
	category	Asian	American	Hawaiian	Islander	Hispanic	region
Overall	43.33	42.38	8.13	3.55	11.05	0.47	2.92
2009	34.67	34.67	6.67	0	4	1.33	2.67
2010	43.9	43.9	12.2	1.22	15.85	0	1.22
2011	35.11	34.04	8.51	1.06	7.45	0	3.19
2012	43.14	43.14	5.88	0.98	9.8	0	5.88
2013	39.8	38.78	10.2	3.06	8.16	2.04	4.08
2014	35.11	34.04	5.32	1.06	6.38	0	2.13
2015	36.89	34.95	4.85	2.91	9.71	0	2.91
2016	54.11	52.74	11.64	3.42	12.33	0.68	5.48
2017	44.9	43.54	7.48	6.12	9.52	0	2.04
2018	44.36	42.86	7.52	4.51	15.79	0	2.26
2019	49.74	49.22	8.29	7.77	15.54	1.04	1.04
Journal							
AERA Open	54.45	54.45	8.9	7.85	18.32	1.57	0.52
AERJ	58.15	55.64	14.79	4.26	13.53	0.75	6.52
EEPA	47.39	46.64	4.48	1.12	8.96	0	1.87
ER	39.67	39.67	7.07	5.43	12.5	0	2.72
JEBS	5.78	5.78	0.89	0	1.78	0	0
Method							
Qualitative	44.62	41.54	12.82	2.56	9.23	0	7.69
Quantitative	43.44	42.84	7.31	3.85	11.55	0.59	2.17
Mixed	35.71	35.71	7.14	1.79	5.36	0	0

Table 3. Term use for the Black category

	Any			
	Black		African	Non-
	category	Black	American	Hispanic
Overall	64.64	50.91	36.46	2.05
2009	54.67	36	40	1.33
2010	59.76	47.56	42.68	2.44
2011	54.26	38.3	36.17	0
2012	57.84	43.14	33.33	1.96
2013	64.29	50	39.8	2.04
2014	59.57	44.68	31.91	1.06
2015	57.28	43.69	32.04	1.94
2016	73.29	56.16	39.73	3.42
2017	68.03	53.74	37.41	0
2018	69.92	60.9	28.57	4.51
2019	73.06	62.69	39.38	2.59
Journal				
AERA Open	77.49	64.4	39.27	5.76
AERJ	80.7	58.4	56.64	1.75
EEPA	77.99	63.81	37.69	0.37
ER	59.78	51.63	26.63	2.17
JEBS	13.33	10.22	4.89	1.33
Method				
Qualitative	69.23	47.69	60.51	0.51
Quantitative	63.57	51.73	31.39	2.37
Mixed	67.86	46.43	44.64	1.79

Table 4. Term use for the Indigenous category

	Any					
	Indigenous	Native	American	Alaskan		Non-
	category	American	Indian	Native	Indigenous	Hispanic
Overall	19.81	10.81	10.26	5.13	0.32	0.16
2009	13.33	9.33	5.33	2.67	0	0
2010	26.83	15.85	15.85	6.1	0	0
2011	17.02	11.7	5.32	0	0	0
2012	18.63	10.78	9.8	5.88	0	0
2013	17.35	11.22	8.16	3.06	0	1.02
2014	14.89	9.57	5.32	1.06	0	0
2015	22.33	12.62	9.71	3.88	0	0
2016	24.66	11.64	12.33	6.85	1.37	0
2017	17.01	9.52	8.84	6.8	0	0
2018	20.3	7.52	13.53	7.52	0.75	0
2019	21.76	10.88	13.47	7.25	0.52	0.52
Journal						
AERA Open	22.51	8.9	15.18	9.42	0.52	0.52
AERJ	26.57	16.79	12.78	5.76	0.75	0.25
EEPA	20.52	12.31	7.46	2.99	0	0
ER	20.11	8.15	13.59	7.61	0	0
JEBS	4.44	2.22	2.22	0.89	0	0
Method						
Qualitative	20.51	14.36	7.69	3.59	2.05	0
Quantitative	19.64	10.17	10.76	5.43	0	0.2
Mixed	17.86	10.71	7.14	1.79	0	0

Table 5. Term use for the Latinx category

	Any				Candan
	Latinx	***	.	.	Gender
	category	Hispanic	Latino	Latinx	Expansive
Overall	59.91	49.49	22.65	3.39	6.08
2009	46.67	37.33	16	0	2.67
2010	56.1	52.44	23.17	0	2.44
2011	52.13	43.62	24.47	0	3.19
2012	52.94	45.1	17.65	0	3.92
2013	57.14	48.98	20.41	0	4.08
2014	56.38	41.49	22.34	0	4.26
2015	53.4	39.81	21.36	0	2.91
2016	71.92	60.96	25.34	2.05	5.48
2017	60.54	52.38	23.81	2.04	2.72
2018	64.66	55.64	21.8	3.01	3.76
2019	67.88	52.33	26.42	17.1	19.69
Journal					
AERA Open	76.44	69.11	21.99	8.38	10.47
AERJ	74.19	53.63	40.85	5.51	9.77
EEPA	72.39	65.3	18.28	1.12	1.87
ER	53.8	45.11	16.85	1.09	7.07
JEBS	10.67	10.22	0.89	0	0
Method					
Qualitative	56.92	37.44	40.51	8.72	12.31
Quantitative	60.61	52.22	18.85	2.37	4.74
Mixed	57.14	41.07	30.36	3.57	8.93

Table 6. Term use for the race missing category

	Any			
	race			
	missing	Race	Race	Decline/No
	category	unknown	missing	Response
Overall	2.45	1.1	0.63	0.95
2009	0	0	0	0
2010	0	0	0	0
2011	1.06	1.06	0	0
2012	0	0	0	0
2013	2.04	1.02	1.02	0
2014	1.06	1.06	0	0
2015	4.85	2.91	0.97	0.97
2016	3.42	0.68	0.68	2.05
2017	2.04	0.68	0.68	0.68
2018	4.51	2.26	1.5	0.75
2019	4.15	1.55	1.04	3.11
Journal				
AERA Open	4.19	1.57	1.05	1.57
AERJ	2.51	0.75	0.75	1.5
EEPA	2.61	1.49	0.75	0.37
ER	2.72	2.17	0	1.09
JEBS	0.44	0	0.44	0
Method				
Qualitative	1.54	1.54	0.51	0
Quantitative	2.47	0.99	0.69	0.99
Mixed	5.36	1.79	0	3.57

Table 7. Term use for the two or more races category

	Any two or	Two or	Mixed		
	more races category	more races	race	Multiracial	Multiethnic
Overall	13.97	1.97	1.58	8.68	1.26
2009	9.33	0	2.67	4	0
2010	12.2	1.22	1.22	6.1	2.44
2010	5.32	0	1.06	5.32	1.06
2012	4.9	0	0	4.9	0
2013	4.08	0	0	4.08	0
2014	11.7	0	2.13	6.38	1.06
2015	13.59	0.97	1.94	9.71	1.94
2016	17.81	1.37	2.74	9.59	1.37
2017	17.01	2.72	0	10.88	0
2018	19.55	5.26	1.5	12.78	1.5
2019	22.8	5.18	3.11	12.95	3.11
Journal					
AERA Open	26.7	5.24	2.62	15.18	2.62
AERJ	20.05	2.51	3.26	12.03	2.26
EEPA	8.58	0.75	0.37	6.72	0
ER	11.41	1.63	0.54	7.61	1.09
JEBS	0.89	0	0	0.44	0
Method					
Qualitative	18.46	3.59	3.08	8.21	2.56
Quantitative	13.13	1.68	1.28	8.98	1.09
Mixed	12.5	1.79	1.79	5.36	0

Table 8. Term use for the White category

	Any				
	White			Non-	
	category	White	Caucasian	Hispanic	European
Overall	63.93	60.77	5.76	4.5	1.66
2009	53.33	52	5.33	1.33	0
2010	53.66	52.44	4.88	4.88	2.44
2011	54.26	46.81	8.51	2.13	1.06
2012	58.82	54.9	6.86	3.92	1.96
2013	59.18	54.08	7.14	4.08	2.04
2014	55.32	52.13	3.19	2.13	3.19
2015	61.17	59.22	2.91	0.97	1.94
2016	73.97	70.55	6.16	9.59	4.11
2017	66.67	64.63	4.08	2.72	0.68
2018	70.68	66.92	8.27	7.52	0
2019	73.58	71.5	5.7	5.7	1.04
Journal					
AERA Open	77.49	73.3	7.85	8.38	1.57
AERJ	81.45	75.44	10.03	5.76	4.26
EEPA	73.13	72.39	2.99	1.49	0
ER	61.96	59.78	4.89	4.89	0
JEBS	12	11.11	0.44	2.22	0.44
Method					
Qualitative	69.74	65.64	7.18	2.05	5.13
Quantitative	62.69	59.62	5.33	4.94	0.99
Mixed	66.07	64.29	8.93	5.36	1.79

Appendix

Coding frame for data collection.

Question	Rules for responses
Article ID (assigned to articles prior to coding)	Free response
Does this article include original empirical research (i.e., should it be included or not)?	YES=Continue survey NO=Ends survey
Journal name	American Educational Research Journal Educational Researcher AERA Open Journal of Educational and Behavioral Statistics Educational Evaluation and Policy Analysis
Title	Free response
Key words	Free response
Year published	2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019
Year accepted	AERA Open article: No date is given 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016

	2017 2018 2019
Full name of first author	Free response
Academic affiliation (dept/program/center) of first author from the bio. Include the university if it is there.	Free response
Specialization of first author – copy and paste the words describing their research focus/interests from the bio.	Free response
Is this study qual/quant/mixed methods?	Quantitative Qualitative Mixed Methods Other=Free response
If it's a quantitative study: name of dataset	Free response
Race/ethnicity category(ies) for White	White Caucasian N/A Other=Free response
Race/ethnicity category(ies) for Black	Black African American Afro American Negro N/A Other=Free response
Race/ethnicity category(ies) for Asian and Pacific Islander	Asian Asian American Native Hawaiian Pacific Islander N/A Other=Free response

Race/ethnicity category(ies) for Native American	Native American American Indian Alaska(n) Native N/A Other=Free response
Race/ethnicity category(ies) for Latinx	Hispanic Latino Latinx N/A Other=Free response
Race/ethnicity category(ies) for two or more races	Two or more races Mixed race Multiracial Multiethnic N/A Other=Free response
Race/ethnicity category(ies) for missing/unknown	Race unknown Race missing N/A Other=Free response
Does the article use the term "under-represented"	Yes No Other=Free response
Does the article use the term "minority" in reference to racial minorities?	Yes No Other=Free response
Does the article use the term "non-White"?	Yes No Other=Free response

Does the article use the term "of color"?	Yes No Other=Free response
Does the article use the term "Latinx"?	Yes No Other=Free response
International populations included in the study?	Yes No
Name the international populations studied	Free response
Notes/Observations	Free response