ANNENBERG
BROWN UNIVERSITY

EdWorkingPaper No. 24-909

Racialized Reactivity: How Metrics-Formation Contributed to a Racialized Organizational Order in Medical Education

Heather McCambly
University of Pittsburgh

Quinn Mulroy
Northwestern University

Andrew Stein
Northwestern University

A common point of contention across education policy debates is whether and how facially race-neutral metrics of quality produce or maintain racialized inequities. Medical education is a useful site for interrogating this relationship, as many scholars point to the 1910, Carnegie-funded Flexner Report—which proposed standardized quality metrics—as a main driver of the closure of five of the seven Black medical schools. Our research demonstrates how these proposed quality metrics, and their philanthropic and political advocates, instantiated a racialized organizational order that governed the distribution of resources, the development of state certification processes, and the regulation of medical schools. This analysis provides traction for uncovering how taken-for-granted standards of quality come to maintain racialized access to opportunity in education.

VERSION: February 2024

Suggested citation: McCambly, Heather, Quinn Mulroy, and Andrew Stein. (2024). Racialized Reactivity: How Metrics-Formation Contributed to a Racialized Organizational Order in Medical Education. (EdWorkingPaper: 24-909). Retrieved from Annenberg Institute at Brown University: https://doi.org/10.26300/9ab7-5s41

Racialized Reactivity: How Metrics-Formation Contributed to a Racialized Organizational Order in Medical Education

Heather McCambly[1], Quinn Mulroy[2], and Andrew Stein[2]

[1] University of Pittsburgh, School of Education

[2] Northwestern University, School of Education and Social Policy

Author's Note

Heather McCambly https://orcid.org/0000-0003-0228-2462

Quinn Mulroy https://orcid.org/0000-0001-9797-1775

Andrew Stein https://orcid.org/0009-0003-5746-2193

We have no known conflict of interest to disclose.

Correspondence concerning this article should be addressed to Heather McCambly, Department of Educational Foundations, Organizations, and Policy in the School of Education at the University of Pittsburgh. Email: mccambly@pitt.edu

Abstract

A common point of contention across education policy debates is whether and how facially race-neutral metrics of quality produce or maintain racialized inequities. Medical education is a useful site for interrogating this relationship, as many scholars point to the 1910, Carnegie-funded Flexner Report—which proposed standardized quality metrics—as a main driver of the closure of five of the seven Black medical schools. Our research demonstrates how these proposed quality metrics, and their philanthropic and political advocates, instantiated a racialized organizational order that governed the distribution of resources, the development of state certification processes, and the regulation of medical schools. This analysis provides traction for uncovering how taken-for-granted standards of quality come to maintain racialized access to opportunity in education.

Keywords: Racialized organizations; metrics and measurement; medical education; philanthropy; political development; equity and quality

Racialized Reactivity: How Metrics-Formation Contributed to a Racialized Organizational Order in Medical Education

The recent spate of high-profile colleges and universities opting out of the divisive but persistently influential *US News and World* (USN) reports has generated fresh debates about the drawbacks of rankings in education and the metrics that underlie them. These debates often recognize that metrics used to describe and classify schools—from pre-K programs to graduate schools—can operate as powerful levers for shaping the goals, programs, and investments that educational institutions prioritize (Colyvas, 2012). An organization's ranking can provide or restrict access to benefits, in the form of grants, enrollment, and public funding, as well as encourage schools, and the individuals who run them, to respond to metrics in order to secure footing in the resulting hierarchy (Rottenburg et al., 2015; Sauder & Lancaster, 2006).

These responses can carry long-lasting implications—not only for individual schools, but also for entire fields of educational practice. Perhaps chief among them is the field-level consolidation of what educational quality means: who has it, what it entails, and what it takes to get it. Critically, education research has identified that the metrics that contribute to field-wide understandings of educational quality (e.g. standardized test scores, college scorecards) can themselves be influenced, albeit implicitly, by racial ideas and categories (Espeland & Sauder, 2016; Espeland & Yung, 2019; Richards et al., 2018; Wooten & Couloute, 2017). Research tells us, for instance, that when quality metrics are used to determine which schools to fund, close, or promote, the outcome is often racialized (e.g., Au, 2016; Freidus & Ewing, 2022; Gándara & Rutherford, 2020; Rhodes, 2011; Richards et al., 2018). But how does this field-level pattern develop? How do ostensibly race-neutral standards of quality become linked to racialized outcomes? While educational scholars have drawn links between standards-based policies on the

one hand and racialized outcomes on the other, we still know little about the *political processes* by which standards, metrics, and rankings may (or may not) contribute to the maintenance of educational inequality (McCambly & Mulroy, 2024).

To better understand this puzzle, we consider the development and legacy of educational standards in a particular setting: medical education. The literature on medical education often signals that the field's move toward standardization began with the 1910 publication of a high-profile report by the Carnegie Foundation for the Advancement of Teaching (CFAT) on *Medical Education in the US and Canada* This study—commonly referred to as the "Flexner Report" after its author, Abraham Flexner—proposed metrics for distinguishing high- from low-quality medical schools and constituted the first, but far from the last, CFAT-funded report to propose and develop educational standards in higher education (Ris, 2021; Lagemann, 1992). In medical education circles, the Report is commonly discussed in terms of its impact on the field: as a catalyst for a period of reform and standardization at the turn of the century. But it is also, at times, cited as a precipitating factor in the disproportionate closure of Black medical schools in the early 20th century (Bailey, 2017; Baker et al., 2009; Duffy, 2011; Savitt, 2006)—a series of shutdowns that some estimate reduced the population of Black medical doctors by half for the next century (Campbell et al., 2020). Yet, we know little about how this Report on quality metrics potentially contributed to these racialized outcomes. Indeed, scholars have not analyzed the political origins of the Report, the participants and political ideas that shaped its construction, and how its publication led to the racialized field-level outcomes. This case thus offers a window into the politics of metric formation, the ongoing social implications of classificatory schemes in education, and how shared metrics can act as a technology of racialized hierarchy.

In this paper, we provide a historical analysis of an extensive database of archival

documents tracing the multi-decade (1901-1925) coordinated efforts of medical education reformers at CFAT and the Rockefeller Foundation's General Education Board (GEB)—two northern, white philanthropic bodies that influenced 20th century education politics—as well as the American Association of Medical Colleges and the American Medical Association (AMA) to develop and instantiate medical education standards. We demonstrate how these standards of medical education quality came to instantiate a racialized logic that governed the distribution of and access to resources, the development of state certification processes, and the regulation of medical schools via an AMA-sponsored accrediting body (the Council of Medical Education, or CME). These standards came to define legitimate practice in the field of medical education and, in so doing, drastically restricted access to the profession and to medical care.

In what follows, we examine two research questions: 1) What political and racialized ideas and rationales shaped the construction of medical education standards?, and 2) What were the outcomes of this process? While racial segregation already characterized the medical education field in the early 20th Century, we demonstrate that the metrics developed and disseminated by the Flexner Report, as well as the field's reaction to these metrics, marked a critical moment in the crystallization of what we will define as a *racialized organizational order* in medical education. The order was motivated by a democratically-framed discourse on educational quality that was nevertheless grounded in a bipartite, racialized conception of the public health and educational needs of Black and white communities. Key to this process, we will argue, was the impact of this network of medical education reformers—based in philanthropy and professional associations—in, first, funding studies that helped to establish a field-level and exclusionary consensus on standards for medical education and, second, directing support or sanctions to schools based on these criteria over time. In the end, our analysis

provides a basis for interrogating taken-for-granted standards of educational quality that maintain racialized access to opportunity in medical education and beyond.

Review of Literature and Conceptual Framework

In the following sections, we bridge the research on the role of quality metrics in driving racialized outcomes in medical education with literature that documents the origins of the so-called "modern" medical education field. In doing so, we highlight a need to understand the political processes by which metrics in medical education were first conceived and implemented.

The Racialization of Medical Education

Recent scholarship has classified medical education as a racialized field that contributes to the persistent underrepresentation of practicing doctors of color (Bailey et al., 2021; Nguemeni et al., 2022; Walker, 2023). This work largely focuses on how ostensibly race-neutral admissions processes, pedagogies, and metrics for evaluating prospective doctors can produce anti-Black and racist effects on the medical field and restrict minoritized students' access to the medical profession (Gallagher & Bailey, 2000; Nguemeni et al., 2022; Williams et al., 2020). Still, many scholars recognize that the presence of racism in the medical field is hardly a new phenomenon. Indeed, taking a historical perspective, some highlight the pivotal role of philanthropic influence on developing standards and metrics of medical educational quality that facilitated racial exclusion in the field. Scholars argue that the philanthropically-led Flexner Report, which constituted the first attempt to standardize and develop metrics to measure educational quality across medical schools in the U.S., contributed to the closure of five of the seven Black medical schools in existence at the time of its publication (Bailey, 2017; Walker, 2021). One estimate suggests that had these five Black medical colleges not closed in the early 20th century, they could have educated about 30,000 additional Black doctors over the next

century (Campbell et al., 2020). But the existing scholarship on foundational documents like the Flexner Report does not examine or explain *how*, or the processes by which, the development and application of these standards for educational quality resulted in such dramatic racialized effects (Steinecke & Terrell, 2010; Walker, 2023).

This confluence of northern white philanthropy and Black postsecondary education is not unusual in the history of higher education (J. Anderson, 1978; 1997; Francis, 2019). Northern industrial philanthropists frequently intervened throughout the 19th and 20th centuries when states underfunded Black educational infrastructure leaving schools in danger of losing (or never gaining) accreditation. However, this investment has been historically supportive of a "racially dual" system of resource segregation supported by white-supremacist ideology that differentiates the types of education and professions to which Black learners have access (J. Anderson, 1997). In so doing, white industrial philanthropy has long been implicated in strengthening rather than weakening political support for segregation (Francis, 2019; Highsmith & Erickson, 2015; J. Anderson, 1978, 1997). Some scholars have pointed to how white supremacist ideologies about the "quality" of Black learners and Black institutions have shaped philanthropists' actions (Wooten, 2006, 2015). However, this intersection of metrics of educational or student quality and the structural entrenchment of racial hierarchy is not well understood.

The Intersection of Quality and Equity: (E)Quality Politics

This omission constitutes a pivotal missing link in our understanding of *how* ideas about quality—whether through standards-based accountability policies (Au, 2016; Ewing, 2018; Knoester & Au, 2017) or public ranking systems like *USN* (Espeland and Sauder, 2016)—can function as technologies for maintaining racial hierarchy in education. Prior work has demonstrated, for instance, that political ideas about or metrics of educational quality can be

used as powerful mechanisms of backlash in resisting transformative change to racialized inequalities. This work finds that especially in the critical moments of access expansion to educational spaces and fields occurring in the mid-to-late 20th Century, civil rights opponents were able to undermine and reframe educational priorities in terms of a need to preserve and protect the putative 'quality' of educational institutions—a phenomenon referred to as *(e)quality politics* (McCambly & Mulroy, 2024). Over time, such processes can activate demands for the compensation, protection, and maintenance of time-honored "high quality" institutions or groups, thus obscuring and undermining equity goals.

The question remains, however, *why* metrics of quality are so effective as a device of backlash to equity transformations in education. Answering this question, we argue, necessitates looking back: before the mid-20th Century experiments with access expansion that prompted threat-based quality arguments from civil rights opponents, and to the moments of *metrics formation* that would come to govern ideas around what constitutes quality in a field for years to come. Situated within the broader social reform project of the Progressive movement, the standardization of medical education was driven by dominant scientific ideas of measurement, evaluation, and ranking that nonetheless served as an incubator for racialized hierarchies – tools that could later be called upon by civil rights opponents decades later (Highsmith & Erickson, 2015; Leonard, 2015). Our project, then, is to uncover an origin story of how white-supremacist but facially race-neutral metrics for educational quality materialized and, over time, developed as effective technologies of racial hierarchy.

Quality Metrics and Institutionalization

It is perhaps no surprise that performance or quality metrics would become points of contention in battles over the balance of power in educational politics. Quality metrics, often

derived from theories of scientific management or the social science of the day, play a critical role in institutionalization because they provide a "patina of objectivity" that bolsters the legitimacy of the institution (Colyvas & Powell, 2009). Neo-institutional theory holds that an institution—as a structure, norm, or routine—is defined by "self-activating" and "self-reproducing" modes of reproduction (Jepperson, 1991). Modes of reproduction can be used to measure institutionalization: the more numerous and stronger modes of reproduction are, the more deeply institutionalized these structures become (Anderson & Colyvas, 2021). Metrics, as a powerful mode of reproduction, can thus play a defining and reproductive role in maintaining the reproduction of hierarchy and stratification (Espeland and Sauder, 2016; Colyvas, 2012). And indeed, there are multiple instances in the U.S. educational politics in which northern philanthropists have leveraged metrics to this very end (Ris, 2018; Tompkins-Stange, 2016).

In this paper we posit that performance metrics in education can take on a distinctive, organizing role in racial formation (Omi and Winant, 2014; Anderson & Colyvas 2021). Upon gaining widespread acceptance, metrics can spark *reactivity*—the process by which social institutions are reordered as actors' material responses to metrics affect the phenomena of interest and reify the very assumptions embedded within them (Blakely, 2020; Colyvas & Powell, 2009; Espeland & Sauder, 2016). Indeed, Espeland and Sauder (2016) have demonstrated how rankings of U.S. law schools, which have been based on statistics such as job placements or numbers of library books, lead stakeholders to expend resources on these measured outcomes as opposed to other possible goals. Metrics can thus become particularly sticky, self-activating modes of reproduction as organizations react to field-level metrics and generate more modes of reproduction (Anderson & Colyvas, 2021; Chun & Sauder, 2022; Knoester & Au, 2017).

Reactivity not only delimits actors' attention by illuminating certain school-level data while obscuring others, it can also reinforce actors' beliefs about educational quality. Through processes of commensuration, for instance, metrics can shape cognition, directing attention to specific information about performance at the expense of other information, particularly through the conversion "of qualitative differences in form to quantitative differences in degree" (Colyvas, 2012; Espeland & Sauder, 2016). Performance metrics can also contribute to the development of self-fulfilling prophecies, in which assumptions embedded in metrics create expectations for performance, and responses to these expectations magnify or substantiate them (Espeland and Sauder, 2016; Merton, 1972). Through transforming beliefs or attention at the individual and social level, quality metrics change patterns of behavior and can (pre)determine outcomes, though often quietly or inconspicuously (Hibel & Penn, 2020).

The existing literature on how metrics drive institutionalization, however, largely overlooks the role of power, ideology, and racial politics in shaping the construction of metrics and standards. Despite the many studies of metrics as catalysts of racialized outcomes, the absence of racial politics is especially evident in the study of educational metric formation (Anderson and Colyvas, 2021; Nguemeni Tiako et al., 2022; Schneider & Noonan, 2022). Work on the ethics of classification systems suggests that the racialized impacts of metrics must be understood in the context of the racialized schemas that guide metric development. Of particular significance to racialized reproduction is how a "presentist bias" can shape metric formation, especially when "conditions are measured without accounting for how those conditions arise" (Espeland and Yung, p. 241). A presentist bias in educational policy-making can, and often does, have the effect of focusing on racial "gaps" in performance metrics while ignoring the historically contingent conditions of their construction (Patel, 2015). By relying on metrics while

also ignoring the important, historically-contingent conditions of their construction, metrics can feed self-fulfilling prophecies in which "past performances determine future performances" (Ringel et al., 2020, p. 13). Without research accounting for how racialized ideas can be incorporated into the *formation* of standards, we are thus left without a clear theoretical basis for understanding how metrics that appear race-neutral can disproportionately harm minoritized communities (Ewing, 2018; Knoester & Au, 2017).

Conceptual Framework: Racialized Organizational Orders

This study examines the development and enforcement of facially race-neutral educational metrics to, in the words of the Flexner Report, "reconstruct" the medical education field – a process that ended in distinctly racialized outcomes. Key to our analysis, therefore, is an examination of processes of racial formation in the construction of metrics. Racial formation is "the sociohistorical process by which racial identities are created, lived out, transformed, and destroyed" (Omi and Winant, 2014, p. 109), or the cultural and structural processes by which racial constructs become material and lived realities. Omi and Winant offer the language of "racial projects" as the building blocks of racial formation. Racial formation unfolds through a series of projects that articulate, formalize, and disseminate racial categorizations in ways that stratify the delivery of social benefits to one race over another (Fields & Fields, 2014; Omi and Winant, 2014). At the heart of this argument is the recognition that the United States, as a political ecology, is constructed of many, interconnected racial projects that support the constitutionally guaranteed rights and benefits afforded to white Americans while restricting those same rights and benefits to other racial groups (Wooten & Couloute, 2017).

More recently, organizational sociologists have brought attention to how many racial projects are, in practice, carried out and institutionalized at the level of organizations (Wooten

and Couloute, 2017; Ray, 2019; Ray and Purifoy, 2018). The era of *de jure* segregation of social goods in the U.S. resulted in the creation of separate organizations to serve minority communities. These organizations were in turn ascribed a racialized identity (Ray, 2019). This identity then facilitated *de facto* systemic disparity in the delivery of resources, sometimes referred to as an *inequality regime* (Acker, 2006, see also Ray, 2019; Wooten & Couloute, 2017), in which racialized organizations are constructed as undeserving of resources or recognition. In so doing, "racialized inequality regimes give credence to claims that organizations not serving the White racial project deserve fewer financial and political resources than those that do" (Wooten & Couloute, 2017). Wooten (2015), for example, points to the privilege afforded to primarily white colleges, regardless of their ability to serve Black students, as an underlying driver of poor political support for HBCUs.

Much of the recent attention to the role of organizations in reproducing racial inequity has focused on applications and critiques of Victor Ray's (2019) theory of racialized organizations (TRO). Ray's theory of racialized organizations provides a framework for examining "the way race influences organizational formation, hierarchies, and process" (Ray, 2019, p. 28). Much like the notion of racialized inequality regimes, TRO proposes that racialized organizations create rules and norms that legitimize inequitable resource distribution by differentiating white and minoritized organizational types. Racialized organizations likewise adhere to norms, policies, and routines that disproportionately award resources, legitimacy, and agency to white-serving organizations at the expense of minoritized organizations like HBCUs. In practice, this means an organization's claim or proximity to whiteness ascribes status that legitimates "bureaucratic means of allocating resources by merit" (Ray, 2019, p. 41).

This framework does not speak, however, to how racialized inequality regimes (or the

racialized organizations that populate them) come to be and how these metrics often disproportionately direct resources to white organizations, driven by racialized organizational foundations (McCambly & Colyvas, 2024; McCambly & Aguilar Smith, Forthcoming). Indeed, we have a lesser grasp on how these types of race-neutral metrics were developed and institutionalized (McCambly & Colyvas, 2022). To this end, we propose the need to study institutionalization as a verb—that is, how racism came to be institutionalized amongst organizations—rather than looking only at institutionalized racism as a static, present reality.

In this study, we focus analytically on the *institutionalization* of a racialized inequality regime across a *field* of racialized organizations. In the process, we clarify how metrics can play a powerful role in the formation of a self-reproducing hierarchy across multiple organizations, which we refer to as a *racialized organizational order*. We define a racialized organizational order as a formalized and self-reproducing set of political structures that, guided by anti-Black or otherwise racist logics of action, contribute to "patterned regularity" in the distribution of resources to racialized groups and organizations (Lieberman, 2002, p.698).

Data and Methods

We take a historical case-study approach to the collection and analysis of archival data. As a method, case studies allow researchers to engage in an "in-depth description and analysis of a bounded system" that produces a thick description of the origins, implementation, and results of decision-making processes (Spillman, 2014; Yin, 2009). Table 1 provides an overview of the sites and size of data corpora. A range of material from organizational and personal archives facilitates triangulation to compensate for omissions of any single source (Roth & Mehta, 2002).

Table 1

Archival Data Collection Sites and Status

Archival Site and Paper Collections	Documents
Rosenwald Fellows - Negro Medical Graduates 1919 - 1922. *Rockefeller Archive Center (RAC), Sleepy Hollow, NY*	153 documents
General Education Board, Negro Medical Education, Medical Education, General. *RAC.*	674 documents
Meharry Medical College - General Support 1943 - 1954, *RAC.*	43 documents
Carnegie Foundation for the Advancement of Teaching Records, 1905 - 1979, *Rare Book and Manuscript Library at Columbia University (RBML), NYC*	115 documents
Carnegie Corporation of New York Records, circa 1872 - 2015 *RBML*	90 documents
Abraham Flexner Papers, 1865 - 1989, *Library of Congress, Washington D.C.*	112 documents

Note. Complete citation information for the extensive original archival evidence cited throughout this paper is available in the supplemental online appendix.

We conducted a first-round coding that identified the speaker, nature of the text (e.g., government report, correspondence), target populations to be served by the policies or programs in question, and meanings assigned to discussions of quality. We used these codes to construct a list of critical events, a roster of actors, and timelines to organize our findings. This process focused our attention on 1901 to 1925—a timeframe bounded on one end by early concerns about educational quality raised by high-profile actors in the medical field, and on the other by the opening of the University of Rochester Medical Center, which marked consensus in educational philanthropy about which schools to fund (Rockefeller Foundation, 1925). A comprehensive review of correspondence in these archives surfaced a close network of high-power actors operating collaboratively at the Carnegie Corporation, the CFAT, Rockefeller Foundation's GEB, the American Medical Association, the American Association of Medical Colleges, the Council on Medical Education, and several elite universities.

We use this archival evidence to engage in process tracing to generate a detailed reconstruction of who advocated for what, for what reason, whose opinions or voices were

considered and whose were absent, and how these relationships and positions changed over time (Collier, 2011; Mahoney, 1999; Mehta, 2013). Included in our review were ledgers and records of the data Flexner and others collected about medical schools as well as data on coordination among reformers and the flows of philanthropic dollars. We focused on capturing the development of "quality" measures in relation to actors' political vision for medical education reform. We then traced when and how these same actors applied their quality measures to make decisions about funding and capacity-building at Black and white institutions.

Case and Context

In the decades leading up to the publication of the Flexner Report, the medical field was characterized by racial exclusion and segregation (Baker et al., 2009). The AMA, the professional organization that proposed nationwide medical policy since its founding in 1847, was composed of only white physicians and denied membership to Black physicians. In 1895, a group of Black doctors formed the National Medical Association (NMA) to promote, according to its mission statement, the "mutual cooperation and helpfulness [of] the men and women of African descent" practicing in the medical field (Roman, 1909). This racially segregated system produced distinct and segregated networks of medical care and education that were well-solidified by the start of the 20th century.

During the first years of the new century, AMA leadership vocalized concern about the state of the medical education field—a concern that was formalized in 1904 through the AMA's establishment of the CME. In 1906, the chairman of the newly formed CME, Dr. Arthur Bevan approached CFAT President Henry Pritchett—a scientist and former president of the Massachusetts Institute of Technology—about the "sorry situation of medical schools" in the U.S. with the exception, Bevan added, "of the Johns Hopkins" (Flexner, 1956). Upon hearing of

the purportedly poor quality of the vast majority of medical schools, Pritchett devised a plan for CFAT to support a medical education reform effort to be led by Abraham Flexner, an educator-turned-researcher who earned his degree at Johns Hopkins University and penned one of the first books critiquing educational practices in higher education (Flexner, 1908).

It was in this context of increasing calls for medical education reform that Flexner set out to research and complete his report, surveying and collecting data on every medical school in the United States and Canada. The goals for the Report were twofold. Flexner and a network of medical school reformers, first, used the Report to formulate a clear set of educational and training standards for differentiating high- from low-quality medical schools. Second, these new standards could then be used to direct regulatory attention and funding streams to force the closure of low quality medical schools. Over the course of the next two decades, a network — a network we will refer to as "medical education reformers" throughout this paper — of university administrators (including those at other elite schools besides Johns Hopkins), medical association and board leaders (e.g. Chairman Bevan and Secretary Colwell at the AMA's CME and leaders of state-level medical licensing boards), educational researchers (e.g. the Flexner brothers, Pritchett), and private funders (e.g. Rockefeller, Carnegie, Rosenwald) would closely coordinate on the institutionalization of a model of "modern" medical education in the U.S. (Gardner, 1956, p. 2). This coordination occurred both during the development of standards debuted in the Flexner Report (see, e.g., Motter, 1909; Pritchett, 1910; Pritchett, 1909; Pritchett 1909), and through funding and advocacy to enforce the Report's proposals (see, e.g., Pritchett, 1910; Pritchett,1911; Pritchett, 1912; Pritchett, 1910). To understand how this culling is linked to racialized outcomes for Black medical schools and the students they have served requires an analysis of the mechanisms by which medical school reformers institutionalized a new regime of

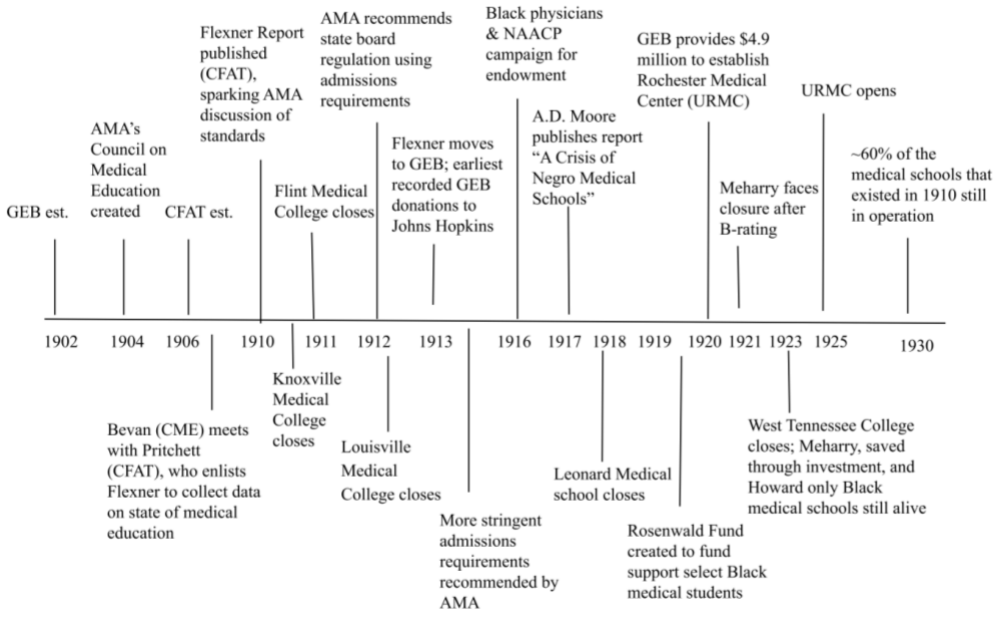
modern medical education.

Findings

In the sections that follow, we demonstrate how racialized understandings of public health informed the construction and implementation of educational standards from 1901 to 1925 (see Figure 1). These developments contributed to racialized outcomes in the resourcing and persistence of medical schools and access to the medical profession.

Figure 1

Timeline of Key Events



Our argument unfolds in three parts. First, we show how, on the surface, racial concerns were not a central driver of the medical education reformers at the start of the 20th Century. Instead, this network of reformers saw themselves as concerned observers ringing the alarm on social harms caused by a lack of oversight in the field of medical education. For these reformers, concerns about the quality of medical education stemmed from the rapid and unregulated expansion of medical schools in the U.S.—a trend that had generated a heterogeneous field

characterized by widely varying curricula, pedagogy, and laboratory amenities at different medical schools. Reformers articulated both their ideal model, but also its markers (i.e., metrics) which would serve as critical tools for regulation. To this end, our second finding emphasizes how the development and application of quality metrics facilitated racialized outcomes through two mechanisms: 1) metrics, based on this "ideal model" of standardization, ranked colleges primarily according to organizational wealth—a resource heavily segregated along racial lines, and 2) an application of these metrics guided by a bipartite logic toward public health in Black and white communities—a logic that relegated the value and purpose of Black medical education to a second-tier concern. Finally, our third theme demonstrates how this bipartite logic resulted in segregated patterns of philanthropic grantmaking that not only perpetuated segregated medical education, but cemented, in norms and resources, the standing of surviving Black medical colleges in a racialized organizational order. In the end, the mutually reinforcing relationship between the bipartite logic and harmful metrics transformed what had been a *de facto* segregation of resources into a formalized and self-reproducing structure, solidifying a racialized organizational order in the medical field.

Theme 1: Closure and the Optimization of Medical Education for the Public Good

The shared concern uniting the CFAT, AMA, and Rockefeller-affiliated reformers of this era was the ostensive threat to the public good posed by the lack of regulation of U.S. medical colleges. According to reformers, this lack of regulation not only allowed for the existence and operation of substandard medical schools, but also flooded the market with physicians who received disparate training experiences, in terms of both substance and quality, in medical school. In a foreword to the Report, Pritchett lamented the lack of "unity of purpose or standards" in the medical education field, warning that this lack of standards had "obscure[d] in

the minds of the public any discrimination between the well trained physician and the physician who has had no adequate training whatsoever" (Pritchett, 1910, p. *vii*). This concern was repeated throughout discussions and correspondence sent between Pritchett, Bevan, and Flexner during the development and publication of the Report: that without the creation and enforcement of national standards, the "overmultiplication" of medical schools would continue to pose a public health crisis for patients who were unable to discern amongst physicians (Vincent, 1920).

In order to redress existing problems in medical education and public health, as well as avert potential social harms caused by under-regulation, reformers argued that the entire field of medical education needed to be restructured, starting first with the closure of many existing medical schools. Pritchett, for instance, contextualized the data collection effort of the Report as a part of a "reconstructive process"—one that was necessary to stem the tide of unregulated medical school proliferation and that would, by necessity, result in the "disappearance of many existing schools" (Pritchett, 1910, p. *xiv-xv*). Guided by democratic ideals to "safeguard the right of society to the service of trained" physicians, Flexner justified the effort to cull the field to bring it in line with an ideal medical school model (Flexner, 1910, p. 12).

The network of reformers repeatedly referenced the public interest in motivating their effort. In correspondence, for instance, Flexner, Pritchett, and Gates, reiterated their responsibility to create a system for supporting the development and maintenance of modern medical colleges capable of advancing the physical and social health of the public. Pritchett and Flexner's focus on disease prevention stemmed from their preoccupation with the German model of medical education—embodied in the U.S. only at the Johns Hopkins School of Medicine—as a standard for systemic medical education reform (Furst, ca. 1950). Fundamentally, Flexner conceived of his research and advocacy in the Report as a means of executing the vision

proposed by the first Dean of Johns Hopkins' School of Medicine, Dr. William Welch, for the establishment of a "modern" medical program, which the Report later defined as the "medical sciences proper—anatomy, physiology, pathology, pharmacology" (Flexner, 1910, p. 25). The study and teaching of these sciences generally entailed hands-on instruction and required laboratories and clinics—resource-intensive amenities and pedagogies that were, outside of Johns Hopkins, far from prevalent in institutions of medical education at the time.

Reformers, from Gates at Rockefeller to Pritchett at CFAT, argued that it would be imperative to concentrate resources, investment, and attention on *only* the medical schools capable of carrying out this heavy burden of training physicians to pre-empt disease, preserve health, *and* foster scientific advancement. This meant that a survey of the field of medical schools would require, at its conclusion, the closure of schools incapable of taking on this great social responsibility, such that resources could be dedicated to optimizing the capabilities and resources of schools with "high grade," and ultimately "elite," designations (Rockefeller Foundation, 1919; Rockefeller Foundation, 1925).

Medical education reformers were aware that their plan to close a significant number of medical schools would make securing medical training more difficult. Flexner noted, for instance, that these closures would pose an impediment to "the poor boy" in receiving medical training (Pritchett, 1910, p. xi). Flexner, however, dismissed this claim. Positioning the "interest of the poor boy" in equitable access to medical education opposite a public interest in access to well-trained physicians, Flexner argued that "[i]t is clear that the poor boy has no right to go into any profession for which he is not willing to obtain adequate preparation…and that the excuse which has hitherto been put forward in the name of the poor boy is in reality an argument in behalf of the poor medical school." Constructing a zero-sum calculation, whereby expansive

access to medical education jeopardized public health, the Report made the case that the more that resources were devoted to supporting educational access, the more they would be squandered on inadequate medical schools (Pritchett, 1910).

Reformers thus framed the need for field-level change in terms of democratic interests in protecting public health and thereby promoting the public good. Although these appeals to the public good appeared race-neutral, underlying and implicit racialized conceptions of the medical needs of the public would ultimately serve to produce racialized outcomes in terms of which medical schools would be saved and which communities' health needs would be prioritized.

Theme 2: Constructing (Racialized) Standards of Medical Education and Public Health

Across correspondence and monographs, medical school reformers reasoned that, under this modern medical education model, an institution's existing financial capital and funding structure shaped its potential (Blumer & Slemons, 1918; Rockefeller Foundation, 1919) . As a result, reformers relied heavily on institutional resources in their conceptualization and measurement of quality metrics for medical education. The development and application of quality metrics by reformers thus created a two-fold mechanism that cemented a racialized organizational field for medical education: first, reformers channeled their vision reform into resource-focused standards of educational quality that had differential implications for Black and white medical schools given their segregated provenance and, second, reformers applied a bipartite logic that assigned the Black medical schools that survived closure a second-tier purpose in service of public health.

Racialized Metrics, Racialized Closures

Flexner's proposed (and later adopted) metrics, which featured prominently in the Report's chapter on "Financial Aspects of Medical Education," included eight criteria for

ranking medical schools. These eight metrics, including their definitions and example applications from the Report, are displayed in Table 2. Flexner developed an extensive, handwritten ledger during his tour of medical schools across the U.S. and Canada, which he used to construct the measures. Upon publication of the Report, these measures diffused across the medical reform community and laid the foundation for a field-level classification system that would later be adopted by the AMA.

Table 2

Medical School Quality Metrics Identified by Flexner Report

Quality Metric	Definition	Excerpt from Flexner Report
Curriculum, teaching methods, and teaching equipment	Instruction should take place in labs and clinics where each student has access to equipment (in contrast to the "didactic model" of instruction that relied on lecturing).	While under the didactic model "anybody could… walk into a medical school from the street," even if they "could barely read and write," now "with the advent of the laboratory, in which every student possesses a… microscope, reagents, and other paraphernalia…; with the advent of the small group bedside clinic, in which every student is responsible for a patient's history and for a trial diagnosis…the privileges of the medical school can no longer be open to casual strollers from the highway" (22).
Faculty responsibilities	Faculty should conduct scientific research in addition to teaching.	"Practitioners of modern medicine must be alert, systematic, thorough, critically open-minded; they will get no such training from perfunctory teachers. Educationally, then, research is required of the medical faculty because only research will keep the teachers in condition" (56).
Number / proportion of full-time faculty	Instructors should be fully employed by the medical school rather than part-time.	"The school faculty must be the sole and entire hospital staff, appointment to which follows automatically after appointment to the corresponding school position" (p. 106). "[T]he first clinical teachers have been salaried and, in a measure, withdrawn from general practice" (p. 133).
Faculty pay	Instructors should be paid sufficiently so they do not pursue other work.	"The professor of medicine…will be physician-in-chief to the hospital… The university hospital will be their laboratory; their salaries will protect them against the distractions of successful practice" (132).
Minimum admissions criteria	Two years of college & courses in chemistry, biology, and physics.	"We have concluded that a two-year college training, in which the sciences are 'featured,' is the minimum basis upon which modern medicine can be successfully taught" (26).
Endowments	Funding should come	"Medicine is expensive to teach. It can in no event be taught out of

	from endowments and philanthropic giving, not student fees.	fees. Reputable institutions with no other outlook should combine with better favored schools or stop outright…Abundant benefaction should strengthen…the relatively small number of schools required" (141-142).
Connection to university	Med schools should be integrated into universities, with close ties to administrators.	"Johns Hopkins Medical School...was the first medical school in America of genuine university type…" (11). "The basis for which we have urged for medical education gives an undoubted advantage to the university medical departments." (47).
Connection to teaching hospital	Instruction should involve residency programs and practical experience.	"A hospital under complete educational control is as necessary to a medical school as is a laboratory of chemistry or pathology. High grade teaching within a hospital introduces a most wholesome and beneficial influence into its routine" (xi).

For this generation of reformers, adherence to these quality metrics provided an indicator of a high-quality medical school, a distinction best exemplified by Johns Hopkins. Hopkins was the first school that Flexner visited in preparation for the Report, and it was there he enumerated the quality markers that subsequently formed the basis for evaluation of other schools. While reformers acknowledged the impossibility of reproducing Hopkins across the nation, they advocated for using its "standards and ideals" as an inextricably linked set of criteria to serve as the basis for field-wide reform (Flexner, 1910, p. 11-12). Reformers argued, for example, that a modern medical education was predicated on the completion of a rigorous curriculum taking place in costly and resource-intensive labs and conducted by expert, full-time clinical faculty. The completion of this curriculum, in turn, required a reliance on demanding admissions standards to keep out "casual strollers from the highway" (Flexner, 1910, p. 22). Likewise, these stringent admissions criteria would need to be enforced by university administrators who were committed to making the medical schools an "integral" component of the whole institution (Pritchett, 1910, p.vii-viii). This made an institutional connection to a well-regarded university a prerequisite for the provision of modern medical education.

Thus, baked into these metrics of quality was a necessary proximity to financial capital of the type held disproportionately by the most storied universities. The capital needed for the

operation of modern medical institutions, reformers argued, could not be sustained by student tuition or fees alone. Reformers worried that fee-driven schools could neither raise funding commensurate with modern standards, nor transcend the motives of profit to promote the public good (Rockefeller Foundation, 1925; The National Confederation of State Medical, 1911). Rather, medical schools could thrive only via the tutelage of university endowments. In an early memorandum to John Rockefeller, Sr., Gates stressed the importance of developing philanthropic avenues of capital for endowments in order to meet these criteria: "[m]edicine can hardly hope to become a science until it can be endowed, and qualified men enabled to give themselves to uninterrupted study and investigation, on ample salary" (Rusk, 1956). Accordingly, the Report provided a directive to the approximately 120 fee-driven schools in existence: either "combine with better favored schools or stop outright" (Flexner, 1910, p. 137-142).

Table 3 captures these metrics, as applied to the seven extant Black medical schools and seven of the so-called "high-grade," white medical schools identified in the Report (Flexner, 1910, p. 29; Rockefeller Foundation, 1919). An analysis of these metrics across the two sets of medical schools reveals stark disparities, especially in resource levels. The metrics reported by Flexner did not yield a single Black medical school that was comparable to the "high-grade" schools in terms of its resources. As seen in Table 3, Black medical schools had smaller annual budgets and were more likely to rely upon student fees, as opposed to endowments, for income. While the "high-grade" schools each had substantial endowments that were the product of previous philanthropic investment, Meharry Medical College was the only Black medical college reported to have a (comparatively meager) endowment to draw from. Aside from Howard and Meharry, Black medical schools were also less likely to be integrated into larger universities, or

to possess laboratory facilities with expensive research equipment. While not every medical school serving white students had resource levels similar to the "high-grade" institutions, the entire population of Black medical schools lacked an institution with comparable resources. Notably, the two Black schools with the greatest likeness to "high-grade" institutions in terms of resources and affiliation were those founded by white missionaries: Howard and Meharry.

Table 3

Resources of Black and White Medical Schools, as Reported in Flexner Report

	University Relationship	Admissions Requirements	Full-time Faculty	Annual Budget	Student Fees Income	Endowment Income
	Black Medical Schools					
Howard University	Integral Dept	High school course	22 (80)	$40,000	$26,000	
Meharry Med College	Integral Dept	< 4 years high school	12 (14)	$28,946	$20,310	$35,000
Flint Medical College	Affiliated	N/A	6 (9)	< $10,000	$1,300	
Leonard Med School	Affiliated	< 4 years high school	8 (1)		$4,721	
Knoxville Med College	Independent	Nominal	9 (2)		$1,020	
University of West TN	Independent	Nominal	14 (0)		$2,000	
National Medical College (in KY)	Independent	< high school grad	17 (6)		$2,560	
	White "High-Grade" Medical Schools					
Johns Hopkins University	Integral Dept	BA w/ chem, physics, bio, German, French	23 (89)	$80,229	$60,542	$3,632,289 ($19,687/year)
Harvard University	Integral Dept	BA, or 2 yrs. college in science & language	23 (150)	$251,389	$72,037	$3,326,961
Yale University	Integral Dept	2 years of college	14 (50)	$43,311	$15,325	($10,000/year)
University of Chicago	Integral Dept	2 years of college	89 (141)	$82,452	$60,485	($45,738/year)
Washington University	Integral Dept	4 years high school & exams	48 (51)	$51,265	$21,000	$1,500,000
Vanderbilt University	Integral Dept	< high school grad	17 (23)		$26,250	
Columbia University	Integral Dept	Regents' Medical Student Certificate, physics and chem	38 (138)	$239,072	$75,000	$832,351

This comparison illustrates the context of racial stratification in which the Report developed indicators of educational quality. Intentional or not, a legacy of racial segregation, Jim

Crow, and disinvestment in Black communities and institutions predetermined that the proposed metrics would be racialized in effect. This legacy was perhaps most evident in the differentiated admissions criteria reported for white, "high-grade" and Black medical schools. While the white, "high-grade" medical schools typically required some college work or a BA complete with courses in science and language, all the Black medical schools only required some high school coursework. Due to longstanding systemic inequalities in access to high school, it was infeasible for Black medical schools, especially those operating under Jim Crow in the South, to require credentials that most Black applicants could not access.

In short, both the prior wealth available to white universities and the feasibility of restrictive entrance standards were politically constructed, racialized phenomena that were built into formal metrics of medical school quality. As a result, the racially differentiated "performance" on these metrics provided reformers with the grounds to advise the speedy closure of a substantial majority of the Black medical schools. The Report pronounced that, aside from Howard and Meharry, "of the seven medical schools for negroes in the United States," the remaining "five are at this moment in no position to make any contribution of value" and that nothing will "be gained by…the survival of… ill equipped institutions" (Flexner, 1910, p. 181). Medical school closures were not exclusively confined to Black medical schools. Of the 131 medical schools Flexner surveyed for the Report, over 40 percent closed within 20 years. But given that the fields of education, public health, and medical education were deeply racially segregated throughout this period, the impact of the closures of five out of seven Black medical schools was disproportionately felt. By the time the fifth and final Black medical college closed in 1923, access for Black people to opportunities in medical training—as students, faculty, and administrators—had been swiftly and sharply limited.

Public Health and a Second-Tier Purpose for Howard and Meharry

The metrics developed in the Flexner Report, for all intents and purposes, sealed the fates of low-ranked medical schools across the country. This included the closure of over 70 percent of Black medical schools, which constituted the primary providers of medical care to Black communities in the South. To be clear, *every* Black medical school received low ranking assessments according to the Report's metrics, but the Report advised that Howard and Meharry be saved. These remaining two schools, therefore, existed in a precarious relationship with regard to the metrics for educational quality developed by the Report: the schools were deemed low quality, and yet they would not be closed.

Reformers, most notably Flexner and Pritchett, wove a complex argument for why this should be the case—one that discussed the purpose of Black medical schools squarely in terms of harm reduction for middle- and upper-class white populations. Some institutions, they argued, need not exist to fulfill the reform movement's call for "modernized" approaches to medical education, steeped in the laboratory training and scientific discoveries that made medical advancement possible. Rather, some Black medical schools should exist to provide a particularized medical training aimed at protecting white communities from infection. In a chapter on "The Medical Education of the Negro," the Report cited hookworm and tuberculosis as diseases to which Black Americans have demonstrated a particular susceptibility and warned that poor health in Black communities irrevocably posed a "potential source of infection and contagion" to white communities (Flexner, 1910, p. 180). Framing Black Americans' proximal presence as at once a public health threat but also "a permanent factor in the nation," the Report made clear that because Black public health was a "problem" that needed to be managed and contained, some Black medical schools would need to remain open.

This preservation, however, was predicated on a racialized reform logic that prioritized the public health of white communities and, as such, offered a stratified model of medical training that differentiated between the educational "needs" of Black and white physicians. If Black medical schools were necessary to help contain disease transmission between Black and white communities, the Report argued, public health priorities did not require Black physicians to receive the surgical and bacteriological training that should otherwise be s medical school standard. Rather, under this "harm reduction" model, the Report advised that Black physicians receive an "education in hygiene rather than surgery," allowing them to "educat[e] the race to know and to practice fundamental hygienic principles" (Flexner, 1910, p. 180-1). Positioning Black doctors as productive "social instruments," the Report stressed the importance of cultivating a "missionary" mindset among Black students—one in which Black physicians would "look upon the diploma as a commission to serve their people humbly and devotedly, [so that] they may play an important part in the sanitation and civilization of the whole nation" (p. 180).

This differentiation in both the value of Black health and the social purposes of Black medical education provided a pathway for the formation of divergent organizational types that not only allowed for, but indeed required, separate standards of educational quality for Black and white medical schools. Reformers argued for the preservation of Howard and Meharry, but did do so using the rationale that these schools fulfilled a necessary but second-tier purpose in protecting white public health (Thirkfield 1910; Moton, 1918; Brinx 1918; Massey, 1947). These racialized standards were soon adopted and echoed throughout the field, including by administrators at the two remaining Black medical schools. In a 1910 speech delivered after the Report's publication, for instance, Howard University's (white) president, Wilbur Thirkfield, presented his vision for the critical role of Howard graduates in not only "touch[ing] the life,

regenerat[ing] the home, root[ing] out superstition, and lead[ing] his people upward" but most importantly, protecting "the health of both races" by maintaining the "physical condition of the colored people." (Thirkfield, 1910).

Theme 3: After the Report: Raising Funds… or Lowering the Bar

In the years following the publication of the Flexner Report, its proposed quality metrics were used to regulate and enforce the closure of low-grade medical schools, but, perhaps more consequentially, to shore up and direct concentrated philanthropic funding and resources to the schools believed to possess the highest capacity to promote the public good. In this era, medical school reformers, Flexner and Pritchett chief among them, would work to coordinate private donors and pool funds to build on "high-grade" institutions' existing capacities. Immediately after the Report's publication, Flexner moved to the Rockefeller Foundation to run the medical division of its GEB. With Henry Pritchett at Carnegie and Flexner at Rockefeller, these reformers directed the philanthropic funding largesse of CFAT and the GEB toward coordinated targets for decades. Together, they poured millions into the capital assets of schools they deemed most worthy, thus influencing which schools would flourish and which would fall.

Yet, while reformers saved Howard and Meharry from closure, these schools were ignored in future stages of philanthropic funding. This racialized neglect meant that, even though Howard and Meharry would not be forced to close, the structural support needed for their survival was far from guaranteed. Rather, as we demonstrate in this section, correspondence between reformers and philanthropists reveals how consistent, collective, and racialized conceptions of medical needs ultimately informed judgments about institutional worthiness and grantmaking decisions (Thirkfield, 1910; Durkee, 1924; Durkee, 1922; Pritchett, 1921; Carnegie Corporation, 1920). In the end, the bipartite logic regarding public health adopted by these

reformers legitimated the simultaneous maintenance of Meharry and Howard *without* parallel investment, thereby institutionalizing a second-tier status for Black medical schools.

Philanthropic Grantmaking Concentrated on "High-Grade" Institutions

At the time of the Report's publication, even "high-grade" medical schools had trouble passing muster, generating a field-wide scramble for capacity building. These schools had the good fortune, however, of having cultivated deep relationships with northern white reformers affiliated with philanthropies from the time of their establishment. Between 1904 to 1910, our archival findings reveal frequent correspondence between philanthropic organizations and administrators at these "high-grade" medical schools—a level of activity made even more stark in contrast to the virtual silence between philanthropic organizations and the seven Black medical schools in existence at the time. While there are over 100 pages of correspondence between Harvard, CFAT, and the GEB in our dataset, only a single direct correspondence could be found between the white reform network and the five Black medical colleges that closed (Harvard University Medical School, 1910; Flexner, ca.1904-1910).

The close coordination (or lack thereof) between college leaders and philanthropists shaped the fates of medical schools. For example, after Flexner recommended the closure of Washington University in St. Louis (Wash U), collaboration between the GEB, Pritchett, and Pritchett's "old friend" Robert S. Brookings, a leading benefactor of and board chair at Wash U, helped to "transform [the medical school] into an institution that would stand up alongside the Medical School of Johns Hopkins" (Calkins, 1950). Wash U's development was facilitated by communication between Brookings, who promised upgrades, and Flexner, who returned to the school after his initial evaluation upset Brookings to offer specific, personalized guidance. The school's success was secured when Brookings fulfilled his promise, giving well over half a

million dollars to transform Wash U's infrastructure, which was then matched (eight times over) by a $4 million grant from the GEB (Calkins, 1950; Flexner, 1909). No equivalent relationship with an enterprising reformer nor the independent wealth of a white benefactor was available to any of the Black medical schools that would close over the ensuing decade.

Notably, closures and concentrated investments were not the only strategies employed by northern white reformers to achieve their goals. Reformers also *opened* new medical schools. This was the case at the University of Rochester Medical Center (URMC), established in 1925 at the behest of Flexner and other GEB members who wanted to encourage medical schools in New York City to conform more closely to "modern" laboratory and clinical standards (Calkins, 1950). The GEB recruited George Eastman, philanthropist and founder of Eastman Kodak, for the cause, capitalizing on Eastman's desire to found "an ideal dental clinic" at Rochester (Calkins, 1950) and provided the school with an initial endowment of $4.9 million in 1920.

The philanthropic largesse directed toward investments like the founding of URMC reflected and resulted from two related but distinct metrics of institutional quality that had by then dominated the field: proximity to whiteness and financial capital. This ultimately produced a bipartite logic for investment in Black and white medical schools, which drove two sets of financial futures: one characterized by optimization and improvement, and the other by sheer survival. As demonstrated in Table 4, in the years after the publication of the Report, the GEB directed significant funding to "high-grade" medical schools to improve their training programs and build their endowments but provided only small grants to Howard and Meharry to help maintain daily operational costs. In its earliest recorded donation in October of 1913, the GEB gave nearly $1.4 million to Johns Hopkins to be used towards its endowment and capital projects. In May of 1916, the GEB gave $1 million each to the University of Chicago (for the

endowment, buildings, and equipment) and Wash U (endowment). By contrast, later that year in October, the GEB gave Meharry a total of $5,000 to help it pay off "current expenses." This donation to Meharry amounted to 0.5% of the total given to Chicago or Wash U that year.

Table 4

Funding Granted to Black and White ("High-Grade") Medical Schools

	General Education Board		Carnegie Foundation		Rockefeller Institute	
	Years	Amount	Years	Amount	Years	Amount
Black Medical Schools						
Howard University	1913-29	$541,877	1916-31	$0	1914-25	$0
Meharry Medical College	1913-29	$735,945	1916-31	$194,500	1914-25	$0
White "High-Grade" Medical Schools						
Johns Hopkins University	1913-29	$10,245,841	1916-31	$2,000,000	1914-25	$7,097,587
Harvard University	1913-29	$1,393,664	1916-31	$0	1914-25	$2,344,834
Yale University	1913-29	$6,956,943	1916-31	$275,000	1914-25	$225,000
University of Chicago	1913-29	$10,939,080	1916-31	$0	1914-25	$1,237,233
Washington University	1913-29	$7,238,388	1916-31	$0	1914-25	$0
Vanderbilt University	1913-29	$15,165,373	1916-31	$2,500,000	1914-25	$0
Columbia University	1913-29	$1,418,000	1916-31	$1,105,000	1914-25	$1,000,000

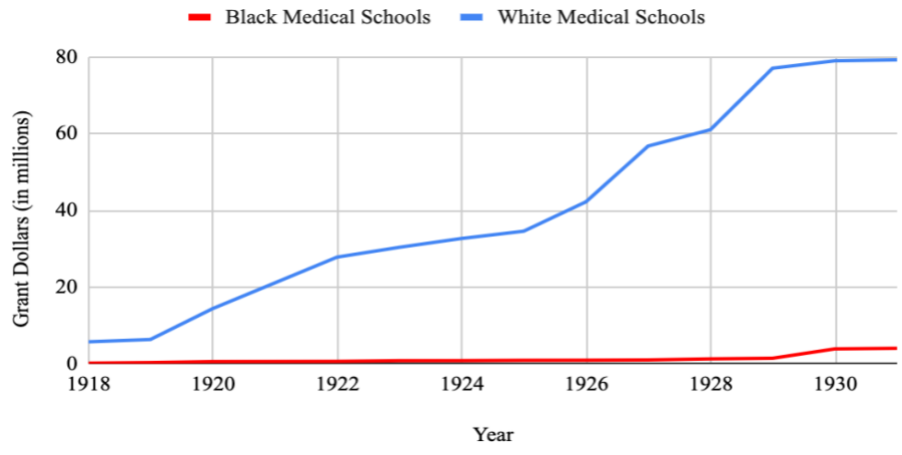
Most crucially, records indicate that these racial disparities did not just exist between "high-grade" white schools and Black schools; rather even among other white schools not rated "high-grade," Black schools continued to receive less funding. A 1920 report on Southern medical schools written by Flexner, for instance, offered funding recommendations on a set of struggling medical schools—none of which qualified for a position in the "high-grade" list. In this Report, Flexner recommended a $250k endowment to Howard (but did not mention Meharry and Leonard). This investment would take Howard to an estimated annual income of $347 per student. This figure, however, was the lowest of all the southern schools included in the report and was 37% of the funding amount recommended for its closest peer (University of Cincinnati

(Cincinnati)) and about 200% less than the wealthiest school on the list (Flexner, 1920). Moreover, the two schools just above Howard on this measure, Cincinnati and Emory, both had incoming resource windfalls: at Emory, the city had agreed to pay for two new buildings and a hospital, and at Cincinnati, the city agreed to pay for a new hospital and to direct more tax revenue to the school. No such gifts or political efforts were noted at Howard.

Over time, as shown in Figure 2, the bipartite logic governing funding decisions to Black and white medical schools produced a jarring disparity in the funding totals granted to the schools over the pivotal two decades following the publication of the Flexner Report. From 1913 to 1929, for instance, while Johns Hopkins received $10.2 million and Wash U received $7.2 million from the GEB, Meharry received a total of $735,945 and Howard (which received its first gift in 1920) received a total of $541,877. The donation to Howard in 1920 equaled 6% of the nearly $5 million grant that was ultimately provided for the establishment of URMC that same year (Rockefeller Foundation, 1924). After URMC spent its endowment to build its hospital, the GEB provided $2.5 million to re-furnish the school's endowment (Rockefeller Foundation, 1925). This grant was more than any GEB grant to Howard or Meharry at any time.

Figure 2

Cumulative GEB Grant Totals to Black and White Medical Schools, 1902-31



Black Doctors and Allies Campaign to Fortify Black Medical Schools

The immense disparity in the distribution of grants and resources following the Flexner Report was due neither to Black medical schools' acquiescence, nor to funders' ignorance of their needs. The Black medical community and its allies began to lobby the GEB and CFAT for endowment funding as early as 1916. Correspondence in this post-Report era reveals that Leonard (Shaw), Howard, and Meharry—three of the four Black medical schools still open in 1916—were willing and eager to meet the new standards for modern medical education set by the Report. Leadership at these schools made clear to the GEB and CFAT that financial support, specifically endowment and capital funds, would be required to meet these standards.

One early appeal came from Dr. Everett E. Smith, a biologist on the Howard faculty and the first Black Ph.D. trained at the University of Chicago. In March 1916, a letter from Dr. Smith reached Flexner by way of Oswald Villard, a journalist, civil rights activist, and founding member of the NAACP. In his letter, Dr. Smith insisted Howard is "doing the best we can with almost no money—we have no endowment. I am particularly interested in our need of a first-class laboratory for hygiene." Echoing the Report's arguments about the value of Black medical education, Smith appealed for an audience with a potential benefactor for the school who might be interested given that Howard's students "become centers for the spread of correct notions of health, sanitation, etc. [in the South]." (Just, 1916). Despite Villard's endorsement of Dr. Smith and his plea, Flexner's reply was dismissive, stating only that he was "fully conscious of [the] importance" of Black medical school funding needs, but was unable to act considering the "grave practical differences to overcome" (Villard, 1916).

Dr. Smith's letter was a harbinger of a coordinated campaign to pressure the GEB to supply endowments sufficient to permanently elevate the facilities and capacity of the remaining

Black medical schools. In 1917 and 1918, the presidents and deans of Leonard, Howard, and Meharry joined forces with the American Baptist Home Mission, the NMA, the Southern Medical Association (SMA), the North Carolina State Board of Health, and Duncan Eve, the Chief Surgeon of Tennessee, to advocate for the conferral of significant endowments to the Black medical schools by the GEB.

At the center of this campaign was a November 1917 report written by Aaron McDuffie Moore, a prominent Black doctor from North Carolina, wealthy businessman, and alumnus and benefactor of Leonard. The report, entitled "A Crisis of Negro Medical Schools," laid out an argument for investment in Black medical education following a convening in Philadelphia of the NMA and leaders of Leonard, Howard, and Meharry. At the time, both Meharry and Leonard faced closure given the "B" ratings they received from the CME—ratings that would make their graduates non-licensable in at least 28 states. During this meeting, the coalition resolved to seek endowments for Black medical schools from the very organizations that were flooding many white medical schools with funds. Moore's report, which appears to have structured the appeals from across allied organizations throughout 1918, reasoned that Black medical schools had been afforded neither the "opportunity nor sufficient means to provide adequate facilities for such training as [was] now required by State Examining boards" (Moore, 1917). It stressed that these schools were "financially embarrassed and [could not achieve] the rapid progress imposed… by standard requirements. Without financial aid, all face[d] the common fate of closing their doors."

Critically, neither the schools nor their allies lobbied for lower standards for Black medical schools. Moore's report stated, "our wish is not that the standard be lowered, but that an opportunity be accorded Negro boys to meet the requirements laid down for all" and that there "is no class of professional striving harder to serve the race and Nation than the Negro doctor,

full fifty per cent of his practice is absolute charity…Simple justice demands that present conditions be remedied." This argument appeared, sometimes nearly verbatim, in letters of support from organizations as diverse as the Tuskegee Institute and the SMA, whose president, Lewellys Barker, said he "consider[ed] it of the highest importance for health conditions in this country among both whites and blacks" that CFAT and the GEB act to relieve Black medical schools' funding deficits, a declaration voted on and backed by the SMA (Barket, 1918).

While consistent appeals for endowment funding by the Black medical network sparked heated conversation between Flexner, GEB, CFAT, and the CME, ultimately these appeals were not met, nor sometimes even acknowledged. In 1917, the President of Howard wrote to Flexner on behalf of all three schools, asking for $800k each for Howard and Meharry and $400k for Leonard, which had recently and voluntarily downgraded from offering four years to only the first two years of medical training. In 1918, Tuskegee Institute president Robert Russa Moton asked Flexner to meet with the leaders of the three Black medical schools and the NMA (Rockefeller Foundation, 1918). These requests were ignored. When Flexner and grantmakers did respond to appeals made by the Black medical network, they prevaricated. For example, Flexner (or his secretary writing on his behalf) shared that the consideration of funding requests was not practical at that time and that an "appropriation of th[is] size…. will not greatly improve what you are otherwise able to do. Medical education is a difficult and expensive undertaking" (Rockefeller Foundation, 1917). In the end, the only funding made available between 1916 and 1918 went to Meharry, a fact Flexner separately conveyed as a generous outcome (Sage, 1918). Flexner did not acknowledge the other schools' needs or that funding to Meharry that year totaled only $7,500 (Rockefeller Foundation, 1924), a far cry from the $800k requested.

Without any funding from the GEB or CFAT, Leonard Medical School closed in 1918.

These closures made the NMA and the surviving Black schools acutely aware of their financial predicament (Journal of the National Medical Association, 1918). In the early 1920s, Howard and Meharry again focused their lobbying not on lowering standards, but on securing endowment funds to meet these standards. These requests, as in one written by Howard Secretary-Treasurer Emmett Scott to Pritchett at CFAT in October 1921, made clear that the school's "limited facilities forbid the acceptance of large numbers of earnest Colored students who apply for entrance upon our professional courses" (Scott, 1921). Referencing many of the metrics outlined in the Flexner Report, Scott appealed for funds to meet these standards: "[D]ue to our financial inability to employ a sufficient number of teachers to instruct the ward, clinic and class groups, so essential to the best medical education." But Scott's appeal to the optimization model rang hollow. While, on paper, Howard would be evaluated on and held to these standards by the AMA, the reformers holding the keys to the philanthropic funds needed to meet these standards still maintained, as we discuss in the next section, different ideas about the appropriate standards for Black medical colleges. Two months later, the Carnegie Corporation wrote back to Howard President Stanley Durkee that the Trustees had made their decision: they would be unable to support Howard in the "present year" or "for some years to come" (Carnegie Corporation, 1921).

With the priorities of these philanthropic organizations clear, Durkee's request the following April for the Carnegie Corporation to match the conditional commitments made to Howard by the GEB took a more alarmist tone: "To lose the conditional gift of the [GEB] will mean overwhelming disaster as the Board has granted us the provisional gift during the time we have struggled to meet the bequest. Not to match that gift and so double our income means the turning away of scores of colored young men and women who can gain their full medical education only at Howard Medical School" (Durkee, 1922). The strategy of providing

provisional gifts based on the ability of medical schools to secure contributions from other funders put a fine point on the fact that access to financial capital itself—and by extension, proximity to whiteness—became a discrete indicator of educational quality.

Lowering Standards for Underfunded Black Medical Schools

As a result of racialized funding conditions, "high-grade" medical schools received the financial capital necessary to modernize in accordance with reformers' vision of medical training, while Howard and Meharry were held to a subsistence level of financial capital. In the absence of philanthropic funding comparable to that received by white medical schools, Black institutions could not modernize to the same degree over the two decades following the Flexner Report. As Black medical schools' relative standing (per the Report's metrics) continued to decrease vis-a-vis white colleges, and the AMA and state boards began to strictly enforce medical education standards for schools, the future of Black medical education was in jeopardy.

In this context, a rift began to form among medical education reformers about how to apply medical education standards to the remaining Black medical colleges. On one side stood Flexner and Pritchett who, now in their leadership capacities at CFAT and the GEB, were key gatekeepers to philanthropic largesse and brought with them their racialized conceptions of the second-tier purposes of Black medical education. But this vision soon bumped up against, on the other side, efforts by standards-enforcement bodies like the AMA and CME to uphold and update the metrics first outlined in the Report for safeguarding a system of modern medical education in the U.S. For example, shortly after the publication of the Report, the AMA began to ramp up expected standards for admission to medical schools, recommending first in 1912 that state boards enforce a four-year high school education requirement, and then again in subsequent years recommending an increase to a minimum of one year of premedical college education, and

then later two years. Flexner, Pritchett, and leadership at Black medical colleges sharply criticized these increases, particularly with regard to how heightened standards might endanger the survival of the remaining Black medical colleges (Flexner, 1914; Hubbard, 1914; Pritchett, 1914). In correspondence with Pritchett, longtime Meharry president George Hubbard expressed distress that, "I am sorry to see that an attempt will be made to add another year of college work to the requirements of admission" since "it would be next to impossible for either Vanderbilt or Meharry to meet such requirements" (Hubbard, 1915). But while neither Vanderbilt nor Meharry was predicted to meet these stringent requirements, differential access to funding meant that Vanderbilt would have a greater chance to recover and meet these standards. For Black medical schools like Meharry, the funding needed to modernize was not readily available.

Instead, Flexner and Pritchett campaigned against the AMA's adoption of universal quality standards for all medical school types. Long maintaining that Black medical schools were necessary to addressing the "problem" of racial coexistence, and for containing the potential for contagion from Black communities, Flexner and Pritchett fought to persuade the AMA to adopt a different set of standards for Black medical schools. In April 1921, with a "B" rating from the AMA jeopardizing Meharry's endowment, Flexner wrote to Pritchett to discuss how they (through their positions at CFAT and GEB) might convince Bevan at the CME that "Meharry is as good an 'A' school for the Negro race as half a dozen institutions or more rated 'A' for whites." Reasoning that an "A" grade for a Black medical school should mean something different than for a white medical school, they proposed that "'A' schools are, as a matter of fact, simply the best schools in their respective sections…On that principle Meharry would be an 'A' school…" (Pritchett, 1921, April 15). Racialized logics underlying the purpose of Black medical education justified separate standards of quality and classification schemes.

Six days later, Flexner wrote to Pritchett again, galvanized upon learning that the Black medical students recently awarded the Rosenwald Fellowship to study at Howard were not intending to remain in the Jim Crow South afterwards to practice medicine. He asserted that with Howard graduates eschewing their duties to the Black South, Meharry was all the more critical to solving the "race problem," and as such, the AMA should make "Meharry an 'A' school, not because it is entirely satisfactory…but because it is the best possible under the circumstances, has good leadership, and is trying hard every day to be better" (Flexner, 1921). Echoing language included in the Flexner Report that attributed Meharry's worth to "one [white] man, Dr. George W. Hubbard, who… has for a half-century devoted himself singly to the elevation of the negro" (Flexner, 1910, p. 181), this informal "leadership" metric became a key one that Flexner and Pritchett leaned on over the ensuing years for discussing the merits of Black medical schools. Rather than provide more endowment funding as the CME recommended, however, the solution for Flexner and Pritchett was to lower expectations for Black medical schools' improvement.

While these post hoc, racialized discussions of Black medical school quality required the advocacy of powerful reformers precisely were not codified in the original wave of reform, they were, over time, legitimized by private funding streams. Importantly, these discussions differed from Black medical schools' own regarding their merit – advocating not for lowered standards but for investments that matched those given to northern white schools. Rather than provide more endowment funding, as evaluating institutions like the CME recommended, however, the solution for Flexner and Pritchett was to lower expectations for Black medical schools' improvement while advocating for their subsistence survival. By 1923, Meharry was able to make sufficient capital improvements and enforce higher admissions requirements, securing the school's survival. With the closure of the University of West Tennessee College of Medicine and

Surgery that same year, two Black medical schools remained. Thus, while white reformers debated the implementation of standards vis-a-vis Black medical schools and funding generosity, racial gatekeeping characterized these processes and bolstered the self-reinforcing structure between racialized logics of medical education and subsistence-level support.

Discussion and Conclusion

Past scholarship has characterized turn-of-the-20th-century medical education reformers as both effective and successful in implementing a vision for a modern medical field that was sustained over the course of the next century. Indeed, the method of grading medical schools established by this reform movement provided a template for the creation of the influential Carnegie Classification system (Ris, 2018)—what has become, in the words of Pritchett (1914), a highly-utilized means for sorting the "goats" from the "sheep" in higher education. Other scholarship has, anecdotally and without a clear causal mechanism, framed the Flexner Report as a driver of institutional racism in the field with implications for the medical profession today.

In this paper, we bring these lines of work together to analyze not only whether and how reformers' standardization efforts were racialized, but how racialized effects were achieved within a larger standards-focused movement that included philanthropy, professional organizations, and state licensing boards. We find that the Flexner Report's medical education metrics facilitated a series of policies and decisions that transformed the field. This transformation was seeded, first, by reformers' use of resource-based metrics – which failed to contend with, and therefore reinforced, racist sociopolitical conditions long contributing to resource-inequities among medical schools (Flexner, 1910, p. 181) – to justify mass school closures. Second, reformers developed these metrics alongside their articulation of a bipartite logic toward public health in Black and white communities, which demoted Black medical

education to a second-tier purpose. In practice, this bipartite logic normalized reformers' racialized regulatory and funding decisions. Critically, the exclusion of Black voices from decisions about educational access, quality, and funding reinforced northern white men's visions about the purposes of Black medicine; this, in turn, shaped reformers' engagement with Black medical schools, the work of Black scientists, and the differential access Black communities had to medicine (Carnegie Corporation, 1925). Ultimately, funders' and regulators' reactivity to quality standards transformed a field marked by *de facto* segregation into a formalized and self-reproducing set of arrangements and outcomes, solidifying a racialized organizational order.

Mechanistically, we find that presentist bias was a major factor shaping the racialized cognition of the field's most powerful actors and led to material consequences via reactivity. Reactivity can be understood as actors' material responses to metrics that in turn affect the phenomena measured. Reformers' reactivity thus channeled the presentist bias and bipartite logic about the purposes of public health into funding and rating structures that stabilized and magnified a racialized order. These effects occurred through two main processes. First, through the process of commensuration, the formation of field-wide metrics transformed qualitative differences into quantitative measures of quality. For the purpose of regulation, the AMA collapsed Flexner's metrics into an "A-B-C" rating scheme. In doing so, it obscured qualitative information on the sociopolitical factors contributing to Black schools' differential educational capacity and thus drew false equivalences between metrics of quality and medical schools' historical access to financial and social capital. In other words, presentist bias channeled complex, historically-contingent questions about "quality" into hard, quantitative cut-offs. Because a school's graduates could not obtain licensure for anything below an "A" rating, a low ranking for a school was a death notice. Such flattened, facially objective grades belied the white

reform network's political control of historical narrative and time, itself a kind of capital, and dealt a fatal blow to Leonard Medical School (Joshi, 2023).

Second, through the process of self-fulfilling prophecy, assumptions built into the metrics created predictions for performance, and actors responded based on those predictions in ways that magnified them. In a self-reinforcing cycle with the CME's racialized commensuration of medical school quality, the GEB and CFAT's reactive funding decisions enacted a self-fulfilling prophecy: the presentist bias built into Flexner's metrics labeled a number of white, elite schools as deserving of enormous endowments. By contrast, philanthropists afforded minimal resources to Black medical schools, making repeated claims that these schools did not possess the capacity for optimal quality—a justification based on the schools' present failure to meet new standards. The opposing effects of self-fulfilling prophecy on Black and white medical schools is particularly clear when contrasting the case of Black medical schools and the case of the URMC. In the latter case, philanthropic actors determined that the University of Rochester possessed the underlying capacities needed for hosting a quality medical school and thus bankrolled the creation of a state-of-the-art medical school from scratch. This suggests that comparable resources could have been available to develop full and equal facilities at Howard and Meharry, but the positioning of these schools according to presentist metrics worked against them.

We also uncovered racialized reactivity in action when the enforcement of standards prompted white philanthropists and patrons to mobilize capital on behalf of their local or favored medical schools. When standards made resources, and the efficient use of these resources, critical for organizational status, a period of field-wide instability ensued—one in which administrators and philanthropists jockeyed for attention and guidance on how to develop and direct their resources. As we demonstrated, however, access to social and financial capital was

fundamentally racialized and based on segregated and stratified networks. Black institutions were as eager as their white counterparts to modernize their schools in line with state-of-the-art standards. Yet, sociohistorical conditions stacked the deck against funding for Black institutions. We see this contrast in the trajectories of Leonard and Wash U during this period. Patrons of both institutions devoted personal funds and launched fundraising campaigns to bring their institutions up to standard. Despite parallel efforts, however, Robert Brookings' access to a white philanthropic network, and his exponentially greater personal wealth, elevated Wash U to the top tier of medical schools. Conversely, A.D. Moore's calls for philanthropic investment and lesser personal wealth could not save Leonard from closure.

In the end, the implementation of standards, consolidation of networks, and grantmaking in response to these standards institutionalized the very racialized organizational order initially charted by the Report's vision for medical education reform. This vision was rooted in a bipartite logic regarding the purposes of medical education for white and Black physicians. Both white philanthropists' refusal to endow Black medical schools at an equitable rate as white schools and the AMA's failure to account for qualitative, sociopolitical factors in Black schools' differential educational capacity made material the lower quality status that reformers initially assigned to Black medical schools. The inequitable outcomes experienced by white and Black medical schools during this period, in other words, cannot be explained by reactivity alone. As we have demonstrated, racialized assumptions about the second-tier health and educational needs of Black Americans laid the foundation for a limited and limiting vision of Black medicine. As such, a feedback loop unfolded whereby a bipartite logic shaped the racialized development and application of quality metrics; in turn, the philanthropic funding granted to institutions that met, and to meet, these metrics expanded the organizational cache of primarily white schools.

The construction of this feedback loop, we argue, contributed to the political development of a *racialized organizational order*. While there are many empirical analyses of how whiteness can act as a credential that offers racialized benefits in a field (e.g., McCambly & Colyvas, 2022), we are often left without an account of the political action that first created this order. In this paper, we aim to provide this origin story and examine the role that metrics can play—as a technology of hierarchy—in disciplining a racialized organizational order. In this way, we contribute to scholarship on racialized organizations and organizational inequality regimes (Ray, 2019; Wooten & Couloute, 2017). We posit that this disciplining occurs when metrics instantiate field-level frames for quality through racialized reactivity, specifically presentist evaluation and unequal resource distribution based on racial type. In political decision-making, this reactivity manifests through the conferral of greater benefits to high- ranking *and* white institutions—a racialized outcome legitimized when presentism obscures how present conditions are a causal outcome of intentional, structural forces that created deep resource inequalities. And so it goes: organizational privilege deepens layer by layer. In this way, racialized organizations are flattened and examined only for their present deficits, reifying "low-quality" labels rather than naming structural starvation as the culprit.

But even before metrics can drive patterned outcomes and reproduce racialized logics, they must become embedded in educational systems. How, then, do metrics themselves acquire legitimacy and acceptance? A close look at medical education reformers' arguments for modernization reveals how metrics gain political traction. When advocating for standards, Flexner, Pritchett, and Gates repeatedly appealed to democratic ideals. Their near-constant use of race-neutral categories such as the "public" and "society" spun a universalist narrative of the purpose of medical reform, one that belied their racialized ideas about public health. This race-

neutral political discourse supported the legitimacy and institutionalization of quality metrics by framing them as a socially beneficial, efficient technology of reform. The notion that standards were objective and politically neutral was critical to their desirability and adoption. Accordingly, we suggest that, in addition to presentism and reactivity, it is also this claim to objectivity and neutrality that makes metrics distinctively powerful technologies of racial hierarchy in a field. This is because metrics can carry yet conceal anti-Black or otherwise racist (including presentist) approaches to evaluating and rewarding quality, obscuring and justifying racial segregation and racial hierarchy. Ultimately, we suggest that race-evasive metrics, racist logics, and racialized reactivity work together to make quality control a powerful tool-turned-condition of racialized organizational orders.

By tracing how racialized logics can be incorporated into metrics of institutional quality, this study of medical education reform likewise sheds light on how political discussions of "quality" can, in turn, take on and convey racialized meanings. Indeed, existing work has examined how threat-based, metric-driven quality arguments can be used to resist equity advancements in mid-to-late 20th Century education policy (McCambly & Mulroy, 2024). And, in the post-*SFFA* and anti-DEI landscape, many equity-minded educational leaders are all-too-familiar with their arguments being met with "what about educational excellence?" refrains. In this paper, however, we turn to an earlier stage of this process: one in which medical education reformers first imbued quality metrics with racialized meanings and implications, which then crystallized and preserved a racialized organizational order over time. We thus learn how and why conservative backlashes focused on protecting and embedding quality metrics can be so effectively regressive, but also why interest convergence as a model for racial justice can be so limited (Bell, 1980). Recall that Flexner's plea to save Howard and Meharry derived from

concern that without Black doctors, white populations would be exposed to greater disease. While such racialized logics can motivate the preservation of Black institutions, they can also close the door to investments that contribute to equitable educational opportunity.

In closing, we bring attention back to the 1916-19 push among Black medical schools and their allies to counter the presentist bias leveraged against Black schools. This organizing made plain that both the schools and their allies wished to embrace new standards; with leaders calling for equal opportunity to be excellent. Without reparative investment, however, the legacy of white supremacy left Black medical schools unable to do so. One shortcoming of our study is our reliance on white archives—that is, the document collections of the foundations, the AMA, and the individuals who worked within those institutions. As a result, we cannot provide a detailed account of the Black resistance enacted to secure access not only to a profession but to medical care (Walker, 2023). Like the contemporary accounts of community organizing that developed in response to K-12 school closures (Nuamah, 2023), Howard and Meharry relied on Black alumni and advocates to build and survive rather than die of neglect. We argue that these organizers' unmet demands from a century ago might still be met with repair. In the words of A.D. Moore, "simple justice demands that present conditions be remedied." While this story is historical, we live with and in the consequences of the Report. We thus call on funders--including the two at the heart of this story—to consider how metrics have institutionalized harm and eschewed investments in ways that can still become history too.

References

Anderson, E. R., & Colyvas, J. A. (2021). What sticks and why? A MoRe institutional framework for education research. *Teachers College Record*, *123*(7), 1–34.

Anderson, J. D. (1978). Northern foundations and the shaping of southern Black rural education, 1902–1935. *History of Education Quarterly*, *18*(4), 371–396.

Anderson, J. D. (1997). Philanthropy, the state, and the development of historically Black public colleges: The case of Mississippi. *Minerva (London)*, *35*(3), 295–309.

Au, W. (2016). Meritocracy 2.0: High-stakes, standardized testing as a racial project of neoliberal multiculturalism. *Educational Policy*, *30*(1), 39–62.

Bailey, M. (2017). The Flexner report: Standardizing medical students through region-, gender-, and race-based hierarchies. *American Journal of Law & Medicine, 43*(2-3), 209-223.

Bailey, Z. D., Feldman, J. M., and Bassett, M.T. (2021). How structural racism works - racist policies as a root cause of U.S. racial health inequities. *New England Journal of Medicine, 384*(8), 768-773.

Baker, R., Washington, H., Olakanmi, O., Savitt, T., Jacobs, E.,Hoover, E., Wynia, M. (2009). Creating a segregated medical profession: African American physicians and organized medicine, 1864-1910. *Journal of the National Medical Association, 101*(6), 501-512.

Bell, D. A. (1980). Brown v. Board of Education and the interest-convergence dilemma. *Harvard Law Review*, 518–533.

Blakely, J. (2020). *We built reality: How social science infiltrated culture, politics, and power*. Oxford University Press.

Campbell, K. M., Corral, I., Jhojana L., Linares, I., & Tumin, D. (2020). Projected estimates of African American medical graduates of closed historically Black medical schools."

JAMA Network Open 3 (8).

Chun, H., & Sauder, M. (2022). The logic of quantification: Institutionalizing numerical thinking. *Theory and Society*, *51*(2), 335–370.

Collier, D. (2011). Understanding Process Tracing. *PS: Political Science & Politics*, *44*(4), 823–830.

Colyvas, J. A. (2012). Performance metrics as formal structures through the lens of social mechanisms: When do they work and how do they influence? *American Journal of Education*, *118*(2), 167–197.

Colyvas, J. A., & Powell, W. W. (2009). Measures, metrics, and myopia: The challenges and ramifications of sustaining academic entrepreneurship. *Advances in the Study of Entrepreneurship, Innovation and Economic Growth*, *19*, 79–111.

Duffy, T. P. (2011). The Flexner report - 100 years later. *The Yale Journal of Biology and Medicine, 84*(3), 269-276.

Espeland, W. N., & Sauder, M. (2016). *Engines of anxiety: Academic rankings, reputation, and accountability*. Russell Sage Foundation.

Espeland, W., & Yung, V. (2019). Ethical dimensions of quantification. *Social Science Information*, *58*(2), 238–260.

Ewing, E. L. (2018). *Ghosts in the schoolyard: Racism and school closings on Chicago's south side*. University of Chicago Press.

Fields, K. E., & Fields, B. J. (2014). Racecraft: The soul of inequality in American life (Reprint edition). Verso.

Francis, M.M. (2019). The price of civil rights: Black lives, white funding, and movement capture. *Law and Society Review*, *53*(1), 275-309.

Freidus, A., & Ewing, E. L. (2022). Good schools, bad schools: Race, school quality, and neoliberal educational policy. *Educational Policy***.**

Gallagher, K. S., & Bailey, J.D. (2000). The politics of teacher education reform: strategic philanthropy and public policy making. *Educational Policy*, *14*(1), 11-24.

Gándara, D., & Rutherford, A. (2020). Completion at the expense of access? The relationship between performance-funding policies and access to public 4-year universities. *Educational Researcher***.**

Hibel, J., & Penn, D. M. (2020). Bad Apples or bad orchards? An organizational analysis of Educator Cheating on Standardized Accountability Tests. *Sociology of Education*, *93*(4), 331–352.

Highsmith, A. R., & Erickson, A. T. (2015). Segregation as splitting, Segregation as joining: Schools, housing, and the many modes of Jim Crow. *American Journal of Education*, *121*(4), 563–595.

Jepperson, R. (1991). Institutions, institutional effects, and institutionalism. *The New Institutionalism in Organizational Analysis*, 143–163.

Knoester, M., & Au, W. (2017). Standardized testing and school segregation: Like tinder for fire? *Race Ethnicity and Education*, *20*(1), 1–14.

Leonard, T.C., (2016). *Illiberal Reformers.* Princeton University Press.

Mahoney, J. (2012). The logic of process tracing tests in the social sciences. *Sociological Methods & Research*, *41*(4), 570–597.

McCambly, H., & Colyvas, J. A. (2022). Institutionalizing inequality anew: Grantmaking and racialized postsecondary organizations. *Review of Higher Education*, *46*(1).

McCambly, H. & Mulroy, Q., (2024). Constructing an Educational “Quality” Crisis: (E)quality

Politics and Racialization Beyond Target Beneficiaries. *Educational Evaluation and Policy Analysis*.

Mehta, J. (2013). How paradigms create politics: The transformation of American educational policy, 1980–2001. *American Educational Research Journal*, *50*(2), 285–324.

Noonan, J., & Schneider, J. (2022). Beyond 'good' and 'bad': Disrupting narratives about school quality. *Phi Delta Kappan, 104*(3), 6–11.

Nguemeni, T., Jordan, M., Ray, V., & South, E. C. (2022) Medical schools as racialized organizations: How race-neutral structures sustain racial inequality in medical education - a narrative review. *Journal of General Internal Medicine, 37*(9), 2259-2266.

Nuamah, S.A. (2023). Closed for democracy: How mass school closure undermines the citizenship of Black Americans. Cambridge University Press.

Patel, L. (2015). *Decolonizing educational research: From ownership to answerability*. Routledge.

Ray, V. (2019). A theory of racialized organizations. *American Sociological Review, 84*(1), 26-53.

Rhodes, J. H. (2011). Progressive policy making in a conservative age? Civil rights and the politics of federal education standards, testing, and accountability. *Perspectives on Politics, 9*(3), 519–544.

Richards, D. A. R., Awokoya, J. T., Bridges, B. K., & Clark, C. (2018). One size does not fit all: A critical race theory perspective on college rankings. *The Review of Higher Education, 42*(1), 269–312.

Ringel, L., Brankovic, J., & Werron, T. (2020). The organizational engine of rankings: Connecting "new" and "old" institutionalism. *Politics and Governance, 8*(2), 36–47.

Ris, E. W. (2018). The Origins of Systemic Reform in American Higher Education, 1895–1920. *Teachers College Record*, *120*(10), 1–42.

Rottenburg, R., Merry, S. E., Park, S.-J., & Mugler, J. (2015). *The world of indicators: The making of governmental knowledge through quantification*. Cambridge University Press.

Sauder, M., & Lancaster, R. (2006). Do rankings matter? The effects of *U.S. News & World Report* rankings on admissions processes at law schools. *Law & Society Review*, *40*(1), 105–134.

Savitt, T. (2006). Abraham Flexner and the Black medical schools, 1992. *Journal of the National Medical Association, 98*(9), 1415-1424.

Spillman, L. (2014). Mixed methods and the logic of qualitative inference. *Qualitative Sociology, 37*(2), 189- 205.

Steinecke, A., & Terrell, C. (2010). Progress for whose future? The impact of the Flexner report on medical education for racial and ethnic minority physicians in the United States. *Academic Medicine, 85*(2), 236.

Tompkins-Stange, M. E. (2016). *Policy patrons: Philanthropy, education reform, and the politics of influence.* Harvard Education Press.

Yin, R. K. (2009). *Case study research: Design and methods.* Sage Publications.

Walker, K. L. (2023). Racist medicine: The implications of race in Black medical education, 1910’s - 1950’s. University of Iowa.

Wooten, M. E., & Couloute, L. (2017). The production of racial inequality within and among organizations. *Sociology Compass*, *11*(1).