Disproportionate Minority Contact
in the North Carolina Juvenile Justice System Assessment Report

March 2013

WINSTON SALEM STATE UNIVERSITY

The Center for Community Safety

Safeguarding the Community Ideal through Data-Driven Collaboration

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About the Cover

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Disproportionate Minority Contact (DMC) in the North Carolina Juvenile Justice System Assessment Report

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Executive Summary

The 2012 Disproportionate Minority Contact (DMC) in the North Carolina Juvenile Justice System Assessment Report was sponsored by the North Carolina Department of Public Safety—Governor's Crime Commission (GCC) in compliance with the Office of Juvenile Justice and Delinquency Prevention (OJJDP) requirement that the Formula Grants Program address DMC on an ongoing basis. The report completes the first two phases of the requirement by determining the extent to which DMC exists and assessing its "contributing mechanisms." In doing so, the report provides the foundation on which the remaining three phases (intervention, evaluation, and monitoring) can be implemented.

Although the above requirement is not new, the intentional focus on the completion of a statewide assessment of DMC has resulted in a number of reports. It is our hope that this report will add to the body of knowledge and understanding about DMC, while also stimulating the participation and support of diverse youth serving systems.

A mixed methods research design that integrated the collection and analysis of quantitative (i.e., secondary) and qualitative (i.e., primary) data was used for this assessment. Quantitative data were provided by the North Carolina Department of Public Safety, Division of Juvenile Justice (DPS-DJJ) and consisted of juvenile complaint data from the 2011 calendar year. The data were retrieved from the Centralized North Carolina Online Information Network (NC-JOIN). Qualitative data were collected about contributing mechanisms to DMC via focus groups that consisted of juvenile justice practitioners and stakeholders in each of the state's four regions. Quantitative and qualitative data were reviewed in order to examine how they corroborated each other and addressed contributing mechanisms.

Quantitative Phase

The quantitative phase consisted of three statistical analyses to identify and determine the factors that influence DMC: bivariate analysis, one-way analysis of variance (ANOVA), and multivariate regression analysis (i.e., Cox Regression/Survival Analysis). The statistical analyses examined race/ethnicity and other variables (i.e., age, gender, type of offense/severity, location, risk and needs scores, etc.) across seven decision points along the juvenile justice continuum per unit of time: (a) complaints approved; (b) cases diverted; (c) cases closed; (d) cases adjudicated; (e) cases dismissed; (f) cases disposed and (g) probation. The analyses were

also performed on data from the five most populous counties (i.e., Cumberland, Guilford, Forsyth, Mecklenburg, and Wake) as well as 20 other counties that met the criteria of having both a sizeable White population and a sizeable non-White population**. (Note: Adequate data to analyze secured custody decisions was not available during the time of this study and thus, are not included in this report.)**

Qualitative Phase

The qualitative phase used thematic analysis to identify relationships and concepts that emerged from focus groups. Six (6) focus groups were convened in the following counties: Forsyth County (Winston Salem), Mecklenburg County (Charlotte), Buncombe County (Asheville), Durham County (Durham), Cumberland County (Fayetteville), and New Hanover County (Wilmington). The participants included law enforcement, judges, clergy, social and mental health services professionals, and school resource officers.

As presented herein, the qualitative findings were organized by themes and subthemes, which aligned with DMC contributing mechanisms. The themes provide a richer understanding into factors that impact DMC and involvement in the juvenile justice system. The themes were used to develop a conceptual model that identified prevention and intervention strategies targeted at youth, adult, and systems.

Key Relevant Findings

As a response to OJJDP's mandate to states to address DMC on an ongoing basis, this study aimed to determine the extent to which DMC exists in NC and assess its contributing mechanisms. A mixed-methods research design that integrated the collection and analysis of quantitative and qualitative data was used. The study's key findings are presented below.

1. **<u>Disproportionate Minority Contact by Referral Source</u>**

Although data regarding referral source was not provided for the quantitative analysis, the qualitative findings do suggest that there are discretionary practices that may occur prior to intake. For example, several participants suggested that individuals employ subjective evaluations within the school system and law enforcement; these are often embedded in a larger context that shapes attitudes and beliefs about specific ethnic/racial groups. As a result, Black and Hispanic youth's behavior is perceived differently, which affects whether they are referred to

the juvenile justice system. Piquero (2008) argues that disparities may occur earlier in the judicial process through contacts with law enforcement outside the juvenile justice system. Early contact and risks may contribute to findings associated with the statewide RRI at the referral/complaint stage.

2. **Disproportionate Minority Contact by Counties**

In Buncombe, New Hanover, Gaston, and Wayne counties, there is evidence of disproportionate treatment of Blacks. In those counties in particular, data from subsequent years should be analyzed to determine whether the pattern of disproportionate treatment is consistent. If there is evidence of disproportionate treatment of Blacks over multiple years, further action should be taken by the DPS-DJJ or the Governor's Crime Commission.

3. **Disproportionate Minority Contact by Decision Points Within the Juvenile Justice System**

Although there is a lower likelihood of diversion statewide for Blacks, there is evidence to support that Blacks are less likely to be diverted in Buncombe, New Hanover, and Wayne counties. A strong predictor of whether or not a juvenile has their complaint diverted is whether or not there are prior offenses. Since Blacks are more likely to have prior offenses, they are less likely to have their complaint diverted. The needs score and the location where the incident occurred[1] are also contributing factors. Blacks and Hispanics are also less likely than Whites to have their complaint closed at intake. Blacks are also less likely to have their case dismissed.

American Indians are more likely than Whites to have their complaint approved to be heard in front of a judge. However, at other key decision points in the juvenile justice system statewide, including the approval and adjudication stages, racial minorities have lower rates than Whites or there is no significant difference between the rates of Whites and the rates of racial minorities. This clearly demonstrates that progress in reducing DMC is taking place.

4. **Contributing Mechanisms to Disproportionate Minority Contact**

The quantitative and qualitative findings converge around specific risks that are linked to involvement in the juvenile justice system. Quantitative findings revealed that higher risk scores were associated with approval and disposition. That is, youth who had higher risk scores were

[1] Complaints where the incident occurred on school grounds were more likely to be diverted than complaints at a residential or other location.

less likely to be diverted and more likely to be approved and then disposed within the juvenile justice system. As mentioned previously, the risk score is used as an indicator to assess the risk of a juvenile re-offending. Risk factors include previous involvement with the juvenile justice system, runaway behavior, home placement, substance use/abuse, school behavior, peer relationships, and parental supervision and prior history (first intake referral, prior assaults and delinquent referrals).

Qualitative findings, specifically the theme *An ecology of risk factors for youth contributing to DMC,* further corroborate these conclusions. Several participants mentioned key risk factors such as history of suspension, substance use/abuse, and family issues such as perceived lack of parental supervision. Participants suggested behavior that results in suspension is often a precursor to juvenile justice involvement; and, unfortunately, from their perspective, a disproportionate number of minority male youth are affected. The relationship between substance use/abuse and DMC also emerged from the qualitative analysis; participants perceived the use of alcohol and other drugs as a contributor to a youth's involvement in the juvenile justice system. Although home placement and parental supervision are framed differently within the risk score, from the participants' perspective, the family served as an important factor in contributing to youth involvement in the juvenile justice system. Because risk and disparity often begin prior to youth reaching the juvenile justice system, it is important to assess protective factors present in families and communities. Previous research on risk and protective factors suggests that, through prevention and intervention, pathways to offending and other high-risk behaviors can be altered. Scholars in the area of risk and resilience recognize that it is equally important to pay attention to the competencies, strengths, skills and assets of youth as it is to note factors that make youth at risk (Schoon & Bynner, 2003).

Limitations

Although the quantitative findings expand the understanding of specific factors connected to DMC across decision points, there are several limitations associated with this study. As a study utilizing secondary data, the quantitative analysis is limited to the constructs and variables available through the NC-JOIN database. Also, as the study analyzed data only from the 2011 calendar year, it is difficult to adequately measure recidivism rates. Therefore, this study does not examine factors that affected recidivism over time. Further, information was not collected on attendance at primary or secondary prevention programs.

One key limitation is the lack of available data on key independent variables that could significantly affect DMC. Information was not available on family income, school attendance, grade retention, or suspension/expulsion. The risk and needs composite scores are a helpful but limited measure of DMC.

Data on prior complaints was also limited. For example, specific details were not provided on prior complaints (i.e., date, location, type of offense, and charge class), referral source (e.g., referring agents can be school officials, parents, other governmental or nonprofit agencies), or detention length. Such limitations may prevent the understanding of why Blacks are overrepresented at the complaint stage; the researchers were unable to explicitly link the relationship between supervision and complaints. Another point is that the decision point with the largest disparity is at the referral stage. Blacks and Hispanics were much more likely to have a complaint filed against them than Whites. However, as noted earlier, information about referral or complaints prior to the intake was not included in the NC-Join data set made available for this study.

It is important to note that other states (i.e., Connecticut) collect data on referral sources and identify it as an essential contributing factor to DMC. Furthermore, this study had data only on the county where the offense was committed, not the neighborhood or even the county of residence of the juvenile. Additional information about the residential status of the juvenile may have shed light on geographical clustering in the pattern of complaints. For example, if law enforcement tends to concentrate its resources in specific areas where Blacks and Hispanics are more likely to live, then it is possible that disparities may begin to emerge at this point of contact.

The qualitative findings that emerged from this study provided a richer understanding into factors that lead to and prevent DMC across the state of North Carolina. However, there are several limitations associated with the qualitative phase of this study. For one, there is a degree of selection bias among the focus groups. Not all participants who were solicited to participate (n = 81) actually participated, and responses were only reflective of those individuals who volunteered (n = 55). Although the research team took efforts to identify a substantive diverse group of stakeholders across regions and counties, group members varied. It was intentional that the research team sought to conduct focus groups with SRO's in each region. SRO's are the major point of contact with many at-risk youth in the school system. However, due to the

inability to schedule SRO's from area schools at the same time, the SRO focus groups occurred in only two of the four regions. The diverse groups did occur in each county consisting of judges, court counselors, mental health clinicians, SROs, social workers and representatives from other community agencies. Representation concerning the type of stakeholders and experts varied from county to county. As a result, these findings cannot be generalized across any specific subgroup in the juvenile justice system or larger community agency.

It is evident that findings that emerged from the qualitative phase of the study are limited to the unique experiences and perspectives of those who participated in the focus groups. Although the research team made efforts to recruit other stakeholders such as judges and district attorneys, only 7% of the participants reflected court attorneys/judges. The study did not include other stakeholders (i.e., parents, and youth) and thus the findings are limited to the representativeness of the sample. There was a very short turnaround time to collect the primary data, conduct the analysis and disseminate the findings. Thus, the research team deemed it unrealistic within the given time frame to work with community-based and/or governmental agencies to recruit both parents and youth particularly considering that youth would require additional time to obtain parental consent (assent) for their participation. However, the findings associated with risk factors (i.e., neighborhood factors, family, and school behaviors) corroborate previous research that used focus group data from youth participants (Graves et al., 2008). The analysis also does not delineate different perspectives across individual subgroups (i.e., SROs vs. non-SROs, females vs. males, and across racial/ethnic groups) about DMC or across varying regions in North Carolina. Therefore, an understanding of how perceptions and experiences vary across these characteristics is not provided.

Despite these limitations, the themes that emerged from focus groups appear to corroborate research on risk factors that lead to DMC (Freiburger & Jordan, 2011; Nicholson-Crotty, Birchmeire, & Valentine, 2009; Rodriguez, 2010) and intervention and prevention programs that reduce involvement in the juvenile justice system (Irvine, 1992; Tebes et al., 2007; Vance, Fernandes, & Biber as cited in Tobin & Sprague, 2000). The findings also contribute to the body of research and dialogue surrounding DMC and corroborate previous studies on risk factors associated with DMC and decision points within the juvenile justice system. Findings may support the need to assess the relationship between school policy and practices and DMC and programs currently implemented in the state that address youth involvement in the juvenile

justice system. Finally, the use of mixed methods allowed the research team to develop a conceptual model to understand (a) factors that may contribute to DMC; (b) factors that may reduce DMC; and (c) the importance of improving accountability across multi-systems. Future research may move analysis into embedded and hierarchical designs that can assess DMC across varying levels and factors that make youth at risk (Schoon & Bynner, 2003).

Recommendations

A major goal of the mixed methods design is to demonstrate how quantitative and qualitative data merge across analysis and findings. Using this integrated approach, the following recommendations were developed to assist North Carolina in addressing DMC through programmatic and systemic channels.

1. Enhance the NC-JOIN data collection system by including juvenile referral sources prior to intake (e.g., the referral originated by a school resource officer) (SRO). The decision point with the largest disparity was at the referral stage, where Blacks and Hispanics were more likely to have a complaint against them than Whites. However, limited data on prior complaints (e.g., date, location, type of offense, and charge class), referral source (e.g., referring agents can be school officials, parents, and other governmental or nonprofit agencies), and detention length may prevent the understanding of why Blacks were overrepresented at the complaint stage. It is important to note that while data regarding referral source was not provided for the quantitative analysis, the qualitative findings do suggest that there were discretionary practices that may occur prior to intake.

2. Undertake additional analysis in Buncombe, New Hanover, Gaston, and Wayne Counties to corroborate findings[2] in this assessment and determine whether any trends exist that would necessitate further examinations. If there is evidence of disproportionate treatment of Blacks over multiple years, further action should be taken by the DPS-DJJ or the Governor's Crime Commission.

[2] In Buncombe, New Hanover, and Wayne counties, Blacks are significantly less likely to have their case diverted than Whites, even after taking into account the independent variables. However, in Gaston, Blacks are significantly more likely to have their case approved than Whites, even after taking into account the independent variables.

3. Encourage the JCPCs in the 25 counties (that met the threshold[3] for county analysis) to work with the State DMC Committee to identify resources and interventions.

4. Conduct analysis using secured custody data for juvenile complaints.

5. Examine several years of data over time to measure recidivism; since only data for the calendar year 2011 was available for this study.

6. Design future research on North Carolina's DMC that pays special attention to the American Indian juvenile population. Although their numbers may be considered small (i.e., less than 2% of this study's sample), this population had the highest approval and adjudication rate among all racial and ethnic groups (see Tables 4 and 11, respectively).

7. Propose that the State DMC Committee use the findings and recommendations from this assessment to create a statewide DMC reduction strategy based on OJJDP DMC reduction strategies.

The report concludes with a discussion and recommendations for improving intervention, training, policy, and practice (see Figure 4).

[3] Counties which have at least 50 complaints where the juvenile was White and at least 50 of each racial/ethnic minority group.

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Introduction

Overrepresentation of minority youth in the juvenile justice system is a significant social problem affecting American society. Minority youth comprise 39% of the juvenile population in the United States; representing 65% of the nation's detained youth (Puzzanchera, Sladky, & Kang, 2012). Findings from the National Council on Crime and Delinquency (2007) indicate that Black youth comprise 16% of youth in the general population but 30% of juvenile court referrals, 38% of youth in residential placement, and 58% of youth admitted to state adult prison. Furthermore, Black youth were detained at 4.5 times the rate of White youth, while Hispanic youth were detained at 2.3 times the rate of White youth.[4] Arrest data from the Bureau of Justice Statistics reports that Blacks younger than 18 comprise 16% of the general population, yet they account for 51% of juvenile violent arrests and 33% of property arrests (Puzzanchera & Adams, 2011). Overrepresentation of minority youth in the juvenile justice system reduces these youths' ability to be engaged in their schools, homes, and communities or to adequately prepare to make productive lifelong contributions to society. The North Carolina Department of Public Safety Division of Juvenile Justice (2011) reports that Blacks represent approximately 26% of the juvenile population; however, they account for 50% of juvenile complaints.

This report and the research it is based on were funded as one of several continuing initiatives through the NC Governor's Crime Commission (GCC) aimed at reducing disproportionate minority contact (DMC). GCC commissioned an assessment study aimed at exploring (a) the specific decision points DMC exists and (b) contributing mechanisms for disproportionate minority contact (DMC) at the relevant decision points.

As prescribed by OJJDP, North Carolina uses the required Relative Rate Index (RRI) to report DMC data. This method involves comparing the incidence rate of the focused activity for minority youth at each major stage (decision point) of the juvenile justice system to the incidence rate of activity for White youth. The RRI is now the primary indicator by which states identify where DMC exists. The further away from a value of 1.00, the less likely DMC occurred as a random process.

[4] Throughout this document the term "Black" is used instead of the term "African-American." The research team also used the term "Hispanic" to refer to Latino/a individuals, the term "White" to refer to Caucasians, the term "Asian" to refer to "Asian Americans and other Pacific Islanders," and the term "American Indians" to refer to Native Americans and Alaskan Natives.

In North Carolina, the 2011 fiscal year RRI values for all minorities (Black, Hispanic, American Indian, Asian) were statistically higher than 1.00, indicating disproportionate minority contact in five of the eight applicable decision points in the North Carolina juvenile justice system. Two RRI values were acceptable, and one did not meet the size criteria. The respective decision points and their related RRI values are provided below:

North Carolina Decision Points	**2011 RRI Values for All Minorities**
Juvenile Complaints	2.43
Cases Diverted	0.88
Cases Involving Secure Detention	1.69
Approved Complaints (Cases Petitioned)	1.06
Cases Resulting in Delinquent Findings	0.98
Cases Resulting in Probation Placement	1.00
Cases Resulting in Confinement	2.89
Cases Transferred to Adult Court	** (Below Criteria)

The goal of this report is to expand current knowledge about DMC in NC beyond the use of the RRI. To accomplish this, a mixed methods research design that integrated the collection and analysis of quantitative and qualitative data was used for this assessment. Quantitative data were provided by the North Carolina Department of Public Safety, Division of Juvenile Justice (DPS-DJJ) and consisted of juvenile complaint data from the 2011 calendar year. The data were retrieved from the Centralized North Carolina Online Information Network (NC-JOIN). Qualitative data were collected about contributing mechanisms to DMC via focus groups that consisted of juvenile justice practitioners and stakeholders in each of the state's four regions.

While recognizing that the relevant findings should be viewed in light of the limitations of the study, research suggests that youth within the North Carolina juvenile justice system are impacted by policies and practices that occur across various levels, to include schools, courts, law enforcement, and social service agencies. Consequently, all of these systems must work in concert with the youth, families, and other support networks to identify and determine the appropriate responses to reduce DMC wherever it may occur.

Literature Review

Legislative Historical Overview

In the 1988 amendment to the Juvenile Justice and Delinquency Prevention (JJDP) Act of 1974 (Public Law 93-415,42 U.S.C. § 5601 et seq.), Congress mandated that the Office of Juvenile Justice and Delinquency Prevention (OJJDP) require that all states participating in formula grant programs (Title II, Part B, of the Act) address disproportionate minority confinement (DMC) in their state plans. States would "address efforts to reduce the proportion of juveniles detained or confined in secure detention facilities, secure correctional facilities, jails, and lockups who are members of minority groups if such proportion exceeds the proportion such groups represent in the general population" (Public Law 93-415, 42 U.S.C. 5631 § 221b-23, 1988). OJJDP defined minority populations as Black, American Indian, Asian, Pacific Islander, and Hispanic. The 1992 re-authorized JJDP Act amended DMC as a core requirement for states to receive federal funding.

To assist states with compliance, OJJDP implemented *The DMC Initiative* from 1991 to 1994. North Carolina was one of five model states[5] that received funding to identify the extent of DMC within their jurisdiction, assess contributing factors, and develop and implement strategies to address it. Each state yielded unique findings (e.g., Iowa's study indicated that minority youth were overrepresented in secure facilities, while Black juveniles in Florida were overrepresented at every stage of the juvenile justice process) (Devine, Coolbaugh, & Jenkins, 1998). A study conducted by Caliber Associates (1996) of North Carolina revealed that minority youth were more likely to have been arrested, detained, and committed to a training school in the majority of counties.

By 1992, it was apparent that disproportionate minority representation was not limited to secure detention and confinement; rather, it was evident at nearly all contact points on the juvenile justice system continuum (Hamparian & Leiber, 1997; Pope & Feyerherm, 1990). As a result, disproportionate minority confinement was broadened to encompass disproportionate minority contact. Additional changes regarding DMC emerged in the reauthorized 2002 JJDP Act (Public Law 93-415, 42 U.S.C. 5633, 2002), wherein states were required to "address juvenile delinquency prevention efforts and system improvements efforts designed to reduce,

[5] The five states were Arizona, Florida, Iowa, North Carolina, and Oregon

without establishing or requiring numerical standards or quotas, the disproportionate number of juvenile members of minority groups who come in contact with the juvenile justice system" (Public Law 93-415, 42 U.S.C. 5633 § 223a-22, 2002).

The 1988, 1992, and 2002 amendments to the JJDP Act enabled Congress to provide "both the 'carrot' in the form of financial incentives and the 'stick' in terms of requirements for eligibility for states to assess the extent of minority overrepresentation in the juvenile justice systems" (Kempf-Leonard, 2007, p.72). In North Carolina, during the fiscal year 2004, four demonstration counties (New Hanover, Union, Forsyth, and Guilford) were selected by the Governor's Crime Commission (GCC) to develop plans to address minority overrepresentation. Each county had the flexibility to develop customized DMC strategies. Union county capitalized on rural composition and focused efforts on educating residents about DMC and identifying gaps in services; meanwhile, Guilford County completed a comprehensive suspension and expulsion report that measured disproportionate minority suspensions using the RRI.

Forsyth County's demonstration project gathered aggregate data from schools, law enforcement, and the Division of Juvenile Justice and Delinquency Prevention. The report included the RRI for arrests, which was 6.0, meaning that Blacks were six times as likely as Whites to be arrested. At the complaint level, the RRI for Blacks in 2005 was 4.4. However, the RRI at the approval decision point was only 0.96, meaning that Blacks were actually less likely than Whites to have their complaint approved. Therefore, the disproportionality in Forsyth County was not a result of the decision of intake counselors but rather occurred outside of the juvenile justice system.

New Hanover's demonstration project examined multiple portals of entry into the juvenile justice system and concluded that DMC exists at most decision points, with specific applications to African American youth; and DMC is more significant at certain decision points than at others (Frabutt & Hefner, 2007). In regard to a series of focus group sessions conducted with juveniles, parent, teachers and school administrators, court counselors, and school resource officers, findings indicated a need to improve communication between parents and school personnel.

Previous Research on Contributing Mechanisms to DMC

National attention to DMC, legislative mandates, and federally funded evaluations have resulted in a number of studies. Pope and Feyerherm (1990) conducted a meta-analysis of DMC-related literature published between 1969 and 1989. Their review of 46 research studies uncovered considerable differences in the processing of minority youth within the juvenile justice system. Approximately two-thirds of the studies indicated that racial status made a difference at select stages of juvenile processing; therefore, the authors surmised that differences could not be attributed solely to legal characteristics, poverty, or educational factors. A subsequent meta-analysis conducted by Pope, Lovell, and Hsia (2001) from 1989 through 2001 mirrored Pope and Feyerherm's earlier findings, which demonstrated that race was a factor in the processing of youth in the juvenile justice system. However, the former review differed in that a greater proportion of the studies was conducted with a multivariate analytic technique and showed "mixed" effects (i.e., race effects present at some decisions points but not at others).

Despite the overrepresentation of minorities in the juvenile justice system in many states, there is recent evidence that the juvenile justice system does not treat minorities differently at various decision points. Freiburger and Jordan (2011) examined the effect of race on the decision to petition a case in the juvenile court system in West Virginia. Results indicated that legal variables (i.e., type of offense, severity of offense, priors, and law enforcement referral) had the strongest influence on the likelihood of a petition, and race was not a significant factor. In Maryland, a statewide DMC study conducted by Young, Yancey, Betsinger, and Farrell (2011) assessed the extent of DMC at different stages. Results indicated that race was not a factor at the detention stage; however, Blacks were more likely to have their case approved than Whites were.

Connecticut's most recent assessment of DMC (2009) found large differences by race in the number of referrals, but there were no racial differences in the handling of cases, court outcomes, rates of adjudication, or placement in secure confinement. This suggests that in Connecticut, DMC largely occurs at the point of referral and is not the result of decision making within the juvenile justice system (Richetelli, Hartstone, & Murphy, 2009). In Arizona, Rodriguez (2010) found that Blacks were treated more leniently at the adjudication stage. However, Blacks, Hispanics, and American Indians were treated more severely than Whites at the diversion and detention decision points.

Mixed Methods Studies of DMC

For many years, researchers have advocated the use of a mixed method approach when identifying and assessing DMC (Graves et al., 2008; Kakar, 2006; Pope & Feyerherm, 1995). Qualitative analyses can corroborate quantitative findings while providing a more in-depth understanding of the contributing mechanisms to DMC. In a mixed methods study of DMC in Virginia, McCarter (2009) found that Black males were more likely than White males to be incarcerated, even after controlling for crime severity, prior offenses, and the juvenile's educational record. However, race had no impact at the diversion stage. Blacks and Whites were equally likely to be diverted once crime severity was taken into account. Despite the quantitative findings, qualitative analysis revealed that stakeholders perceived race as an important factor at the diversion stage.

Stone-Motes, Nurse, Melton, and McDonnell (2012) used a mixed methods approach for their assessment of DMC in the state of South Carolina. They found that Blacks have lower rates of approval than Whites, but a higher likelihood of arrest (ibid, 2012). Blacks in South Carolina are also less likely than Whites to be diverted. From their focus groups and in-depth interviews, the authors were able to identify resource gaps in specific communities that may have contributing to DMC. In particular, they found that many of the Blacks in the juvenile justice system had witnessed traumatic events and had no access to mental health services to help them deal with the trauma. Partially as a result, they acted out in frustration, which led to their involvement in the juvenile justice system.

Methodology and Research Design

This study utilizes a mixed methods approach to assessing DMC. A rigorous assessment of secondary data from NC-JOIN was provided to examine the following decision points: complaints, diversion, approval, adjudication, disposition, and probation. Qualitative assessment seeks to uncover factors related to contributing mechanisms. The two methodological approaches were intentionally integrated to draw on each other's strengths. The strength of quantitative data was that it was descriptive, allowing researchers to capture a snapshot of the juvenile justice population in North Carolina. Qualitative data help researchers understand processes, especially those that emerge over time, provide detailed information about context, and emphasize the voices of expert juvenile justice stakeholders through quotes. Qualitative

methods can facilitate the collection of data when measures are limited, and they contextualize complex concepts such as DMC.

An Institutional Review Board (IRB) application was submitted at the home institution of the Center for Community Safety, Winston-Salem State University by the study's co-principal investigator and approved May 2012. The IRB application was inclusive of the mixed methods approach, outlining the use of secondary data from NC-JOIN and primary data via focus groups.

The preliminary findings of the report were disseminated by webinar to the NC Governors Crime Commission, NC State DMC Committee, Forsyth County DMC Committee, DPS-DJJ staff, and focus group participants. Participants were recruited to join the statewide webinar via e-mails that were tracked with the delivery receipt and read receipt options. In addition, the CCS DMC project team provided the preliminary results via oral presentation at the State DMC Committee in Charlotte on November 28, 2012; the Forsyth DMC Committee in Winston Salem on December 6, 2012; and the Commissions meeting of the NC Governor's Crime Commission in Raleigh on December 7, 2012. Participants were able to comment on the preliminary findings and offer suggestions and recommendations for inclusion in the final report.

Quantitative Data Source

The quantitative data for this report were retrieved from the North Carolina Online Information Network (NC-JOIN). Information from delinquent and undisciplined juveniles was entered into NC-JOIN by an intake counselor (juvenile court counselor). The juvenile court counselor also obtains and enters information gathered by law enforcement (i.e., before the intake) into the database. DPS-DJJ is the agency responsible for managing the information on all juveniles brought to court. This includes the juveniles' demographic and social history, current offense(s) and disposition, and any follow-up involvement with the juvenile justice system.

The characteristics of the sample will be discussed first, and then descriptive statistics of key independent variables will be provided. Bivariate tables for relevant decision points will be presented, followed by a multivariate analysis. The report will present an analysis of decision points in the order in which they typically occur in the North Carolina Juvenile Justice system. First, the researchers will analyze whether or not a complaint was approved. In most serious complaints, the intake counselor will "approve "the filling of a petition, that is, if there is ample reason to believe that the juvenile committed the offense. The next phase involves diversion, which can happen at intake if the complaint was not approved. The North Carolina Juvenile

Justice System permits low-risk juveniles who have less serious complaints to be "diverted" instead of going to court. The third decision point to be examined was adjudication: approved offenses can be adjudicated or not adjudicated (essentially found guilty in a courtroom by a judge). If the petition was proved (i.e., juvenile found guilty), then the disposition follows. At the disposition, the judge decides which of the supervision alternatives was the best fit for the juvenile and the state (e.g., protective supervision, probation, commitment, etc.). This research study will focus on only one type of supervision, i.e., probation.

The study will focus on delinquent offenses only. Status offenses are those that are illegal when committed by a juvenile but not usually punishable by law when committed by an adult. All status offenses were eliminated from the analysis, including truancy, run away (recorded as either in state or out-of-state), ungovernable, or found in places unlawful for a juvenile. Restricting the dataset to delinquent offenses eliminated 2,684 offenses (i.e., status offenses) from the dataset. The North Carolina criminal justice system treats 16- and 17-year-olds as adults. Thus, the researchers choose to focus exclusively on those under the age of 16. The data therefore consists of those between the ages of 6 and 15.

Quantitative Sample Description

The NC-JOIN dataset consisted of 37,140 complaints from the 2011 calendar year. As mentioned earlier, the status offenses were eliminated, and also any individual who was 16 years or older at the time of the offense. Finally, offenses with an undecided/incomplete decision outcome (i.e., received or referred), and any juvenile for which race/ethnicity was unknown were deleted; that left a sample of 33,513 complaints. This sample of complaints included 16,196 juveniles (see Table 1 for a description of the sample).

Among the 16,196 juveniles in the sample (See Table 1), 50% were Black, 38% were White, 9% were Hispanic, 1.6% were American Indian, and 0.8% were Asian (which includes Hawaiian Native and Other Pacific Islanders). These figures reflect race and ethnicity numbers. The numbers themselves reflect DMC in the juvenile justice system in North Carolina, as the population in the state aged 6 to 15 was 69% White, 26% Black, 2% American Indian, and 3% Asian. These state percentages represent only race and not Hispanic ethnicity. In 2011, North Carolina was 13% Hispanic and 87% non-Hispanic. In terms of gender, the working sample was 72% male and 28% female. As a comparison, the state figures for this age group were 51% male and 49% female in 2011 (Puzzanchera, Sladky, & Kang, 2012).

Continuing with the sample demographics shown in Table 1, the sample comprised 72% males and 28% females. Almost 4% percent of the juveniles were ages 6 to 9, almost 8% between 10 and 11, 27% were 12 to 13, and almost 61% were 14 to 15. Twenty percent of the juveniles committed their offenses in North Carolina's Eastern region, 28% in the Central region, 35% in the Piedmont region, and 17% in the Western region.

Table 1: Demographic Characteristics of Sample

	N	%
Race/Ethnicity		
White	6,204	38.3
Black	8,131	50.2
Hispanic	1,469	9.1
American Indian	261	1.6
Asian	131	0.8
Gender		
Female	4,493	27.7
Male	11,703	72.3
Age at Offense		
6	45	0.3
7	125	0.8
8	167	1.0
9	263	1.6
10	460	2.8
11	886	5.5
12	1,698	10.5
13	2,722	16.8
14	4,043	25.0
15	5,787	35.7
Regions		
Eastern	3,233	20.0
Central	4,587	28.3
Piedmont	5,696	35.2
Western	2,680	16.5
Total	16,196	100

The following table shows the ever detained by racial/ethnic group (refer to Table 2). Blacks had the highest percentage of ever detained juveniles, followed by Whites, Hispanics, American Indians, and Asians. Ever detained indicates whether the juvenile was detained prior to the current complaint.

Table 2: Ever Detained by Racial/Ethnic Group

Ever Detained by Race/Ethnicity	N	%
White	395	27.2
Black	923	63.6
Hispanic	100	6.9
American Indian	26	1.8
Asian	7	0.5
Total Ever Detained	1,451	9.0

The next table shows the mean and range for the number of prior complaints by racial/ethnic group (refer to Table 3). Blacks had the highest mean prior complaints, followed by Whites, American Indians, Hispanics, and Asians. Blacks had the lowest percentage, with zero complaints, followed by American Indians, Hispanics, Whites, and Asians.

Table 3: Prior Complaints by Racial/Ethnic Group

Prior Complaints by Race/Ethnicity	Means	Range: 0	Range: 1 to 4	Range: 5 to 9	10 or more+
White	0.65	76.0%	20.6%	2.6%	0.8%
Black	0.98	69.4%	24.3 %	4.6%	1.7%
Hispanic	0.57	78.3%	18.9%	2.2%	0.5%
American Indian	0.87	72.0%	23.4%	3.2%	1.4%
Asian	0.33	83.2%	14.0%	2.8%	0.0%
Total	0.81	72.9%	22.3%	3.8%	1.0%

Quantitative Analytical Strategy

The statistical technique used for multivariate analysis of the relationship between independent variables (control variables and contributing mechanisms) and decision points was survival analysis (i.e., Cox regression). This technique allows for multicausal analysis of both continuous and dichotomous variables. Survival analysis requires that (a) time of origin must be unambiguously defined, (b) there must be a continuous variable measuring the passage of time, and (c) the meaning of "failure time" must be clearly defined and understood (Cox & Oakes, 1984).

In this statistical technique, the focal point was a clearly defined event (i.e., the decision point). The various decision points in the juvenile justice system examined in this study were the following: approval, diversion, closed, adjudication, dismissal, disposition, and probation. In using a Cox regression, there was one key assumption: that the hazard ratio does not depend on time (i.e., if the risk for adjudication for Blacks was 1.8 times what it was for Whites one month after the complaint, then the risk for adjudication for Blacks was also 1.8 times what it was for Whites two months after the complaint, or six weeks, or four months, etc.).

The data from available decision points measure a snapshot in time for all complaints in 2011. One might expect that other factors may significantly impact the relationship between independent and dependent variables. Additionally, survival analysis allows the researcher to look at the predictive power of each of the independent and control variables. Furthermore, Cox regression/survival analysis (IBM Corp., SPSS Cox Regression v.20) will return a hazard ratio, which was ideal for comparing the ratio of incidence rates for different populations.[6] Hazard rates are incidence rates per unit of time. This was an important decision because the DPS-DJJ data that was provided does not necessarily contain the absolute outcome of every complaint. There were numerous reasons every complaint may not be resolved, but the easiest to understand was that some complaints would have occurred in December 2011 and were still working their way through the system at the time the data was analyzed in October 2012. The researchers did

[6] The research team created a "comparison group" from the "untreated population" (i.e., Black or minority juveniles) that was a similar to the "treated group" (i.e., White juveniles) using Propensity Score Matching (PSM). However, PSM has some limitations; it may (as in the case of this study) reduce the sample size, which in turns reduces the statistical accuracy of the results. In the case of the NC-JOIN data used in this study, the PSM procedure resulted in a significant reduction of sample size, thereby compromising the accuracy of the study outcomes.

not want to exclude unresolved cases because they are still relevant. For these reasons, a Cox regression was chosen. It is similar to a logistic regression; however, the logistic regression only returns odds ratios (the ratio of proportions) and does not take into account the unit of time. The data do include the time unit: the date of the complaint and the date of the various decision points.

Many assessments of DMC use a form of logistic regression to conduct multivariate analysis at each decision point (Frieburger & Jordan, 2011; McCarter, 2009; Stone-Motes, Nurse, Melton, & McDonnell, 2012; Wu, 2009; Young & Nancy, 2011). Although there was significant variation between states in data availability, a review of the literature indicates that other studies include prior offenses, offense type, race, age, and gender as control variables in their analysis. Where it was available, researchers have also used a measure of educational achievement (e.g., GPA, attendance, teachers' opinions of satisfactory progress). Educational achievement or attainment data was not collected by NC-JOIN and thus were not included in this study. Many statewide DMC assessments include a measure of family background. For example, Wu (2009) examines family type, which indicates whether the juvenile comes from a single-parent or two-parent household. Frieburger and Jordan (2011) also include a family-type variable. Family or household characteristics were not included in the NC-JOIN database. The Needs Score (explained below) provides the most accurate portrayal of information available from the dataset on family background and juvenile educational performance.

Regression and analysis sample. Because almost half (i.e., 48%) of the juveniles in the sample committed more than one offense during the CY 2011, the research team decided to select only one offense per juvenile (i.e., eliminating multiple observations). The most severe offense for each juvenile was selected using the charge class variable. Selecting the most severe offense still left some juveniles who had multiple offenses with the same level of severity. However, it is not uncommon for juveniles with multiple offenses to have only one offense adjudicated and the others dismissed before the court as a part of a plea agreement. To try to adjust for these occurrences, if multiple offenses were processed together with the outcome adjudicated and dismissed, the adjudicated outcome was selected. Having just one complaint/offense per juvenile allowed the use of Cox regression without violating the assumption that observations are independent, and autocorrelation would be avoided (or

significantly reduced). By selecting just one complaint per juvenile, the number of complaints in our analysis sample was reduced from 33,513 to 16,196.

Key Independent Variables

Age. This variable refers to the age of the juvenile at the time of the offense. During the 2011 calendar year, North Carolina considered 16 to be the age of adulthood; individuals older than 15 at the time of the offense were eliminated. Age was calculated by subtracting the birth date of the juvenile from the offense date.

Type of offense and severity. This was used as a dummy variable in the analysis; every type of complaint was categorized at intake as a property crime, violent crime, drug crime, weapon(s) possession, or other offense. "Other offenses" was the omitted category, and dummy variables for property, violent, drugs, and weapons offenses were included in the analysis to test whether crime type had a significant impact on the decision. These variables were also recoded to express the "severity" by multiplying these dummies by the charged class of offense (or hierarchy of the charges).[7]

Region. North Carolina is divided into four regions: Eastern, Central, Western, and Piedmont. Piedmont was used as the reference/omitted category and included dummies for east, Central, and west in the analyses.

Race and ethnicity. Race or ethnicity of the juvenile. Blacks include those who indicated a single race of African-American/Black, and any individual who selected "two-or more races," where one of the selected was African-American/Black. All other "two-or more races" juveniles that were not recoded as African-American/Black were recoded selecting their non-White race. For instance, Asian and White was recoded as Asian. "Hispanic" is defined as a race in the DPS-DJJ system rather than as an ethnicity as in the U.S. Census and other published research.

Gender. With regard to gender of the juvenile, 100% were classified as either male or female. This variable was recoded as a dummy.

Prior complaints. This refers to the total number of prior complaints against a juvenile. It contains only information on complaints and not the result of the complaint (i.e., approved,

[7] The most severe "charge class," class "A" felony, was assigned a value of 15; "B1" was assigned a value of 14; "B2" was assigned a value of 13; and so on. Therefore, a violent crime such as murder (class "A") is assigned a value of 15, a property crime such as first-degree burglary (class "D") is assigned a value of 11, and so forth.

diverted, closed, adjudicated, etc.) or the type of offense. The data provided were limited to the number of prior complaints against any juvenile within the past three years (i.e., 2010, 2009, and 2008).

Risk score. The risk score is a composite of a range of information intended to assess the risk of the juvenile re-offending. As this is a secondary analysis of data, the risk score was developed and provided by DPS-DJJ. The risk score includes information about the age of the first delinquent offense, prior intake referrals, most serious prior offense, prior assaults, runaway attempts, alcohol or drug use in the past 12 months, peer relationships, and parental supervision. Of the 18,738 juveniles in the complete file, 17,553 had completed risk assessments and had been assigned a risk assessment score. In order to include this variable for 100% of the juveniles, SPSS was used to replace the missing values with the mean, by racial group (because the missing values comprised less than 5%). The overall risk score was used as part of the analyses.

Needs score. During intake, counselors may solicit information from multiple sources to complete the needs assessment. The information gathered relates to the specific needs of each juvenile, including information about their peer associations, and their behavior in school, including academics, physical health, and mental health. The designated intake counselor also contacts parents as well as the school to supplement the information she receives firsthand from the juvenile. Taken together, this information was used to create a "Needs Score." Again, the needs score is a composite score developed by DPS-DJJ. The needs score includes information about gang membership and association, school behavior and academic functioning, sexual behavior, and mental health. Several items in the composite score examine family background, including conflict in the home, parental status, supervision, parental disabilities, household substance use, and family criminality. Of the 18,738 juveniles in the complete file, 17,493 have a complete needs score. In order to include this variable for all juveniles in the sample and fill in missing values, the research team used SPSS to replace the missing values with the mean, by racial group.

Location. The location variable indicates the place of the complaint and was recoded for the purposes of analysis. The recoding includes the following locations: school, retail, parking lot, office building, residential, and other types of locations.

Results

Statewide Results: Approved/Not Approved

Of the 16,196 juvenile/offenses in the analysis sample, 45% were approved and 55% were not approved.

Table 4: Decision Outcome "Approval" by Race/Ethnicity

	Whites	Blacks	Hispanic	American Indian	Asian	All
Approved	44%	46%	43%	57%	31%	45%
Not Approved	56%	54%	57%	43%	69%	55%
Total (N)	6,204	8,131	1,469	261	131	16,196

As shown in Table 4, the cases of Blacks and American Indians were more likely to be approved to go forward than the cases of Whites. Hispanics and Asians were less likely than Blacks or Whites to have their cases approved. Even though the differences were not large, they were statistically significant. To discover whether variance differences existed among the race/ethnicity groups in relation to "approval," a One-Way ANOVA test was conducted, and it was found that approval was not equal among the racial/ethnic groups. Therefore, the hypothesis that the average approval rates among racial/ethnic groups were equal was rejected (i.e., $F(1, 4) = 7.77$, $p < 0.001$). Other things may account for the different rates of case approval; however, the next table shows the multivariate analysis of the decision outcome.

The juvenile court counselor must approve the complaint if he finds "reasonable circumstances" to believe that the juvenile has committed a non-divertible offense (see Chapter 7B, Article 1701 of the North Carolina General Statutes). In such instances, the juvenile court counselor has no discretion in deciding whether or not to approve the case. Non-divertible cases include murder, arson, first- or second-degree rape, first-degree burglary, willful and serious bodily harm (including by use of a deadly weapon), and any violation of Article 5, Chapter 90 of the North Carolina General Statutes that would constitute a felony if committed by an adult (anyone 16 or older). Table 5 provides a "look" at how many non-divertible offenses were in the sample.

Table 5: Number and Percentages of Non-Divertible Offenses by Race/Ethnicity

	Whites	Blacks	Hispanic	American Indian	Asian	All
Number	153	298	33	6	2	492
Percentage	2.5%	3.7%	2.2%	2.3%	1.5%	3.0%

Of the 16,196 offenses in the analysis sample, only 3% (492 complaints) were deemed non-divertible. Blacks had the largest number, followed by Whites, Hispanics, American Indians, and Asians. (Note that non-divertible cases were highly correlated to the severity of the crime and were therefore not included in the analyses.)

Table 6: Statewide Cox Regression Using Offense and Social Variables to Predict Likelihood of Approval

	B	SE	Wald	Sig.	Exp(B)
Age***	0.098	0.008	143.580	0.000	1.103
Violent[2]***	0.038	0.005	60.247	0.000	1.039
Property[2]***	0.032	0.006	27.648	0.000	1.033
Drugs[2]***	0.083	0.011	59.746	0.000	1.086
Weapons[2]**	-0.038	0.015	6.353	0.012	0.962
Eastern***	0.447	0.034	170.236	0.000	1.563
Central***	0.393	0.031	163.938	0.000	1.481
Western***	0.641	0.036	325.805	0.000	1.899
Black[1]	-0.008	0.028	0.087	0.768	0.992
Hispanic[1]*	-0.088	0.045	3.772	0.052	0.916
American Indian[1]**	0.280	0.087	10.418	0.001	1.323
Asian[1]	-0.238	0.158	2.289	0.130	0.788
Gender**	0.058	0.029	3.889	0.049	1.059
Prior Complaints***	0.017	0.004	19.998	0.000	1.017
School**	0.257	0.120	4.564	0.033	1.293
Retail	-0.192	0.125	2.341	0.126	0.825
Parking Lot*	0.207	0.124	2.769	0.096	1.230
Residential*	0.235	0.120	3.820	0.051	1.264
Other Location**	0.369	0.131	7.910	0.005	1.446
Risk Score***	0.072	0.003	487.759	0.000	1.075
Needs Score***	0.014	0.003	32.127	0.000	1.014

*p < .05 **p < .01 ***p < .001.

n=16,196; 7,282 individuals approved

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Source: DJJ

The previous table (Table 6) shows the Cox regression results for the decision points "approved," indicating factors unrelated to race that were important in the decision about whether the complaint would be approved. For example, age was important: the older the

juvenile, the more likely the case was to be approved. Violent, property, and drug offenses were more likely to be approved than "other" offenses. The higher the number of prior complaints, the more likely the complaint was to be approved. Also significant were the risk score and the need score. These scores indicate that the higher the scores, the higher the likelihood of the case being approved. The independent variable with the largest impact on the likelihood of approval was the region of the state in which the offense took place. Offenses located in the Eastern, Central, and Western regions of the state were much more likely to be approved than offenses in the Piedmont region of the state.

The key items to examine in Table 6 were the coefficients for each racial group. The rate of approval for American Indians was higher than for Whites after controlling for the independent variables. These results were consistent with the bivariate table, which showed that American Indians have significantly higher rates of having their cases approved. Hispanics have significantly lower rates of approval than Whites after accounting for the range of legal and social variables. The coefficient for Blacks was not significant; therefore, Blacks were not significantly different from Whites (i.e., the comparison group). According to these results, for Blacks and Hispanics across the state of North Carolina as a whole, the DMC that exists was not a result of disproportionate treatment at the stage of approval.

Statewide Results: Diversion

Of the 16,196 cases in the analysis sample, roughly 28% were diverted. For a juvenile charged with a delinquent offense, diversion was generally seen as a positive outcome because it provides the potential for avoiding further discipline. The table below shows the percentage of cases that were diverted for each racial group.

Table 7: Diversion by Race/Ethnicity

	Whites	Blacks	Hispanic	American Indian	Asian	All
Diverted	32%	26%	28%	17%	37%	28%
Not Diverted	68%	74%	72%	83%	63%	72%
Total (N)	6,204	8,131	1,469	261	131	16,196

There were some important differences by race, as seen in Table 7; for instance, 32% of the cases of Whites were diverted, while only 26% of the cases of Blacks, 28% of the cases of Hispanics, and 17% of the cases of American Indians were diverted. Blacks, Hispanics, and

American Indians appear to be less likely than Whites to have their cases diverted, while Asians were more likely to have their cases diverted. To discover whether there were variance differences among the race/ethnicity groups in relation to diversion, a One-Way ANOVA test was conducted. Through this test, it was found that diversion was not equal among the racial/ethnic groups; that was, the hypothesis that the average diversion rates among groups were equal was rejected (i.e., $F(1, 4) = 19.06$, $p < 0.001$). However, the figures in Table 4 (or the ANOVA test) do not account for the severity of the offense. Certain offenses, particularly violent offenses and drug offenses were non-divertible. The study included an analysis of diversion, which takes into account the severity of the offense and other important independent variables; this analysis is presented in Table 8.

Table 8: Statewide Cox Regression Using Offense and Social Variables to Predict Likelihood of Diversion

	B	SE	Wald	Sig.	Exp(B)
Age	-0.003	0.009	0.076	0.783	0.997
Violent[2]***	-0.138	0.009	234.909	0.000	0.871
Property[2]***	-0.170	0.009	323.824	0.000	0.844
Drugs[2]***	-0.075	0.015	25.648	0.000	0.928
Weapons[2]*	-0.023	0.014	2.777	0.096	0.977
Eastern***	0.691	0.042	272.309	0.000	1.996
Central***	0.267	0.039	46.984	0.000	1.306
Western***	0.166	0.047	12.276	0.000	1.181
Black[1]***	-0.197	0.034	33.931	0.000	0.821
Hispanic[1]**	-0.171	0.055	9.581	0.002	0.843
American Indian[1]**	-0.411	0.154	7.101	0.008	0.663
Asian[1]	-0.097	0.147	0.436	0.509	0.908
Gender***	-0.126	0.033	14.260	0.000	0.882
Prior Complaints***	-0.208	0.021	95.572	0.000	0.812
School***	0.590	0.157	14.202	0.000	1.804
Retail**	0.410	0.162	6.441	0.011	1.507
Parking Lot	0.024	0.164	0.021	0.885	1.024
Residential*	-0.274	0.160	2.935	0.087	0.760
Other Location	0.147	0.184	0.636	0.425	1.158
Risk Score***	-0.057	0.006	89.557	0.000	0.945
Needs Score***	-0.015	0.004	15.736	0.000	0.985

*p < .05 **p < .01 ***p < .001.

n=11,880; 4,602 individuals diverted

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Source: DJJ

The regression presented in Table 8 was conducted using complaints that were either approved or diverted (closed cases, which were not approved and not diverted, were excluded). The results of the regression demonstrate that there were many factors unrelated to race that were important in the decision to divert a case. Property and drug offenses were more likely to be diverted than “other” offenses. The higher the number of prior complaints, the less likely a case was to be diverted. On the one hand, the higher the risk score, the less likely the case was to be diverted. On the other hand, the higher the needs score, the more likely the case was to be diverted. Offenses located in the Eastern, Central, and Western region of the state were more

likely to be diverted than offenses in the Piedmont region of the state. However, cases in the Eastern regions were the most likely to be diverted—more than twice as likely as in the Piedmont region. The impact of these independent variables, overall, was as expected.

The key items to examine in this table were the coefficients for each racial group. Blacks, Hispanics, and American Indians were less likely to get their cases diverted, after controlling for all the independent variables, as compared to Whites. The coefficient for Asians was not significant. These results were each consistent with the bivariate table, which showed that Blacks, Hispanics, and American Indians had significantly lower rates of having their cases diverted than Whites (see Table 7).

Statewide Results: Closed Cases

According to Table 9, Blacks, Hispanics, Asians, and American Indians had higher percentages of cases closed than Whites had. The ANOVA test concluded that in the case of "closed cases" there were variance differences among the race/ethnicity groups (i.e., $F(1, 4) = 10.52$, $p < 0.001$). Thus, the hypothesis that the average closed case rates among racial/ethnic groups were equal was rejected.

Table 9: Case Decision Outcome: Closed vs. Not Closed

	White	Black	Hispanic	American Indian	Asian	All
Closed	24%	28%	30%	26%	32%	27%
Not Closed[1]	76%	72%	70%	74%	68%	73%
Total (N)	6,204	8,131	1,469	261	131	16,196

[1]Not closed includes diverted or approved cases.

Table 10: Statewide Cox Regression Using Offense and Social Variables to Predict the Likelihood of a Complaint Being Closed

	B	SE	Wald	Sig.	Exp(B)
Age**	0.023	0.009	6.759	0.009	1.023
Violent[2]***	-0.144	0.009	234.219	0.000	0.866
Property[2]***	-0.222	0.011	442.447	0.000	0.801
Drugs[2]***	-0.154	0.019	65.609	0.000	0.857
Weapons[2]**	-0.039	0.014	7.949	0.005	0.962
Eastern***	0.435	0.044	97.789	0.000	1.544
Central**	0.110	0.039	7.815	0.005	1.117
Western	-0.006	0.053	0.013	0.910	0.994
Black[1]**	-0.115	0.036	10.436	0.001	0.891
Hispanic[1]***	-0.211	0.056	14.306	0.000	0.810
American Indian[1]*	0.225	0.126	3.184	0.074	1.252
Asian[1]*	-0.309	0.157	3.845	0.050	0.734
Gender**	-0.092	0.034	7.351	0.007	0.912
Prior Complaints***	-0.085	0.016	28.760	0.000	0.919
School***	0.801	0.198	16.362	0.000	2.228
Retail***	0.856	0.201	18.177	0.000	2.354
Parking Lot*	0.376	0.204	3.417	0.065	1.457
Residential	0.125	0.201	0.387	0.534	1.133
Other Location*	0.421	0.215	3.849	0.050	1.524
Risk Score***	-0.027	0.007	17.484	0.000	0.973
Needs Score***	-0.045	0.004	106.517	0.000	0.956

*p < .05 **p < .01 ***p < .001.

n=11,594; 4,314 individuals closed

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Source: DJJ

The regression presented in the above table shows the results of the complaints closed at intake (i.e., cases not approved can be either diverted or closed). The closed analysis was conducted with non-diverted cases only. Thus, every case in this analysis is either approved (0) or closed (1). Juveniles with a violent, property, or drug offense were less likely to have their cases closed. Region was significant, with individuals in the Eastern, Western, and Central regions more likely to have their complaints closed than individuals in the Piedmont region.

Risk scores were statistically significant; juveniles with higher risk scores were more likely to have their cases closed. Higher needs scores had the opposite effect.

The key items to examine in this table were the coefficients for each racial group. Blacks and Hispanics were statistically less likely to have their cases closed than Whites, even after controlling for all the independent variables. American Indians were statistically more likely to have their cases closed than Whites. These results were partially consistent with the bivariate table, which showed that Blacks, Hispanics, American Indians, and Asians had significantly higher rates of having their cases closed than Whites. In the case of American Indians, both analyses agreed. However, in the case of Blacks and Hispanics, the bivariate and regression analyses did not agreed, which means that some of the independent variables, including being Black or Hispanic, had an effect on this outcome according to the regression model.

Statewide Results: Adjudication

The next key decision point is adjudication. Adjudication refers to a juvenile having his case heard before a judge and the judge finding him delinquent. According to Table 11, Blacks, Hispanics, and Asians had a lower percentage of cases adjudicated than Whites. The ANOVA test concluded that there were variance differences among the race/ethnicity groups in relation to adjudication (i.e., $F(1, 4) = 5.22$, $p < 0.001$). Thus, the hypothesis that the average adjudication rates among racial/ethnic groups were equal was rejected.

Table 11: Case Decision Outcome: Adjudication vs. Nonadjudicated by Race/Ethnicity

	White	Black	Hispanic	American Indian	Asian	All
Adjudicated	31%	29%	28%	38%	21%	29%
Not Adjudicated	69%	71%	72%	62%	79%	71%
Total (N)	6,204	8,131	1,469	261	131	16,196

Table 12: Statewide Cox Regression Using Offense and Social Variables to Predict Likelihood of Adjudication

	B	SE	Wald	Sig.	Exp(B)
Age***	0.108	0.011	101.081	0.000	1.114
Violent[2]***	-0.061	0.007	77.507	0.000	0.941
Property[2]***	-0.060	0.008	60.907	0.000	0.942
Drugs[2]**	-0.039	0.014	7.809	0.005	0.962
Weapons[2]**	-0.052	0.017	9.733	0.002	0.949
Eastern***	0.524	0.042	153.616	0.000	1.688
Central***	0.259	0.038	46.714	0.000	1.296
Western***	0.313	0.043	52.188	0.000	1.367
Black[1]***	-0.119	0.033	12.713	0.000	0.888
Hispanic[1]**	-0.158	0.056	7.988	0.005	0.854
American Indian[1]	0.088	0.105	0.694	0.405	1.092
Asian[1]	-0.232	0.194	1.432	0.232	0.793
Gender	-0.030	0.035	0.724	0.395	0.970
Prior Complaints	0.006	0.005	1.624	0.203	1.006
School	0.218	0.140	2.414	0.120	1.243
Retail	-0.218	0.148	2.168	0.141	0.805
Parking Lot	-0.066	0.146	0.203	0.652	0.936
Residential	0.012	0.141	0.008	0.929	1.013
Other Location	0.093	0.157	0.347	0.556	1.097
Risk Score***	0.069	0.004	319.822	0.000	1.072
Needs Score**	-0.007	0.003	5.463	0.019	0.993

*p < .05 **p < .01 ***p < .001.

n=16,196; 4,785 individuals adjudicated

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Source: DJJ

The regression presented in Table 12 shows the results of the regression with adjudication as the dependent variable. The older the individual is, the more likely it is that his or her complaint will be adjudicated. As expected, the more severe the offense (violent, property, drugs, or weapon possession), the more likely it is that the complaint will be adjudicated. Once again, the region variables were significant; complaints in the Eastern, Central, and Western regions of the state were more likely to be adjudicated than complaints in the Piedmont region. Both the risk score and the needs score were significant predictors of adjudication, although, the risk and needs scores have different signs (i.e., positive and negative, respectively). Thus, the higher the risk score, the more likely a juvenile is to have his or her complaint adjudicated. However, the higher the needs score, the less likely it is that the complaint will be adjudicated. It may be that the decision makers were sympathetic to juveniles who come from a difficult family background. Blacks and Hispanics were less likely to have their complaints adjudicated, after controlling for region, type of crime, age, prior complaints, risk score, and needs score. There was no significant difference for Asians or American Indians.

Statewide Results: Dismissal

Asians had significantly lower dismissed rates than Whites (refer to Table 13). Blacks, Hispanics, and American Indians had higher percentages of cases dismissed, but they were not significantly different from their White counterparts. The ANOVA test concluded that in "dismissed" cases, there were variance differences among the race/ethnicity groups (i.e., $F(1, 4) = 3.90$, $p < 0.01$). Thus, the hypothesis that the average dismissed rates among racial/ethnic groups were equal was we reject.

Table 13: Case Decision Outcome: Dismissed vs. Not Dismissed

	White	Black	Hispanic	American Indian	Asian	All
Dismissed	15%	17%	16%	21%	12%	17%
Not Dismissed	85%	83%	84%	79%	88%	83%
Total (N)	6,204	8,131	1,469	261	131	16,196

Table 14: Statewide Cox Regression Using Offense and Social Variables to Predict Likelihood of Complaints Being Dismissed

	B	SE	Wald	Sig.	Exp(B)
Age**	0.039	0.013	8.748	0.003	1.039
Violent[2]	-0.004	0.008	0.308	0.579	0.996
Property[2]*	0.016	0.009	2.900	0.089	1.016
Drugs[2]***	0.062	0.016	14.466	0.000	1.063
Weapons[2]	-0.039	0.026	2.254	0.133	0.962
Eastern***	0.454	0.056	66.617	0.000	1.574
Central	0.067	0.050	1.784	0.182	1.070
Western**	0.191	0.059	10.622	0.001	1.211
Black[1]*	0.083	0.045	3.449	0.063	1.087
Hispanic[1]	-0.035	0.075	0.222	0.638	0.965
American Indian[1]**	0.321	0.143	5.021	0.025	1.379
Asian[1]	0.109	0.253	0.185	0.667	1.115
Gender	-0.076	0.048	2.486	0.115	0.927
Prior Complaints*	0.014	0.007	3.502	0.061	1.014
School	0.259	0.212	1.488	0.223	1.296
Retail	0.024	0.221	0.012	0.914	1.024
Parking Lot*	0.355	0.217	2.664	0.103	1.426
Residential	0.197	0.212	0.862	0.353	1.218
Other Location**	0.454	0.227	4.008	0.045	1.575
Risk Score***	0.026	0.005	22.198	0.000	1.026
Needs Score	-0.004	0.004	0.825	0.364	0.996

*p < .05 **p < .01 ***p < .001.

n=16,196; 2,675 individuals dismissed

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Source: DJJ

Table 14 shows the results of the complaints dismissed. Older juveniles and juveniles with a property or drug offense were more likely to have their complaints dismissed. Once again, region was significant, however; individuals in the Eastern and Western regions were more likely to have their complaints dismissed than individuals in the Piedmont region. Risk scores were statistically significant; juveniles with a higher risk score were more likely to have their complaints dismissed. Needs scores were not significant. In this analysis, both Blacks and American Indians were significantly more likely than Whites to have their cases dismissed.

There was no significant difference for Hispanics or Asians. These regression results agree with the bivariate results.

Statewide Results: Disposition

The next key decision point is disposition. Disposition refers to the final arrangement of the juvenile case. This is similar to the "sentencing" in an adult court; however, the judge must consider alternative, innovative, and individualized rulings rather than imposing standard sentences. According to Table 15, Blacks, Hispanics, and Asians had a lower percentage of cases disposed than Whites. The ANOVA test concluded that there were variance differences among the race/ethnicity groups in relation to disposition, thus rejecting the hypothesis that the average disposition rates among racial/ethnic groups were equal (i.e., $F(1, 4) = 5.69$, $p < 0.001$).

Table 15: Case Decision Outcome: Disposed vs. Not Disposed

	White	Black	Hispanic	American Indian	Asian	All
Disposed	29%	28%	27%	37%	19%	28%
Not Disposed	71%	72%	73%	63%	81%	72%
Total (N)	6,204	8,131	1,469	261	131	16,196

Table 16: Statewide Cox Regression Using Offense and Social Variables to Predict Likelihood of Disposition

	B	SE	Wald	Sig.	Exp(B)
Age***	0.114	0.011	107.136	0.000	1.121
Violent[2]***	-0.063	0.007	83.885	0.000	0.939
Property[2]***	-0.057	0.007	58.809	0.000	0.944
Drugs[2]***	-0.050	0.013	13.800	0.000	0.952
Weapons[2]	-0.023	0.017	1.864	0.172	0.977
Eastern***	0.528	0.043	150.573	0.000	1.695
Central***	0.282	0.039	52.620	0.000	1.325
Western***	0.302	0.044	46.924	0.000	1.353
Black[1]***	-0.189	0.034	31.129	0.000	0.828
Hispanic[1]**	-0.157	0.057	7.599	0.006	0.855
American Indian[1]	0.138	0.107	1.674	0.196	1.148
Asian[1]	-0.191	0.202	0.899	0.343	0.826
Gender	-0.003	0.036	0.008	0.927	0.997
Prior Complaints**	-0.013	0.006	5.283	0.022	0.987
School	0.048	0.143	0.114	0.736	1.049
Retail	-0.303	0.151	4.037	0.045	0.739
Parking Lot*	-0.246	0.149	2.714	0.099	0.782
Residential	-0.066	0.143	0.215	0.643	0.936
Other Location	-0.131	0.161	0.668	0.414	0.877
Risk Score***	0.080	0.004	410.770	0.000	1.083
Needs Score***	-0.011	0.003	12.845	0.000	0.989

*p < .05 **p < .01 ***p < .001.

n=16,196; 4,573 individuals disposed

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Source: DJJ

The results from the regression (i.e., Table 16) show the disposition as the dependent variable. As was the case in the regression for adjudication, the older the individual is, the more likely it is that her complaint will be disposed. Once again, the region variables were significant; complaints in the Eastern, Central, and Western regions of the state were more likely to be disposed than complaints in the Piedmont region. Both the risk score and the needs score were significant predictors of disposition. Although they have different signs (i.e., positive and negative, respectively), the higher the risk score, the more likely it is that a juvenile will have her complaint disposed. However, the higher the needs score, the less likely it is that the complaint will be disposed. Once again, Blacks and Hispanics were less likely than Whites to have their complaints disposed, after controlling for region, type of crime, age, prior complaints, risk score, and needs score. There was no significant difference for Asians or American Indians.

Statewide Results: Supervision: Probation

(Note: For the probation analyses, a sample of juveniles with no prior complaints was used. This included a total of 11,811 juveniles.)

According to Table 17, Blacks, Hispanics, and Asians had a lower percentage of cases end in probation than Whites had. The ANOVA test concluded that in the case of probation, there were variance differences among the race/ethnicity groups (i.e., $F(1, 4) = 3.96$, $p < 0.01$).

Table 17: Outcome: Probation

	White	Black	Hispanic	American Indian	Asian	All
Probation	20%	18%	19%	25%	14%	19%
Not Probation	80%	82%	81%	75%	86%	81%
Total (N)	4,716	5,646	1,150	188	111	11,811

Table 18: Statewide Cox Regression using Offense and Social Variables to Predict Likelihood of Complaints Resulting in Probation

	B	SE	Wald	Sig.	Exp(B)
Age***	0.078	0.014	33.218	0.000	1.082
Violent[2]***	-0.063	0.009	43.433	0.000	0.939
Property[2]***	-0.040	0.011	13.390	0.000	0.960
Drugs[2]**	-0.044	0.019	5.650	0.017	0.957
Weapons[2]	0.018	0.023	0.620	0.431	1.018
Eastern***	0.432	0.064	46.130	0.000	1.540
Central***	0.236	0.055	18.669	0.000	1.267
Western***	0.385	0.062	38.789	0.000	1.469
Black[1]**	-0.124	0.048	6.688	0.010	0.883
Hispanic[1]**	-0.165	0.077	4.591	0.032	0.848
American Indian[1]	0.208	0.152	1.871	0.171	1.231
Asian[1]	-0.145	0.261	0.307	0.580	0.865
Gender	0.032	0.050	0.402	0.526	1.032
School	0.200	0.124	2.629	0.105	1.222
Retail*	-0.278	0.146	3.618	0.057	0.758
Parking Lot	-0.067	0.140	0.225	0.635	0.936
Residential	0.124	0.124	1.000	0.317	1.131
Other Location	-0.019	0.258	0.006	0.940	0.981
Risk Score***	0.069	0.006	122.712	0.000	1.071
Needs Score	0.004	0.005	0.947	0.331	1.004

*p < .05 **p < .01 ***p < .001.

n=11,811; 2,266 individuals got probation

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Source: DJJ

Table 18 shows the results of the statewide Probation analysis. As the age of the juvenile offender increases, the complaint is more likely to result in probation. Juveniles with violent, property, and drug complaints were significantly less likely to get probation than juveniles with "other" offenses. Juveniles in the Eastern, Central, and Western regions were more likely to receive probation than individuals in the Piedmont region of North Carolina. As the risk score increases, the likelihood of receiving probation increases. Blacks and Hispanics were significantly less likely than Whites to get probation. There were no significant differences for Asians or American Indians. Again, both the bivariate and regression analyses agree that Blacks and Hispanics have a lower chance than Whites in getting probation, and that the other racial/ethnic groups were not significantly different from Whites in getting probation.

Summary of Quantitative Findings

The quantitative findings below present a snapshot of the 2011 calendar year statewide complaint data across the seven decision along the juvenile justice continuum after controlling for factors such as age, region, risk score, type and severity of offense.

Decision Points	**Result** (As compared to White youth)
Approved	No statistically significant effect for Blacks, lower rates for Hispanics, and higher rates for American Indians
Diversion	Lower rates for Blacks, Hispanics, and American Indians
Closed	Lower rates for Blacks and Hispanic, and higher rates for American Indians
Adjudication	Lower rates for Blacks and Hispanics
Dismissed	Higher rates for Blacks and American Indians, and no statistically significant effect for Hispanics
Disposition	Lower rates for Blacks and Hispanics, and no effect for American Indians
Probation	Lower rates for Blacks and Hispanics, and no statistically significant effect for American Indians

Rates for Blacks were lower for diversion, closed, adjudication, disposition, and probation. Rates for Hispanics were lower for approval, diversions, closed, adjudication, dismissed, disposition, and probation. American Indians had lower rates of diversion. It should be noted that these results were a snapshot of the 2011 calendar year complaint data and essentially serve to identify where disproportionality exists.

Analysis of the Five Largest Counties

This section reviews the same decision points as were discussed in the statewide analyses, but only for North Carolina's five largest counties: Guilford, Mecklenburg, Cumberland, Forsyth, and Wake. There were a number of reasons to suspect that the patterns in the five largest counties might vary from the statewide patterns. In larger, densely packed cities, there tends to be less community cohesion and more anonymity, a phenomenon that could lead juveniles to believe they can get away with antisocial behavior. In addition, the largest counties tend to have much larger and more bureaucratic school systems, which could lead to school officials being more likely to use the juvenile justice system to handle minor infractions. Researchers have consistently found that crime rates were higher in the largest cities (Ousey, 2000). The findings examine whether the patterns in the selected five counties were similar to the statewide patterns, or if there was anything distinctive about these counties. The complete Cox regression tables for this section are shown in Appendix I.

Approved/not approved. In the statewide model, Blacks and Hispanics are less likely than Whites to have their cases approved, despite many other contributing factors also affecting the likelihood of approval, including the type of crime, gender, location type,[8] risk score, and needs score. In the individual models of Guilford, Mecklenburg, Cumberland, Forsyth, and Wake counties, some of the independent variables such as age, type of crime, gender, location, whether the juvenile had been previously detained, and risk score were each significant factors contributing to the rate of approval. There are no significant differences by race.

Adjudication. In the statewide model of adjudication, age, type of offense, risk score, and needs score were all significant predictors of whether a particular case would lead to adjudication. In addition, Blacks and Hispanics were both significantly less likely to have their complaint adjudicated. However, in the results by county, Blacks and Hispanics in Guilford, Cumberland, and Wake counties were no different than Whites with regard to the likelihood of their complaint being adjudicated. In Mecklenburg and Forsyth counties, Blacks were less likely than Whites to have their cases adjudicated. In Forsyth, Hispanics were also less likely than Whites to have their cases adjudicated. There were not enough American Indians in Wake County or Forsyth County to include either in the model, and not enough Asians in Forsyth

[8] In retail locations, incidents that resulted in complaints were less likely to be approved and more likely to be closed at intake.

County. Only the risk score (not the needs score) had a significant positive effect on adjudication in these five counties (i.e., the higher the risk scores, the more likely that the complaint would be adjudicated).

Dismissed. In the statewide model presented earlier, Blacks and American Indians were significantly more likely than Whites to have their cases dismissed. Age, risk score, and type of crime were each significant predictors of the cases being dismissed. However, in Guilford, Mecklenburg, Cumberland, Forsyth, and Wake counties, there was no difference between Blacks and Whites or between Hispanics and Whites in the likelihood of the cases being dismissed. Age was significant only in Forsyth County.

Probation. In the statewide model presented earlier, the risk score, age of the juvenile, type of offense, and region were significant predictors of whether juveniles would receive probation. However, age was significant only in the Guilford and Cumberland models, and risk score was a significant predictor only of whether or not a complaint would result in probation in the Cumberland, Forsyth, and Wake county models. In the Guilford and Mecklenburg models, the needs score was a significant predictor. There were no other differences in terms of race, except for Hispanics in Forsyth County. Hispanics were less likely to get probation.

County-by-County Analysis

A county-by-county statistical analysis was completed to assess racial disparities at decision points across the state. In pursuing this analysis, the research team held that meaningful comparisons could be made only in counties where there was both a sizeable White population and a sizeable non-White population. Furthermore, the research team was concerned with protecting the confidentiality of juveniles in those counties where they may be one of a few juvenile racial minorities with a complaint in 2011. Thus, the decision was made to analyze bivariate tables only in counties with at least 50 complaints pertaining to a juvenile who was White and at least 50 pertaining to each racial/ethnic minority group. The requirement for Hispanics was revised to 30 complaints because only six counties had at least 50 complaints pertaining to a Hispanic juvenile.

For the county-by-county analysis, the research team chose to focus on the earliest decision points because attrition occurs as complaints make their way through the system. For example, in a county where there were 50 complaints, there may have been only 30 approved complaints, and only 15 adjudicated; at that point, the number of complaints made by each

racial/ethnic group may become so small that the confidentiality of the juveniles could be

jeopardized. Therefore, the results were presented for Approval, Diversion, and Adjudication only, with no results for Dismissal, Disposition, Closed, or Probation.

Table 19 below shows the number of complaints by race in each county with at least 50 Whites with complaints, at least 50 Blacks with complaints, and at least 30 Hispanics with complaints. The bivariate results for complaints approved, diverted, and adjudicated by percentage of race are displayed in Table 20. For each county, the results of all of the complaints were included for the Approval and Diversion decision points, but only the approved complaints were included for the Adjudication decision point.

Table 19: Number of Complaints by County and by Race

County	Whites	Blacks	Hispanics
Alamance	122	109	47
Buncombe	240	116	
Cabarrus	75	74	
Catawba	172	74	35
Chatham	42		43
Cleveland	73	81	
Craven	89	94	
Cumberland	235	558	48
Davidson	190	72	
Forsyth	100	357	122
Gaston	238	157	31
Guilford	249	641	55
Harnett	110	120	31
Iredell	146	94	
Johnston	71	52	
Mecklenburg	296	1291	210
New Hanover	123	205	
Onslow	159	132	
Orange	74	49	
Pitt	67	278	
Robeson	67	152	
Randolph	135		33
Union	119	76	31
Wake	248	581	134
Wayne	54	128	

Numbers not displayed where n < 30

Table 20: Percentage of Complaints Approved, Diverted, and Adjudicated by Race and by County

	Approved			Diverted			Adjudicated		
County	White	Black	Hispanic	White	Black	Hispanic	White	Black	Hispanic
Alamance	45%	54%	57%	37%	27%	26%	68%	65%	-
Buncombe	46%	51%	-	44%	**33%***	-	60%	59%	-
Cabarrus	47%	57%	-	21%	15%	-	-	-	-
Catawba	53%	**70%***	51%	26%	19%	20%	62%	49%	-
Chatham	26%	-	28%	74%	-	67%	-	-	-
Cleveland	41%	**58%***	-	43%	33%	-	-	-	-
Craven	40%	39%	-	39%	**54%***	-	-	-	-
Cumberland	37%	**51%*****	44%	42%	38%	40%	74%	**60%***	-
Davidson	22%	**38%****	-	45%	35%	-	-	-	-
Forsyth	25%	34%	37%	34%	33%	29%	-	-	-
Gaston	43%	**64%*****	35%	34%	**14%****	42%	48%	44%	-
Guilford	60%	67%	65%	10%	13%	15%	60%	54%	50%
Harnett	45%	43%	39%	27%	32%	32%	42%	58%	-
Iredell	35%	47%	-	23%	23%	-	-	-	-
Johnston	34%	**54%***	-	32%	**12%****	-	-	-	-
Mecklenburg	23%	24%	20%	17%	18%	20%	59%	53%	55%
New Hanover	37%	**56%*****	-	54%	**37%****	-	-	-	-
Onslow	42%	42%	-	41%	39%	-	60%	60%	-
Orange	36%	46%	-	62%	54%	-	-	-	-
Pitt	52%	43%	-	36%	38%	-	-	-	-
Robeson	46%	50%	-	21%	13%	-	52%	-	-
Randolph	85%	-	88%	1%	-	0%	-	-	-
Union	38%	34%	52%	19%	**9%***	13%	-	-	-
Wake	41%	**54%*****	50%	29%	**22%***	24%	68%	66%	-
Wayne	39%	37%	67%	33%	**18%***	-	-	-	-
Statewide	*44%*	*46%*	*43%*	*32%*	*26%*	*28%*	*31%*	*29%*	*28%*

Bold indicates difference between group and whites is statistically significant. * p<.05 **p<.01

As seen in Table 20, there were a total of 25 counties with enough White complaints and enough complaints from at least one racial/ethnic group to conduct an analysis. The statistically significant differences (two-tailed t-test between Whites and each racial/ethnic group in each county where p<.05) are marked in bold font and with an asterisk. In many counties, there were enough Black complaints but not enough Hispanic or American Indian complaints to perform an analysis. In such counties, those spots were left blank. Out of the 25 counties with enough complaints to complete an analysis, there were no statistically significant differences between

Whites and Hispanics or between Whites and American Indians at the approval, diversion, or adjudication decision points.

Of the 25 counties analyzed, there were statistically significant differences between Whites and at least one racial/ethnic minority group at the approval or diversion stage in 11 counties. In Catawba, Cleveland, Cumberland, Davidson, Gaston, Johnston, New Hanover, and Wake counties, Blacks were more likely to have their complaint approved than Whites. Additionally, in Buncombe, Gaston, New Hanover, Union, Wake, and Wayne counties, Blacks were less likely to have their case diverted. Because of the significant differences at the bivariate level, the researchers analyzed the selected counties at the multivariate level for the approval and diversion decision points, using the same independent variables that were included in the statewide models.

The full regression models are presented in Appendix II. The key findings were in Gaston, Buncombe, New Hanover, and Wayne counties. In Gaston County, at the approval stage, Blacks were significantly more likely to have their case approved than Whites, even after taking into account the severity of their offense, needs and risk score, number of prior offenses, and other factors related to approval.

In Buncombe, New Hanover, and Wayne, Blacks were significantly less likely to have their case diverted than Whites, even after taking into account the independent variables. Given these results, an additional analysis of 2012 and 2010 data from these counties is recommended to ascertain whether a pattern or trend exists so that appropriate steps can be taken to identify the factors that may be contributing to these results.

Qualitative Analysis

Data Collection Procedures

The qualitative phase of the CCS statewide DMC assessment consisted of focus groups held in North Carolina's four regions (Piedmont, Central, Eastern, and Western). From June to September 2012, a total of six focus groups were conducted in the following counties: Forsyth County (Winston-Salem), Mecklenburg County (Charlotte), Buncombe County (Asheville), Durham County (Durham), Cumberland County (Fayetteville), and New Hanover County (Wilmington). These counties were selected due to their efforts to (a) understand the extent of DMC in their local area, as evident by relative rate indices, and (b) implement innovative

demonstration projects resulting in creative DMC reduction strategies. Efforts were made to recruit participants from adjoining counties.

Focus groups, comprised of 6–12 key stakeholders, were selected via a nonrandom and convenience sample. The sample consisted of expert stakeholders and service providers recommended by the DPS-DJJ, GCC, Juvenile Crime Prevention Committee (JCPC), and State DMC Committee members due to their extensive knowledge of local juvenile justice issues. A reliable referral mechanism was essential to ensure results reflect the views of individuals who have specific expertise and insight of DMC (Trochim, 2006). The expert stakeholders consisted of school officials, law enforcement, judges, court counselors, clergy, social workers, mental health service providers, community members, and other service providers who work directly with juvenile offenders. In addition, based on the recommendation of the GCC, the research team purposely sought to include school resource officers (SROs) in the focus groups throughout the six counties.

The selection process allowed the research team to obtain diverse perspectives on DMC and maximize common patterns and relationships among focus groups (Morgan, 1998). Such techniques are useful in obtaining qualitative data from stakeholders about pertinent issues related to DMC and about their attitudes and experiences in a relatively naturalistic setting (Green 2007; Massey, 2011). Furthermore, the utilization of focus groups is a common methodological approach in applied research that is often used to obtain a diverse range of perspectives in needs assessment and program evaluation and development (Stockdale, 2002).

The key stakeholders of the focus groups provided detailed responses on the issue of DMC. These responses resulted in emerging themes that represented the perspective of stakeholders connected to juvenile justice. Furthermore, the involvement of school resource officers (SROs) enabled the research team to gain a deeper understanding of the relationship between the school and juvenile justice system.

Employing the focus group methodology assisted the team in addressing the objectives of the qualitative phase of the project: (a) to gain feedback regarding local juvenile justice stakeholders' understanding of DMC and its impact on their community; and, (b) to supplement knowledge gathered from the quantitative phase of the project regarding the treatment of minority and nonminority youth at the various decision points within the juvenile justice system.

Sample Description

Data were collected over a four-month period from a convenience sample of expert professionals within the juvenile justice system. Of the 81 professionals invited via e-mail, 55 participated in the focus groups (68%). Prior to beginning each session, a small survey was administered to participants to gain information regarding their ethnicity/race, gender, education level, and experience within the juvenile justice system. The racial/ethnic composition of the focus groups is provided in Figure 2. Fifty-six percent of the participants were White, 40% Black, and 4% Hispanic. Forty-one percent were female (n = 22) and 59% male (n = 32) with a mean age of 45, ranging from 26 to 72. Participants had been working in their field for an average of 18 years, ranging from 1 to 35 years, and had worked in their current position an average of 8 years, ranging from 1 to 25 years. Forty-one percent (n = 22) of the participants were from law enforcement, 22% from the court system (n = 12), 20% from health and human services (n = 11), and 14% from the school system and "other" professions (n = 8). More than 52% of the participants indicated that they had daily contact with court-involved youth. Forty-three percent of the participants held a master's degree or higher and 43% indicated they provided direct services to court-involved youth. Figure 3 provides demographic data (gender) by SROs and diverse stakeholders (non-SROs).

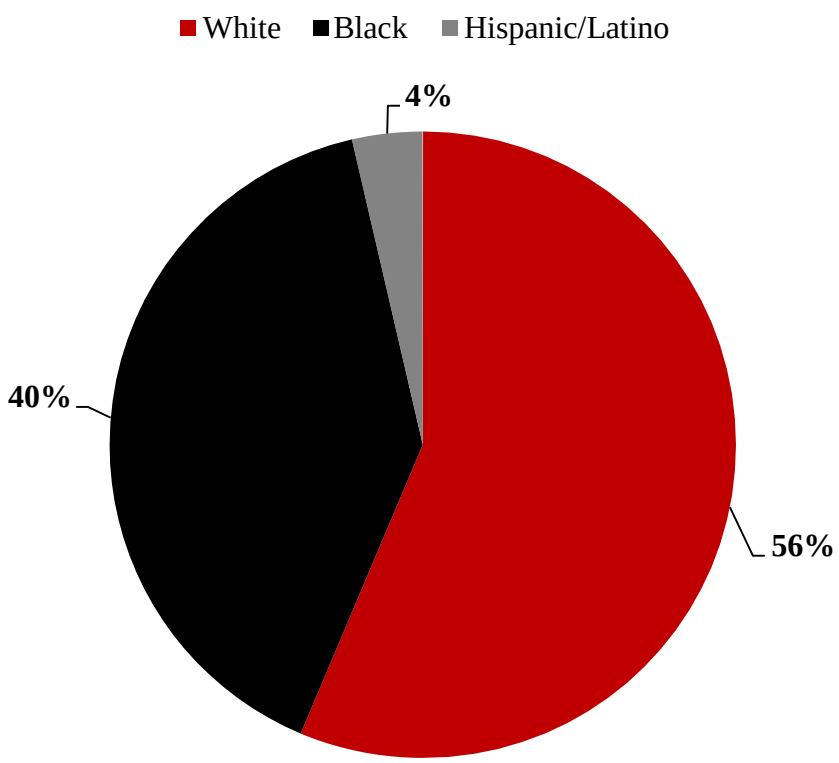

Figure 1: Racial/Ethnic Composition of Focus Group

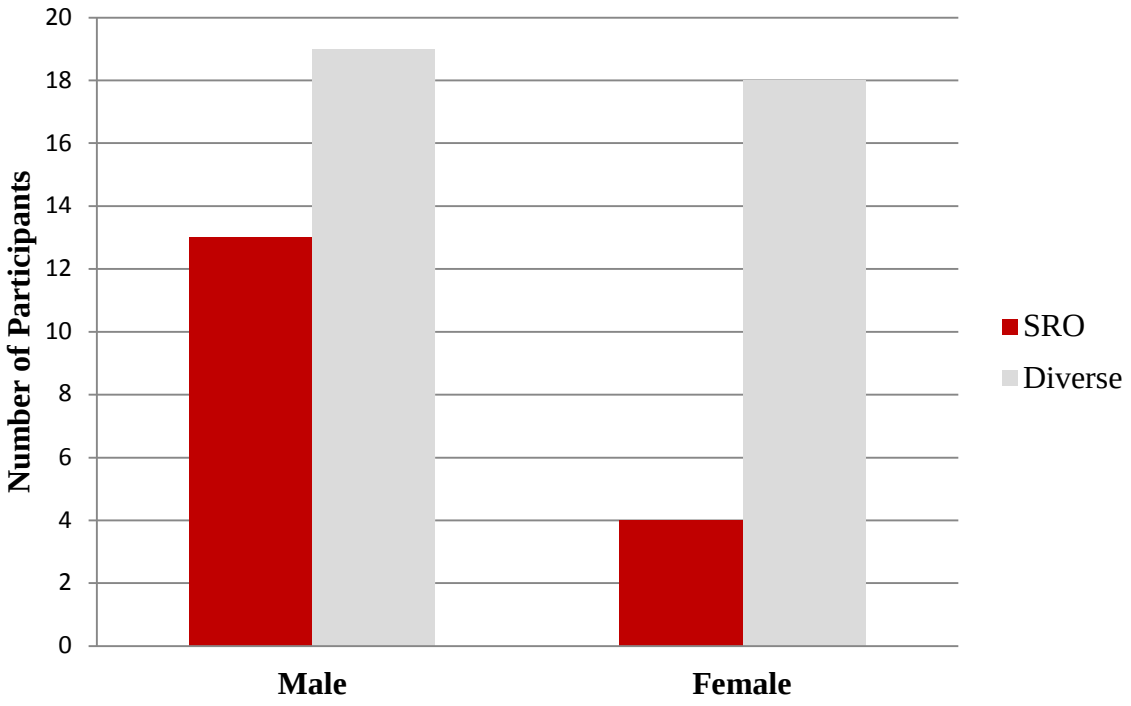

Figure 2: Gender of Focus Group Participants, by SROs versus Diverse Stakeholders

Focus groups were held in central locations that were easily accessible to all participants, and participation was voluntary. Meeting rooms were offered by law enforcement, United Way, local JCPC Councils, and DMC committees. Each focus group included both a facilitator and a co-facilitator. All facilitators were trained by the lead research investigator on protocol of the sessions. A checklist was completed for each participant by focus-group facilitators to ensure that all research protocols were completed. The checklist included informed consent forms as well as the demographic questionnaire. At the start of each session, the risks and benefits of participation were discussed and participants were informed about confidentiality. A discussion guide was used to ensure coverage of certain topic areas. Questions inquired about perceptions of DMC and the types of services needed to address DMC. For example, *Do you feel there is an urgent need to address disproportionate minority contact in the juvenile justice system in your community? Why or why not?* served as the lead question and provided a context for the remaining subsequent questions (Figure 5). Co-facilitators took detailed field notes and conducted debriefing sessions, and each session was also audiotaped. Each session lasted approximately two hours.

Analysis

Data analysis techniques were consistent with the focus group theory advanced by Morgan (1998) and Krueger (1998). Audio recordings were transcribed into written text. After two research assistants reviewed all transcripts for accuracy, a systematic process was employed during the qualitative analysis phase. The first step required the research team (research investigator, project manager, and research assistant) to develop inter-coder reliability. Three separate coders were used to maintain the integrity and validity of the findings. Inter-coder reliability is an important step in qualitative analysis; in this step, a group of coders review data (transcripts) and develop a mechanism of consistency across all codes and themes (Hrushka et al., 2004; King 1994). Codes serve as concepts that link text and help to identify patterns across and within qualitative data (transcripts). For example, the team identified the code, *Role of schools in DMC*; this code represented any text that mentioned the role schools play in referring students to the juvenile justice system. The research team used *NVivo*, a qualitative analysis software, to link codes and text and develop frequencies across each code (amount of times the code appeared in the text). A total of 158 codes were identified across all members of the team. The team met to discuss discrepancies, definitions, and code sources. From this initial list, 88 codes were identified as the initial coding scheme and guided the remaining coding process. A spreadsheet was developed, and each code was assigned either a 1 (indicating that the code was captured across all coders) or 0 (indicating that the code was not captured across all coders). At the conclusion of this process, the inter-coder reliability (.83) indicated that 83% of the codes were consistent across all three coders[9]. Upon further review, 10 of the codes were collapsed under other codes after the research team agreed they captured similar text. Seventy-eight codes were identified and used in the final coding scheme for the remaining three transcripts.

The research team used the coding scheme to review the remaining three transcripts and then began to identify patterns and relationships within the developed codes (LeCompte, 2000). Each team member reviewed the codes, identified code clusters (i.e., how codes may address common patterns or concepts), and developed an initial theme list. This approach is described as thematic analysis in which relationships and patterns are found among codes and used to represent broader concepts and meaning (Braun & Clarke, 2006). The team used a deductive process; thus, theme generation was guided by the DMC literature and other emergent concepts.

[9] 73 codes received a 1, and 15 codes received a 0.

For example, the code *a multisystem of care provided to youth* was clustered under the theme *Youth Interventions Strategies to Reduce DMC*. After reviewing each theme and definition, the team organized the codes into a list of 10 themes (see Table 21) and met to finalize definitions and establish 100% coder agreement (i.e., all coders agreed that the theme emerged from the data and captured the code cluster). Finally, the research team calculated frequencies for each theme to develop a hierarchy (indicates which themes appeared most frequently in the qualitative data). In addition, some of the focus group questions required a binary response. For example the question, *Do you think that Hispanic youth are disproportionately arrested when compared to other racial/ethnic groups?* required the participant to indicate "yes" or "no." The research team coded each response and then calculated frequencies and percentage across each binary question.

To further validate emergent themes, the research team used member checking as a strategy to assess whether the findings were consistent with and represented the perspectives and attitudes of the focus group participants. Member checking is used in qualitative methods to establish trustworthiness of findings; conversely, trustworthiness is essentially a way to validate findings and decrease errors. Member checking requires the use of techniques to share research findings with participants and obtain their consensus and agreement (Krefting, 1991). The research team used an online survey tool to send the list of themes and definitions to focus group participants via e-mail. Each e-mail was uniquely linked to the online survey. Participants had the opportunity to separately review each theme and add any comments or suggestions. If the theme reflected their perspectives and attitudes participants replied with "N/A." About 46% of the participants responded; the only two major issues that emerged were the recommendation to share more online resources and examples of projects that are effective in reducing DMC. One participant added an additional comment regarding the need to find opportunities and safe places in which urban youth can participate. Consequently, the research team proceeded with the analysis phase.

Table 21: Generated Theme List with Clustered Codes

Theme	Code (s)
Ameliorating Communication Barriers	Communication barriers between administration and direct care providers
An Ecology of Risk Factors for Youth Contributing to DMC	Too many juveniles being tried as adults Stigma associated with mental health, substance use, and development Role of zero-tolerance policy in DMC Role of socioeconomics in DMC Role of redistricting youth and their school outcomes Role of foster care Relationship between larger economic trends and crime Role of the lack of a father figure in the lives of youth Intersection of socioeconomic status and race in accessing resources Indirect relationship between health care, resources, and self-concept Group home population perceived as an issue Familial characteristics associated with DMC A transforming youth culture Attitudes, beliefs, and perceptions toward minorities across multisystem Relationship between academic profile of schools and youth behavior Economic impact on the types of youth being served in the system
A System of Accountability Across Multilevels	Relationship between academic profile of schools and youth behavior Need for accountability within public schools Lack of accountability for training across multisystems Lack of accountability among youth in relation to crimes committed Ineffective implementation strategies across multisystems
Attitudes and Beliefs About Minority Communities and Populations	Attitudes, beliefs, and perceptions toward minorities across multisystems Role of media and social media in exposing criminal activity

Table 22-cont: Generated Theme List with Clustered Codes

Discretionary Practices Across Multilevels of Contact	Discretion of the judge in youth outcomes Discretionary practices by schools on who receives referrals Parent acting as referral agent to court Role of DA in referring juvenile offenders to adult court Role of police officers in DMC Role of schools in DMC Role of SROs in referrals
Issues Pertaining to Hispanic Communities	Youth who are illegal immigrants engaging in crime for deportation Underreporting of crime within immigrant communities Role of legal and illegal immigration and access to resources Need to educate immigrant populations on regulations Lines blurred between legal and illegal immigrants Domestic violence perceived as an issue among Hispanic population Communication barriers for Hispanic populations
Mental Health, Mental Illness, and Associated Factors Contributing to DMC	Stigma associated with mental health, substance use Role of national healthcare in meeting needs of youth Relationship between mental health and DMC Relationship between EC classification and behavior in schools Inability to address mental health issues and substance use among youth

Table 23-cont: Generated Theme List with Clustered Codes

Prevention Strategies to Reduce DMC	Early points of intervention across multisystems of care for youth
Targeted Adult Intervention Strategies to Reduce DMC	Types of training provided across multisystems Recruitment issues related to substance use field Need to provide parental training and support Need to increase diverse professionals across multisystems Need for community education Need for leaders who care and value individuals Lack of officers applying for SRO positions Building equity across multisystems
Youth Intervention Strategies to Decrease DMC	A multisystem of care provided to youth Need for culturally-based extracurricular activities for minority youth Need for more intensive services for substance use issues Need for solutions to disproportionate minority contact Need for youth awareness of DMC Need to transform the culture of crime Positive influence of social media on services Types of youth services needed to decrease

Qualitative Findings

The project's qualitative findings suggest that DMC is a salient policy-practice issue of concern among SROs and diverse stakeholders. Expert participants felt that significant progress had been made, yet it remains a policy-practice issue that should be diligently pursued across the state of North Carolina (see Table 24). Even though participants indicated that illegal immigration is an issue in their community, the group was divided with regard to whether Hispanic youth were disproportionately affected. These findings differed across counties with varying Hispanic populations. Participants indicated that understanding the extent to which DMC affects Hispanic youth was attenuated by the lack of information and under-reporting of crime within the Hispanic community.

Table 24: Focus Group Responses to Initial Guiding Questions (Percentage)

Question	%	
	Yes	No
1. Do you feel there is an urgent need to address disproportionate minority contact in the juvenile justice system in your community? (n = 21)	71%	29%
2. Do you think that Black youth are disproportionately arrested when compared to other racial/ethnic groups? (n = 17)	76%	24%
3. Do you think that Hispanic youth are disproportionately arrested when compared to other racial/ethnic groups? (n = 16)	38%	62%
A. Do you think that too many juveniles in your community are being tried as adults? (n = 18)	56%	44%
B. Do you think that Black and/or Hispanic youth are disproportionately affected (being tried as adults)? (n = 10)	60%	40%
4. Do you think illegal immigration is an issue in your community? (n = 18)	94%	6%

Several participants suggested that disproportionate minority contact is evident within the juvenile justice system; however, there are no single determinants to its cause.

> The challenge is what to do about it without blaming each other but working together so that we understand it and we put initiatives in place to address what needs to be addressed (Focus Group 1).

Although participants discussed the importance of accountability for youth who commit crimes, several respondents indicated that too many juveniles within their community are being tried as adults and commented on its damaging effects.

> [The] raise the age issue has been going on in this state for a very long time and we need to move faster; we need to do something about it….So, we may have a child who is in foster care at the age of 16 who has some ridiculous misdemeanor charge that's going to stay on his or her record for years—forever—and it could keep them out of college. It could keep them out of certain jobs. It could keep them out of certain things to make their lives better. And the raise the age issue…it's one of the most harmful things in my opinion to any child of color but it's [also] bad for all children (Focus Group 4).

The themes that emerged from the qualitative analysis of the study provide a richer insight into factors that may lead to and prevent DMC and involvement in the juvenile justice system. Themes were organized into a hierarchy; those with the highest frequency (the number of times theme was reflected in a code) were identified as the highest priority. For example, *Youth Intervention Strategies* had the highest frequency and associated codes, suggesting that codes associated with intervention appeared the most often. The research team used the hierarchy to frame the analysis in a conceptual model (see Figure 4):

1. Intervention/prevention strategies (factors that lead to reduction in DMC and juvenile court involvement)
2. Risk factors contributing to DMC (factors that lead to DMC and juvenile court involvement)
3. Systems of civic responsibility

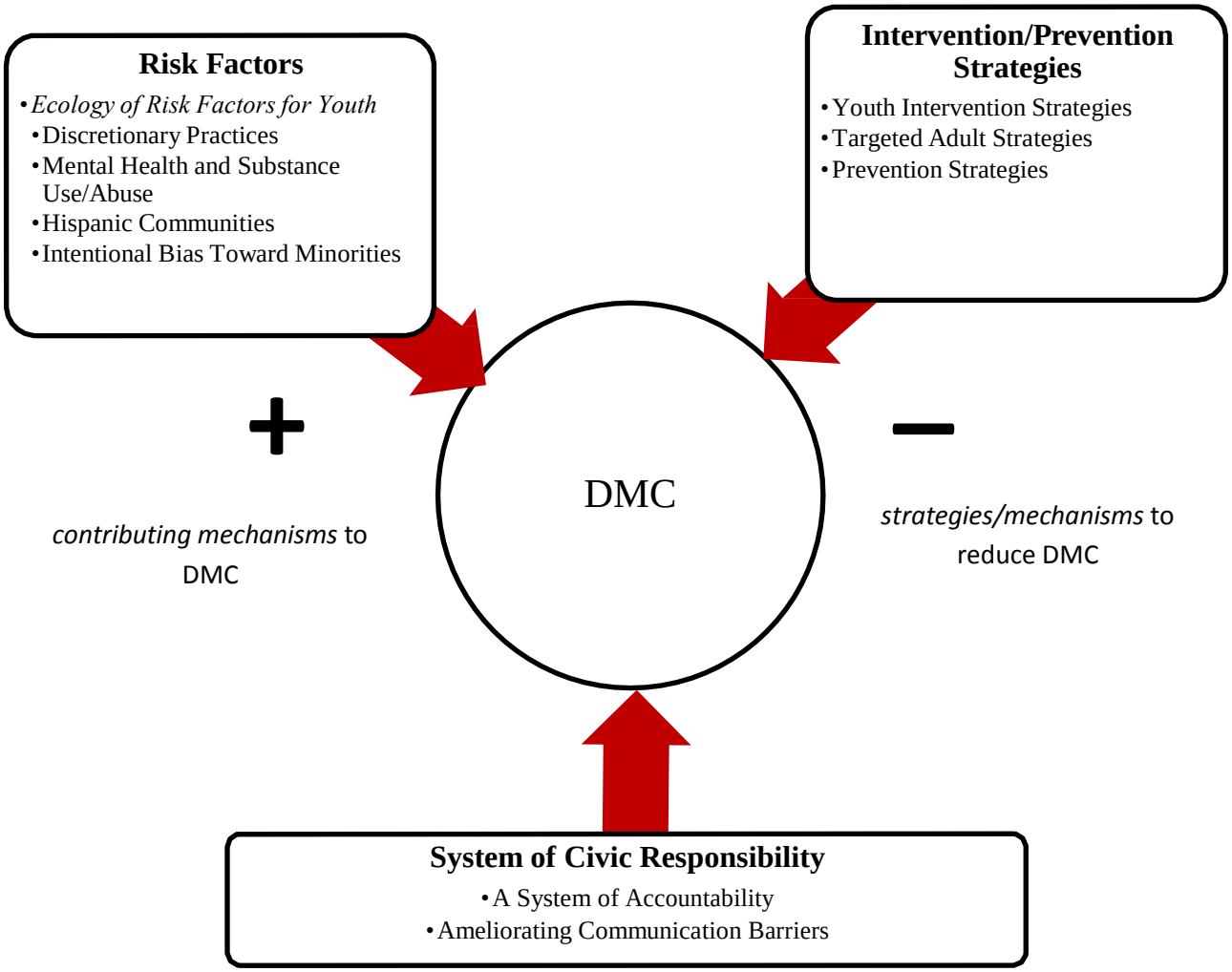

Figure 3: Emergent Conceptual Mode of DMC

Intervention and Prevention Strategies

Intervention and prevention strategies were framed within an ecological context with an emphasis on intervention and prevention that occur across multiple levels—to include youth, parents, families, and other adults with whom youth interact. This broader theme had the highest frequency and highlights the call to identify and evaluate intervention and prevention strategies among high-risk youth. The Office of Juvenile Justice and Delinquency Prevention (OJJDP, 2009) comments, "Jurisdictions must be careful not to allow extended dialogue and analysis of assessment to immobilize [DMC] so that they fail to move forward with active reduction strategies and interventions" (p. 7). This is an important point to consider, and the analysis reveals that it is also salient among SROs and diverse stakeholders. The subthemes that emerged

offer insight into the kinds of programs and services participants perceived as assisting in preventing DMC and youth involvement in the juvenile justice system, whether directly or indirectly. More importantly, this broader theme supports Phase III efforts by OJJDP to identify prevention and intervention strategies that lead to community improvements and positive youth outcomes (OJJDP, 2009).

Youth intervention strategies to reduce DMC. This theme denotes identified strategies, services, and resources needed to deter youth from further involvement in the criminal justice system. Participants also suggested the importance of providing resources to address mental health and substance use issues among youth. Participants from the focus groups emphasized the importance of collaboration across multiple agencies and institutions. They provided numerous insights on types of services and resources that would meet the needs of youth in their community, specifically minority and low-income youth, and they suggested a range of programs that included mentoring, after-school programs, youth athletic leagues, and culturally-based academic programs. The findings that emerged from the focus groups were consistent with intervention research among at-risk youth. For example, studies suggest that mentoring (Vance, Fernandes, & Biber as cited in Tobin & Sprague, 2000) and after-school (Kahne et al., 2001; Tebes et al., 2007) and cultural-based instruction and academic programs (Garibaldi, 1992; Irvine, 1992) serve as essential deterrents to at-risk behavior among minority youth. Concepts such as "cohesion" and "partnership" emerged as important strategies in integrating multiple agencies and institutions to address the needs of youth:

> [There is a need to develop] treatment team meetings; [where] there can be a focus on what is in the best interest of the child…so that we need to do more to support the work of the justice system in that area. Our courtrooms, our judges are often overburdened. Our social workers are overburdened. There needs to be recognition that these are partners and the community needs to understand that we need—no one agency—schools or welfare system or the court system—can solve all of the problems. But there's that real need for collaboration, a partnership (Focus Group 4).

Targeted adult intervention strategies to reduce DMC. This theme denotes the strategies that target adults within the context of youth to promote DMC reduction across multisystems. Studies continue to demonstrate the role of positive adults in the lives of youth and targeted intervention strategies for parents and families (Anderson, Sabatelli, & Kosutic, 2007; Liddle & Hogue, 2000). Participants from the focus groups suggested a variety of strategies that were directed not at youth but rather at the adults they interact with across multiple levels. For example, participants suggested the importance of parent education and its relationship to youth outcomes:

> The DMC issue for me is it goes deeper than just addressing the issues within these systems. It's the parenting of our students and I've always said that we have to begin within this community to educate our parents on some of the issues within these systems. And some of the issues with their parenting skills…So, I think we have to start addressing some of those issues about parents within our community before we can even address some of these issues systematically because we're having issues within our community as far as parenting (Focus Group 4).

Other targeted strategies included providing training (i.e., cultural diversity and sensitivity) to SROs, teachers, and schools. Participants indicated the importance of having adults who value youth and their unique experiences. For example, some participants suggested that there is value in having the "right" individuals at key decision points within the juvenile justice system and school:

> But I think the secret to everybody's conversation is that you have to get people in positions that care (Focus Group 1).

Prevention strategies to reduce DMC. This theme denotes the identified strategies, services, and resources that prevent youth from contact and involvement in the criminal justice system. Participants from the focus groups highlighted the importance of prevention strategies:

> I mean, we need to catch these things earlier. And prevention is key. Once you get to the point of intervention, there's not—it's not as easy to fix (Focus Group 6).

Participants identified a number of strategies to prevent youth from having contact with and involvement in the juvenile justice system. For example, participants suggested providing family services early (i.e., parenting support) and connecting them to resources (e.g., mental health,

social services, etc.). Another important factor that emerged from the focus groups was the need to improve youth perception of and relationship with law enforcement. Participants indicated that early positive contact with law enforcement can have implications on future encounters and involvement in the juvenile justice system. For example, a participant indicated the use of the *Gang Resistance Education and Training* (GREAT) program, which currently involves working with elementary youth to improve perceptions of law enforcement and reduce gang involvement.

Risk Factors Contributing to DMC

A major aim of the report was to assess contributing factors to DMC from the participants' perspective. This theme centered on ecology of risks, and subthemes were identified. Situated within this ecology, there were individual, family, community/neighborhood and institutional factors that contribute to DMC. These were confounded with public attitudes and beliefs that may bias how individuals respond to youth and lead to a disproportionate number of minority youth transitioning through the juvenile justice pipeline.

An ecology of risk factors for youth contributing to DMC. The *ecology of risk* theme denotes the associated risks that exist across multiple levels, from family and neighborhood demographics to policies that may contribute to DMC. Participants mentioned a number of risk factors, both direct and indirect, that may contribute to DMC and youth's involvement in the juvenile court system. These risks were identified at individual, familial, neighborhood, school, and policy levels. Additionally, this theme further corroborates the role of individual and systemic risks in predicting involvement within the juvenile justice system (Freiburger & Jordan, 2011; Nicholson-Crotty, Birchmeire, & Valentine, 2009; Rodriguez, 2010). Risk factors can be individual characteristics, life experiences, events, or contextual factors. Furthermore, a cumulative risk perspective argues that certain risk factors can elevate the odds for other types of problems and disorders (Fraser, Richman, & Galinsky, 1999).

Participants identified individual risks such as a culture of crime among youth, mental illness, substance use/abuse, and learning disability. Familial risks were associated with single-parent households, lack of father figures, lack of parental involvement and responsibility, and low socioeconomic status. From the participants' perspective, low socioeconomic status was often associated with levels of crime and exposure to violence at the neighborhood level. For

example, participants discussed the intersection between individual factors (race) and socioeconomics (familial):

> When we speak of children of color and the disproportionate representation in certain areas there is that link to poverty. And that's one that I think we need to really focus on as well…I think that it is important to see that the children that are in the juvenile justice system and the children that are in the abuse and neglect hearings are often the same children. And they come from families that are poor that need services (Focus Group 4).

Participants also identified risks at the school and policy level. School-level characteristics such as suspension and academic failure have been shown to serve as a determinant of risks of delinquent behavior among youth (Christle, Jolivette, & Nelson, 2005). Furthermore, research also demonstrates how zero-tolerance policies often contribute to a school to prison pipeline (Cobb, 2009; Nicholson-Crotty, Birchmeiere, & Valentine, 2009; Skiba, 2000; Wald & Losen, 2003). More specifically, participants suggested that the zero-tolerance policy adopted by school systems has resulted in a higher number of youth being referred to the juvenile court system:

> The schools have created policies and procedures that automatically send kids to court for certain offenses. This "Zero Tolerance" policy that we have—a fight that might break out that maybe you and I might've been involved in [unintelligible], now they just send them right on downtown. So, those kind[s] of policies don't help with us addressing this issue of DMC (Focus Group 4).

Discretionary practices across multiple levels of contact. This theme denotes the discretion across referral agents (i.e., SROs, school administrators, teachers, and court officials) in forming decisions around the types of youth referred and associated consequences within the system. Participants from the focus groups suggested that discretionary practices existed across multiple levels, from the school system to decisions made by the judge and district attorney (DA). Such practices result in differential treatment toward minority and non-minority youth. Several participants suggested that DMC starts with school referrals and discretionary practices by school administrators and teachers. For example, participants mentioned how some decisions were initiated by teachers who referred some students over others to school administrators. In turn, school administrators decide whether or not students will be referred to the SRO.

Participants suggested that school principals form attitudes around certain youth and actively target their removal from school:

> A lot of principals know who the good kids are and who the bad kids are and who's going to stay and who to get rid of. Honestly, to say it, you have a lot of administrators at the beginning of the year say, "*Hey, that kid's not going to be here long because he's going to cause problems*." They automatically tell you at the beginning and they'll sit down probably in meetings with others, "We're going to get rid of this one. We're going to get rid of that one. We're going to make sure these are gone." That's why at the beginning of the year you always see the numbers so high because they're getting rid of the kids they think are bad seeds. That has a lot to do with the administration (Focus Group 5).

Mental health and substance use issues contributing to DMC. This theme denotes the association between mental health, illness, and substance use/abuse and DMC. Participants indicated that there were stigmas associated with mental illness and substance use that can translate into a family or youth's inability to access services. Several participants suggested that there is a relationship between mental illness, substance use/abuse and involvement in the juvenile justice system:

> I definitely think there is a link between substance abusive, addictive disorders, mental health issues, and court-involvement with youth…And so, if they don't acknowledge that and don't seek treatment…then, certainly, that's going to lead to involvement with the court system or can lead to involvement with the court system or jail because they don't have any place else to house them (Focus Group 1).

Issues pertaining to Hispanic communities. This theme denotes the issues around perceptions of and access to resources among immigrant and nonimmigrant communities. Participants from the focus groups varied in their views of Hispanic communities depending on frequency of contact and the county population characteristics (whether there was a significant Hispanic community in the county). Therefore, perceptions varied regarding different kinds of issues that were associated with Hispanic communities. Several participants suggested that their knowledge of whether Hispanics were disproportionately affected by DMC was attenuated by underreporting within Hispanic communities, which makes it difficult to have an accurate assessment of their use of resources and involvement in the juvenile justice system. In addition, the fear of deportation instilled through immigration laws and policies may promote underreporting and less access to resources. As mentioned in one focus group:

> Specifically with the Hispanic community someone mentioned the word 'fear' and that's something that from the advocate perspective we hear a lot of, especially from the children and the families. If you have a family member who's undocumented and you do something and mom has to come to court and you're risking deportation for a family member. I think that there's a very real lack of services for the Hispanic community (Focus Group 4).

Intentional bias towards minorities across multisystems. This theme denotes the bias associated with perceptions, attitudes, and beliefs about minority communities and populations regarding crime and behavior. This theme manifested in many different ways, from participants identifying the role of racism in DMC to the way the media portrays and reinforces stereotypes about specific cultural groups and neighborhoods. Participants indicated that neighborhoods and schools with a higher minority population are often depicted in negative ways by the media and perceived differently by SROs. As a result, individuals develop perceptions around certain neighborhoods and schools that may lead to a higher number of police officers patrolling areas for crime. This theme also captured the expressions and attitudes of a member of law enforcement from one of the focus groups. The participant's attitudes reflected their own bias towards minority youth:

> Probably, because they [are] so confrontational, the Black youth is…If, like, when you're on patrol, if you're out there and you stop a car and the person is polite, the person talks

> to you with some sense like you talk to them, well, it's a possibility that person's going to get off with a lighter charge…But if you're confrontational with him, it's going to be a different outcome, I think. And most minorities are very confrontational (Focus Group 2).

System of Civic Responsibility

Civic responsibility is an essential characteristic to any just and democratic society because it promotes a sense of responsibility and active participation in upholding a sense of community and common good (Ehrlich, 2000). This theme also speaks to holding all stakeholders, including youth, accountable for their actions and responsible for promoting community justice and well-being. Furthermore, this theme also captures the importance of improving data collection and reporting efforts across settings in order to promote transparency and stronger evaluative efforts.

To promote youth development, practitioners, policy makers, community activists, researchers, parents, school officials and youth must focus on developing a broad array of outcomes that foster the well-being of young people and their families. Many studies on juvenile offenders examine recidivism as a bottom-line determinant of DMC without examining other factors such as promoting job success, improving mental health, and teaching youth to develop positive pro-social relationships.

A system of accountability across multiple level of contact. This theme denotes the importance of accountability across all stakeholders and institutions in the lives of youth. Participants from the focus groups suggested that accountability was missing across many levels, including youth, parents, and institutions (i.e., schools). For youth, concepts such as restorative justice were mentioned as ways in which youth could be held accountable to their community:

> "[Youth] should pay. But when you take them out of that community in which that crime or that issue was done and they pay a penalty somewhere else and they don't pay it in the community, what really happened? Because they're going back to that community when they get out and they really haven't paid restitution to that community…[we need] to restructure that idea that they can pay that restitution back to the community in which that act was had...(Focus Group 4).

Several participants mentioned that without a system of accountability for youth, the wrong message is sent and can influence future behavior:

> [Certain youth] can sit in class and cuss out their teachers and do all this stuff. We come in and remove them but the principal can't do anything to them. They might be suspended from school for one day but then they come back and so other kids see, 'Well, nothing happened to him, so why can't we act like that?' or, 'He's so cool because he acted this way in class' (Focus Group 5).

Although many of the participants agreed that youth should be held accountable, some participants discussed the relationship between youth behavior and parental involvement. Several participants indicated that if the system is trying to change youth behavior, parents need to be held responsible and accountable:

> I think a big piece is parent accountability. We really tend to focus more just on the child. And we're so overwhelmed and our resources are so thin but yet we're putting so much into this child—which we need to—but then what's going on with the family members? That's a huge piece here. How are we going to involve these parents in the treatment for these children? Nothing is going to change unless we get to the [family] (Focus Group 3).

Participants also suggested that accountability was an issue within the school system, suggesting that there is underreporting and a lack of transparency around how decisions for suspension and court referrals are made:

> The school system has to be transparent. They have to report what's going on and whereas—what's going on in all these other places…and they have to be held accountable for that (Focus Group 1).

Several participants discussed the "Race Matters" training across the state and how some individuals did not take it seriously or change any of their attitudes and behaviors. For example, a few of the participants indicated that cultural sensitivity training is provided to SROs and law enforcement officials but, unfortunately, it is not integrated into new practices. Participants from two different focus groups indicated that such training initiatives are not taken seriously:

> This training existed for the last 20 years but yet we still have these issues. We even have [training]; we can talk about [race]. We'll have this culture and diversity, people will attend but yet still, once they've attended…[then] let's go back to business as usual. So, [I don't] put much faith in this. [It is not] going to make a difference (Focus Group 3)

> So, I mean, so, you're going to have some people that are going to take the training serious and watch it and apply it to their job [You are} are going to have some people who say, 'Well, you know something. Excuse me, I don't give a damn. I'm going to do—I'm going to be who I am, and I'm going to do what I want to do' (Focus Group 2).

Although this emerged from the focus groups, it is important to understand and value the cultural traditions of people of color. Training that address cultural inclusiveness with Black and Hispanic families should include members of the extended family and kinship networks. Additionally, cultural inclusiveness with Hispanic families should involve bilingual mediators so that all parties are able to fully participate.

Ameliorating communication barriers. This theme denotes the communication barriers that participants perceive exist between schools and other professionals who have direct contact with youth (i.e., social workers and deputies). Several participants suggested that school administrators do not communicate their needs and student problems effectively to other support professionals. Such barriers can inhibit early points of intervention and access to alternative resources outside the juvenile court system.

Discussion

It is important that research conducted with juvenile offenders ensure that the data they collect reflects an ecological (person-in-environment) perspective. The research should be designed to collect data on psychosocial factors that provide illuminating information on the environment and community of the offender. Having a greater quantity of information about the offender's circumstances not only allows for a more complete analysis of factors that affect contributing factors to DMC but provides useful information that policy makers can use in developing and implementing interventions.

Data examined in this study evidenced high rates of overrepresentation in prior arrests among Blacks. Similarly, Blacks have higher rates of participation in non-divertible cases such as felony arrests. This is significant because many Blacks may not have the opportunity to participate in potentially helpful diversionary programs that target "first time" offenders or offenders of less serious crimes. For many persons of color, disparity likely occurs prior to entry into the system as indicated by high scores on risk and needs assessments at intake. Quantitative

data demonstrates, for Blacks in particular, a statistically significant impact at multiple decision points.

The findings from this study also indicate a correlation between risk, race, and the likelihood of cases being approved. The use of effective intervention programs has the potential to enhance protection by helping youth deal with adversity and promotes healing. Protective factors that inhibit delinquency can be nurtured through bonding with pro-social groups and individuals. Prevention programs can enhance protective factors and reduce risk for delinquency by empowering youth to adopt values that denounce antisocial behaviors such as criminal involvement, drinking, and illegal drug use.

Ultimately, the data demonstrates a need for a system of civic responsibility in which youth serving organizations such as schools, mental health and social service agencies, faith and community-based organizations, and families must more adequately address minority youth at micro (individual) and macro (policy) levels to effectively reduce crime. Juvenile crime is an obdurate social problem, yet so much progress has been made. Each person must come to see themselves as stakeholders in the criminal justice system and strive to advance social justice to enhance community living and to improve the social and emotional well-being of offenders in an effort to reduce re-offending behavior. Identifying interventions that are successful thus becomes an important mission for research.

Currently, the data available for qualitative analysis for this report does not adequately address the relationship between intervention and decision points. No data was available about offender attendance in prevention programs. Such research has the potential to add to the knowledge base and inform evidence-based practice with groups of Black, Native American, and Hispanic youth. More empirical research that evaluates the effectiveness of intervention programs has the potential to improve policy and practice initiatives of criminal justice and related agencies as well as of public safety and quality of life for offenders and victims.

Leiber and Rodriguez (2011) emphasized DMC progress in regard to theory, research, and intervention, yet they recognized the need for improvement. “There is value in the DMC mandate with its focus on equitable treatment of all youth. Data problems and expenses may not allow for assessment studies to be conducted annually but it is important for states to sponsor research into the causes of DMC at least within a 5-year period from the last assessment study” (p. 117). With this assessment report, the GCC is completing a major step toward identifying the

causes ofDMC in the NC juvenile justice system. Expectantly, stakeholders will utilize this report and the concluding recommendations as noted in Figure 4 below as a guide to create practical steps to alleviate DMC further implementing processes and systems to ensure equitable treatment for all youth.

Figure 4: Contributing Mechanisms to DMC in the Juvenile Justice System

Contributing Mechanism	Quantitative Findings	Qualitative Findings	WSSU Recommendations
Immigration-and Migration-Related Mobility	N/A	94% of focus group participants indicated that illegal immigration is an issue in their community. Fear of deportation due to immigration laws and policies may promote underreporting and less access to resources.	More evidence-based interventions with Hispanic youth needed.
Indirect Effects	"Indirect effects" is a broad term that refers to economic status, education, location, and a host of risk factors associated with delinquent behavior. Geography, risk and needs score are measured discretely in the quantitative analysis as contributing mechanisms.	N/A	N/A
Specific Risk Factors	A higher risks and needs score increases likelihood of the case being approved. The higher the risk and needs scores, the less likely the complaint will be either diverted or closed at intake. The higher the risk score, the more likely the complaint will be adjudicated or disposed. A higher needs score decreases the likelihood of the case being adjudicated or disposed.	Mental illness and substance use/abuse. Familial risks were associated with single-parent households, lack of father figures, lack of parental involvement and responsibility, and low socioeconomic status.	Expand opportunities for appropriate intervention. Examine referral policies of schools in each district. Increase the voice of under-represented minority groups by including parents and youth on local DMC committees.

Contributing Mechanism	Quantitative Findings	Qualitative Findings	WSSU Recommendations
Programming Access/Eligibility	N/A	Stigmas associated with mental illness and substance use can translate into a family or youth's inability to access services. Fear of deportation due to immigration laws and policies may lead to less access to resources.	Provide culturally competent mental health treatment for youth of color. Implement prevention services that factor in language barriers and cultural dynamics.
Differential Treatment	Statewide, Blacks and Hispanics are less likely to have their complaint closed at intake, and less likely to have their complaint diverted. There is a great deal of county-to-county variation in the way that complaints are handled by the Division of Juvenile Justice.	Discretionary practices exist across multiple levels, from the school system to decisions made by the judge and district attorney. Such practices result in differential treatment toward minority and non-minority youth. Intentional bias: Neighborhoods and schools with a higher minority population are often depicted in negative ways by the media and perceived differently. Therefore, individuals develop perceptions around certain neighborhoods and schools that may lead to a higher number of police officers patrolling areas for crime.	Include high-level policy makers from each area and school district on local statewide DMC committees (e.g., superintendent or assistant superintendent).
Differential Processing or Inappropriate Decision-Making Criteria	In Buncombe, Wayne, and New Hanover Counties, Blacks are significantly less likely to have their complaint diverted, even after considering all relevant and available control variables.	N/A	Further analysis of complaint data in 2012 and 2013 in Buncombe, Wayne, and New Hanover counties

Contributing Mechanism	Quantitative Findings	Qualitative Findings	WSSU Recommendations
Justice by geography	Offenses located in NC's Eastern, Central, and Western regions were more likely to be approved than offenses in the Piedmont region. Offenses located in NC's Eastern, Central, and Western regions were more likely to be diverted than offenses in the Piedmont region. Juveniles located in NC's Eastern, Central, and Western regions were more likely to have their complaints closed compared to juveniles in the Piedmont region. Complaints in NC's Eastern, Central, and Western regions were more likely to be adjudicated than complaints in the Piedmont region. Juveniles in NC's Eastern, Central, and Western regions were more likely to receive probation than juveniles in the Piedmont region.	N/A	Statewide and local DMC Committees collaborate to develop appropriate regional interventions and policy strategies that address disproportionality at key decision points.

Contributing Mechanism	Quantitative Findings	Qualitative Findings	WSSU Recommendations
Legislation, Policies, and Legal Factors	N/A	The zero-tolerance policy adopted by the state in school systems has resulted in a higher number of youth being suspended and referred to the juvenile court system. Tried as an adult: deleterious effects of youth being tried as adults at the age of 16.	Hold town hall or other meetings to update school officials about study findings, and examine ways to reduce the number of school initiated referrals. Implementation of statewide cultural competency training program with SROs. Examine the feasibility of churches and other local nonprofits offering low or no-cost youth development programs to reduce risk factors and increase pro-social behaviors in area where there is a dearth in evidence-based programs.
Simple Accumulation	Blacks, Hispanics, and American Indians were less likely to get their cases diverted, after controlling for all the independent variables, as compared to Whites. This adds to the overrepresentation in the system that already exists at intake.	N/A	

Figure 5: Focus Group Questions

Disproportionate Minority Contact Focus Group Questions	
Date:	
2011–2012 NCDMC Assessment Study-IRB#2986-12-0065	
Question 1.	Do you feel there is an urgent need to address disproportionate minority contact in the juvenile justice system in your community? Why or why not?
Question 2.	Do you think that Black youth are disproportionately arrested when compared to other racial/ethnic groups? Why or why not?
Question 3.	Do you think that Hispanic youth are disproportionately arrested when compared to other ethnic/racial groups? Why or why not?
Question 4.	Do you think that too many juveniles in your community are being tried as adults? If so, do you think that Black and/or Hispanic youth are disproportionately affected? Why or why not?
Question 5.	Do you think that illegal immigration is an issue in your community? If so, how (if at all) does it relate to arrest among Hispanic youth or other immigrant-minority youth? How does your community address this issue?
Question 6.	What are the role(s) of the school system in addressing DMC?
Question 7.	Have you received cultural diversity/sensitivity training? If yes, how have you utilized cultural diversity/sensitive training in your work with at-risk youth?
Question 8.	What programs in your community help reduce disproportionate minority contact? Do you think they are effective? Why or why not?
Question 9.	What services do you think minority youth need in your community? Do they have access to these services?
Question 10.	Is access (or lack of access) to health care or mental health treatment a factor in minority youth obtaining the services they need in your community? Why or why not?

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Glossary[10]

Adjudicate: To settle a case by judicial procedure.

Arrest: An act in which law enforcement agencies apprehend, stop, or otherwise contact a youth suspected of having committed a delinquent act.

Complaint: Report from a law enforcement officer or from a member of the community made to the juvenile court counselor alleging delinquent acts committed by a juvenile.

Contributing mechanisms: Social influences that increase the likelihood of a minority youth coming into contact with the juvenile justice system.

Cox regression: A method that returns the probability that an event has occurred within a unit of time, taking into account multiple independent variables.

Decision points: Stages in the process of the juvenile justice system. DMC may exist at one decision point, several decision points, or none at all.

Detention: Temporary confinement of a youth alleged to be delinquent pending pretrial release, juvenile court proceedings, or disposition.

Disposition: The decision reached concerning a young person's case. Examples include, but are not limited to, a juvenile court judge's decision to dismiss the case or to order a young person to participate in a drug treatment program or perform community service.

Disproportionality: A higher number of minority youth in a particular decision point than their number in the general population.

Disproportionate Minority Contact: A higher number of minority youth who come in contact with the juvenile justice system in proportion to their numbers in the general population.

Diversion: Intervention services delivered to a delinquent or undisciplined juvenile when a complaint is not approved for filing as a petition.

Intake: "Process of screening and evaluating a complaint alleging that a juvenile is delinquent or undisciplined to determine whether the complaint should be filed as a petition" G.S. 7B-1501(13).

JCPC: Juvenile Crime Prevention Council: a county-level advisory board consisting of diverse citizens (representing law enforcement, education, service/civic organizations, business, youth, criminal justice, faith communities, and human services) charged with identifying necessary

[10] The following sources were used for the definitions in the glossary: National Clearinghouse on Families & Youth, n.d.; NCDPS-DJJ, n.d.; and OJJDP, 2009.

services for juveniles, and assuring that resources are available to help reduce delinquency and community crime.

Juvenile court counselor: "Person responsible for intake services and court supervision services to juveniles under the supervision of the chief court counselor" G.S. 7B-1501(18a). In some jurisdictions, the juvenile court counselor who primarily provides intake services is referred to as the intake counselor.

Minority youth: For the purposes of this study, a person between the ages of 6 and 15 who is American Indian or Alaska Native, Asian, Black, Hispanic, Native Hawaiian or other Pacific Islander.

Needs assessment: Systematic assessment of services and treatment needs of juvenile and family, which should be addressed in a court disposition or a service plan.

Non-divertible offenses: The juvenile court counselor must authorize the filing of a petition if there are "reasonable grounds to believe that a juvenile has committed" one of the specified offenses. The following offenses are non-divertible: murder, rape, sexual offense, arson, any violation of the controlled substance act that would be a felony if committed by an adult, first-degree burglary, crime against nature, any felony that involves serious bodily injury.

Overrepresented: refers to a situation in which a larger proportion of a particular group is present at various stages within the juvenile justice system (such as intake, detention, adjudication, and disposition) than would be expected based on their proportion in the general population.

Petition: The formal charging document filed in ***juvenile court*** alleging that a youth has committed a ***status offense*** or ***delinquent offense*** or is a ***dependent***. A petition asks that the court hear the young person's case or, in certain delinquency cases, that the court transfer the case to adult criminal court so that the young person can be prosecuted as an adult.

Probation: Placing a youth found to have committed an offense under the supervision of the court.

Referral: Sending forward a potentially delinquent youth for legal processing (to be received by a juvenile or family court or by a juvenile intake agency) either as a result of law enforcement action or in response to a complaint by a citizen or school.

Status offenses: Behavior that is considered an offense only if carried out by a young person. Status offenses are handled only by the ***juvenile court*** and include the following:

> Curfew violation: Breaking a regulation requiring young people to leave the streets or be at home at a prescribed hour.
>
> Running away: Leaving the home of parents, guardians, or custodians for an extended period without permission.

Truancy: Failing to attend school.

Appendix I: Multivariate Analyses of the Five Largest Counties

Table 25: Guilford County Cox Regression Using Offense and Social Variables to Predict Likelihood of Complaints Being Approved

	B	SE	Wald	Sig.	Exp(B)
Age	0.019	0.028	0.483	0.487	1.019
Violent[2]	-0.004	0.017	0.064	0.800	0.996
Property[2]	0.006	0.020	0.085	0.771	1.006
Drugs2	-0.059	0.046	1.691	0.193	0.942
Weapons[2]	-0.044	0.047	0.891	0.345	0.957
Black[1]	0.147	0.102	2.063	0.151	1.158
Hispanic[1]	0.239	0.190	1.593	0.207	1.270
American Indian[1]	0.397	0.515	0.595	0.441	1.488
Asian[1]	0.074	0.375	0.039	0.844	1.077
Gender	-0.104	0.094	1.217	0.270	0.901
Prior Complaints	-0.020	0.015	1.817	0.178	0.980
School	0.734	0.585	1.577	0.209	2.084
Retail*	0.115	0.592	0.038	0.845	1.122
Parking Lot	0.518	0.593	0.763	0.382	1.678
Residential	0.587	0.586	1.003	0.317	1.799
Other Location	0.689	0.627	1.208	0.272	1.993
Risk Score***	0.068	0.014	25.374	0.000	1.070
Needs Score*	0.018	0.010	3.385	0.066	1.018

*p < .05 **p < .01 ***p < .001.

n=972; 629 cases were approved

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Table 26: Mecklenburg County Cox Regression Using Offense and Social Variables to Predict Likelihood of Complaints Being Approved

	B	SE	Wald	Sig.	Exp(B)
Age***	0.166	0.037	20.488	0.000	1.181
Violent[2]***	0.207	0.021	101.308	0.000	1.230
Property[2]***	0.227	0.025	83.049	0.000	1.255
Drugs[2]**	0.116	0.053	4.749	0.029	1.123
Weapons[2]	0.032	0.076	0.177	0.674	1.033
Black[1]	0.213	0.140	2.322	0.128	1.237
Hispanic[1]	-0.008	0.207	0.001	0.970	0.992
American Indian[1]	-6.094	96.418	0.004	0.950	0.002
Asian[1]	0.304	0.524	0.338	0.561	1.356
Gender	0.076	0.139	0.298	0.585	1.079
Prior Complaints***	0.076	0.016	21.530	0.000	1.079
School	-0.348	0.427	0.662	0.416	0.706
Retail*	-0.825	0.455	3.283	0.070	0.438
Parking Lot	-0.177	0.447	0.157	0.692	0.838
Residential	-0.214	0.425	0.255	0.614	0.807
Other Location	0.253	0.442	0.327	0.568	1.287
Risk Score***	0.053	0.014	14.928	0.000	1.054
Needs Score***	0.053	0.010	29.265	0.000	1.054

*p < .05 **p < .01 ***p < .001.

n=1,847; 437 cases were approved

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Table 27: Cumberland County Cox Regression Using Offense and Social Variables to Predict Likelihood of Complaints Being Approved

	B	SE	Wald	Sig.	Exp(B)
Age*	0.054	0.028	3.616	0.057	1.055
Violent[2]	0.008	0.018	0.178	0.673	1.008
Property[2]**	0.073	0.025	8.583	0.003	1.076
Drugs[2]	0.019	0.052	0.128	0.721	1.019
Weapons[2]	-0.086	0.056	2.394	0.122	0.917
Black[1]	0.064	0.129	0.248	0.619	1.067
Hispanic[1]	-0.010	0.249	0.002	0.967	0.990
American Indian[1]	0.428	0.290	2.182	0.140	1.535
Asian[1]	-0.580	0.463	1.571	0.210	0.560
Gender**	0.302	0.117	6.658	0.010	1.353
Prior Complaints***	0.135	0.034	15.450	0.000	1.145
School**	-1.649	0.726	5.163	0.023	0.192
Retail**	-1.676	0.736	5.185	0.023	0.187
Parking Lot**	-1.577	0.736	4.587	0.032	0.207
Residential**	-1.944	0.728	7.139	0.008	0.143
Other Location**	-1.958	0.806	5.911	0.015	0.141
Risk Score**	0.050	0.017	9.100	0.003	1.051
Needs Score**	0.023	0.011	4.720	0.030	1.023

*p < .05 **p < .01 ***p < .001.

n=910; 427 cases were approved

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Table 28: Forsyth County Cox Regression Using Offense and Social Variables to Predict Likelihood of Complaints Being Approved

	B	SE	Wald	Sig.	Exp(B)
Age	-0.019	0.057	0.108	0.742	0.981
Violent[2]**	0.088	0.033	6.989	0.008	1.092
Property[2]	-0.016	0.038	0.191	0.662	0.984
Drugs[2]**	0.217	0.073	8.744	0.003	1.242
Weapons[2]	-0.133	0.157	0.723	0.395	0.875
Black[1]	-0.172	0.240	0.510	0.475	0.842
Hispanic[1]	-0.080	0.269	0.089	0.766	0.923
American Indian[1]	1.887	1.080	3.054	0.081	6.596
Gender**	-0.042	0.210	0.040	0.841	0.959
Prior Complaints*	0.047	0.028	2.895	0.089	1.048
School**	-1.172	0.534	4.820	0.028	0.310
Retail*	-1.074	0.612	3.081	0.079	0.342
Parking Lot	-0.703	0.557	1.595	0.207	0.495
Residential*	-0.885	0.528	2.810	0.094	0.413
Other Location	-0.604	0.607	0.990	0.320	0.546
Risk Score***	0.122	0.021	33.532	0.000	1.130
Needs Score	-0.020	0.017	1.450	0.229	0.980

*p < .05 **p < .01 ***p < .001.

n=588; 197 cases were approved

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Table 29: Wake County Cox Regression Using Offense and Social Variables to Predict Likelihood of Complaints Being Approved

	B	SE	Wald	Sig.	Exp(B)
Age	.006	.033	.037	.848	1.006
Violent[2]**	.052	.019	7.084	.008	1.053
Property[2]**	.068	.024	7.970	.005	1.070
Drugs[2]**	.127	.044	8.174	.004	1.135
Weapons[2]	-.121	.078	2.397	.122	.886
Black[1]	.110	.125	.777	.378	1.116
Hispanic[1]	.103	.162	.407	.524	1.109
Asian[1]	.828	.718	1.332	.248	2.290
Gender	.063	.117	.290	.590	1.065
Prior Complaints*	.045	.023	3.931	.047	1.046
School	-.459	.423	1.174	.279	.632
Retail**	-1.125	.442	6.487	.011	.325
Parking Lot	-.474	.432	1.201	.273	.623
Residential	-.384	.423	.825	.364	.681
Other Location	-.662	.477	1.928	.165	.516
Risk Score***	.089	.014	41.418	.000	1.093
Needs Score	.010	.011	.784	.376	1.010

*p < .05 **p < .01 ***p < .001.

n=969; 484 cases were approved

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Table 30: Guilford County Cox Regression Analysis Using Offense and Social Variables to Predict Likelihood of Complaints Being Adjudicated

	B	SE	Wald	Sig.	Exp(B)
Age	0.055	0.039	1.968	0.161	1.056
Violent[2]	-0.031	0.025	1.487	0.223	0.970
Property[2]	-0.020	0.028	0.500	0.479	0.980
Drugs[2]	-0.053	0.060	0.765	0.382	0.949
Weapons[2]	-0.095	0.067	1.991	0.158	0.910
Black[1]	0.017	0.136	0.016	0.899	1.017
Hispanic[1]	0.260	0.271	0.918	0.338	1.296
American Indian[1]	-1.075	0.748	2.066	0.151	0.341
Asian[1]	0.855	0.539	2.522	0.112	2.352
Gender**	-0.320	0.130	6.052	0.014	0.726
Prior Complaints	-0.013	0.019	0.437	0.508	0.987
School	0.646	0.591	1.195	0.274	1.908
Retail	0.096	0.606	0.025	0.874	1.100
Parking Lot	0.235	0.611	0.148	0.701	1.265
Residential	0.338	0.595	0.322	0.571	1.402
Other Location	0.528	0.665	0.630	0.427	1.695
Risk Score***	0.070	0.017	16.377	0.000	1.073
Needs Score	-0.002	0.012	0.040	0.841	0.998

*p < .05 **p < .01 ***p < .001.

n=972; 363 cases were adjudicated

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Table 31: Mecklenburg County Cox Regression Analysis Using Offense and Social Variables to Predict Likelihood of Complaints Being Adjudicated

	B	SE	Wald	Sig.	Exp(B)
Age**	0.145	0.052	7.584	0.006	1.156
Violent[2]	-0.003	0.035	0.006	0.940	0.997
Property[2]	0.045	0.036	1.537	0.215	1.046
Drugs[2]*	-0.182	0.106	2.941	0.086	0.834
Weapons[2]	-0.005	0.087	0.003	0.958	0.995
Black[1]*	0.333	0.178	3.484	0.062	1.395
Hispanic[1]	0.388	0.262	2.187	0.139	1.474
American Indian[1]	-4.710	177.407	0.001	0.979	0.009
Asian[1]	-0.877	1.072	0.669	0.413	0.416
Gender	0.116	0.185	0.397	0.529	1.123
Prior Complaints	0.027	0.020	1.747	0.186	1.027
School	-0.335	0.456	0.541	0.462	0.715
Retail	-0.585	0.491	1.418	0.234	0.557
Parking Lot	-0.577	0.516	1.248	0.264	0.562
Residential	-0.229	0.449	0.259	0.611	0.796
Other Location	-0.178	0.482	0.137	0.711	0.837
Risk Score**	0.051	0.017	9.536	0.002	1.053
Needs Score	0.014	0.012	1.378	0.240	1.014

*p < .05 **p < .01 ***p < .001.

n=1,847; 246 cases were adjudicated

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Table 32: Forsyth County Cox Regression Analysis Using Offense and Social Variables to Predict Likelihood of Complaints Being Adjudicated

	B	SE	Wald	Sig.	Exp(B)
Age	0.066	0.082	0.649	0.421	1.068
Violent[2]	-0.072	0.048	2.228	0.136	0.931
Property[2]**	-0.139	0.047	8.593	0.003	0.870
Drugs[2]	-0.016	0.101	0.025	0.874	0.984
Weapons[2]	-0.010	0.139	0.005	0.942	0.990
Black[1]**	-0.699	0.280	6.240	0.012	0.497
Hispanic[1]**	-0.780	0.305	6.562	0.010	0.458
Gender	-0.200	0.258	0.602	0.438	0.819
Prior Complaints	-0.001	0.036	0.001	0.975	0.999
School	-0.151	0.639	0.056	0.813	0.860
Retail	-0.385	0.736	0.274	0.601	0.680
Parking Lot	0.051	0.683	0.006	0.940	1.052
Residential	-0.249	0.639	0.152	0.697	0.780
Other Location	-0.079	0.719	0.012	0.912	0.924
Risk Score***	0.107	0.024	20.381	0.000	1.113
Needs Score	-0.022	0.019	1.470	0.225	0.978

*p < .05 **p < .01 ***p < .001.

n=588; 139 cases were adjudicated

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Table 33: Wake County Cox Regression Analysis Using Offense and Social Variables to Predict Likelihood of Complaints Being Adjudicated

	B	SE	Wald	Sig.	Exp(B)
Age	0.002	0.043	0.002	0.969	1.002
Violent[2]	-0.038	0.025	2.250	0.134	0.963
Property[2]	-0.018	0.030	0.347	0.556	0.982
Drugs[2]	0.057	0.052	1.216	0.270	1.058
Weapons[2]	-0.126	0.079	2.518	0.113	0.882
Black[1]	-0.045	0.144	0.095	0.758	0.956
Hispanic[1]	-0.174	0.208	0.697	0.404	0.840
Asian[1]	0.902	1.015	0.790	0.374	2.465
Gender	-0.060	0.143	0.175	0.676	0.942
Prior Complaints**	0.076	0.028	7.119	0.008	1.079
School	0.467	0.515	0.822	0.365	1.596
Retail	-0.151	0.552	0.075	0.785	0.860
Parking Lot	0.545	0.535	1.039	0.308	1.725
Residential	0.329	0.522	0.398	0.528	1.390
Other Location	0.288	0.592	0.237	0.626	1.334
Risk Score***	0.083	0.017	24.383	0.000	1.086
Needs Score	-0.016	0.013	1.416	0.234	0.984

*p < .05 **p < .01 ***p < .001.

n=969; 326 cases were adjudicated

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Table 34: Guilford County Cox Regression Analysis Using Offense and Social Variables to Predict Likelihood of Complaints Being Dismissed

	B	SE	Wald	Sig.	Exp(B)
Age	-0.006	0.040	0.025	0.875	0.994
Violent[2]*	-0.053	0.028	3.465	0.063	0.949
Property2**	0.072	0.031	5.346	0.021	1.075
Drugs[2]	0.026	0.069	0.146	0.702	1.027
Weapons[2]	-0.004	0.073	0.002	0.961	0.996
Black[1]	0.167	0.159	1.112	0.292	1.182
Hispanic[1]	0.407	0.281	2.094	0.148	1.503
American Indian[1]	0.294	0.740	0.158	0.691	1.342
Asian[1]	0.788	0.623	1.601	0.206	2.199
Gender**	-0.110	0.149	0.540	0.462	0.896
Prior Complaints	-0.031	0.023	1.772	0.183	0.970
School	7.202	31.772	0.051	0.821	1342.498
Retail	6.627	31.772	0.044	0.835	755.056
Parking Lot	7.305	31.772	0.053	0.818	1487.226
Residential	7.194	31.772	0.051	0.821	1331.674
Other Location	7.524	31.774	0.056	0.813	1852.396
Risk Score*	0.038	0.022	3.130	0.077	1.039
Needs Score	-0.008	0.017	0.238	0.626	0.992

*p < .05 **p < .01 ***p < .001.

n=972; 262 cases were dismissed

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Table 35: Mecklenburg County Cox Regression Analysis Using Offense and Social Variables to Predict Likelihood of Complaints Being Dismissed

	B	SE	Wald	Sig.	Exp(B)
Age	0.013	0.052	0.061	0.804	1.013
Violent [2]***	0.132	0.028	22.832	0.000	1.141
Property2	0.058	0.037	2.472	0.116	1.059
Drugs [2]	0.073	0.070	1.092	0.296	1.075
Weapons [2]	-0.154	0.134	1.325	0.250	0.857
Black [1]	0.344	0.221	2.424	0.120	1.411
Hispanic [1]	0.364	0.312	1.360	0.244	1.439
American Indian [1]	-7.771	1256.341	0.000	0.995	0.000
Asian [1]	0.927	0.636	2.129	0.145	2.528
Gender	0.014	0.208	0.004	0.947	1.014
Prior Complaints**	0.063	0.029	4.531	0.033	1.065
School	8.465	35.701	0.056	0.813	4743.962
Retail	8.111	35.702	0.052	0.820	3329.856
Parking Lot	8.374	35.702	0.055	0.815	4334.771
Residential	8.133	35.701	0.052	0.820	3403.543
Other Location	8.411	35.702	0.055	0.814	4494.895
Risk Score	-0.002	0.021	0.009	0.926	0.998
Needs Score	0.019	0.014	1.838	0.175	1.019

*p < .05 **p < .01 ***p < .001.

n=1,847; 199 cases were dismissed

[1]Dummy Variable; Whites are the reference category

[2]Dummy Variable; "Other Offense" is the reference category

Table 36: Cumberland County Cox Regression Analysis Using Offense and Social Variables to Predict Likelihood of Complaints Being Dismissed

	B	SE	Wald	Sig.	Exp(B)
Age	-0.047	0.049	0.918	0.338	0.954
Violent [2]**	-0.124	0.038	10.422	0.001	0.883
Property [2]**	-0.124	0.043	8.302	0.004	0.883
Drugs [2]	-0.074	0.083	0.785	0.376	0.929
Weapons [2]	-0.176	0.119	2.174	0.140	0.839
Black [1]	0.268	0.256	1.095	0.295	1.308
Hispanic [1]	-0.076	0.507	0.023	0.880	0.926
American Indian [1]	0.008	0.552	0.000	0.988	1.009
Asian [1]	0.157	1.046	0.023	0.880	1.170
Gender	0.063	0.218	0.083	0.773	1.065
Prior Complaints**	0.144	0.061	5.613	0.018	1.155
School***	-3.571	0.806	19.646	0.000	0.028
Retail***	-4.356	0.892	23.867	0.000	0.013
Parking Lot***	-3.469	0.827	17.597	0.000	0.031
Residential***	-3.444	0.810	18.078	0.000	0.032
Other Location**	-3.233	0.944	11.720	0.001	0.039
Risk Score	0.017	0.031	0.299	0.585	1.017
Needs Score*	-0.036	0.019	3.617	0.057	0.965

*p < .05 **p < .01 ***p < .001.

n=910; 133 cases were dismissed

[1]Dummy Variable; Whites are the reference category

[2]Dummy Variable; "Other Offense" is the reference category

Table 37: Forsyth County Cox Regression Analysis Using Offense and Social Variables to Predict Likelihood of Complaints Being Dismissed

	B	SE	Wald	Sig.	Exp(B)
Age*	-0.131	0.080	2.722	1.000	0.099
Violent[2]	-0.026	0.061	0.186	1.000	0.666
Property[2]	0.016	0.074	0.045	1.000	0.831
Drugs[2]	0.165	0.164	1.009	1.000	0.315
Weapons[2]	-3.360	132.449	0.001	1.000	0.980
Black[1]	0.042	0.483	0.008	1.000	0.931
Hispanic[1]	-0.651	0.588	1.226	1.000	0.268
American Indian[1]	-0.372	1.251	0.088	1.000	0.766
Gender*	-0.636	0.359	3.140	1.000	0.076
Prior Complaints	-0.052	0.073	0.513	1.000	0.474
School	-0.928	0.775	1.435	1.000	0.231
Retail	-13.102	279.927	0.002	1.000	0.963
Parking Lot	-0.692	0.837	0.683	1.000	0.409
Residential	-1.035	0.773	1.793	1.000	0.181
Other Location	-0.625	0.942	0.440	1.000	0.507
Risk Score	0.025	0.041	0.375	1.000	0.541
Needs Score	0.014	0.035	0.153	1.000	0.696

*p < .05 **p < .01 ***p < .001.

n=588; 62 cases were dismissed

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Table 38: Wake County Cox Regression Analysis Using Offense and Social Variables to Predict Likelihood of Complaints Being Dismissed

	B	SE	Wald	Sig.	Exp(B)
Age	-0.048	0.060	0.641	0.423	0.953
Violent[2]	0.049	0.032	2.402	0.121	1.050
Property[2]**	0.135	0.044	9.367	0.002	1.145
Drugs[2]	0.052	0.088	0.344	0.558	1.053
Weapons[2]	-0.074	0.179	0.169	0.681	0.929
Black[1]	0.015	0.226	0.004	0.947	1.015
Hispanic[1]	0.005	0.278	0.000	0.985	1.005
Asian[1]*	1.766	1.040	2.884	0.089	5.848
Gender	-0.209	0.206	1.027	0.311	0.811
Prior Complaints	0.026	0.041	0.391	0.532	1.026
School	0.135	0.740	0.033	0.856	1.144
Retail	-0.294	0.767	0.147	0.701	0.745
Parking Lot	0.682	0.749	0.830	0.362	1.978
Residential	0.028	0.741	0.001	0.969	1.029
Other Location	-0.046	0.860	0.003	0.957	0.955
Risk Score**	0.075	0.025	9.305	0.002	1.078
Needs Score	-0.031	0.020	2.392	0.122	0.969

*p < .05 **p < .01 ***p < .001.

n=969; 160 cases were dismissed

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Table 39: Guilford County Cox Regression Analysis Using Offense and Social Variables to Predict Likelihood of Probation

	B	SE	Wald	Sig.	Exp(B)
Age	0.042	0.050	0.707	0.401	1.043
Violent [2]	-0.029	0.034	0.732	0.392	0.972
Property[2]	0.034	0.042	0.643	0.423	1.034
Drugs [2]	0.050	0.080	0.390	0.532	1.051
Weapons [2]	-0.080	0.101	0.632	0.427	0.923
Black [1]	-0.024	0.198	0.014	0.905	0.977
Hispanic [1]	0.364	0.352	1.070	0.301	1.439
American Indian [1]	-0.575	0.797	0.521	0.471	0.563
Asian [1]	-10.593	234.208	0.002	0.964	0.000
Gender	-0.261	0.182	2.042	0.153	0.771
School	-0.103	1.037	0.010	0.921	0.902
Retail	-0.682	1.056	0.417	0.519	0.506
Parking Lot	-0.408	1.079	0.143	0.705	0.665
Residential	-0.305	1.048	0.085	0.771	0.737
Other Location	-0.470	1.163	0.163	0.686	0.625
Risk Score	0.020	0.030	0.450	0.502	1.020
Needs Score**	0.035	0.017	4.114	0.043	1.036

*p < .05 **p < .01 ***p < .001.

n=666; 170 cases received probation

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Table 40: Mecklenburg County Cox Regression Analysis Using Offense and Social Variables to Predict Likelihood of Probation

	B	SE	Wald	Sig.	Exp(B)
Age**	0.119	0.053	5.054	0.025	1.126
Violent [2]***	-0.136	0.036	14.582	0.000	0.873
Property [2]**	-0.128	0.045	8.080	0.004	0.880
Drugs [2]***	-0.328	0.091	12.906	0.000	0.720
Weapons [2]	0.066	0.068	0.920	0.337	1.068
Black [1]	-0.287	0.190	2.285	0.131	0.750
Hispanic [1]	-0.540	0.454	1.412	0.235	0.583
American Indian [1]	0.117	0.462	0.064	0.800	1.124
Asian [1]	0.028	0.554	0.002	0.960	1.028
Gender*	0.349	0.205	2.884	0.089	1.417
School	1.645	47.108	0.001	0.972	5.183
Retail	2.185	47.108	0.002	0.963	8.894
Parking Lot	0.975	47.109	0.000	0.983	2.650
Residential	1.844	47.108	0.002	0.969	6.319
Other Location	1.889	47.111	0.002	0.968	6.613
Risk Score**	0.078	0.023	11.270	0.001	1.081
Needs Score	-0.015	0.014	1.128	0.288	0.985

*p < .05 **p < .01 ***p < .001.

n=730; 163 cases received probation

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Table 41: Forsyth County Cox Regression Analysis Using Offense and Social Variables to Predict Likelihood of Probation

	B	SE	Wald	Sig.	Exp(B)
Age	0.222	0.147	2.261	0.133	1.248
Violent [2]	-0.094	0.097	0.942	0.332	0.910
Property [2]	-0.157	0.134	1.359	0.244	0.855
Drugs [2]**	0.403	0.188	4.602	0.032	1.496
Weapons [2]	-0.079	0.284	0.077	0.781	0.924
Black [1]	-0.184	0.472	0.151	0.697	0.832
Hispanic [1]**	-1.453	0.545	7.107	0.008	0.234
Gender	-0.115	0.483	0.057	0.812	0.891
School	3.796	70.732	0.003	0.957	44.532
Retail	3.888	70.733	0.003	0.956	48.806
Parking Lot	4.487	70.731	0.004	0.949	88.855
Residential	4.389	70.731	0.004	0.951	80.587
Other Location	4.726	70.735	0.004	0.947	112.800
Risk Score**	0.127	0.048	7.170	0.007	1.136
Needs Score	0.003	0.043	0.005	0.942	1.003

*p < .05 **p < .01 ***p < .001.

n=384; 42 cases received probation

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Table 42: Wake County Cox Regression Analysis Using Offense and Social Variables to Predict Likelihood of Probation

	B	SE	Wald	Sig.	Exp(B)
Age	0.004	0.055	0.004	0.949	1.004
Violent[2]	-0.023	0.035	0.436	0.509	0.977
Property[2]	-0.005	0.051	0.008	0.929	0.995
Drugs[2]	0.011	0.076	0.019	0.890	1.011
Weapons[2]	-0.024	0.093	0.068	0.794	0.976
Black[1]	0.047	0.194	0.057	0.811	1.048
Hispanic[1]	-0.177	0.267	0.437	0.508	0.838
Asian[1]	0.937	1.025	0.834	0.361	2.551
Gender	0.088	0.197	0.200	0.654	1.092
School	0.597	0.734	0.660	0.416	1.816
Retail	-0.408	0.867	0.221	0.638	0.665
Parking Lot	0.678	0.773	0.769	0.380	1.970
Residential	0.680	0.745	0.833	0.361	1.973
Other Location*	1.547	0.842	3.379	0.066	4.699
Risk Score**	0.078	0.025	9.583	0.002	1.081
Needs Score	-0.004	0.019	0.048	0.827	0.996

*p < .05 **p < .01 ***p < .001.

n= 713; 169 cases received probation

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Appendix II: County-By-County Regression Tables

Table 43: Buncombe County Cox Regression Using Offense and Social Variables to Predict Likelihood of Approval

	B	SE	Wald	Sig.	Exp(B)
Age**	0.136	0.064	4.445	0.035	1.145
Violent[2]	-0.002	0.042	0.003	0.956	0.998
Property[2]	-0.054	0.044	1.529	0.216	0.947
Drugs[2]	0.101	0.065	2.411	0.121	1.106
Weapons[2]	0.040	0.126	0.098	0.754	1.040
Black[1]	-0.108	0.175	0.381	0.537	0.897
Hispanic[1]	-0.180	0.343	0.275	0.600	0.835
American Indian[1]	-0.358	0.752	0.227	0.634	0.699
Asian[1]	-10.436	164.245	0.004	0.949	0.000
Gender	0.193	0.190	1.031	0.310	1.213
Prior Complaints**	0.088	0.035	6.476	0.011	1.092
School	-0.302	0.428	0.498	0.480	0.739
Retail	-0.679	0.522	1.693	0.193	0.507
Parking Lot	0.555	0.538	1.066	0.302	1.743
Residential	0.262	0.457	0.329	0.566	1.300
Risk Score***	0.078	0.021	14.126	0.000	1.081
Needs Score	-0.022	0.016	1.820	0.177	0.978

*p < .05 **p < .01 ***p < .001.

n=392; 190 individuals approved

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Table 44: New Hanover County Cox Regression Using Offense and Social Variables to Predict Likelihood of Approval

	B	SE	Wald	Sig.	Exp(B)
Age**	0.152	0.060	6.505	0.011	1.164
Violent[2]	-0.020	0.037	0.308	0.579	0.980
Property[2]	-0.034	0.051	0.434	0.510	0.967
Drugs[2]	-0.008	0.102	0.007	0.935	0.992
Weapons[2]	-0.414	0.254	2.649	0.104	0.661
Black[1]	0.156	0.211	0.543	0.461	1.168
Hispanic[1]	-0.908	0.742	1.498	0.221	0.403
Asian[1]	-0.372	1.034	0.129	0.719	0.690
Gender**	-0.531	0.190	7.851	0.005	0.588
Prior Complaints**	0.099	0.036	7.322	0.007	1.104
School**	-2.578	1.046	6.075	0.014	0.076
Retail**	-3.682	1.119	10.838	0.001	0.025
Parking Lot**	-3.173	1.087	8.518	0.004	0.042
Residential**	-2.599	1.082	5.768	0.016	0.074
Other Location*	-2.039	1.192	2.924	0.087	0.130
Risk Score	0.046	0.028	2.690	0.101	1.047
Needs Score**	0.051	0.023	4.653	0.031	1.052

*p < .05 **p < .01 ***p < .001.

n=341; 166 individuals approved

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Table 45: Wayne County Cox Regression Using Offense and Social Variables to Predict Likelihood of Approval

	B	SE	Wald	Sig.	Exp(B)
Age	0.042	0.102	0.168	0.682	1.043
Violent[2]**	0.144	0.058	6.236	0.013	1.155
Property[2]	0.028	0.085	0.107	0.744	1.028
Drugs[2]	0.005	0.108	0.002	0.962	1.005
Weapons[2]	0.071	0.323	0.048	0.827	1.073
Black[1]	0.518	0.364	2.017	0.156	1.678
Hispanic[1]	0.457	0.601	0.579	0.447	1.580
American Indian[1]	0.478	0.839	0.326	0.568	1.614
Asian[1]	0.877	1.148	0.583	0.445	2.403
Gender	0.132	0.304	0.188	0.664	1.141
Prior Complaints**	0.123	0.060	4.154	0.042	1.131
School	0.409	0.785	0.272	0.602	1.505
Retail	0.514	0.774	0.440	0.507	1.671
Parking Lot	0.932	0.883	1.115	0.291	2.541
Residential	0.147	0.653	0.051	0.822	1.158
Risk Score	0.026	0.040	0.427	0.513	1.026
Needs Score***	0.136	0.034	16.000	0.000	1.146

*p < .05 **p < .01 ***p < .001.

n=200; 80 individuals approved

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Table 46: Gaston County Cox Regression Using Offense and Social Variables to Predict Likelihood of Approval

	B	SE	Wald	Sig.	Exp(B)
Age**	0.193	0.060	10.429	0.001	1.213
Violent[2]	0.023	0.031	0.572	0.449	1.023
Property[2]	-0.027	0.043	0.395	0.529	0.973
Drugs[2]	-0.004	0.075	0.003	0.954	0.996
Weapons[2]**	0.146	0.067	4.703	0.030	1.157
Black[1]***	0.839	0.154	29.704	0.000	2.313
Hispanic[1]	0.336	0.329	1.041	0.308	1.399
American Indian[1]	-10.057	162.956	0.004	0.951	0.000
Asian[1]	0.660	1.014	0.424	0.515	1.936
Gender	-0.097	0.173	0.313	0.576	0.908
Prior Complaints	0.055	0.037	2.236	0.135	1.057
School	0.839	1.013	0.686	0.408	2.315
Retail	0.839	1.034	0.658	0.417	2.313
Parking Lot	0.841	1.020	0.680	0.410	2.318
Residential	1.215	1.013	1.439	0.230	3.371
OtherLocation	1.149	1.162	0.977	0.323	3.155
Risk Score**	0.055	0.022	6.248	0.012	1.057
Needs Score**	0.040	0.015	6.818	0.009	1.040

*p < .05 **p < .01 ***p < .001.

n=438; 222 individuals approved

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Table 47: Buncombe County Cox Regression Using Offense and Social Variables to Predict Likelihood of Diversion

	B	SE	Wald	Sig.	Exp(B)
Age**	0.141	0.065	4.650	0.031	1.151
Violent[2]**	-0.186	0.064	8.507	0.004	0.830
Property[2]**	-0.187	0.069	7.444	0.006	0.829
Drugs[2]	-0.083	0.073	1.294	0.255	0.921
Weapons[2]	-0.065	0.114	0.320	0.572	0.937
Black[1]**	-0.515	0.204	6.383	0.012	0.598
Hispanic[1]	-0.352	0.339	1.080	0.299	0.703
American Indian[1]	-9.846	196.242	0.003	0.960	0.000
Asian[1]	0.074	0.751	0.010	0.921	1.077
Gender	-0.203	0.186	1.198	0.274	0.816
Prior Complaints**	-0.309	0.128	5.868	0.015	0.734
School	-0.506	0.389	1.689	0.194	0.603
Retail**	-1.602	0.509	9.911	0.002	0.201
Parking Lot	-1.234	0.807	2.337	0.126	0.291
Residential***	-2.298	0.595	14.897	0.000	0.100
Risck Score**	-0.103	0.036	8.391	0.004	0.902
Needs Score	0.019	0.021	0.823	0.364	1.019

*p < .05 **p < .01 ***p < .001.

n=392; 158 individuals approved

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Table 48: New Hanover County Cox Regression Using Offense and Social Variables to Predict Likelihood of Diversion

	B	SE	Wald	Sig.	Exp(B)
Age	0.046	0.048	0.901	0.342	1.047
Violent[2]	-0.031	0.051	0.374	0.541	0.969
Property[2]**	-0.130	0.063	4.213	0.040	0.878
Drugs[2]**	0.257	0.089	8.315	0.004	1.292
Weapons[2]**	0.183	0.072	6.384	0.012	1.201
Black[1]**	-0.479	0.194	6.103	0.013	0.619
Hispanic[1]	0.347	0.481	0.519	0.471	1.414
Asian[1]	-7.290	20.276	0.129	0.719	0.001
Gender	0.120	0.212	0.319	0.572	1.127
Prior Complaints	-0.020	0.104	0.037	0.847	0.980
School	5.737	42.642	0.018	0.893	310.204
Retail	5.318	42.644	0.016	0.901	204.071
Parking Lot	5.064	42.644	0.014	0.905	158.165
Residential	4.737	42.644	0.012	0.912	114.143
Risck Score	-0.054	0.039	1.953	0.162	0.947
Needs Score	0.003	0.029	0.013	0.910	1.003

*p < .05 **p < .01 ***p < .001.

n=341; 148 individuals approved

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.

Table 49: Wayne County Cox Regression Analysis Using Offense and Social Variables to Predict Likelihood of Diversion

	B	SE	Wald	Sig.	Exp(B)
Age*	0.234	0.129	3.280	0.070	1.264
Violent[2]	-0.178	0.131	1.833	0.176	0.837
Property[2]**	-0.321	0.122	6.911	0.009	0.726
Drugs[2]	-0.065	0.155	0.174	0.677	0.937
Weapons[2]	0.198	0.285	0.485	0.486	1.219
Black[1]**	-0.753	0.364	4.276	0.039	0.471
Hispanic[1]	0.143	0.739	0.038	0.846	1.154
American Indian[1]	-10.200	390.418	0.001	0.979	0.000
Asian[1]	0.977	1.242	0.618	0.432	2.656
Gender	0.519	0.363	2.047	0.152	1.680
Prior Complaints	-0.057	0.253	0.051	0.821	0.944
School	0.150	1.311	0.013	0.909	1.161
Retail	1.553	1.205	1.659	0.198	4.724
Parking Lot	-0.090	1.486	0.004	0.952	0.914
Residential	0.321	1.181	0.074	0.786	1.379
Risck Score	-0.060	0.067	0.794	0.373	0.942
Needs Score	0.018	0.045	0.159	0.690	1.018

*p < .05 **p < .01 ***p < .001.

n=200; 46 individuals approved

[1]Dummy Variable; Whites are the reference category.

[2]Dummy Variable; "Other Offense" is the reference category.