ANNUAL REVIEWS

Annual Review of Sociology

Race/Ethnicity over Fifty Years of Structural Differentiation in K–12 Schooling: Period-Specific and Life-Course Perspectives

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Annu. Rev. Sociol. 2020. 46:355–78

First published as a Review in Advance on May 5, 2020

The *Annual Review of Sociology* is online at soc.annualreviews.org

https://doi.org/10.1146/annurev-soc-073018-022441

Keywords

tracking, ability-grouping, racial/ethnic inequality, life-course studies, education

Abstract

In the United States, equally performing students of different racial/ethnic groups may have different prospects for enrollment in rigorous curricular positions. Over time, the processes and operation of curricular systems have changed, and those changes may matter for the existence of racial/ethnic differences in access. We first outline dimensions that distinguish forms of in-school structural differentiation. We then use those dimensions to describe in-school structural differentiation at different points in time in the United States. Next, the time-period-specific evidence on racial/ethnic inequality is outlined, thus embedding findings in historical time. Finally, we array findings on racial/ethnic inequality into life-course trajectories for studied cohorts, revealing that different cohorts may have documented differences in their experience with respect to race and curricular placement.

INTRODUCTION

At the turn to the twenty-first century, Jencks & Phillips (1998, pp. 3–4; emphasis added) proposed that

> In a country as racially polarized as the United States, no single change taken in isolation could possibly eliminate the entire legacy of slavery and Jim Crow or usher in an era of full racial equality. But *if racial equality is America's goal, reducing the black-white test score gap would probably do more to promote this goal than any other strategy that commands broad political support*. Reducing the test score gap is probably both necessary and sufficient for substantially reducing racial inequality in educational attainment and earnings. Changes in education and earnings would in turn help reduce racial differences in crime, health, and family structure, although we do not know how large these effects would be.

A necessary but perhaps insufficient condition for closing racial differences in test scores is for equally adept students to have equal access to demanding curricula regardless of race. Though analysts offer different explanations for why schools are arranged as they are (e.g., Collins 1971, Bowles & Gintis 1976, Meyer 1977), one constant is that education always involves deciding what to teach to whom and when (Bourdieu & Passeron 1977). To implement those decisions, administrators and/or teachers divide students and differentiate the curriculum, distributing the content into units, courses, course-equivalents, subjects of study, and/or coordinated programs. The curricular divisions constitute in-school structural differentiation in learning opportunities and can lead to a stratified curriculum, in which some curricular positions entail demanding instruction that maximizes students' opportunity to learn, and some do not. Given the possibility of a stratified—i.e., unequal—curriculum, we can ask whether blacks, whites, Asians, and Latinx have or have had equal access to challenging material in schools. And, furthermore, what structural arrangements undergird their equal or unequal access?

To address these questions, we must array published findings of race/ethnicity and curricular placement in two analytically distinct ways. Thus, this review proceeds in a perhaps uncommon manner, but the payoff is that we excavate implications that are embedded, but heretofore unnoticed, within the existing literature. Multiple challenges accompany this effort. Most notably, unlike most other countries, education in the United States is decentralized. In 2015–2016, state governments shelled out 47% of school funding, localities contributed 45%, and the federal government provided the remaining 8% (McFarland et al. 2019, p. 136). Consistent with this funding pattern, the federal government plays a secondary role in curriculum—with the notable exception of establishing rights around special education (Donovan & Cross 2002)—while states delegate many curricular matters to districts and school personnel. Thus, there can be a great deal of variation in curricular arrangements, which has two important effects. First, it can lead to tremendous variation in equality and inequality in curricular access across the nation. Second, it makes the delineation of time periods necessarily inexact, for curricular arrangements are devised at the local level, not in a nationally coordinated way. Yet, despite the decentralized nature of US schooling, different time periods have demonstrably dominant ways of organizing the curriculum. At the national level we focus on these dominant ways of organizing and note the extent of the dominance and the consequent variation where possible.

We array findings in terms of period, grade, and cohort, which might suggest an interest in disentangling age, period, and cohort effects. Decades ago analysts showed that separately identifying age, period, and cohort effects is at best challenging and perhaps impossible absent strong assumptions (e.g., Riley 1973; Glenn 1976, 2003). Thus, our task is considerably more modest. We delineate distinct historical periods that differ in the dominant way schools organize the curriculum. Then, within historical periods, we array the evidence of racial/ethnic differences

in curricular placement by students' grade, noting the patterns of racial/ethnic equality and inequality for elementary and secondary levels of schooling. Finally, we rearrange findings, arraying them within cohorts' life-courses, to reveal patterns of experiences of racial/ethnic equality or inequality. Consequently, we do not aim to statistically or informally identify age, period, and cohort effects. Instead, we seek to discern patterns of racial/ethnic equality in light of three analytically distinct calendars—historical period, school grade, and birth cohort. Excavating any patterns in this way will not answer which calendar is most important, but it does extract from existing studies a great deal of information bearing on our questions.

Thus, to proceed, we first outline the dimensions that distinguish forms of in-school structural differentiation. We then use those dimensions to describe in-school structural differentiation at different time periods. Afterward, the evidence on racial/ethnic inequality is placed in historical time, and then into life-course trajectories for studied cohorts. But first we turn to the key dimensions of in-school structural differentiation.

DIMENSIONS OF CURRICULAR DIFFERENTIATION

To introduce the curriculum dimensions, it can be helpful to draw upon a brief analogy with the labor market. Persons hold jobs and those jobs have characteristics distinct from their incumbents, such as the levels of wage, authority, autonomy, dirtiness, emotional labor, information-intensity, prerequisite experience, and more (e.g., Levine et al. 2000). Each job characteristic is, in principle, independent of the others, but in real labor markets they tend to have nonzero associations with each other.

Analysts often use information about the association between jobs' characteristics to characterize national labor markets, such as the association between autonomy and dirtiness, or wages and emotional labor (e.g., England et al. 1994). And, one could determine the relationships between bundles of jobs; for example, one could observe patterns of inter- (e.g., Hauser et al. 1975) and intragenerational mobility between jobs (or occupations) (e.g., Hope 1984) and relate them to job (or occupation) characteristics (e.g., Xie 1992). However, some ways of relating jobs may require ancillary information. For example, the existence and extensiveness of licensing requirements, wage minimums, hours rules, and such are not mathematical functions of job characteristics, but they can distinguish labor markets in different nations or times and thus are features of specific labor regimes.

Drawing the analogy to the curriculum, the job is a position—and so is a course in a subject in a school. And jobs, as positions, have a structure of relations between each other—and so do courses in and across subjects and academic years. Finally, just as the relation between jobs is constituted in part through factors that are not mathematical functions of job characteristics, so can the relations of curricular positions be constituted by factors that are not mathematical functions of course characteristics.

Our attention now turns from labor markets to the changing relations between curricular positions in the United States and those relations as context-setting factors for racial equality and inequality in access to demanding curricula. We begin with the pivotal work of Sørensen (1970), who provided the foundational treatment of the dimensions of curriculum differentiation. Thus, we call them Sørensen dimensions.

Sørensen Dimensions

Sørensen (1970) identified seven dimensions of curriculum differentiation: horizontal differentiation, vertical differentiation, electivity, selectivity, assignment procedure, scope, and inclusiveness.

Sørensen referred to differentiation aimed at reducing variation in characteristics relevant for learning as vertical differentiation, and differentiation aiming at reducing variation in the skill or knowledge transmitted within a given time period as horizontal differentiation.

Horizontal differentiation, thus, references the division of the curriculum into domains of study. Teaching children handwriting and reading in the morning and addition and subtraction in the afternoon provides an example of horizontal differentiation for elementary schoolers. For secondary school students, the division of foreign language study into Czech, German, French, and Japanese serves as an example.

In contrast, vertical differentiation reflects a division along lines ostensibly relevant for readiness to learn. Separating first graders into groups such as Hummingbirds (top third in expected achievement), Robins (middle third), and Parrots (bottom third) for reading instruction provides an example of early vertical differentiation. The division of Czech into introductory (Czech I), intermediate (Czech II), and advanced (Czech III) serves as a secondary school example.

Students' mastery of the material in one horizontally differentiated subject is irrelevant for the logic of their placement in another horizontally differentiated subject—a native English speaker does not need to master Algebra to study Czech II. However, vertical differentiation recognizes that students' placement in one course often requires (aids) their mastery of the material typically covered in a lower-level (higher-level) course.

For Sørensen the seven dimensions are related as follows. Horizontal and vertical differentiation are implemented simultaneously and together determine the available positions, with vertical differentiation also determining the relation of some positions to each other. The assignment procedure allocates persons to the resultant positions. The assignment procedure can entail high or low electivity—high or low student power to allocate themselves to positions they prefer. The specific criteria in use—some combination of achievement test scores, grades, purported IQ test scores, or other criteria (e.g., teacher recommendations)—may constrain the degree of electivity. The resulting groups have more or less selectivity, i.e., more or less homogeneity within the positions.

Sørensen (1970, p. 362) defined scope as the "extent a given group of students will be members of the same classroom over time." The higher scope is, the more groups of students are segregated from each other. Finally, inclusiveness is defined as the "number of opportunities *assumed* to be available at different educational levels" (Sørensen 1970, p. 360; emphasis added).

Central Dimensions of Curricular Organization

To Sørensen's seven dimensions, we add another based on prior analytic (Turner 1960) and later empirical (Rosenbaum 1976) study: mobility. Mobility concerns the amount and pattern of movement across curricular positions, typically in the same study domain. If scope concerns the stability of groups across domains of study in one time period, mobility serves as scope's analog, reflecting the stability of groups within domains of study across time periods. As such, mobility can be considered an elaboration of the dimension of scope, and vice versa.

Scope, mobility, and selectivity are key, measurable dimensions of curricular differentiation. However, the Sørensen dimensions of assignment procedure, electivity, and inclusiveness, while analytically intriguing, appear difficult or perhaps even impossible to measure accurately for several reasons.

First, assignment procedures contain criteria. Alas, schools may have both stated and unstated criteria of assignment (Gamoran 1992a, Lareau 1989, Useem 1992), and the unstated criteria may be either intentional or unintentional. Furthermore, criteria may be additive (e.g., each student must meet a grade point average threshold) or conjunctural (Ragin 1987) (e.g., each student must

have attained at least a B+ in English, a B+ in math, and an A– in either science or social studies). Because criteria can be combined to produce students' placements in infinite ways, and because unstated criteria may allocate anywhere from no students to every student to curricular positions, discerning the power of even stated criteria is daunting. Thus, the assignment procedure is difficult—or perhaps impossible—to capture with any confidence.

Second, some analysts have used some function of the proportion of students reporting that they selected their program of study to measure school-level electivity (e.g., Kilgore 1991, Gamoran 1992b). But evidence indicates that students often misperceive their curricular positions (Rosenbaum 1980), making their claim to have chosen those positions also questionable. Self-reports of choice capture perceived electivity. Perception measures may be very informative at the individual level, but aggregating perceptions to measure system features is uninformative because students may misperceive their power, and because school electivity scores calculated on that basis could signify polar opposite conditions. For example, on the one hand, some schools with high electivity scores may empower students, while others may so disempower students that students are oblivious to their impotence. On the other hand, of schools with low school electivity scores, in some students could lack power, while in others empowered students may be unaware of their power. Finally, asking school personnel whether students can select their courses falls into the same problems mentioned earlier for any other assignment criterion. Consequently, accurately measuring school-level electivity appears impossible.

Third, recall that Sørensen defined inclusiveness as "the number of opportunities assumed to be available at different educational levels" (Sørensen 1970, p. 360). Sørensen does not indicate whether the opportunities in question concern later stages of educational attainment—such as kinds of colleges for which students of different curricula become eligible—or beyond, such as labor market opportunities. Still, the concept of inclusiveness recognizes that we might judge a curriculum differently depending on whether all paths lead to equal and high levels of opportunity versus if only some paths do. This is an important issue because one motivation for the differentiated curriculum is to allow the most adept students to receive advanced material that capitalizes on their greater knowledge, while less adept students can receive material targeted to their level of achievement (Hallinan 1994a). A great deal of conflict around curriculum differentiation (e.g., Wells & Serna 1996) might ebb away if it were shown that different curricula are simply different routes to the same opportunities, evidenced by lower-performing students catching up enough to attain exactly the same high-opportunity outcomes as others.

Alas, the fundamental problem is that opportunities are hard to measure. Perhaps owing to that difficulty, the concept is commonly measured by the proportion of students in the college track (Gamoran 1992b; Jones et al. 1995; Kelly 2007, p. 16). The proportion of students in a school following a specific curriculum may be important, but it is not Sørensen-defined inclusiveness because it does not capture "the number [and kind] of opportunities available at different educational levels" (Sørensen 1970, p. 360).

One alternative would be to wait to see students' attainments and use those to measure inclusiveness years earlier, on the thinking that if students following a particular curriculum, c_j, reached specific destinations, d_k, the d_k destinations must be connected to curriculum c_j. However, students' attainments are a function of more than just their earlier curricular positions. For example, students enter college on the basis of athletic prowess, musical virtuosity, legacy status, parents' financial donations, and more. Thus, while the empirical strategy would more closely match Sørensen inclusiveness, it risks attributing to curricular positions outcomes that are not structurally connected to them.

Of course, Sørensen inclusiveness can be measured directly where curricula are distinct and mutually exclusive. One could determine what is imparted by distinct curricula and then determine

the number and kind of opportunities to which those skills translate. Yet, the simplicity of this approach is deceptive; not only do courses impart dozens of hard-to-document capabilities, but later attainments likewise contain dozens of hard-to-document elements beyond the most obvious. Consequently, it is very difficult to measure inclusiveness.

Context, The Life-Course, and Historical Time

The central measurable dimensions of scope, mobility, and selectivity draw our attention. Positions have different amounts of selectivity; those amounts can be used to construct an aggregate measure of the selectivity of the system. Scope and mobility reflect relations between curricular positions and thus describe the structure. We now relate three historical periods in terms of these dimensions, to the extent possible given the literature and measurement approaches available in each era.

THE CHANGING STRUCTURE OF IN-SCHOOL STRUCTURAL DIFFERENTIATION

Because continuity characterizes the structural arrangements of elementary education, to delineate historical eras of curricular differentiation, we focus on the high school level. Yet, elementary and secondary schools work together to sequentially construct each cohort's life-course experience. Therefore, assessing racial/ethnic inequality in within-school curricular access requires attending to the full set of curricular sites in which in-school access may be unequal, making it important to convey a few stable and important features of elementary school curriculum differentiation.

In addition, including elementary school curricular differentiation provides an important correction to a misunderstanding of how education works in the United States. Many scholars claim the United States lacks vertical differentiation prior to age 10 (e.g., Hanushek & Wößmann 2003; Schütz et al. 2008, pp. 298–99). Yet differentiation as early as first grade has been documented for all three historical periods (e.g., Bonar 1929, Barthelmess & Boyer 1932, Breidenstine 1936, Balow 1962, Wilson & Schmits 1978, Gamoran 1986, Pallas et al. 1994, Catsambis et al. 2012). Thus, it is important to note the character of elementary school curriculum differentiation. Afterward, to delineate historical eras, we focus on high school, precisely because key aspects of elementary school curricular differentiation have scarcely changed in more than 100 years.

Elementary School Curriculum Differentiation

Throughout the twentieth century, and in contrast to secondary schools, most elementary schools assigned students to one teacher for the entire day. For some pedagogic aims teachers might separate children into different tasks, and work with only one set of students at a time. Using this model, the earliest curricular differentiation in elementary school would be so-called ability groups for reading.

In this model, classroom teachers segment students into a set number of groups for reading instruction. The number of groups appears to have always varied. Catsambis et al. (2012) found that two-thirds of the kindergarten teachers using differentiated reading groups assigned students to either three or four groups. An important constraint on the numbers of groups formed is the teacher's need to manage the workflow and attention of all students even while working with a small subset of separated students (Barr & Dreeben 1983). Teachers manage that challenge in part by determining the number, size, and composition of groups.

Mobility across groups in the same year is another dimension of flexibility, made possible because most groups are formed within a class rather than across classes. Yet evidence indicates

that the incidence of mobility, while greater than zero, is usually low (Barr & Dreeben 1983, Hawkins 1966). And, upon following students from first to second grade, Gamoran (1989) found that schools varied in the incidence of mobility across years as well.

Because processes assigning and re-assigning students to groups vary across schools or even classrooms, selectivity also may vary. Based on data from selected Chicago area school districts, Gamoran (1989) found that teachers assigned students to reading groups based on the teacher's perception of each student's ability. Formal IQ testing was not the basis of group assignment.

Indeed, the evidence of schools or teachers using IQ tests for assignment or especially re-assignment is scant (Borko et al. 1979), even though IQ tests have been routinely used in several states for special education assignment (Donovan & Cross 2002). Consequently, groups are often constructed either in part or completely on the basis of other information. At least two consequences follow. First, selectivity may vary because of the varying assignment criteria (Barr & Dreeben 1983). Second, the use of nonability criteria implies that the term ability group is a misnomer, and given the strategies early experimenters often attempted to implement to standardize assignment criteria to facilitate their research on the effects of grouping (e.g., Barthelmess & Boyer 1932), it appears it has long been one. A more accurate term for the practice, such as differentiated groups and differentiated grouping (Breidenstine 1936), does not assert or assume the criteria for the allocation of students to groups.

Elementary school group assignment criteria vary, lowering selectivity, and the assignments are not treated as malleable as they might be, but mobility is logically possible and logistically feasible. And group assignments are typically relevant only for reading, making it a low-scope form of curriculum differentiation. However, a main cognitive goal of early grades is to teach students to read. Thus, assigning students to reading groups of different levels of intensity is to use curriculum differentiation for perhaps the most important domain of learning for those grades. Elementary school reading group assignments are consequential, having been documented to lead to greater learning gains for students placed in more demanding reading groups (e.g., Gamoran 1986, Pallas et al. 1994).

The Classical Tracking Ideal

At the secondary level, early curriculum differentiation advocates championed an ideal type of curricular differentiation: classical tracking. Under classical tracking, students enter one of a small set of distinct, formal programs according to an indicator of their ability. At the secondary school level, the possibilities were typically academic or college preparatory track, general track, and vocational track. In the ideal, typical version, a student's formal track determined which math, English, social studies, and science material they would study each year. Classical tracking, therefore, is characterized by high scope, low mobility, high selectivity, and no electivity.

How school leaders thought about intelligence, and how they felt about immigrants, justified classical tracking. Early advocates, such as Finney (1928), saw classical tracking as consistent with early twentieth-century theories that asserted the existence and inescapable power of generalized intelligence. In this view, differences between people in ability usually fell in line with socioeconomic status and racial/ethnic category, and within-person differences in domain-specific abilities were trivial. Thus, one could identify the smart children, provide them with exposure to challenging material in all domains, and train the remaining children to follow their betters (Finney 1928).

In a context of high immigration, nativist fears led many reformers to ask schools to Americanize immigrant youth (e.g., Kelley 1903). Such views, coupled with other reasons (e.g., Bowles & Gintis 1976), led all US states to adopt compulsory schooling between 1853 and 1918. After 1900, compulsory schooling laws were transformed from dead letters to enforced rules of law (Katz

1976). However, as compulsory schooling forced immigrant children into school, and immigrants were allegedly scientifically documented to be less intelligent (e.g., Yerkes 1921), curricular structure and content were changed. Trow (1961) noted that while high schools followed the classical liberal arts curriculum from about 1870 until 1910, when high schools prepared a sliver of the population for elite social positions, with the advent of compulsory schooling, the classical liberal arts curriculum was deemphasized. After 1910, the high school was no longer an elite preparatory institution; between 1910 and 1940 it was a mass terminal institution, with few high school graduates entering college and a curriculum focused on training for life and other less classical elements (Trow 1961). As laws compelled diverse children to enter school, this diversified curriculum was elaborated to meet them there.

The Era of Overarching Programs

However, the classical tracking ideal type was not realized. Instead, shortly after the inception of compulsory schooling, the timing of which varied across the states, high schools enrolled students into overarching programs at the start of high school, programs that determined much but not necessarily all of their day and offered scant chances for mobility across programs. Historical analyses (e.g., Spring 1972, Wrigley 1982, Kliebard 1995) indicate that overarching programs became the common form of curricular organization. Ethnographic evidence concurs. **Table 1** sketches the overarching programs Hollingshead (1949) identified; Cicourel & Kitsuse (1963) described a similar system in "Lakeshore High School." In Elmtown, each student enrolled in a distinct curricular program, which largely determined the courses they would take in multiple subjects over all years of high school (Hollingshead 1949). **Table 1** shows that programs were almost but not completely distinct. Notably, general program students could take one unit of physics, chemistry, biology, or general science—three of those four courses were required for college preparatory program enrollees but apparently closed to commercial program enrollees.

Another distinction between classical tracking and overarching programs is that student choice was not universally prohibited. Hollingshead (1949, pp. 170–71) found the school allowed at least some students to select their high school program. But Rosenbaum's (1976) "Grayton High" did not allow student choice.

Table 1 Elmtown's high school curriculum of overarching programs

Subject	College preparatory	General[a]	General-commercial	Secretarial-commercial
English	4 years	3 units	3 years	3 years
US history	1 year	1 unit	1 year	1 year
Math	2 years	1 unit		
Practical math			1 year	1 year
Physics, chemistry, biology	2 years	1 unit		
General science			1 year	1 year
Foreign language	2 years			
Electives		10 units		
Bookkeeping, shorthand, typing, commercial law, and other subjects			Remaining courses	Remaining courses

Blank cells signify courses a program does not allow. Data taken from Hollingshead (1949, p. 168).
[a]Hollingshead (1949) reports the General curriculum in terms of units, but all other programs in terms of years. Because years and units may or may not be equal, to preserve accuracy we use units for the General program.

Further, Rosenbaum (1976) documented some mobility across levels. Yet, there was no upward mobility. On the basis of this finding he labeled the phenomenon tournament mobility, writing that "When you [students] win, you win only the right to go on to the next round; when you lose, you lose forever" (Rosenbaum 1976, p. 252).

Thus, accepting that schools varied, the dominant implemented system appears to be overarching programs, with low selectivity, high scope, and low (but mostly downward) mobility. Accepting that electivity is difficult to establish, there appear to have been at least some instances of nontrivial electivity. Even though overarching programs fell short of the classical tracking ideal, some of classical tracking's assumptions about intelligence still offered powerful justification for different content, pedagogies, and resources for students placed in high and low curricular positions.

The Unremarked Revolution

Eventually, the dominance of overarching programs waned considerably. Civil rights litigation (e.g., *Hobson v. Hansen* 1967) played a role, as did local organizing (e.g., Hayes 1990). Despite such signposts, the timing of the dismantlement of overarching programs remains unclear. Some analysts peg the decline of overarching programs as occurring sometime between 1965 and 1975. A study of four urban districts in 1965 and 1975 found that all four had ended the assignment of students to overarching programs by 1975 (Moore & Davenport 1988). Lucas (1999) labels this decline the unremarked revolution in that school practice changed but many studies continued to measure curriculum placement with students' response to the global question of "Which of the following best describes your high school program?" (NCES 1999, p. 406).

Jones & Morrison (2009) take up the timing question, analyzing transcripts from the 1960, 1965, 1970, and 1975 cohorts of a racially and economically homogenous suburban high school in upstate New York. Upon finding few cross-cohort differences in course-taking patterns, they rejected the unremarked revolution thesis. The unremarked revolution thesis may be incorrect. However, three important alternative interpretations are consistent with Jones & Morrison (2009).

First, no cohort showed an overarching program pattern, yet historical evidence shows the existence of overarching programs prior to their earliest cohort. Thus, the study may push the unremarked revolution back even earlier than 1960, ironically escalating the unremarked nature of the change in school practice. Second, the racial and economic homogeneity of the sample may suggest that the use of overarching programs is associated with racial/ethnic and socioeconomic diversity, for the study of a largely white and middle class suburban district produced findings inconsistent with overarching programs just as analyses of diverse urban districts were showing evidence of overarching programs (Moore & Davenport 1988). Third, the reported results indicate that none of the latent class models fit better than the saturated model, undermining their inferential value.[1]

In studying multiple cohorts' transcripts, Jones & Morrison (2009) provide the kind of study necessary to nail down actual practice and potential change over time. Because the estimated models fit poorly, it would be intriguing to see whether other modeling approaches would produce more insight. For example, topological log-linear models (Hauser 1978) could allow one to test multiple patterns of association, which might improve model fit enough to produce clearer results. Alternatively, log-multiplicative models (Goodman 1979, Xie 1992, Wong 1995) could allow one

[1]They use the Bayesian information criterion, BIC $= L^2 - (\ln(N) \times df)$, to assess model fit; L^2 is the likelihood ratio, N is sample size, and df is the degrees of freedom. If this BIC is positive, the saturated model fits better (Raftery 1986). The saturated model claims each instance is unique. Thus, models fitting worse than the saturated model are less informative than simply reporting each case one by one—hence, models fitting worse than the saturated model are judged misleading or otherwise uninformative.

Table 2 Illustrative curriculum after the end of overarching programs

Subject (graduation requirements)	Courses available to students (alphabetical order within subjects)[a]
English (8 semesters)	English 9, **English 9 (Honors)**, English 10, **English 10 (Honors)**, English 11, English 12, *Famous Plays*, Grammar Intensive, ***The Novel***, ***Poetry***, *Public Speaking*, ***Russian Literature***, Teen Literature, *Writing*
Mathematics (4 semesters)	Algebra, Bookkeeping, **Calculus**, Geometry, Intensive Math 9, Intensive Math 10, **Matrix Algebra**, Practical Math, Pre-Algebra, Pre-Calculus
Science (4 semesters)	Biology, **Biology (AP)**, Chemistry, **Chemistry (AP)**, General Science 9, General Science 10, Physics, **Physics (AP)**
History/social studies (2 semesters)	Economics, European History, **European History (AP)**, People of the World, US History, **US History (AP)**
Foreign language (4 semesters)	Cantonese 1, Cantonese 2, Cantonese 3, German 1, German 2, German 3, French 1, French 2, French 3, Latin 1, Latin 2, Latin 3, Spanish 1, Spanish 2, Spanish 3
Computer (no requirement)	*Keyboarding*, Programming 1, Programming 2, *Web Design*

[a]Bold signifies an advanced course, underlining signifies a lower-than-regular-level course, and italics signify a half-year course. Abbreviation: AP, advanced placement.

to summarize the pattern in one parameter after accounting flexibly for other aspects of how courses are associated. At any rate, the Jones & Morrison (2009) data are promising, and some approach other than latent class analysis might extract an inference concerning intercohort change and/or stability.

Whatever the interpretation of their results, however, when data were collected for the nationally representative Academic Growth Study in 1965, researchers were able to use school records to classify 93% of students into programs (Alexander et al. 1978), indicating that overarching programs were still nationally dominant in the mid-1960s. Yet, by the early 1980s most schools lacked the formal apparatus of cross-subject programs (Oakes 1981), and by 1991, National Center for Education Statistics (NCES) survey data covering a nationally representative sample of 912 public secondary schools revealed that only 15% of schools had records or institutionalized practices of program enrollment (Carey et al. 1994).

However, even where and when overarching programs declined, schools and districts maintained within-subject curriculum differentiation—students in the same grade could still study different levels of math, English, science, foreign language, and social studies. Schools formally decoupled course-taking across subjects, but maintained multiple vertically differentiated levels of coursework within subjects.

As illustrated in **Table 2**, courses within the same subject differ in rigor. Yet, comparing **Tables 1** and **2** demonstrates change in that while **Table 1** shows an overarching program forging links between students' courses in different subjects, **Table 2** shows no such linkage.

This is a pattern of change and stability. The change is the decline of overarching programs; the stability is the maintenance of differentiated curricular levels within subjects. Because vertical differentiation within subjects remained, other school practices could keep scope, mobility, and selectivity largely unchanged from the past.

One such mechanism is each school's daily schedule itself. Scheduling teachers into courses and classrooms, and then pairing them with sets of students, is a yearly, daunting task (e.g., Riehl et al. 1999). Schools reduce the scheduling challenge by working to avoid scheduling two courses that dozens of students will take into the same time slot (e.g., Delany 1991, pp. 195–96). However, if schools schedule teachers and classrooms to allow students to pair, for example, AP Chemistry and English 10 Honors (see **Table 2**), then students who can take English 10 Honors but not AP Chemistry may have to forgo English 10 Honors in order to take (regular) Chemistry. Thus,

this technically efficient principle of schedule design can reduce students' ability to take dissimilar levels of courses in different subjects.

Such possibilities render studies of scope, mobility, and selectivity after the unremarked revolution of interest. Using data from a nationally representative sample of middle school principals (Epstein & MacIver 1990), Braddock (1990) found that schools differentiated different numbers of subjects. Approximately 22% of middle schools grouped seventh graders for all subjects, and another 47% grouped them for at least one subject. The most commonly differentiated seventh-grade subject was math (84% of schools used differentiation) while social studies differentiation was least common (10% of schools). Notably, schools with more black and Latinx students tended to differentiate more subjects, a pattern robust to controls for mean school achievement (Braddock 1990, p. 447). Thus, Braddock linked school-to-school variation to schools' racial/ethnic composition.

Gamoran (1992b), using a nationally representative sample of high schools in 1980, and using student reports of their tenth- and twelfth-grade curricular programs, found schools varied in the amount of scope, mobility, and selectivity. Gamoran further linked those dimensions to school-to-school differences in track-related achievement growth.

Lucas (1999, pp. 61–71) used transcript data on high schools in 1980 and found that although many students took disparate courses, a plurality did not, a pattern termed de facto tracking. The study further reported that scope varied across school context, sector, and level of socioeconomic diversity. Using a log-multiplicative model, Lucas found that urban schools had higher scope than rural or suburban ones, as did socioeconomically diverse schools.

Lucas and Braddock both suggested that curriculum differentiation was heightened in more diverse schools, but Lucas (1999) did not account for achievement at all, and while Braddock controlled mean achievement, the analysis did not account for the correlation between students' achievement levels across subjects. Both omissions are possibly consequential.

The analysts sought to see how much students' placement in one subject connected to their placement in other subjects, and to what extent the connection was driven by schools' racial/ethnic and socioeconomic composition. However, if students who achieve at high (low) levels in one subject tend to achieve at high (low) levels in other subjects, the correlation between students' achievement across subjects could forge a connection between courses in disparate subjects. Thus, without accounting for the cross-subject correlation in students' prior achievement, the debate as to whether high scope—i.e., a high connection between students' level of course across subjects—is a technical element of schooling (Hallinan 1994a,b) or also a political response to racial/ethnic and class diversity (Oakes 1994a,b) could not be resolved.

Lucas & Berends (2002) used nationally representative data on eleventh graders' course-taking in 1981 to address the question. In their fullest negative binomial regression models, they found a role for the cross-domain achievement correlation and no role for socioeconomic or racial/ethnic diversity in private schools. However, in public schools, the cross-domain achievement correlation, socioeconomic diversity, and racial/ethnic diversity were all positively associated with scope, results consistent with Oakes's political/demographic argument.

With respect to mobility, some studies of the period found upward mobility to be common (Wilson & Rossman 1993) or even dominant (Hallinan 1996). But Wilson & Rossman (1993) used a nonprobability sample, undermining confidence in the finding. And Hallinan (1996) analyzed a mobility score, which erects an artifactual negative association between starting position and upward mobility, a long-known problem with analyzing mobility scores (Blau & Duncan 1967, pp. 152–53, 194–99). When attention is restricted to studies that avoided those problems, the evidence indicated that schools varied in the amount of mobility (Gamoran 1992b), mobility was

asymmetrically but no longer universally downward (Lucas 1999), and the pattern varied by race and socioeconomic status (Lucas & Good 2001).

Certainly, with data on nearly 16,000 school districts in 1981, and with more than 61,000 schools containing elementary grades and nearly 25,000 schools containing secondary grades (NCES 2012, table 98), many different arrangements were possible. Decentralization allows different school systems to implement the same practice under different names or implement different practices under the same name.[2] Still, although the decline of overarching programs did not eradicate the differentiated curriculum, it was more than a semantic change. In the era of overarching programs, students could be barred from taking a course because they had not enrolled in the program in which that course was placed. After the unremarked revolution, students could not be barred in that way, for no one had enrolled in any overarching program. Consequently, the logical options for course-taking mushroomed, and even though the number of logistically possible options was often lower, it was still higher than in the era of overarching programs. In this context, we find that scope was moderate compared with its former high level, mobility was now asymmetrically but not universally downward, and selectivity remained low.

The College for All Era

This is the contemporarily emerging period. Several factors coalesce to drive its emergence. The advent of state-level high school exit exams is one manifestation of an effort to increase schools' academic intensity. The call of national politicians, such as Senator John Edwards (C-SPAN 2007) and President Barack Obama (Off. Press Secr. 2016), for universal college attendance may have motivated further academic intensification. No Child Left Behind, federal legislation signed into law in 2002, nationalized and escalated a testing regime that was already well established in many southern states (Warren et al. 2006). And, at the same time, economic and skill-biased technological changes widened the gap between returns to high school completion and college entry (e.g., Marcotte et al. 2005).

Amid these pressures, students' educational aspirations continued a long-term upward trend evident in multiple studies (e.g., Hauser & Anderson 1991, Schneider & Stevenson 1999, Reynolds et al. 2006, Goyette 2008). Although evidence suggests that students may be unrealistic (e.g., Reynolds et al. 2006), holding ambitions that do not match their trajectories (Schneider & Stevenson 1999), it is also true that between 1982 and 2005, the number of Carnegie units[3] high school graduates averaged went from 2.63 to 3.80 in math, from 3.93 to 4.33 in English, from 3.16 to 4.08 in social studies, and from 2.20 to 3.35 in science (NCES 2012, table 177). Although many students may fall short of their goals, exposure to central academic subjects was more pronounced for early twenty-first-century cohorts than for their late twentieth-century counterparts.

These changes, and the student aspirations that accompany them, reflect a context Rosenbaum (2001) characterizes as college for all. Trow (1961) contended that after World War II, higher education entered a take-off phase of increasing enrollments. In 1940, only about half of 17-year-olds graduated from high school (NCES 2012, table 122). By 2010 the percentage of 17-year-olds

[2] One example is the term "tracking." Some define tracking as the linkage of courses within one subject across time (e.g., Crosnoe & Muller 2014). Others see a nonzero association between course levels in disparate subjects as de facto tracking (e.g., Lucas 1999). Still others see curriculum differentiation itself as tracking (Wheelock 1992), a view that motivated proposals to instruct all students in heterogeneous classrooms, i.e., to detrack.

[3] According to the Carnegie Foundation, a Carnegie unit is "defined as 120 hours of contact time with an instructor, which translates into one hour of instruction on a particular subject per day, five days a week, for twenty-four weeks annually. Most public high schools award credit based on this 120-hour standard (one credit for a course that lasts all year; or half a credit for a semester course)" (Silva et al. 2015, p. 8).

who were graduates was approximately 79%, and 68% of 16–24-year-olds entered college the year after completing high school or a GED (NCES 2012, table 234). These changes transformed the high school experience from a mass terminal to a mass preparatory one. But, Trow (1961) argued, elaborating the curriculum to transform an elite preparatory institution into a mass terminal one is much easier than restricting the curriculum to change a mass terminal institution into a mass preparatory one. Consistent with Trow's observation, the differentiated curriculum remains in the college for all era.

RACE/ETHNICITY AND CURRICULAR PLACEMENT IN HISTORICAL PERSPECTIVE

Table 3 contains solid assessments of race/ethnicity and curriculum placement, placed in order by (*a*) historical period, (*b*) grade, and (*c*) year to which the data pertain [**Supplemental Table 1** identifies the specific source of each of the estimates (e.g., table and/or model)]. The list is not exhaustive. Some studies were omitted because the year of data collection could not be determined, preventing placement in historical time. Studies on subnational samples of districts or schools (e.g., Garet & DeLany 1988, Mickelson 2001) were included as regional case studies, but studies using nonprobability samples of students were omitted because confidence intervals are unlikely to bracket population parameters. And some studies' parameterizations prevented a clear assessment of the effect for vertical strata (e.g., Argys et al. 1996), forcing their omission.

Supplemental Material >

We also omitted estimates (e.g., Rosenbaum 1980, Gamoran & Mare 1989, Jones et al. 1995, Lucas & Gamoran 2002) based on students' self-reported high school program. Research (Rosenbaum 1976, 1980) indicates that, at least in some eras, students often call themselves "college track," unaware that their curriculum is not college preparatory. Counselors are often reluctant to inform students of such errors (Rosenbaum et al. 1996). Finally, students more often overestimate than underestimate their program rigor, and patterns differ by racial/ethnic category and cohort (Lucas & Gamoran 2002). Consequently, self-report-based estimates are omitted.

Most studies do not control for prior placement. Studies with and without controls for prior placement are both informative. Studies that control for prior placement purge racial/ethnic coefficients of any indirect effect of prior placements, revealing the grade-specific direct association. Studies lacking prior placement covariates concentrate all prior and contemporary placement equities and inequities in the model coefficients, including those for race/ethnicity, to the extent that treatment has not coalesced into other factors that are controlled (e.g., prior achievement).

Opportunities by Race/Ethnicity in the Era of Overarching Programs

Despite the length of the era of overarching programs, we found few pertinent studies and none for elementary school. Much of the period is coextensive with legalized racial segregation in schooling, and as noted earlier, research indicates that curriculum differentiation is more pronounced in racially diverse schools. Thus, if students of different races attend entirely different schools, within-school differentiation should be lower and racial differences in placement may be of less scholarly and public policy interest in comparison to interest in cross-school differences in resources (e.g., Norton 1926, Phillips 1932, Moses 1941, Strayer 1949). This may partly explain the dearth of estimates for this period.

The available estimates come from late in the era. Schafer & Olexa (1971) studied Midwestern tenth graders in 1961, and found blacks less likely than whites to be assigned to the college track, after socioeconomic status and measured IQ were controlled. In contrast, Rosenbaum's (1980) nationally representative analysis found that for 1972 seniors, nonwhites were more likely to be

Table 3 Analyses of racial/ethnic patterns of structural curricular locations

Paper	Region	Measure[a]	Grade	Year	Birth Cohort	Versus whites			Source[b]	Control[c]
						Blacks	Latinx	Asians		
The era of overarching programs: high scope, exclusively downward mobility, low selectivity										
Schafer & Olexa 1971	Midwest	College/noncollege	10	1961	1945	Disadvantage	ND	ND	A	2,8
Rosenbaum 1980	National	College/noncollege	12	1972	1955	Advantage			C	1,5
After the unremarked revolution: moderate scope, asymmetrically downward mobility, low selectivity										
Tach & Farkas 2006	National	Reading group rank	K	1999	1994	Equal	Equal	Equal	B	1,6
Catsambis et al. 2012	National	Average/low reading group	K	1999	1994	Equal	Equal	Equal	B	1,6
Catsambis et al. 2012	National	High/low reading group	K	1999	1994	Advantage	Equal	Equal	B	1,6
Pallas et al. 1994	Mid-Atlantic	Reading group rank	1	1982	1976	Equal	ND	ND	B	1,6
Hoffer 1992	National	Science course level	7	1988	1975	Advantage	Disadvantage	Set Equal	B	1,5
Hoffer 1992	National	Math course level	7	1988	1975	Equal	Disadvantage	Set Equal	B	1,5
Hoffer 1992	National	Science course level	8	1989	1975	Advantage	Equal	Set Equal	B	1,5
Hoffer 1992	National	Math course level	8	1989	1975	Disadvantage	Equal	Set Equal	B	1,5
Langenkamp 2010	National	Regular + high/low math	9/10	1995	1979/1980	Disadvantage	Equal	Equal	A	1,5
Garet & Delany 1988	West	Advanced math/none	10	1980	1964	Equal	Equal	Advantage	A	4,7
Garet & Delany 1988	West	Geometry/none	10	1980	1964	Equal	Equal	Equal	A	4,7
Garet & Delany 1988	West	Algebra/none	10	1980	1964	Equal	Equal	Advantage	A	4,7
Garet & Delany 1988	West	Advanced science/none	10	1980	1964	Equal	Equal	Equal	A	4,7
Garet & Delany 1988	West	Biology/none	10	1980	1964	Equal	Equal	Equal	A	4,7
Lucas & Gamoran 2002	National	College/noncollege	10	1980	1964	Equal	Disadvantage	Equal	A	1,5
Lucas & Gamoran 2002	National	College/noncollege	10	1990	1974	Equal	Equal	Advantage	A	1,5

(*Continued*)

Table 3 (*Continued*)

Paper	Region	Measure[a]	Grade	Year	Birth Cohort	Versus whites			Source[b]	Control[c]
						Blacks	Latinx	Asians		
Lucas 1999	National	College/noncollege math	11	1981	1964	Disadvantage	Equal	Set equal	A	1,5,9
Lucas 1999	National	College/noncollege English	11	1981	1964	Advantage	Equal	Set equal	A	1,5,9
Lucas 1999	National	College/noncollege math	12	1982	1964	Advantage	Equal	Set equal	A	1,5,9
Lucas 1999	National	College/noncollege English	12	1982	1964	Advantage	Equal	Set equal	A	1,5,9
Domina & Saldana 2012	National	Algebra + more/less math	12	1982	1964	Equal	Equal	Advantage	A	1,5
Domina & Saldana 2012	National	Calculus/less math	12	1982	1964	Equal	Equal	Advantage	A	1,5
Domina & Saldana 2012	National	Algebra + more/less math	12	1992	1974	Equal	Advantage	Equal	A	1,5
Domina & Saldana 2012	National	Calculus/less math	12	1992	1974	Equal	Equal	Equal	A	1,5
Mickelson 2001	South	Regular, Advanced, Gifted, AP	12	1996	1978	Disadvantage	ND	ND	A	1,6
College for all: unknown scope, unknown mobility, unknown selectivity, higher incidence of academic course-taking										
Tach & Farkas 2006	National	Reading group rank	1	2000	1994	Equal	Advantage	Equal	B	1,6,9
Condron 2007	National	Reading group rank	1	2000	1994	Disadvantage	Equal	Equal	B	1,5
Archbald et al. 2009	Mid-Atlantic	Mid + high/low English	9	2002	1987	Equal	ND	ND	A	3
Archbald et al. 2009	Mid-Atlantic	High/mid + low English	9	2002	1987	Equal	ND	ND	A	3
Domina & Saldana 2012	National	Algebra + more/less math	12	2004	1986	Advantage	Advantage	Equal	A	1,5
Domina & Saldana 2012	National	Calculus/less math	12	2004	1986	Equal	Equal	Advantage	A	1,5

[a]The first category is the advantageous one.

[b]Sources: A, transcripts; B, teacher report; C, school personnel report.

[c]Controls: 0, none; 1, socioeconomic status, achievement, and sex; 2, socioeconomic status; 3, achievement; 4, sex; 5, school/classroom context measured; 6, school or classroom modeled; 7, school/classroom fixed effects; 8, measured IQ; 9, prior course placement.

Abbreviations: AP, advanced placement; ND, no data.

assigned to the college track than whites, controlling for socioeconomic background, sex, and prior achievement.

Three equally defensible though perhaps contradictory conclusions can be noted. First, because different racial/ethnic and geographic groups are studied, both studies could be correct, and nothing may have changed in the intervening years. Second, one could instead conclude that the only estimate for a specific racial group, that of Schafer & Olexa (1971), showed black disadvantage. Third, one could conclude that the different findings may describe the experiences of different cohorts.

Opportunities by Race/Ethnicity After the Unremarked Revolution

For this period we have much more evidence on race/ethnicity in students' placements. Placements in kindergarten and first grade are largely equal. Complexity is visible in middle school. Latinx students are disadvantaged in seventh-grade math and science, while blacks are advantaged in science and disadvantaged in math. In high school, setting aside studies that control for prior placement, blacks equal whites except in one southern study, only one estimate shows Latinx disadvantage, and Asian students are often advantaged compared with whites. However, concentrating on the net association of race/ethnicity after prior placement is controlled, blacks were disadvantaged in eleventh-grade math and advantaged otherwise in the eleventh and twelfth grades. Consequently, the evidence suggests that, net of prior placement, race/ethnicity mattered for placement, at least for some comparisons.

One further complexity is that the table reports national or regional summary estimates. Yet some studies allow racial/ethnic differences in curricular placement to vary across schools. Lucas & Berends (2007) studied the same 1980 sophomores summarized in **Table 3** and found black-white differences to vary by school-level diversity, South-Nonsouth region, and school size. The more diverse the school, the lower black students' and the higher white students' chances of a rigorous curriculum. Although they did not constrain diversity to have equal and opposite-signed coefficients for blacks and whites, graphs of the pattern resemble one-for-one substitution of white for black students as one "moves" from least to most diverse schools (Lucas & Berends 2007, p. 180). Kelly (2009), offering a much-needed replication, obtained a similar finding for math course-taking for 1990 sophomores. Alas, the replication is insecure because the data set violates sample design requirements of multilevel modeling, rendering inferences biased in unknown directions (Lucas 2014).

Thus, in this period, it appears that, globally, the middle grades may be the central site for racial/ethnic differences in placement. Alas, few studies focus on these grades. Furthermore, cross-school analyses suggest there are noteworthy, demonstrable, patterned drivers of site-specific racial/ethnic inequality, which renders any story based solely on national or regional estimates consequentially incomplete.

Opportunities by Race/Ethnicity in the College for All Era

As this era is newly dawned, we again have few period-specific estimates. For first grade, Tach & Farkas (2006) find black-white-Asian equality and Latinx advantage conditional on kindergarten placement. In contrast, Condron (2007), with no control for prior placement, finds Latinx-white-Asian equality and black disadvantage, suggesting a cumulating black disadvantage visible by first grade.

Regional estimates for ninth grade pertain to English and show black-white equality; other groups were not studied. National estimates for twelfth-grade math show Asian-white equality

and black and Latinx advantage in algebra, but black-white-Latinx equality and Asian advantage in calculus. It may be that the increase in academic course-taking, by normalizing academic study, reduces racial/ethnic differences in advanced course enrollment.

RACE/ETHNICITY AND CURRICULAR PLACEMENT IN BIOGRAPHICAL PERSPECTIVE

Persons are located in history, but also in biography—in historical time, but also in a life-course. **Table 4** rearranges selected comparisons of blacks and whites from **Table 3** into life-course trajectories for 11 cohorts, with carets indicating regional samples and shading indicating the historical eras. For space reasons only blacks and whites are compared here. And as the dating of eras is inexact for reasons already mentioned, divisions between them appear sharper in the table than they are in reality.

Owing to the many different measurement, specification, missing data, and other treatment differences across studies, full comparability is impossible. However, to partially standardize, only studies that controlled socioeconomic position and some indicator of cognitive achievement were included. Furthermore, although it would have been preferable to center the table around estimates that controlled for prior placement, there were only five such estimates. Thus, each column reflects our best rough summary of each cohort's experience up to the time of the grade reflected in the specific cell.

The table traces the experience of 11 birth cohorts ranging from 1945 to 1994. The table is exceedingly sparse. There are 143 cells. There are no estimates of racial inequality in the curriculum for the 55 cells covering grades 2, 3, 4, 5, and 6. The remaining 8 grades for the 11 cohorts contain 88 cells, of which 15 have estimates. No cohort has estimates for more than two grades, meaning that most of the experience of every cohort is missing.

During the overarching program era, one cohort showed a black disadvantage by grade 10 in the Midwest. Ten years later, the 1955 national birth cohort showed a black advantage by grade 11. Early cohorts after the unremarked revolution tend to show black-white equality by high school and middle school. However, post–unremarked revolution cohorts born after the mid-1970s show black disadvantage, both in regional and in national analyses. Finally, the two analyses of the college for all era show black advantage in a regional sample and equality in a national one in grade 12, but a black disadvantage for the youngest cohort in first grade.

In total, six cohorts have at least one estimate of black disadvantage, while three have at least one estimate of black advantage. One cohort shows advantage and disadvantage for blacks. Notably, four of the last five cohorts showed black disadvantage. Thus, arrayed in this manner, the previous dominance of equality gives way to the realization that black advantage or disadvantage depends on the cohort in question.

Note that inequality is discerned for most cohorts even though estimates in **Table 4** are based on models that control for prior achievement but not prior placement. Such models will show no association between race and placement if prior disadvantageous placement of adept black students reduces their achievement test scores compared with the counterfactual of equal access to demanding curricula.

Still, owing to the paucity of information for each cohort, the meaning of the results must remain uncertain. Yet, some potential patterns are suggestive. Taking one pattern as an example, intriguingly, three of the five cohorts having only estimates of black-white equality are the 1955, 1964, and 1974 birth cohorts—the first three post-*Brown v. Board of Education* (1954) birth cohorts studied. After *Brown*, several follow-up cases (e.g., *Swann v. Charlotte-Mecklenburg Board of Education* 1971) expanded federal civil rights enforcement. However, by the mid-1970s, court rulings

Table 4 Black-white equality and inequality in structural curricular locations arrayed in a life-course sequence within birth cohorts

Cohort	K	1	2	3	4	5	6	7	8	9	10	11	12	Any −s?	Any +s?
1945											$-$ ^			Yes	No
1955												+		No	Yes
1964											0		$0^{A}, 0^{C}$	No	No
1974											0		$0^{A}, 0^{C}$	No	No
1975								$+^{S}, 0^{M}$	$+^{S}, -^{M}$					Yes	Yes
1976		0^{R} ^												No	No
1978													$-^{E}$ ^	Yes	No
1979										$-^{M}$				Yes	No
1980											$-^{M}$			Yes	No
1986													$+^{A}, 0^{C}$	No	Yes
1994	0^{R}	$-^{R}$												Yes	No

All estimates control for socioeconomic status, all estimates control for achievement or measured IQ, and no estimates control for prior placement. Yellow cells indicate the overarching program era, white cells indicate the time after the unremarked revolution, and blue cells indicate the college for all era. The 1987 cohort is missing because no estimates had the requisite variables controlled. An empty cell signifies there is no estimate for that grade/cohort combination. A zero represents equal to whites; a plus sign represents advantaged compared with whites; and a minus sign represents disadvantaged compared with whites. A carat shows that results are based on a regional sample, and no superscript represents a summary curricular measure. Abbreviations: A, algebra; E, English; C, calculus; R, reading; S, science.

backed away from civil rights enforcement (e.g., *Milliken v. Bradley* 1974), a retreat that accelerated with the inauguration of Reagan (Wines 1994) in 1981, when the 1975 birth cohort was turning 6. **Table 4** indicates that five of the seven post-1974 birth cohorts showed black disadvantage in at least one estimate.

Placing studies in life-course perspective raises an important question, especially salient in light of how few estimates we have for any cohort: In how many grades over a cohort's educational career must one observe inequality before one can conclude that inequality is consequential for cohort members? In that connection, Lieberson (1985) argued that given a causal structure, the power of many linkages in that structure could change while still leaving the power of the basic cause unchanged. In this case, if we posit a causal chain of placements from kindergarten through grade 12, then if a basic cause (say, implicit or explicit prejudice) operates against a group, then the location of disadvantage may change over time, but disadvantage will occur somewhere along the chain if the basic cause remains. If this is the way the world works, Lieberson contends, it is misleading to focus on separate pieces of the process in isolation. Other analysts have made similar arguments about the operation of inequality (e.g., Link & Phelan 1995). If these theorists are correct, then the number of estimates showing disadvantage is not central, but the existence of at least one is.

There is as yet no unassailable answer to that question. The key conclusion here, however, is that our understanding of how inequality or equality pertains is deepened by placing estimates in both historical and life-course perspective, for doing so excavates hidden-in-plain-sight implications of existing research.

CONCLUDING REMARKS

Research shows that following a demanding curriculum increases one's cognitive skill (e.g., Gamoran & Mare 1989), college access (e.g., Falsey & Heyns 1984), and labor market earnings (Moller & Stearns 2012), and the downstream effects are so important that some analysts look to schools as the primary site for policymakers to attenuate broad patterns of racial inequality (e.g., Jencks & Phillips 1998). For these reasons we ask: How may our understanding deepen as we contextualize findings not only in geographic space, but also in historical and experiential (i.e., cohort-specific) time?

Locating race/ethnicity and curricular placement in historical time helps contextualize findings. Considering elementary schools, practice was similar across all three time periods. Because the practice continued to involve primarily within-classroom differentiation, scope was and remains consistently low, while within-year mobility remains possible but usually not pronounced.

We found evidence bearing on elementary school placements for the latter two periods. We found no evidence of racial differences in kindergarten placement in any period, and no evidence of racial inequality in first-grade placement in the middle period. We find Latinx advantage in first-grade placement in the latter period, and black disadvantage in first-grade placement once prior placement is controlled.

While elementary school structures were consistent across the three periods, high schools changed more. Equivocal results were observed during the era of overarching programs. However, after the unremarked revolution, scope moderated, upward mobility chances slightly rose, selectivity remained low, and electivity, while hard to measure, might have increased. In that context, we find middle school to be the primary location of racial/ethnic differences in opportunity, for five of the eight estimates obtained in those years show race-linked differences—sometimes disadvantaging blacks or Latinx, sometimes advantaging blacks.

Far fewer estimates are available for the emerging college for all period. No high school estimates control for prior achievement. The existing evidence shows almost as many estimates of black and Latinx advantage as of equality.

Shifting to a life-course perspective reveals that a plurality of studied cohorts experienced racial disadvantage at some point between kindergarten and high school graduation, and the pattern suggests a role for larger societal dynamics beyond the school. The pattern is only suggestive, but what it reinforces is awareness that in-school structural differentiation sets the context, but in-school structural differentiation itself occurs in a context of wider societal conditions. If in-school structural differentiation began in an era animated by nativist fears and imputations of immigrant inferiority, it should not surprise us that contemporary policy and ideology currents—such as rising and then falling commitments to civil rights, and waning and then intensifying focus on immigrants—will affect what happens in schools. And, if these currents affect what happens in schools, cohorts' experience of schools may also be affected.

But nailing down these relations will take much more research. First, because we lack estimates of race/ethnicity and curricular placement for the vast majority of students' education, our understanding is considerably reduced. Second, the dearth of estimates of scope, mobility, and selectivity at the national- and school-level further reduces the resolution with which we have been able to discern patterns of inequality.

Finally, despite the large number of studies treated, many more could not be placed in historical context and/or life-course perspective. Often parameterizations prevented a clear conclusion, poor sample design lowered confidence, or insufficient sample information precluded clear placement. Consequently, some information—age/grade studied, year to which the data pertain, geographic location represented, sample design (probability sample or not)—should become standardized if we seek to place future studies into their correct historical eras and cohorts.

Analysts have produced dozens of estimates of racial/ethnic inequality in curricular access. Though such studies are valuable, the foregoing suggests that their value can only grow if analysts attend to history while arraying the experiences of studied cohorts in life-course perspective.

DISCLOSURE STATEMENT

The authors are not aware of any affiliations, memberships, funding, or financial holdings that might be perceived as affecting the objectivity of this review.

ACKNOWLEDGMENTS

We thank Jan Jacobs, Susan Rachel Schacht (posthumously), H. Sorayya Carr, Aimée Dechter, and Wai Kit Choi for wise counsel, many Madison, Wisconsin, analysts for consistent support, Douglas Massey, the Editorial Committee, and an anonymous reviewer. This material is based upon work supported by the National Science Foundation under grant 1628813. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation. All errors and omissions are the fault of the authors.

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