GCS Groundwater Analysis

Examining the Prevalence of Racial Inequity



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Prepared for GCS by Bayard P. Love blove924@gmail.com
(617) 283-3642

<u>Agenda</u>

Overview of history of education and race in NC

De facto segregation and student performance

Achievement gaps

Discipline gaps

Gaps in course assignment

Gaps in staffing and sourcing

Putting it all together and thoughts about causes

The path forward

A note on the importance of history

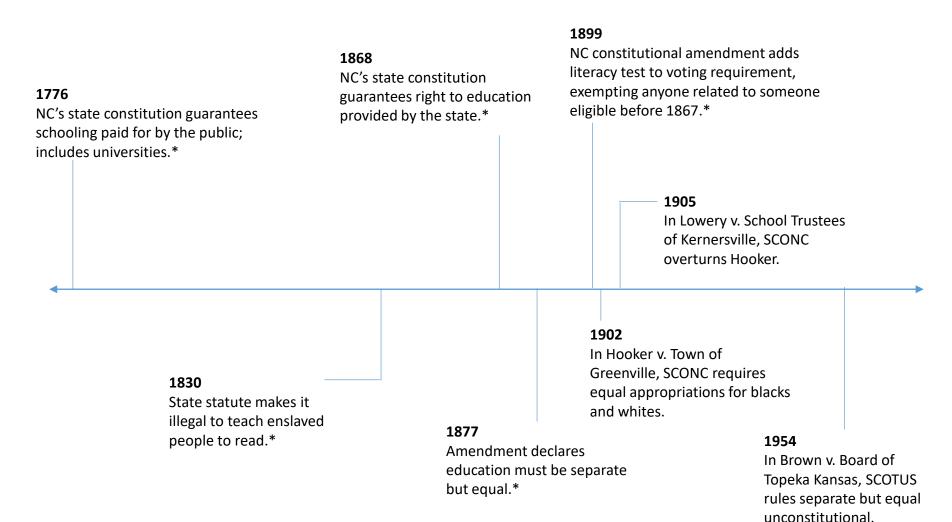
Too often, the black-white achievement gap is discussed as if it has no history or, at the very least, as if its history is inconsequential. Much can be learned about today's problems by reviewing the history of African American educational opportunities, as a deep and thorough understanding of the origins of the black-white achievement gap is an absolute prerequisite for solving this intractable problem once and for all.

- Dr. Rod Paige, former U.S. Secretary of Education under President George W. Bush

Any candid observer of American racial history must acknowledge that racism is highly adaptable....This process, though difficult to recognize at any given moment, is easier to see in retrospect. Since the nation's founding, African Americans repeatedly have been controlled through institutions such as slavery and Jim Crow, which appear to die, but then are reborn in new forms, tailored to the needs and constraints of the time....

- Dr. Michelle Alexander, author of The New Jim Crow

Timeline of education and race in NC (I of II)



⁴

Timeline of education and race in NC (II of II)

1954

Greensboro school board passes 6 to 1 resolution to implement the U.S. Supreme Court's decision.* 1957 (Sep 4)

Josephine Boyd and 5 others admitted to previously all white schools.*

1965

HEW determines GCS's desegregation plan "inadequate" but "negotiable" and ultimately approves it.1

1969

1970 (Feb 24)

George Simkins, Jr. and 10 other parents file desegregation suit against Greensboro.

1971 (Apr 20)

In Swann v. Charlotte-Mecklenburg, SCOTUS rules busing is viable action for desegregation.

1983

A school finance study commission hears from Jay Robinson, Charlotte-Mecklenburg Superintendent, who notes, if not for the merger..."we'd have had a black city school system and a white county school system."*

1956 (Sep 8)

Pearsall Plan adopted by referendum in all 100 NC counties. 2 key components:

- 1) allows public "grants" for children attending private schools;
- 2) legalizes closing of public schools.

1971

Greensboro and GCS, ruled in compliance with Brown.*

HEW determines Greensboro out of compliance; district court rules that High Point must desegregate.²

1970

High Point ruled in compliance with Brown.4

1993

Merger becomes effective.

5

1978

Discussion about merger begins. GSO Daily News editor William D. Snider cites two central motivations: racial and economic motivations.*

^{* -} Additional detail in following slides.

Timeline of education and race in NC

1776 - NC Constitution of 1776 (Sec. XLI)

"That a school or schools shall be established by the Legislature, for the convenient instruction of youth, with such salaries to the masters, paid by the public, as may enable them to instruct at low prices; and all useful learning shall be duly encouraged, and promoted, in one or more universities."

1830 - 1830 - 1831 Act

"Be it enacted by the General Assembly of the State of North Carolina, and it is hereby enacted by the authority of the same, that any free person, who shall hereafter teach, or attempt to teach, any slave within this State to read or write, the use of figures excepted, or shall give or sell to such slave or slaves any books or pamphlets, shall be liable to indictment in any court of record in this State having jurisdiction thereof; and upon conviction, shall, at the discretion of the court, if a white man or woman, be fined not less than one hundred dollars, not more than two hundred dollars, or imprisoned; and if a free person of color, shall be fined, imprisoned, or whipped, at the discretion of the court, not exceeding thirty nine lashes, not less than twenty lashes."²

1868 - Constitution of 1868 (Article IX, Sec. 2)

"The General Assembly at its first session under this Constitution, shall provide by taxation and otherwise for a general and uniform system of Public Schools, wherein tuition shall be free of charge to all children of the State between the ages of six and twenty-one years."

Timeline of education and race in NC

1877 - Constitutional Amendment

"The people of North Carolina in Convention do ordain, That section two of the ninth article of the Constitution, be amended by adding the following words:

And the children of the white race and the children of the colored race shall be taught in separate public schools, but there shall be no discrimination made in favor of, or to the prejudice of, either race."

1899 - Constitutional Amendments (Sec. 4 and Sec. 5)

Sec. 4. – "Every person presenting himself for registration shall be able to read and write any section of the Constitution in the English language; and, before he shall be entitled to vote, he shall have paid, on or before the first day of March of the year in which he proposes to vote, his poll tax, as prescribed by law, for the previous year. Poll taxes shall be a lien only on assessed property, and no process shall issue to enforce the collection of the same except against assessed property."

Sec. 5. – "No male person, who was on January 1, 1867, or at any time prior thereto, entitled to vote under the laws of any State in the United States wherein he then resided, and no lineal descendant of any such person; shall be denied the right to register and vote at any election in this State by reason of his failure to possess the educational qualifications prescribed in section 4 of this Article: Provided, He shall have registered in accordance with the terms of this section prior to Dec. 1, 1908."²

Timeline of education and race in NC

1954 – GSO school board passes 6 to 1 resolution to implement the Supreme Court Decision

"The decision, [Greensboro Schoolboard Chairman] Hudgins said, was 'one of the most momentous events' in the history of education, and he urged his colleagues not to 'fight or attempt to circumvent it... isn't there a possibility that we of Greensboro may furnish leadership in the way we approach this problem? Not only to the community but to the state and to the South?"¹

<u>1957</u> – Josephine Boyd and 5 others admitted to previously all white schools.

"Charlotte admitted four black students to previously all-white schools: Dorothy Counts to Harding High, Gus Roberts to Central High, Delores Huntley to Alexander Graham Junior High, and Girvaude Roberts to Piedmont Junior High. Greensboro admitted six: Josephine Boyd to Greensboro Senior High; Harold David, Elijah Herring Jr., and Russell Herring to Gillespie Junior High; plus Brenda Kay Florence and Jimmie B. Florence to Gillespie Elementary. Winston-Salem admitted one black student, Gwendolyn Bailey, to Reynolds High. The boards denied another thirty-nine transfer applications. Raleigh City and Mecklenburg County also considered a series of transfer requests but either deferred or denied all of them."²

<u>1971 – Greensboro, GCS, ruled in compliance with Brown</u>

"Thus, seventeen years after leading the nation in declaring it would comply with the Brown decision, Greensboro was once again in the headlines as an example of racial progress. As observers from other communities took note of the city's desegregation procedures, local leaders boasted of their 'feeling of pride that Greensboro was different from other cities, that it was a city interested in improving human relations.' Yet, if it was important to ask how Greensboro had accomplished so smoothly the transition to integration, it was also important to ponder why the process had taken so long." 3

Timeline of education and race in NC

<u>1978 – GSO Daily News editor William D. Snider cites two central motivations for merger: racial and economic</u>

"A Greensboro Daily News editorial by William D. Snider put the issue into realistic focus. Snider pointed to two central motivations for the merger: racial and economic. Acknowledging that a trend could be discerned toward re-segregation due to white flight to the suburbs and a growing black percentages in city schools, he nevertheless felt troubled by the assumptions that 'predominantly black schools automatically come up inferior.' On the other hand, with enrollments declining in all three systems, cooperative planning for efficient utilization of facilities made sense."

<u>1983 – Jay Robinson, Charlotte-Mecklenburg Superintendent, who notes, if not for the merger... "we'd</u> have had a black city school system and a white county school system."

"Robinson's comments marked the introduction of public candor on the merger issue. At that time the three systems' white-black pupil ratios stood at 82-18 for the county, 54-46 for High Point, and 50-50 for Greensboro city, with a declining white enrollment trend clearly evident in both city systems. At the heart of the merger issue was the perception on the part of the Greensboro and High Point business communities that a majority black school system, with a presumed preponderance of disadvantaged pupils, would hurt long-term economic growth."²

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De facto segregation and student performance

Achievement gaps

Discipline gaps

Gaps in course assignment

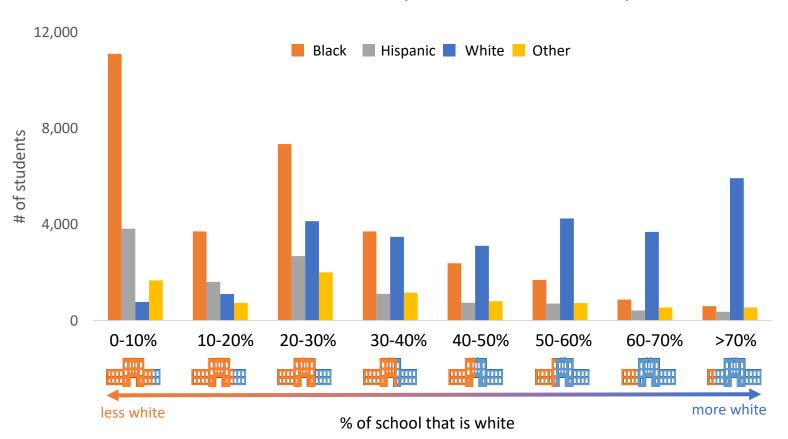
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A look at schools by % white shows segregation across GCS (public, non-charters only)

School enrollment by school racial make-up



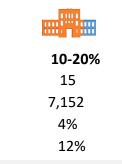
Schools

Backup: schools and enrollment by decile

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Decile	0-10%
# schools	37
# students	17,376
% of whites	3%
% of non-whites	33%

of non-whites	33%
Allen MS	Jackson MS
Andrews HS	McNair ES
Archer ES	MC at Bennett
Bessemer ES	MC at NC A&T
Bluford ES	Montlieu Academy
Brightwood ES	Murphey Traditional
Cone ES	Parkview Village ES
Dean B. Pruett SCALE	Peck ES
Dudley HS	Rankin ES
Erwin Montessori	SCALE - Greensboro
Fairview ES	Sedgefield ES
Falkener ES	Smith HS
Foust ES	Sumner ES
Frazier ES	The Academy at Smith
Gillespie Park ES	Union Hill ES
Hairston MS	Vandalia ES
Hampton ES	Washington Montessori
Hunter ES	Welborn Academy
	Wiley ES



Alderman ES
Aycock MS
Doris Henderson Newcomers
Guilford ES
Guilford MS
HS Ahead Academy
Johnson Street GS
Kirkman Park ES
MC at GTCC - GSO
Northwood ES
Oak Hill ES
Peeler Open ES
Reedy Fork ES
Simkins ES
The Academy at HP Central



20-30%
23
16,181
16%
24%

Allen Jay ES, Allen Jay MS Eastern Guilford MS, East. Guil. HS Ferndale MS **Gateway Education Center** Herbin-Metz Education Center **High Point Central HS Irving Park ES** Jamestown ES Jefferson ES Jones ES Joyner ES Middle College at UNCG Northeast Guilford HS Northeast Guilford MS Oak View ES Penn-Griffin School for the Arts Southern Guilford HS Southern Guilford MS STEM Early College at NC A&T

The Academy at Lincoln

Triangle Lake Montessori



30-40% 14 9,470 13% 12%

Brooks Global Studies
Christine Joyner Greene
Florence ES
GSO College Middle College
Jamestown MS
Madison ES
Mendenhall MS
Middle College at GTCC - HP
Morehead ES
Page HS
Pilot ES
Ragsdale HS
Shadybrook ES
Western Guilford HS

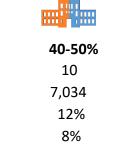
Source: GCS, Academic Year 2015-2016, enrollment is 20-day enrollment.

Backup: schools and enrollment by decile

Decile
schools
students

% of whites % of non-whites

Schools



Grimsley HS
Haynes- Inman Education Center
Kiser MS
Lindley ES
McLeansville ES
MC at GTCC - Jamestown
Sedalia ES
Southwest Guilford HS
Southwest Guilford MS
The Early College at Guilford



50-60% 11 7,370 16% 6%

Claxton ES
Colfax ES
General Greene ES
Gibsonville ES
Jesse Wharton ES
Millis Road ES
Monticello-Brown Summit ES
Southeast Guilford HS
Southern Guilford ES
Southwest Guilford ES



60-70% 6 5,528 14% 4%

Alamance ES
Kernodle MS
Northern Guilford MS
Pearce ES
Summerfield ES
Weaver Academy

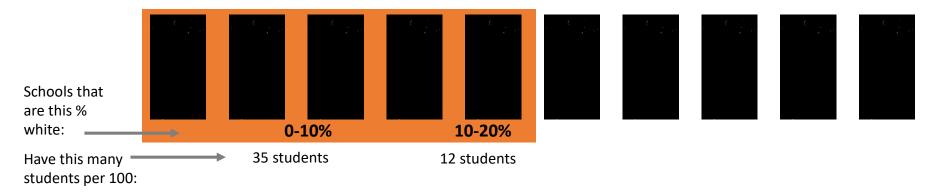


>**70%**10
7,440
22%
3%

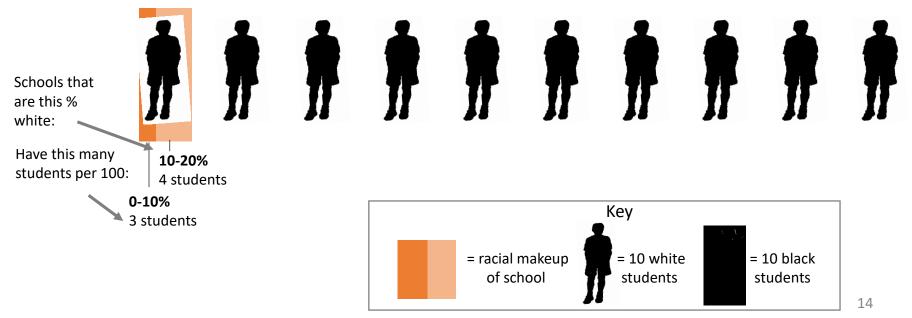
Brown Summit MS
Northern Guilford ES
Northern Guilford HS
Northwest Guilford HS
Northwest Guilford MS
Oak Ridge ES
Pleasant Garden ES
Sternberger ES
Nathanael Greene ES
Stokesdale ES

~47 of every 100 black students are in schools that are < 20% white... ...but **only ~7 of 100 whites** are in those schools

Distribution of black students by % of school that is white



Distribution of white students by % of school that is white

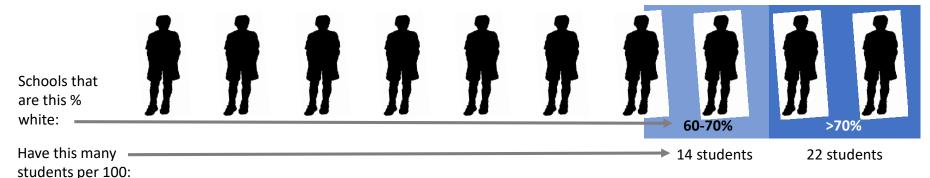


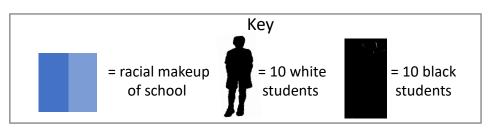
~36 of every 100 white students are in schools that are > 60% white... but only ~7 of 100 black students are in those schools

Distribution of black students by % of school that is white



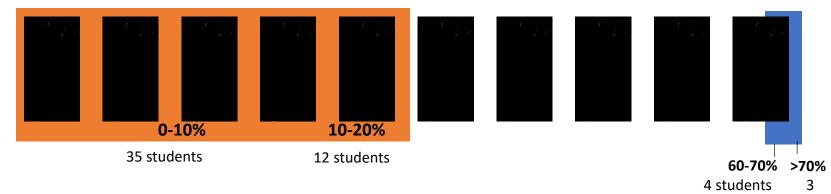
Distribution of white students by % of school that is white





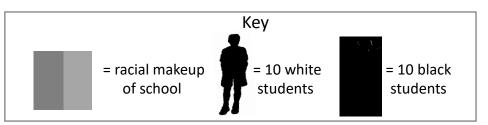
Both black and white students experience significant segregation in GCS public schools

Distribution of black students by % of school that is white



Distribution of white students by % of school that is white

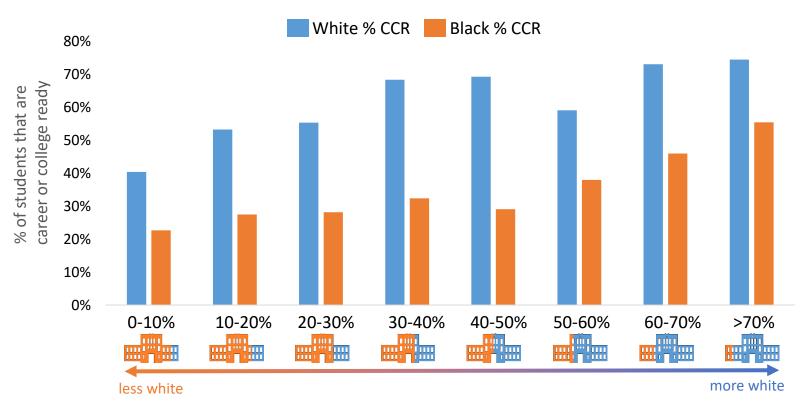




3 students

Disparity in performance is consistent regardless of racial make-up

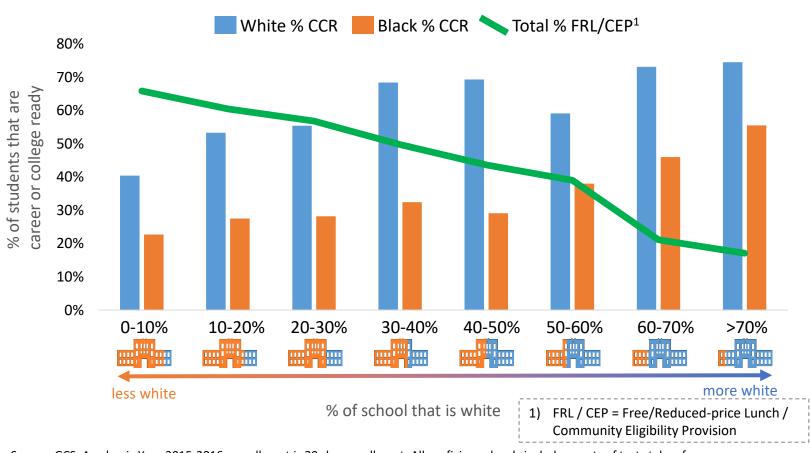
% Career or college ready (CCR) by race and school racial make-up



% of school that is white

SES may predict overall school performance, but does not seem to reduce racial gap

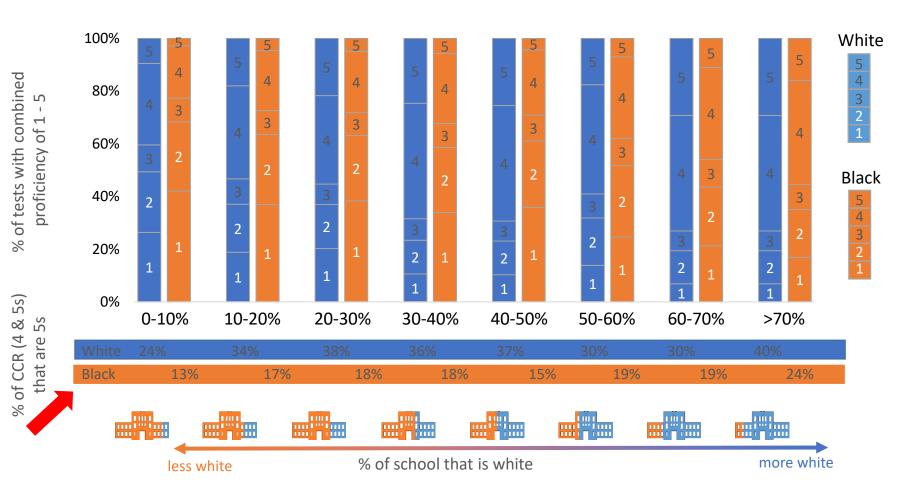
% CCR by race and school racial make-up



Source: GCS, Academic Year 2015-2016, enrollment is 20-day enrollment. All proficiency levels include counts of tests taken for combined reading an math. Reading includes EOG reading assessments for Grades 3-8 plus the EOC English 2 assessment. Math includes the EOG math assessments for Grades 3-8 plus the EOC Math. Career or college ready (CCR) connotes a score of 4 or 5 out of 5.

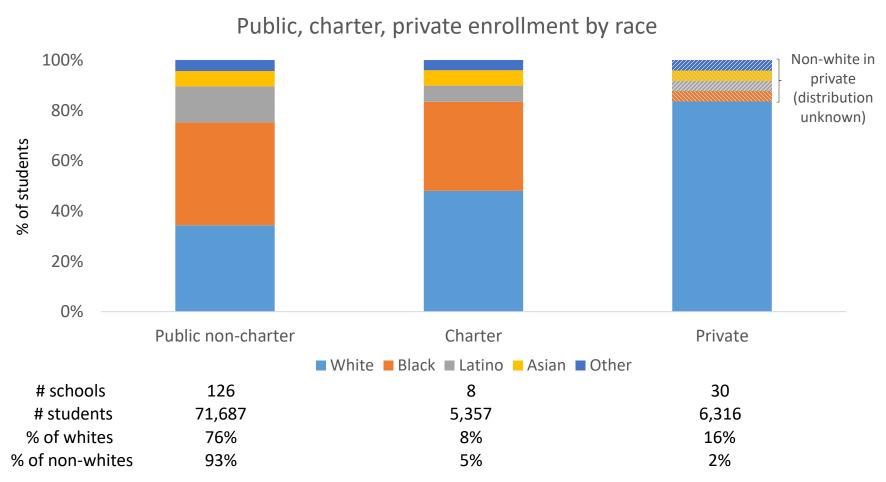
Further examination shows racial disparity even among "career or college ready" students

Combined reading and math proficiency by race and school racial make-up



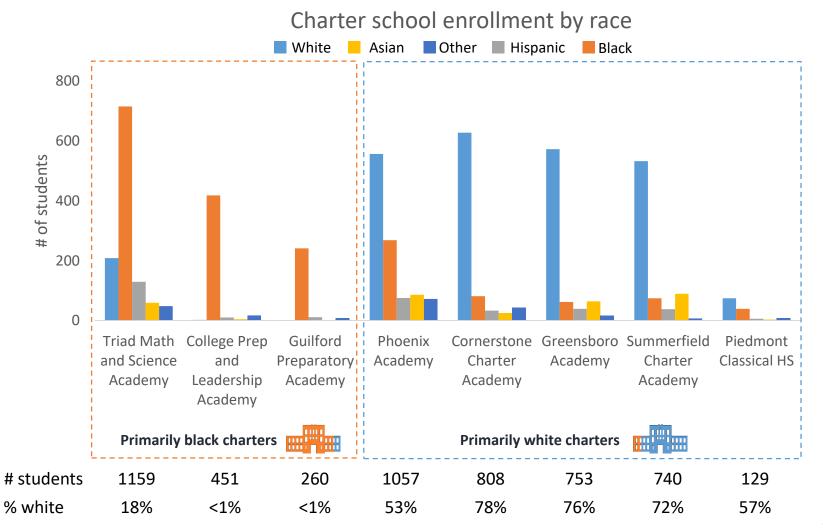
Source: GCS, Academic Year 2015-2016, enrollment is 20-day enrollment. All proficiency levels include counts of tests taken for combined reading an math. Reading includes EOG reading assessments for Grades 3-8 plus the EOC English 2 assessment. Math inc. the EOG math assessments for Grades 3-8 plus the EOC Math. Career or college ready (CCR) connotes a score of 4 or 5 out of 5.

GCS charter and private schools are less diverse...



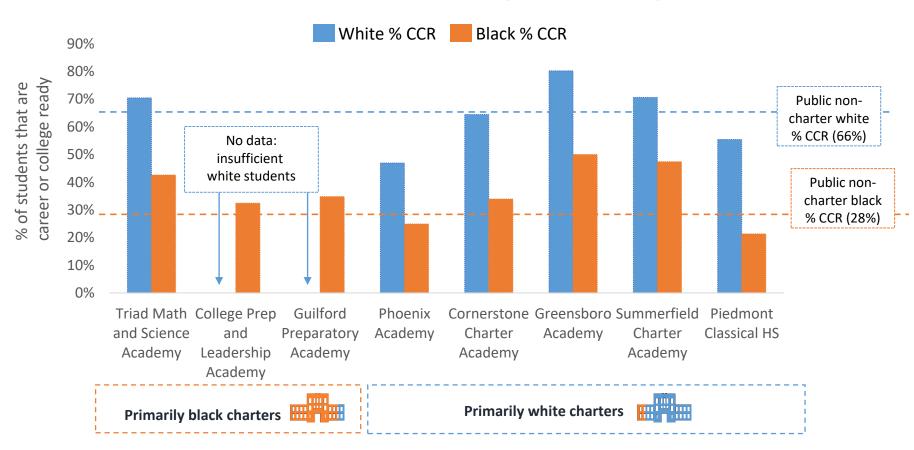
Note: Includes Private Schools located geographically within Guilford County. Source: NC DPI, privateschoolreview.com, select school websites, Academic Year 2015-2016. Total number of charters increased between 2015-2016 and 2016-2017 academic years. % of whites and % of non-whites shows % of all students in Guilford county enrolled in school.

Charter schools are segregated, some serving primarily blacks, others primarily whites...

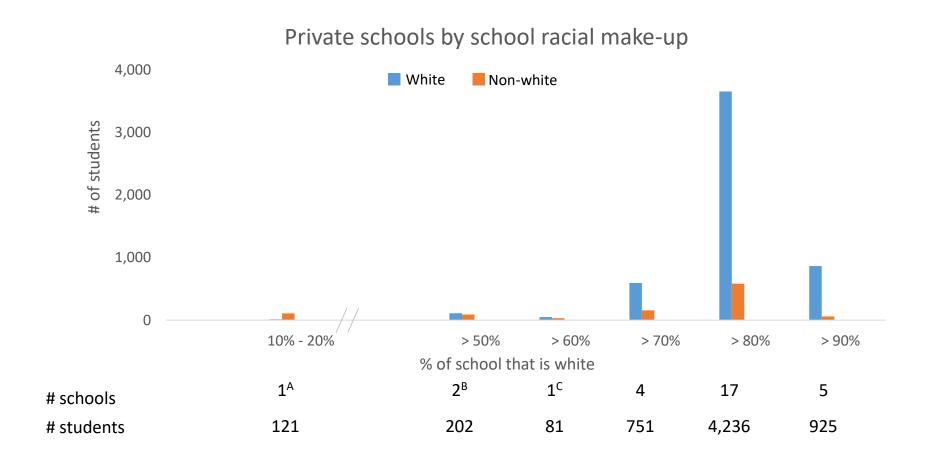


Gaps in charter performance mirror gaps in non-charter performance

Charter school enrollment and performance by race



Guilford County private schools are almost entirely white



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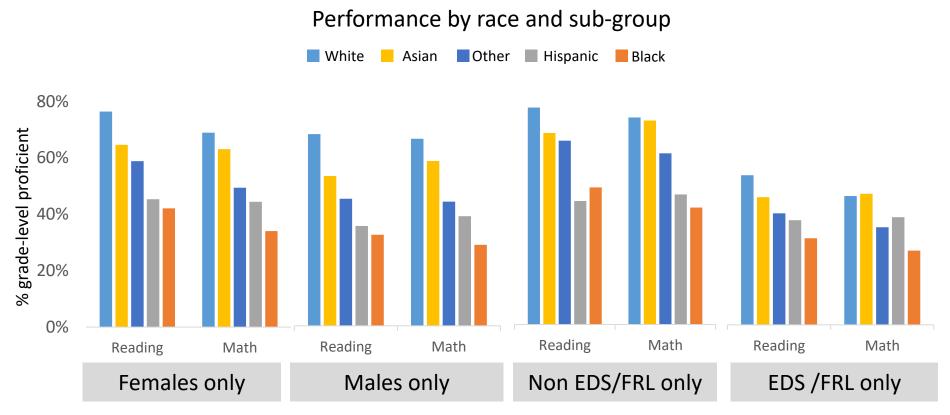
Gaps in course assignment

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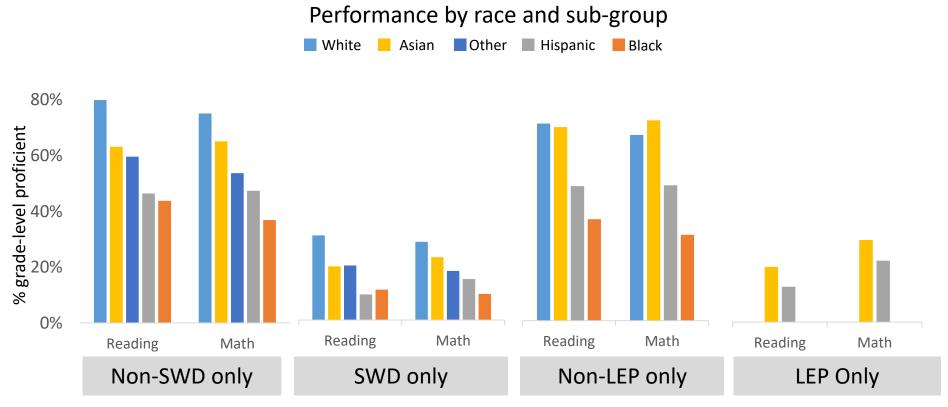
Across all public and charter schools, racial achievement gaps exists within every subgroup (I of II)



EDS – Economically Disadvantaged Student FRL – Free / Reduced-price Lunch

Note: Math is grades 3-8 EOG grade level proficiency (level 3, 4, or 5) in 2015. Reading is all grade EOG grade level proficiency (level composite proficiency level 3, 4, or 5) in 2016.

Across all public and charter schools, racial achievement gaps exists within every subgroup (II of II)



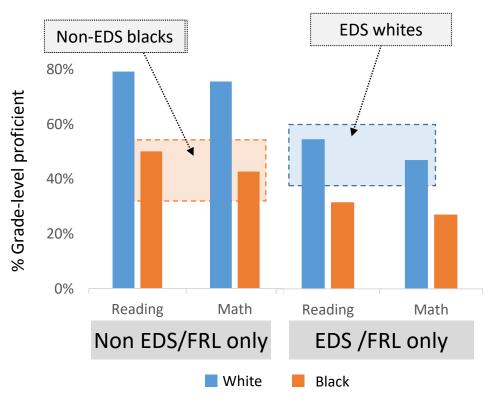
LEP - Limited English Proficient (LEP) SWD - Students With Disabilities (SWD)

Note: Math is grades 3-8 EOG grade level proficiency (level 3, 4, or 5) in 2015. Reading is all grade EOG grade level proficiency (level composite proficiency level 3, 4, or 5) in 2016.

The race effect outweighs the income effect

EDS (economically disadvantaged) whites outperform non-EDS blacks by 4-5%

Performance by race and sub-group



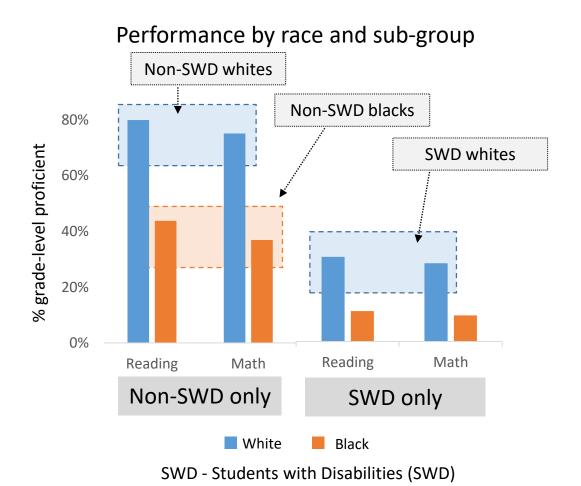
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Source: "2015 READY Accountability Results." Presented to GCS Board of Education September 8, 2015 and "2016 READY Accountability Report." Board of Education Work Session September 14, 2016.

...and nearly outweighs the effect of disability

Non-SWD blacks closer to SWD whites (8–13% difference) than to non-SWD whites (36–38% difference)



Note: Math is grades 3-8 EOG grade level proficiency (level 3, 4, or 5) in 2015. Reading is all grade EOG grade level proficiency (level composite proficiency level 3, 4, or 5) in 2016.

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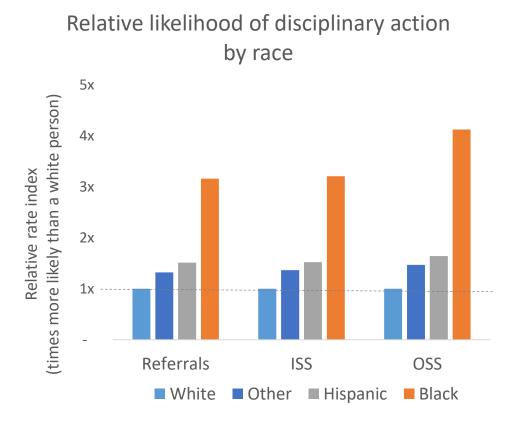
Gaps in course assignment

Gaps in staffing and sourcing

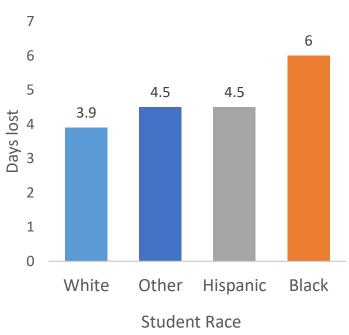
Putting it all together and thoughts about causes

The path forward

Students of color are also far more likely to be disciplined and lose more time per infraction



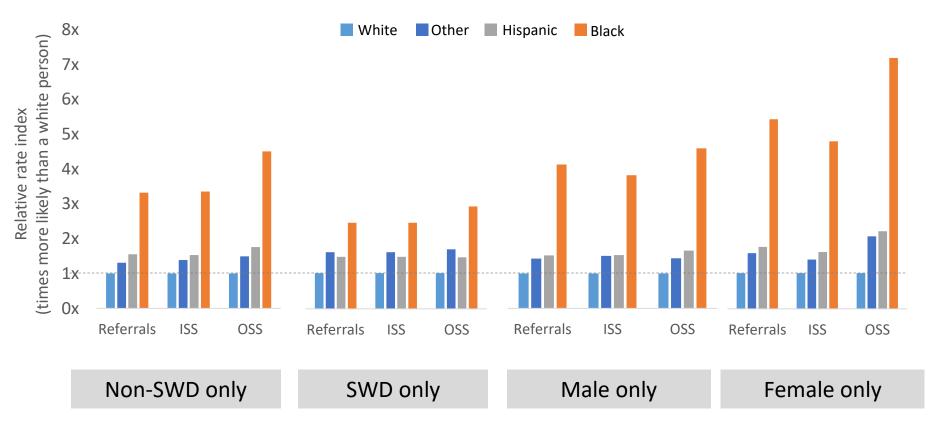
Average days of instruction lost per student suspended



ISS – In School SuspensionsOSS – Out of School Suspensions

This pattern holds across every subgroup

Relative likelihood of disciplinary action by race and subgroup

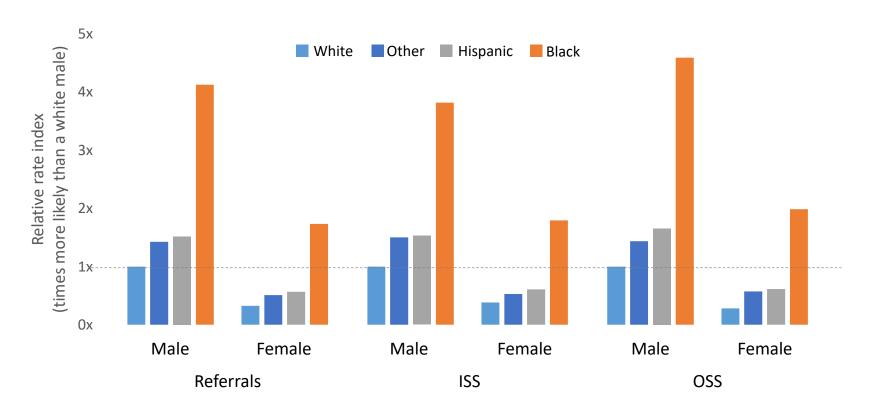


SWD - Students with Disabilities ISS - In School Suspensions OSS - Out of School Suspensions

Race seems to be more significant than gender

Black females are the only group of females disciplined more than white males

Relative likelihood of disciplinary action *compared to white males*



ISS – In School SuspensionsOSS – Out of School Suspensions

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Gaps in course assignment

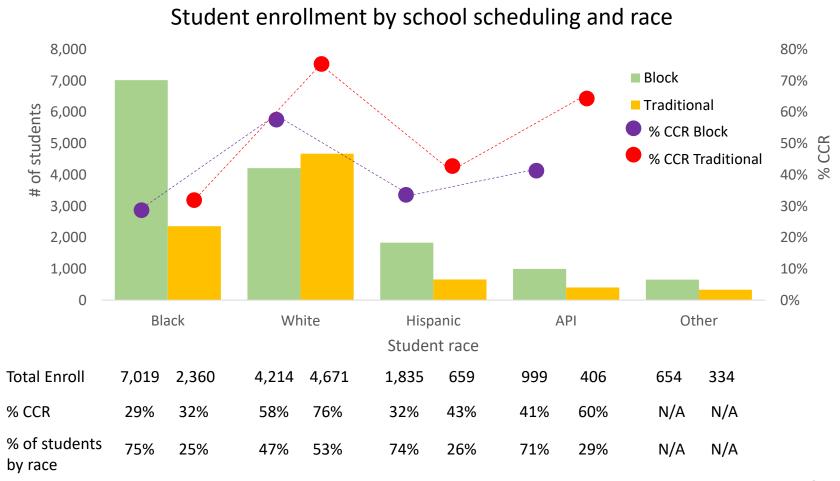
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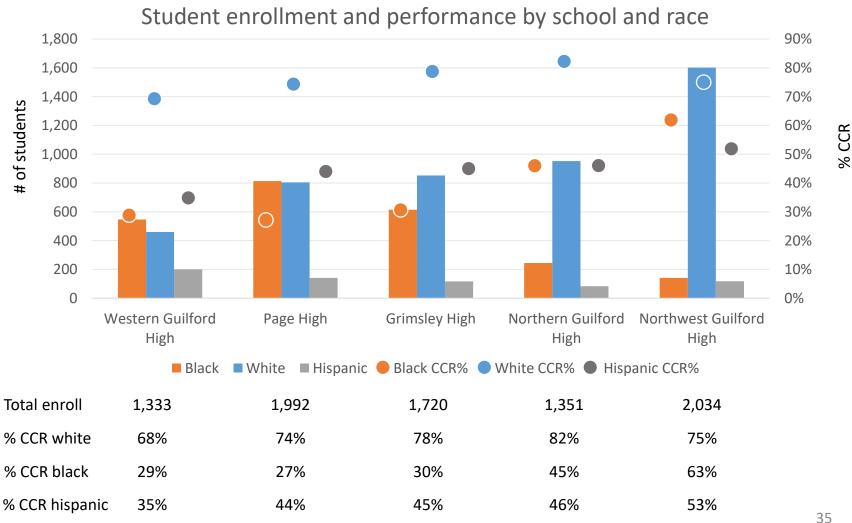
Type of schedule seems to matter

On average, students of all races perform better with traditional scheduling (vs. block); but all races except white are more likely to have block



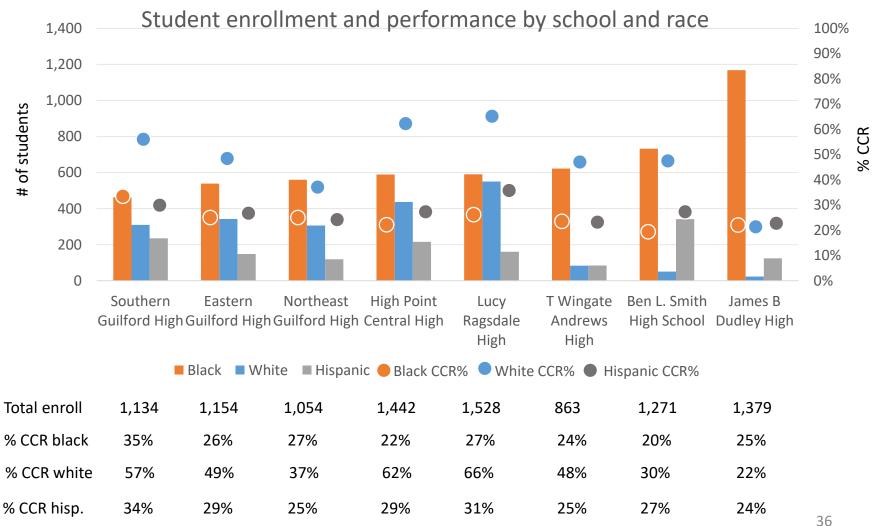
Yet racial gaps persist across all schools (I of IV)

High schools with traditional scheduling



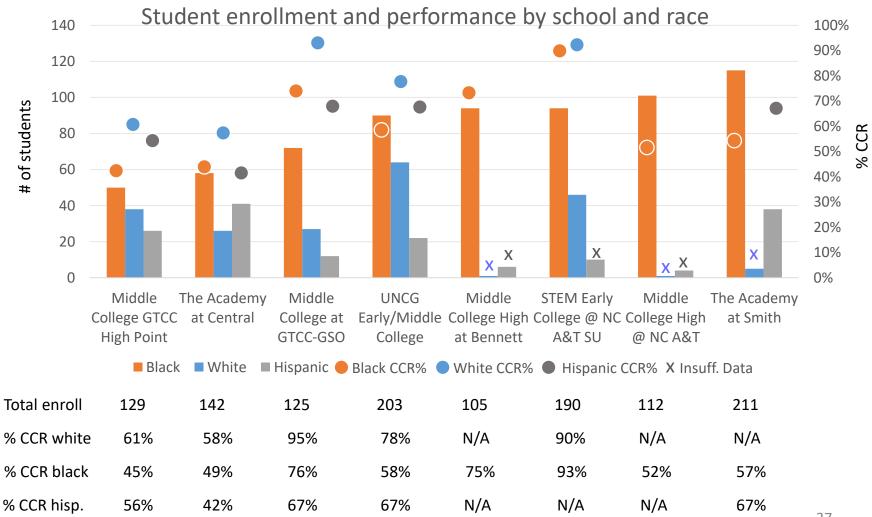
Yet racial gaps persist across all schools (II of IV)

Large high schools (>1000 students) with block scheduling; black largest subgroup



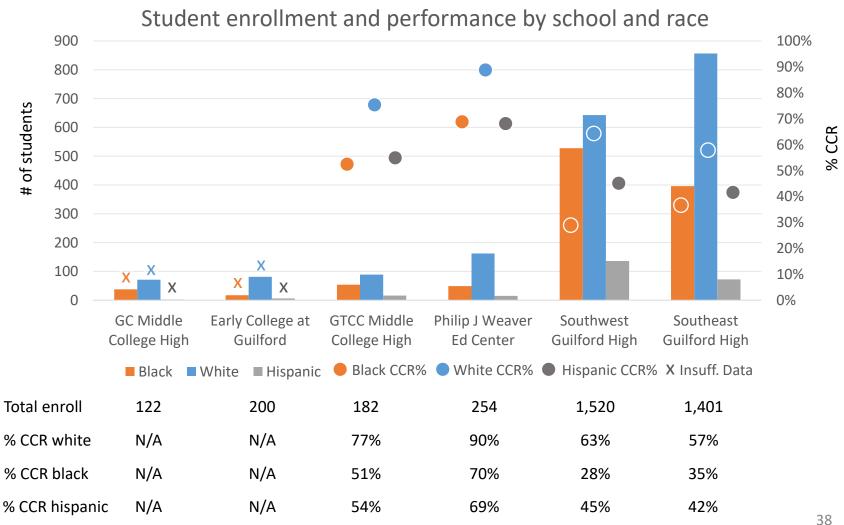
Yet racial gaps persist across all schools (III of IV)

Small high schools (<300 students) with block scheduling; black largest subgroup

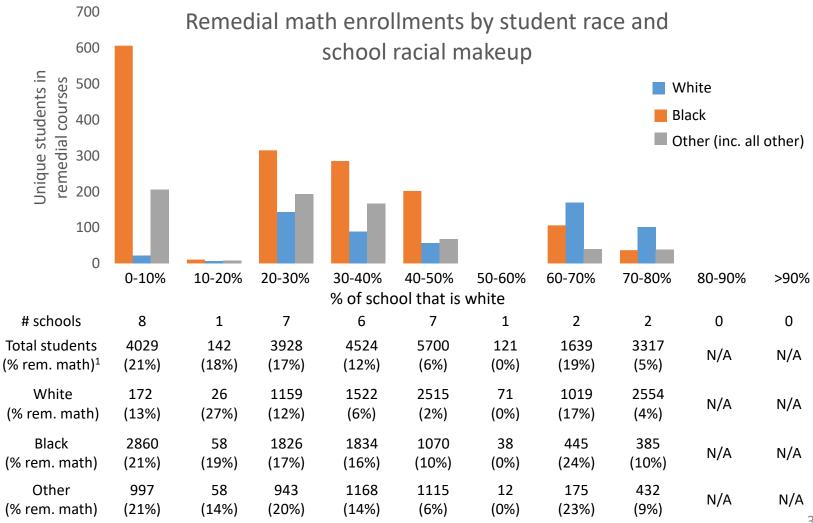


Yet racial gaps persist across all schools (IV of IV)

All sizes; white largest subgroup

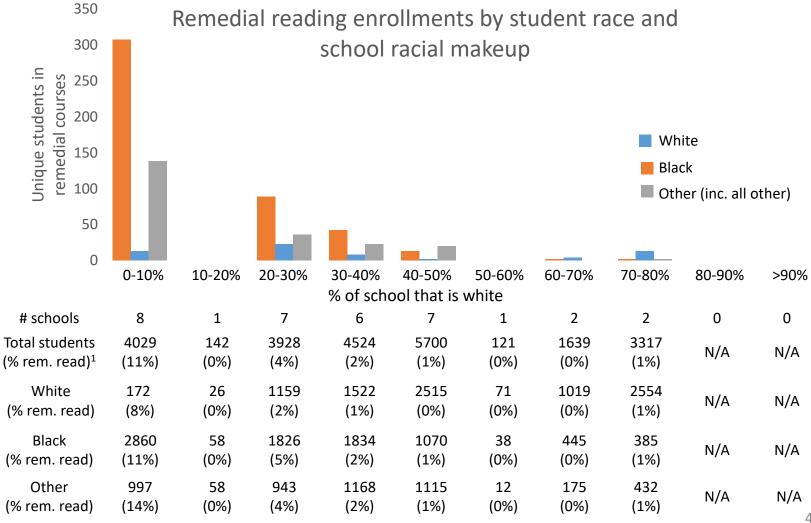


Remedial courses are concentrated in schools with more students of color (math)



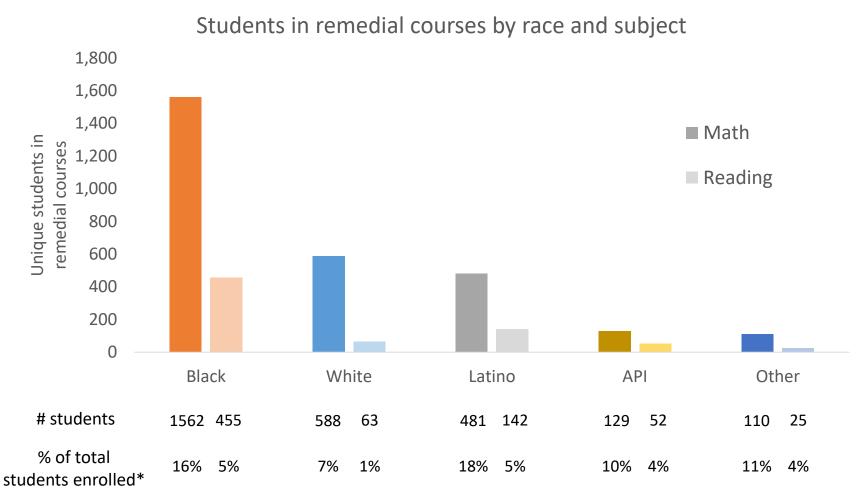
Notes: 1) % rem. math indicates the % of total students in this race-school make-up category, who are enrolled in remedial math divided by total students in that category. Source: GCS, NC DPI Academic Year 2016-2016. Total enrollment data as reported by NC DPI.

Remedial courses are concentrated in schools with more students of color (reading)



40

Across GCS high schools, students of color far more likely to be in remedial courses



Backup: remedial course analysis

Remedial math courses

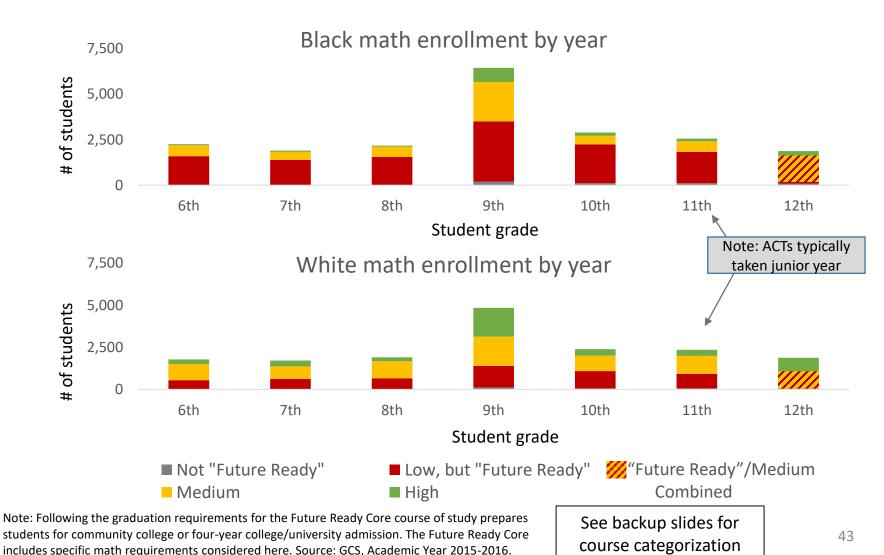
Remedial reading courses

Foundations of Math I
Foundations of Math II
Foundations of Math III
Guided Studies - Math

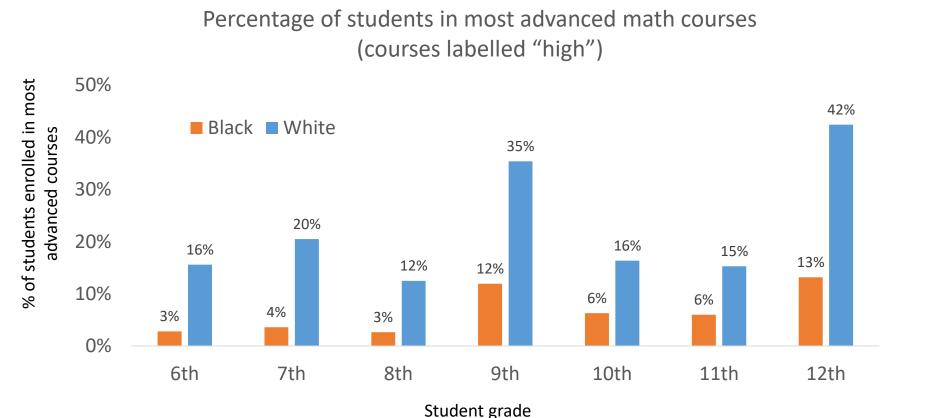
Academic Edge B
Academic Edge C
Guided Study Reading
Strategic Literacy

Schools included in remedial course analysis				
0-10%	Smith, Andrews, Pruette SCALE Academy, Doris Henderson, Mid. Coll. At Bennet, Mid. Coll.			
	at A&T, Dudley			
10-20%	Academy at Central			
20-30%	STEM Coll. At A&T, So. Guilford, Penn-Griff, NE Guilford, Mid. Coll. at GTCC HP, Mid. Coll. At			
	GTCC GSO, E Guilford			
30-40%	W Guilford, UNCG Ear/Mid. Coll., SCALE, Ragsdale, HP Central, Gateway			
40-50%	SW Guilford, Page, C J Greene, Haynes Inman, GTCC Mid. Coll., Grimsley, Ear. Coll. at Guilford			
50-60%	GC Mid. Coll.			
60-70%	SW Guilford, P J Weaver			
>70%	NW Guilford, N Guilford			

Across all courses and years, black students more likely to be in low math placements



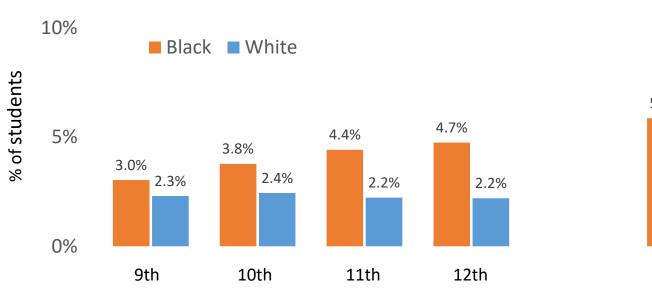
Whites are two to fives times as likely to be in the most advanced courses



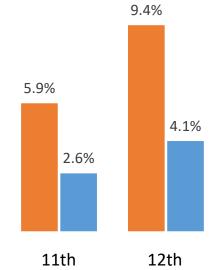
See backup slides for course categorization

By high school, ~5 – 10% of blacks likely unable to achieve "future ready" math requirements

Percentage of students unable to achieve "future ready" core math courses



Students categorically unable to meet "future ready" core



Students unable plus students required to advance a full level every semester to achieve "future ready"

Note: Following the graduation requirements for the Future Ready Core course of study will prepare you for community college or four-year college/university admission. The Future Ready Core includes specific math requirements considered here.

Source: GCS, NC DPI Academic Year 2016-2016. Total enrollment data as reported by NC DPI.

See backup slides for course categorization

Backup: courses by level and grade (I of III)

	6th	6th 7th		
High	AIMM	NC MATH 1 NC MATH 2	NC MATH 2	
Medium	ACCELERATED MATH 6	ACCELERATED MATH 7	ACCELERATED MATH 8 NC MATH 1	
Low	МАТН 6	MATH 7	МАТН 8	

Backup: courses by level and grade (II of III)

	9 th	10 th	11 th	12th
	HON. NC MATH 3	ADV. FUNC. & MODELING	AP CALC. AB	AP CALC. AB
	NC MATH 3	AP STATISTICS	AP CALC. BC	AP CALC. BC
	ADV. FUNC. & MODELING	DISCRETE MATH	HON. CALC.	HON. CALC.
	AP STATISTICS	ESSENTIALS FOR COLLEGE MATH	IB MATHEMATICAL STUDIES SL	IB MATHEMATICAL STUDIES SL
	DISCRETE MATH	HON. ADV FUNC. & MODELING	IB MATH SL	IB MATH SL
	ESSENTIALS FOR COLLEGE MATH	HON. ADV FUNC. AND MODELING	IB MATH HL	IB MATH HL
	HON. ADV FUNC. & MODELING	HON. DISCRETE MATH	AP STATISTICS	AP STATISTICS
High	HON. ADV FUNC. AND MODELING	HON. PRE-CALC.		
	HON. DISCRETE MATH	AP CALC. AB		
	HON. PRE-CALC.	AP CALC. BC		
	AP CALC. AB	HON. CALC.		
	AP CALC. BC	IB MATHEMATICAL STUDIES SL		
	HON. CALC.	IB MATH SL		
	IB MATHEMATICAL STUDIES SL	IB MATH HL		
	IB MATH SL			
	IB MATH HL			
	HON. NC MATH 2	HON. NC MATH 3	ADV. FUNC. & MODELING	ADV FUNC. & MODELING (c)
	NC MATH 2	NC MATH 3	DISCRETE MATH	DISCRETE MATH (c)
			ESSENTIALS FOR COLLEGE MATH	ESSENTIALS FOR COLLEGE MATH (c)
Medium			HON. ADV FUNC. & MODELING	HON. ADV FUNC. & MODELING (c)
			HON. ADV FUNC. AND MODELING	HON. ADV FUNC. AND MODELING (c)
			HON. DISCRETE MATH	HON. DISCRETE MATH (c)
			HON. PRE-CALC.	HON. PRE-CALC. (c)

Backup: courses by level and grade (III of III)

	9 th	10 th	11 th	12 th
Low, but Future Ready	FOUND. OF NC MATH 1* FOUND. OF NC MATH 2 FOUND. OF NC MATH 3 INTRO. MATH* HON. NC MATH 1 NC MATH 1	FOUND. OF NC MATH 1 FOUND. OF NC MATH 2 FOUND. OF NC MATH 3 INTRO. MATH HON. NC MATH 1 NC MATH 1 HON. NC MATH 2 NC MATH 2	FOUND. OF NC MATH 2*(r) FOUND. OF NC MATH 3* HON. NC MATH 1* (r) NC MATH 1*(r) HON. NC MATH 2* NC MATH 2* HON. NC MATH 3 NC MATH 3	HON. NC MATH 3* (c) (r) NC MATH 3* (c) (r)
Not Future Ready	FOUND. OF NC MATH 1* INTRO. MATH*	FOUND. OF NC MATH 1* FOUND. OF NC MATH 2* INTRO. MATH* HON. NC MATH 1* NC MATH 1*	FOUND. OF NC MATH 1 FOUND. OF NC MATH 2*(r) FOUND. OF NC MATH 3* INTRO. MATH HON. NC MATH 1*(r) NC MATH 1*(r) HON. NC MATH 2* NC MATH 2*	FOUND. OF NC MATH 1 FOUND. OF NC MATH 2 FOUND. OF NC MATH 3 INTRO. MATH HON. NC MATH 1 NC MATH 1 HON. NC MATH 2 NC MATH 2 HON. NC MATH 3* NC MATH 3*

^{* -} Potential to reach Future Ready requirements if in block scheduled school; unable to reach Future Ready requirements if in traditional scheduled school

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⁽c) – Combined - "Future Ready" and Medium combined for 12th grade, because of difficulty differentiating between the two

⁽r) – Required - Referenced in "students unable to achieve future ready" charts. To achieve Future Ready math requirements, students in these courses would have to advance a full course level every semester through the end of their 11th and 12th grade careers. This is assumed to be unlikely, given that these students are already significantly behind their peers.

<u>Agenda</u>

Overview of history of education and race in NC

De facto segregation and student performance

Achievement gaps

Discipline gaps

Gaps in course assignment

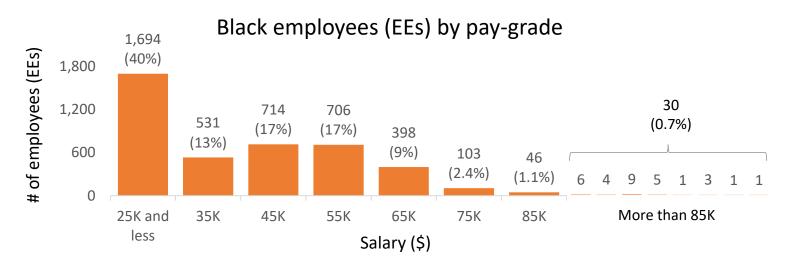
Gaps in staffing and sourcing

Putting it all together and thoughts about causes

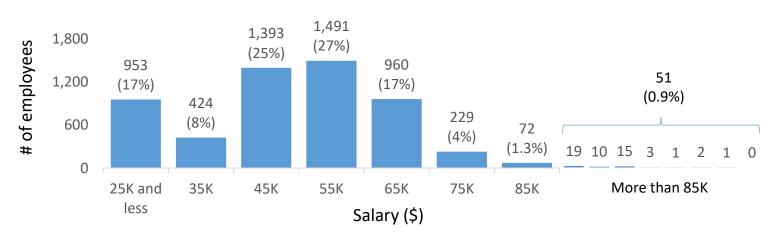
The path forward

GCS's personnel hierarchy reflects a history of inequity

40% of black employees are in lowest pay grade, compared to 17% of whites



White EEs by pay-grade



GCS's personnel hierarchy reflects a history of inequity

37% of black FTEs are in lowest pay grade, compared to 16% of whites

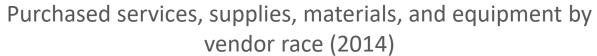


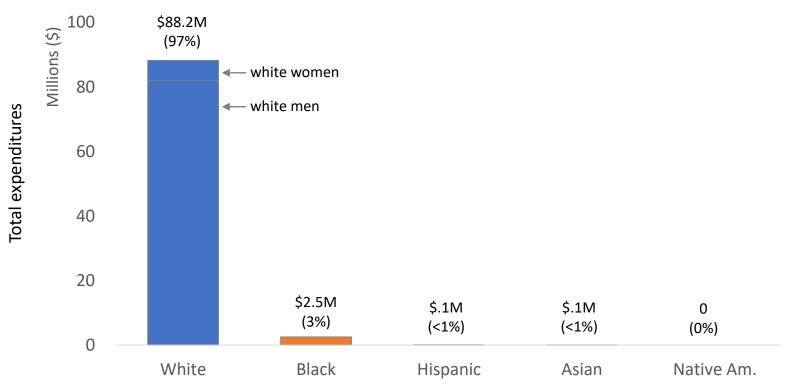


White FTEs by pay-grade



Non-employee expenditures are more inequitable

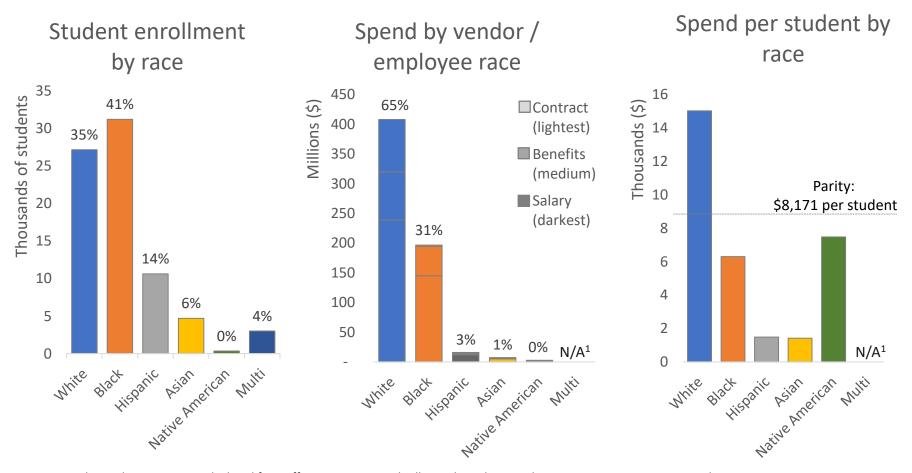




The system spends more in white communities

Parity per student would put and additional \$185M / year into communities of color

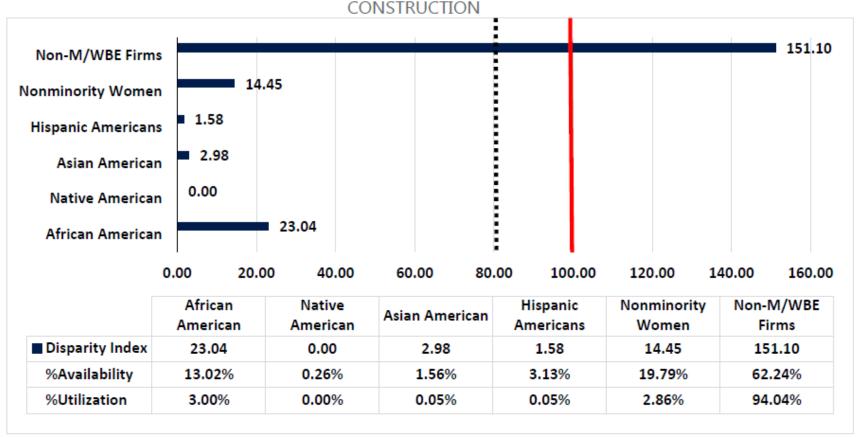
Analysis is illustrative only; not intended as policy recommendation regarding GCS procurement or hiring practices.



Note: Multiracial category not calculated for staff on contract spend. All spend in other racial categories. Money spent into white communities calculated as money spent firms identifiable as white and employees identified as white. Enrollment as reported to NC DPI 2015-2016. Sources: GCS 2015 Disparity Study: Final Report, MGT of America, July 20, 2016. Expenditures for period July 2013- June 2014, GCS, GCS BOE Budget for Fiscal Year July 1 - Jun 30, 2014 (benefits calculation on page 27).

Backup: disparity in contracts not explained by firm availability (I of VII)

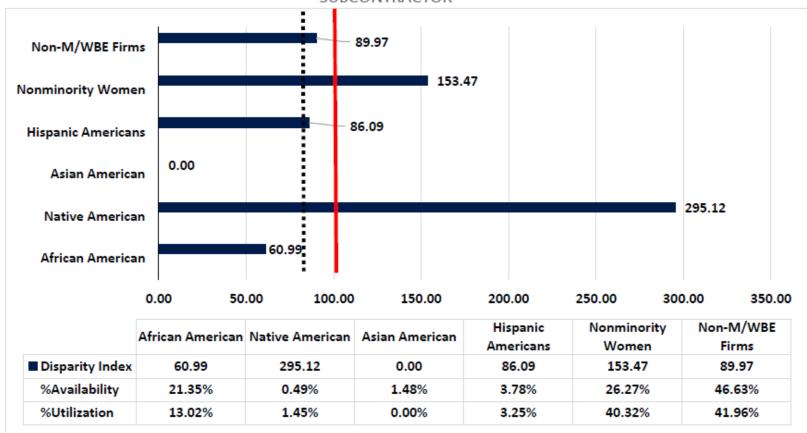
FIGURE 5-A GUILFORD COUNTY SCHOOL DISTRICT



Note: Disparity index is the ratio of the percent of dollars to percent of available firms multiplied by 100. Indices below 80 indicate substantial underutilization.

Backup: disparity in contracts not explained by firm availability (II of VII)

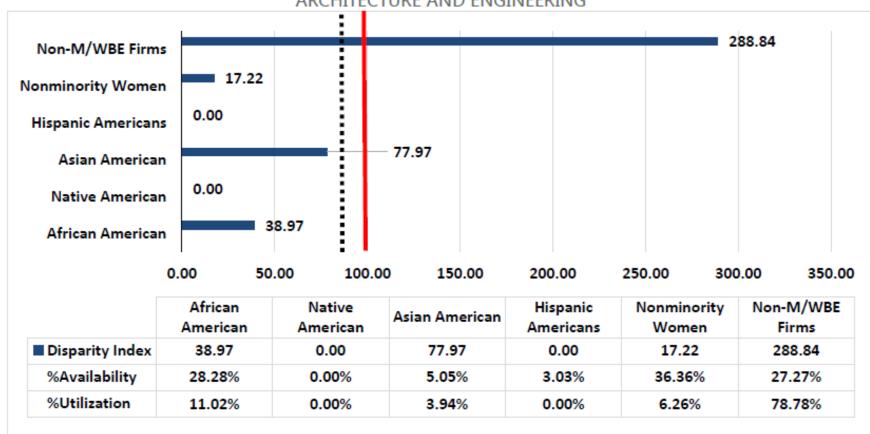
FIGURE 5-B
GUILFORD COUNTY SCHOOL DISTRICT
CONSTRUCTION
SUBCONTRACTOR



Note: Disparity index is the ratio of the percent of dollars to percent of available firms multiplied by 100. Indices below 80 indicate substantial underutilization.

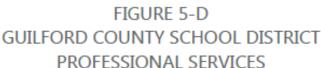
Backup: disparity in contracts not explained by firm availability (III of VII)

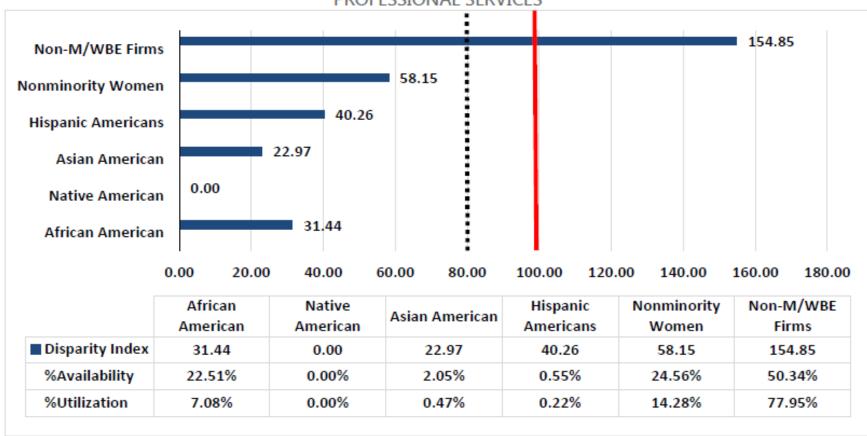
FIGURE 5-C GUILFORD COUNTY SCHOOL DISTRICT ARCHITECTURE AND ENGINEERING



Note: Disparity index is the ratio of the percent of dollars to percent of available firms multiplied by 100. Indices below 80 indicate substantial underutilization.

Backup: disparity in contracts not explained by firm availability (IV of VII)

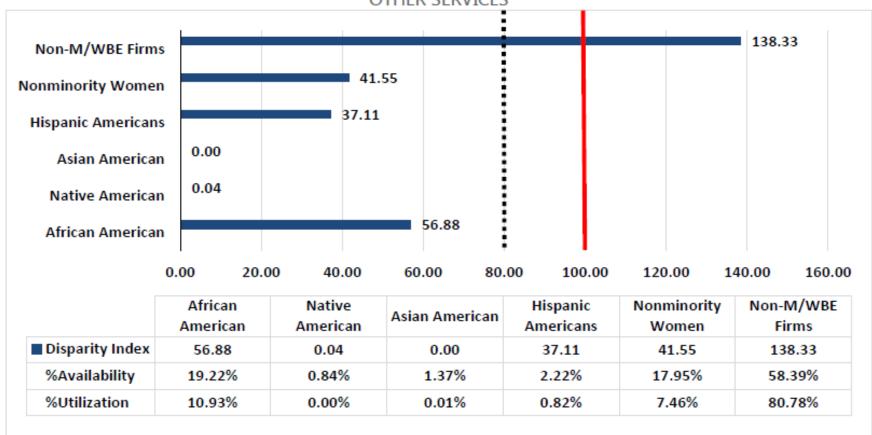




Note: Disparity index is the ratio of the percent of dollars to percent of available firms multiplied by 100. Indices below 80 indicate substantial underutilization.

Backup: disparity in contracts not explained by firm availability (V of VII)

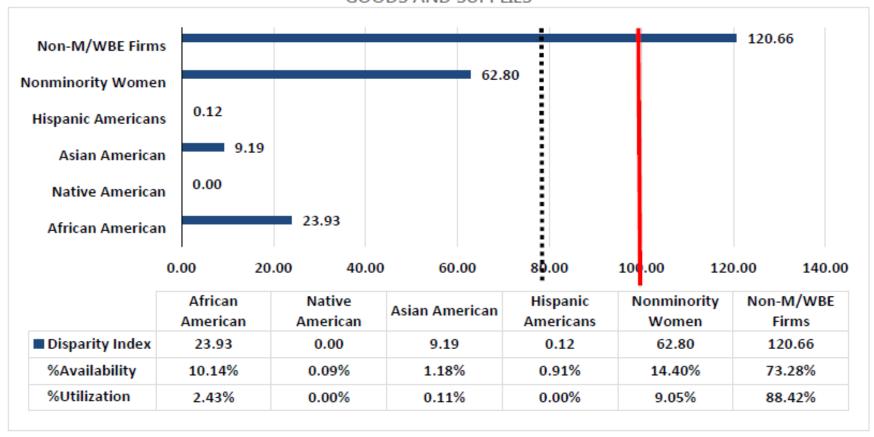
FIGURE 5-E GUILFORD COUNTY SCHOOL DISTRICT OTHER SERVICES



Note: Disparity index is the ratio of the percent of dollars to percent of available firms multiplied by 100. Indices below 80 indicate substantial underutilization.

Backup: disparity in contracts not explained by firm availability (VI of VII)

FIGURE 5-F GUILFORD COUNTY SCHOOL DISTRICT GOODS AND SUPPLIES



Note: Disparity index is the ratio of the percent of dollars to percent of available firms multiplied by 100. Indices below 80 indicate substantial underutilization.

Backup: disparity in contracts not explained by firm availability (VII of VII)

FIGURE 5-G T-TEST RESULTS FOR MINORITY- AND WOMEN-OWNED FIRMS CONSTRUCTION

PRIME LEVEL

BUSINESS OWNERSHIP CLASSIFICATION	PERCENT OF DOLLARS	AVAILABLE FIRMS ESTIMATE (%)	DISPARITY INDEX	DISPARATE IMPA UTILIZATION		STATISTICAL SIGNIFICANCE
African American Firms	3.00%	13.02%	23.04	Underutilization	*	¥¥
Asian American Firms	0.05%	1.56%	2.98	Underutilization	*	¥¥
Hispanic American Firms	0.05%	3.13%	1.58	Underutilization	*	¥¥
Native American Firms	0.00%	0.26%	0.00	Underutilization	*	¥¥
Total Minority Firms	3.10%	17.97%	17.23	Underutilization	*	¥¥
Nonminority Women Firms	2.86%	19.79%	14.45	Underutilization	*	¥¥
Total M/WBE Firms	5.96%	37.76%	15.77	Underutilization	*	¥¥
Non-M/WBE Firms	94.04%	62.24%	151.10	Overutilization		¥¥

Source: MGT developed a Master Encumbrance Database and Availability Database for the study.

Disparity index is the ratio of the percentage of dollars to percentage of available firms multiplied by 100.00.

The index is based on the actual percentage value and not the rounded utilization and availability estimates percentage values presented. The disparity indices have been rounded.

¥¥ denotes the ratio of utilization to availability is statistically significant at a 0.05 level.

The totals may not equal the sum of components due to rounding.

Note: Disparity index is the ratio of the percent of dollars to percent of available firms multiplied by 100. Indices below 80 indicate substantial underutilization.

^{*} indicate a substantial level of disparity, which is a disparity index below 80.00.

Creating opportunities to build wealth could help close achievement gaps

Socioeconomic Status and Academic Achievement: A Meta-Analytic Review of Research

Published in Review of Educational Research, 2005

Meta-analysis reviewed the literature on socioeconomic status (SES) and academic achievement in journal articles published between 1990 and 2000. The sample included 101,157 students, 6,871 schools, and 128 school districts gathered from 74 independent samples.

Largest review since similar study in 1982

"This review's overall finding, therefore, suggests that parents' location in the socioeconomic structure has a strong impact on students' academic achievement.

Family SES sets the stage for students' academic performance both by directly providing resources at home and by indirectly providing the social capital that is necessary to succeed in school. Family SES also helps to determine the kind of school and classroom environment to which the student has access."

Overall, family SES has strong impact on academic performance





GCS is a significant economic engine in the region

Top 5 Employers in Piedmont Triad

<u>Co</u>	<u>mpany</u>	Employees
1.	Wake Forest Baptist Medical Center	13,441
2.	Novant Health	10,033
3.	Guilford County Schools	9,228*
4.	Cone Health	9,090
5.	Winston-Salem/Forsyth County Schools	8,000

*GCS website reports 10,027 employees

<u>Agenda</u>

Overview of history of education and race in NC

De facto segregation and student performance

Achievement gaps

Discipline gaps

Gaps in course assignment

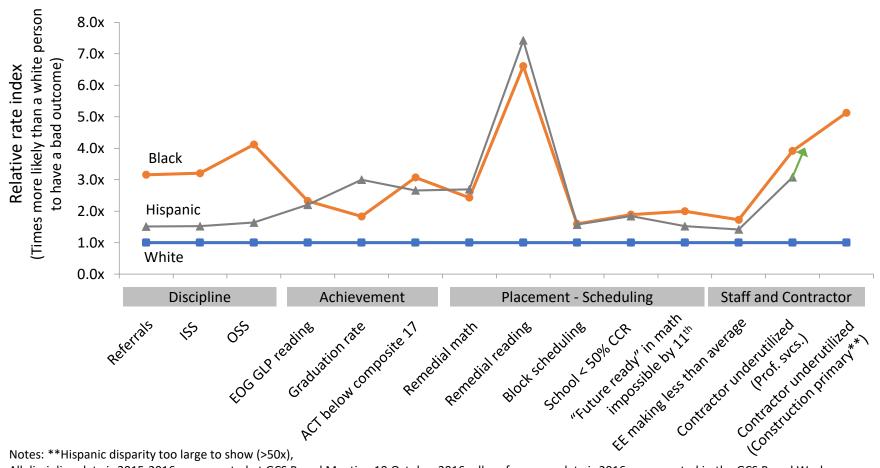
Gaps in staffing and sourcing

Putting it all together and thoughts about causes

The path forward

Taken together, these outcomes suggest racial inequity that runs through all parts of GCS

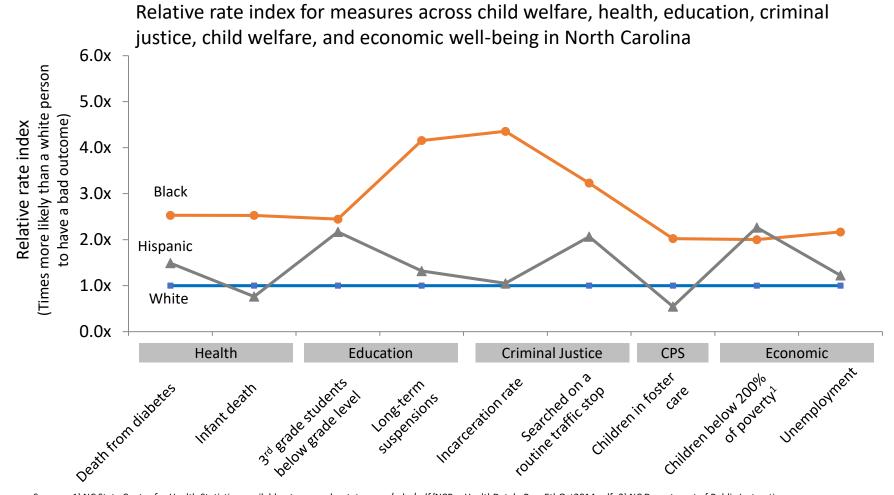
Relative rate index for measures across the GCS system



All discipline data is 2015-2016 as presented at GCS Board Meeting 10 October 2016; all performance data is 2016 as presented in the GCS Board Work Session on 14 Sept 2016; scheduling and placement data is 2015-2016; staff data is 2016, contractor data is 2015 as presented in the 2015 Disparities study by MGT Associates.

The pattern is reflected across systems (I of III)

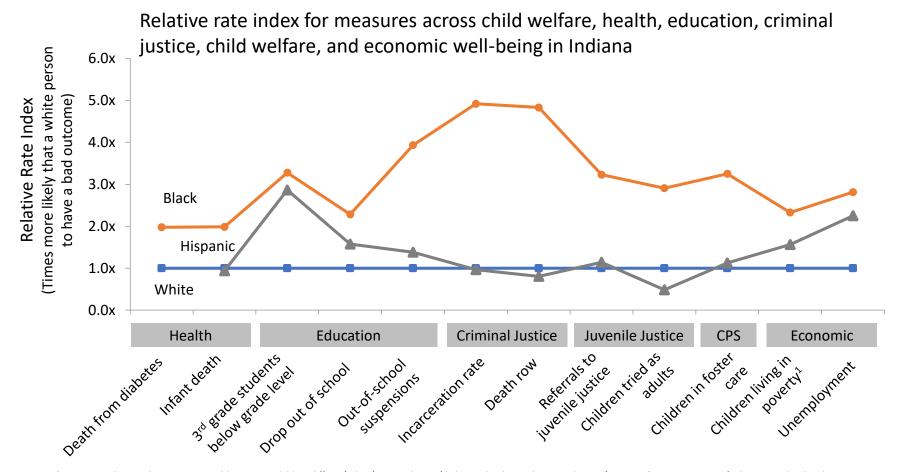
Example 1: State of North Carolina



Sources: 1) NC State Center for Health Statistics, available at www.schs.state.nc.us/schs/pdf/NCPopHealthDatabyRaceEthOct2014.pdf; 2) NC Department of Public Instruction, available at http://www.ncpublicschools.org/src/ and www.ncpublicschools.org/docs/research/discipline/reports/consolidated/2012-13/consolidated-report.pdf; 3) NC Department of Public Safety, available at webapps6.doc.state.nc.us/apps/asqExt/ASQ 4) Baumgartner, F and D Epp, "Final Report To The North Carolina Advocates For Justice Task Force On Racial and Ethnic Bias," available at www.unc.edu/~fbaum/papers/Baumgartner-Traffic-Stops-Statistics-1-Feb-2012.pdf; National Council of Juvenile and Family Court Judges and Office of Juvenile Justice and Delinquency Prevention, available at www.ncjfcj.org/sites/default/files/Disproportionality%20TAB1_0.pdf; National Center for Children in Poverty, available at www.nccp.org/profiles/NC_profile_6.html

The pattern is reflected across systems (II of III)

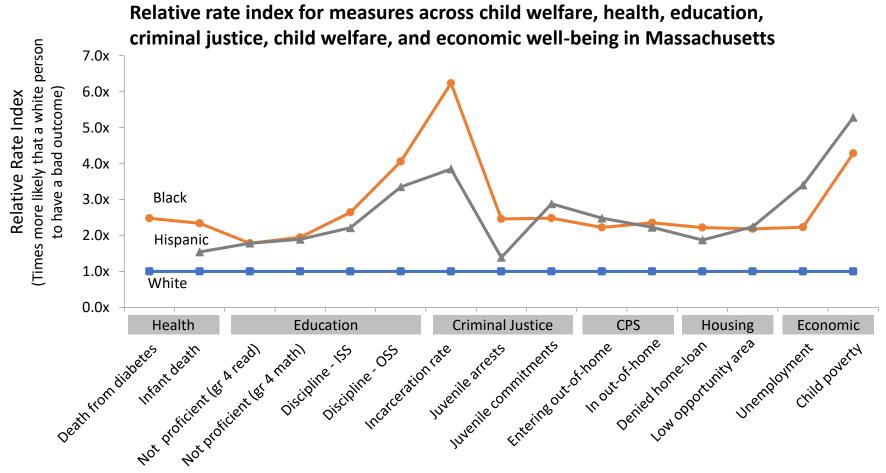
Example 2: State of Indiana



Sources: 1) Kaiser Family Foundation, State Health Facts, available at kff.org/other/state-indicator/diabetes-death-rate-by-raceethnicity/#notes; 2) IN Department of Education School and Corporation Reports, available at www.doe.in.gov/accountability/find-school-and-corporation-data-reports; US Department of Education Civil Rights Data Collection, available at ocrdata.ed.gov/StateNational Estimations/Estimations_2011_12; The Sentencing Project State by State Data, available at www.sentencingproject.org/the-facts/#detail?state1Option=Indiana&state2Option=0; Clark County Prosecuting Attorney Indiana Death Row Statistics, available at www.clarkprosecutor.org/html/death/rowstats.htm; "Identifying Disproportionate Minority Contact in Indiana," Center for Criminal Justice Research at Purdue University Indianapolis, 2012, available at www.in.gov/cji/files/Y_DMC_Study_Phase_I.pdf; "Disproportionality Rates for Children in Foster Care," National Council of Juvenile and Family Court Judges, 2011, available at www.ncjfcj.org/sites/default/files/Disproportionality%20TAB1_0.pdf; Annie E. Casey Foundation Kids Count Data Center, available at datacenter.kidscount.org/; Bureau of Labor Statistics

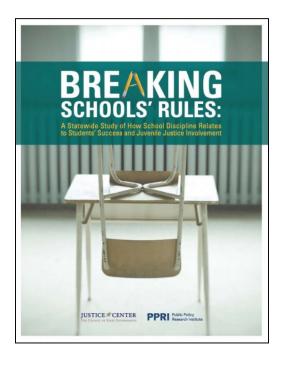
The pattern is reflected across systems (III of III)

Example 2: State of Massachusetts



Sources: MA DPH, MA DOE, Prison Policy Initiative, MA JDAI (Juvenile Detention Alternative Initiative), Nat. Council of Juvenile and Family Court Judges, Economic Policy Institute, Annie E. Casey Foundation

Example 1: Breaking Schools' Rules shows family structure, SES, student achievement, etc., do not explain discipline gaps



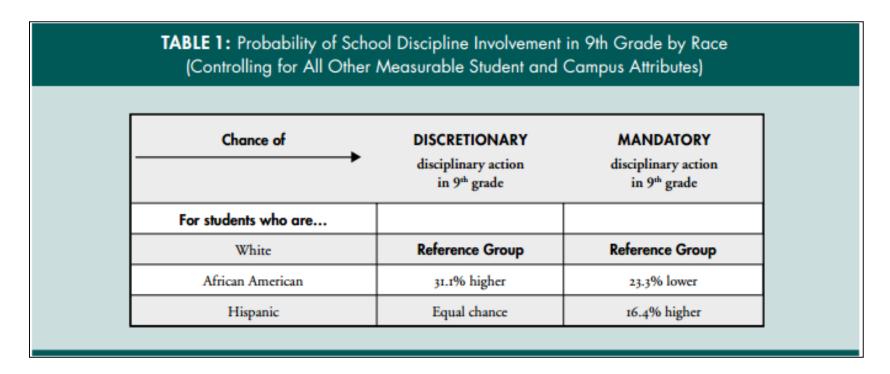
Sample included 928,940 TX Students

Multivariate analysis of 83 factors, including:

- Student demographics
- Student attributes
- Academic performance
- Discipline contact
- Campus measures
- Cohort measures
- County measures



Example 1: Breaking Schools' Rules



"Multivariate analyses, which enabled researchers to **control for 83 different variables in isolating the effect of race alone** on disciplinary actions, found that African-American students had a 31 percent higher likelihood of a school discretionary action, compared to otherwise identical white and Hispanic students."

Example 2: Two Strikes shows student home environment, student behavior, etc., do not explain discipline disparities

Two Strikes: Race and the Disciplining of Young Students

Study Design

- 1. 204 K-12 teachers shown a picture of a middle school and asked to imagine themselves as a teacher there.
- 2. Teachers read about a student's infractions (one for insubordination and one for class disturbance)
- 3. Only difference is the name: Black (Darnell or Deshawn) or White (Greg or Jake).

After each infraction, participants were asked:

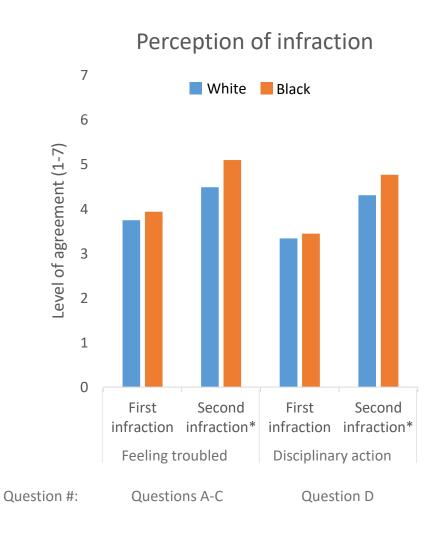
- A. How severe was the student's misbehavior?
- B. To what extent is the student hindering you from maintaining order in your class?
- C. How irritated do you feel by the student?
- D. How severely should the student be disciplined?
- **Answers for A-C are reported together as likelihood the teacher is troubled by behavior.

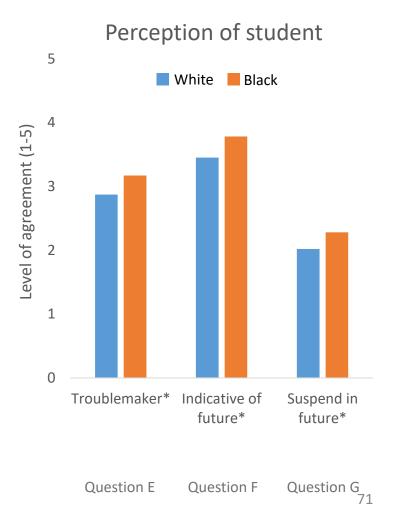
After reading about both infractions, participants asked:

- D. How likely is it that this student is a troublemaker?
- E. How likely is the behavior indicative of a pattern?
- F. To what extent can you imagine suspending this child in the future?



Example 2: Two Strikes





Example 3: Teacher expectation and achievement suggests inequity in expectations causes disparity, while student aptitude does not

Teacher expectations, classroom context, and the achievement gap

Study Design

- 1. 640 first, third, and fifth grade children from 30 urban elementary school classrooms.
- 2. Classrooms tested for child-perceived differential treatment (PDT) and racial ethnic diversity
- 3. Teachers asked to rank students 1-30 on likely achievement; 1 is lowest, 30 is highest
- 4. Control for prior achievement based on CBTS (Comprehensive Test of Basic Skills)
- 5. Compare students with equal prior achievement to find impact of expectations.

Key Questions

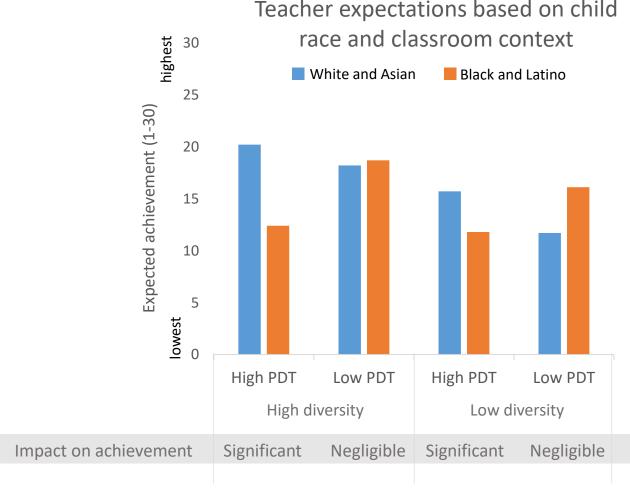
- A. Do teachers have different expectations based on child race alone?
- B. How does classroom PDT and classroom diversity impact teacher expectations?
- C. What, if any impact does teacher expectations have on student achievement?





Source: McKown, Clark, and Rhona S. Weinstein. "Teacher expectations, classroom context, and the achievement gap." *Journal of school psychology* 46.3 (2008): 235-261.

Example 3: Teacher expectation and achievement



Source: McKown, Clark, and Rhona S. Weinstein. "Teacher expectations, classroom context, and the achievement gap." *Journal of school psychology* 46.3 (2008): 235-261.

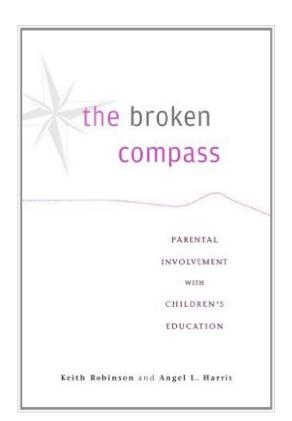
Example 4: Survey of literature shows disparity in discipline causes achievement gaps

Missed learning opportunities	Among the most obvious is the denial of access to learning opportunities that occurs when students are not in school. Students who receive out-of-school suspensions or expulsions typically are not provided opportunities to continue their school work In light of [histories of underachievement and school failure], African American children and youth can ill afford school practices that restrict or deny their access to educational opportunities.
Increased exposure to negative experiences	When excluded from school, students are allowed to spend unsupervised time on the streets, further jeopardizing their social success. Suspended and expelled children and youth are at greater risk for encountering the legal system. ¹
Teacher perceptions	For example, the belief that students who are excluded from school lag behind their peers academically may cause school personnel to relegate frequently suspended students to lowerability groups. Students in lower tracks tend to receive lower quality resources and instruction. ²
Self esteem	When the vast majority of school exclusions are meted out to African American students who comprise a minority of the school population, it is easy for those students to interpret this disparity as rejection and to suffer from lower self-esteem as a result. ³
Negative collective racial identity	A negative collective, self-fulfilling prophecy may develop as a result of the messages that African American youth receive that they are incapable of abiding by schools' social and behavioral codes. ⁴
Loss of motivation	Indeed, discipline practices that alienate students from school are clearly associated with higher rates of voluntary or involuntary school withdrawal prior to graduation (DeRidder, 1991; Eckstrom, Goertz, Pollack, & Rock, 1986; Wehlage & Rutter, 1986).

Sources: Text quoted from: Townsend, Brenda L. "The disproportionate discipline of African American learners: Reducing school suspensions and expulsions." *Exceptional Children* 66.3 (2000): 381-391. 1) Chobot, Richard B., and Antoine Garibaldi. "In-school alternatives to suspension: A description of ten school district programs." *The Urban Review* 14.4 (1982): 317-336. 2) Oakes, Jeannie. "Tracking, inequality, and the rhetoric of reform: Why schools don't change." *Critical social issues in American education* (1993): 85-101. 3) DeRidder, Lawrence M. "How suspension and expulsion contribute to dropping out." *The Education Digest* 56.6 (1991): 44. 4) Rosenthal, Robert, and Lenore Jacobson. *Pygmalion in the classroom: Teacher expectation and pupils' intellectual development*. Holt, Rinehart & Winston, 1968. 5) Ekstrom, Ruth B. "Who drops out of high school and why? Findings from a national study." *Teachers College Record* 87.3 (1986): 356-73. 6) Wehlage, Gary G., and Robert A. Rutter. "Dropping Out: How Much Do Schools Contribute to the Problem?." (1985).

Example 4: The Broken Compass shows parental involvement does not explain gaps in achievement

The Broken Compass: Parental Involvement with Children's Education



Researchers use NCES and PSID data to answer key questions:

How often do parents talk about education at home? Sample: 12,144 respondents in 8th grade in 1988 Source: National Educational Longitudinal Study (NELS)

How often do parents provide advice to children? Sample: 15,362 students in 10th grade in 2002 Source: Educational Longitudinal Study (ELS)

How do parents engage with homework?
Sample: 12,144 respondents in 8th grade
Source: National Educational Longitudinal Study (NELS)

How do parents engage with teachers?

Sample: ~3000 respondents between ages 9 and 12

Source: Child Development Supplement (CDS)

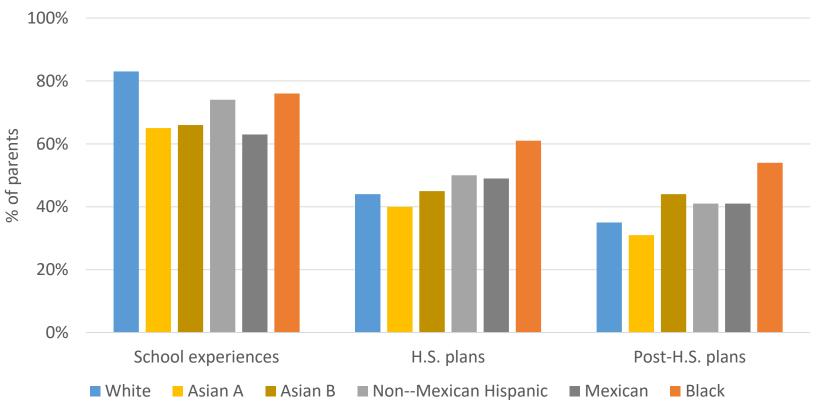
How does parental involvement affect achievement? Sample: 12,144 respondents in 1988, 1990, and 1992 Source: National Educational Longitudinal Study (NELS)

> NCES – National Center for Education Statistics PSID – Panel Study of Income Dynamics

Example 4: The Broken Compass

How often do parents talk about education at home?

Proportion of parents who talk to their children regularly about:

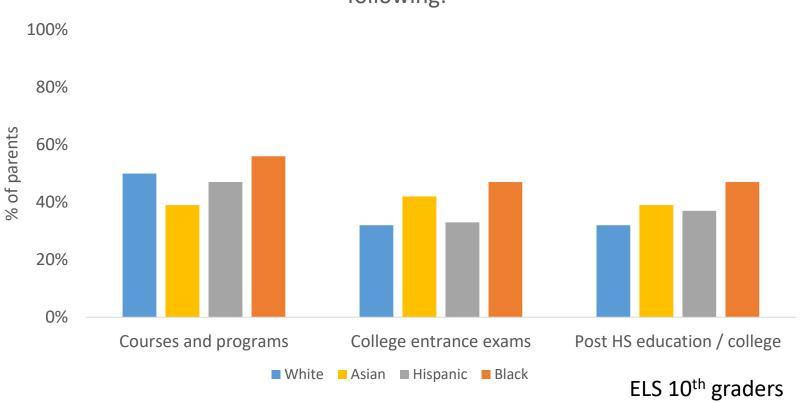


ELS 8th graders

Example 4: The Broken Compass

How often do parents provide advice to children?

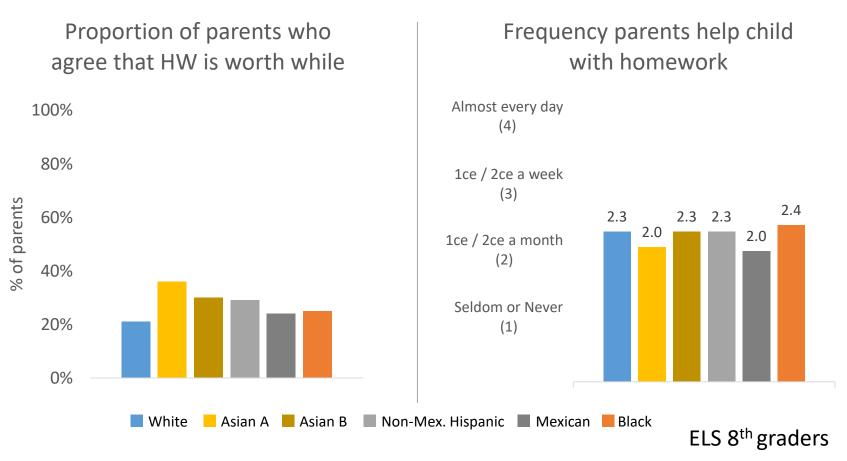
Proportion of parents who provide advice often on the following:



Note: Asians and Hispanics are divided to approximate differences in assimilation experiences (Asian A connotes Chinese, Filipino, Japanese, Korean, Middle Eastern, and South Asian respondents, Asian B connotes Cambodians, Laotians, Hmong, Vietnamese, Pacific Islanders, West Asians, and other Asian respondents.) Source: Robinson, Keith, and Angel L. Harris. The Broken Compass: Parental Involvement with Children's Education. Harvard University Press, 2014, p101.

Example 4: The Broken Compass

How do parents engage with homework?



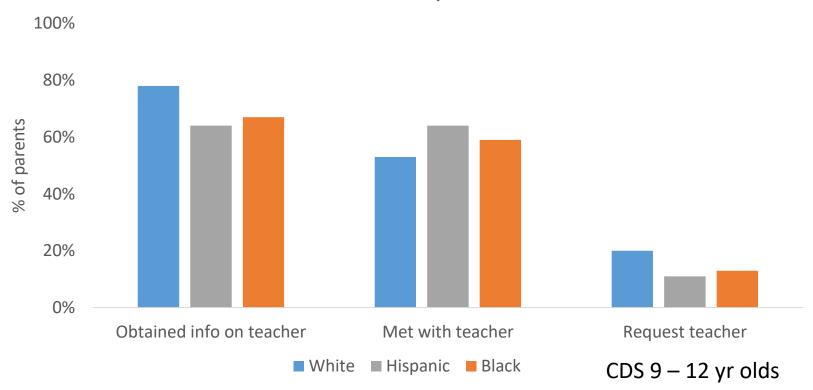
Note: Asians and Hispanics are divided to approximate differences in assimilation experiences (Asian A connotes Chinese, Filipino, Japanese, Korean, Middle Eastern, and South Asian respondents, Asian B connotes Cambodians, Laotians, Hmong, Vietnamese, Pacific Islanders, West Asians, and other Asian respondents.)

Source: Robinson, Keith, and Angel L. Harris. *The Broken Compass: Parental Involvement with Children's Education*. Harvard University Press, 2014, p101.

Example 4: The Broken Compass

How do parents engage with teachers?

Proportion of parents who did the following before the start of the school year:



Example 4: The Broken Compass

How does parental involvement affect achievement?

Impact of types of parental involvement of child GPA (NELS Data)

		Home Involvement						School Involvement						
Key - Significant positive effect - Significant negative effect [] (blank) - No Significant effect		Regularly talk – class exp	Regularly talk – HS plans	Regularly talk – post-HS	Help with HW	Agree HW worth while	Expect post-HS education	Contact – Academic Perf.	Contact - Behavior	Contact – Academic Prog.	Contact - Volunteering	PTO Member	Participate in PTO Activity	Volunteer at School
Child Race	Whites		1	-	-			1	1		-		1	
	Asians A				1									
	Asians B								—					
	Hispanic Non-Mexican				•									
	Mexican	1			·				1		-		1	
	Black			1	1	1		•	1					

<u>Agenda</u>

Overview of history of education and race in NC

De facto segregation and student performance

Achievement gaps

Discipline gaps

Gaps in course assignment

Gaps in staffing and sourcing

Putting it all together and thoughts about causes

The path forward

The goal should be equity as defined by GCS

Critical terms in discussion diversity, equity, and inclusion

Equity

Simply put, equity is about fairness. Educational equity is a measure of achievement, fairness, and opportunity in education. Educational equity means raising the achievement of all students while narrowing the gaps between the lowest and highest performing students and eliminating the racial predictability and disproportionality of which student groups occupy the highest and lowest achievement categories. In our school system it is ultimately the inability to predict outcomes by race/ethnicity. For example, equity will exist in high school graduation rates when we cannot predict that any given group has a better chance for this achievement than any other.

Implicit Bias

The attitudes or stereotypes that affect our understanding, actions, and decisions in an unconscious manner. These biases, which encompass both favorable and unfavorable assessments, are activated involuntarily and without an individual's awareness or intentional control. Residing deep in the subconscious, these biases are different from known biases that individuals may choose to conceal for the purposes of social and/or political correctness. Rather, implicit biases are not accessible through introspection.

Diversity

A representation of a range of groups in a given setting. Schools will be diverse if they contain students and staff from the range of racial/ethnic groups in a community. Inclusion is the active acceptance of and respect for all participants in a setting.

Disproportionality

The overrepresentation of a particular group in a system compared to its representation in the general population.

Disparities

Caused by inequitable or different or services provided to one group as compared to another group, disparities can be described as unnecessary and avoidable. They are not random, not accidents of nature, cannot be explained away by individual pathology, have been sustained over time and are beyond the control of the individual.

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An 'adaptive challenge' framework helps provide a foundation for continued work

Technical problems

- Easy to identify
- Often lend themselves to quick and easy (cutand-dried) solutions
- Often can be solved by an authority or expert
- Require change in just one or a few places, often contained within organizational boundaries
- People are generally receptive to technical solutions and solutions can often be implemented quickly (even by edict)

Adaptive challenges

- Difficult to identify (easy to deny)
- Require changes in values, beliefs, roles, relationships and approaches to work
- People with the problem do the work of solving it
- Require change in numerous places; usually cross organizational boundaries
- People often resist even acknowledging adaptive challenges; therefore, solutions require experiments and new discoveries; they can take a long time to implement and cannot be implemented by edict

Bryan Stevenson's four elements of change are useful guideposts on the journey

Get proximate to the problem Change the narrative Maintain hope Be willing to be uncomfortable

GCS Groundwater Analysis

Examining the Prevalence of Racial Inequity



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