News media plays a crucial role in the student loan policy ecosystem by influencing how policymakers and the public understand the “problem” of student loans. Prior research emphasizes the causal impact of the media on the social construction of policy issues and the lack of knowledge about the authors of news articles. Theory also suggests that it is more difficult for new information to reach people in the core of a social network given their insular relationships. Therefore, we used social network analysis to investigate the college backgrounds for authors of student loan articles published in eight prominent newspapers between 2006 and 2021. We found evidence of a stark status hierarchy among the colleges attended (e.g., over half of the authors attended an Ivy Plus or Public Flagship institution). Our findings also identified a negative relationship between that hierarchy and an innovative practice, the use of racialized language in student loan news articles. We discuss how this status hierarchy might explain current patterns of racialized language in student loan policy and the implications of this relationship for the intersection of status and novel practices.
(Pay)Walled Gardens: Status and Racialized Discourse Among Authors of Student Loan News Articles
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Abstract

News media plays a crucial role in the student loan policy ecosystem by influencing how policymakers and the public understand the “problem” of student loans. Prior research emphasizes the causal impact of the media on the social construction of policy issues and the lack of knowledge about the authors of news articles. Theory also suggests that it is more difficult for new information to reach people in the core of a social network given their insular relationships. Therefore, we used social network analysis to investigate the college backgrounds for authors of student loan articles published in eight prominent newspapers between 2006 and 2021. We found evidence of a stark status hierarchy among the colleges attended (e.g., over half of the authors attended an Ivy Plus or Public Flagship institution). Our findings also identified a negative relationship between that hierarchy and an innovative practice, the use of racialized language in student loan news articles. We discuss how this status hierarchy might explain current patterns of racialized language in student loan policy and the implications of this relationship for the intersection of status and novel practices.
(Pay)Walled Gardens: Status and Racialized Discourse Among Authors of Student Loan News Articles

Introduction

For decades, policymakers and researchers treated student loans as a race-neutral policy issue, which shaped the understanding of the “problem” and its potential solutions (Taliaferro et al. 2021). More recently, a coalition of researchers and activists have been able to successfully argue that student loans have racialized impacts that affect students of color, particularly Black students, in an especially adverse manner (e.g., Addo et al. 2016; Baker 2019b; Houle and Addo 2019; Seamster and Charron-Chénier 2017). Elevated rates of student loan debt are associated with challenges like higher financial stress (Martin and Dwyer 2021) and impede wealth generation opportunities such as homeownership (Houle and Warner 2017; Mezza et al. 2020).

The disparate experiences of students of color stem from centuries of deliberate policy actions from all levels of government (e.g., Katznelson, 2005; Shermer, 2021). This recent focus on the racialized aspects of student loans has led to significant shifts in federal policy efforts, including the Biden-Harris Administration’s announcement of a debt cancellation plan (White House 2022), which the Supreme Court of the United States struck down in July 2023. Had the racialized nature of student loans been taken seriously earlier, policy changes might have been implemented to help ameliorate the harms borrowers have faced.

News media plays a key role informing the general public and policymakers on the racialization of student debt, which can then influence how public opinion is formed by establishing what knowledge is reported, preserved, organized, and transmitted (Park 1940; Swidler and Arditi 1994). The content and framing of news articles can translate into substantive changes in public perceptions of policy issues. Perhaps the most compelling evidence on this point comes from Djourelova (2023), who provided causal evidence that the Associated Press’s
ban on the inflammatory and prejudicial phrase “illegal immigrant” led to a decrease in support for restrictive immigration policies among the general public. Similarly, in their study of 40 U.S. newspapers’ framing of racial/ethnic health disparities over nearly a decade, Kim and colleagues (2010) identified news coverage as a form of agenda-setting for policymaking. They found that the articles predominantly framed racial/ethnic disparities in terms of behavioral choices, constraining public support for policy interventions to address other more systematic explanations (e.g., healthcare access and other societal-level factors). Such findings reinforce the power of the media as a policy actor in its own right (Curran et al. 2022; Duxbury 2023), though we note that public policy decisions can also influence what the news chooses to cover (Yuan et al. 2023).

While the racialization of student loans maintains structural racism, most research ignores the independent role the media plays in shaping the social construction of the policy area. One exception is our prior paper, which found that only 18% of articles about student loans in eight major newspapers used any racialized language terms—phrases explicitly referring to race or racism—between 2006 and 2021 (Baker et al. 2023). Prior to a rapid expansion beginning in 2018, the use of racialized language terms was even scarcer: less than 10% of articles included a racialized language term as recently as 2017. When racialized language was used, it was primarily to compare groups of people (instead of explaining larger structural issues), aligning with Bonilla-Silva’s (2014) color-evasive racism.¹ Due to the unique relationship Black students have with the student loan system, the most frequently invoked racialized terms were those referring to Black individuals, which occurred in 8% of articles. Meanwhile, less than 1% of articles referred to structural issues such as racism and racial equity.

¹ We use to phrase “color-evasive racism” to remove ableist references to the ability to see.
Still, news articles do not write themselves. There are a number of indications that a disproportionate reliance on staff with high-status educational credentials can have material implications for the content in prominent media outlets.\textsuperscript{2} For instance, in 2013, the *New York Times* published more articles mentioning Harvard University than all community colleges combined (Nelson 2014). Such findings are in keeping with Usher (2021), who outlined the ways in which prevailing practices at these prominent outlets have shifted coverage to emphasize topics that appeal to generalized wealthy, White audiences. As they seek to maintain ongoing cultural influence amid declining readership, these newsrooms focus less on events within their geographic market and instead produce content to appeal to a “placeless” (White) reader (Usher 2021).

Anticipating that authors’ own college experiences helped shape their understanding of student loans, we examine the college backgrounds of authors, who play a critical role in determining the content of news articles about student loans.\textsuperscript{3} This paper examines the social network of the colleges attended by student loan news article authors in order to investigate whether a status hierarchy exists within these colleges and, if so, whether this status hierarchy relates to an innovative practice within student loan articles: the use of racialized language. As scholars have theorized (e.g., Bienenstock and Bonacich 2022), higher-status actors may struggle or delay adoption of novel practices due, in part, to their insular social networks. Our work tests that theorized relationship using a dataset developed using natural language processing and social network analysis.

\textsuperscript{2} We use the term “status” to refer to perceptions, which do not automatically equate to differences in quality. Existing literature often employs a range of terms, such as “elite,” “high status” or “prestigious,” for institutions or persons perceived as most reputable. Although the literature uses these terms somewhat interchangeably, we employ the phrase “high status” throughout this paper to facilitate coherence.

\textsuperscript{3} We acknowledge that authors are not the sole arbiters of a published news article (e.g., there are several rounds of editorial review before newspapers publish an article). Still, authors play a disproportionate role in the idea formation, writing, and overall framing of articles.
We construct networks based on the college attendance of “student loan” authors, defined as authors who wrote at least three articles in our corpus of nearly 9,000 student loan news articles published from 2006 to 2021 in eight U.S. newspapers (top five for circulation and top five for number of Black residents, with some overlap). Prior research from Wai and Perina (2018) examined a convenience sample of employees at the New York Times and the Wall Street Journal using LinkedIn search data and found severe disparities in the status of colleges attended between employees and the broader public. This paper builds upon that work by expanding to examine a longitudinal set of authors (instead of a single point in time) and also by focusing on the educational background of authors for a single topic: student loans. This latter point is particularly important given that authors’ college experiences likely have a stronger relationship with the framing and language used within student loan news articles than they would to articles on topics that are less explicitly connected to higher education (e.g., war and armed conflict).

We melded several descriptive analysis methods (simple comparisons, sociograms, concentration statistics for network centrality, and multiple linear regression) to explore the status hierarchy of authors’ colleges and how that relates to the novel practice of incorporating racialized language into the news articles. We found evidence of a stark status hierarchy among the colleges attended, with over half the authors having attended an “Ivy Plus” or Public Flagship institution. Aligning with that status hierarchy, across several methods we found clear indicators that the overwhelmingly majority of authors attended institutions with low reliance on undergraduate student loans. In contrast, these authors appeared to attend expensive graduate programs that likely required substantial reliance on graduate student loans. Based on homophilous relationship sorting (e.g., Bryer 2022; McPherson et al. 2001), it is likely that authors’ larger social networks of friends, family, and colleagues also did not have significant
experiences with undergraduate student loans. This imbalance appears to have a relationship with the language used in student loan news articles, as authors with higher status (in the core of the social network) used racialized language in a smaller percentage of their student loan news articles. Therefore, the status of authors’ institutions may have buffered the authors from personal experience with certain types of student loans, which in turn relates to their (in)attention to the racialized aspects of student loans.

We do not argue that our research is causal. Instead, we seek to bring attention to the likelihood that the status hierarchy of authors’ colleges plays a role in the news that informs policymakers and the public on student loans and likely other policy topics. It matters that student loan news article authors attended institutions with exceptionally low levels of undergraduate loan reliance. The media plays a central role in influencing the creation of and communication about policy. Our work takes that role seriously and hopes to provide others with potential avenues to analyze policy and the media while also providing recommendations for improving the larger policy ecosystem. In the following sections, we review the prior work on status hierarchies in higher education, highlight the theorized relationship between status and novel practices, detail our research methods, and conclude with the results and discussion of how they relate to the larger literature base.

**Status Hierarchies in Higher Education**

This section provides an overview of status hierarchies within higher education broadly and journalism more specifically. As the “position in a social hierarchy that results from accumulated acts of deference” (Sauder, Lynn, and Podolny 2012, p. 268), status is rooted in the esteem that others voluntarily provide. Status is a socially constructed attribute that is continuously reevaluated based on evolving norms and beliefs within social contexts (Ridgeway
and Markus 2022). Although status is fundamentally distinct from quality, an extensive body of research has demonstrated that key actors are inclined to infer quality based on status when quality is difficult to gauge (Correll et al. 2017; Podolny 1993; Sauder, Lynn, and Podolny 2012). In such contexts, high-status actors have been shown to receive disproportionate rewards (Accominotti et al. 2022).

In this study, we focus on status in the highly contested arena of higher education, which has strong hierarchies among colleges and universities. Institutions afforded the highest status tend to have substantial financial resources, exclusive admissions practices, and strong research orientations (Byrd, Cantwell, and Baizhanov Under Review). The highest-status universities, such as Ivy Plus institutions and Public Flagship universities, enroll students with substantially greater financial resources than the population overall (Chetty et al. 2020). Several dozen also offer no-loan guarantees to the students they admit, made possible because of their considerable financial resources (Bennett, Evans, and Marsicano 2021). Further, higher education institutions are racialized organizations, with institutions focused on serving Black students seen as lower status and less worthy of financial support (Ray 2019). Combined, these factors lead to comparatively low rates of student loan borrowing among undergraduates at the highest-status universities in the U.S., while institutions that focus on educating non-White students, especially Black students, require larger reliance on student loans.

Faculty hiring trends present a valuable opportunity to assess relative status, since it reveals the universities whose graduates an individual institution chooses to hire for its own faculty. Examining the hiring network of nearly 19,000 tenure-track faculty, Clauset and colleagues (2015) identified a steep status hierarchy based on hiring patterns. They found that only 9-14% of faculty members were placed at a university with higher status than their
doctorate-granting institution and that 71-86% of faculty placements came from just 25% of institutions. Although similar broad patterns emerged across hiring in business, computer science, and history, the most prominent institutions varied by discipline, reinforcing the contextual nature of determinations about status (Clauset et al. 2015). Turning to faculty hiring within sociology, Burris (2004) found that an institution’s centrality in PhD hiring networks accounts for 84% of the variation in departmental status, suggesting a clear link between network centrality and institutional status.

A growing body of literature demonstrates that the status hierarchies in higher education can have profound implications for students’ labor market prospects, particularly in high-status occupations. Examining professional services firms in law, investment banking, and consulting, Rivera (2012) noted that their entry-level hiring typically occurs through career centers at a limited number of high-status universities. As a result, an undergraduate degree from a small subset of institutions functions as a de facto requirement in the hiring process at many of these professional services firms. At high-status universities, the on-campus recruitment process itself helps shape students’ understanding of which occupations are most coveted, reinforcing the desirability of positions in high-status sectors such as finance, consulting, and technology (Binder, Davis, and Bloom 2016). In addition to accounting for a disproportionate share of entrants to these types of high-status sectors, graduates of high-status private universities also receive jobs at higher-status and better-paying firms within those sectors and receive more senior job titles at those firms than peers from public universities (Davis and Binder 2019). The net result of these recruitment practices is a substantial accumulation of advantage to graduates of high-status universities in high-status occupations. Correll and colleagues (2017) persuasively argue that these advantages are driven, in part, by decision-makers’ overreliance on status as a
differentiator when uncertainty around quality makes it difficult to assess what, or who, is the “best.”

Although much sociological research has focused on high-status occupations that are also high-paying, the literature suggests that high-status educational backgrounds likewise provide advantages across a variety of creative and cultural domains. Examining cultural elites—defined based on positions and honors such as Pulitzer Prize winners in journalism—Brint and colleagues (2020) found that 38.8% of those educated in the U.S. had attended one of just 39 “top” undergraduate institutions, even higher than the rate of 20.2% among business and political leaders. Further, looking across 15 major employment sectors, Brint and Yoshikawa (2017) found that executives from high-status colleges were more common among industries focused on symbolic production (e.g., entertainment/media) rather than physical production. Together, such findings suggest that high-status educational credentials at both the undergraduate and graduate level are especially valuable markers in creative industries, such as journalism.

Although less research has focused specifically on the hiring patterns within journalism, the available evidence suggests that educational status hierarchies play an important role in determining who gains access to positions in journalism at prominent media outlets. As noted above, Wai and Perina (2018) examined a convenience sample of LinkedIn records for nearly 2,000 employees at the New York Times and the Wall Street Journal. At the two outlets, 33-40% of journalists completed their bachelor’s degree at one of just a few dozen high-status institutions, with the eight Ivy League institutions alone accounting for 20% of undergraduate degrees (Wai and Perina 2018). Similar patterns are evident in the U.K., where more than half of the country’s “leading journalists” received their undergraduate education at Cambridge
University or Oxford University, even though those universities represented less than 1% of college enrollment in the country (Weale 2016).

One mechanism for the conferral of benefits based on these status hierarchies appears to be internships at premier media outlets, which provide the kind of newsroom experience that is legible to and rewarded by such publications (Neidorf 2008). In 2019, the director of newsroom fellowships and internships at the New York Times wrote a Twitter thread about which universities produced the most competitive candidates for these internships, citing the “best” institutions as Columbia University, Northwestern University, the University of California-Berkeley, and Yale University (Duquesne Duke 2019). Following significant backlash, he later deleted part of the thread and apologized “if [he] sounded elitist and narrow” (Duquesne Duke 2019), but his initial emphasis on college background suggests that key decision-makers at newsrooms use institutional status as a heuristic when selecting potential internship candidates.

Subsequently, the Asian American Journalists Association (Amiri et al. 2019) tracked the educational backgrounds of 150 interns at 7 top newsrooms, finding that one in five had attended Ivy Plus institutions (i.e., the Ivy League institutions, Duke University, Massachusetts Institute of Technology, Stanford University, and the University of Chicago) and nearly two-thirds had attended one of the 65 most selective institutions in the country. In some cases, these internships can serve as “career conveyor belts” that lead directly to job offers upon graduation, and few such internships are available in media (Moss-Pech 2021).

**Relationship between Status and Novel Practices**

As previously highlighted, student loans offer an example of a policy domain that is deeply racialized, but where attention to race and racism in the news media has long lagged (Baker et al. 2023). In this context, we contend that discussions of race and racism in news...
articles about student loans represent a novel practice, relative to norms within the field and the disproportionately White composition of U.S. journalists (Tomasik and Gottfried 2023). For this study, we are particularly interested in exploring the relationship between the status of an author’s educational background and their adoption of this novel practice. We do not argue that all uses of racialized language are constructive or “progressive.” Our prior research shows that student loan news articles frequently used racialized language to compare groups of people and institutions, instead of highlighting structural and systemic hurdles, which can exacerbate animus (Hetey and Eberhardt 2018). Still, as the site of formal training and a source of the social networks upon which journalists draw, authors’ educational affiliations are likely to have considerable bearing on the way that they conceptualize the norms and acceptable practices within the industry. In examining the link between educational backgrounds and racialized language, this research offers insights into the broader relationship between status and novel practices, especially for the status of racialized organizations.

In conceptualizing this novel practice, we draw on prior research focused on the role of organizational status in cultivating or inhibiting innovation. One strand of research has found that high-status (and low-status) actors have greater flexibility to innovate due to their current proximity to perceived (or distance from) legitimacy, while middle-status actors tend to conform to norms as they aspire to gain legitimacy (Phillips and Zuckerman 2001). This finding aligns

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4 Tomasik and Gottfried (2023) do find that one of the news beats does have substantial representation from Black and Hispanic journalists: social issues and policy. We have examined the survey provided to journalists and it appears that coders at the Pew Research Center determined the label “social issues and policy,” so it is not clear if this includes authors who may write about student loans (especially since there are other beats mentioned that likely may fit better, including “education and family,” “government and politics,” and “economy and industry”).

5 We do not discount the decades of research that show strong, and often violent, backlash to frank discussions of racism or policies aimed at racial justice (e.g., Baker 2019a; Duxbury 2020; Taylor 1998). We simply accept that, as long as racism remains one of the most significant organizing features of our society, signs of racial progress will be met with fierce opposition. That does not discount the potential progress that can be made by highlighting structural issues, as scholars have argued (e.g., Hetey and Eberhardt 2018).
with the fact that in social networks, organizations with stronger network centrality can also benefit in their innovative capacity due to greater control over resources, access to disparate sources of information, and the ability to influence the rules of the game (Bell 2005; Podolny 2010; Stark 2009). Under conditions of normative uncertainty, however, some evidence suggests that middle-status actors may actually be more predisposed to engage in innovation. For instance, looking at digital media adoption of newspapers between 1993 and 2007, Kim (2020) found that middle-status newspapers perceived the transition to Web media as a significant growth opportunity, adopting websites earlier than high-status and low-status peers and offering greater tools for interactivity.

Recently, Bienenstock and Bonacich (2022) offered a structural explanation for the potential of high-status actors to lag in their adoption of novel practices (via information sharing), despite what might otherwise be perceived as considerable advantages. They outlined that properties of a social network itself can contribute to insularity, inhibiting the ability of actors at the core to effectively access information from members at the periphery. As a result, core members of the network may be slower to learn about and adopt new practices. Thus, the status of actors within the core of a social network can buffer their ability to quickly adapt to a changing landscape. Likewise, Hofstra and colleagues (2020) uncovered evidence of swifter adoption of innovative practices by lower-status actors, finding that PhD students who were likely Hispanic, Black, or Native American (based on machine learning predictions using names of PhD students) introduced more innovative concepts in their dissertations than their White and Asian peers.

For our study, Bienenstock and Bonacich (2022) would suggest that a novel practice—in this case, racialized language in news stories about student loans—would be less likely to
emanate from authors with higher-status college backgrounds compared to their peers. This might occur if the high-status colleges provided authors with less exposure to student loans generally or certain types of student loans, either personally or through networks of friends or colleagues. Compared to those who attended institutions with substantial student loan borrowing (especially at the undergraduate level), attendees of such high-status institutions may have greater difficulty recognizing the racialized aspects of student loans without deliberate intervention. Further, the differential adoption of novel practices based on status could be exacerbated by the fact that higher education institutions, as racialized organizations, could actively work to reduce novel practices like the use of racialized language in student loan news articles.

**Research Methods**

We provide an overview of the data collection process, the measures for our key constructs, and analysis methods. In the latter subsection, we include contextual descriptive comparisons before shifting to the actual analysis in the Results section. The current study uses text data from a larger research project focused on student loan news articles and racialized language. Due to space constraints, we provide a truncated synopsis of the data collection, with primary focus on the measures of authors’ colleges. (See Baker and colleagues [2023] for details on the entire project’s data collection.6)

**Data**

We purposively included eight U.S. newspapers in our data, the top five for circulation and the top five for the number of Black residents in the region. We included the *Los Angeles*

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6 Throughout the conception of the study, design, data collection, analysis, and writing phases of this paper, the research team consulted with current and former reporters who have written articles on higher education generally and, frequently, student loans specifically.
Times and USA Today due to circulation; Atlanta Journal-Constitution, Chicago Tribune, and the Philadelphia Inquirer due to the number of Black residents; and the New York Times, the Wall Street Journal, and the Washington Post because they fit both criteria. We then used ProQuest to find articles published from 2006 to 2021 that could be about student loans. We selected the year range to be one year before the rise in reliance on student loans due to the Great Recession and one year after the murder of George Floyd (allowing time for the media to revise prior practices in light of stated intentions to focus more on addressing racism). We downloaded the 87,983 articles that fit our search criteria and removed all duplicate and near-duplicate articles based on the full text.

We then conducted an iterative process to create programming rules for R that would produce a sample of articles that mentioned student loans at least once (articles broadly relevant to the study) and articles that actually focused, in part, on student loans (articles narrowly relevant to the study). To achieve this, we created random samples, stratified by newspaper outlet, of articles where members of the research team coded by hand the relevance of the article, compared those human codes to the current set of programming rules, and the lead researcher revised the programming rules to more accurately mimic human understanding. This iterative process continued until, based on the programming rules, we would include a significant share of narrowly relevant articles (as determined by human coding) while also excluding a significant share of articles that were not broadly relevant (as determined by human coding). Said another way, we optimized the programming rules to ensure that our sample included as many articles about student loans as possible while at the same time excluding as many articles that never genuinely mentioned student loans at least once. We determined a “significant share” by using Stryker and colleagues’ (2006) guidelines. These decisions led to a final analytical sample of
8,837 broadly relevant articles, with 3,809 also narrowly relevant. (By construction, all narrowly relevant articles are also broadly relevant.)

Once we created the final sample of articles, we used the metadata from ProQuest to create a dataset containing the authors’ names. Although ProQuest metadata has occasional errors (e.g., a photographer for a news article may be listed as an author), this data provides the most comprehensive information on the articles’ authors. After cleaning the author data (see Appendix A for detail on the cleaning process), our sample included 2,704 authors. Of those authors, 595 wrote at least three articles in our data. We chose to focus on these authors given the likelihood that they wrote news articles as part of their occupation instead of a one-time opinion piece. These authors wrote 63% of the total articles in our corpus.

Once we narrowed down to the student loan authors who wrote at least three articles, two members of the research team searched publicly available data for any institutions the article authors attended for degree-seeking purposes before summer 2022 (when data collection began). We included up to three institutions for undergraduate study (i.e., first bachelor’s degree granting institution, other undergraduate institution one, other undergraduate institution two) and up to two institutions for graduate attendance (i.e., graduate institution one, graduate institution two). Following the first round of data collection, the lead researcher reviewed all data and primary documents to ensure that college attendance had been recorded correctly and that we had primary documents for every author with data (see Appendix A for additional detail).

At the end of this process, of the 595 student loan authors with at least three articles in our data, we found U.S. institution enrollment data for 566 authors, and undergraduate enrollment data for 551. (We had to restrict to U.S. institution attendance in order to merge with the U.S. Department of Education’s Integrated Postsecondary Education Data System [IPEDS].)
Appendix Table B1 includes summary statistics on the authors. The authors with U.S. institution enrollment data had written, on average, 10 articles in our data for 1.3 newspapers, with nearly 35% of their articles being narrowly relevant to student loans, and nearly 22% of the articles using at least one racialized language term (as defined in the following section). While authors without U.S. institution data (29 authors who either attended international institutions or for whom we were unable to find any attendance data) wrote for roughly the same number of newspapers, they wrote substantially fewer articles (nearly 5 on average) and had a significantly smaller share of articles with racialized language (approximately 11%).

Measures

We explore how the status hierarchy of student loan authors’ colleges relates to the racialized language used in the articles, which allows us to better understand the relationship between status and novel practices. To operationalize racialized language, we embarked on another iterative coding process where we used prior sociolinguistic literature (e.g., Alim et al. 2016; Baker et al. 2022), context-specific guidance (e.g., Associated Press Style Guide), as well as open coding of 400 randomly selected articles, stratified by newspaper. From there, we created a dictionary of racialized language terms that represented racial/ethnic groups, racialized organizations (e.g., “Historically Black Colleges and Universities”, “NAACP”), and structural issues (e.g., “racism”). We created a binary measure that equaled one when an article included at least one racialized language term and used that to create an author-level percentage reflecting the share of articles an author wrote in our data with racialized language. (See Baker and colleagues [2023] for additional detail on the racialized language coding, including how we separated racialized references to “Black” from race-neutral color references.)

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7 We included singular and plural versions of all terms.
We created measures for institutional and article characteristics to explore the structure of the network and its relationship with racialized language use. We merged in data from the U.S. Department of Education’s IPEDS using institution UNITIDs. This additional institutional data allowed us to create measures of whether an author ever attended an Ivy Plus, Public Flagship, Community College, or Historically Black College or University (HBCU); quintiles of campus-wide loan reliance for undergraduate students; and quintiles of the percentage of undergraduate students who were Black. We defined Ivy Plus as all institutions in the Ivy League athletic conference (Brown University, Columbia University, Cornell University, Dartmouth College, Harvard University, Princeton University, University of Pennsylvania, and Yale University) as well as the standard additions of Duke University, the Massachusetts Institute of Technology, Stanford University, and the University of Chicago due to their similarity in resources and admissions to Ivy League institutions. We also included Northwestern University given its special prominence in the field of journalism and the reality that status is contextual (e.g., Clauset et al. 2015). For Public Flagships, we included the single Public Flagship institution in each state (see Baker 2019a for further discussion). Both Ivy Plus and Public Flagship institutions are generally seen as higher status and likely to have larger capacity, especially financial capacity.

Community Colleges are institutions that are primarily associate degree-granting institutions based on the basic Carnegie Classification. HBCUs are institutions founded before 1965 with the express mission of educating Black students. Community Colleges and HBCUs

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8 We included HBCUs due to the unique experiences of Black borrowers.
9 This decision differs from some other scholars but Northwestern University is generally seen as tied with or slightly below Columbia University as the highest-status institutions for journalism. Given that they have similar financial resources and tuition prices, we have decided to include Northwestern within the set of Ivy Plus institutions. This decision is strongly guided by prior research focused on the ways that context guides status within higher education (e.g., Clauset et al. 2015).
can sometimes be seen as lower status by general society in the United States (Ray 2019; Schudde and Goldrick Rab 2015), though there are several groups within the United States that do hold these institutions in esteem (e.g., the Black community often holds HBCUs in high esteem, see Albritton 2012). Critically, Ivy Plus and Public Flagship institutions are generally able to provide institutional grants to undergraduate students such that those students do not need to rely as heavily on student loans. In the current study, these institutional measures are not mutually exclusive. For example, there are authors who attended both a Public Flagship and a Community College for undergraduate education.

Creating the time-dependent institutional measures posed additional challenges for two reasons: 1) we do not know when authors earned credentials, if they did, for all authors, and 2) for those cases where we do know the year a credential was earned, the range begins far earlier than student loan data exists in IPEDS.\(^{10}\) For these reasons, we use quintile rankings for 2018 loan reliance (percentage of undergraduate students borrowing loans) and 2018 Black undergraduate enrollment share, which are strongly correlated with comparable values for earlier decades for which data is available. (See Appendix A for our evidence supporting this decision.)

For article characteristics, we created measures for the number of articles an author wrote in the data, percentage of articles by the author that were narrowly relevant (i.e., articles focused on student loans), whether the author ever published a student loan article in each of the newspapers, and the first year an author published an article in our data.

**Analysis Methods**

\(^{10}\) The Department of Education began steady collection of student loan data in 1998 while the earliest graduation year is 1954.
We descriptively explore the status hierarchy of student loan authors’ colleges and investigate its relationship with racialized language use in student loan articles. The first phase, focused on the status hierarchy of institutions within the author network, uses social network analysis to explore institution-level variation. The second phase, focused on how that institutional status hierarchy relates to the use of racialized language in news articles, uses social network analysis and linear regression to examine author-level variation. Synthesizing the results of these analytical phases allows us to provide evidence on the relationship between status and novel practices.

**Status hierarchy in author network.** We first descriptively explored how the colleges authors ever attended for undergraduate study compare to national enrollment. We used 2018 IPEDS data for national enrollment since the quintile rankings of college characteristics also came from the 2018 data. We then explored how college attendance varies by newspaper outlet.

Next, we turned to social network analysis. Within network analysis, nodes are any object that can have a connection and ties are relational connections between those objects. In our study, we explored two institution-level networks for the first part of the analysis. The first network is for *Any Attendance* (Institution Focus). Institutions were nodes and ties depict when an author attended two different institutions (undergraduate or graduate). There was no direction implied by this relationship, and therefore this was an undirected network that allowed us to explore how institutions were connected to one another using authors’ attendance as the link. The second network maps the *Undergraduate-to-Graduate* pathway. The nodes were still institutions but the ties were now when an author attended one institution for an undergraduate

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11 We conduct the primary dataset construction (including natural language processing techniques), network visualization (sociograms), and network statistics calculations using R Studio, the latter two primarily completed using the *igraph* and *tidygraph* packages. We conduct some dataset construction and all other analyses in StataMP 16.1.
degree and also attended an institution for a graduate degree. Because there is a clear sequence involved (in the U.S., students typically earn at least one undergraduate degree before pursuing graduate education), this network was directed (from undergraduate institution to graduate institution). We allowed this network to have loops (i.e., authors who attended the same institution for undergraduate and graduate study were included). Both networks were weighted by the number of authors who either attended two institutions (Any Attendance network) or pursued both undergraduate and graduate study at a set of institutions (Undergraduate-to-Graduate network).

Given the likelihood that institutions near the core of the network operate in fundamentally different ways than institutions near the periphery (Bienenstock and Bonacich 2022), we explored the centrality of institutions, as well as how concentrated that centrality was across the network. Given our interest in how “important” each institution was to the author attendance relationships in the network, we included measures of degree and Eigenvector centrality. Degree centrality, the most frequently used measure in social network analysis, refers to the number of ties a node has. For our first network, this was a weighted measure of how many authors attended the focal institution and another institution. For our second network, we used indegree centrality to assess the weighted number of institutions that sent authors to a focal institution for graduate school. We refer to the degree or indegree centrality of an institution as how “popular” that institution was for the rest of this paper.

While less frequently used, prior research (e.g., Bienenstock and Bonacich 2022) points to Eigenvector centrality as being more useful for our research aims. Eigenvector centrality assesses how many high degree (or indegree for the second network) institutions share authors with the focal institution (or send undergraduate authors to a focal institution for the second
network). Said another way, Eigenvector centrality measures how “influential” an institution was by counting how many popular institutions were connected to the focal institution. The main advantage of Eigenvector centrality is that it goes one step further than degree centrality and actually accounts for how the institutions cluster within the network. In other words, Eigenvector centrality allows us to tease apart institutions that are core to the network from institutions that are more peripheral. For example, Columbia University could be part of the core of the network because popular institutions like Princeton University, which a large number of authors attended, also attended Columbia.

Once we have calculated degree and Eigenvector centrality for all institutions, we examine the concentration of each measure across the network. We use centralization and Gini coefficient to estimate concentration. Centralization is a standard measure of concentration in network analysis while Gini coefficient is a standard measure of inequality. Both of these statistics allow us to examine how concentrated or unequal a network is (with a value of 0 meaning the network is maximally equal and a value of 1 meaning the network is maximally unequal). We can use these two measures to explore how degree and, most importantly, Eigenvector centrality vary across the network. Guided by theory, the current study is less interested in a single institution’s centrality and more interested in the hierarchy that is created across the network of institutions.

**Status hierarchy and racialized language use.** Our third network is an author-level network for *Any Attendance (Author Focus)*. In this network, authors were nodes and the ties were when authors co-attended the same institution. This network had no inherent direction and was thus undirected. It was also weighted for the number of authors co-attending sets of
institutions. Aligning with the prior section, we explored the degree and Eigenvector centrality of this network using centralization and Gini coefficient.

We are primarily interested in the status hierarchy of student loan authors’ colleges due to the likelihood that this hierarchy correlates with the novel practice of racialized language use in articles. As we detail earlier in the paper, we do not assume a direct causal relationship between the set of colleges attended by an author and racialized language use. Beyond the reality that authors are not the sole decisionmaker for published articles (e.g., editors play a major role in which subjects are written about and how they are written), authors select which college to attend at the same time that colleges select which authors to admit. Still, scholars have shown that college students experience a real shift in their personal perceptions of norms and dispositions, or habitus, while enrolled (Lee and Kramer 2012). We saw clear evidence of a relationship between authors’ colleges and the share of their articles using racialized language. Figure 1, panels A and B, shows that authors who attended undergraduate institutions with more student loan borrowing or with more Black undergraduate students also wrote a larger percentage of articles using racialized language.

[Insert Figure 1 Here]

[Insert Figure 2 Here]

Although we adopt a nuanced approach to understanding the relationship between authors’ colleges and their racialized language use, we acknowledge that authors’ colleges were not the sole predictor of racialized language use. For example, Figure 2 shows that authors who ever wrote for the Wall Street Journal have substantially lower percentages of articles with racialized language (conversely, authors who ever wrote for the Atlanta Journal-Constitution or
the *Washington Post* have higher percentages).\textsuperscript{12} Attending to this reality, we estimate a multiple linear regression model in order to explore the relationship between the status of authors’ colleges and the share of their articles with racialized language while holding constant college and writing characteristics of authors. The regression equation is:

$$y_i = \beta_0 + \beta_1 influential_i + X_i\gamma + \nu_i$$

where $y_i$ is the percentage of articles by an author in our corpus with racialized language, $influential_i$ is a binary that equals 1 when an author’s Eigenvector centrality value is above the median (author has attended more influential colleges), and $X_i$ is a vector of characteristics of authors and the colleges they attended. Those characteristics included: author ever attended an HBCU for an undergraduate degree, loan quintile for undergraduate institution (highest if author attended multiple institutions), Black undergraduate student enrollment share quintile (highest if author attended multiple institutions), number of articles in corpus, percentage of articles narrowly relevant in corpus (one of the primary foci of the articles is student loans), whether author ever wrote for the *Wall Street Journal*, and whether the first article in the corpus was published after 2015. We restricted the regression to authors who have at least one undergraduate institution ever attended (given that several variables are specifically focused on undergraduate experiences). We estimated robust standard errors. The results of this model provide clear evidence on how status and novel practices relate to one another in the context of the status hierarchy of universities and the innovative practice of racialized language use.

**Results**

**Entrenched Status Hierarchy of Student Loan Authors’ Colleges**

\textsuperscript{12} While we primarily discuss the visual differences, we also conducted t-tests comparing authors who ever wrote for each newspaper outlet to authors who never published in that outlet and found statistically significant relationships at the $p<.05$ level for these three outlets (negative relationship for the *Wall Street Journal* and positive relationship for the *Atlanta Journal-Constitution* and the *Washington Post*).
Overall. Before visualizing the two institution-level networks, we first compared our authors’ college attendance to national enrollment trends. Figure 3 shows the percentage of undergraduate enrollees across Ivy Plus, Public Flagship, Community College, or HBCU institutions. The first bar for every category (blue) is the national enrollment and the second bar (green) is the percentage among authors in our study. These categories are not mutually exclusive (e.g., people could have attended both a Public Flagship and a Community College), so this figure shows where people have ever enrolled for undergraduate study (in the year 2018 for national enrollment and until summer 2022 for authors). We found that authors of student loan news articles disproportionately attended Ivy Plus and Public Flagship institutions, which tend to have a relatively low reliance on undergraduate student loans. In the United States, only about 8% of students enroll in these two types of institutions, while over half of our authors had enrolled in these institutions (approximately 32% at Ivy Plus institutions and 20% at Public Flagship institutions).

[Insert Figure 3 Here]

Further, we only found evidence of two authors ever attending a Community College, while nearly 40% of students in the country enrolled in these institutions in 2018. While authors might conceal their community college attendance in the public sources we used for this data, due to the low perceived status, authors who attend either Ivy Plus or Public Flagship institutions are less likely to have attended a community college, due to entrenched stratification across higher education institutions (Schudde and Goldrick Rab 2015). Therefore, even taking social desirability into account, the authors in our study likely under-enroll in community colleges. Finally, we found that our authors attended HBCUs at approximately the same rate as national enrollment. However, when high-status fields, like journalism, have a significant share of Black
workers, the HBCU share of past enrollees and graduates is disproportionately high compared to national enrollment (e.g., Boyd, 2007; Price and Viceisza 2023). Therefore, our data suggests that our sample of student loan authors likely lacks significant representation of Black authors. This aligns both with prior studies (e.g., Tomasik and Gottfried 2023) and our own data collection on the share of people of color in the newsrooms of the eight sample newspapers (Baker et al. 2023).

Accounting for likely variation in college enrollment across newspaper outlets, we also compare institution types and the most popular institutions across newspapers. Appendix Figure B1 shows that only the Chicago Tribune and the Los Angeles Times had any student loan article authors who enrolled at community colleges. While a larger set of newspapers had authors who attended HBCUs (Atlanta Journal-Constitution, Chicago Tribune, New York Times, USA Today, and Washington Post), these enrollments were dominated by authors who had ever written for the Atlanta Journal-Constitution. In contrast, each newspaper had a robust share of authors who attended Ivy Plus institutions as well as Public Flagship institutions.

Table 1 and 2 generally list the five institutions with the largest number of authors who attended for undergraduate study and who attended for any level of study, respectively, for each newspaper. We include a row with the number of authors in our data who ever wrote for each newspaper (not mutually exclusive) and provide the number of authors who ever enrolled at each institution in parentheses after the institution’s name. We found some regional preferences for undergraduate study based on the physical location of newspapers (e.g., Pennsylvania State University is one of the most popular institutions for authors of the Philadelphia Inquirer). Still, the dominance of Ivy Plus institutions in general, and Columbia University and Northwestern University in particular, is stark, especially when considering any level of enrollment. Of the
most popular institutions across Table 2, over two-thirds (27 institutions) are Ivy Plus institutions (denoted with an asterisk). Columbia and Northwestern are both in the top five for five of the eight newspapers, with the other three newspapers having one of the two institutions.

[Insert Table 1 Here]

When comparing Table 1 and 2, it becomes clear that part of the reason for Columbia and Northwestern’s dominance is the number of authors who have attended either institution for graduate school (since this is the key difference between the two tables). This evidence bolsters our earlier contentions that authors likely have personal student loan experience that is bifurcated by whether the loans are undergraduate or graduate (since the most popular institutions for undergraduate study have low undergraduate student loan reliance, yet the institutions listed for graduate study have high graduate student loan reliance). This is a critical distinction given the administrative safeguards placed on undergraduate student loans (e.g., annual and lifetime limits, lower interest rates) in addition to the reality that the majority of student loan borrowers in the United States have undergraduate debt (Ma and Pender 2022). It is also the case that borrowers with graduate debt are less likely to default on student loans (Gross et al. 2009; Pyne and Grodsky 2020), which could prime authors that only have personal experience with graduate debt to underestimate the extent and impact of default. This difference, though, does not diminish the concentration of high-status institutions whether examining any enrollment or solely undergraduate enrollment.

[Insert Table 2 Here]

In fact, regardless of the distinctions in enrollment, at least half of the top institutions for each newspaper is either an Ivy Plus or Public Flagship institution in both tables (and none of the top institutions by attendance are a community college or HBCU). The top institutions for
undergraduate study among the Wall Street Journal and the Washington Post authors were solely Ivy Plus institutions (with the sole non-Ivy-Plus institution for the New York Times being Barnard College, which has a unique partnership that allows for course-taking at Columbia, an Ivy Plus institution). Therefore, whether examining any college attendance or undergraduate attendance only, we found significant disproportionate enrollment at Ivy Plus institutions (and, to a smaller extent, Public Flagship institutions) when comparing student loan authors to national enrollment and when examining within newspapers. This imbalance provides strong, suggestive evidence of a status hierarchy within authors’ colleges, aligning with prior research (Wai and Perina 2018). As decades of sociological research makes clear (e.g., Brint, Riddle, and Hanneman 2006; Davies and Zarifa 2012), an enduring status hierarchy exists within higher education and where student loan news article authors attended appears to conform to that durable hierarchy, whether examining undergraduate study in isolation or considering any level of enrollment.

**Networks.** Turning to the visualizations of the institution-level networks, Figure 4 provides the sociogram of the largest component of the undirected network of institutions connected by authors who attended multiple institutions. Table 3 provides the statistics for this network in the first column under Any Attendance (Institution Focus). The sociogram represents institutions as circles, which are sized proportional to the Eigenvector centrality of each institution (larger circles mean more influential institutions in the network) and colored by institution type (Ivy Plus, Public Flagship, neither). The figure demonstrates that Ivy Plus institutions (colored yellow) have central locations in the network. There are 212 institutions in this network with 185 connections between them. In the largest, connected component (visualized in Figure 4), there are 120 institutions with 172 connections between them.
Therefore, the overwhelming majority of connections happen in the largest component. The density of connections is 0.008. On average, institutions have 2.1 shared authors.

When we turn to Eigenvector centrality, we have clear evidence that there is extreme concentration within the network (centralization of 0.953 and Gini coefficient of 0.802). That means that there are only a few, influential institutions connected to the most popular (high degree) institutions. Appendix Table B2 shows the top 10 institutions for each of the centrality measures. Columbia and Northwestern, in that order, have the highest centrality values whether using degree or Eigenvector. The overwhelming majority of institutions on both lists are either Ivy Plus or Public Flagship institutions. There are few differences between the lists, primarily driven by institutions with fewer shared authors who are connected to more popular institutions (e.g., Brown). Both lists, especially the Eigenvector list, also demonstrate that Columbia and Northwestern are quite different from the other institutions. Columbia has an Eigenvector value of 1.000, Northwestern has a 0.696, and the next institution is the University of California, Berkeley with a 0.322 (with several institutions near 0.3). Given the dominance of Columbia and Northwestern, we also color the authors they share with other institutions in Figure 3 with Columbia in light blue and Northwestern in purple (the tie between Columbia and Northwestern is light blue given Columbia’s elevated influence). The sociogram’s visualization aligns with our prior findings; Columbia and Northwestern are the dominant institutions in the network. This finding is rational given that Columbia and Northwestern are generally seen as the highest status institutions for journalism (Benton, 2021).
Given that Table 1 and 2 show that there is a real difference between undergraduate and graduate attendance, we also explore the Undergrad-to-Graduate institution-level network. Figure 5 visualizes the largest component of this network, with institutions represented by circles proportional to Eigenvector centrality and colored by institution type. Since this is a directed network, arrows point toward the institution an author attended for graduate study and loops are possible. These connections are proportional to the number of authors. The arrows indicating where authors who attended Columbia and Northwestern for undergraduate study chose to attend graduate school are colored light blue and purple, respectively. Columbia and Northwestern remain dominant in this network, again having the largest Eigenvector centrality values and being located in the center of the network.

Table 3, column 2, shows that this network has 132 institutions with 182 connections (the majority of institutions are again part of the largest component). This network is denser than the prior one, due in part to the concentration of graduate attendance at Columbia and Northwestern. Both degree and Eigenvector centrality provide strong evidence that this is a highly concentrated network. Given our preference for Eigenvector centrality, we highlight that both centralization and the Gini coefficient are nearly 1 (0.978 and 0.967, respectively). These statistics provide additional evidence that there is a strong status hierarchy within the colleges that student loan authors attended, whether examining any attendance or the undergraduate-to-graduate pathway. In order to explore this further, we investigate Columbia and Northwestern’s individual neighborhoods.
Figure 6, panels A and B, show the “local neighborhood” of Columbia and Northwestern (with all of the same dimensions of Figure 5). These two figures highlight that Columbia only sent authors to itself and Northwestern for graduate school (panel A), while Northwestern sent several students to institutions beyond the Columbia/Northwestern set (panel B, sending to New York University, University of Illinois Urbana-Champaign, Yale University, and the University of Michigan). Except for New York University (which is a private, highly resourced institution physically located in one of the media centers of the country), Northwestern only sends authors to Ivy Plus or Public Flagship institutions for graduate study. Therefore, we provide evidence that Columbia truly is in a league of its own and that Columbia and Northwestern have a fairly small set of (high-status) institutions that authors who attended them for undergraduate study would consider for graduate study. These findings point to an especially strong status hierarchy among graduate school enrollment for authors of student loan articles, with Columbia and Northwestern likely to be perceived as highly desirable institutions for the eight newspapers examined.

Relationship Between Authors’ Colleges and Racialized Language Use

Turning to the final network, Table 3 column 3 includes the statistics for the Any Attendance (Author Focus) network, which explores author-level co-attendance for any level of education. For instance, the relationship between authors who have co-attended institutions could relate to the shared cultural experiences at each institution. Across the 566 authors, we found significant concentration, with an Eigenvector centrality centralization of 0.848 and Gini coefficient of 0.788 (replicated in the visualization of the network in Appendix Figure B2 where

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13 By calculating the Eigenvector centrality at the author-level, we are able to take into consideration all institutions attended by each author. For example, given what we know about Columbia and Northwestern’s influence, an author who attended both institutions will have a higher Eigenvector centrality value than an author who only attended one of the institutions.
higher Eigenvector centrality authors are in the core of the sociogram). We therefore have strong evidence that the institution-level status hierarchy also exists when we examine the author-level status hierarchy based on institutional co-attendance. Given prior structural work on status and novel practices (e.g., Bienenstock and Bonacich 2022), we would predict that authors with above-median Eigenvector centrality values would be part of the core of the network. Because of their centrality, we would expect those authors’ status to hinder their adoption of novel practices, such as the use of racialized language in a policy area that has historically paid little attention to race and racism. If we found a negative relationship, this would provide evidence upholding the theorized relationship between status and novel practices outlined by Bienenstock and Bonacich (2022).

We next explore the relationship between how “influential” authors’ institutions are in our network and the use of racialized language, while controlling for characteristics of authors’ writing and the colleges they attended.

Figure 7 includes a coefficient plot where dots reflect beta coefficients and the whiskers represent the 95% confidence interval of the regression model (see Appendix Table B3 for estimates table). We include the point estimate above the dot. The following characteristics have a statistically significant relationship with the percentage of articles with racialized language: author who attended influential institutions, 3rd and 4th Black enrollment quintiles (compared to the 1st), percentage of articles that are narrowly relevant, whether an author ever wrote for the Wall Street Journal, and whether the first article in the corpus was published after 2015. We found that, controlling for other author characteristics, authors above the median Eigenvector centrality value had a smaller percentage of articles with racialized language than authors below the median. Stated differently, the model predicts that authors in the core of the network have a nearly 5 percentage point smaller share of articles that included racialized language. That
difference represents nearly 20% of the standard deviation among authors with any U.S. institution data (see Appendix Table B1) and aligns with the theorized relationship between status and novel practices from Bienenstock and Bonacich (2022).

We also explored several alternative specifications to examine the robustness of our findings. While requiring authors to have written at least three articles to be included in the analytical sample is reasonable, it is still an arbitrary decision. To explore how this decision might have impacted our results, we compared the same regression model using thresholds of at least three, four, or five articles in the data (stopping at five articles since this is the median number of articles per author). Appendix Figure B3 shows that the point estimate is relatively stable across these three different samples, though the confidence intervals do expand as the sample is iteratively reduced. These findings provide support that the relationship we have identified between status and novel practices is not being driven by the article threshold used in our author sample selection criteria.

Further, we examined whether the bipartite structure of our data, authors relating to institutions and thus indirectly relating to each other through that connection, skewed our findings. Prior work has shown that, when scholars project bipartite data down to a single mode, there is the potential for inflated clustering, which could erroneously be reported as real relational differences (e.g., Newman 2001; Opsahl 2013). We adjusted our Eigenvector centrality measure following Newman (2001) and found qualitatively similar regression estimates in magnitude, direction, and statistical significance (estimates available upon request).

Given the competing theories on status and novel practices from innovation research, with some scholars arguing that middle status actors are less innovative (Phillips and Zuckerman
2001) and others arguing that they are more innovative (Kim 2020), we also conducted an additional regression analysis (estimates available upon request). We estimated the main regression model but changed the measure of influence to be split into thirds at the 33rd and 66th percentile (instead of being a binary measure split at the median as in our primary analysis model). Compared to the middle-status authors, we found that authors in the lower third had a larger share of articles with racialized language (6 percentage points) but there was no statistically significant difference between authors in the middle- and upper-status tiers. This finding provides additional evidence that the demarcation in status, when considering the adoption of the novel practice of using racialized language in student loan news articles, is more about comparing high- and low-status than it is about high-, middle-, and low-status.

**Discussion and Conclusion**

Taken together, we found evidence that there is a stark status hierarchy among the colleges attended by authors of student loan news articles and that hierarchy is inversely related to how frequently the authors use racialized language in student loan news articles. Columbia and Northwestern, the generally accepted highest-status journalism programs, dominated the network of student loan authors whether we explored at the institution or the author level. This conclusion is true even though we did not restrict our college attendance measure to focus solely on journalism degrees.14 These status distinctions had a practically significant, negative correlation with the share of articles by an author that included racialized language. Aligning with Bienenstock and Bonacich (2022), our findings suggest that status may act as a buffer for student loan authors that creates impediments to the adoption of certain types of new practices, such as using racialized language in their articles.

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14 Wai and Perina (2018) show that the majority of journalists at the *New York Times* and the *Wall Street Journal* do not earn a degree in journalism.
Journalistic norms may contribute to the limited attention to race and racism that student loans have historically received in news coverage. One of the most entrenched norms in journalism is an emphasis on “objectivity” (Entman 2001), which has been characterized as a strategic ritual that journalists employ to shield against occupational threats, such as lawsuits for libel or allegations of personal bias (Tuchman 1972), and to punish journalists who defy the norms (Torrez et al. 2024). As practiced in journalism, objectivity frequently involves avoiding the appearance of personal judgment and invoking credibility through the use of official sources, such as government entities (Robinson and Culver 2019). Since several of the primary sources for data about federal student aid have not tracked information on race or ethnicity (Scott-Clayton and Li 2016), abiding by this norm has resulted in articles that de-emphasize the racialized dimensions of student loans, despite their pervasiveness. Given that the authors of student loan news articles overwhelmingly attended high-status universities where borrowing undergraduate student loans was uncommon, the lack of direct exposure to student borrowers could also constrain their initial understanding of the extent of racialization in student loans. We do not absolve the authors of the responsibility of learning more about the student loan ecosystem. We note that there are still racial disparities within graduate student loans (Pyne and Grodsky 2020). Still, our research helps to explain why these patterns may have occurred.

The presence of a status hierarchy in authors’ educations is consistent with prior literature on the influence of higher education’s status hierarchy on the labor market. Graduates of high-status institutions amass significant advantage as job applicants and tend to dominate the positions in high-status fields. Consistent with findings from Wai and Perina (2018) and Weale (2016), we find an overrepresentation of high-status institutions attended by the journalists in our sample, which allows us to provide a more comprehensive examination of nearly all authors who
write on a single topic at eight major newspapers in the U.S. Importantly, the underrepresentation of authors in our sample who attended Community Colleges and HBCUs suggests a lack of racial and socio-economic diversity in the voices contributing to student loan news articles. Prior research suggests that inequitable recruitment practices including student internship pipelines (e.g., Amiri et al. 2019) contribute to this imbalance. Future research might examine the specific mechanisms of how the status hierarchy is operationalized in the recruitment and hiring practices of news organizations. Similar to the work of Rivera (2012; 2015) focused on professional services firms, our work suggests that there may be cultural components at play. Media companies, when hiring, may perceive the attendees of certain institutions as those who could be less disruptive to the status quo and have a higher likelihood of valuing journalistic norms like objectivity. Given the potential impact of this status imbalance on policy formation, additional research attention is needed to disrupt these inequitable hiring practices.

Finally, authors are one part of the larger process of publishing a news article. For example, editors can choose which topics are assigned to which authors and influence which content is deemed publishable. Owners of newspapers can set hiring standards for new authors while also setting, along with editors-in-chief, the cultural tone of the organization. These stakeholders play critical roles in the publication of the news. This paper’s focus on authors, due to the scope of the data, should not be seen as a desire to lay the sole responsibility of news articles on individual authors.

A key theoretical contribution of our study is the evidence of a relationship between status hierarchy and novel practices in how policy issues are constructed in media. The media plays a significant role in shaping public opinion and policy agendas (e.g., Swidler and Arditi
1994, Kim et al. 2010), and our findings on the status hierarchy in student loan author college attendance suggest that student loan policy is being shaped by authors with atypical student loan experiences. Additionally, our finding that authors who attended high-status institutions are less likely to use racialized language provides support for the assertion that higher status can slow the use of novel practices (Bienenstock and Bonacich 2022), particularly regarding attention to race and racism. The especially strong status hierarchy, coupled with the outsized influence of Columbia and Northwestern, suggest a degree of insularity among those writing on student loan articles. At the same time, the current study’s findings do not provide evidence that middle-status actors are systematically different from lower and higher status peers, which contradicts some prior theorization (Kim 2020; Phillips and Zuckerman 2001).

Our findings linking novel practices to status suggest several possible directions for future studies. Beyond examining whether these relationships hold for other forms of news media and policy topics, it would be especially important to better understand the role that racialization played in both the status hierarchy and novel practice in the current study. As we have noted throughout this paper, colleges are racialized organizations and the novel practice we are studying is specifically focused on racialized language. Therefore, it could be valuable to explore how it serves the interests of organizations racialized as White to treat racialized language in news articles about student loans as atypical. Further, with widespread declines of local newspapers and continued expansion of social media, it could be valuable to assess the capacity of individual authors to adopt novel practices when stable work environments are increasingly scarce.

Additionally, we did not have access to authors’ race and would have had to assign authors’ race based on pictures provided by newspapers, an approximation of the “street race” of
individuals (López et al. 2018). Given these realities, we did not explicitly study the race of authors. It would be helpful for future research to explore how authors’ race intersects with the racialized nature of the colleges they attended and the language used in their published articles. We know that the labor market of news reporters is overwhelmingly White (Baker et al. 2023; Tomasik and Gottfried 2023) and that social networks exhibit extreme racial disparities (Hofstra et al. 2017; Pedulla and Pager 2019). It is likely that the Whiteness of the social networks of student loan authors plays a role in shaping their adoption of innovative practices, especially practices directly relating to racialization. Political communication research rarely examines race (Freelon, Pruden, and Malmer 2023). There is research that focuses on the paradox that minoritized groups are often more innovative but receive less credit and accrued advantages due to their innovative ideas (Hofstra et al. 2020) and other work that examines how demographic characteristics of scholars relate to their areas of study (Kozlowski et al. 2022). Still, there is little work that accounts for racialized organizations interacting with the racialized groups people belong to, which is further complicated when examining racialized novel practices.

As Ridgeway and Markus (2022) highlight, “[s]tatus may be an ancient and deeply rooted form of inequality but it is nevertheless cultural and not beyond our control” (p. 16). Status will endure, yet the creation of useful policy that attends to racialized impacts requires a strong and healthy media to play a critical role in the shaping of the public’s and policymakers’ social constructions of policy issues. For the media to be able to play that role, our society would need to acknowledge the status hierarchies of news authors’ colleges and then work to reduce these institutions’ dominance. This recommendation would mean deliberate changes in how and from where newspapers hire reporters. It would also likely necessitate strong labor protections within newspapers to allow for both the hiring of people who attended different types of colleges (or no
college at all) as well as editorial practices that focus on accurately reporting on a racialized reality instead of the false conception of objectivity.
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Figure 1. Characteristics of undergraduate institutions and use of racialized language in student loan news articles.

Panel A. Loan reliance

Panel B. Black student enrollment share

Note. Each panel has the quintile of the respective institutional characteristic for authors across the x-axis and the percentage of an author’s articles with racialized language along the y-axis. Higher quintiles mean larger shares of each institutional characteristic (i.e., larger percentage of students using student loans and larger percentage of undergraduate students who are Black).
Figure 2. Relationship between newspaper and use of racialized language in student loan news articles.

Note. Each of the purposively selected newspapers has a bar reflecting the average percentage of an author’s articles with racialized language for authors who have ever written for that newspaper (categories are not mutually exclusive). AJC = Atlanta Journal-Constitution, CHI = Chicago Tribune, LAT = Los Angeles Times, NYT = New York Times, PHL = Philadelphia Inquirer, USA = USA Today, WAPO = Washington Post, WSJ = Wall Street Journal.
Figure 3. Undergraduate institutions of student loan newspaper article authors (ever enrolled).

Note. National enrollment data comes from IPEDS 2018 data on total undergraduate enrollment for all institutions with undergraduate students. Author sample data reflects if an author ever attended the category of institution for an undergraduate degree. These categories are not mutually exclusive (e.g., an author could have attended both a Community College and a Public Flagship). Ivy Plus institutions include the Ivy League athletic conference plus Duke University, the Massachusetts Institute of Technology, Northwestern University, Stanford University, and the University of Chicago.
Figure 4. Sociogram of attending any US institution (undergraduate & graduate).

Note. Nodes represent U.S. institutions attended by authors for undergraduate and graduate degrees. Ties represent authors who attended two institutions (e.g., a connection between institutions is at least one author attending them). Nodes are proportional to the Eigenvector centrality (a measure of how many high degree or “popular” institutions share an author with a given institution). As Columbia University and Northwestern University have the largest Eigenvector centrality values, we highlight their ties. Light blue ties show authors who attended Columbia University and another institution. Purple ties show authors who attended Northwestern University and another institution. Only nodes and ties for the largest component of the network are visualized.
Figure 5. Overall sociogram of undergraduate institutions that send authors to graduate school.

Note. Nodes are institutions and are proportional to the Eigenvector centrality (a measure of how many high degree or “popular” institutions send an author to graduate school at a given institution). The larger the node, the more authors that institution educates for graduate school who attended popular institutions for other students’ graduate study for their own undergrad. Ties include arrows and point to where an institution sends undergraduate students for graduate school. Because institutions could have undergraduate students return for graduate school, we include loops. The thickness of ties is proportional to the number of authors. As Columbia University and Northwestern University have the largest Eigenvector centrality values, we highlight their outgoing ties. Light blue ties show authors who attended Columbia University for an undergraduate degree and point toward where they attended graduate school. Purple ties show authors who attended Northwestern University for an undergraduate degree and point toward where they attended graduate school. Only nodes and ties for the largest component of the network are visualized.
Figure 6. Local neighborhoods of Columbia University and Northwestern University.

Panel A. Columbia University

Panel B. Northwestern University

Note. Each panel includes the local neighborhood of the respective institution (at most 1 institution away from the focal institution). Nodes are proportional to the Eigenvector centrality (a measure of how many high degree or “popular” institutions send an author to graduate school at a given institution). The larger the node, the more authors that institution educates for graduate school who attended popular institutions for other students’ graduate study for their own
undergrad. Ties represent when authors attended one institution for undergrad and another
institution for graduate school (the arrow points to the graduate school institution). We include
loops when students attended the same institution for undergrad and graduate school and the
thickness of ties is proportional to the number of authors. Each panel includes colored lines
showing which institutions the focal institution sends its undergraduate students for graduate
school. We use the following shortened names for institutions to increase ease of visual
processing (alphabetical order): Berkeley (University of California-Berkeley), FIU (Florida
International University), Indiana (University of Indiana-Bloomington), Missouri (University of
Missouri-Columbia), NYU (New York University), St. Mary’s (MD) (St. Mary’s College of
Maryland), UC Davis (University of California-Davis), UC Irvine (University of California-
Irvine), UCLA (University of California-Los Angeles), UIC (University of Illinois at Chicago),
UIUC (University of Illinois at Urbana-Champaign), UMass Amherst (University of
Massachusetts-Amherst), UNC (University of North Carolina at Chapel Hill), and UT Austin
(University of Texas at Austin).
Figure 7. Relationship between author characteristics and use of racialized language in student loan news articles.

Note. Coefficient plot showing the results of regressing the percentage of articles with racialized language on author characteristics. Dot reflects the coefficient and the whiskers represent the 95% confidence interval. The beta coefficient is written above its respective visualization with commensurate significance stars. Author characteristics include: how influential an author’s institutions are in the network (above the median Eigenvector centrality), author ever attended an HBCU for an undergraduate degree, loan quintile for undergraduate institution (highest if author attended multiple institutions), Black undergraduate student enrollment share quintile (highest if author attended multiple institutions), number of articles in corpus, percentage of articles narrowly relevant in corpus (one of the primary foci of the articles is student loans), whether author ever wrote for the Wall Street Journal, and whether the first article in the corpus was published after 2015. We include robust standard errors. * p<.05, ** p<.01
Table 1. Most popular undergraduate institutions by newspaper.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>UGA (6)*</td>
<td>NU (11)*</td>
<td>Berkeley (8)*</td>
<td>Yale (11)*</td>
<td>Penn (3)*</td>
<td>NU (2)*</td>
<td>NU (10)*</td>
<td>Harvard (9)*</td>
</tr>
<tr>
<td>2</td>
<td>Harvard (3)*</td>
<td>Princeton (7)*</td>
<td>Harvard (6)*</td>
<td>Brown (9)*</td>
<td>Temple (3)</td>
<td></td>
<td>CU (7)*</td>
<td>Princeton (7)*</td>
</tr>
<tr>
<td>3</td>
<td>NYU (2)</td>
<td>Berkeley (6)*</td>
<td>Princeton (4)*</td>
<td>Harvard (7)*</td>
<td>ND (2)</td>
<td>Harvard (6)*</td>
<td>Stanford (7)*</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Chicago (5)*</td>
<td>USC (4)</td>
<td>Barnard (5)</td>
<td>NU (2)*</td>
<td>Cornell (5)*</td>
<td>Cornell (5)</td>
<td>NU (6)*</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Michigan (5)*</td>
<td>Princeton (5)*</td>
<td>PSU (2)*</td>
<td>Yale (5)*</td>
<td></td>
<td>Yale (5)*</td>
<td>Yale (6)*</td>
<td></td>
</tr>
</tbody>
</table>

Note. Each column reflects the top five institutions by undergraduate popularity (number of authors who attended for an undergraduate degree) by newspaper. The first row includes the total number of authors who ever wrote for the respective newspaper for which we were able to find undergraduate enrollment data. The subsequent rows list the most popular institutions for undergraduate study in order of popularity (first row is most popular). We include the number of authors who attended this institution for undergraduate study and wrote for the respective newspaper in parentheses (not mutually exclusive across newspapers). When we have ties (except for USA Today), we list the institutions in alphabetical order. We highlight the USA Today column with a * because it had a tie with the following institutions contributing two authors each: University of California, Berkeley*, Boston University, CUNY Brooklyn, Duke University, George Washington University, Michigan State University, Northeastern University, Northwestern University*, University of Texas at Austin*, and University of Southern California. We note Ivy Plus institutions with * (Ivy League athletic conference plus Duke University, the Massachusetts Institute of Technology, Northwestern University, Stanford University, and the University of Chicago) and Public Flagship institutions with a +. We use the following acronyms for institutions to increase ease of visual processing (alphabetical order): CU (Columbia University), ND (University of Notre Dame), NU (Northwestern University), NYU (New York University), PSU (Pennsylvania State University), UGA (University of Georgia), and USC (University of Southern California).
Table 2. Most popular institutions attended for any level of study by newspaper.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>UGA (6)*</td>
<td>NU (24)*</td>
<td>CU (14)*</td>
<td>CU (29)*</td>
<td>Penn (5)*</td>
<td>CU (6)*</td>
<td>CU (26)*</td>
<td>CU (17)*</td>
</tr>
<tr>
<td>2</td>
<td>CU (4)*</td>
<td>CU (17)*</td>
<td>UC Berkeley (13)*</td>
<td>Yale (18)*</td>
<td>NU (4)*</td>
<td>NU (4)*</td>
<td>NU (21)*</td>
<td>NU (11)*</td>
</tr>
<tr>
<td>3</td>
<td>Harvard (3)*</td>
<td>Berkeley (9)*</td>
<td>USC (8)</td>
<td>Harvard (11)*</td>
<td>Temple (4)</td>
<td>GW (3)*</td>
<td>Chicago (7)*</td>
<td>Harvard (10)*</td>
</tr>
<tr>
<td>4</td>
<td>GSU (2)</td>
<td>Chicago (9)*</td>
<td>NU (7)*</td>
<td>Brown (9)*</td>
<td>ND (2)</td>
<td>N’eastern (3)</td>
<td>Harvard (6)*</td>
<td>Stanford (9)*</td>
</tr>
<tr>
<td>5</td>
<td>NYU (2)</td>
<td>Princeton (7)*</td>
<td>Harvard (6)*</td>
<td>NYU (8)</td>
<td>PSU (2)*</td>
<td>NYU (6)</td>
<td>Princeton (8)*</td>
<td>Yale (6)*</td>
</tr>
</tbody>
</table>

Note. Each column reflects the top five institutions by overall popularity (number of authors who attended for an undergraduate or graduate degree) by newspaper. The first row includes the total number of authors who ever wrote for the respective newspaper for which we were able to find US enrollment data (not mutually exclusive across newspapers). The subsequent rows list the most popular institutions in the US in order of popularity (first row is most popular). We include the number of authors who attended each institution and wrote for the respective newspaper in parentheses. When we have ties, we list the institutions in alphabetical order. We note Ivy Plus institutions with * (Ivy League athletic conference plus Duke University, the Massachusetts Institute of Technology, Northwestern University, Stanford University, and the University of Chicago) and Public Flagship institutions with +. We use the following acronyms for institutions to increase ease of visual processing (alphabetical order): CU (Columbia University), GSU (Georgia State University), GW (George Washington University), N’eastern (Northeastern University), ND (University of Notre Dame), NU (Northwestern University), NYU (New York University), PSU (Pennsylvania State University), UGA (University of Georgia), and USC (University of Southern California).
Table 3. Summary statistics of networks.

<table>
<thead>
<tr>
<th></th>
<th>Any Attendance (Institution Focus)</th>
<th>Undergrad-to-Graduate</th>
<th>Any Attendance (Author Focus)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nodes</td>
<td>212</td>
<td>132</td>
<td>566</td>
</tr>
<tr>
<td>Ties</td>
<td>185</td>
<td>182</td>
<td>7111</td>
</tr>
<tr>
<td>Nodes (largest component)</td>
<td>120</td>
<td>117</td>
<td>446</td>
</tr>
<tr>
<td>Ties (largest component)</td>
<td>172</td>
<td>173</td>
<td>7026</td>
</tr>
<tr>
<td>Density</td>
<td>0.008</td>
<td>0.01</td>
<td>0.044</td>
</tr>
<tr>
<td>Degree (mean)</td>
<td>2.1</td>
<td>1.73*</td>
<td>25.4</td>
</tr>
<tr>
<td>Degree (centralization)</td>
<td>0.193</td>
<td>0.302*</td>
<td>0.197</td>
</tr>
<tr>
<td>Degree (Gini)</td>
<td>0.71</td>
<td>0.851</td>
<td>0.614</td>
</tr>
<tr>
<td>Eigenvector (mean)</td>
<td>0.039</td>
<td>0.022</td>
<td>0.141</td>
</tr>
<tr>
<td>Eigenvector (centralization)</td>
<td>0.953</td>
<td>0.978</td>
<td>0.848</td>
</tr>
<tr>
<td>Eigenvector (Gini)</td>
<td>0.802</td>
<td>0.967</td>
<td>0.788</td>
</tr>
</tbody>
</table>

Note. Any Attendance columns include statistics for networks of authors attending any US institution. The Any Attendance (Institution Focus) column is the network where institutions are nodes and authors who attended different institutions are ties. The Undergrad-to-Graduate column is the network where institutions are nodes and authors who attended one institution for an undergraduate degree and an institution for a graduate degree are the ties. This column includes directed ties with the potential of loops (an author attending the same institution for undergrad and graduate school). The Any Attendance (Author Focus) column is the network where authors are nodes and co-attendance at an institution is the tie. Statistics include the number of nodes and ties for the overall network and for its largest component, density of ties, degree (mean, centralization, and Gini coefficient), and Eigenvector centrality (mean, centralization, and Gini coefficient). For the Undergrad-to-Graduate column, given the directed nature of the network, we present the indegree (number of institutions sending undergraduates to a given institution). We note this with an asterisk.
Appendix A
Extended Research Methods

Article Data Collection

To obtain the original sample of all articles published from 2006 to 2021 that could be about student loans, we used the following search terms in ProQuest: a) college*, universit*, or “higher education”, and b) loan*, debt*, or borrow* where a * is used as a wildcard (so the search would return both “university” and “universities”).

Author Data Cleaning

In order to clean the author data, we created an author-level version of the article-level data, so that every author had a separate entry (separating authors who had co-written an article). ProQuest metadata typically included multiple author names separated by a semi-colon. However, occasionally author names were separated by commas. We explored all punctuation in author names to ensure we separated multiple authors whenever possible. We also explored all author entries that had more than one space and separated any entries with multiple authors.

We then used a combination of visual inspection and lexical similarity to locate: a) extraneous words in author metadata and b) near-duplicate author names. We used Levenshtein distance as our measure of lexical similarity. It is the number of characters that need to be removed, added, or substituted in order to convert one string into another. Next, the lead author removed extraneous words (e.g., “washington post staff writer”) and harmonized near-duplicate author names for 91 authors (e.g., “alan blinder” and “alan s blinder”) in consultation with the other authors. In two instances, authors’ names had been reversed for an article (e.g., “alexander lamar” for “lamar alexander”). We discovered this once we moved to the next stage of data collection (finding the colleges authors attended) and revised the underlying data so that names were correct. Finally, we removed articles that were missing author metadata, had author listed as “anonymous”, and did not list a human’s name (e.g., “the editorial board”). These actions resulted in a sample of 2,704 authors.

College Attendance Data Collection

As noted in the main text, we focused on degree-seeking enrollment. Authors frequently attended institutions for specialized journalism programs, such as the Knight-Bagehot Fellowship in Economics and Business Journalism at Columbia University. If we could not see clear evidence that the author attended the institution in order to earn a credential in addition to that special programming, we did not include that institution. Also, we collected a set number of college enrollments. We found evidence for only one author attending more institutions than our data protocol allowed. One author attended three undergraduate institutions and never earned a bachelor’s degree (which means we could only input two institutions given that the other entry field for undergraduate attendance was for where authors earned their first bachelor’s degree). One institution was a community college and two were regional public institutions in the same state, California State University-Northridge and San Diego State University. We elected to include California State University-Northridge because it had two other authors in our data
versus San Diego State University which had only one. Regardless of this decision, our results are qualitatively similar in magnitude, direction, and statistical significance. Finally, following the first round of data collection, the lead researcher emailed all authors with public contact information to solicit information about college attendance (with approval from Southern Methodist University’s Institutional Review Board).

For all college attendance data, each entry included the institution name, UNITID (the U.S. Department of Education Integrated Postsecondary Education Data System [IPEDS] ID), and the year a credential was earned whenever the information was available. We included multiple entries if someone attended the same institution for different degrees at different times (e.g., earning a master’s degree in 2007 and a doctorate in 2014 both from Harvard University). Any time we found college attendance information for an author, we saved the entire primary document as a PDF and uploaded it to a shared research folder. In order to increase our confidence in the hand-coded college enrollment data, we also used the institution name variable from IPEDS (instnm) to check and ensure that the institution names we hand entered matched the institution names in IPEDS.

Additional Measures

For the time-dependent institutional measures, we examined decile rankings of loan reliance (percentage of undergraduate students borrowing loans) and Black undergraduate enrollment share, instead of the raw numbers, at three different time points: 1) 1998 (first year of student loan data), 2) 2008 (ten years later), 3) 2018 (20 years later). We created decile rankings for each variable for all public and private not-for-profit institutions with undergraduate students and found sufficient correlation across the years to validate using deciles from any of the three years. For loan reliance, 1998 to 2008 was correlated 0.77, 1998 to 2018 was 0.76, and 2008 to 2018 was 0.87. For Black undergraduate enrollment share, 1998 to 2008 was correlated 0.90, 1998 to 2018 was 0.82, and 2008 to 2018 was 0.89. We chose 2018 data to allow more time for IPEDS data providers at institutions to be comfortable inputting student loan data (in early years of new variables there can be confusion in how to report information). We collapsed these categories into quintiles for analysis.
Appendix B

Figure B1. Undergraduate enrollment across newspapers (ever enrolled).

Note. National enrollment data comes from IPEDS 2018 data on total undergraduate enrollment for all institutions with undergraduate students. Each panel shows the percentage of students (for Natl bar) or authors (for all other bars) who ever enrolled in the respective institution type. Categories of institution types are not mutually exclusive (e.g., authors could have attended both a Public Flagship and a Community College). Within each panel, we include the percentage of students who enrolled in the United States in 2018 (Natl), the percentage of authors in our sample who enrolled by summer 2022 (Authors), and the percentage of authors who enrolled and ever wrote for each newspaper (not mutually exclusive). AJC = Atlanta Journal-Constitution, CHI = Chicago Tribune, LAT = Los Angeles Times, NYT = New York Times, PHL = Philadelphia Inquirer, USA = USA Today, WAPO = Washington Post, WSJ = Wall Street Journal
Figure B2. Sociogram of authors’ co-attendance at institutions.

Note. Nodes are authors and are colored to represent whether authors’ Eigenvector centrality is above (yellow) or below (purple) the median for the network. Ties are co-attendance at an institution.
Figure B3. Relationship between author characteristics and use of racialized language in student loan news articles for different samples.

Note. Coefficient plot showing the results of three different regression models of the relationship between the percentage of articles with racialized language and a binary of how influential an author’s institutions are in the network (above the median Eigenvector centrality) while controlling for other author characteristics. Numbers along the x-axis show the minimum number of articles an author had to have written in the data to be included in the individual regression (i.e., 3, 4, or 5). Dot reflects the coefficient and the whiskers represent the 95% confidence interval. Other author characteristics include: author ever attended an HBCU for an undergraduate degree, loan quintile for undergraduate institution (highest if author attended multiple institutions), Black undergraduate student enrollment share quintile (highest if author attended multiple institutions), number of articles in corpus, percentage of articles narrowly relevant in corpus (one of the primary foci of the articles is student loans), whether author ever wrote for the Wall Street Journal, and whether the first article in the corpus was published after 2015. We include robust standard errors.
Table B1. Summary statistics.

<table>
<thead>
<tr>
<th></th>
<th>U.S. Institution Data</th>
<th>No U.S. Institution Data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
</tr>
<tr>
<td>Articles (#)</td>
<td>10.31 (19.61)</td>
<td>4.76 (1.72)</td>
</tr>
<tr>
<td>Newspapers (#)</td>
<td>1.31 (0.56)</td>
<td>1.10 (0.31)</td>
</tr>
<tr>
<td>Narrowly relevant articles (%)</td>
<td>34.94 (28.52)</td>
<td>37.93 (35.72)</td>
</tr>
<tr>
<td>Articles with racialized language (%)</td>
<td>21.64 (24.77)</td>
<td>11.28 (20.12)</td>
</tr>
<tr>
<td>Total authors</td>
<td>566</td>
<td>29</td>
</tr>
</tbody>
</table>

Note. The first column includes summary statistics for authors with any U.S. institution data. The second column includes the same statistics for authors we either could not find any college attendance data for, authors who attended non-U.S. institutions, or authors for whom we could only find data about an institution that did not enroll undergraduate students and who thus could not be included in the main analyses (this affected one author).
Table B2. Top 10 institutions for each centrality measure.

<table>
<thead>
<tr>
<th></th>
<th>Degree</th>
<th>Eigenvector</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Columbia University (73)</td>
<td>Columbia University (1)</td>
</tr>
<tr>
<td>2</td>
<td>Northwestern University (36)</td>
<td>Northwestern University (0.696)</td>
</tr>
<tr>
<td>3</td>
<td>University of California-Berkeley (17)</td>
<td>University of California-Berkeley (0.322)</td>
</tr>
<tr>
<td>4</td>
<td>New York University (13)</td>
<td>New York University (0.317)</td>
</tr>
<tr>
<td>5</td>
<td>Harvard University (11)</td>
<td>University of Chicago (0.304)</td>
</tr>
<tr>
<td>6</td>
<td>Yale University (11)</td>
<td>Brown University (0.252)</td>
</tr>
<tr>
<td>7</td>
<td>University of Chicago (10)</td>
<td>Harvard University (0.227)</td>
</tr>
<tr>
<td>8</td>
<td>American University (8)</td>
<td>Yale University (0.219)</td>
</tr>
<tr>
<td>9</td>
<td>Princeton University (8)</td>
<td>University of California-Los Angeles (0.216)</td>
</tr>
<tr>
<td>10</td>
<td>University of California-Los Angeles (8)</td>
<td>University of Pennsylvania (0.208)</td>
</tr>
</tbody>
</table>

Note. Centrality measures from the full Any Attendance network projected to institution focus. We include the institution name and value (in parentheses) for the approximately 10 institutions with the largest values for degree and Eigenvector centrality (ties presented in alphabetical order).
Table B3. The relationship between author characteristics and use of racialized language in student loan articles.

<table>
<thead>
<tr>
<th></th>
<th>Articles with Racialized Language (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influence in network</td>
<td>-4.857* (2.053)</td>
</tr>
<tr>
<td>HBCU</td>
<td>20.885 (12.523)</td>
</tr>
<tr>
<td>Loan quintile (2nd)</td>
<td>1.383 (4.081)</td>
</tr>
<tr>
<td>Loan quintile (3rd)</td>
<td>2.452 (4.273)</td>
</tr>
<tr>
<td>Loan quintile (4th)</td>
<td>1.737 (5.492)</td>
</tr>
<tr>
<td>Loan quintile (5th)</td>
<td>3.317 (9.033)</td>
</tr>
<tr>
<td>Black enrollment quintile (2nd)</td>
<td>3.203 (4.052)</td>
</tr>
<tr>
<td>Black enrollment quintile (3rd)</td>
<td>8.122* (3.851)</td>
</tr>
<tr>
<td>Black enrollment quintile (4th)</td>
<td>11.255* (5.353)</td>
</tr>
<tr>
<td>Black enrollment quintile (5th)</td>
<td>11.124 (8.640)</td>
</tr>
<tr>
<td>Number of articles</td>
<td>0.000 (0.028)</td>
</tr>
<tr>
<td>Narrowly relevant (%)</td>
<td>-0.273** (0.035)</td>
</tr>
<tr>
<td>Ever wrote for WSJ</td>
<td>-6.334** (2.024)</td>
</tr>
<tr>
<td>First article post-2015</td>
<td>13.492** (3.111)</td>
</tr>
<tr>
<td>Constant</td>
<td>24.388** (5.639)</td>
</tr>
<tr>
<td>N</td>
<td>551</td>
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</table>

Note. Covariates include: how influential an author’s institutions are in the network (above the median Eigenvector centrality), author ever attended an HBCU for an undergraduate degree, loan quintile for undergraduate institution (highest if author attended multiple institutions), Black undergraduate student enrollment share quintile (highest if author attended multiple institutions), number of articles in corpus, percentage of articles narrowly relevant in corpus (one of the primary foci of the articles is student loans), whether author ever wrote for the Wall Street Journal, and whether the first article in the corpus was published after 2015. We include robust standard errors in parentheses. ‘p<.10, * p<.05, ** p<.01