

Appendix 1 – 5th Assessment Study
Part of 5th Equal Protection Compliance Report
June 17, 2016

Brief

The summary and impressions discussed reflect activities by Shelby/Memphis Juvenile Court up to April 29, 2016. Many of the areas of concern that were the impetus for the Memorandum of Agreement (MoU) have continued to exist over the last 35 months or so.

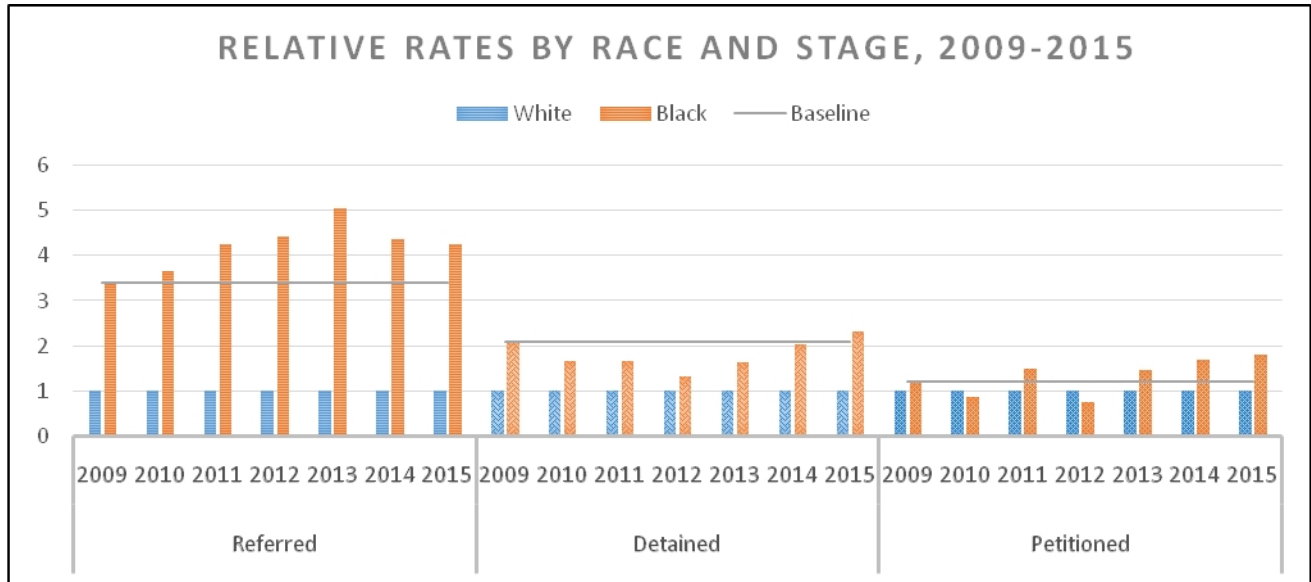
- Most important is that **DMC** as measured by the relative rate and in terms of equity for similar offenders, irrespective of race, **HAS NOT CHANGED** and continues to be a problem for the Court.
 - First, it is important to point out that both the relative rates and the numerous studies that have been reported on over the last 3 years, including the results from the 5th assessment study to be discussed within this brief, continue to show, for the most part, that DMC is still a problem for the Court.
 - Continued evidence also suggests that race still impacts decision-making even after factors such as the severity of the crime are taken into consideration.

Key findings from the 5th Assessment study are summarized below:

- While the number of referrals has declined over time, the racial breakdown remains disproportionate.
- Likewise, although the overall number of youth held in secure detention has decreased, a racial gap remains and in fact has increased AND race still matters once all other factors are considered.
- Black youth continue to be underrepresented in diversion.
- Blacks continue to have increased odds of being disadvantaged relative to their similarly situated White counterpart at the non-judicial stage – they are more likely to move further into the judicial proceedings.
- Black youth are overrepresented in cases at adjudication, yet there is no significant evidence of race being an influential factor once relevant legal and extralegal considerations are considered at adjudication or judicial disposition. However, race appears to have an indirect relationship with both decision-making stages through detention.
- Last, although overall numbers appear to have declined, significant overrepresentation of Black youth exist for receiving Notice to Transfer to adult criminal proceedings (these numbers are high) and actual waiver to adult court (only two youth were White).

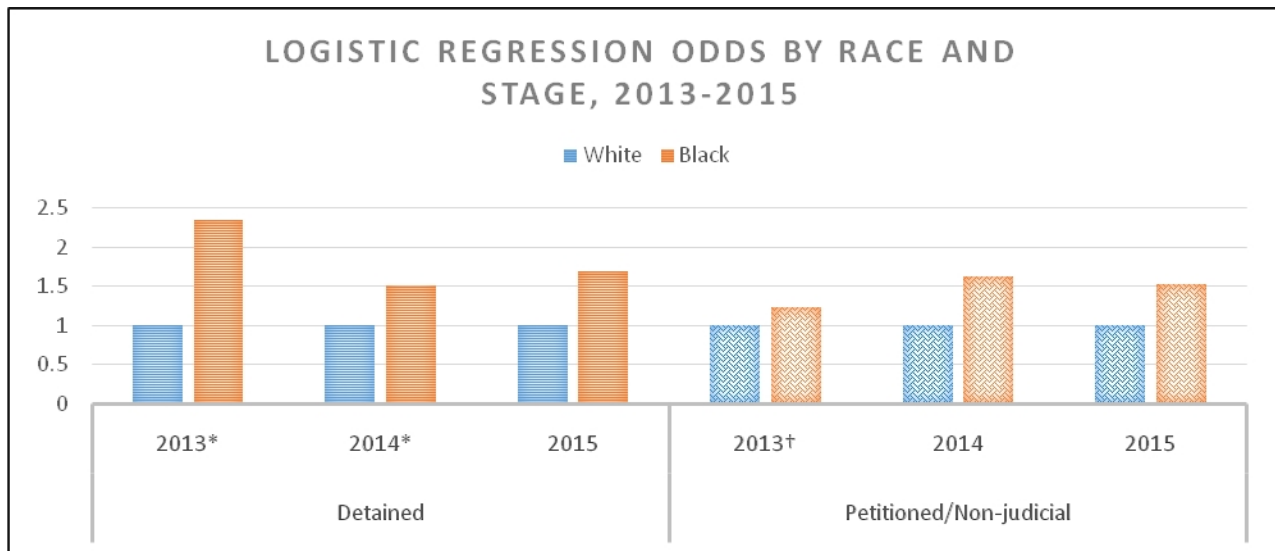
To illustrate the lack of change, Figure 1 presents the relative rates by referral, detention and non-judicial or what will be referred to as petition. Figure 2 provides the odds for Whites and Blacks once factors such as crime severity, prior record, etc. are taken into account.

Figure 1. Relative Rates by Race and Stage, 2009-2015



Note: How to read relative rate index (RRI), for example in 2009, referred to juvenile court 3.65 Blacks to 1 White.

Figure 2. Logistic Regression Odds by Race and Stage, 2009-2015



* Logistic regression represents interaction between race and person offense; Main race effect not significant

† Logistic regression coefficient not significant

Note: How to read relative rate index (RRI), for example in 2013, detained 2.34 Blacks to 1 White.

As can be seen in Figure 1, 1 White to 4.26 Black youth are referred to court in 2015 compared to 1 White to 3.4 Black youth in 2009. Similar trends exist for detention and petition. In fact, since 2013 the racial gap or racial inequality between Whites and Blacks concerning these outcomes continues to grow. While the racial gap decreases after controlling or taking into consideration legal factors, Blacks are still more likely to be detained and petitioned than similar Whites (Figure 2).

Overall, the above findings have been consistently reported by all 5 assessment studies to date. DMC and the role of race in court referrals and court outcomes continue despite the use of SHAPE, the recent police in-house station adjustment, the use of the SUMMONS program, JDAI reform at detention, and the implementation of structured decision-making tools at detention and the non-judicial stage.

Recommendations

- As stated in every Compliance report, the Judge and/or someone in the Leadership Team of the Juvenile Court MUST take the lead on addressing these issues by having a more active role or ownership in this process. A step in this direction was the hiring of a Court DMC Coordinator. However, the DMC Court Coordinator has needed time to adjust to the demands of the position and the changing of role(s) seems to have hampered the ability of the Court DMC Coordinator to take on issues and produce results. It also appears that the Court DMC Coordinator does not have the backing of the Court. When this position was initially discussed, having the ability to work with those in administration was key for whoever was hired to effectively address DMC and the issues confronting the Court. This has not occurred; thus, undermining the ability of the Court DMC Coordinator to succeed. Once again, either the Court DMC Coordinator needs to be given greater direction by the Court and some authority (as originally discussed) and/or someone from the Court Leadership Team needs to take the lead on a day-to-day basis. Whichever is decided upon, the focus needs to be on how to reduce DMC, particularly at the stages of referral, secure detention, and non-judicial.
- There needs to be discussion AND the examination of the programs that have been implemented as to WHY race relationships CONTINUE TO EXIST despite their implementation. Study after study continues to show that little has changed in DMC and greater equity in the treatment of youth, especially Black youth. It is recommended that the results from the collection of additional data should be tied to “drilling down” further to understand the results from the assessment studies. In addition, results from the assessment studies and data collected by the Court should be relied on to enact changes in strategies, procedures and policies.
- Concomitantly, it is recommended that the Court examine the reasons contributing to the continued existence of DMC and race relationships with severe detention and non-judicial outcomes. The structured decision-making tools used at these stages need to be scrutinized as to why not only has the racial gap not decreased but why race relationships still exist in terms of equitable outcomes.
- It is recommended that the Court implement, expand and evaluate diversionary efforts to reduce DMC, especially for minor offenses and domestic assaults.

It is evident that on many fronts, movement has occurred— for example, the gathering of information/data, the distribution of data via the website and involvement with community agencies and activities, the implementation of objective decision-making tools including the validation of the DAT, the formation of committees, the signing of an MoU with the Memphis Police Department to establish and implement a “Call in Program” (LEAP), in conjunction with the Memphis Police Department the establishment of pilot program whereby a caseworker is located at the Old Allen precinct to assist with referrals and services and coordinating with established programs, the use of a day/evening reporting center for those on probation and the expansion and use of SHAPE – are all noteworthy strategies and activities to reduce DMC. In addition, Juvenile Court has also recently developed a community outreach plan. Town-hall meetings have been held. Furthermore, the overall numbers of referrals to court, secure detention, and transfer to adult court have decreased. The Court has hired a DMC Coordinator. Last, the Court has also attempted to reduce the length of stays for youth in detention. All of these efforts are good and show some effort by the Court to address the MoU.

In short, despite these positives, there continues to exist a lack of progress in addressing DMC and equal protection that were the focus of the findings and conclusions by the Department of Justice (DOJ) and the basis for the MoU. As stated previously, a stronger focus and commitment on these issues on the part of the Court is necessary to make the required improvements to insure all youth are treated equitably.

5th Assessment Study

Background

A Memorandum of Agreement (MoU) regarding the Juvenile Court of Memphis and Shelby County was signed December 17, 2012 by the United States Department of Justice, Civil Rights Division, and the County Mayor and County Attorney, and the Juvenile Court of Memphis and Shelby County (JCMSC) to address the administration of juvenile justice for youth facing delinquency before the juvenile court and the conditions of confinement of youth at the detention center operated by the juvenile court. The Parties selected Dr. Michael J. Leiber as the Equal Protection Monitor of the Agreement. The Agreement requires the Monitor to assess the level of compliance by the juvenile court every six months and to produce reports. A fifth Equal Protection Monitor Report that included an Assessment Study has been completed as part of the MoU.

Before the studies are discussed, it is important to provide additional background. More specific, the existence and level of Disproportionate Minority Contact (“DMC”) occurring at each phase of the juvenile court process can be captured by the relative rate index (RRI). DMC is the term used to describe the overrepresentation of minority youth in the juvenile justice system. The RRI provides a snapshot or a description of the youth in the juvenile justice system during a specified time-frame and at stages in the system. The RRI was and will be used to measure the level of DMC at stages for Black youth as compared to White youth. While valuable, the RRI can only provide insight on the level of DMC at stages and cannot tell us *why* DMC is occurring. Instead, an assessment study using multivariate statistics in the form of logistic regression permits such an inquiry. Logistic regression is a statistical technique that takes into consideration a variety of factors to predict the likelihood of a case outcome. In essence, there is an attempt to model what legal (e.g., crime severity, prior record) and extra-legal (e.g., race) considerations used by decision-makers to arrive at an outcome. Legal factors and to some extent extra-legal factors can be relied upon to make a juvenile justice outcome due to its *parens patriae* foundation, such as crime severity and assessments about the family environment. Race, however, should not be predictive of a stage outcome once all legal and other extralegal factors are considered. If race does not indicate a statistically significant presence, then DMC is explained by differences, for example, in legal characteristics (i.e. crime severity). If race is a statistically significant indicator, then something else in addition to legal and other extra-legal factors accounts for DMC. One example could be possible race biases.

DOJ Findings Prior to Agreement

As reported in the Investigation of the Shelby County Juvenile Court (2012), the Department of Justice (DOJ) examined the relative rate indexes and conducted an assessment study using multivariate analyses. These findings, in part, showed DMC at almost every stage and revealed race to be a determinant of decision-making once relevant factors were considered. For the RRI's, data was used from 2007 through 2009. For the assessment study, court data was used from 2005 through 2009, though further analysis was conducted with 2010 data and did not alter the findings reported using data submitted by the Juvenile Court of Memphis and Shelby County (JCMSC, referred from now on as Juvenile Court) to Tennessee from 2005 through 2009. In summary, Blacks were found to be most overrepresented at referral, secure detention, placement in secure confinement, and transfer to adult court. Black youth were found to have a lesser chance of receiving both the non-judicial outcome of a dismissal or warning, and of a fine,

restitution or public service sanction than alike White youth. In addition, Blacks were more likely to be held in detention and reach adult transfer consideration than similarly situated Whites. The overall conclusion was that these findings do not comport with the Equal Protection Clause and Title VI. More specific, the findings showed evidence of discriminatory treatment of Black youth compared to White youth.

As stated in the Agreement between Shelby County and the Department of Justice, within nine months, the Juvenile court “shall augment the appropriate data collection method to assist in its evaluation of its DMC levels, causes, and reduction.... This includes information on points of contact, the relative rate indexes, and available diversion options for youth appearing before JCMSC...” (p. 22). As part of the Agreement, the Equal Protection Monitor, Michael Leiber, conducts assessment studies of the level and causes of DMC. Five assessment studies (including the present assessment research) have been conducted to date following the Agreement.

A Three Year Picture of Youth Referred to Juvenile Court

In this section, the focus is on the number of youth referred to juvenile court and the characteristics of those referred differentiated by White and Black for 2013 through 2015. The objective in doing so is to examine whether changes have occurred in the number of referrals and makeup of youth referred to juvenile court. More specific, an expectation could be that following the MoU, referrals would decrease and notable changes in the characteristics of youth referred would emerge, such as being more troubled (e.g., not attending school) or dangerous (e.g., involved in felony or person offenses). Less troubled and/or less serious cases would not be referred to court. Changes could also be expected in the use of custody and summons. For example, an expectation could be that referrals involving custody would increase if more troubled/dangerous youth are referred to court. Alternatively, given that efforts are being by the juvenile court to reform detention, summons as a means of referral could increase while being in custody would decrease. Central to these possibilities is the extent to which change would also occur among Black youth relative to White youth since the MoU is driven by reducing racial disparity and creating more equitable treatment for Black youth.

Table 1 (page 8) provides distributions of youth characteristics (defined as independent variables) differentiated by race from 2013 through 2015. Looking at Table 1, the number of referrals has decreased from 8,969 for the year 2013 to 7,214 in 2014 and 6,022 in 2015. This reduction in the number of referrals is reflective of national trends in delinquent referrals, as crime has declined and stabilized (Hockenberry & Puzanhera, 2015). Likewise, the decline in referrals could be the result of efforts by the juvenile court to curb delinquent referrals. The SHAPE program was developed and implemented with the specific intention of diverting youth away from the juvenile court. The LEAP program may also be playing a role as well the recent effort utilizing a probation office in the police station as a mean for an in-house station adjustment. But, the overall effect of these two efforts in reducing delinquent referrals can be called into question since LEAP focuses on the use of summons versus the use of custody while the in-house station adjustment effort just began and is used only once a week in one station. In addition, although SHAPE has an influential role in this effort (curbing delinquent referrals) the program has not been implemented in all the schools. Thus, how much of the decline in the number of delinquent referrals can be attributed to the juvenile court versus the decline in crime in general is open to debate until SHAPE and the in-house station adjustment are more broadly

implemented and evaluated as to how each is effective in reducing youth referrals to the juvenile court.

While a decline in youth court referrals is evident, as previously mentioned, the racial gap or relative rate involving Blacks to Whites has not decreased. While Black youth comprise 61% of those at risk for crime (ages 10 through 17) in Shelby county, Blacks represent consistently 87% of those referred to juvenile court. For the period of 2012 through 2015, the relative rate has ranged from 4.26 to 5.06. In other words, for every 1 White youth referred to juvenile court, 4 to 5 Black youth are referred. As stated in several equal protection monitor reports, this is a troubling trend that needs greater effort by the juvenile court to address. Next, the discussion focuses on the characteristics of youth referred to court distinguished by race and year.

The characteristics of youth are captured by demographics (beyond race), such as gender and age; education/school indicators; living arrangement; prior referral; summons and custody; and legal factors (e.g., #charges, crime severity, type of crime). As can be seen in Table 1, little change in the percentage of all variables or categories differentiated by White and Black is evident in 2013 compared to 2014 and to 2015. For example, for summons, the percent for Whites is 76% for both 2013, 81% for 2014 and 84% for 2015. For Blacks, the percentages are: 62% for 2013, 64% for 2014 and 67% for 2015. In terms of custody, for Whites, the percent is 24% for 2013, 19% for 2014 and 16% for 2015. For Blacks, the percent is 38% for 2013, 36% for 2014 and 33% for 2015.

Concomitantly, few statistically significant change in percentages by year is found for crime severity. For Whites, 82% were charged with a misdemeanor in 2013 and 2014, while for 2015 the percentage is 85%. For Black youth, the percentage distribution is 80% for 2013 and 76% for both 2014 and 2015. For Whites, their percentage of the felony category is 18% for 2013 and 2014 and drops to 15% in 2015. For Blacks, it is 20% for 2013 and 24% for 2014 and 2015.

The most common type of crime resulting in youth being referred to juvenile court involves a person offense, followed by a property crime, and a drug offense. Domestic assaults make up a relatively small percentage of referrals though Black youth are disproportionately charged with this type of offense. An examination of each type of crime by race reveals few statistically significant differences over time.

In summary, the overall pattern covering the years 2013 through 2015 shows a decline in referrals while the racial gap has remained the same. Few statistically significant differences in the kinds of youth referred to juvenile court exist for the years 2013 through 2015. Overall, more troublesome/dangerous youth do not appear to comprise the bulk of those referred to juvenile court. More specific, the “typical” youth referred is Black, male, attending school, referred by a summons, charged with a misdemeanor, and involved in a person offense. With the exception of involvement in person offenses as the leading type of crime for a referral, the general makeup of the youth reflects national trends (Hockenberry&Puzzanchera, 2015). It is noted that the juvenile court may not completely control who comes to them since the police are central in the referral process. The court, however, is the gatekeeper and, as already discussed, can continue to implement and expand strategies that involve the police to reduce referrals that could impact the racial gap in referrals. While the juvenile court, to some degree, needs a commitment and partnership with the police to impact court referrals, decision-making within

the court is something that the court has control over and one would expect that following the MoU changes in the case processing of Blacks within the court should be evident.

Table 1. Distribution of Independent Variables within Racial Groups, 2013-2015

Variable	Value	2013 (N=8969)		2014 (N=7214)		2015 (N=6022)	
		%White (1)	%Black (2)	%White (3)	%Black (4)	%White (5)	%Black (6)
Gender	0 – Male	75	70	73	72	70	71
	1 – Female	25	30	27	28	30	29
Age	Years (mean)	15.72	14.98	15.85	15.03	15.74	15.00
School status	0 – In school full time	88	94	91	91	92	92
	1 – Else	12	6	9	9	8	8
Special education	0 – No	95	91	95	91	96	92
	1 – Yes	5	9	5	9	4	8
Home – 1 parent	0 – Else	34	21	35	20	27	19
	1 – Home 1 parent	66	79	65	80	73	81
Home – Relatives	0 – Else	92	89	92	89	93	89
	1 – Home of relatives	8	11	8	11	7	11
Prior referrals	Number (mean)	0.83	1.64	0.79	1.91	0.62	1.78
Referral method	0 – Summons/Other	76	62	81	64	84	67
	1 – Custody	24	38	19	36	16	33
# Charges	Number (mean)	1.24	1.12	1.19	1.14	1.15	1.13
Crime severity	0 – Misdemeanor	82	80	82	76	85	76
	1 – Felony	18	20	18	24	15	24
Property	0 – No	71	64	69	66	67	65
	1 – Yes	29	36	31	34	33	35
Person	0 – No	71	55	75	57	74	53
	1 – Yes	29	45	25	43	26	47
Domestic	0 – No	94	91	94	91	94	90
	1 – Yes	6	9	6	9	6	10
Drugs	0 – No	62	92	67	93	70	94
	1 – Yes	38	8	33	7	30	6

Table 2. Distribution of Dependent Variables within Racial Groups, 2013-2015

Variable	Value	2013 (N=8969)		2014 (N=6022)		2015	
		%White (1)	%Black (2)	%White (3)	%Black (4)	%White (5)	%Black (6)
Detention	0 – No	89	84	92	82	87	80
	1 – Yes	11	16	8	18	13	20
Non-judicial	0 – Non-judicial	86	81	88	73	87	70
	1 – Else	14	19	12	27	13	30
Warn	0 – Other non-judicial	24	31	19	24	17	22
	1 – Warn	76	69	81	76	83	78
Diversion	0 – Other non-judicial	94	96	97	98	94	97
	1 – Diversion	6	4	3	2	6	3
Adjudication	0 – Else	24	28	22	20	17	20
	1 – Delinquent	76	72	78	80	83	80
Disposition	0 – Probation	65	67	89	86	95	87
	1 – Placement	35	33	11	14	5	13

Next, we look at whether changes have occurred in the case outcomes of youth and in particular for Black youth over time. These results are presented in the table above. An examination of Table 2, for the most part, shows no significant percent change in case outcomes over time by race. Keep in mind that the overall number of youth in each case outcome has been reduced simply by the fewer number of court referrals. For example, at detention for Whites the percent comprising youth being detained is 11% for 2013, 8% for 2014 and 13% for 2015. For Blacks, the percent is 16% in 2013, 18% and 20%, respectively for 2014 and 2015. Similarly, no changes in the relative percentages by White and Black over time exist involving a warning and diversion for those receiving a non-judicial outcome. Percent changes are evident at non-judicial involving Black youth. Contrary to what would be expected following the MoU and the make-up of youth referred to court, the percent of Blacks receiving a judicial outcome has been increasing rather than decreasing. In 2013, the percent receiving a judicial outcome was 19%, in 2014 it is 27% and in 2015, 30%. A similar trend exists at adjudication for Blacks. Black youth adjudicated delinquent were at 72% in 2013 but increased to 80% in 2014 and remains at that percent in 2015. Up to this point, the lack of change at detention, along with increases in the percent of Blacks receiving a judicial outcome and adjudication is not what would be anticipated in terms of the MoU.

While the observed trends up to this point have not been positive, there is some evidence of changes at disposition in terms of Blacks comprising those that receive probation. At

disposition, Blacks receiving probation rather than out-of-home placement, increased from 67% in 2013 to 86% and 87%, respectively in 2014 and 2015. This is a good sign.

Overall, despite the MoU, some program implementation and some strategies to reduce DMC, little has changed in the kinds of youth referred to juvenile court and how they proceed through the court. Concomitantly, while a reduction in the number of youth referred to court and in their presence at various stages in the proceedings is noteworthy, little change has occurred in terms of a reduction of DMC. An exception appears to be at judicial disposition where Blacks now make up a larger percentage of those receiving probation than out-of-home placement. In addition, and although numbers and percentages have not been presented, the actual transfer of youth to adult court has decreased dramatically since the MoU. More importantly, it should be noted that almost all youth who get to this point are Black.

The analysis and discussion up to this point has been descriptive – painting a picture of the youth referred to juvenile court and case outcomes by race over time. Next, a more detailed assessment of decision-making in 2015 is presented. More specific, in this fifth assessment by Leiber, trends in the form of relative rate indexes are first presented to examine the extent or level of DMC. Results from the fifth assessment study using logistic regression are also provided to tap into the possible causes of DMC. Discussion is provided comparing and contrasting trends in the results from the relative rates and the assessment studies.

Stages of Juvenile Justice Measured as Part of the Relative Rate Index

The RRI includes the rate of occurrence for different racial groups in each major stage of the juvenile justice process. The stages include the following:

- | | |
|--|--|
| (1) Juvenile Arrests | This stage consists of all juvenile arrests. Arrest is not a focus of this study. |
| (2) Referrals to Juvenile Court | This category includes children who are brought before the juvenile court on delinquency matters either by a law enforcement officer, a complainant (including a parent), or by a school. |
| (3) Cases Diverted | This category includes children who are referred to juvenile court, but whose matters are resolved without the filing of formal charges. The charges against these children may be dismissed, resolved informally, or resolved formally through probation, an agreement, community service or various other options that do not include continuing through the formalized court process. |
| (4) Cases Involving Secure Detention Prior to Adjudication | This category includes children who are held in a secure detention facility before the final disposition of their cases. Some jurisdictions include children who are awaiting placement |

- following the disposition of their cases in this category.
- (5) Cases Petitioned
This category includes children who are formally charged with a delinquency matter and are required to appear on the court calendar. When a child is formally petitioned, the court is requested to adjudicate the matter or transfer the matter to the criminal court.
- (6) Cases Resulting in Delinquent Findings
This stage encompasses a court finding that the child has been found delinquent, a formal finding of responsibility. The child would then proceed to a dispositional hearing where he or she may receive various sanctions including probation or commitment to a secure residential facility.
- (7) Cases Transferred to Adult Criminal Justice System
This category consists of cases that have been transferred to the adult criminal court following a judicial finding that the matter should be handled outside of the juvenile system.
- (8) Cases Resulting in Probation
This category includes cases where the child is placed on probation following a formal adjudication. This does not include the children whose cases were diverted earlier in the process.
- (9) Cases Resulting in Confinement in Secure Juvenile Correctional Facility
This category includes cases where the child has been formally adjudicated and placed in a secure residential facility or a juvenile correctional facility.

Interpreting the Values in the Relative Rate Index (RRI) for JCMSC

The below is taken from the Investigation of the Shelby County Juvenile Court report (2012) to explain how to interpret the RRI (see pgs. 27-28). The RRI formula lists the numerical indicator of the level of disparity or difference in contact in each stage that a particular racial or ethnic group has in the reporting system. The formula compares the ratio of Black children to the ratio of White children for each stage of the process. A numerical value of 1.0 is neutral. A numerical value exceeding 1.0 means that Black children have a higher rate of representation at the particular stage being considered. A numerical value below 1.0 means that Black children have a lower, statistically significant, rate of contact in that stage as compared to White children in that stage.

The first step in determining RRI is to determine the total number of events, categorized by race, in each phase of the juvenile court system. Then, for each racial or ethnic category, the

RRI formula divides the number of events for each phase by the number of events in the preceding phase to determine rates for each phase. This means that the RRI is calculated by comparing the rates for Black children to rates for White children by dividing the rate of Black children by the rate for the White children. For example, if a system incurred 20 juvenile arrests consisting of 10 White children and 10 Black children, and all 10 of the Black children were referred to juvenile court, but only 5 of the White children were referred, then the resulting rate of referral to juvenile court for Black children would be 1.0, and the rate for white children would be 0.5. The resulting RRI would equal 2.0, a value twice that of the neutral 1.0. RRI values that differ from the neutral 1.0 are marked as statistically significant, meaning that the difference in rates of contact is not likely to be the result of a chance or random process. Recall that the RRI does not control for the differences in the children's underlying charges.

Relative Rates Index (RRI) 2010 through 2015

Presented in Table 3(pgs. 14-15) are the relative rate indexes for the years 2010 through 2015. Data for 2009 will not be reported in the Table. In 2009, the breakdown for each stage in terms of the relative rate is was as follows:

Refer to juvenile court = 3.4
 Cases diverted = 0.9
 Secure detention= 2.1
 Petitioned= 1.2
 Adjudicated delinquent= 1.3
 Probation (judicial disposition)= 1.0
 Confinement (judicial disposition)= 1.7
 Transferred= 2.3

Data for 2010 through 2015 was provided by the Juvenile Court of Memphis and Shelby County (JCMSC). As can be seen in Table 3 (pgs.14-15), **Black youth are disproportionately represented in 4 of 7stages in 2015:** referral to the juvenile court, secure detention, cases petitioned,and cases resulting in delinquent findings. Black youth are underrepresented in cases that are diverted. Confirming what was reported in the previous section, **Black youth** are slightly overrepresented in **probation** at judicial disposition. The following narrative summarizes these results.

1. The relative rate index involving **referrals to court**remains high at 4.26. In other words, a little over 4 Black youth per 100 youth are referred relative to 1 White youth per 100 youth. Thus, the number of referrals for both Whites and Blacks are down which is good. But, the relative overrepresentation of Black youth to White youth in **court referrals continues to be an issue that has shown relatively no change over the last 7years (which include 2009).**
2. **Black youth continue to be underrepresented for cases diverted.** In 2009, the RRI was .90, in 2015, the RRI is .91.
3. RRI values pertaining to secure detention initially showed a decline from 2.1 in 2009 to 1.32 in 2012. But starting in 2012 through 2015, an increase in disparities related to secure detention is evident at 2.31.Although the overall number of youth involving

secure detention has reduced significantly over the years for both White and Black youth, **Blacks are still being detained more so relative to Whites**. This is an area that the Court will need to continue to address.

4. The RRI's for cases **petitioned** show overrepresentation and have been slowly **rising** from 0.73 in 2012 to 1.46 in 2013 to 1.69 in 2014 to 1.79 in 2015.
5. The relative rate resulting in **delinquent findings** showno real pattern other than **stability in overrepresentation**.
6. **Relative to White youth, Blacks are overrepresented in cases resulting in probation (relative rate for 2015=1.29)**.
7. Although rates for cases resulting in **confinement** in secure juvenile facilities began to show a decline from 1.7 in 2009 to 1.30 in 2012 and 1.05 in 2013 and the relative rate shows an increase to 1.50 in 2014 and 1.65 in 2015, the relationship is not statistically significant for 2015.
8. In terms of the relative rate, **youth waived to adult court** has remained relatively the same from 2009 to 2012 (2.3 in 2009, 2.23 in 2012). RRI analyses for this decision stage were not conducted for the year 2013 through 2015 as the number of cases was insufficient. It is important to point out that based on data from the Court, while the disparity between Whites and Blacks appears to have stayed relatively the same over the years, the number of youth waived to adult court has declined from 225 in 2008, to 199 in 2009, 151 in 2010, 121 in 2011, 99 in 2012, 90 in 2013, 77 in 2014, and 31 in 2015, the number of youth recommended for a waiver or given notice of transfer is high at 256 in 2013, 190 in 2014, and 153 for 2015. More specific, of the 153 youth who received a notice of transfer, only 4 were White. In all, 2 Whites were waived to adult court compared to 29 Blacks.

Recall that a relative rate index of 1 is neutral or 1 White per 100 youth to 1 Black per 100 youth. Anything above 1 indicates overrepresentation; anything below, underrepresentation. Overall, Black youth are and continue to be overrepresented at most stages relative to White youth in the JCMSC's juvenile justice system especially at court referral, secure detention, and placement in a secure facility.

Table 3 – Relative Rate information next page

Table 3. Rates of Juvenile Court Actions by Race and Relative Rate Index, 2010-2015

Decision Stage (and base rate for calculation)	2010			2011			2012			2013			2014			2015		
	White	Black	RRI	White	Black	RRI	White	Black	RRI	White	Black	RRI	White	Black	RRI	White	Black	RRI
1.Refer to Juvenile Court (per 1000 population)	39.1 ^a	142.6	3.65	32.4	137.6	4.25	26.1	115.4	4.42	23.8	120.4	5.06	22.7	99.4	4.38	20.0	85.1	4.26
2. Cases Diverted (per 100 referrals)	81.3 ^b	77.6	0.95	94.5	78.3	0.83	85.2	79.5	0.93	95.2	84.0	0.88	94.8	86.9	0.92	87.2	79.7	0.91
3. Cases Involving Secure Detention (per 100 referrals)	33.7 ^b	56.3	1.67	30.8	50.9	1.65	34.1	45.0	1.32	10.4	17.0	1.64	9.4	19.0	2.02	7.2	16.8	2.31
4. Cases petitioned (charge filed per 100 referrals)	41.4 ^b	35.3	0.85	27.5	41.1	1.49	59.6	43.4	0.73	16.4	24.1	1.46	15.9	26.9	1.69	17.3	30.9	1.79
5. Cases Resulting in Delinquent Findings (per 100 referrals)	25.2 ^b	50.4	2.00	31.7	45.8	1.44	22.7	48.0	2.11	54.6	63.4	1.16	59.0	69.9	1.18	40.9	69.6	1.70

Table 3.continued

	2010			2011			2012			2013			2014			2015		
6. Cases resulting in Probation Placement (per 100 found delinquent)	77.1 ^b	70.0	0.91	70.4	72.9	1.04	78.0	75.4	0.97	67.6	70.6	1.04	62.3	65.7	1.05	53.3	68.6	1.29
7. Cases Resulting in Confinement in Secure Juvenile Facilities (per 100 found delinquent)	6.4 ^b	7.6	1.19	4.1	7.2	1.76	6.5	8.5	1.30	23.9	25.2	1.05	15.9	24.0	1.50	13.3	22.0	1.65 ^c
8. Cases Transferred to Adult Court (per 100 referrals)	2.0 ^b	5.7	2.86	2.6	3.7	1.42	1.5	3.3	2.23	0.0	6.4	-	0.9	5.4	-	1.8	3.8	-

a: Juvenile Justice Rate of Occurrence per 1,000 youth

b: Juvenile Justice Rate of Occurrence per 100 youth

c: Out-of-home placement sentence issued, data specifying secure confinement unavailable

- Insufficient number of cases; unable to conduct RRI analyses for decision stage

Note: Data for 2009 taken from *Investigation of the Shelby County Juvenile Court*, April 26, 2012. Data for 2010-2015 provided by Juvenile Court of Memphis and Shelby County (JCMSC). How to read relative rate index (RRI), for example, refer to juvenile court 4.26 Blacks to 1White.

Logistic Regression Results

An examination of the relative rate indexes show that DMC continues to exist. The RRI's reveal overrepresentation at referral to the juvenile court, secure detention, cases petitioned, cases resulting in delinquent findings, and those placed in confinement in secure facilities referral. Although in decline, Blacks comprised most of the youth that received a notice for waiver to adult court. Recall that the RRI provides information concerning the extent of DMC and does not inform us of the causes of DMC. Next, multivariate analyses in the form of logistic regression, is used to give added insight into the predictors of case outcomes or the underlying causes of DMC. The DOJ study and the previous four assessment studies by Leiber reported evidence of selection bias once this statistical technique was utilized. The purpose of this fifth assessment study is to examine the extent to which race still matters once legal (i.e., crime severity) and extralegal (i.e., age) factors are considered.

Data for the Current Study

For the purpose of this study, data was obtained directly from the Shelby County Juvenile Court. This data was cleaned for the objective of conducting the research. More specific, raw data of all delinquent referrals in Shelby County for the year 2015 (N=110,136) were provided. The dataset was converted from Excel to SPSS format and all analyses were conducted using the SPSS statistical software.

The data was first sorted according to three variables: juvenile id, complaint date, and disposition severity (disposition severity). Based on this command, only the referral/complaint with the most severe disposition outcome for a given complaint date would be retained for each juvenile. In addition, complaints filed within 7 days of one another under the same juvenile id were assumed to be linked to the same incident, and therefore only the complaint with most severe disposition outcome within 7 days was retained. The steps taken to clean the data for analysis purposes are consistent with those used in the previous three Assessment studies.

The final data consists of N=6,022 distinct referrals for the one year period of January 1, 2015 through December 31, 2015. The data distributions parallel the Shelby county Court data by distinct complaints, as evidenced in Table 4 on the next page (page 17).

Table 4.Data and Distributions by Stages from January through December 2015

Shelby Juv. Court ^a Leiber ^b (N=6,192)	(N=6,022)	
Stages ^c	N	N
Detention		
No	5,224	4,892
Yes	968	1,130
Non-judicial		
Yes	4,985	4,315
No	1,207	1,707
Adjudication		
No	588	331
Yes	1,225	1,376
Judicial disposition		
Probation	833	1,203
Placement	267	173
Waiver ^d		
No	----	152
Yes	66	31

a: Shelby county data counted by distinct complaints as taken from JCMSC 2015 RRI Report

b: Dataset provided by Shelby county and cleaned to represent distinct referrals

c: Stages created using disposition outcomes of the data cleaned to represent distinct referrals

d: Waiver as presented in JCMSC 2015 RRI Report includes all transfers to adult court in 2015 regardless of the initial complaint date; Waiver as created from dataset provided by Shelby county represent all transfers to adult court with a complaint date in 2015 only.

---- Information not provided

Variables

Table 5 provides the independent and dependent variables used for the logistic regression analyses. The selection of variables was based on available data, the DOJ study, and past research dealing with assessment studies. The first assessment study and the present assessment study include independent variables (e.g., prior referrals, custody) and stages (e.g., adjudication, judicial disposition) not included in the DOJ study. The inclusion of these variables was done to provide a more detailed examination of the factors that may impact decision-making and possibly provide a better context for understanding the presence and/or absence of bias.

Independent. Eighty-seven percent of the sample is Black. Males comprise 71 percent of the sample and the average age of youth is 15 years old. Two measures of school status are used: attending school v. else and whether the youth was in special education. Ninety-two percent of the sample was reported to be in school full-time while just 8 percent were in special education. The current living situation of a youth is captured by two dummy variables: own home withone parent and home of relatives. Livingin his/her own home with two parents is the reference group for both variables. Eighty percent of the youth reside in their own home with one parent, 9 percent live at home with both parents and 11 percent live with relatives.

The extent of past involvement with the juvenile justice system is measured by the number of prior referrals. While the juvenile court collects information on each referral, data representing the number of prior referrals is not reported. Data was gleaned using data from 2010 through2015 to create this variable. Thus the count making-up prior referral could be underestimated. Still, on average the sample evidencedon average 1.64 referrals and variation on the variable is present ranging from no past referrals to 10 or more past referrals.

Referral method is categorized as either summons/other or custody. The summons/other category mainly reflects summons referrals (67%). In all, sixty-ninepercent of the sample was referred by a summons/other, while 31 percent were taken into custody.The number of charges, crime severity, and four indicators of crime type are also included as legal variables. The average number of charges is a little over 1; most offenses are classified as a misdemeanor (77%) and the most common crime type is a person offense (44%), followed by a property offense (35%), drugs (9%), and domestic (9%). The reference category for the four crime type variables is other.

Dependent. Decision-making is examined at seven stages and each stage constitutes the dependent variables. Detention is defined as a youth held in an actual center/facility and excludes waiting room/holds and those waiting to be picked up. Nineteen percent of the sample was held at some point in secure detention. Since being detained has been found elsewhere to have an indirect influence on case outcomes through race, detention will also be considered as an independent variable. For example, Blacks have been found in prior research to be more likely to be detained than similarly situated Whites; in turn, being detained predicts placement at judicial disposition. If this is found, because Blacks were more likely to be detained in the first place, Blacks then will receive placement at judicial disposition through the effects of detention on decision making at this stage.

Non-judicial is differentiated by yes (receive some type of non-judicial outcome – diversion, fine, release, etc.) and no (moving forward in the court proceeding thus recipient of a judicial

outcome). Seventy-two percent of the sample received a non-judicial outcome; thus a significant percent of youth were diverted away from the system. Following the DOJ report, the non-judicial option is further delineated to examine decision making involving warning (no, yes), 79 percent, and diversion (no, yes), 3 percent. The reference group for both variables is dismissed. Formal stages are represented by adjudication and judicial disposition. Eighty-one percent of the youth that reach adjudication are adjudicated delinquent. Eighty-seven percent received probation at judicial disposition whereas only 13 percent received an outcome involving out-of-home placement.

Waiver. In the DOJ report race was found to be a predictor as Blacks were more likely than similarly situated Whites to be waived. In our sample, there was not enough variation among race (i.e., not enough Whites) and numbers to run models for the decision to waive youth for 2015. Looking at waiver hearing data to possibly collapse data for 2012, 2013 and 2014 also failed to produce enough variation. Almost all youth that received a notice and actually waived were Black (just two whites).

Table 5 next page

Table 5. Distribution of Variables (N=6,022)

Variable	Value	N	%
<i>Independent</i>			
Race	0 – White	761	13
	1 – Black	5261	87
Gender	0 – Male	4248	71
	1 – Female	1774	29
Age (young to old) Range = 7-18	Years	M = 15.10 SD = 1.88	
School status	0 – In school full time	5536	92
	1 – Else	486	8
Special education	0 – No	5562	92
	1 – Yes	460	8
Current living situation ^a	0 – Own home, two parents	563	9
	1 – Own home, one parent	4825	80
	2 – Home of relatives	634	11
Prior referrals (low to high)	Number	M = 1.64 SD = 2.39 Range = 0-10	
Referral method	0 – Summons/Other	4184	69
	1 – Custody	1838	31
# Charges (low to high)	Number	M = 1.13 SD = 0.48 Range = 1-10	
Crime severity	0 – Misdemeanor	5639	77
	1 – Felony	1383	23
Property ^b	0 – No	3904	65
	1 – Yes	2118	35
Person ^b	0 – No	3368	56

Table 5.continued		1 – Yes	2654	44
Variable	Value	N	%	
Domestic ^b	0 – No		5467	91
	1 – Yes		555	9
Drugs ^b	0 – No	5480		91
	1 – Yes		542	9
<i>Dependent</i>				
Detention ^c	0 – No		4892	81
	1 – Yes		1130	19
Non-judicial	0 – Yes		4315	72
	1 – No		1707	28
Warn	0 – No		900	21
	1 – Yes		3415	79
Diversion	0 – No		4166	97
	1 – Yes		149	3
Adjudication	0 – No		331	19
	1 – Yes		1376	81
Judicial disposition	0 – Probation		1203	87
	1 – Out of home placement		173	13

a: Variable will be treated as dummy variable; Own home, two parents reference group.

b: Reference category is Other offense, e.g. weapon possession, disorderly conduct.

d: Treated as both independent and dependent variable.

Note: Insufficient cases or variation to study waiver; all but two youth waived were Black.

Analysis Procedures

As stated previously, this part of the assessment study used multivariate procedures in the form of logistic regression. This procedure allows for the estimation of the relative effects of each of the independent variables on a dependent variable. The Exp(B) will be also used to calculate the odds ratio to discuss the relative impact of an independent variable on a dependent variable. The first model will represent the full or additive equation, which allows for the examination of a direct or main effect of an independent variable on an outcome (e.g., race with detention). Next, separate models were estimated for Whites and Blacks to address the possibility of race interaction relationships with independent variables and in predicting a case outcome. For example, race and gender may act in combination to impact decision making. That is, it is possible that being a White female may result in different treatment than a Black female. The estimation of separate models along with tests involving Z-score comparisons allows for the examination of this possibility.

Past research has also shown that as youth move through the juvenile justice system the sample becomes more alike; thus, increasing the chance for error or selection bias. To correct for this possibility, a hazard rate was created and included in the model at judicial disposition. The results produced problems with multi-collinearity. Thus, the models were re-estimated without the hazard rate. Once the hazard rate was dropped from the analyses, statistical checks for multi-collinearity revealed acceptable levels of sharedness among the variables.

Findings

Detention. Table 6 (page 23) presents the logistic regression result for estimating the decision to detain. In the present study, race is a statistically significant determinant of the detention outcome. **Black** youth have over a **one and a half times** greater likelihood to be **held in detention** than a White once other factors are taken into consideration (column 1). As reported in the last assessment, there is once again the presence of an interaction effect involving race and being charged with a drug offense (column 2, column 3). In column 2, White youth charged with a drug offense is inverse and statistically significant. In column 3, Black youth charged with a drug offense is negative but statistically insignificant. In short, being **White** and charged with **drug offending** substantially **decreased the chances of being detained (by 67%)**. Most of the legal and extralegal variables predict detention as one would expect. For example, crime severity is predictive of detention.

Overall, in 5 of 6 assessment studies, race has been found either individually or in combination with other factors, such as drug offense, to influence the decision to detain net considerations of other variables. Recall that the DOJ study reported a strong relationship between race and detention in that Black youth were almost $2\frac{3}{4}$ times more likely to be detained than similarly situated White youth. In the first assessment study by Leiber, race was not found to be a statistically significant predictor of the detention decision once all legal and extralegal factors were taken into account. In Leiber's second and third assessment studies, Black youth involved in a person offense increased the likelihood of being detained by over two times relative to all other youth net controlling for other factors, including domestic assault cases. In the fourth assessment study and as previously stated, Whites charged with a drug offense were more likely to not be detained than comparable Blacks.

Table 6. Logistic Regression Results - Detention (N=6,022)

Variable		Full Model (1)	(2)	White	Black (3)
Race		.53^{a**} (1.69)	-	-	
Gender (1.49)	(1.14)	.40^{**} (1.55)	.13.44^{**}		
Age (1.13)	(1.15)	.12^{**} (1.13)	.14.12^{**}		
School status		.11 (1.11)	.57.05 (1.11)	(1.77)	(1.05)
Special education (1.15)	(2.95)	.141.08[*] (1.08)	.07		
Own home, one parent (.68)	(.62)	-.38^{**} (.62)	-.48-.38^{**} (.68)		
Home of relatives (.86)	(.98)		-.15-.02 (.84)		-.17
Prior referrals (.94)		-.06^{**} (.94)	-.06-.06^{**} (.95)		
Custody		_.b_b_b			
# Charges (1.51)	(2.22)	.41^{**} (1.44)	.80^{**} (1.44)	.36^{**}	
Crime severity (4.42)	(5.19)	1.49^{**} (4.35)	1.65^{**} (4.35)	1.47^{**}	
Property (1.34)	(.81)	.29[*] (1.45)	-.22 (1.45)	.37[*]	
Person (.57)	(.49)	-.57^{**} (.59)	-.72 (.59)	-.52^{**}	
Domestic		3.69^{**} (39.96)	4.15^{**} (39.96)	3.67^{**} (63.17)	(39.15)
Drugs (.76)	(.33)	-.27 (.99)	-1.12[*] (.99)	-.01 [†]	
-2 Log Likelihood		4278.02	381.52	3875.60	

a: Regression coefficient; Exp(B) is presented in the parenthesis ().

b: Insufficient cases, variable dropped from analysis

**p<.01, *p<.05

†p<.05, Coefficient comparisons yield statistical significance.

Non-judicial. Table 7 (page 25) presents the logistic regression results for predicting the decision to first use a non-judicial outcome versus further court processing, followed by models differentiating among non-judicial outcomes (warning, diversion versus release). Race is a positive statistically significant predictor of non-judicial decision-making (column 1). Being **Black increased the odds of receiving a recommendation for further court proceedings (by 52%)** once controls were considered (column 1).

If a non-judicial outcome is given, **no race differences are evident in the decision to provide a warning** (column 4). Black youth, however, are less likely to be diverted than comparable Whites (column 7). More specific, the odds of receiving **diversion for Blacks are 48% less than Whites**. As reported in the last assessment study, a relationship exists between **being White** and residing in a **single-parent household** (column 8). Whites who come from such a household increased the odds of receiving diversion by 5.31.

In the DOJ assessment study, Blacks were found to be less likely than similarly situated Whites to receive a warning and a fine, restitution or public service sanction. Or, in other words, Blacks were more likely than Whites to be referred for further juvenile court proceedings once controls were considered. The results from Leiber's first assessment study showed that this effect remained. Blacks were 1 ½ times more likely than Whites to be referred to a court hearing net controls. In the second and third assessment study by Leiber, race was not a statistical significant determinant of the decision to be referred further on at this stage. In the fourth assessment study and the fifth assessment study or the current research, the results paralleled those from the DOJ study and the first assessment study. **Thus, in 4 of 6 assessment studies, race had a direct relationship with the non-judicial decision.**

In the first assessment study by Leiber, differentiating among the non-judicial case options with warning as one variable and diversion as another variable with release as the reference group failed to produce evidence of race main or interaction effects with the dependent variables. Similarly no main or interaction relationships were evident in the second study. But similar to the findings reported by DOJ, results from the third and this fifth assessment study by Leiber showed that Black youth were less likely to participate in diversion than similar White youth.

Table 7. Logistic Regression Results - Non-Judicial

Variable	Non-Judicial			Warn			Diversion			Full	White	Black
	Full	White	Black	Full	White	Black	Full	White	Black			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)			
Race	.42*** (1.52)	-	-	-.01 (.99)	-	-	-.65** (.52)	-	-			
Gender	-.73** (.48)	-.85* (.43)	-.72** (.49)	.09 (1.10)	.15 (1.16)	.09 (1.09)	.25 (1.29)	.13 (1.14)	.27 (1.32)			
Age	.05* (1.05)	-.01 (.99)	.05* (1.05)	-.04 (.98)	.08 (1.05)	-.05 (.97)	.16** (1.08)	.15 (1.08)	.16** (.95)	(1.17)	(1.16)	(1.18)
School status	.01 (1.01)	-.11 (.89)	.02 (1.02)	-.12 (.68)	-.26 (.88)	-.36 (1.97)	-.56 (.77)	-.28 (.70)				
Special education	-.23 (.79)	-1.09 (.34)	-.19 (.83)		.02 (1.02)	.16 (1.17)	.01 (1.01)	.27 (1.31)	^b -	.50 (1.66)		
Own home, one parent	-.13 (.88)	-.25 (.78)	-.12 (.89)	-.37** (.89)	-.49 (.69)	-.35* (.61)	.54 (.70)	1.67** (1.72)	.03 [†] (5.31)		(1.03)	
Home of relatives	-.24 (.79)	.01 (1.01)	-.23 (.80)		-.44* (.64)	.33 (1.39)	-.50* (.61)	.46 (1.58)	^b -	.25 (1.28)		
Prior referrals	.42** (1.53)	.76** (2.13)	.41** (1.51)	-.16** (1.51)	-.28** (.85)	-.15** (.76)	-.06 (.86)	.06 (.94)			(1.07)	(.93)
Custody	2.25** (9.49)	1.55** (4.72)	2.33** (10.24)		-1.86** (.16)	-2.21** (.11)	-1.82** (.16)	-.68 (.51)	-.85 (.43)	-.70 (.50)		
# Charges	.34** (1.41)	.18 (1.20)	.36** (1.44)	.41 (1.44)	.27* (1.38)	-.01 (1.51)	-.17 (1.31)	.15 (1.00)			(.84)	(1.16)
Crime severity	2.20** (9.01)	1.93** (6.91)	2.24** (9.39)	.17 (.56)	.10 (1.19)		-.09 (1.75)	-.06 (1.11)	-.09 (.91)		(.94)	(.92)

Table 7. continued

Variable	Non-Judicial			Warn			Diversion		
	Full (1)	White (2)	Black (3)	Full (4)	White (5)	Black (6)	Full (7)	White (8)	Black (9)
Property	.08 (1.08)	.36 (1.44)	.06 (1.06)	.20 (1.22)	.06 (1.06)	.23 (1.25)	1.10** (3.01)	1.41 (4.10)	1.04** (2.82)
Person	.49** .47 (1.62)	.50** .44** (1.59)	.79 (1.65)	.42** .66 (1.55)	.46 (2.21)	.66 (1.53)			
Domestic	-.33 (.72)	-.69 (.50)	-.30 (.74)	.05 (1.05)	-.01 (.99)	.07.27 (1.07)	.67	.21 (1.31)	
Drugs	-.08-.05 (.92)	-.11 (.95)		.32.31 (1.38)	.30.77* (1.36)	.97 (1.35)	.57		
Detention	-1.67** (.19)	-1.09 (.34)	-1.73** (.18)	_b -	_b -	_b -	_b -	_b -	_b -
-2 Log Likelihood	4114.10	396.25	3692.40	3819.98	514.49	3290.34	1237.57	289.32	935.59

a: Regression coefficient; Exp(B) is presented in the parenthesis ()

b: Insufficient cases, variables dropped from analysis

** p<.01, *p<.05

†p<.05, Coefficient comparisons yield statistical significance.

Adjudication. Table 8 (page 29) provides the logistic regression results for understanding adjudication decision-making. In the present assessment study, **race once again does not have a statistical direct effect on adjudication outcomes** (column 1). Further, with one exception, tests involving coefficient comparisons **also failed to produce evidence of race differences in the relative effects of the independent variables with adjudication.** The one exception is the discovery of an interaction relationship with being White and prior referral with adjudication. For Whites, this relationship is positive and statistically significant. For Blacks, the effect is inverse but not statistically significant.

It is important to note that detention has a strong impact on the adjudication decision once all factors are taken into account. Being detained increases the likelihood of an adjudication of delinquency by four. Recall that earlier it was reported that being Black was a determinant of detention. **Thus, an indirect relationship exists between being Black, being detained, and adjudicated a delinquent.**

Recall that the DOJ study did not report adjudication decision-making as a problem area. In the first assessment study by Leiber, race by itself was not a significant predictor once controls were considered. Comparisons of coefficients revealed the existence of a race interaction relationship with the number of charges and the odds of being adjudicated. For Whites, the number of charges had an inverse or negative relationship with the dependent variable and was not statistically significant. For Blacks, the relationship was positive and statistically significant. Black youth with a greater number of charges increased the likelihood of adjudication by 2.15 relative to other youth net considerations of legal severity and other variables. In the second assessment study, race once again did not have a direct effect on the dependent variable. But, two race interaction relationships were found. Black females and White youth charged with a person offense were found to have an increased likelihood of adjudication. In the fourth assessment study and in this current research, again, no direct race effects of statistical significance were discovered. But, a possible indirect effect with race and detention exists with the adjudication decision.

Judicial Disposition. In column 4 of Table 8, the logistic regression results for predicting judicial disposition outcomes are presented. In the present assessment study, and consistent with the previous four assessment studies, **race is not a statistically significant determinant of judicial decision-making.** Tests for the presence of race combination relationships with independent variables also failed to show the existence of such effects with the dependent variable. Detention has an effect on disposition outcomes but this relationship is inverse suggesting that **Blacks who were detained are receiving probation instead of an out-of-home placement.**

Because of the instability of the models for Whites, separate regression runs were not conducted for each racial group. **Only 4 Whites received a disposition of out-of-home placement.**

In the first assessment study by Leiber, race had no main relationship with the dependent variable. However, two race interaction relationships were reported. Older Whites had a reduced probability of a receiving an out-of-home placement than older Blacks who had an increased odds of such an outcome. Being detained had also significant positive relationship with the dependent variable (increased odds of being taken out of the home). This effect was conditioned

by race. Blacks held in detention had an increased likelihood of receiving the more severe judicial outcomes than similarly situated White youth once controls were taken into account. In the second assessment study, once again race was not a statistically significant determinant of judicial disposition decision making. Differentiating the results by race, tests comparing coefficients produced two statistically significant interaction relationships. As in the first assessment study, older Whites had decreased odds of receiving an out-of-home placement than other youth, including Blacks. White youth from a single-parent home were found to be less likely to receive the more severe judicial disposition outcome than similarly situated Black youth. These relationships were not found in neither the fourth nor the present study. In the current research, an indirect inverse relationship appears to exist between being Black, being detained and receiving the more lenient outcome of probation.

Note: As pointed out earlier, logistic regression was not used to predict decision making at the hearing to decide whether to waive a youth to adult court. Recall that there was a lack of variability in that there were too few Whites to conduct the analysis over the last four years. That is, **almost all youth receiving notice of transfer and actually waived are Black.**

Table 8. Logistic Regression Results - Adjudication, Judicial Disposition

Variable	Adjudication		Judicial Disposition			Full (4)
			Full (1)	White (2)	Black (3)	
Race			-.10 ^a	-.49		(1.63)
		(.90)				
Gender			.73**	-.02	.74**	-2.17**
(2.07)	(.98)	(2.09)		(.11)		
Age			-.41**	-.93*	-.39**	-.13
(.67)	(.39)	(.68)		(.88)		
School status			-.49**	-3.94**	-.37 [†]	.26
		(.62)	(.02)	(.69)		(1.30)
Special education			.09 ^{-b}	.08	-.18	
(1.09)	- (1.08)		(.83)			
Own home, one parent			-.21	-3.84*	-.05 [†]	.23
(.81)	(.02)	(.95)		(1.25)		
Home of relatives			-.07^{-b}	.07	-.26	
(.93)	- (1.07)		(.78)			
Prior referrals			-.03	.72**	-.05[†]	.29**
(.97)	(2.06)	(.96)			(1.33)	
Custody			-.03	1.08	.01	.95**
(.97)	(2.94)	(1.00)			(2.58)	
# Charges			-.17*	-.31	-.18*	.25*
(.84)	(.73)	(.84)			(1.28)	
Crime severity			-.87**	-.72	-.93**	.09
(.42)	(.49)	(.40)		(1.10)		
Property			1.23**	2.51	1.19**	.07
(3.40)	(12.31)	(3.29)			(1.07)	
Person			-.10	.20	-.11	-.08
(.91)	(1.22)	(.90)			(.92)	
Domestic			.20 ^{-b}	.14	-.18	
(1.23)	- (1.15)		(.84)			
Drugs			1.43**	1.32	1.71**	.37
(4.16)	(3.74)(5.53)			(1.44)		
Detention			1.40**^{-b}	1.38**	-.87**	
(4.06)	- (3.96)		(.42)			
Hazard Rate			--	-1.93**		
(6.90)						
-2 Log Likelihood			1386.50	51.87	1310.24	794.34

a: Regression coefficient; Exp(B) is presented in the parenthesis ().

b: Insufficient cases, variable dropped from analysis

**p<.01, *p<.05

†p<.05, Coefficient comparisons yield statistical significance.

Summary and Conclusions

Using data from the state of Tennessee for the years 2005 through 2009, and to some extent 2010, the DOJ study found and reported the presence of DMC at almost every stage. In subsequent analysis using data from Shelby County, the DOJ findings letter reported that the presence of DMC was not accounted for solely by legal and extralegal considerations, especially at detention, the use of non-judicial outcomes in the form of warning and diversion and at the transfer to adult court hearing.

Since the DOJ study, Leiber has conducted five assessment studies, including the current research. For the most part, Leiber has reported similar findings as those detailed in the DOJ study. In his first assessment study, Leiber used data given by the Memphis/Shelby County Juvenile Court and cleaned by Leiber for the time-frame ranging from July 1, 2012 through June 30, 2013, and reported somewhat similar results to DOJ. In the second assessment study covering court decision making for the entire year 2013 by Leiber, several themes continued to exist. In a 3rd assessment study using data from July 1, 2013 through June 30, 2014 similar patterns from the previous two assessments and the DOJ study were evident. The fourth assessment study by Leiber examined data for delinquent referrals for the year 2014 while the current study covered 2015. And once again, a continuation of Black overrepresentation and Black effects with decision-making outcomes exists. In short, little has changed over time.

Recall that a summary of these studies and conclusions are presented on pages 1-4 and discussed throughout this report. Below are the main findings/themes from all five assessment studies and recommendations:

- Referrals by the police/schools to the juvenile court have declined but Black youth continue to be overrepresented. Strategies such as SHAPE and the station in-house adjustment effort need to be expanded, especially the latter. For example, having a probation officer just once a week at a police station is just not enough to curb unnecessary referrals to the juvenile court. As these efforts continue there is a need to assess/evaluate if each is producing the intended results.
- Efforts of reform at detention appear to be taking place, to some degree, as evident in the decline in the relative numbers but the RRI's and the findings from the multivariate analyses continue to show no change in the overrepresentation of Blacks relative to Whites and being Black continues to predict the use of secure detention. The relationship of race with detention is sometimes evident in the form of a direct effect and at other times in the form of interaction relationship with a number of independent variables, such as being charged with a person offense. Race also appears to have an indirect relationship with adjudication and judicial disposition decision-making where the effects sometime yield more severe outcomes at adjudication, or more lenient outcomes at judicial disposition in the form of probation. The continued finding that race matters at detention once again begs the question as to what effect the Summons program (LEAP) and DAT are having on the referral of Black youth to detention. Enough time has passed for implementation of these efforts to have an impact but the overall results show that change in DMC and the more equitable treatment of Black

youth is not occurring. The juvenile court needs to take a hard look into why the intended reform has not taken place.

- Race relationships continue to exist at non-judicial decision-making. Over time, this relationship has almost been as evident as at referral and detention. Similar to referral and secure detention, there needs to be an inquiry as to why these race effects are continuing. As stated on numerous occasions, the Court needs to address the following questions: (1) are the structured decision-making tools being administered properly (e.g., overrides)? And (2) are the tools and the criteria comprising the tools used to structure decision-making reducing DMC and ensuring decision-making that results in equal protection? The findings from the five assessment studies, for the most part, reveal that the tools are not bringing about the needed change in decision-making.
- Although the overall number of youth reaching the waiver stage via notice have declined, most youth that receive a notice and waived are Black. While much of this relationship rests with the prosecutor, continued dialogue must occur between the interested parties to address this issue.

Overall, the Court has shown awareness and sensitivity to greater equity in the treatment of youth, irrespective of race, **but** more aggressive discussions and action in the form of strategies and policies need to take place before the reported results may be altered. In short, little has changed in reducing DMC and ensuring greater equality for Black youth in Shelby County/Memphis Juvenile Court, especially with regards to referrals, detention, and non-judicial decision-making.

References

Hockenberry, S., &Puzzanchera, C. (2015). *Juvenile Court Statistics 2013*; National Center for Juvenile Justice: Pittsburgh, PA, USA.