Bridging Black and White:
The Influence of a Large Latino Student Population on Interracial Interaction in North Carolina

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Using data from four high schools in North Carolina, this study examines the impact of growth in Latino enrollment since 2000 on interracial interaction in cafeterias, extracurricular activities, and classrooms. From 1990-2000 North Carolina's Latino population increased by 394 percent. Since that time student populations across the state have continued to grow more diverse. Gordon Allport's Contact Theory asserts that under certain circumstances increased interaction between students from different backgrounds positively influences achievement and tolerance. However, as student diversity has increased, many North Carolina schools have demonstrated a trend towards increasing segregation. Of the four schools considered in this paper, those with increasing Latino enrollment tend to exhibit increasing exposure rates between black and white students, while those with small and relatively constant Latino enrollment tend to demonstrate decreasing exposure rates between black and white students. Dynamics of interracial interaction are highly complex, but this study's results suggest that greater student participation in structured programs encourages interracial contact and effectively reduces segregation at schools with diverse student populations.

KEYWORDS: segregation; interracial interaction; high school; Latino

I. INTRODUCTION

In 1954, the landmark ruling in *Brown v. Board of Education* struck down de jure segregation, declaring the practice unconstitutional. In North Carolina, legally enforced desegregation created some of the most integrated school districts in the country. Simultaneously, other North Carolina school districts have continued to exhibit de facto segregation within schools. Black and white students, still the largest racial groups at most schools in the state, often participate in different extracurricular activities and attend classes that are sometimes racially segregated. However, racial and ethnic demographics are rapidly changing. In the 1990s, North Carolina's Latino population grew faster than that of any other state in the US, and in the past decade Latino students have accounted for 57 percent North Carolina schools' growth (Scott 2008, 124). When the *Brown* verdict was announced, race in America was defined primarily as a dichotomy between white and black, but by 2003 Latinos surpassed blacks as the largest US racial[1] minority (Scott 2008).

A rapidly expanding ethnic population, Latino students have the potential to bridge a social gap between white and black students. Latino students are more likely to interact with both black and white students and to share black and white friends (Moody 2001, 708). However, little research exists to establish whether social organization in high schools has grown more integrated or become further divided as a result of this new student population.

II. BACKGROUND

New to American schools, Latino students avoided decades of institutional and de facto segregation. Separated from this history, growing Latino student populations have the potential

[1] As a consequence of the population's recent and substantial growth, "Latino" is an ethnic label that is increasingly associated with racial categories. In a 1995-96 study that used racial categories standard to the US Census, 24 percent of respondents selected "other," and wrote in Hispanic or Latino as their race (Portes 2001, 177). Following this trend, I will not distinguish between racial and ethnic categories in this paper and will consider "Latino" to be both an ethnic and racial category.

to bridge historic gaps between white and black peers and create an integrated school environment that encourages interracial contact while teaching tolerance and respect for difference from an early age.

Race in America and Changing Demographics

In many schools in North Carolina and across the Southern United States, increasing heterogeneity indicated a growing Latino population. From 1940-1960 nonwhite enrollment in schools nationwide was 11-12 percent of all students, by 1996 it was 36 percent, and by 2050 is expected to grow to 58 percent (Orfield and Yun 1999, 7). Unique to this new wave of minority growth is its immigrant character. Between 1960 and 1990 the foreign-born population in the US doubled in size, reaching 7.9 percent of the total population, and by 1997 immigrants composed 10 percent of the population (Portes 2001, 19).

Increased immigration has produced more second-generation Americans. In 1997 20.5 percent of Americans were first or second-generation immigrants, and US born children of immigrants represented the fastest growing population under 18 (Portes 2001, 19). Modern immigration has introduced new ethnic groups into regions like the Southeast. During the 1990s, well-established Latino populations in the West continued to have the greatest numerical population increases, but Latino populations in Southeast manifested the most dramatic relative growth (Orfield and Yun 1999). North Carolina, which had the fastest growing population, witnessed a 394 percent increase in its Latino population over the decade-long period (Scott 2008, 124).

Latinos represent 64 percent of the total school-age growth of the United States' population, and between 2001 and 2005, 57 percent of North Carolina Schools' growth came from an increase in Latino students (Scott 2008, 124). However, as diversity continues to increase, so does segregation. Gary Orfield and John Yun (1999, 11) argue that Latino students

are more segregated than black students. Segregation has increased substantially in states with large Latino populations and is indicative of a larger pattern of resegregation of all races in schools across the country, especially in the South (Orfield and Yun 1999, 13).

Existing Understanding of Interracial Interaction in United States Schools

Following the ruling in *Brown v. Board*, subsequent court decisions over the next 14 years established timelines for *Brown's* vague call to end segregation with "all deliberate speed." Formal plans of desegregation and court rulings specifically tailored to reduce segregation in schools produced districts in the American South among the least segregated in the United States. In 1954, Charlotte-Mecklenburg schools were fully segregated, and in 1968 the district exhibited a segregation index (measured on a scale of 0-1 where 1 signifies complete racial segregation) of 0.66. By 1970, following *Swann v. Charlotte-Mecklenburg Board of Education's* decision in favor of busing students to promote integration, the district's segregation index dropped to 0.06 (Clotfelter 2004, 53). Numerous studies examined the county's decades of remarkable numeric racial similarity in schools (Mickelson 2001). However, while Southern schools stand as some of the most integrated at the district level, segregation remained observable between and within schools.

In class and in extracurricular activities, students were often divided by race even decades after the end of de jure segregation. Thomas Collins examined an all-white school in Memphis that was ordered to desegregate in 1972 by the Federal District Court following *Brown*. Over a period of five years he found that the school fundamentally restructured its social dynamics to reflect racial divides (Collins 1978, 252). As black players came to dominate the school's football team, donors withdrew their funding and the few talented white players left the school program to participate in church leagues. Similar changes occurred throughout the school's student structure, from the newspaper to student government and even on the dance planning

committee. Rare instances of interracial contact occurred, but both black and white students looked down on same race peers that associated with students from different racial backgrounds (Collins 1978, 255).

Collins conducted his research in 1978, but his observations remain relevant today. In the South, and North Carolina specifically, integrated school districts often contain schools with significant racial disparities (Clotfelter, Ladd, and Vigdor 2008, 57). Historically, the South demonstrated the highest levels of within-school segregation of any region in the United States, and in-school segregation continued to be a common feature of schools in North Carolina into the 2000s (Morgan and McPartland 1981; Clotfelter 2004, 132). In Charlotte-Mecklenburg schools, Roslyn Mickelson found that top academic classes were almost entirely white while remedial classes were disproportionately black (2001, 217) Analyzing the 117 school districts of North Carolina, Charles Clotfelter, Helen Ladd, and Jacob Vigdor (2008, 61) observed that between 1995 and 2006, segregation increased between and within schools at all levels of education. The largest increases in segregation were observed in grades seven and ten. Moreover, segregation in these grades began at initially higher index values in the study, indicating greater segregation as age increases (Clotfelter, Ladd, and Vigdor 2008, 69). The study also noted that at the high school level, segregation between Latino and white students was higher than between white and black students.

Further evidence of a trend of increased white isolation, a study by Erica Frankenburg and Chungmei Lee observed that in one-third of the districts they considered, white students were more segregated from black and Latino peers despite an increase in minority enrollment. Frankenburg and Lee's observations of increased minority enrollment corresponding with growing racial isolation are corroborated by Clotfelter, Ladd, and Vigdor's study (2002), which indicated that segregation tended to be highest in school districts where nonwhites composed 50-

70 percent of the student body. Clotfelter et al.'s research suggests that interracial contact follows an inverted U-shaped curve as minority enrollment increases in schools. Thus, when nonwhite populations begin to grow, interracial contact will increase to a point before tending to decrease as racial pluralities come to dominate the student population

In the time they spend at school, data shows students of different races are less likely to come into contact with each other than with members of their own race (Clotfelter, Ladd, and Vigdor 2002, Orfield and Yun 1999). At the in-school level, part of this phenomenon is institutional and part is social. Academic tracking programs create levels of social status and barriers to friendship among students, while social homophily leads students to befriend peers similar to them when the option exists (Moody 2001).

Tracking practices that separate students by ability-level create racial disparities within a school's population by imposing lines of achievement that very often reflect ethnic difference (Clotfelter 2004, 9; Southworth 2007, 498). Academic tracking is designed to separate students into groups in order to intellectually challenge both the most and least gifted students. However, opponents of tracking argue that in practice it functions to reinforce existing inequalities (Oakes and Guiton 1995, 17). Often, middle class parents involved in the administrative network at their children's school can argue for their son or daughter to be reassigned to a higher track, as in most instances no formal method of track placement exists. However, the children of poorer parents, who might lack the knowledge or resources to challenge a track placement, are consistently assigned to low-level tracks with fewer resources and inexperienced teachers (Southworth and Mickelson 2007, 510).

Tracking can begin as early elementary school and, once placed in an academic track, transition to another is unlikely. If movement from one track to another does occur, it is usually moving from a high track to a lower one (Epstein 1985, 35). While academic tracking can

provide a more rigorous learning environment for high-track students, opponents of tracking consider the harm imposed on students in lower tracks—inferior instruction, fewer resources, and lowered self-esteem—enough to outweigh the potential benefits (Clotfelter 2004, 128).

For Latino students, academic tracking programs have proved especially problematic. Many Latino students come to school with a limited knowledge of English (Scott 2008, 141). Placed early on into a low track, it is difficult for these students to advance to a higher academic track as they struggle with ill-prepared teachers and a new language. Additionally, most parents of Latino students are unfamiliar with the American academic system, so Latino students tend to remain isolated in remedial classes (Scott 2008). In North Carolina, part of Latino's noticeable segregation derives from English as a Second Language (ESL) programs (Scott 2008, 125), but studies also conclude that student populations tend to become segregated when they grow too heterogeneous (Moody 2001; Clotfelter et. al., 2001, 694). While tracking is often condemned as a practice that reinforces racial segregation, it also has proponents who see it as a viable academic policy separate from racial discrimination (Clotfelter 2004, 128).

III. THEORY

Social Barriers to Interracial Interaction

In class and during extracurricular activities homophily exists as a broad social dynamic. In an effort to understand implications of homophily on interracial contact, many authors have attempted to ascertain an ideal racial composition to foster social integration. James Moody finds that the odds of an interracial friendship peak at a racial heterogeneity of about 0.65. In his study, racial heterogeneity is defined as, "the probability that two randomly selected students will be of different races" (2001, 694). Where n_k denotes the number of people in group *k* and *N* represents total school size, the heterogeneity of a school is calculated as:

$$\text{Heterogeneity} = 1 - \sum_{k} \left(\frac{n_k}{N} \right)^2 \qquad (1)$$

Measuring heterogeneity offers an advantage in that it creates a statistic that is comparable across all schools despite differences in the number of races or site-specific racial combinations at any one school. Consequently, Moody does not explain heterogeneity in terms of any one racial distribution.

Moody does not discard all basic school statistics, though. Interestingly, he finds that it is more difficult to establish interracial friendships in large student bodies. With greater choice, he posits, students are likely to find peers similar to themselves. But in smaller numbers, students are forced to befriend a more diverse set of classmates. To maximize this potential, Moody suggests administrators foster bonding among students in the same grade. To achieve this aim, school administrators can design academic schedules that limit the degree of cross-grade contact through grade-level based curricula that effectively constrain in-school interactions to those with same-grade peers. Drawing from this smaller number of possible friends increases the likelihood of overcoming homophily.

Smaller groups have the potential to foster greater interracial contact when they are diverse, but without guidance homophily can lead students to form racially homogenous organizations. Observation of schools in the North and South have demonstrated that black students often dominate certain teams like basketball and football, while white students participate in swimming and golf, and Latino students exhibit a disproportionate presence in soccer and baseball (Clotfelter 2004, 140). Across all after school activities only about 3 percent of white students were members of groups where at least three quarters of the membership was nonwhite. In contrast, more than half of nonwhites participated in groups with white membership at least three times than that of nonwhite participation (Clotfelter 2004, 145).

In after-school activities, white students are rarely outnumbered (Clotfelter 2002). Extracurricular involvement is guided by group preferences in many cases, and white males are 7.3 times as likely to name a white friend than a friend of another race (Clotfelter 2004, 140; Joyner and Kao, 818-19). Among white females this number increases—they are 10.1 times as likely to name a white friend. Similarly, black students are 3.8 times more likely among males and 5.7 times more likely among females to name a black friend (Joyner and Kao, 818-19). In practice, student groups demonstrate a measureable degree of segregation with 35.1 percent of groups composed entirely of white students, while 2.9 percent of student groups are wholly nonwhite (Clotfelter 2002, 33). Extracurricular activities allow for greater student choice and their lack of structure can frustrate concentrated efforts towards desegregation.

For many Latino students barriers of language and a lack of resources can preclude participation in after school activities (Scott 2008, 138). Additionally, some immigrant minority students consider participation and success in school-related activities, 'acting white,' as a response to widespread marginalization of minorities and immigrants (Portes 2001, 60). Latino students can develop solidarity through rejecting school structures they see representing a discriminatory system (Portes 2001, 60).

The Potential for Greater Interracial Contact

Contact theory, proposed by Gordon Allport in 1954, holds that personal interaction is the most effective means to reduce prejudice. The theory associates increased interaction between people in different groups with greater positive sentiments towards members of these other groups. Allport's assertion has been borne out in some studies that conclude students who attend integrated schools are more likely to seek racially integrated workplaces and maintain more racially integrated relationships later in life (Pettigrew 1998, 68) However, critics assert that infrequent contact is only one of a number of factors that create prejudice, and greater

interaction can sometimes reaffirm bias, as some ethnic or national traits can prove "menacing" and preexisting prejudice can skew experience (Allport 1979, 217).

Still, Allport argues that without contact in the context of ethnic difference, a state of racial isolation exists that yields negative consequences for students of both inferior and superior racial groups. Those who are characterized by racial inferiority suffer negative effects, from low-quality schools to reduced self-esteem. Further, students in socially superior racial categories face negative outcomes from racial isolation. These students are excluded from a free exchange of ideas and culture, which limits their own capacity to learn and innovate (Clotfelter 2004, 128).

But simply coming into contact with other groups is insufficient to fully counter the negative outcomes of racial isolation. Contact can function to establish a superficial respect for difference that is situation and even individual-specific. To effectively combat racial isolation as a result of prejudice, instances of contact must be generalizable to a variety of people and situations (Allport 1979, 276). Allport proposes a set of four conditions requisite for contact to reduce prejudice—equal status, common goals, intergroup cooperation, and support from a structured authority (Pettigrew 2008, 67). Well-integrated schools can provide a forum with these conditions. This is especially true at schools where racially diverse groups of students participate in common activities. In Clotfelter's 2002 study more than 60 percent of after school activities observed demonstrated some level of racial diversity. Extracurricular involvement that unites students in pursuit of a common goal offers one promising avenue towards greater interracial interaction.

The possible benefits of extracurricular involvement increase in North Carolina schools that exhibit large Latino populations. When there are more than two races present in a group, there is a smaller chance that mutually antagonistic "us vs. them" relationships will form (Moody 2001, 708). Further "differences in race-specific mixing patterns may create bridges between

groups that help unite the entire school. Whites, on average, are more likely to nominate Hispanics than to nominate blacks, but Hispanics are more likely to nominate blacks than to nominate whites" as friends (Moody 2001, 708). It is more likely for a friend of a friend to also be your friend (Faircloth and Hamm 2011, 52), and thus black and white students with mutual Latino friends will be disposed to form relationships. Such second-order friendships can bridge historic social gaps between white and black students (Moody 2001, 708). However, as an ethnic and linguistic minority Latino students can be marginalized in a social system structured by academic tracking or dominated by large schools that encourage social homophily.

III. HYPOTHESIS AND OBSERVABLE IMPLICATIONS

The North Carolina school system is the most desegregated in the South, and school officials actively seek to preserve its progressive history by establishing programs that include Latino students separated by various barriers (Scott 2008, 125). In 1998, the state committed $5 million for an ESL program and has since continued to define and grow programs of bilingual education (Scott 2008, 139-141). However, ESL classes also segregate Latinos, the largest foreign language group in North Carolina (Scott 2008, 142). Even with programs to specifically address North Carolina's Latino population, a large proportion of Latino students drop out of high school and barely half complete the curriculum required for graduation in four years, creating less opportunity for interracial contact (Scott 2008, 148).

In many North Carolina high schools, and across the country, it is typical for academic and social interaction, and the resultant groups, to be racially homogenous (Clotfelter 2008; Clotfelter, Ladd, and Vigdor 2002). However, the scale of expanding Latino enrollment in the state can fundamentally alter this dynamic (Moody 2001). The potential positive impacts of a growing Latino population are two-fold.

Hypothesis 1: Based on its expansion alone, a larger Latino population raises the likelihood that students will form interracial friendships.

1a: In schools with larger Latino populations clubs and sports teams will include a significant number of students from each of a range of ethnic backgrounds.

1b: Cafeteria seating patterns will demonstrate that white and black students interact frequently with Latino students.

Hypothesis 2: Black and white students will regularly interact with peers of a variety of races at schools with large Latino populations, creating a more integrated social structure than is observed at schools with few Latino students.

2a. Cafeteria seating patterns will show more fully integrated seating at schools where there have been significant Latino populations for longer.

2b. Interviews with school faculty who have worked at a school for many years, will describe an increase in interracial contact and significant interaction.

IV. DATA AND METHODS

This study relies almost entirely on original observations collected from two districts in North Carolina: Chatham and Johnston. Schools in Chatham and Johnston counties provide a mix of rural and suburban populations, all with significantly expanding Latino enrollment. District and school officials expect to apply this study's findings to future policy surrounding special education programs.

Beginning research, I proposed a larger sample size of schools. But, in a four-month process of school selection I was rejected from conducting research in Alamance, Durham, Franklin, Lee, and Randolph counties. District administrators in these counties often did not give reasons for their denial, but when they did officials cited already full research schedules. Because the research sample size is small it is difficult to extrapolate observed dynamics to a state or

national level. But, at each school I employed exhaustive research that does yield insight into what dynamics are important to facilitating interracial interaction.

I conducted research over a period of three days in each district. The first day of research included visits to the high Latino enrollment school and the low Latino enrollment school. The purpose of this initial visit was to collect a copy of each yearbook the school had access to from the 2000-2001 school year to the 2009-2010 school year, and to make blank seating charts of the cafeteria. The following week I revisited both schools in a district individually for several hours to make cafeteria observations and conduct faculty interviews.

School Profiles

Jordan Matthews High School is located in Siler City, North Carolina. Siler City had a population of 7,877 in the 2010 US Census and has experienced rapid growth in its Latino population. In 2000 Latino students accounted for 24 percent of students at Jordan Matthews, and by 2010 Latinos accounted for over 40 percent of the school's student body, as shown in Table 1. In the 2007-2008 school year Latinos became the school's largest racial group.

Fast and significant increases in the Latino population of Siler City and at Jordan Matthews have not come without tension. In 2000 the Klu Klux Klan held open demonstrations against the growing immigrant population, and a documentary produced by John Biewen and Tennessee Watson, filmmakers from Duke's Center for Documentary Studies, discovered tension between some of the generations old black and white families of Siler City and new immigrants (2008). Biewen and Watson's documentary further considered the impact of the town's growing population on sports teams at Jordan Matthews, and found racially mixed soccer teams functioned cohesively and successfully at the school. Still gangs constitute a strong presence at Jordan Matthews according to school administrators.

TABLE 1:
Background School Data, 2010

	Chatham County		Johnston County	
	Jordan Matthews	Northwood	South Johnston	Cleveland
Total population within 10-mile radius	25,988	33,710	57,716	118,370
Non-adult population within 10-mile radius	6,574	6,937	15,243	33,119
Non-adult Latino population within 10-mile radius	2,440	822	3,212	5,391
NCES location classification*	Town, Remote	Rural, Distant	Rural, Fringe	N/A
2010 school population	716	955	1,230	593
% Black	23	23	17	20
% Latino	42	9	13	9
% White	35	66	68	69
High/Low Latino enrollment school	High	Low	High	Low
Students qualifying for free and reduced lunches	58%	28%	43%	
Total occupied housing units within 10-mile radius (%)	89	90.9	89.4	92.9

Sources: 2010 US Census, http://www.freedemographics.com/, last accessed 1 December 2011; Common Core of Data, http://nces.ed.gov/ccd/schoolsearch/, last accessed 1 December 2011.
*For in depth descriptions of NCES location classifications, visit http://nces.ed.gov/ccd/rural_locales.asp#justification. Cleveland High School was not assigned a NCES code or location at the time of this study because it was still a very new school.

Walking into Jordan Matthews it is as likely to hear students speaking in Spanish as English. Latino immigration has influenced the community in obvious ways, and Latino students seem well integrated into the school's organizational structure. At the school's front office staff know Spanish and English, and easily adjust language to accommodate their audience.

Jordan Matthews has a distinct personality from other schools I visited. It is clear that systemic change has occurred and that the administration is working to adjust to a new group of students. The school is generally orderly, but it operates more casually than other campuses. For instance, administrators reported some library copies of the yearbook had been stolen in the past decade, a problem that remained unaddressed. The theft did not impede the functioning of the school, and so it became a non-issue.

Twenty miles east of Jordan Matthews is its rival school, Northwood High. The school is 10 miles south of Chapel Hill and many of its students travel from growing residential

populations in northern Chatham County. Northwood officials consider the school overcrowded, and the student body is split between students from rural families who live south of the school and suburban students from families living near Chapel Hill, including many University of North Carolina professors' children.

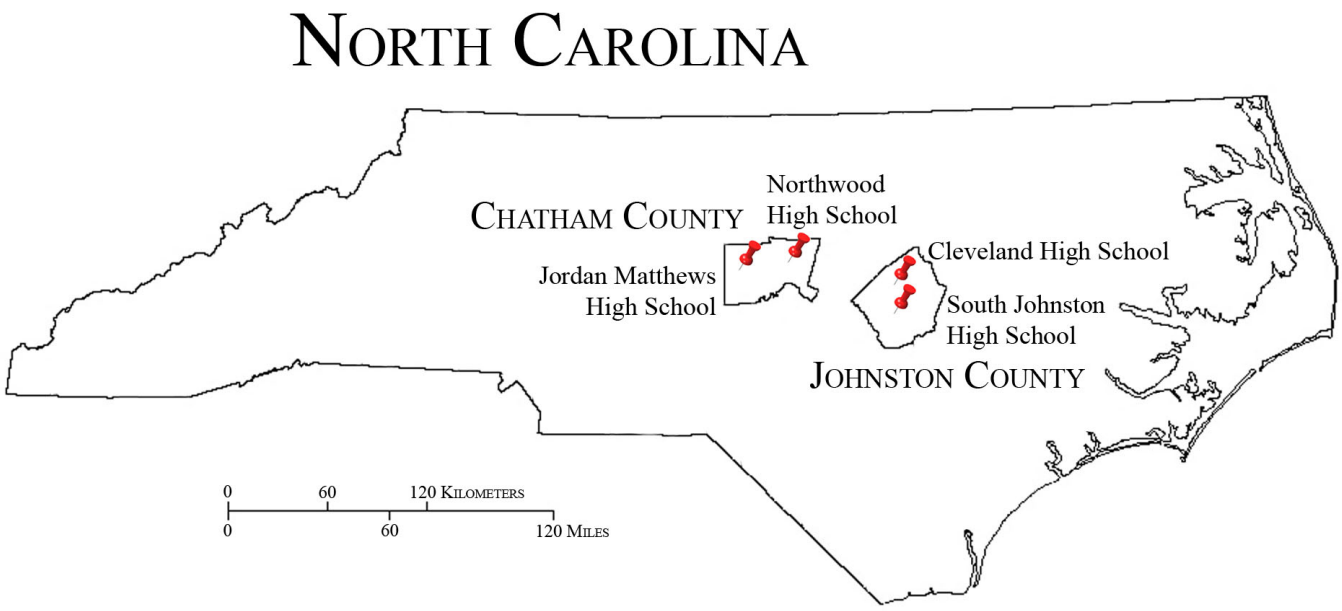
Northwood was opened in 1972 as the first integrated school in Chatham County, and consolidated white and black students from neighboring high schools. At Northwood, the Latino population is significantly smaller than at Jordan Matthews. Black and White students composed almost 90 percent of the school's population in 2010, down from 96 percent of the school population in 2000. Unlike at Jordan Matthews, Latino students and students of other racial and ethnic groups (Asian and Native American) have populations of relatively similar sizes at Northwood. In 2000, three percent of the school was Latino and one percent was considered other; in 2010 nine percent of the school was Latino and two percent could be classified as other.

In 2009, 2010, and 2011 Northwood was a North Carolina School of Distinction. Students are organized and have generally good rapport with teachers, many of whom have worked at the school for decades. Northwood has no noticeable gang activity. According to teachers and administrators at the school, fights are very rare. Northwood had the largest number of school organizations of the four schools researched, and the school printed yearbooks with the highest quality and greatest number of photos.

As Figure 1 shows, two counties east of Chatham and just outside of the North Carolina Piedmont, Johnston County is situated at the edge of the state's coastal plain. Johnston County has experienced tremendous growth in the past decade. The 77th fastest growing county in the United States, its population increased by 38.5 percent in the last ten years based on US Census figures. More students motivated the district to open new schools, and existing schools face problems of overcrowding. Johnston County's population expansion has been concentrated along

the Johnston-Wake county line where employees of new manufacturing jobs in the county and commuters from nearby cities in Wake County have moved to more rural areas.

FIGURE 1:



Source: Google Maps, www.google.com/maps, last accessed 1 December 2011

South Johnston High School was opened in 1969 in an effort to integrate local black and white schools and is located in south central Johnston County. In 2000 slightly under five percent of South Johnston's student population was Latino, and by 2010 almost 14 percent of South Johnston students were Latino. The growth of the county's population and the growth of the Latino population overall has changed social dynamics at South Johnston. Gangs became active at the school as the student population grew more diverse, and gang rivalry made the school into a "scary place," said Terri Yates, a former South Johnston science teacher who left the school in 2009. Today, she said, the school is doing much better and has resolved many of its problems, but the school community is still adjusting to dramatic growth and demographic shifts in the last decade.

Another indication of the change in South Johnston's student body is students' use of free and reduced price lunches. Forty-three percent of students qualified for free and reduced lunch in 2010, as opposed to 14 percent who qualified in 2000, indicating a decrease in the economic strength of the community. Much of the labor force in nearby Four Oaks was involved in construction, and increased use of free lunches may be the result of the burst US housing bubble and subsequent recession.

South Johnston reflects its rural community. Even though the school has a large population, it functions like a smaller community. Many teachers at South Johnston are former students. Faculty and administrators are candid and friendly with each other and with students. Because there is not as strict a hierarchal divide at South Johnston, it seems that students are more willing to engage with teachers and ask for help to begin student organizations or address minor academic and social problems that arise on a daily basis. The school's "power block" lunch structure also makes faculty more accessible to students at the school. Because of their frequent interaction with the student body, faculty at the school seem to be more aware of dynamics of student interaction.

Closer to the Wake County line, Cleveland High School began operating in the 2009-2010 school year. In its inaugural year, Cleveland had only 9th and 10th grade students, and school was still without a senior class for the 2010-2011 school year. Cleveland took its name from Cleveland School, a high school in Johnston County that operated a mile away from the modern Cleveland High School between 1925 and 1969. Cleveland was opened in response to overcrowding at other schools in Johnston County. Many of its teachers came back to work after retiring from Johnston County Schools, but others taught at South Johnston, West Johnston, or Clayton high schools until the new school opened in 2009.

Because it is a new school, it is still in the process of establishing its identity. In interviews, teachers often referred to this idea and answered questions both for Cleveland and for the schools they taught at for decades. Many of the teachers expected that Cleveland would develop similar social dynamics to schools they previously taught at. Terri Yates, a current science teacher at Cleveland described the school as being in a honeymoon period. No major tensions exist in the student body because the school is not even full.

Entering the school, its recent opening is obvious. Aside from the smell of fresh paint, the halls and classrooms are conspicuously empty. Teachers at the school were also less comfortable being interviewed. Because they have not become established in their positions, they know less about student dynamics and are wary of making generalizations about the student body. In the cafeteria there is still a mood of novelty; teachers and students all seem like they have just arrived for the first day of school and are excited and nervous for the years ahead.

Cafeteria Observations

Cafeteria observations proved the most variable between schools. In Chatham County, Jordan Matthews and Northwood had three and four lunch periods respectively. During each 20-minute lunch students were constantly in flux, arriving at one table, sitting and moving to another. In response I filled out pre-made cafeteria seating charts twice during each lunch period, once over the course of the first ten minutes and again during the remaining half of lunch.

In Johnston County both Cleveland and South Johnston high schools have instituted "power block" lunches. Instead of multiple periods for lunch, all students ate during the same one-hour period. In that block of time students could eat, visit teachers to receive help on homework or make up tests, and even participate in intramural sports leagues. Because there were more students in the cafeteria during power lunch, each observation of the cafeteria took 15 minutes and I conducted four over the course of the hour-long lunch.

In this study, cafeteria observations consider interaction at an individual level, so double-counting students who moved during their lunch was irrelevant. My analysis assesses whether student groups were randomly mixed based on the number of students of different races present at the time of observation, rather than the total racial makeup of the school. To understand the patterns in which students interact in a cafeteria I calculated exposure indexes in a method identical to what Beverly Clack, John Dixon, and Colin Tredoux employ in their study of interaction between white and Asian students in a British university cafeteria (2004). The exposure index calculates the potential for a member of one racial group to interact with an individual of a different racial group based on observed seating patterns. Exposure indexes differ for majority and minority groups and must be calculated for both. Therefore, in examining the interactions of white, black, and Latino students I used six equations to compare white students' exposure to black students, black students' exposure to white students and so forth. The formulae for exposure rates are defined as follows:

$$\text{(a) } {}_{w}E_{b} = \sum_i^n (w_i/W)(b_i/t_i) \quad (2) \qquad \text{(b) } {}_{b}E_{w} = \sum_i^n (b_i/B)(w_i/t_i) \quad (3)$$

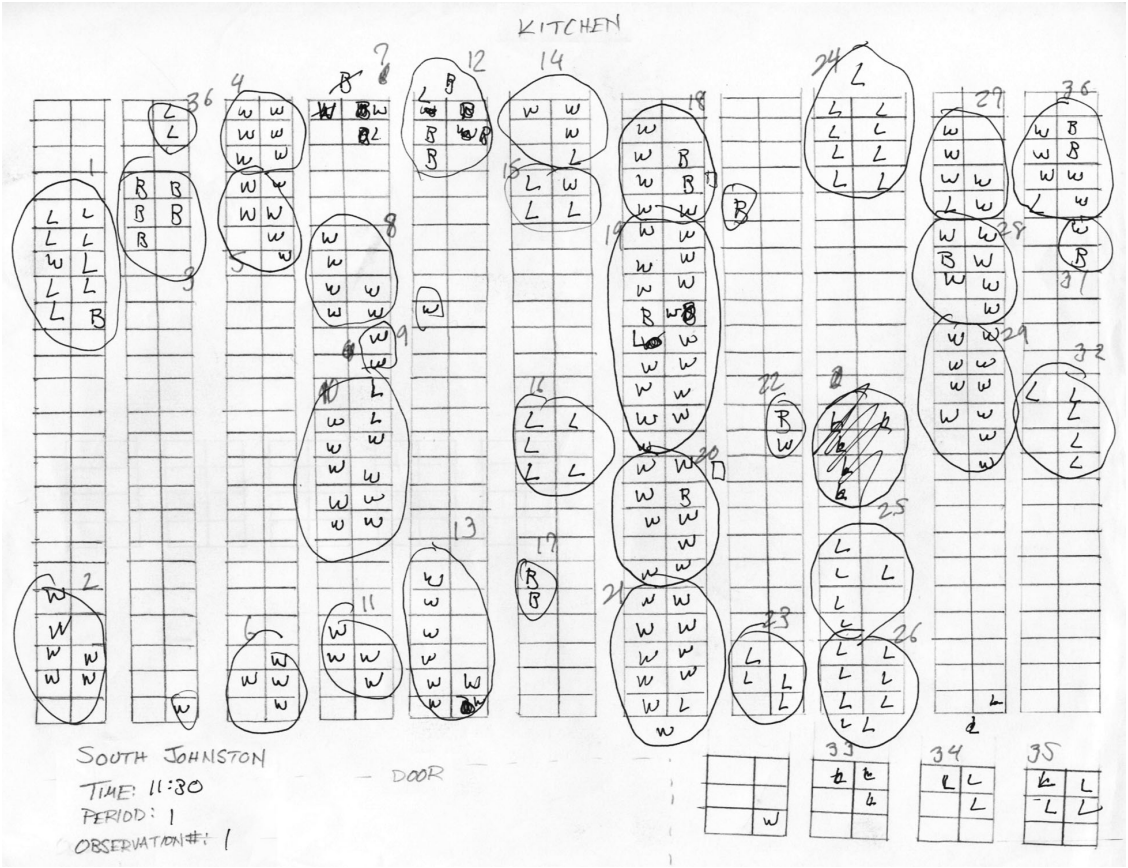
where w_i and b_i are the white and black members of social unit, W and B are the white and black population of the entire cafeteria, and t_i is the total population of a social unit regardless of ethnic origin. The exposure rate in equation two measures the percentages of black members in the average white student's seating group, and these equations are analogous to those used to compare other permutations of interaction between white, black, and Latino students. In the cafeteria, a social group was defined as a group of peers either verbally interacting or positioned facing one another.

Alone, the exposure indexes offer little real meaning. To gain perspective on what patterns the data I collected reveal, I performed a Monte Carlo Transformation for the data in each observation. The transformation randomly assigned a racially identical population into

groups that were of identical size to those observed in the cafeteria. Repeating this process 1,000 times for each observation and calculating mean exposure indexes among those samples provided an expected exposure index, which the observed data was then tested against using a 95 percent confidence interval.

To record seating patterns I filled out a gridded seating chart using letters to demarcate race. B, W, L, and O respectively represented black, white, Latino, and other in seating charts. While self-identified racial categories are ideal, they were impossible to implement in this study. Instead I used visual inspection to determine race. While this decision will lead to error, it is common to visually categorize individuals by race in the modern United States (Clotfelter 2002). After marking students' seating patterns, I circled groups of interacting peers. Figure 2 shows a completed seating chart from observations conducted at South Johnston.

FIGURE 2:



Faculty Interviews

I held faculty interviews individually with teachers during their planning periods immediately before or after lunch. After a brief introduction I posed a series of IRB approved questions, attached in Appendix A, in order. There was no specific time limit on each interview, but most took approximately fifteen minutes. I recorded interviews using an iPod audio recorder and later transcribed the audio files. Using those transcripts I compared trends in faculty members' stories and opinions concerning interracial interaction within the student body.

Yearbook Data

To collect extracurricular participation data from yearbooks I recorded the racial composition of clubs and sports teams at each school. Yearbook photos varied in quality and format. Some were black and white while others were in colors. Additionally, photograph sizes varied annually as did captioning. Based on visual categorization I attempted to accurately determine each student's race in club and sports photos. As in the cafeteria observations, self-identification is preferable, but similarly, in consulting yearbooks it was impossible with available resources. Coaches and other adult mentors were often included in team and club photos, but I did not consider them in total membership or racial breakdowns. When a student's race was unclear, I consulted the group's photo caption if it included the names of members in the organization. Students were often identified in order by row. If this information did not prove useful or if it was not provided I made my best interpretation of the student's race based on the photo. This will lead to error, but did not occur often enough to significantly alter my results.

I did not record statistics for photos that were too small or of especially poor quality. This occurred most frequently for large organizations, like a school's Band or chapter of Future Farmers of America (FFA), where 100 students or more were fit into a 1.5 x 2 inch photograph. Unfortunately some of these organizations may have provided the most interesting information.

Organizations like a school Band include all criteria of Gordon Allport's contact theory; equal status, common goals, intergroup cooperation, and support from a structured authority. Where students have dedicated time to individual mastery of an instrument and come together as a group reliant on each individual, one can expect significant interaction to occur. It would be interesting to consider especially whether these groups are racially homogenous. Unfortunately yearbook budgets are often tight and high-quality photographs are expensive to produce.

Analysis of information collected in yearbooks consisted of calculated heterogeneity measures, segregation indexes, and exposure rates for students involved in each extracurricular activity. Heterogeneity calculations are copied from Equation 1, and exposure rates and segregation indexes are borrowed from Charles Clotfelter's 2002 study of extracurricular interaction in schools. The exposure rate calculated in Clotfelter's 2002 study, and in my analysis of yearbooks, has a formula similar to Equations 2 and 3. The only difference is seating groups become extracurricular organizations in the yearbook data.

Segregation indexes show differences between a calculated exposure rate and the overall percentage of nonwhite members in organizations. This index offers an easy measure to discuss as it varies on a scale from zero to one, where zero indicates racially balanced organizations and one denotes perfectly segregated organizations. It is calculated as:

$$S = 100(PCN - E)/PCN \quad (4)$$

where PCN is the overall percentage nonwhite students and E is the exposure index. Segregation indexes can be calculated to measure interaction between two racial groups or between a single racial group and the remaining school population. In this study I calculate segregation indexes between white and black students. Increases in exposure and interaction between white and Latino and black and Latino students are to be expected as a logical consequence of growing Latino enrollment. However, increases in exposure and decreases in segregation indexes between

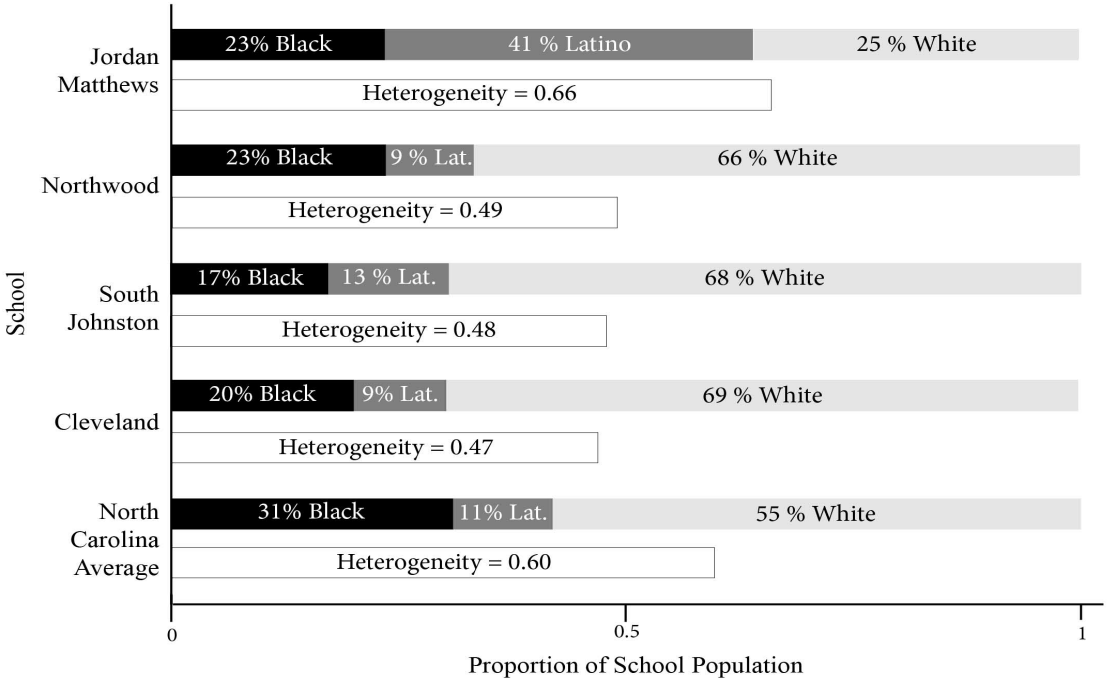
black and white students indicates changing dynamics of interaction at schools where the white and black student populations have maintained relatively constant sizes.

My conclusions rely most heavily on analysis of yearbook photos and cafeteria seating patterns. Both methods have been used in existing literature to identify trends of interracial interaction. Interviews provide supporting evidence and context that offers a deeper understanding of interracial dynamics impossible to capture in three days of observations.

V. ANALYSIS

Figure 3 provides basic population data for the four schools under observation. At Jordan Mathews, the heterogeneity index in 2010 was 0.66, just over Moody's ideal racial heterogeneity for facilitating interracial interaction, 0.65 (2001). But according to Clotfelter, Ladd, and Vigdor's 2002 study, segregation reached a peak at schools with 50-70 percent nonwhite populations, schools like Jordan Matthews.

Figure 3:
2009-2010 School Racial Comosition and Heterogeneity



Source: Common Core of Data, http://nces.ed.gov/ccd/schoolsearch/, last accessed 1 December 2011.
Index of heterogeneity defined in Equation 1.

The discrepancy between Jordan Matthews simultaneously exhibiting a population within range of Clotfelter, Vigdor, and Ladd's predicted segregation-inducing racial composition, but nearly identical to Moody's ideal heterogeneity for facilitating interracial contact, underlines the complexity of understanding dynamics of interracial contact in high schools.

Yearbook Data and Trends in Heterogeneity

While there is no one measure that provides an accurate picture of how students interact, there are four factors that can be used to understand the degree of interracial contact in school organizations. In his 2002 paper, "Interracial Contact in High School Activities," Charles Clotfelter presents three of these factors: the racial composition of the school, the rate at which members of different racial groups join extracurricular activities, and racial variation within extracurricular activities. Racial composition of a school is a primary factor influencing the extent of interracial interaction. As Clotfelter et al. and Moody have suggested in their respective papers, interracial interaction tends to increase as a student population grows more diverse, but only to a point. Though the authors disagree where this exists, both concur that when schools grow too heterogeneous there is greater potential for segregation.

But even racially diverse schools may not have extensive interracial contact in extracurricular activities. If the rate at which students join clubs or sports teams is different for various racial groups, the sub-population of students involved in extracurricular activities may be far more homogenous than the population of a school. The data in Table 3 show white students were overrepresented in organizations at three of four schools. At South Johnston black students were underrepresented in activities by 12.5 percent, and at Jordan Matthews Latinos were underrepresented by 17.2 percent. Averaged over a ten-year period beginning in 2000, nonwhite groups were generally underrepresented in extracurricular activities. The source of this

underrepresentation could be two-fold. It may reflect a tendency for nonwhite students to abstain from extracurricular activities, or because I made no attempt to avoid double counting, it could indicate they simply participate in fewer activities.

TABLE 3:
Means of Selected Variables 2000-2010, by Latino Population and School

	High Latino population		Low Latino population	
	Jordan Matthews	South Johnston	Northwood	Cleveland
Mean Values 2000-2010				
School enrollment	685	1200	958	593
Number of organizations	43	31	48	33
School racial composition (%)				
White	43.1	67.9	73.8	68.5
Black	25.4	25.2	15.9	20.2
Latino	31.1	5.6	9.5	9.4
Other	0.4	1.3	0.9	1.9
Organizations' racial composition (%)				
White	59.5	77.2	74.7	64.9
Black	26.5	12.7	21.6	26.1
Latino	13.9	9.2	3.0	6.9
Other	0.2	0.3	0.7	2.1
Underrepresentation of nonwhites in organizations (%)*				
Black	1.1	-12.5	5.7	5.9
Latino	-17.2	3.6	-6.5	-2.5
Other	-0.3	-0.9	-0.2	.2

Sources: Common Core of Data, http://nces.ed.gov/ccd/schoolsearch/, last accessed 1 December 2011; Yearbook data, author's calculations.
*Underrepresentation is calculated as organizations' racial composition minus school racial composition for each race.

If organizations are largely composed of one race, overall involvement in extracurricular organizations will not increase contact. Considering the data organized by the percentage of nonwhites at a school in Table 4, it is obvious that all white organizations are more prevalent at schools with larger white populations while all nonwhite groups occur more frequently at schools with larger nonwhite populations. Jordan Matthews demonstrated an equal number of all white and all nonwhite organizations in 2008 when its nonwhite population grew to just over 65 percent. But, as Table 4 shows, 11.2 percent of groups remained all white, even at schools with 50-65 percent nonwhite enrollment. At those same schools only 6.5 percent of organizations were all nonwhite. Further, organizations that were nonwhite specifically targeted minority

students. Action, Inspiration, Motivation (AIM) clubs are funded by the North Carolina Migrant Education Program and target Latino students, and the organization's website explicitly suggests that founders of school chapters choose an ESL teacher as a club advisor. AIM clubs were the most prevalent nonwhite organizations, while common all-white organizations included tennis, golf, and Future Farmers of America (FFA). Table 4 organizes extracurricular participation data collected from school yearbooks by the size of the nonwhite student population at a school in a particular year.

TABLE 4:

Interracial Contact by School Racial Composition

		Percentage nonwhite					Average number		Percentage of organizations with 100 percent membership	
Percentage nonwhite in school	Number of observations*	School	All organizations	Underrepresentation of nonwhites	Exposure rate† to nonwhites	Membership segregation index	Nonwhites exposed to whites	Whites exposed to nonwhites	Whites	Nonwhites
Under 25 percent	3	20.9	17.6	-3.3	0.144	17.2	4	20	25	0
25-30 percent	4	28.8	24.0	-4.8	0.154	35.8	6	18	18.4	3.3
30-35 percent	12	32.1	25.5	-6.6	0.174	29.8	6	17	16.3	1.7
35-50 percent	2	47.2	33.9	-13.3	0.213	37.2	7	13	14.9	6.2
50-65 percent	5	57.4	40.9	-16.5	0.272	33.8	8	11	11.2	6.5
65 percent and over	1	65.0	47.7	-17.3	0.340	28.8	10	10	6.7	6.7
All	27	37.4	28.7	-8.7	0.195	30.5	6	16	15.8	3.3

Source: Yearbook data, author's calculations.
*Each observation represents data collected from a given school in a given year. Thus, for four schools over ten years there are 27 observations after subtracting four missing yearbooks at Jordan Matthews and nine books absent from the years before Cleveland opened.
† Calculated using a permutation of Equation 2 where the variable nonwhite (n_i) is substituted for black (b_i).

The fourth important consideration in determining the extent of interracial contact is the size of various organizations and the frequency with which they meet. South Johnston has the largest student population and the fewest organizations. Clubs at the school tend to be large and, according to Jill Tart, a science teacher and former student, they meet infrequently. Even if a club has a diverse membership, if that group meets once a month in a large setting prone to cliques, there is little opportunity for contact between members of different groups. On average, organizations at Jordan Matthews and South Johnston tended to have membership of about 20 to 25 students, and the size of sports teams was significantly smaller than the size of clubs.

Illustrating variation in interracial contact by organization and school, Table 5 lists the ten-year average heterogeneity for many of the most popular clubs and sports. With few exceptions, the heterogeneity of activities was lower in extracurricular organizations than at the school overall. This reflects trends of white overrepresentation and of single race organizations. In groups with students of all one race the observed heterogeneity is zero. Still, there are several exceptions to the general trend of lower than average heterogeneity in sports and clubs.

At South Johnston, JV and varsity boys' basketball and football along with boys track and bible club all exhibit average heterogeneity indexes greater than that of the school population. While the basketball teams and bible club are both small organizations, with fewer than 15 members, football and track are both larger teams with between 20 and 60 members. This suggests that the size of a team does not necessarily affect its racial diversity. What is notable is that in every case except bible club, organizations with high heterogeneity are almost exclusively black and white. Bible club had four white members and three Latino members in 2001, but in other organizations with higher than overall school heterogeneity, Latinos consistently composed less than five percent of the population. Similarly, Northwood's girls' JV basketball, JV and varsity football, boys' and girls' track, and weightlifting club all had greater

heterogeneity than the total school population, but have fewer than five percent Latino membership on teams.

TABLE 5:
Average Heterogeneity† of Select Activities, 2000-2010

	Jordan Matthews	Northwood	South Johnston*	Cleveland**
Overall Average (2000-2010)	0.635	0.471	0.418	
Art Club	0.290	0.132	0.313	0.185
Band	0.525	0.330	-	-
Baseball (JV)	0.335	0.146	0.132	0.245
Baseball (Varsity)	0.208	0.065	0.152	0.165
Basketball (Boys JV)	0.396	0.446	**0.471**	0.494
Basketball (Boys Varsity)	0.380	0.455	**0.499**	0.439
Basketball (Girls JV)	0.403	**0.490**	0.341	0.494
Basketball (Girls Varsity)	0.469	0.388	0.307	0.562
Bible Club	0.000	0.406	**0.490**	-
Cheerleading (JV)	0.438	0.347	0.202	0.512
Cheerleading (Varsity)	0.540	0.286	0.364	0.355
Chorus	0.569	0.389	-	-
Cross Country (Boys)	0.359	0.200	0.217	-
Cross Country (Girls)	0.282	0.107	0.272	-
Dance Club	0.583	0.270	-	-
Future Business Leaders of America	0.444	0.452	-	0.568
Fellowship of Christian Athletes	0.088	0.223	0.168	-
Future Farmers of America	0.251	0.032	0.100	0.000
Football (JV)	0.523	**0.514**	**0.437**	-
Football (V)	0.483	**0.509**	**0.472**	0.474
Future Teachers of America	0.131	0.439	0.030	-
Golf (Boys)	0.046	0.040	0.000	0.000
Gospel Choir	0.077	0.246	-	-
Health Occupation Students of America	0.536	0.432	0.270	0.571
Interact	0.529	-	-	0.377
Key Club	0.090	0.280	0.312	-
Newspaper	0.557	0.140	0.212	0.426
Quiz Bowl	0.328	0.099	-	-
Students Against Drunk Driving	0.344	0.000	0.175	0.153
Science Club	0.437	0.189	-	-
Soccer (Boys JV)	-	0.178	0.261	-
Soccer (Boys Varsity)	0.217	0.191	0.404	0.611
Soccer (Girls JV)	-	0.224	0.418	-
Soccer (Girls Varsity)	0.493	0.069	0.395	0.415
Softball (JV)	0.254	0.313	0.114	-
Softball (Varsity)	0.097	0.284	0.087	0.000
Spanish Club	0.404	0.302	0.363	-
Tennis (Boys)	0.193	0.082	0.046	0.278
Tennis (Girls)	0.108	0.150	0.042	0.494
Track (Boys and Girls)	-	**0.497**	-	-
Track (Boys)	0.401	-	**0.533**	0.602
Track (Girls)	0.399	-	0.403	0.445
Volleyball (JV)	0.251	0.288	0.112	-
Volleyball (Varsity)	0.281	0.333	0.029	0.165
Weightlifting Club	-	**0.561**	-	-
Wrestling	-	0.200	0.310	0.388

Yearbook	-	0.379	0.048	-

Source: Yearbook data, author's calculations.
Note: Bolded values indicate average heterogeneity of a club or activity greater than average heterogeneity of the school.
† Index of heterogeneity defined in Equation 1.
*Data from 2000-01 to 2010-11 school year.
**Data only from 2010-2011 school year.

Jordan Matthews is without a single extracurricular organization with heterogeneity greater than the overall heterogeneity at the school, even though the school has the highest overall heterogeneity. The school also exhibits the greatest underrepresentation of minority students in extracurricular groups. Latino students at Jordan Matthews, an average of 31.1 percent of the school's population over ten years, are underrepresented in extracurricular activities by over 17 percent. Lack of participation by Latinos, the school's largest non-white population, which in 2007 became the single largest ethnic group at the school, explains why Jordan Matthews' extracurricular activities have more homogenous populations.

Though Latino students are not always involved in extracurricular activities, it is possible Latinos impact trends of association between white and black students through in-school interaction. From 2000 to 2010 the heterogeneity of all organizations grew from 0.21 to 0.26, a .05 increase. However, as the data in Table 6 shows, the heterogeneity of teams where black and white students both maintained significant membership increased by 0.15 in basketball and .1 in football, outpacing the overall increase in heterogeneity of all organizations. Similar results can be observed at Jordan Matthews, Chatham County's high Latino enrollment school.

Clubs with existing white and black membership in 2000 became more diverse as Latino enrollment grew. Conversely organizations with low initial heterogeneity tended to see small increases or decreases in heterogeneity over the ten-year period. These data suggest the possibility of two distinct sub-populations in a student body. One, open to interaction with peers of different racial backgrounds tends to interact with a broader range of students as racial diversity increases; the other, already prone to racial isolation remains closed to interracial

interaction. Faculty interviews are consistent with this finding, as teachers note simultaneous increases and decreases in interaction and racial tension for different student populations.

TABLE 6:

Summary Statistics by Type of Club, High Latino Population Schools (South Johnston and Jordan Matthews)

Type of organization	Average number of members in 2010	2000 Heterogeneity	2010 Heterogeneity	2000-10 Average Heterogeneity	2010 Percentage of Members					Underrepresentation of non-whites††
					White	Black	Latino	Other nonwhite	All non-white	
All organizations										
S. Johnston	24	0.206 *	0.263	0.254*	80.0%	12.3%	7.9%	0.0%	20.2%	-11.3%
J-Matthews	20	0.300	0.416†	0.335†	52.2%	28.0%	18.6%	1.1%	47.7%	-15.3%
Sports teams										
Baseball										
S. Johnston	16	0.111*	0.105	0.152*	97.3%	0.0%	2.7%	0.0%	2.7%	-28.8%
J-Matthews	13	0.354	0.125†	0.267†	93.3%	0.0%	6.7%	0.0%	6.7%	-56.3%
Basketball										
S. Johnston	12	0.365**	0.514	0.407**	72.7%	15.9%	11.4%	0.0%	27.3%	-4.2%
J-Matthews	12	0.389	0.475†	0.412†	45.1%	54.6%	0.5%	0.3%	55.4%	-7.6%
Cheerleading										
S. Johnston	16	0.219*	0.112	0.287*	94.3%	5.7%	0.0%	0.0%	5.7%	-25.8%
J-Matthews	21	0.420	0.519†	0.489†	46.6%	49.1%	4.3%	0.6%	54.0%	-9.0%
Football										
S. Johnston	38	0.362*	0.463	0.454*	67.4%	28.3%	4.3%	0.0%	32.6%	1.1%
J-Matthews	34	0.494	0.512†	0.503†	34.2%	58.9%	5.5%	0.0%	64.4%	1.4%
Soccer										
S. Johnston	15	0.480*	0.398	0.374*	71.7%	0.0%	28.3%	0.0%	28.3%	-3.2%
J-Matthews	21	0.334†††	0.341†††	0.355†††	23.7%	15.2%	61.1%	0.0%	76.3%	13.3%
Other Sports										
S. Johnston	17	0.025*	0.177	0.157*	82.9%	7.9%	9.3%	0.0%	17.1%	-14.4%
J-Matthews	12	0.205	0.406†	0.237†	59.7%	26.6%	12.1%	1.6%	40.3%	-22.7%
Other organizations										
Arts/Language										
S. Johnston	33	0.400*	0.388	0.332*	73.7%	0.0%	26.3%	0.0%	26.3%	-5.2%
J-Matthews	21	0.345	0.492†	0.401†	29.3%	43.9%	25.2%	1.6%	70.7%	7.7%
Vocational										
S. Johnston	41	0.108*	0.183***	0.197*	90.3%	6.2%	3.5%	0.0%	9.7%	-21.8%
J-Matthews	23	0.427	0.358†	0.397†	63.8%	18.8%	17.4%	0.0%	36.2%	-26.8%
All other										
S. Johnston	36	0.300*	0.174†	0.237*	75.8%	4.2%	20.0%	0.0%	24.2%	-7.3%
J-Matthews	27	0.217	0.428†	0.281†	56.5%	18.9%	23.3%	1.3%	43.5%	-19.5%

Sources: Common Core of Data, http://nces.ed.gov/ccd/schoolsearch/, last accessed 1 December 2011; Yearbook data, author's calculations.

†† Nonwhite percentage in clubs minus nonwhite percentage in schools.

* 2001-2011 Data
** 2002-2011 Data
*** 2011 Data
† 2000-2008 Data
††† 2003-2008 Data

Organizations with large Latino populations have experienced more mild variation in heterogeneity. AIM clubs, whose membership is often 100 percent Latino, and soccer teams maintain the largest Latino populations. At Jordan Matthews heterogeneity of soccer teams decreased between 2000 and 2010; at South Johnston heterogeneity increased, but only by .01, far less than the overall increase in the school's heterogeneity of .15. Essentially, black and white students already open to interaction increase contact as the Latino population grows, while the Latino population itself has remained isolated in a few extracurricular programs.

Exposure Rates in Yearbook Data

The outlook for schools with fast-growing Latino populations is not necessarily negative. Jeremy Byrd at South Johnston says that racial tensions prevalent even a few years ago have dramatically decreased. Further, segregation indexes at high Latino enrollment schools, South Johnston and Jordan Matthews, have decreased in the past ten years, while at Northwood segregation has slightly increased. The data in Table 7 are calculated to show exposure rates and segregation indexes between white and black students involved in extracurricular activities.

At South Johnston an already low segregation index of 10.85 in 2000 decreased to 9.93 in 2011. At Jordan Matthews the segregation index decreased from 35.63 in 2000 to 17.37 in 2008. However, these changes have not always been gradual, nor has segregation consistently declined at the two schools. For five of eleven years of observations at South Johnston the segregation index changes by at least fifty percent form the previous year. While the segregation index begins and ends around 10 in 2000 and 2011, it rises to as high as 37.4 and dips as low as 4.3. Similarly, but to a less extreme degree, the segregation index at Jordan Matthews changes annually by just over 50 percent twice over eight years of observation. Conversely at Northwood,

where population and racial demographics remained stable over ten years, segregation has gradually increased, from an index of 24.02 to 33.99. Northwood demonstrates a clear trend towards mild resegregation that Clotfelter, Vigdor, and Ladd observed in their 2008 study of North Carolina schools.

TABLE 7:
Changes in Exposure Rates and Segregation Indexes for White Students' Interaction with Black Peers in Extracurricular Organizations, 2000-2011

	Exposure rate				Segregation Index			
Year	Cleveland	South Johnston	Northwood	Jordan Matthews	Cleveland	South Johnston	Northwood	Jordan Matthews
2000	-	-	0.168	0.183	-	-	24.0	35.6
2001	-	0.066	0.178	0.177	-	10.9	35.4	35.3
2002	-	**0.131**	0.140	0.166	-	**20.0**	31.8	27.1
2003	-	0.096	0.131	0.171	-	13.6	29.2	30.9
2004	-	0.087	0.117	0.209	-	**4.33**	37.9	23.9
2005	-	0.099	0.160	-	-	**24.1**	30.9	-
2006	-	0.096	0.149	0.243	-	**37.4**	28.7	**11.6**
2007	-	0.109	0.153	0.227	-	22.4	35.8	10.3
2008	-	0.126	0.173	0.231	-	**9.15**	25.8	**17.4**
2009	-	0.102	0.126	-	-	10.3	24.7	-
2010	-	0.114	0.144	-	-	7.44	34.0	-
2011	0.216	0.111	-	-	17.4	9.93	-	-
Net change	-	0.045	-0.024	0.049	-	-0.921	9.96	-18.3
Percent change	-	67.5	-14.2	26.5	-	-8.5	41.5	-71.2

Source: Yearbook data: author's calculations.
Note: Bold values indicate a change of 50 percent or more in one year.

Part of the wild variation at South Johnston can be accounted for by inconsistent yearbooks. At South Johnston photos of teams and clubs often disappeared one year to the next, so especially homogenous or heterogeneous groups may have been unintentionally excluded from certain editions, skewing calculated segregation indices. This lack of data may account for the magnitude of some changes, but the trend of initial increases in segregation before decreases remains important. Jeremy Byrd, a social studies teacher, noted in his interview that when he began teaching at South Johnston in 2002 there was open animosity towards Latino students form their peers. As an example, he recounted a common scenario from his early career. Upon

receiving bilingual permission slips students would complain they did not need the form in Spanish. Adding humor to his recounting, he said many of his white and black students would demand the form in "American." The relationship Byrd's story portrays is important. Upon the initial rapid growth of the Latino population, students were openly hostile to newcomers at school. It is possible that this tension increased along with increasing gang activity, which peaked around 2006 or 2007, before positive interaction began to occur.

Byrd referenced the importance of second-generation Latino students for bridging the gap between white and black students. On his soccer team he had one Latino player who united the divided team. The player had been born in the United States and spoke perfect English. Byrd says he had a white girlfriend, and interacted easily with white and Latino peers. The player maintained friendships with his teammates and was a good student. Byrd is convinced that the player's ability to transcend groups bonded the team in a way that continued even after he graduated. It is possible that it takes time before a large Latino population can motivate greater interaction.

At Jordan Matthews the Latino population is not only much larger, but it is older. Latino students began arriving in Siler City in large numbers in the mid 1990s. There too, the new Latino population met with early hostility. In 2000 WRAL, a radio news agency serving Raleigh, Durham, and Fayetteville reported on the Klu Klux Klan's activity in Siler City. The KKK attended anti-immigration protests against Siler City's growing Latino population. In 2000, the segregation index at Jordan Matthews was 35.63, nearly as high as South Johnston's peak segregation index, 37.4. Because Latinos became a part of the community at Jordan Matthews slightly earlier than they did at South Johnston this study's data collection may have missed initial increases in segregation. What the data show, then, is the gradual decline in segregation as

the Latino population has integrated into Jordan Matthews and facilitated increased interaction between white and black students.

Cafeteria Observations

Extracurricular involvement in schools reflects student choice. Self-selected populations engage in different aspects of life at school in small groups. In contrast, a school's lunch hour is mandatory. In a cafeteria, students from across a school eat together. At long 24 or 48-person tables, many smaller student groups form based on friendship and familiarity. Cafeterias offer insight into which students interact with different peer groups and how the racial makeup of social units varies.

In the course of four observations conducted at 10 to 15 minute intervals 55.1 percent of students sat in integrated groups across all four schools. As shown in Table 8, The proportion of students sitting in integrated groups at lunch was on average highest at Northwood during the periods considered, where 65 percent of students sat in integrated groups, and lowest at Cleveland where, on average, 44 percent of students were seated in integrated groups during the four intervals. That Northwood had the highest proportion of integrated tables is surprising given that the school also has the least diverse student body of the four schools observed. The pattern is explained by each school's lunch structure.

Northwood's schedule promoted small group interaction, a structure that James Moody suggests facilitates interracial interaction and forces students to overcome homophily through limiting the possibility of sitting with same-race peers (2001, 697). Northwood's lunch schedule consisted of four periods and students were directed to eat in the same room with roughly160 peers, the second smallest average lunch population at the schools observed.

TABLE 8:

Social Units in Schools' Cafeterias Over Four Observations

	Total number of social units				Percent of people in integrated groups
	White only	Black only	Latino only	Integrated	
Northwood					
Observation 1	7	2	2	22	70.2
Observation 2	10	1	2	14	57.7
Observation 3	10	0	1	15	58.5
Observation 4	8	2	0	19	73.6
Jordan Matthews					
Observation 1	3	2	7	14	44.2
Observation 2	5	5	5	7	61.8
Observation 3	4	1	9	11	50
Observation 4	4	3	7	10	56.4
Cleveland					
Observation 1	18	1	1	24	36.3
Observation 2	27	3	1	23	45.4
Observation 3	17	4	1	16	53.7
Observation 4	15	3	1	20	40.3
South Johnston					
Observation 1	9	2	10	15	53.1
Observation 2	17	5	6	17	56.8
Observation 3	18	2	2	11	56.4
Observation 4	15	0	5	8	66.5
Overall	128	27	37	195	55.1

Source: Cafeteria observation data, author's calculations.
Note: Northwood had a total of eight observation periods and Jordan Matthews had six. This table features the first four observations at each school, corresponding to observations made during the first two lunch periods.

Jordan Matthews had slightly smaller numbers of students at each of the school's three lunch periods. On average, 121 students ate lunch during any one observation at Jordan Matthews. However, unlike at Northwood, lunch at Jordan Matthews was not restricted to one room. In addition to the main indoor cafeteria, Jordan Matthews had eight outdoor picnic tables and a courtyard where students could eat lunch. The number of Latino only social units at lunch was highest at Jordan Matthews, and largely these groups occupied outdoor tables. In the courtyard, too, it is likely the overall racial composition of the population was different from that

of the lunchroom. So, while at Northwood all students were contained in one place, at Jordan Matthews students had greater opportunity to sit in single-race groups.

Whereas in Chatham County Northwood demonstrated a higher percentage of interracial social units at lunch than Jordan Matthews, in Johnston County, South Johnston had significantly more integrated social units at lunch than Cleveland. Like Jordan Matthews, Cleveland and South Johnston did not restrict their students to the cafeteria during lunch. Both schools operated on a "power lunch" schedule that allowed all students the same one-hour block to eat in the cafeteria, teacher's classrooms or elsewhere on school grounds. At South Johnston 203 students were in the cafeteria on average over the four observations and 219 students on average sat in the cafeteria at Cleveland. Even though the cafeteria populations at schools in Johnston County were larger and students had increased mobility, the proportion of integrated lunch tables did not differ significantly from Chatham County.

In Chatham, smaller eating spaces facilitated increased interracial contact at Northwood. This effect proved more dominant than any increases in interracial contact associated with a larger Latino population, and Jordan Matthews exhibited a lower proportion of students sitting in integrated groups at lunch. However, in Johnston County where Cleveland and South Johnston have identical lunch schedules and structures South Johnston demonstrates a significantly higher proportion of students seated in integrated groups than Cleveland.

Exposure rates, summarized in Table 8, offer further evidence to support this finding. Eighty-three percent of the observed exposure rates were significant using a 95 percent confidence interval, providing strong evidence that students sit in groups that are less racially diverse than expected. While the vast majority of statistically significant observations reflected underrepresentation of a particular racial group in a social unit, there were two notable exceptions at South Johnston during the third observation. The black student population

interacted with Latino students more often than expected under random conditions, and similarly Latinos were overrepresented in their interactions with black peers compared to a system of randomly assigned seating. Apart from this exception, black and Latino students had the second most significant negative deviations from random distributions. Interestingly, Jordan Matthews and South Johnston exhibited the most significant deviations from random arrangements of students both positively and negatively. At Cleveland and Northwood exposure to peers of different races tended to deviate from expected values, but not as significantly as at the two high Latino population schools.

TABLE 9:
Exposure Indexes and Significance Levels Based on a 95% Confidence Interval

	$_wE_b$		$_wE_l$		$_bE_w$		$_bE_l$		$_lE_b$		$_lE_w$	
	Observed Exposure Rate	Z Score	Observed Exposure Rate	Z Score	Observed Exposure Rate	Z Score	Observed Exposure Rate	Z Score	Observed Exposure Rate	Z Score	Observed Exposure Rate	Z Score
Northwood												
Observation 1	**0.120**	-4.64	**0.070**	-6.01	**0.404**	-4.64	**0.068**	-2.45	**0.097**	-2.45	**0.336**	-6.01
Observation 2	**0.083**	-4.48	**0.063**	-7.74	**0.388**	-4.48	**0.055**	-2.73	**0.050**	-2.73	**0.272**	-7.74
Observation 3	**0.066**	-6.14	**0.069**	-4.89	**0.263**	-6.14	0.131	0.48	0.153	0.48	**0.322**	-4.89
Observation 4	**0.109**	-8.71	**0.059**	-7.35	**0.294**	-8.71	0.098	-0.91	0.173	-0.91	**0.281**	-7.35
Observation 5	**0.107**	-6.92	0.043	1.69	**0.338**	-6.92	**0.008**	-2.15	**0.045**	-2.15	0.728	1.69
Observation 6	**0.114**	-8.12	0.077	-0.95	**0.285**	-8.12	**0.037**	-2.91	**0.095**	-2.91	0.494	-0.95
Observation 7	**0.082**	-5.67	**0.043**	-6.56	**0.428**	-5.67	0.045	-1.76	0.068	-1.76	**0.339**	-6.56
Observation 8	**0.084**	-4.22	**0.070**	-2.04	**0.505**	-4.22	0.087	0.27	0.117	0.27	**0.568**	-2.04
Jordan Matthews												
Observation 1	0.145	-1.64	**0.117**	-10.13	0.199	-1.64	**0.169**	-6.07	**0.087**	-6.07	**0.083**	-10.13
Observation 2	**0.091**	-4.95	**0.088**	-4.76	**0.098**	-4.95	**0.090**	-4.89	**0.090**	-4.89	**0.091**	-4.76
Observation 3	0.170	0.05	**0.029**	-8.46	0.309	0.05	**0.085**	-4.51	**0.052**	-4.51	**0.032**	-8.46
Observation 4	0.189	-0.89	**0.038**	-7.77	0.236	-0.89	**0.096**	-5.18	**0.071**	-5.18	**0.035**	-7.77
Observation 5	**0.008**	-5.54	**0.142**	-7.47	**0.056**	-5.54	**0.056**	-4.18	**0.011**	-4.18	**0.187**	-7.47
Observation 6	**0.058**	-5.10	**0.146**	-9.09	**0.172**	-5.10	**0.178**	-4.19	**0.065**	-4.19	**0.157**	-9.09
Cleveland												
Observation 1	**0.114**	-2.73	**0.011**	-4.30	**0.586**	-2.73	**0.000**	-2.37	**0.000**	-2.37	**0.368**	-4.30
Observation 2	**0.109**	-6.57	**0.013**	-5.36	**0.457**	-6.57	**0.004**	-2.69	**0.022**	-2.69	**0.329**	-5.36
Observation 3	**0.090**	-6.52	**0.030**	-2.61	**0.332**	-6.52	**0.000**	-2.98	**0.000**	-2.98	**0.410**	-2.61
Observation 4	**0.081**	-6.56	0.052	0.68	**0.348**	-6.56	**0.012**	-2.41	**0.033**	-2.41	0.636	0.68
South Johnston												
Observation 1	**0.052**	-4.82	**0.062**	-15.84	**0.291**	-4.82	**0.088**	-5.16	**0.029**	-5.16	**0.113**	-15.84
Observation 2	**0.074**	-10.91	**0.049**	-11.36	**0.147**	-10.91	**0.083**	-5.10	**0.099**	-5.10	**0.117**	-11.36
Observation 3	**0.040**	-8.21	**0.061**	-10.56	**0.256**	-8.21	0.120	-1.01	0.074	-1.01	**0.240**	-10.56
Observation 4	**0.005**	-9.45	**0.052**	-13.81	**0.069**	-9.45	**0.317**	2.98	**0.082**	2.98	**0.179**	-13.81

Source: Cafeteria observations data, author's calculations.
Bolded values indicate significance.
* Values calculated using permutations of Equations 2 and 3.

On average, white and Latino students tended to demonstrate the most significant variations from random distribution of any racial pairing, while black and Latino and white and Latino exposure rates tended to better reflect random seating distributions. Simultaneously, exposure rates tended to be highest among white and Latino students, then black and white

students, and finally black and Latino students. This inverse pattern, though, could reflect whites numeric advantage in many schools; at Northwood, Cleveland, and South Johnston white students comprise at least 60 percent of the populations, so it is more likely that Latino students will sit with white peers.

Counter to my expectation, Table 9 shows white students' exposure to black students and black students' exposure to white students tended to be lower at South Johnston, a school where the Latino population has grown significantly in the last ten years. Confirming white and black students tend to interact less in social units at South Johnston, the school demonstrates the largest gap between observed and expected contact in cafeteria groups. Comparatively, black and white exposure rates at Cleveland are higher and disparities between expected and observed exposure rates are lower than at South Johnston.

Looking at Johnston County schools it appears that Latino students fail to act as a bridge between white and black students. However, the same is not true in Chatham County. Though Jordan Mathews demonstrated the lowest proportion of integrated seating groups, white and black students there exhibit a higher exposure rate than do white and black students at Northwood. This is especially striking because, compared to Northwood, Jordan Matthews has a small black student population. Comparing Z scores at the two schools, the disparity between observed and expected exposure rates is far lower at Jordan Matthews than at Northwood. In fact, for three of six observations at Jordan Matthews the difference between the observed and expected exposure rate for white and black students is not statistically significant.

Faculty Interviews

Faculty interviews supported observations that students do exhibit racial bias when they interact. Pronounced gang activity at both high Latino population schools developed in the past

decade. However, even at schools with low Latino populations, teachers noticed changes in the schools' populations that have altered social dynamics towards increasing segregation.

Chatham and Johnston counties have experienced significant population growth since 2000, and all four schools offer extracurricular activities designed to help integrate new students into their respective communities. But no school observed takes specific action to increase interracial interaction among students during the day. Most often, students interact with peers of different races simply because work groups and seating arrangements in classes are assigned by teachers without specific attention to race. Students come in contact with a broad range of their peers in hallways, cafeterias, extracurricular activities, and in classes, say teachers. The one area where a school's diversity often fails to translate is in honors and AP classes. However, white overrepresentation in these classes decreased in many schools as ESL programs have grown more effective and the number of second-generation Latino students has increased.

Trends of Changing Segregation

Phillip Little, a 13-year teacher at the Northwood and Chair of the Social Studies Department, says that growth has defined Northwood for the past ten years. The population at the school is changing. In the last 15 years Little says they have "four-laned" US 15-501, the highway running past the school and made a bypass around the nearest town, Pittsboro, which led the way for numerous new housing developments.

With a seeming bounty of growth but little change in the school's population, Little asks who is moving into the community? Henry Foust, a Spanish teacher at Northwood in his 27th year at the school says that in large part a decrease in the black student population led the changing population at Northwood. In addition to fewer numbers, Foust says there is a tendency for black students to group in racially homogenous units. As the population of black students at the school has decreased, so too has their involvement. Foust works with the student council and

says that black student's participation in student council decreased in the late 1990s and early 2000s and has remained low ever since.

At South Johnston, teachers note students similarly remain separated by race in various aspects of school life. Mule Day is an annual event that many white students celebrate in a number of ways including by flying confederate flags. Jeremy Byrd, an English teacher at the school for nine years, says that even though students are often friends, for that one weekend each year students' actions provoke racial tension and confrontation.

In the last five years at Jordan Matthews, too, racial tensions have increased and are reflected in every part of the school, says Tammy Johnson-Morris, an eight-year guidance counselor and former student of the school. Since the Latino population became the majority of the student body, for example, the homecoming queen has been Latino, says Johnson-Morris. However, this changed two years ago as gang activity increased. Rival gangs split the Latino population in voting and consequently the homecoming queen has been white. Still, Johnson-Morris says she tends to see white and black students and white and Latino students often together in mixed groups.

Teachers at Jordan Matthews observed dynamics that contradict the results suggested by cafeteria observations. While those observations indicate that black and Latino students' interactions are less biased because their likelihood to sit together is more randomly distributed, Johnson-Morris says the opposite is true. White students, she says, are able to "get between" black and Latino peers, but significant racial tension exists between groups of black and Latino students and fights are common in the school. Johnson-Morris attributes growing racial friction to an increase in gang activity at Jordan Matthews. Students arriving from California, Mexico, Honduras and El Salvador have brought with them two Latino gangs, she says, while black students with families in Durham have also introduced gangs to Jordan Matthews.

Johnson-Morris says that this gang mentality keeps black and Latino students from interacting with one another. Considering romantic relationships at the school Johnson-Morris says she knows of several pairs of black and white, and Latino and white students who are dating, but only one couple that is black and Latino; that couple is expecting a child.

Like at Jordan Matthews, teachers at South Johnston who noticed racial tensions among students said greater friction existed between black and Latino student populations. Chuck Hensey, a history and civics teacher at South Johnston for 13 years said that in the past decade gang violence increased, making gang culture a school-wide issue. Fights that break out usually involve black and Latino students, but Hensey says he also hears about tension between white students and other groups. Those confrontations rarely flare up into physical fights, he says.

Instances of violence and overt tension often occur where there is less supervision. However, sometimes school structures can impose racial divisions. Jill Tart, a chemistry teacher at South Johnston for 12 years and a former student, notes that one of the most racially homogenous regions of the school tends to be the cafeteria. The cafeteria is divided into two sections, one where students can pay to buy lunch and one where student can eat lunches packed at home or provided by the government through free and reduced lunch programs. Because of this system, students sit divided by wealth, which often tends to also divide students by race. Though the lunchroom can prevent students from mixing by race, Tart finds that in class and extracurricular activities students of different races frequently interact.

Changing Patterns of Minority Involvement

When students do have more freedom to choose their seats during lunch at schools like Cleveland, Tina Ambrose, in her second year at the school, says they tend to hang out based on common activities rather than by race. At Northwood, one of the least regulated spaces is the

cafeteria. Within cafeterias, students tend to interact with peers of different races more than anywhere else says Henry Foust at Northwood.

The major divides that do occur at Cleveland and elsewhere are often a result of language. Donna Cauley who is in her first year of teaching at Cleveland says that students separate when some have difficulty understanding English. However, the frequency of language barriers that limit interaction has decreased, according to Jill Tart. At South Johnston, Byrd says reduced barriers have changed patterns of interaction over the past decade. When he first arrived he observed open tensions between students of different racial groups. Hensey says this prejudice extended to faculty, too. Recounting an incident when he first came to South Johnston in1999, an established teacher at the school came to his room and switched a student into Hensey's class, complaining, "I don't want any kid with the last name Ramirez because he's going to screw up my average."

Since that time Byrd and Hensey have seen an improvement in student and teachers' acceptance of Latino students. Byrd says that this often happens when students live in the same neighborhood. Students will find they share an interest in the same music and quickly become friends, he says. Byrd calls this the "Eminem effect" after the well-known white rapper from Detroit. Byrd says that the common interest students find quickly overcomes racial prejudice. Often sports teams facilitate interaction that bridges groups at school, says Byrd.

At the upper level Tart says students of all races—black, white, and Latino—tend to mix. Students who are enrolled in her classes are more interested in finding students with common interests than with common races, says Tart, and many of her students share a common interest in academics. Still, Tart recognizes that this does not prevent initial separation. Near the beginning of the year Tart says students will sit in racially homogenous groups and, given the choice, will work in single race lab groups. However, if she assigns lab groups that mix

established student cliques, students randomly assigned to a group of mixed-race peers will become friends. Moreover, students will actually begin choosing different seats in class, outside of homogenous groups.

At Cleveland, Yates says students are encouraged to become involved in athletics and clubs and even in extracurricular activities that occur during the school's power lunch period. Like Jill Tart at South Johnston, Yates finds that students tend to interact with peers of different races more frequently when they are stronger academic students. When students are focused on academics, says Yates, racial lines tend to "blur." Still, Tina Ambrose, another second-year teacher at Cleveland, finds that in her experience students do not have the opportunity to mix. She sees her students mostly in class, and there they sit in assigned seats.

TABLE 10:

Overview of Changes in Extracurricular Heterogeneity, 2000-2010

	Change in average extracurricular heterogeneity 2000-2005	Change in average extracurricular heterogeneity 2005-2010	Change in average extracurricular heterogeneity 2000-2010
Jordan-Matthews†			
Yearbook data	Increase*	Increase*	Increase**
Faculty observations	Increase	Increase	Increase
Northwood			
Yearbook data	Decrease	Decrease*	Decrease*
Faculty observations	Decrease	Remains low	Decrease
South Johnston			
Yearbook data	Increase*	Increase*	Increase**
Faculty observations	Decrease	Increase	Increase
Cleveland			
Faculty observations	N/A	No change	No Change

†Jordan Matthews' yearbook date reflects changes from 2000-2004, 2004-2008, and 2000-2008

*15% or greater increase based on yearbook data

**25% or greater increase based on yearbook data

The extent of interracial interaction in different activities and in different school structures varies widely. Table 10 considers differences between trends in yearbook data and faculty observations. What is common to both observations is that when students come in contact with peers of different races, they do tend to continue to interact. At all four schools teachers

have noticed a trend towards greater interracial hostility and decreased interracial interaction in the past decade. However, at Jordan Matthews and South Johnston, teachers have also noticed a contradictory trend towards greater interracial contact in classes and extracurricular activities as second generation Latino students begin to overcome language barriers. In these environments, teachers find there is greater potential for interracial interaction.

VI. DISCUSSION

Phillip Little at Northwood best described the process of understanding interracial interaction at high school. It is complex; there are a lot of different factors that determine how students group themselves at a given time and part of it is the location of the class, some of it relies on whether or not students ride the bus, and even more of the process of grouping relies on the schedule at that particular moment. Students are constantly in flux in cafeterias, and their membership and continued involvement in clubs and sports depends on a number of variables. It is tough to fully understand what motivates a student's membership in a group, but at a school-wide level certain trends emerge from the data collected in this study.

Charles Clotfelter, Jacob Vigdor, and Helen Ladd found that segregation is increasing at many schools in North Carolina. This study's findings support their research at schools that experienced an insignificant increase in Latino enrollment, but at Jordan Matthews and South Johnston, segregation indexes for extracurricular activities decreased from 2000-2010. Over the ten-year period schools with growing Latino enrollment have experienced changes in the regularity of interracial contact that were not present at Northwood, the only low Latino enrollment school with time variable data in the study. However, comparing cafeteria seating patterns, all four schools exhibit more similar indexes of interracial interaction.

TABLE 11:

Summary of Expected v Actual Data Collected in Cafeteria and Yearbook Observations

	Expected		Actual Change	
	Change in Black/White Exposure in Organizations	Black/White Exposure in Cafeteria Seating	Change in Black/White Exposure in Organizations	Black/White Exposure in Cafeteria Seating
Jordan-Matthews	Increased interaction	Insignificant variation from random seating patterns	Increased interaction	Insignificant variation in white/black and black/Latino seating. Pronounced variation in white/Latino seating
Northwood	No change	Significant variation from random seating patterns	Decreased interaction	Significant variation from random seating*
South Johnston	Increased interaction	Insignificant variation from random seating patterns	Increased Interaction	Highly significant variation from random seating
Cleveland	N/A	Significant variation from random seating patterns	N/A	Significant variation from random seating

*Lower variation among Latino and black students. This is likely a result of low Latino enrollment; the potential for deviation is reduced.

Even within schools, discrepancies arise between the various measures of interracial contact, and observations diverge from initial hypothesis as Table 11 demonstrates. While this study's analysis of cafeteria seating patterns suggests that black and Latino peers are more likely to interact than white and Latino peers, teachers at both high Latino population schools said there was greater tension and less racial mixing between black and Latino peers than between white and Latino students. Part of this evaluation of students' interactions may be a result of smaller relative numbers of black students and thus a decreased opportunity to observe black and Latino interaction, but that faculty considered the two groups to exhibit animosity contradicts dynamics of interaction observed in schools' cafeterias.

In the last ten years both Chatham and Johnston counties have experienced significant population growth. Part of this growth results from increases in the counties' Latino populations, but an influx of new families that have led to overcrowding at Northwood and the construction of Cleveland, a new high school in Johnston County, have also changed the two counties'

characters. The communities around all four schools observed have undergone significant changes in the last decade, and it is important to note that the resulting changes at schools with small versus large Latino populations are different.

Consistent with James Moody's findings, greater interracial contact tended to occur at schools with greater racial heterogeneity. Jordan Matthews, the school with the greatest racial heterogeneity, 0.66, lay just above Moody's predicted ideal heterogeneity to facilitate interracial contact, 0.65. However, Jordan Matthews also exhibited some of the most significant deviations from random seating patterns among white and Latino students in its cafeteria, and faculty at the school described racial tension that led to violence in greater concentrations than at any other school. Still, the school demonstrated decreases in segregation indexes on its sports teams between 2000 and 2008. While it is clear that population growth, and especially increases in Latino enrollment have affected dynamics of interracial contact, the impact new populations make at schools are not obviously generalizable.

At Northwood the student population has grown slightly overall and the sizes of black and white populations have remained the same proportionally. However, at the school segregation has steadily increased in extracurricular activities. Teachers at Northwood have not observed any significant conflicts in the student body, buy Henry Foust says overall, black students' participation in the school and in student council decreased in the late 1990s as the community began to grow, and has remained low ever since. The small number of Latinos at the school is similarly underrepresented in extracurricular activities.

In contrast, significant increases in Latino enrollment at Jordan Matthews and South Johnston have led to visible racial tension and violence at those two schools. Simultaneously, segregation in extracurricular activities at both schools increased as Latino students began to arrive in significant numbers before decreasing to levels that indicate less de facto segregation

between students involved in extracurricular activities than before Latino students' arrival. Teachers' observations of dynamics at the two schools seem to echo these changes. Many teachers indicate there was initial animosity between black, white, and Latino students, especially in the earlier part of the decade, but that racial tensions have since decreased. Further, teachers observe that academically motivated and successful students are less likely to be divided by race, and in the past ten years the number of Latino and black students in AP and honors classes has increased. As the number of non-white students in advanced classes has grown, racial tensions have decreased and teachers like Jeremy Byrd have observed greater interracial interaction and cultural sharing.

Policy Implications

It appears that greater diversity alone cannot motivate increased interracial contact. In fact, the introduction of a third major racial group can actually increase racial tension present at a school. However, as Allport's contact theory suggests, when students of different races come together in pursuit of a common goal under supportive supervision, productive contact occur. In honors courses and on sports teams, these necessary structures exist and faculty at both Jordan Matthews and South Johnston recognize increased interracial contact and decreases in racial tension.

Much of the increase in Latino students' enrollment in honors curriculum has come from greater English proficiency. In order to facilitate meaningful interracial interaction schools must encourage students to become involved in those areas most conducive to encouraging contact. School administrators should aim to increase non-white students' enrollment in extracurricular activities and honors curriculum. Non-white students are often underrepresented in these areas, but as their participation increases racial isolation at schools decreases and interracial interaction creates a school community with greater cultural exchange.

Appendix A:
Faculty Interview Questions

- Basic background information (if not available prior to the interview) including how long he/she has worked at the school.

- How do you typically come into contact with students? How often?

- Do you often see ethnically and racially diverse groups together, or are there separate smaller racial and ethnic groups?

- Do these student groups form around a common activity? How do they begin?

- Do you know of any major tensions in the student body? Are there ever fights?

- Has the ethnic composition of groups students hang out in changed since you began working?

- How has the growth of the Latino student population influenced social and academic life at the school?

- Does the school take specific action to facilitate students' interaction with a broad range of their peers? How?

- Can you give examples of where and in what activities students of different races come in contact?

- What role do sports teams and clubs play in daily school life? Does club and team membership guide students to specific social groups?

Appendix B:
Faculty Interviewed

Jordan Matthews

- Tammy Johnson-Moore; *Guidance Counselor for eight years; Former student*
- Rose Pate; *Librarian*

Northwood

- Henry Foust; *General Spanish I; Student Council Advisor; 27 years at Northwood*
- Philip Little; *Social Studies Department Chair Person; Teacher for 13 years: World History, Civics and Economics, Military History, Physics, Astronomy and Physical Science*
- Sharon Mercer; *Career Development Coordinator; 29 years at Northwood*

South Johnston

- Jeremy Byrd; *Teacher for six years at South Johnston: English I, II, and III; Soccer Coach; Former student*
- Chuck Hensey; *Teacher for 13 years: US History, Civics, World History, Honors Civics, Honors World History, Mass Media, AP European History, Honors Psychology*
- Jill Tart; *Teacher for 12 years: Chemistry I, Chemistry II, Physical Science; Former Student*
- Joan Tart; *Teacher for 26 years: Family and Consumer Sciences*

Cleveland

- Tina Ambrose; *2nd year at Cleveland, formerly at West Johnston; Teaches Geometry and Algebra I*
- Donna Cauley; *1st year at Cleveland, 21 years teaching in Johnston County; Teacher and Cheerleading Coach*
- Diane Clifton; *Taught at Clayton for 26 years, 2nd year at Cleveland; Teaches Honors Pre-Calculus and Algebra II*
- Terri Yates; *Taught at South Johnston for 20 years, 2nd year at Cleveland; Teaches all sciences offered, from low-level to AP, excluding Physics*

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