



Disproportionate Minority Contact Butler County, Ohio

Phase 1: Identification



Final Report

Prepared for:
**Butler County
Juvenile Court**

Supported by the:
**Office of Juvenile
Justice and
Delinquency
Prevention**

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Dr. Robert L. Seufert
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INTRODUCTION

In 2002, the U.S. Congress modified and thereby broadened the Juvenile Justice and Delinquency Prevention (JJDP) Act of 1974 to require all states participating in the Formula Grants Program to emphasize equity through Disproportionate Minority Contact (DMC) with the juvenile justice system rather than institutional confinement. Those states were also required to “institute multipronged intervention strategies including juvenile delinquency prevention and system improvements to assure equal treatment of all youth who come into contact with the juvenile justice system” (Hsia, 2006, U.S. Department of Justice, *DMC Technical Assistance Manual, 3rd Edition*).

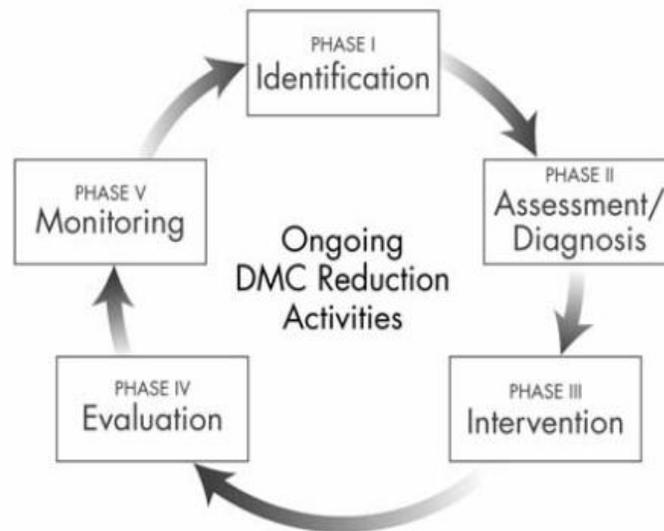
In response to the DMC initiative, during September of 2008, Butler County joined efforts in 13 other Ohio counties to assess whether minority youth are disproportionately in contact with the juvenile justice system.¹ A small workgroup was formed consisting of the DMC Steering Committee composed of Butler County Juvenile Justice Center employees who were affiliated with the Butler County Court of Common Pleas, Juvenile Division. In addition, the workgroup was expanded to include Applied Research Center of Miami University (ARC) personnel and consulting faculty from the Department of Sociology and Gerontology, Miami University, i.e., the ARC workgroup. The Butler County DMC workgroup was formed in response to a requirement of the Ohio Department of Youth Services (ODYS) as part of a federal mandate included in the Juvenile Justice and Delinquency Prevention (JJDP) Act. The purpose of the collaboration between the Butler County DMC Steering Committee and the ARC workgroup in preparing this report is to establish a baseline rate for any subsequent study of or changes to contact between minority youth and the Butler County Juvenile Justice System as compared to contact between White/Caucasian youth and the Butler County Juvenile Court. In addition, this report will assist the ODYS in monitoring DMC in its reports to the federal Office of Juvenile Justice and Delinquency Prevention (OJJDP).

¹ The 13 Ohio counties are Allen, Clark, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Richland, Stark, Summit, and Trumbull.

There are five stages in the DMC Reduction Cycle (U.S. Department of Justice, 2006):

- *Identification*: Determination of the existence and extent of DMC, if any.
- *Assessment*: Assessment of the factors influencing DMC, if any.
- *Intervention*: Development and practice of strategies to mitigate DMC.
- *Evaluation*: Evaluation of the efficacy of interventions.
- *Monitoring*: Periodically checking to note the appropriateness of interventions and the continuing effects they have on DMC rates/trends.

The DMC Reduction Cycle

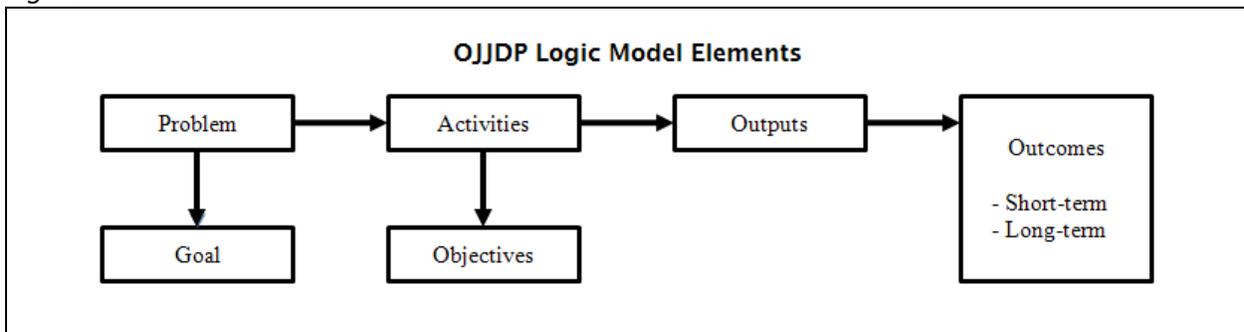


This report focuses on the *Identification* stage of DMC, which involves identifying disproportionate minority contact with the Butler County Juvenile Justice System at crucial decision points. Data on arrests and court referrals have been examined to determine the existence of DMC at these points in the flow of youth through the Butler County Juvenile Justice System. Although the county juvenile court’s information management system includes individual-level data, the current configuration of that system and the database make it extremely time consuming to compile data in a format that would permit cross-tabulations and other statistical analyses. Therefore, due to technical and budgetary concerns, it is impossible to rigorously document individual contact and interaction with the juvenile justice system in this report. For instance, it is impossible to statistically examine the relationship between individual-level variables including age and gender and race/ethnicity or the nature of crimes and other pertinent data relative to DMC in juvenile arrest and/or referral. Thus, this report includes recommendations for future enhanced data collection that would help the Butler County DMC Steering Committee continue its examination of DMC on the county level.

METHODOLOGY

Logic Models: Figure 1 depicts the OJJDP Logic Model Elements used in this phase of the project. Figure 2, on page 4, subsequently shows the expanded Logic Model and Evaluation Framework developed by the ARC workgroup members specifically for Butler County that will be revised when necessary and used during subsequent stages of the DMC initiative. This framework is similar to the ***Formula Grants Disproportionate Minority Contact Logic Model*** which is provided in Appendix A, but different in that it includes other pertinent elements, including the cultural, social and other contextual factors within the geographical area. Additionally, the structure and composition of the entities providing the intervention are named.

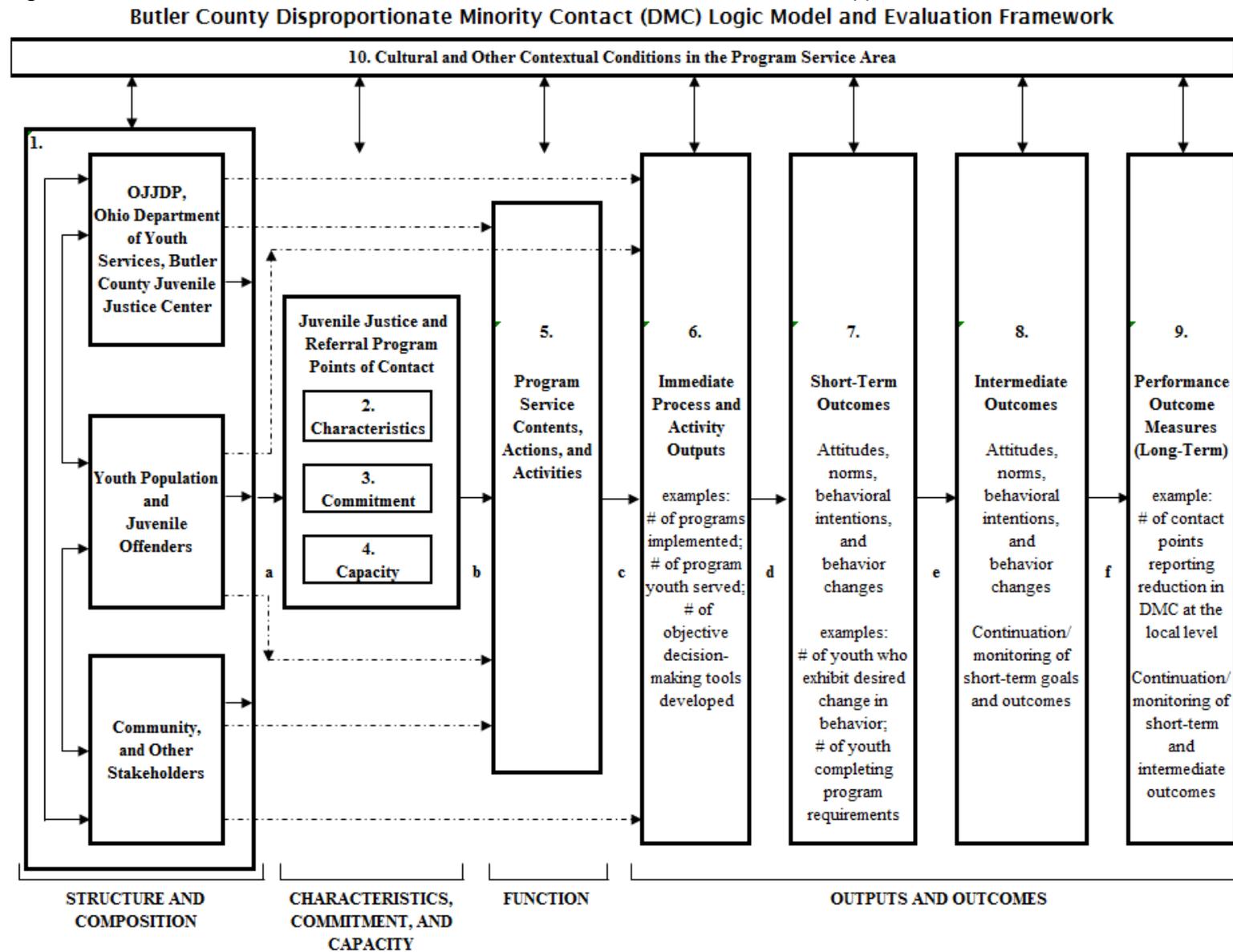
Figure 1



Source: U.S. Department of Justice 2006

Figure 2

Source: Applied Research Center, Miami University 2008

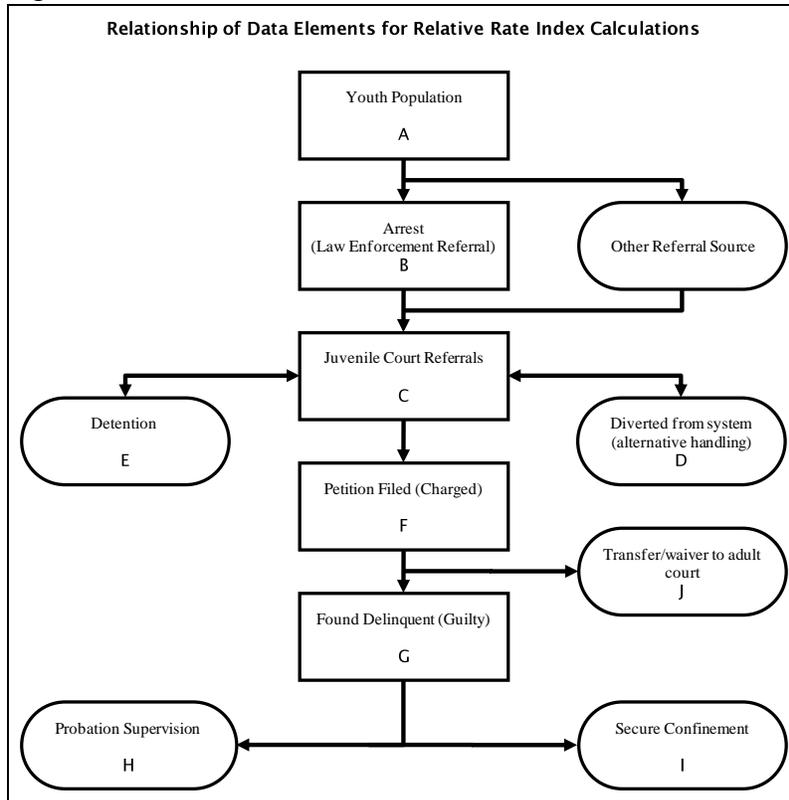


The RRI Method:

The Relative Rate Index (RRI) is the statistical method chosen by the OJJDP to identify the level of racial disparity in the formal juvenile justice system (DYS, 2008). RRIs can be computed for different times when a decision is made regarding a young person. Findings based on RRIs have implications for existing interventions or can provide the basis for new or enhanced DMC-reduction programs (U.S. Department of Justice, 2006). Throughout this report, figures illustrating RRIs depict only values above 1.00 in order to more clearly illustrate instances of disproportionate minority contact.

The RRI method involves comparing the relative volume (or rate) of activity for minority youth at each decision point in the juvenile justice system with the volume of White/Caucasian (majority) youth activity for the respective decision point. This generates one index number that represents the extent to which the rates of activity for the specified minority group and the majority group differ for each decision point studied. The various calculations executed in the steps of our RRI method-based analysis allowed us to make a series of these comparisons as the ARC workgroup interpreted the data and *identified* points of concern. Figure 3 depicts the major decision points of a typical juvenile justice system. (Please refer to Appendix B, which depicts the *Butler County Juvenile Justice System*, for a more complete diagram.)

Figure 3



Source: U.S. Department of Justice 2006

These two diagrams (i.e., Figure 3 and the *Butler County Juvenile Justice System* depicted in Appendix B) justify the logic of choosing the decision points of arrests and referrals based on their relationship to one another (i.e., their order in the path through the system), as well as the decision to include separate information on those referrals not originated through arrest, but through detention centers, schools, parents, neighbors, etc.

Throughout this phase of this project, the ARC workgroup continued to reference the *DMC Technical Assistance Manual, 3rd Edition* (2006).

RESULTS

The **Results** section consists of the following major parts:

- **Butler County Disproportionate Minority Contact Background**
- **Relative Rate Index Comparison and Assessment**
- **Identification Phase Summary**

Butler County Disproportionate Minority Contact (DMC) Background

Measuring Disproportionate Minority Contact: For DMC identification purposes, the OJJDP recommends the use of the Relative Rate Index (RRI), which offers a statistical representation of DMC at selected decision points in the juvenile justice system. Therefore, the Butler County workgroup selected the Relative Rate Index as its method of identifying DMC in Butler County. The Relative Rate Index compares the rate of contact for White/Caucasian youth to the rate of contact for minority youth. An RRI number of 1.00 would indicate that a minority group's relative rate of contact is the same as that of White/Caucasian youth. A number above 1.00 indicates disproportionately higher minority contact, while a number below 1.00 indicates disproportionately lower minority contact. As previously stated, throughout this Butler County DMC report, figures illustrating RRIs depict only values above 1.00 in order to more clearly illustrate instances of disproportionately greater minority contact.

The Butler County Steering Committee selected two decision points as the focus of the current RRI analysis: Juvenile Arrests and Referrals. Standard definitions for these stages are (according to the U.S. Department of Justice, 2006):

- *Arrest:* Youth are considered to be arrested when law enforcement agencies apprehend, stop, or otherwise contact them and suspect them of having committed a delinquent act. Delinquent acts are those that, if an adult commits them, would be criminal, including crimes against persons, crimes against property, drug offenses, and crimes against the public order.
- *Referral:* when a potentially delinquent youth is sent forward to legal processing and received by a juvenile or family court or juvenile intake agency, *either as a result of law enforcement action or upon a complaint by a citizen or school.*

Butler County differs in general from other counties in its measurement of juvenile arrests and referrals. Typically, and when reporting data at the federal level, referrals are considered to be subsequent to arrests. Thus, while the rate of arrests is typically determined by dividing the

number of arrests by the population at risk, the referral rates are usually determined by dividing the number of referrals by the number of events in the preceding stage, i.e. the number of arrests. This is based on the assumption that, for example, although 100 individuals may be arrested, only 80 may actually be referred to a court for consideration. In this statistical analysis, however, the data provided by Butler County tells a different story: the number of arrests is only a subset of the number of referrals, which includes all arrests, plus referrals that came through parents, schools, and/or detention centers (see standard definition above, with italicized wording that led to this interpretation). For this reason, in this analysis, for aggregate referrals, we report both the standard RRI (the calculation of which is dependent on the number of instances at the previous stage [i.e. *arrests*]) and the population-based RRI (the calculation of which is *not* dependent on the number of *arrests*).

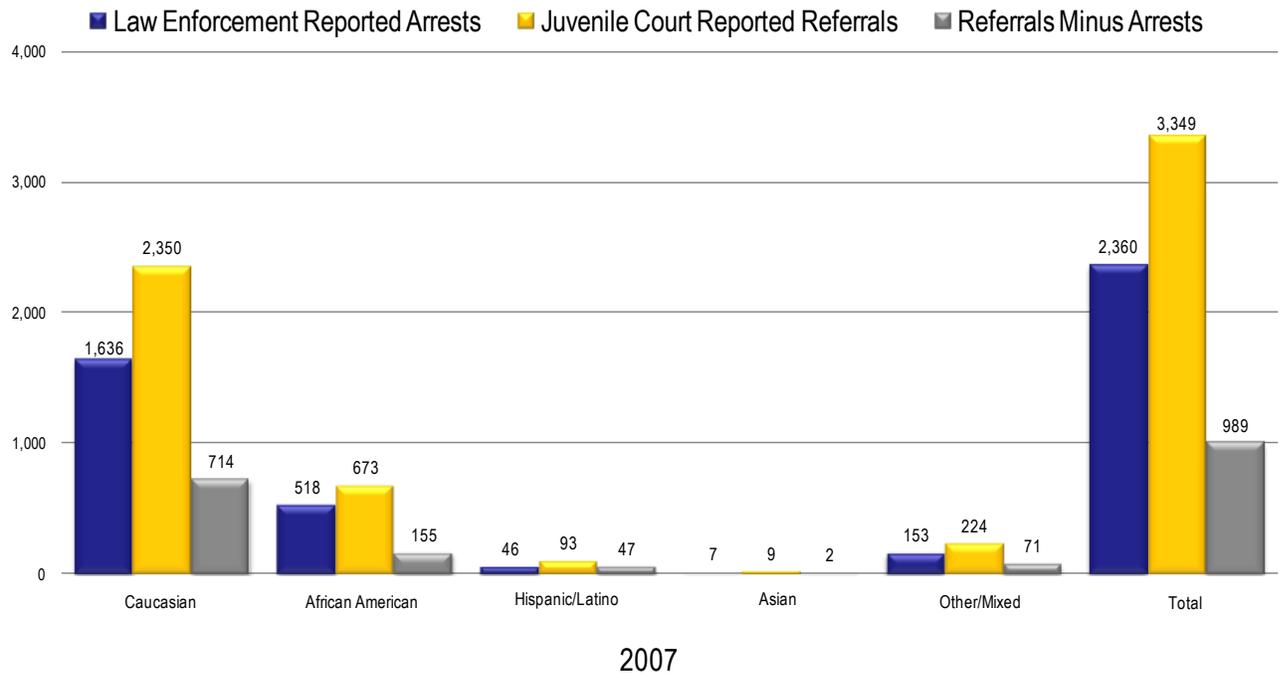
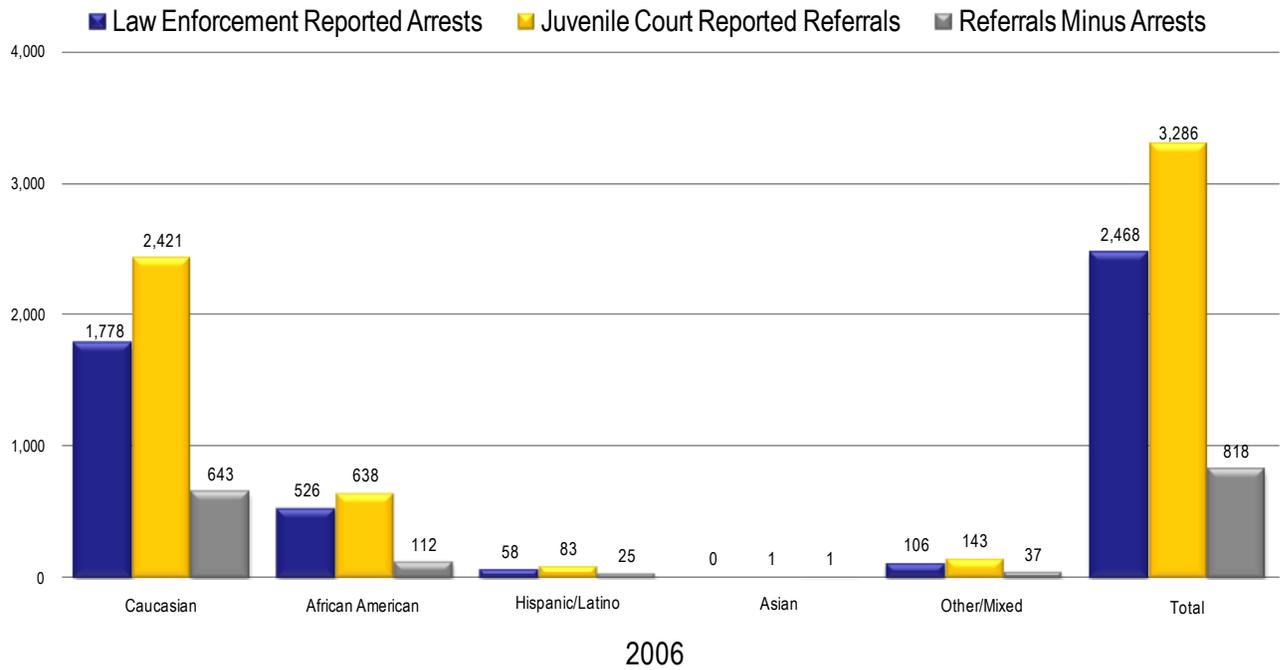
Description of the Target Group: Youth ages 10 to 17 years of age were considered in this analysis of DMC. Race/ethnicity data provided by Butler County for youths in this age range is based on self-reported information. Youth were asked only about “race,” and their open-ended responses were then categorized into eight categories (African American, American Indian/Native Alaskan, Asian, Bi-racial, Caucasian, Hispanic, Other, and Unknown). Individuals were categorized into only one group; therefore, there should be no overlap between those indicated as being “bi-racial” or any other race category and those categorized under *Hispanic*. The OJJDP defines minority populations as the following groups: American Indian and Native Alaskan, Asian, Black or African American, Hispanic or Latino, and Native Hawaiian or other Pacific islanders. It is clear that Butler County’s categorization of races differs slightly from that of the OJJDP; however, these differences do not affect the identification phase of the workgroup’s study. Racial and ethnic groups to be considered in this analysis are based on the fact that these groups account for at least 1% of the youth population in Butler County. They are: Black/African American, Asian, White/Caucasian, and Hispanic/Latino.²

²Population numbers are derived from *Easy Access to Juvenile Populations* for the above racial/ethnic groups and age range for Butler County in 2006 and 2007. Data from this source for 2008 will not be available until October of 2009. The data source listed for this site is: National Center for Health Statistics (2008). *Estimates of the July 1, 2000 – July 1, 2007, United States resident population came from the Vintage 2007 post-censal series by year, county, age, sex, race, and Hispanic origin*. [Released 9/5/2008; Retrieved 9/15/2008]. This document was prepared under a collaborative arrangement with the U.S. Census Bureau and is available online from <http://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm>. Note: the Butler County workgroup chose to use the Lucas County, Ohio DMC Assessment as a model, and on page 3 of that report, it states: “It was decided that the best method for calculating the Relative Rate Index (RRI) for this decision point is to use the *Easy Access to Juvenile Populations* database.” (Lucas County DMC Workgroup, 2008). It should also be noted that (contrary to the Lucas County DMC report), *Easy Access* data (at least for 2006 and 2007) report race and ethnicity separate from one another.

It is interesting to note the extent to which the ethnic and racial profiles of Butler County do or do not reflect those of the state of Ohio and the extent to which juvenile populations either do or do not reflect those of the county's general population. Ethnicity profiles for 2006 and 2007 in Butler County mirror those of the state of Ohio, with an increase from 2% Hispanic/Latino to 3% Hispanic/Latino from 2006 to 2007. Juvenile populations in Butler County also mirrored this proportion and increase. However, population estimates by race reveal that Butler County has less diversity in its population than can be seen in the overall state population of Ohio. Although nearly 13% of the State's population was recorded as Black/African American in these two years, only approximately 7% was recorded as being of Black/African American descent in Butler County. Perhaps of more significance with regard to this analysis is, however, that although only 7% of the County's overall population was reported to be of Black/African American descent, 9% and 10% of the juvenile population (between the ages of 10 and 17 years) within the County was reported to be of Black/African American descent in 2006 and 2007 respectively.

Results—Presentation of Data: All juvenile arrests are processed at the County Juvenile Justice Center, and arrest data were compiled by the Juvenile Court. While the data do not provide information about the number of arrests from individual agencies cross-referenced by race, the workgroup believes the arrest data to be comprehensive as an aggregate reflection of juvenile arrests in the county. Figure 4 (page 11) compares the arrests reported by the juvenile court in 2006 and 2007, juvenile court referrals for the same period, and non-arrest referrals for the same period. As previously stated, the number of arrests in Butler County is only a subset of the number of referrals, which includes all arrests, plus referrals that came through parents, schools, and/or detention centers (see standard definition in previous section). When compared to 2006, the ARC workgroup noted an increase in the number of court referrals for Black/African American and Hispanic/Latino youth in 2007. While representing a very small group, court referrals of Asian youth also increased. Similarly, the group also noted variation in non-arrest referrals, as the numbers increased for White/Caucasian, Black/African American, Hispanic/Latino, and Asian youth. Again, while representing a very small number of individuals, the latter two groups showed a near doubling in reported non-arrest referrals in just one year's time.

Figure 4 Comparison of Law Enforcement Reported Arrests, Juvenile Court Reported Referrals, and Non-Arrest Referrals (Referrals minus arrests) for 2006 and 2007



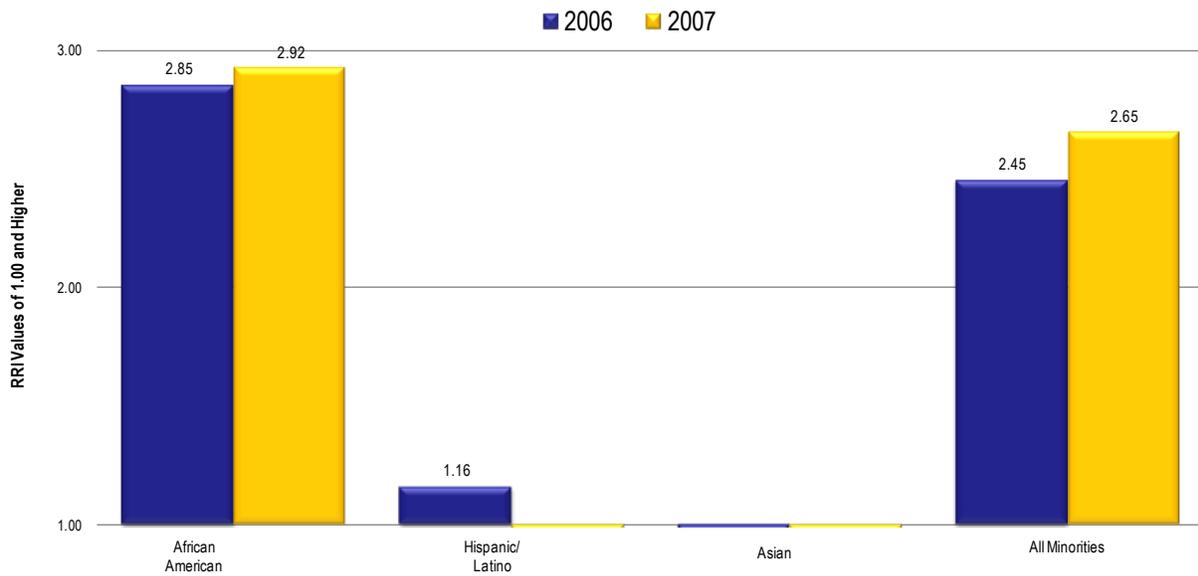
Arrest Data: Using the arrest data, the arrest decision point RRI was calculated for all offenders in 2006 and 2007. Arrest rates are determined by basing the rate calculation on the population at risk, since this decision point is, in essence, an entry point into the juvenile justice system. Figure 5 represents the comparative juvenile arrest RRI values for Black/African American, Hispanic/Latino, Asian, and all minority youth in 2006 and 2007.

The statistical significance of all RRI calculations reported take the following guidelines/data sufficiency tests (derived from the *DMC Technical Assistance Manual*, 3rd edition) into consideration: 1) RRIs are only calculated for decision points at which at least one Caucasian/White youth has been processed; 2) RRIs are only considered to be significant in those instances in which at least five events have been reported at the target stage for the group being examined; and 3) RRIs are only considered to be significant when the base population is at least 30.³

The overall confidence coefficient selected was 95%; therefore, the observed relationships would be seen in 95 out of 100 repetitions of this study. Significance testing was conducted using the DMC data tool, which uses a statistical test based on the chi square distribution. All values were tested at the following levels of significance: $p \leq .10$, $p \leq .05$ and $p \leq .01$ (Feyerherm, 2006, U.S. Department of Justice, *DMC Technical Assistance Manual*, 3rd Edition).

³ Note: Although the *DMC Technical Assistance Manual*, 3rd edition indicates that the minimum base population should be set at 50, the ARC workgroup members have confirmed through discussions with Dr. William Feyerherm, that the more appropriate minimum base population is 30, which is also used as the default in the DMC data tool.

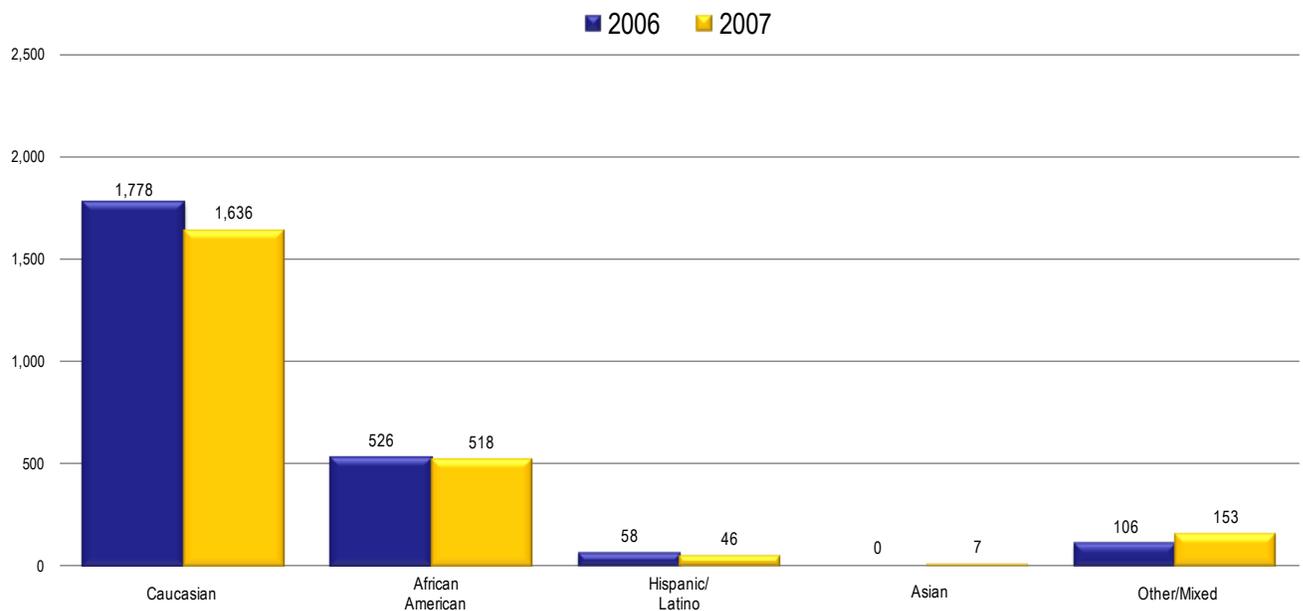
Figure 5 Juvenile Arrest RRI: 2006 and 2007 Comparisons



As illustrated in Figure 5, relative to White/Caucasian youth, Black/African American youth exhibited greater disproportionate contact in both 2006 and 2007. During both years, the disproportionately greater rate of contact was statistically significant ($p \leq .01$) and would occur only one time in a hundred by chance. In comparison, the arrests of Hispanic/Latino youth during 2006 were relatively less disproportionate; furthermore, Hispanic/Latino arrests were lower than arrests for White/Caucasian youth in 2007. These differences involving Hispanic/Latino youth were not statistically significant. Finally, the RRI differences involving all Minority youth were statistically significant ($p \leq .01$); moreover, it was the disproportionately high rate of arrest of Black/African American youth that primarily accounts for the overall disproportionate contact for all minority arrests in Butler County.

The previously mentioned disproportionate minority contact for Black/African American youth and Hispanic/Latino youth are also reflected in the arrest data displayed in Figure 6, which shows the number of arrests by race in 2006 and 2007. As stated previously, it is the disproportionately high arrest rate for Black/African American youth that primarily accounts for the overall disproportionate contact for minority arrests in Butler County. Based on the data provided, it is estimated that the number of arrests for Black/African American youths in Butler County would have to be reduced by approximately 340 arrests per year in order to achieve statistical parity with Caucasian/White youth in the county.

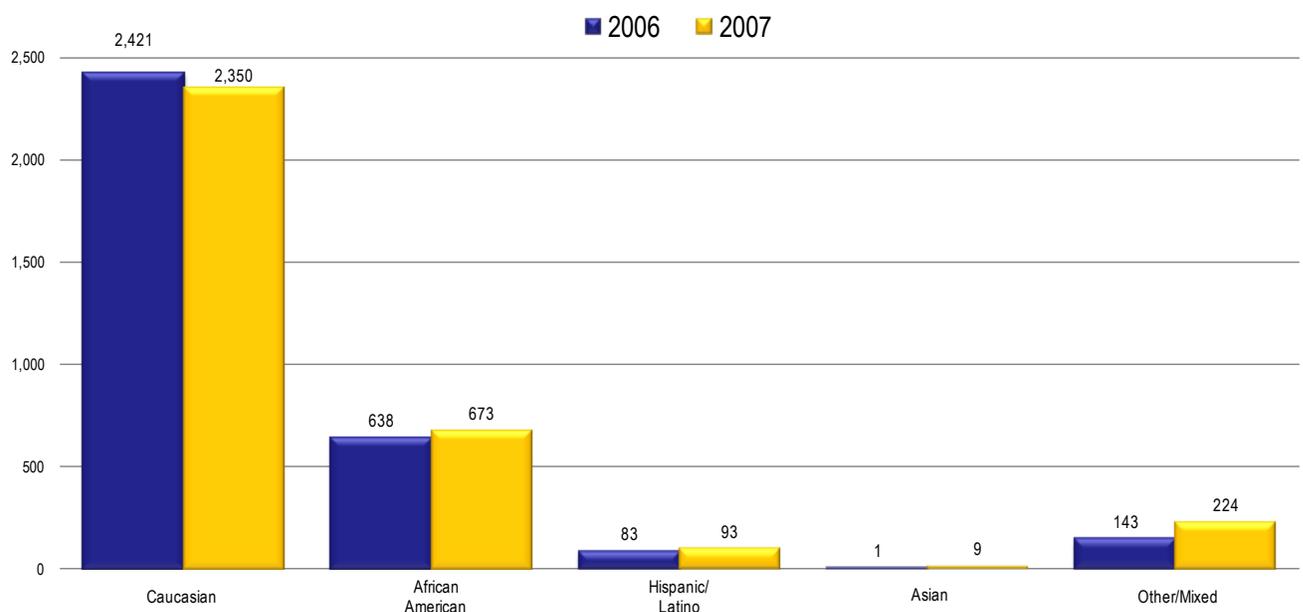
Figure 6 Number of Arrests by Race: 2006 and 2007



Referral Data: Butler County reports referrals as an aggregate number that includes both referrals by arrest and referrals by non-arrest (e.g., from parents, schools, etc.). Since RRI's derived from analysis of the aggregate referral data differ significantly from those derived from analysis of just the non-arrest referrals, the ARC workgroup presents analyses of both aggregate referrals and non-arrest referrals accordingly.

Aggregate referrals are official delinquency cases filed with the juvenile court. While the data provided for this report do not allow for the cross-tabulation of results on an individual level, the ARC workgroup believes the data to be comprehensive as an aggregate measure of referrals to the juvenile court.⁴ Figure 7 compares the aggregate referrals to the juvenile court in 2006 and 2007.

Figure 7 Number of Referrals by Race: 2006 and 2007

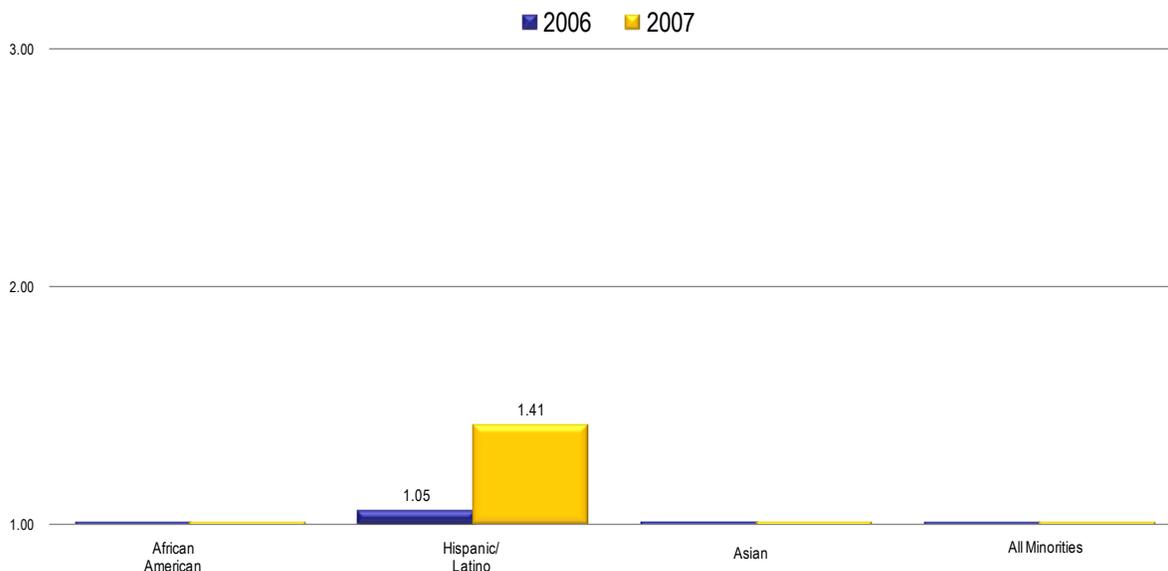


We note that the aggregate referrals to juvenile court remained fairly consistent for all groups across 2006 and 2007. However, while aggregate referrals declined for Whites/Caucasians, there was an increase in referrals for all minority groups studied here between 2006 and 2007.

⁴ The ARC workgroup has requested data concerning the number of referrals from individual police agencies or school districts for future analyses in the *assessment phase* of this project.

Using the aggregate referral data, the referral decision point RRI was calculated for all offenders in 2006 and 2007. The standard RRI at this decision point is determined using rates of referral calculated by dividing the number of events at this stage by the number of events in the preceding stage (*arrests*).⁵ Figure 8 depicts the standard aggregate referral RRI values for Black/African American, Hispanic/Latino, Asian, and all minority youth in 2006 and 2007.

Figure 8 Juvenile Referral RRI: 2006 and 2007 Comparisons



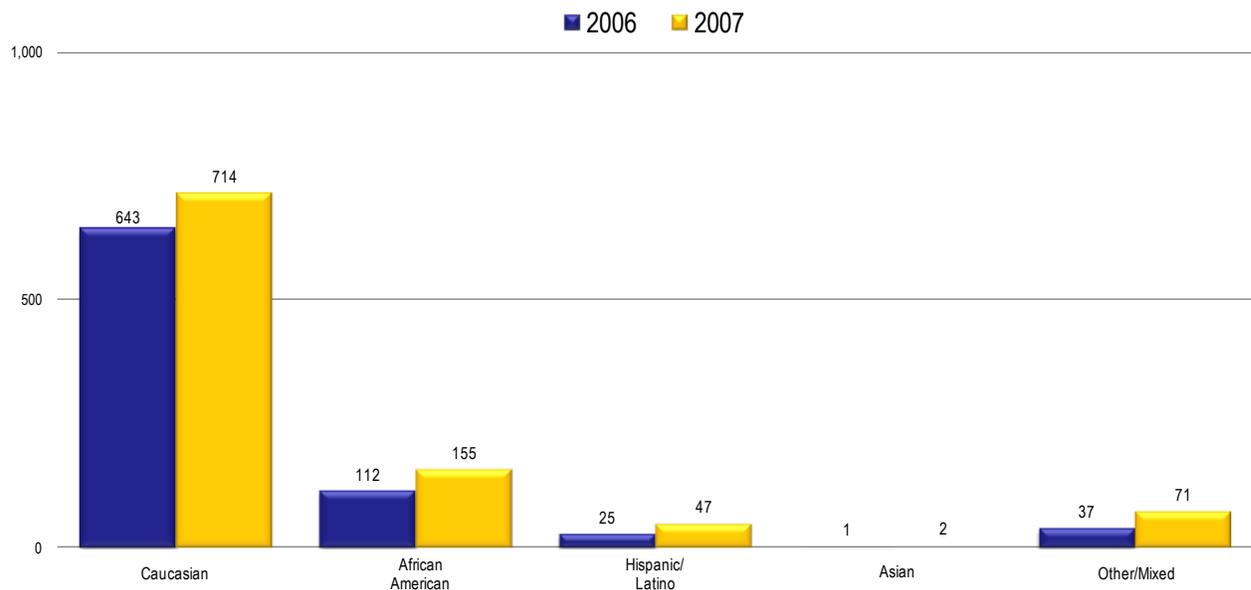
When compared to White/Caucasian youth, Black/African American youth exhibited relatively low disproportionate referral contact – significantly ($p \leq .01$) below the 1.00 RRI parity number in both 2006 (0.89) and 2007 (0.90). In comparison, the referral RRIs of Hispanic/Latino youth were near parity in 2006, but became significantly ($p \leq .01$) disproportionate in 2007.⁶ The standard aggregate referral RRI for all minorities tested as significant at the .10 level, but was not statistically significant at $p \leq .05$. As illustrated in Figure 8, the disproportionate referral RRI of all minorities is slightly below parity with White/Caucasian youth.

⁵ Due to the definition used by Butler County to define and calculate the number of referrals, future studies should consider reporting the population-based RRI which better reflects the current definition, since the current number of referrals is not solely dependent on the number of arrests. Population-based RRIs for the current data are presented in Appendix C, as calculated using the DMC data tool. These calculations *do* note disproportionate contact at this stage for both African American and Hispanic youth in Butler County. Authors of the Lucas County report also considered the RRI value for this decision point to be “an arbitrary number” that “ha[d] little value for the purposes of [their] report.” (See page 6 of the Lucas County report.)

⁶ As noted previously, the minimum base population was set at 30 in determining data sufficiency following discussions with Dr. William Feyerherm.

As reported above, the data available for this report do not allow for the cross-tabulation of results on the individual level. However, concerning the analysis of non-arrest referrals, the ARC workgroup believes the non-arrest referral data to be comprehensive in its reflection of non-arrest referrals to the juvenile court.⁷ Figure 9 compares the non-arrest referrals to the juvenile court in 2006 and 2007, calculated as aggregate referrals minus referrals by arrest.

Figure 9 Estimated number of Non-arrest Referrals (Referrals minus arrests) by Race: 2006 and 2007

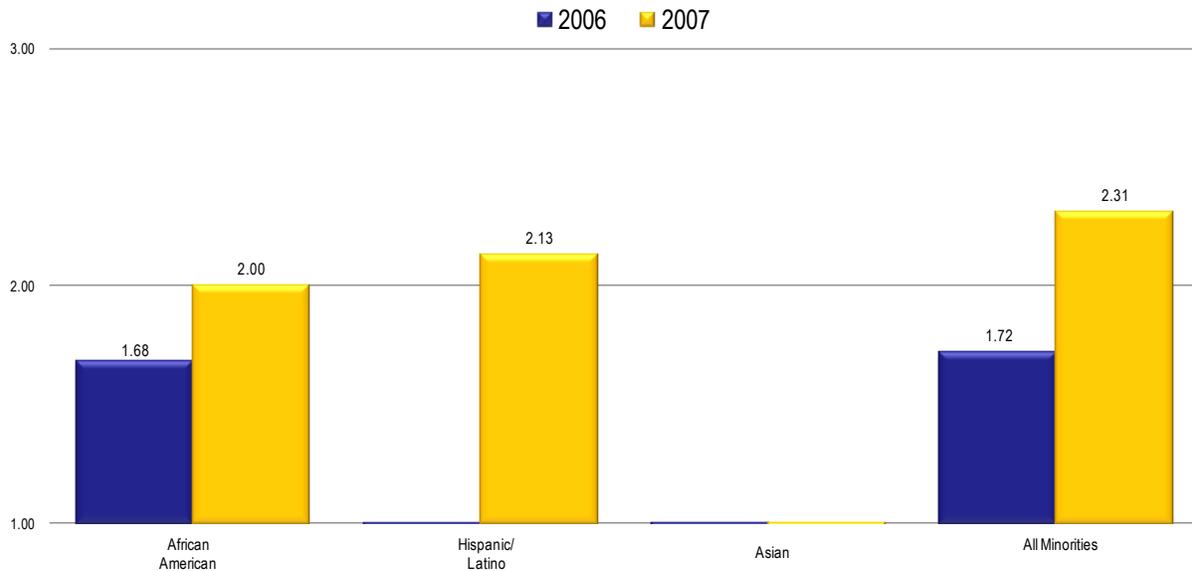


We note that non-arrest referrals to the juvenile court increased between 2006 and 2007 for all groups studied: Whites/Caucasians, Blacks/African Americans, Asians, and Hispanics/Latinos. Based on the non-arrest referral data, the non-arrest referral decision point RRI was calculated for all offenders in 2006 and 2007. Because such referrals were viewed by the ARC workgroup to be similar to arrests in the sense that they constitute an entry-level stage into the juvenile justice system, rates of non-arrest referrals were calculated based on the population at risk, since no previous stage is noted for such referrals in the system’s process flow. Figure 10, page

⁷ The ARC workgroup has also requested data concerning the number of non-arrest referrals from individual referral sources for future analyses in the *assessment phase* of this project.

16, illustrates the non-arrest referral RRI values for Black/African American, Hispanic/Latino, Asian, and all minority youth in 2006 and 2007.⁸

Figure 10 Juvenile Non-arrest Referral RRI: 2006 and 2007 Comparisons



Black/African American youth exhibited significantly greater disproportionate contact ($p \leq .01$) in the number of non-arrest referrals in both 2006 and 2007. In 2006, the non-arrest referrals of Hispanic/Latino youth were proportionately lower than White/Caucasian youth (.91); and, in 2007 Hispanic/Latino youth were referred approximately twice as often by non-arrest means as were White/Caucasian youth; a difference that was statistically significant ($p \leq .01$). Based on these figures, it is the disproportionately high non-arrest referral of both Black/African American youth and Hispanic/Latino youth that determines the overall disproportionate minority contact of minority non-arrest referrals in Butler County. As noted, the comparative RRIs for African American and Hispanic/Latino youth in 2007 are statistically significant ($p \leq .01$). Furthermore, the rapid rise in the RRI for non-arrest referral of Hispanic/Latino youth is a cause for concern and should be a focus of future study.

The ARC members of the workgroup note two limitations in the data which potentially affect these results. First, numbers for arrests and referrals provided by the county could not be culled for residency; therefore, although being compared to the population at risk in Butler County, some of the arrests and referrals may actually be residents of neighboring or other counties. Second, the source for the population data treats *Hispanic* as an ethnicity separate

⁸ Because the number of non-arrest referrals is not dependent on the number of arrests, the population-based RRI is reported.

from race, allowing individuals to be categorized as both Caucasian and Hispanic or African American and Hispanic, for example. In contrast, the county treats Hispanic as a racial group. Therefore, the population data for Hispanic has overlap in reporting with other racial groups, whereas Butler County data have no such overlap, as anyone reporting him- or herself to be *Hispanic* was categorized solely as *Hispanic*.

Relative Rate Index (RRI) Comparison and Assessment

Utilizing the RRI method, the ARC members of the workgroup initially developed the baseline RRI data for Disproportionate Minority Contact (DMC) within the Butler County Juvenile Justice System for 2006. Disproportionate contact between racial and ethnic minorities and White/Caucasian youth based on 2006 data specifically with regard to arrests versus non-arrest referrals is summarized below relative to 2007 data.

The existence of differences in the Arrest RRIs and the Non-arrest Referral RRIs among minority youths relative to White/Caucasian youths in Butler County is of particular importance, as it means that it is unlikely that differences in youth behavior is the sole explanation for the RRI differences. Therefore, one must also consider differences within the judicial system at this stage that may be creating (or at the very least contributing to) disproportionate minority contact in Butler County.

Black/African American: As Table 1 (page 20) demonstrates, 3,664 Black/African American juveniles from Butler County were at risk during 2006. This constitutes nearly one-tenth of the total at-risk juvenile population residing in the county. In addition, more than one in five of all juveniles in the county who were arrested were Black/African American juveniles in 2006, representing a total of 526 youth and 21.3% of all county juvenile arrests in that year. Based on information received from the Butler County Juvenile Court, 638 Black/African American juveniles were referred to juvenile court in 2006 – constituting 19.4% of all juvenile court referrals. Therefore, with approximately nine percent (9.2%) of the county juvenile population reported as being Black/African American, clearly Black/African American juveniles were overrepresented in the Butler County Juvenile system in 2006 relative to arrests and referrals. As presented in Table 2 (page 20), 3,800 Black/African American juveniles were at risk in 2007. This represents nearly ten percent (9.6%) of the total at-risk population. A total of 518 Black/African American juveniles were arrested in 2007. This constitutes nearly 22% of all juveniles arrested in the county during 2007. Court referrals included 673 Black/African American juveniles during 2007, representing 20.1% of all juvenile court referrals in 2006. With approximately one-tenth (9.6%) of the population at risk reported as being Black/African American, clearly Black/African American juveniles were overrepresented in the Butler County Juvenile system at the arrest and referral decision points in 2007 – this ratio also increased proportionally from 2006 to 2007.

As presented in Table 3 (page 20), RRIs for both *arrests* and *non-arrest referrals*⁹ rose for African-American youths relative to White/Caucasian youths in Butler County between 2006 and 2007. Of particular interest, however, is the consistent gap between the two types of referrals. The reason for the difference in disproportionate contact should be carefully examined.

Hispanic/Latino: As presented in Table 1, 992 Hispanic/Latino juveniles were at risk in 2006. This constitutes nearly 2.5% of the population at risk in Butler County. Only 2.4% of all juveniles arrested in the County in 2006 were self-identified as being of Hispanic/Latino ethnicity (i.e., 58 Hispanic/Latino juveniles). Finally, 83 Hispanic/Latino juveniles were referred to juvenile court in 2006. This constitutes 2.5% of all juvenile court referrals. With approximately 2.5% of the population at risk reported as being Hispanic/Latino, data suggest this group of juveniles were not overrepresented in the Butler County Juvenile system in 2006.

As presented in Table 2, 1,080 Hispanic/Latino juveniles were at risk in 2007. This comprises 2.7% of the at-risk population in that year. However, less than 2% of juveniles arrested in the County (i.e., 46) were Hispanic/Latino in 2007. Moreover, approximately 2.8% of juveniles referred to juvenile court (i.e., 93) during 2007 were Hispanic/Latino. Consequently, with approximately 2.7% of the population at risk self-reported as being Hispanic/Latino, the data suggest that Hispanic/Latino juveniles were not overrepresented in the Butler County Juvenile system in 2007 with regard to arrests and referrals.

As presented in Table 4 (page 20), however, calculating the RRIs for both *arrests* and *non-arrest referrals* (two distinct points of entry into the Butler County Juvenile Justice System) show that these indices increased for Hispanic/Latino youths relative to White/Caucasian youths in Butler County between 2006 and 2007. And, of particular interest, is the widening gap between the two types of referrals, with an ever increasing RRI among *non-arrest referrals* for the Hispanic/Latino youth population.

⁹ Again, RRI's for non-arrest referrals are calculated as population-based RRI's, since the number of non-arrest referrals is not solely dependent on the number of arrests.

Table 1. Butler County, Ohio Reporting Period 1/1/2006 – 12/31/2006

	Total Youth	White	Black/ African- American	Hispanic/ Latino	Asian	Native Hawaiian/ Pacific Islanders	American Indian or Alaska Native	Other/ Mixed	All Minorities
Population at risk (age 10 through 17)	39,836	35,249	3,664	992	824	0	99	0	5,579
Juvenile Arrests	2,468	1,778	526	58	0	0	0	106	690
Refer to Juvenile Court	3,286	2,421	638	83	1	0	0	143	865
Referrals Minus Arrests	818	643	112	25	1	0	0	37	175
Note: Population at risk data did not include information for <i>Native Hawaiian or other Pacific Islanders</i> or for <i>Other/Mixed</i> . The population at risk data treats Hispanic or Latino as an ethnicity, therefore this population is not included in the Total Youth population at risk, in order to avoid redundancy. However, for the arrests and referrals, there is no overlap between Hispanic/Latino and any other categories.									

Table 2. Butler County, Ohio Reporting Period 1/1/2007 – 12/31/2007

	Total Youth	White	Black/ African- American	Hispanic/ Latino	Asian	Native Hawaiian/ Pacific Islanders	American Indian or Alaska Native	Other/ Mixed	All Minorities
Population at risk (age 10 through 17)	39,774	35,006	3,800	1,080	870	0	98	0	5,848
Juvenile Arrests	2,360	1,636	518	46	7	0	1	152	724
Refer to Juvenile Court	3,349	2,350	673	93	9	0	1	223	999
Referrals Minus Arrests	989	714	155	47	2	0	0	71	275
Note: Population at risk data did not include information for <i>Native Hawaiian or other Pacific Islanders</i> or for <i>Other/Mixed</i> . The population at risk data treats Hispanic or Latino as an ethnicity, therefore this population is not included in the Total Youth population at risk, in order to avoid redundancy. However, for the arrests and referrals, there is no overlap between Hispanic/Latino and any other categories.									

Table 3. Differences in RRI for African-American Juveniles in Butler County: Arrests vs. Non-Arrest Referrals

Population-based RRI	Arrests	Non-Arrest Referrals
2006	2.85	1.68
2007	2.92	2.00

Note: RRI for non-arrest referrals are calculated as population-based RRI, since the number of non-arrest referrals is not dependent on the number of arrests.

Table 4. Differences in RRI for Hispanic/Latino Juveniles in Butler County: Arrests vs. Non-Arrest Referrals

Population-based RRI	Arrests	Non-Arrest Referrals
2006	1.16	.91
2007	1.38	2.13

Note: RRI for non-arrest referrals are calculated as population-based RRI, since the number of non-arrest referrals is not dependent on the number of arrests.

Identification Phase Summary

Based on the descriptive analysis of data provided by the Butler County Juvenile Court, the Butler County DMC workgroup focused its efforts on understanding the incidence and proportionality of minority contact at the arrest and referral decision points. In all, the group has identified two varieties of referrals to the juvenile court: referral to juvenile court via arrest and via non-arrest (often by schools, parents, or citizens). The analysis focused on White/Caucasian, Black/African American, Hispanic/Latino, and Asian youth, as these groups each constituted at least one percent (1%) of the population at risk in Butler County in 2006 and 2007.

Using the appropriate Relative Rate Index (RRI), the workgroup identified the existence of DMC in the Juvenile Justice System of Butler County at both the *arrest* and *referral* decision points. The major findings of the identification analysis of Butler County data include the following:

- During 2006 and 2007, the disproportionately high arrest rate of Black/African American youth accounts to the greatest extent for the overall disproportionate arrest of minority youth in Butler County.
- In 2006 and especially in 2007, Hispanic/Latino youth were referred to juvenile court at disproportionately high rates compared to White/Caucasian youth.
- During 2006 and 2007, the disproportionately high aggregate rate of referral to juvenile court for Black/African American youth primarily determines the disproportionate referral of minority youth in the county. (See earlier footnote on population-based RRI.)
- In both 2006 and 2007, Black/African American youth were referred to juvenile court via non-arrest channels at disproportionately high rates compared to White/Caucasian youth. This disproportionate contact increased between 2006 and 2007.
- During 2006, Hispanic/Latino youth were referred to juvenile court via non-arrest channels at disproportionately lower rates compared to White/Caucasian youth. Nevertheless, in 2007, Hispanic/Latino youth were more than twice as likely to be referred to juvenile court through non-arrest channels.
- During 2006, the disproportionately high non-arrest court referral rate for Black/African American youth primarily accounts for the overall disproportionate non-arrest court referral rate of minority youth in the county.

- During 2007, the increasingly disproportionate non-arrest court referral rate for Hispanic/Latino youth increased the already disproportionate non-arrest referral of minority youth in the county.

Limitations within the available data do not allow the workgroup to statistically analyze and determine possible causes of such disproportionate minority contact. Nonetheless, the next section of this report provides a brief review of relevant theories, that could help to contextualize future assessments relative to understanding and subsequently addressing any disparity in the Butler County Juvenile Justice System. This important next step in the Butler County DMC initiative (assessment/diagnosis) would be greatly enhanced by individual-level data. (Again, see the illustration of the DMC Reduction Cycle, page 2.)

INTERPRETATION AND FUTURE DIRECTIONS

The **Interpretation and Future Directions** section of the report consists of the following five parts:

- **Social Science Theories for Future Interpretation of DMC**
- **Prevention Programs that Work**
- **Discussion of Factors Contributing to Butler County DMC**
- **Next Steps in the Butler County DMC Project**
- **Recommendations**

As Butler County endeavors to address any disparities within its juvenile justice system, the workgroup will implement and/or enhance programs and strategies based on the analysis of relevant data and social scientific theories. As indicated in the introduction of this report, DMC guidelines suggest the institution of “multipronged intervention strategies” to address disparities and maintain systemic equity in the juvenile justice system. In order to determine such programs and strategies, summaries of the following six social scientific theories are provided as a foundation on which to base future discussion and action. This is especially important as the Butler County DMC workgroup transitions from the *identification* stage to the *assessment* and *intervention* stages of the DMC process.

Social Scientific Theories for Future Interpretation of DMC

Social Disorganization: The social disorganization theory proposes that deindustrialization has seriously influenced ghettos, urban centers, inner cities, and poor communities. The theory focuses on the fact that in the 1970’s, semi-skilled high school graduates could get well-paying jobs; however, the transition from an industrial to an information and service economy has reduced employment opportunities in urban centers. With that, the economic structure of these communities drastically changed and negatively impacted the community residents and youth. At the same time as deindustrialization occurred, government highway, housing, and mortgage policies encouraged White, middle-class people to move out of the cities and into the suburbs. As a result, jobs disappeared for poor, uneducated skilled workers residing in urban areas. Consequently, the remaining jobs do not reflect a viable opportunity within a corporation or company for workers to acquire upward social mobility in their careers. In a sense, these jobs are low- paying and career "dead ends" (Krivo and Peterson, 2001; Kubrin and Weitzer, 2003; Sampson, 1987; Sampson and Wilson, 1995; Shaw and McKay, 1942; Wilson, 1987).

The economic structure is argued to be an external factor that influences individuals, families, youth, and communities. In a systemic approach, the structural economy impacts community interactions of the residents and the level of control over youth. The economic resources and opportunities accessible to communities result either in the deterioration of the community or in the construction of social organization. As a result, disorganized communities often maintain quasi-legitimate businesses, because legitimate economic opportunities are not as viable. Furthermore, the structural influences upon delinquency and crime is mediated through the family and the social controls placed upon youth. Families that sustain lower socioeconomic status are not as able to socially control their children. Parental supervision is weakened because of longer work hours and family disruption. In other words, the family structure mediates the structural influence upon crime, delinquency, social ties, social capital and the relationships youth have with other community members (Krivo and Peterson, 2001; Kubrin and Weitzer, 2003; Sampson, 2002; Sampson and Wilson, 1995; Shaw and McKay, 1942; Wilson, 1987).

Social Bonds: Based upon assumptions that all individuals are equally motivated, and that crime allows satisfaction of personal desires more quickly and easily than does conventional behavior, this theory asserts that the key to understanding conformity is understanding an individual's social bonds and ties to legitimate and conventional others and institutions (e.g., schools, families, religion, etc.). An individual's bond consists of four elements: *emotional attachment* to parents, peers, and conventional institutions, such as school and/or work, *commitment* to long-term educational, occupational, or other conventional goals; *involvement* in conventional activities, such as work, homework, hobbies, extracurricular activities; and *belief* in the moral validity of the law. These four elements of the social bond can independently influence crime/delinquency, but this theory also postulates that the more closely a person is tied to conventional society in any one of these ways, the more closely she or he is likely to be tied in the other three ways (Anderson, 1999; Hagan and Peterson, 1995; Hirschi, 1969; Sampson and Raudenbush, 1999; Stewart, 2003).

According to social bonding theory, juvenile delinquency is most likely to occur when there is an *absence of significant relationships with conventional others and institutions*. Specifically, the theory suggests that juvenile delinquency is most likely to occur when: (1) the individual is not attached to family, friends, work, or other institutions; (2) friends, family, and others fail to monitor and effectively sanction crime/deviance; (3) the individual's actual or anticipated investment in conventional society is minimal; and (4) the individual has not internalized conventional beliefs. The absence of significant relationships with other individuals and groups,

in turn, *frees the individual to engage in delinquency*. The freed individual turns to crime in response to inner forces or situational inducements. In other words, individuals who are committed to and believe in conventional society are attached to others and are involved with conventional activities and institutions, and are, therefore, sufficiently constrained from involvement in acts of delinquency. Conversely, individuals who are not committed to or do not believe in conventional society, are not attached to others and are not involved in conventional institutions are, therefore, more likely to participate in delinquency because of insufficient social restraints (Anderson, 1999; Hagan and Peterson, 1995; Hirschi, 1969; Sampson and Raudenbush, 1999; Stewart, 2003).

Social Learning: According to social learning theory, the same processes are involved in both conforming and delinquent behaviors for youth. Specifically, the theory proposes that conforming and delinquent behaviors are learned through associations (i.e., direct and indirect interaction with others), reinforcements (i.e., instrumental learning through rewards and punishments), imitations (i.e., observational learning), and cognitive definitions (i.e., attitudes). Specifically, the theory posits that the learning process will more likely produce behavior that violates social and legal norms than it will conforming behavior: (1) when youth associate with others who expose them to delinquent behaviors; (2) when the delinquent behavior is reinforced over conforming behaviors; (3) when juveniles are more exposed to criminal/deviant role models than they are to conforming ones; and (4) when their own definitions favorably dispose them to commit delinquent acts. Thus, social learning theory focuses on positive relationships with delinquent and criminal others. That is, positive relationships with delinquent and criminal others lead youth to view delinquent acts as a desirable or at least a justifiable form of behavior under certain circumstances, which in turn, enables individuals to commit delinquent acts (Akers, 1998; Catalano and Hawkins, 1996; Jensen and Akers, 2003; Matsueda and Heimer, 1987).

According to social learning theory, racial patterns of offending can be explained through processes of differential association, differential reinforcement, imitation, and definitions. Community research has consistently shown that racial and ethnic minority youth are more likely to live in neighborhoods that are characterized by structural social disorganization, violence, concentrated poverty, and cultural social isolation, which are conducive to the development of an oppositional culture that espouses criminal behavior in particular situations. These conditions are expected to increase the probability of criminal behavior due to increased exposure to criminal definitions, as well as increased exposure to others who also reinforce and reward such behavior. Thus, consistent with social learning theory, racial and ethnic minority youth are expected to be involved in crime more than White/Caucasian youth because of

greater exposure to criminal definitions and to others who reinforce and positively reward such behavior (Akers, 1998; Catalano and Hawkins, 1996; Jensen and Akers, 2003; Matsueda and Heimer, 1987).

Rational Choice Theory: Rational choice theory proposes that crime is an event that occurs when a criminal offender decides to risk breaking the law after considering his or her own need for money, his or her own personal values or experiences, how well a target is protected, how affluent the neighborhood is, and/or how efficient the local police are. Before committing a crime, it is theorized, a criminal offender reasons and weighs the chances of getting caught, the severity of the expected penalty, the value to be gained by committing the act, and his or her immediate need for that value. In this manner, rational choice theory suggests an economic and calculative approach to the understanding of crime, as an offender commits acts of crime because of perceived self-interest.

Perceptions of opportunities and risks may be influenced by previous experiences with committing acts of crime and/or with being punished. There are limitations to applying this theory to juvenile delinquency, because developmental researchers have indicated that youth may not have the capacity to appropriately weigh the factors associated with committing acts of delinquency. Researchers have argued that because calculations and reasoning are affected by experiences and developmental changes, it is then reasonable to assume that these processes are less developed among juveniles than among adults. Often, this theory is utilized in tandem with other sociological and criminological theories, such as social learning, to understand juvenile delinquency. It is believed that a youth's socially constructed perception of crime opportunity is significantly influenced by the youth's environment and friendships (Becker, 1968; Cornish and Clarke, 1986; Paternoster, 1989; Piliavin et al., 1986).

General Strain: General strain theory conceptualizes strain as a social-psychological concept with effects on an individual's choices in life, including whether or not to participate in criminal behavior. In this way, strain is conceptualized at the individual level, which allows for personal differences in strain and thus makes better sense of the fact that not all strained individuals turn to crime to alleviate strain. There are three sources of strain: 1) the failure to achieve positively valued goals; 2) the removal of positively valued stimuli; and 3) the introduction of negative stimuli. Moreover, there are three subtypes of strain: (a) a disjunction between aspirations and expectations, (b) a disjunction between aspirations and one's actual achievements, and (c) a disjunction between an actual outcome and what one thinks to be a fair outcome. Thus, there are many sources of strain. General strain theory provides a more general explanation of criminal behavior that is applicable to the lower-, middle-, and upper-

classes. Finally, general strain theory suggests that there are a number of factors that mediate the relationship between strain and crime. One such factor, which is central to general strain theory, is adverse emotions that strain engenders in the individual (Agnew, 1985, 1992; Agnew and Brezina, 1997; Brezina, 1998, 1999; Piquero and Sealock, 2004; Taylor and Turner, 2002).

According to general strain theory, negative relationships with others (i.e., relationships in which the individual is not treated as he or she wants to be treated) prevent a youth from achieving positively valued goals, present the youth with negative stimuli, and remove positively valued stimuli. These negative relationships and strains increase the likelihood that a youth will experience one or more of a range of negative emotions, such as anger, depression, anxiety, disappointment, and resentment. Anger is especially important in the production of delinquency, because it increases the youth's level of felt injury, which in turn creates a desire for retaliation or revenge, energizes the individual into action, and lowers inhibitions. Therefore, in situations that involve anger, delinquency becomes more likely. Although delinquency may still occur in response to other types of negative affect, such as despair or disappointment, delinquency is less likely in these cases. Thus, the experience of negative affect, especially anger, pressures individuals into delinquency by creating a desire for resolution, with crime being one possible response. In other words, delinquency may become a method for alleviating strain; that is, for achieving positively valued goals, for protecting or retrieving positive stimuli, or for terminating or escaping from negative stimuli (Agnew, 1985, 1992; Agnew and Brezina, 1997; Brezina, 1998, 1999; Piquero and Sealock, 2004; Taylor and Turner, 2002).

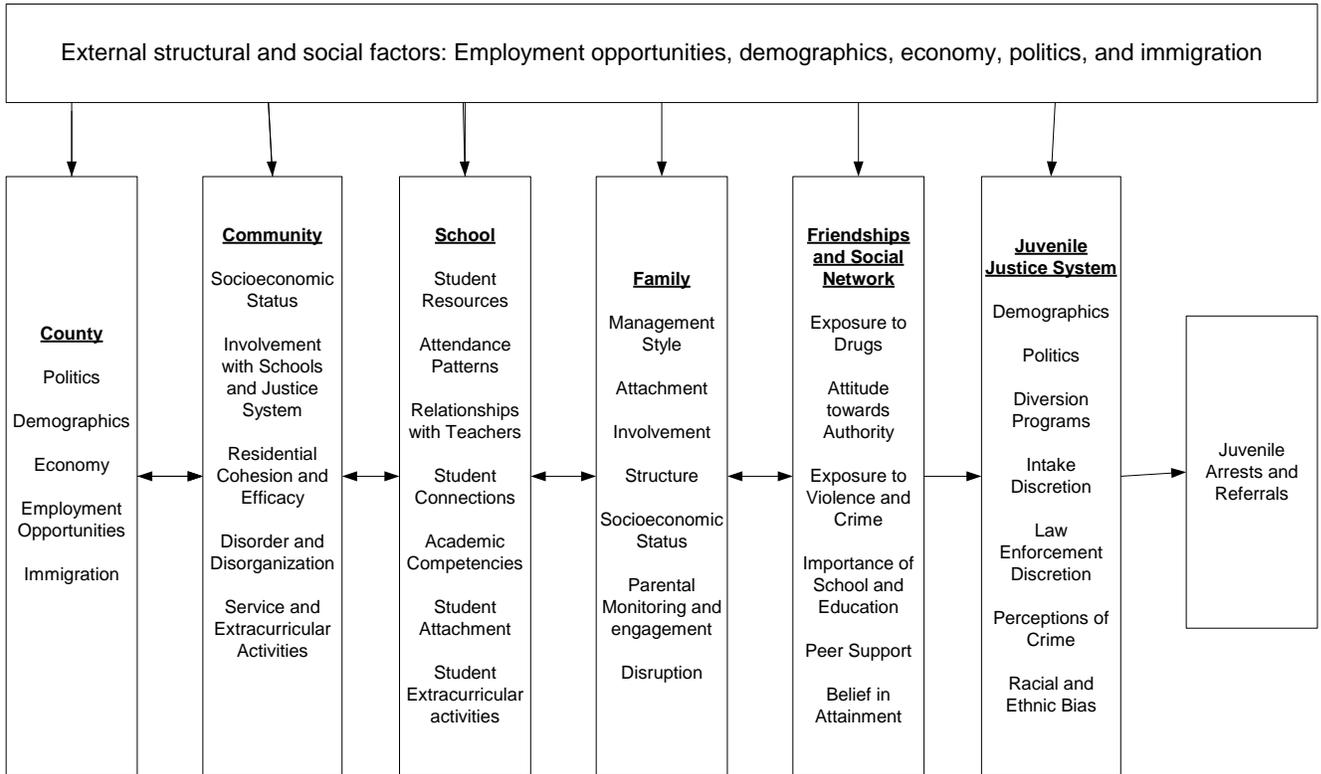
Racial Threat Hypothesis: The racial threat hypothesis posits that prejudice and inter-group hostility are largely reactions to perceived threats by racial and ethnic minority groups. Dominant groups seek to preserve their advantaged social position and view encroachments on their prerogatives by racial and ethnic minority groups as disrupting to the existing social order. Dominant groups fear that racial and ethnic minority groups will upset existing social arrangements, thus spurring feelings of prejudice and out-group hostility. In other words, the greater the sense of threat to the dominant group's prerogatives, the more likely are members of the dominant group to express prejudice against threatening minorities. Consequently, racial and ethnic discrimination and prejudice are more prevalent where sources of threat are highest, notably when and where the minority population is relatively large, or significantly growing, and where there exists competition for limited social resources, such as jobs (Blalock, 1967; Corzine et al., 1983; D'Alessio et al., 2005; Kunovich, 2004; Tolnay et al., 1989).

Fluctuations in racial and ethnic prejudice or conflict should thus vary with changes in perceived threats, which are typically measured by the size of the minority group relative to the majority group or economic conditions. Dominant groups view increases in the relative size of minority groups as problematic, because, in a zero-sum sense, greater numbers of minority group members increase competition for valuable but limited social resources, such as access to schools, jobs, or housing. Recent empirical work supports this thesis, finding that areas with larger or growing minority populations show greater support for right-wing political candidates, increased attacks on minority groups, and higher levels of negative attitudes toward racial and ethnic minorities. Both prejudice against out-groups and social control also co-vary with economic conditions. Competition for limited resources increases during times of economic turmoil, and thus levels of prejudice and inter-group violence increase during periods of economic recession and depression. With respect to formal social control, higher racial and ethnic minority imprisonment rates are associated with elevated levels of unemployment and the degree of income inequality (Blalock, 1967; Corzine et al., 1983; D'Alessio et al., 2005; Kunovich, 2004; Tolnay et al., 1989).

The racial composition of geographic areas is also associated with levels of governmental social control. Incarceration rates are (on average) higher in areas with larger racial and ethnic minority populations, independent of potential mediating factors such as crime and unemployment rates. Larger racial and ethnic populations are also associated with other forms of state social control, such as policing and criminal justice expenditures. Moreover, community demographics influence public opinion about crime and punishment. Individuals residing in areas with a higher concentration of racial and ethnic minorities are more apt to perceive higher crime rates and support capital punishment (Blalock, 1967; Corzine et al., 1983; D'Alessio et al., 2005; Kunovich, 2004; Tolnay et al., 1989).

In summary, the following Conceptual Ways to Understand the Causes of Juvenile Delinquency was derived from the above aspects of the Butler County DMC project and the theoretical review (Figure 11, page 29).

Figure 11 Conceptual Ways to Understand the Causes of Juvenile Delinquency



Prevention Programs that Work

The DMC guidelines recommend the implementation of “multipronged intervention strategies” or programs to address systemic disparities and thus achieve equity in the juvenile justice system. In addition, the ARC workgroup recommends that the implementation of strategies or programs to address any inequities in the Butler County Juvenile Justice System be informed by a careful review of evidence-based prevention programs contained in the following sources:

- **National Registry of Evidence-based Programs and Practices (NREPP)**
- **CSAP’s Model Programs**
- **U.S. Department of Education’s Safe and Drug-Free Schools’ Exemplary and Promising Programs**
- **Office of Juvenile Justice and Delinquency Prevention (OJJDP)**
- **Blueprints for Violence Prevention**

The above sources are cited in the Reference section of this report. In general, the cited prevention and intervention programs have been rigorously evaluated and have proof of their scientific effectiveness. Consequently, this review procedure will help Butler County make an informed decision about investing its scarce resources in specific intervention strategies or programs. The review process will help Butler County avoid a situation where it maintains, expands, adds or deletes program strategies based on incomplete information, misinformation, or self-interest. Therefore, Butler County needs to know what programs work for two reasons: 1) Many programs, despite good intentions, are either ineffective or do more harm than good; 2) Ineffective or harmful programs waste scarce county resources (Center for the Study and Prevention of Violence, 2009). In summary, the ARC workgroup recommends that the implementation of strategies or programs to address any inequities in the Butler County Juvenile Justice System first be informed by carefully reviewing the above evidence-based prevention programs.

Discussion of Possible Contributing Factors to Butler County DMC

As related to the above theories and conceptual model, delinquency occurs within particular social situations and contexts. Thus, it is important to consider the number of social contextual factors that may be unique to Butler County. In other words, the occurrence of delinquency is subjective to unique social situational and contextual factors embedded in communities, families, socioeconomic classes, gender, and specifically, for the purpose of this report, a youth's race and ethnicity. As noted throughout this report, it is imperative to have more detailed information to appropriately assess and address the potential contributing factors to delinquency. The analyses of such data would meet with the appropriate safeguards to protect the privacy of the individuals in question. At this point, although the sociologists in the workgroup were able to offer their expertise and insight into potential social and contextual factors that may be influencing DMC in Butler County, without individual-level data, and until this project is able to move into the next phase (*assessment*), such theories remain conjecture. In the meantime, the following detail regarding the changing demographics of the area provides some insight into things for Butler County to consider as it moves forward.

To begin with, it is important to further understand the demographics of Butler County in the years currently being studied, relative to the state of Ohio as a whole. In the state of Ohio, the median household income for families in 2007 was \$46,645, and it was somewhat higher (\$53,335) in Butler County. In the state of Ohio, 23.5% of the population aged 25 and over had a Bachelor's degree or higher in 2000, while only 21.1% of the population in the same age range in Butler County had obtained at least a Bachelor's degree. In the state of Ohio, 13.1% of the

population lived in poverty in 2007, while only 11.9% of the population in Butler County was living in poverty (Ohio Department of Development, 2009; U.S. Census, 2009). There are several racial and ethnic distinctions. In the state of Ohio, 84.9% were White, 12% were Black/African American, 1.6% were Asian, and 2.5% were Hispanic/Latino; however, for Butler County, 89.6% were White, 6.9% were Black/African American, 2.1% were Asian, and 2.5% were Hispanic/Latino. Thus, the overall population in Ohio was more diverse than the overall population in Butler County. It is important for the purpose of this study to note, however, that within Butler County the juvenile population at this time was more in line with the statewide-level of diversity, with roughly 10% of the juvenile population reported as being Black/African American (National Center for Health Statistics, 2008, as displayed in *Easy Access to Juvenile Populations*). In the state of Ohio, 6.1% of the population spoke a language other than English at home, while only 5.0% of Butler County's population did. In the state of Ohio, 4.4% of the business owners were Black/African American in 2002, while less than half that (1.9%) of those in Butler County were. In the state of Ohio, 2.0% of the business owners were Asian in 2002, and 1.7% of those in Butler County were of Asian descent. In the state of Ohio, 0.9% of the business owners were Latino in 2002, and 0.8% in Butler County. Because the demographics of Butler County are changing, it is recommended that the Butler County juvenile justice system consider these factors as they move forward in the pursuit of reducing Disproportionate Minority Contact (DMC) (Ohio Department of Development, 2009; U.S. Census, 2009).

There has been a 5.6% percent increase in the Black/African American population in Ohio since 2000. The median age for Black/African Americans is 32 years, compared to 38 years for Ohioans as a whole. There has been a 22.4% percent increase in the number of Hispanics/Latinos in Ohio since 2000. The median age for Hispanics/Latinos is 27 years, compared to 38 years for Ohioans as a whole. There has been a 26.5% percent increase in the number of Asians in Ohio since 2000. The median age for Asians is 33 years, compared to 38 years for Ohioans as a whole.

In the state of Ohio in 2007, 23.6% of Blacks/African Americans, 11.9% of the Hispanics/Latinos, and 5.9% of Asians were between the ages of 20 and 24 are unemployed. It is evident that an increasing number of racial and ethnic minorities in Ohio are high-risk younger people (Ohio Department of Development, 2009; U.S. Census, 2009).

The Cincinnati Latino immigrant population is dispersed through an area that extends from northern Butler County, Ohio to Florence, Kentucky in the south, with the greatest centers of population in Cincinnati, Hamilton, Springdale, and West Chester. This greater Cincinnati area has an estimated 60,000 Latino immigrants. Moreover, most of those immigrants have come

here in the last 10 years and many in the last five years. Between 2000 and 2006, Butler County's Latino community grew by just over 70 percent -- up to 8,197 residents from less than 4,800 just a few years ago, according to U.S. Census statistics. Overall, an estimated 32,000 Latinos live in the Tri-state region, a 48 percent increase since 2000.

Because of these noted changes and because of the signal of a possible upward trend with regard to DMC in Butler County, the ARC workgroup will provide the County with a supplement to this report following the release of data through *Easy Access* on the at-risk population for the year 2008. This supplemental report will provide data similar to that provided in this report for the purpose of continuing to ***identify*** DMC within the county.

Next Steps for the Study of DMC in Butler County

There are many counties in the United States that have explored how to organize a juvenile justice agency in pursuit of providing effective and efficient juvenile justice and services to youth, particularly racial and ethnic minority youth. At the center is a central processing center for the county and a standard method of collecting essential information for county youth to be processed.

A Juvenile Assessment Center (JAC) is a centralized county office/center that manages the entire process for arrested juveniles for a county. This includes providing the infrastructure for all juvenile justice stakeholders to comply with their respective mandates/requirements and to perform their respective duties; providing daily coordination for juvenile justice system compliance between stakeholders; processing 100% of the arrested juvenile population brought to the JAC according to law; utilizing JAC data systems to organize the arrest population, and applying processing to strategically reduce the number of children processed at the JAC. The JAC must process arrested juveniles in strict compliance with requirements mandated by state statutes.

Drawn from the Miami-Dade County, Florida Juvenile Assessment Center (JAC), the outline below is a detailed account of what occurs when an arrested juvenile is processed at JAC (Miami-Dade, 2009).

Arrest Process:

- The law enforcement officer(s) safely and securely transports the individual to the JAC.
- Upon arrival, the officer and arrested youth meet with JAC staff to conduct an intake, screening, and assessment process.
- The youth is interviewed as to whether he/she is in a state of immediate crisis, has any complaint of pain or injury, or if he/she has a medical condition which needs immediate attention.
- If the child has any injury or complaint of injury, the arresting officer is required to seek and ensure the appropriate level of emergency health care or ensure that first aid is administered. Once appropriate clearances are obtained, if needed, the youth is admitted to the facility.

Admissions Process:

- All youth are “searched” for weapons and contraband, to prevent the introduction of these items into the facility. Additionally, all personal property, e.g., jewelry, book bags, pens, pencils, etc., are removed and placed into safe and secured storage.

- Staff makes immediate notification to family members advising the youth's family of his/her whereabouts.
- The law enforcement officer provides the arrest information to staff, who enter the information into the youth's permanent record.
- All youth are fingerprinted, photographed, and a complete and comprehensive criminal history background check is conducted.
- All youth sit in a large assessment area, separated by gender, awaiting processing by a Juvenile Services Specialist (JSS) counselor.
- The process may take upwards of six to eight hours, depending on the severity of charge, the number of youth in custody, and the 24 hour detention hearing court calendar mandates.
- When the JSS processing is completed, the youth is either released to a parent, legal guardian, responsible adult, or shelter or held in secure detention, pending the detention court hearing.

Services Provided:

- Each youth is screened and assessed in an environment that adheres to all of the confidentiality guidelines set forth by Florida law.
- The screening and assessment tools are designed to identify the following: Detention Status, Risk to re-offend, Substance Abuse, and Mental Health, and other personal needs/issues.
- Once the screening and assessment tools are completed, appropriate referrals are made to programs that are designed to meet the youth's individual needs.
- Each youth receives appropriate time and care to ensure that he/she and the family receive the most comprehensive service available.
- One of many of the services delivered is the provision of appropriate referrals to diversionary programs.
- A seamless process exists to funnel any referrals to the State Attorney's Officer for approval and return to the Juvenile Services Department Diversion component.

Clearly, establishing a JAC for Butler County would be an expensive and extremely bureaucratic undertaking that would take years to establish. However, it can be utilized as a model to strive for in a county that has an increasingly diverse population in relationship to race and ethnicity, religion, and socioeconomic status, due to immigration and U.S. migration from other counties and states, etc. Moreover, to continue to receive funding from local, state, and federal agencies for addressing and providing services for youth, it has become increasingly important to provide statistical support and quantitative evidence that indicate the effectiveness of diversion programs, reductions in recidivism, and rates of disproportionate minority contact.

RECOMMENDATIONS

As Butler County takes its next steps in the DMC initiative, the ARC members of the workgroup recommend that it take the following points into consideration:

- In order to gather more appropriate data going forward, the Butler County Juvenile Court should gather information regarding race and ethnicity in a manner consistent with the populations reported by *Easy Access*. This source for population data treats *Hispanic* as an ethnicity (separate from race), while the county currently treats *Hispanic* as a racial group. Individuals should report on both ethnicity (Hispanic/Latino vs. non-Hispanic/Latino) as well as race (Caucasian, African American, Asian, etc.).
- The Butler County Juvenile Court should also begin to collect data on the county of residence for juvenile offenders in order to ensure that it reports only on those in the system who are residents of Butler County. This will allow for a more precise reporting of data, since only Butler County residents are included in the population at risk.
- Butler County must report all data (even if zero) concerning Asians, since this group makes up more than one percent (1%) of the county's population.
- Butler County should, going forward, continue to measure disproportionality for the referral stage using population-based RRIs (even if only in addition to the standard RRI), since using the county's current definition and calculations, the number of referrals is not solely dependent on the number of arrests. Note: the use of population-based RRIs is recommended *only for arrests, referrals and non-arrest referrals*, since all subsequent stages would be dependent on the number of referrals or some other subsequent stage.
- Individual-level data should be provided as the project moves forward. This will allow for the analysis of data to determine if other factors, such as age, gender, or type of offense are in any way linked to the observed disproportionality.
- Considering the flow of the Juvenile System in Appendix A, Butler County should consider collecting more detailed data that would allow for analyses that could be conducted using multiple interpretations of the DMC stage definitions. This would allow Butler County to compare its data to that of other counties regardless of the other counties' interpretations of those same definitions and/or the varied process flows of other juvenile systems. For example, how many arrestees are sent to detention and how many are released to parents (vs. being referred to the court)? And what are the actual

sources of referrals that are *not* through arrest (including parents, neighbors, schools, detention centers, etc.)?

- Future studies should include any changes to the overall demographics of Butler County; for example, other social contextual factors such as language and socioeconomic status.
- Due to the existence of differences in the Arrest RRIs and the Non-arrest Referral RRIs among minority youths relative to White/Caucasian youths in Butler County, members of the Butler County workgroup are encouraged to consider systemic differences that may be creating (or at the very least contributing to) disproportionate minority contact in Butler County. The release of individual-level data with regard to referral source could help the group to pinpoint areas of concern for further analysis in a future assessment phase.
- The clear difference in RRIs for referrals as a whole and referrals through channels other than arrest (non-arrest referrals) noted in this report should be examined carefully in the future studies.
- Due to the rapid rise in the RRI for non-arrest referral of Hispanic/Latino youth in just one year's time, this measure should be studied in future evaluations in order to determine whether such a rise is indeed signaling a trend.
- As the County moves toward the assessment phase of its DMC initiative, the workgroup should take into consideration appropriate theories regarding juvenile crime presented in this report.
- Furthermore, the implementation of strategies or programs to address any inequities in the Butler County Juvenile Justice System should be informed by a careful review of effective, evidence-based prevention programs, as cited in this report.

CONCLUSIONS

The aforementioned recommendations will assist Butler County in continuing to identify the existence or non-existence of DMC at subsequent stages of its juvenile justice system and in gathering appropriate data that will allow the County to adequately assess factors influencing DMC. Although information regarding interventions is provided in this report, without further study, the County does not yet have sufficient data to thoroughly complete the first two stages of the DMC Reduction Cycle as illustrated on page 2. The Recommendations included in this report specify how this DMC objective can be accomplished.

In addition to identifying DMC in stages subsequent to referrals, the County will need to do the following in order to allow for the assessment of DMC identified in this report:

- Examine the collection and entry of data to make sure that there is a clear distinction between missing data (by marking such entries with an “NA” for “no answer” or an “NR” for “no response” and “INAP” for entries that are “inappropriate” for that individual) versus “zero” or “other.”
- Provide individual data that will allow for the analysis of data to determine if other factors, such as age, gender, or type of offense are in any way linked to the observed disproportionality.
- Collect more detailed data that would allow for analyses using multiple interpretations of the DMC stage definitions. For example, provide data for each stage in the process flow (such as “other referral sources” and “arrests not referred to court”). This would allow Butler County to compare its data to that of other counties regardless of the other counties’ interpretations of those same definitions and/or the varied process flows of other juvenile systems.
- Consider systemic differences that may be creating (or at the very least contributing to) disproportionate minority contact in Butler County, and focus attention on differences noted in this report in arrest RRI versus non-arrest referral RRI.

Using the appropriate safeguards to provide more detailed, individual-level data in the future phases of this process will allow for the conducting of more sophisticated statistical analyses that will offer the workgroup sound, data-driven results on which to base its assessment/diagnosis of DMC in Butler County, a point that is critical for the selection of the most appropriate initiative(s) in order to reduce DMC.

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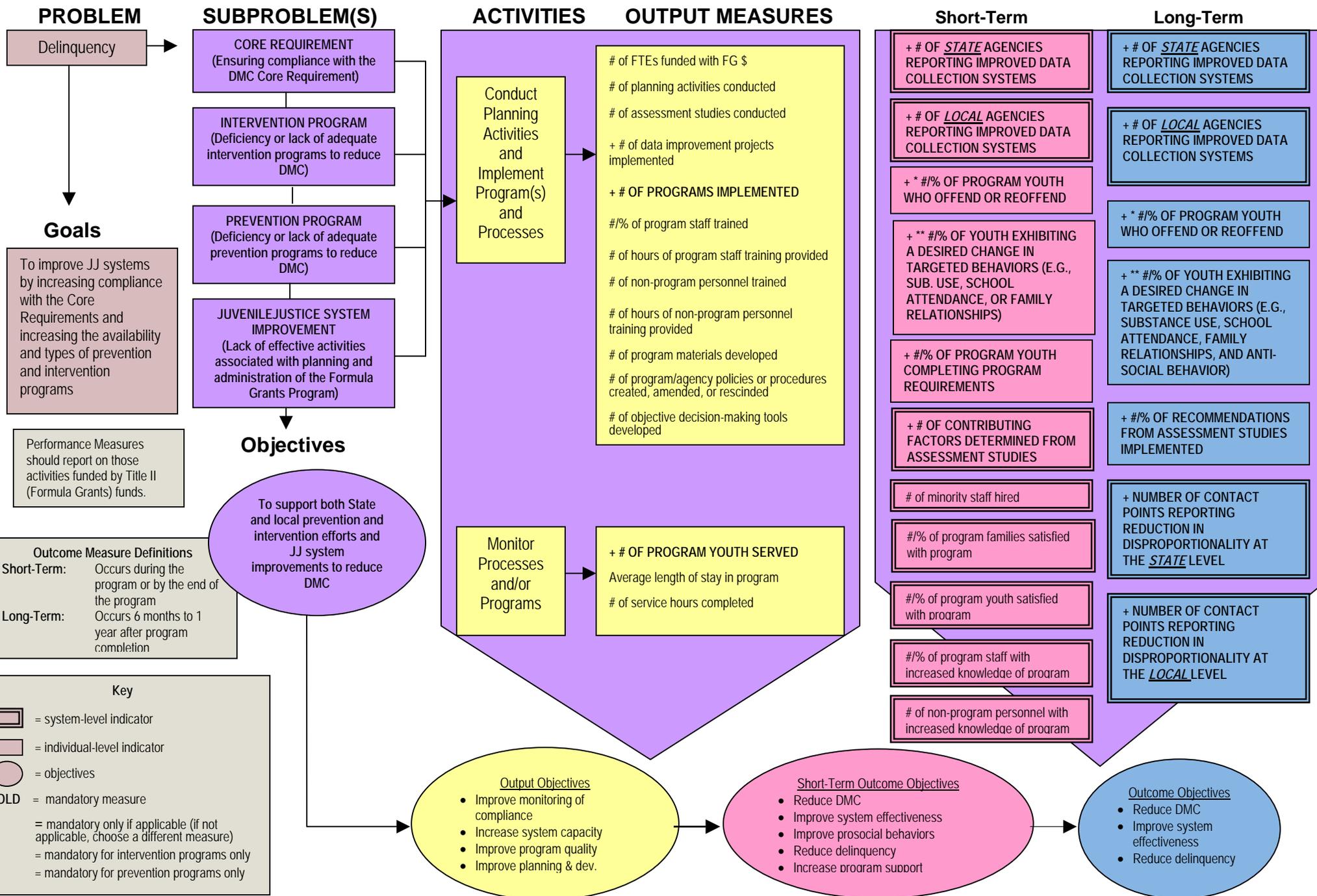
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APPENDIX A

FORMULA GRANTS – PROGRAM AREA #10 – DISPROPORTIONATE MINORITY CONTACT

OUTCOME MEASURES

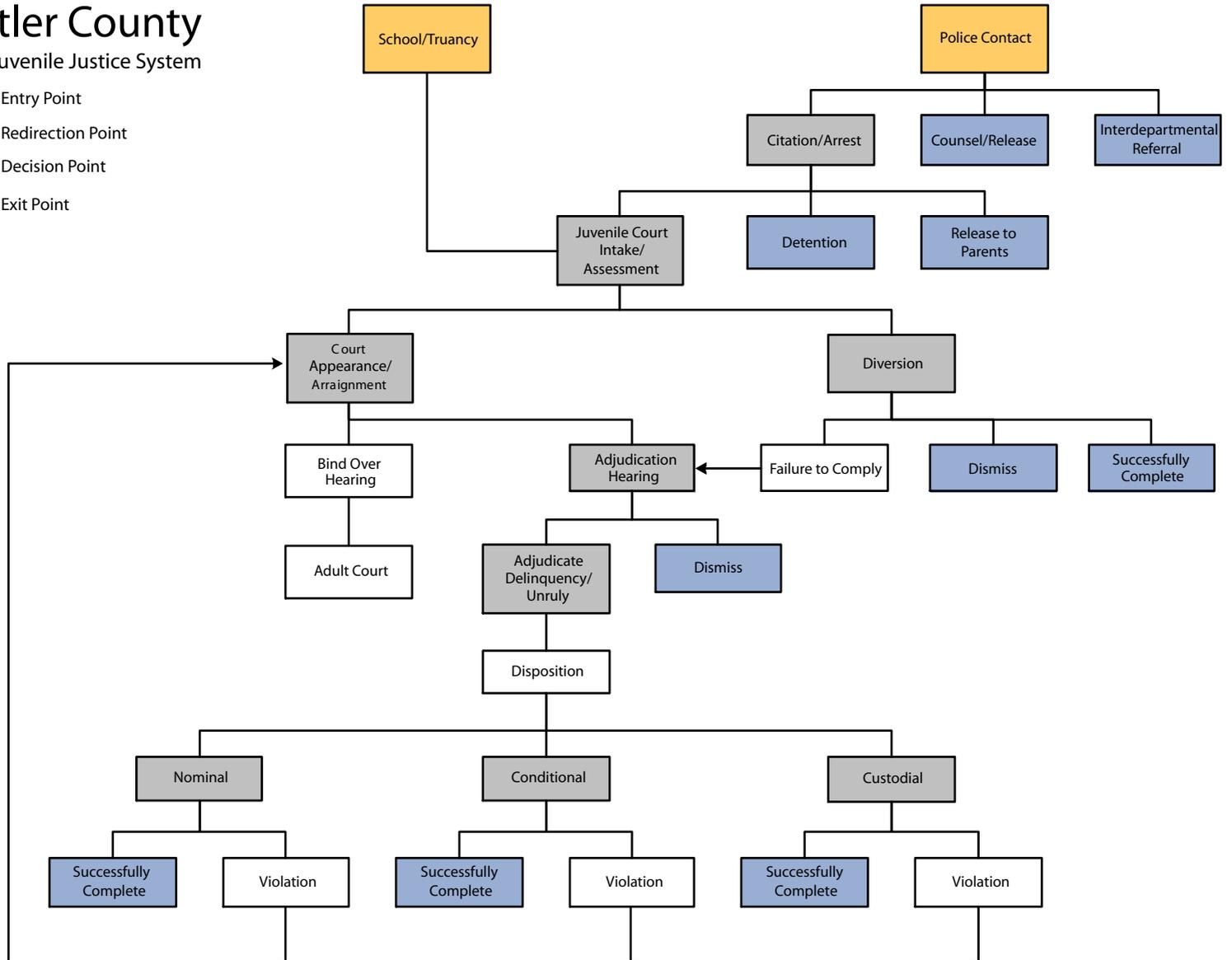


APPENDIX B

Butler County

Juvenile Justice System

- Entry Point
- Redirection Point
- Decision Point
- Exit Point



APPENDIX C

Data Entry Section

AREA REPORTED

State : Ohio

County : Butler

Reporting Period 1/1/2006
through 12/31/2006

	Total Youth	White	Black or African-American	Hispanic or Latino ethnicity	Asian	Native Hawaiian or other Pacific Islanders	American Indian or Alaska Native	Other/ Mixed	All Minorities
1. Population at risk (age 10 through 17)	39,836	35,249	3,664	992	824	0	99	0	5,579
2. Juvenile Arrests	2,468	1,778	526	58	0	0	0	106	690
3a. Refer to Juvenile Court	3,286	2,421	638	83	1	0	0	143	865
3b. Referrals Minus Arrests	818	643	112	25	1	0	0	37	175
4. Cases Diverted	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5. Cases Involving Secure Detention	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6. Cases Petitioned (Charge Filed)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7. Cases Resulting in Delinquent Findings	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8. Cases resulting in Probation Placement	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9. Cases Resulting in Confinement in Secure Juvenile Correctional Facilities	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10. Cases Transferred to Adult Court	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Meets 1% rule for group to be assessed?		Yes	Yes	Yes	Yes	No	No	No	

DATA SOURCES & NOTES

Item 1. Population: *Easy Access to Juvenile Populations*

Item 3. Referral: Butler County

Item 5. Detention:

Item 7. Delinquent:

Item 9. Confinement:

Item 2. Arrest: Butler County

Item 4. Diversion:

Item 6. Petitioned:

Item 8. Probation:

Item 10. Transferred:

Note: Population at risk data did not include information for *Native Hawaiian or other Pacific Islanders* or for *Other/Mixed*

The population at risk data treats *Hispanic or Latino* as an ethnicity, therefore this population is not included in the *Total Youth* population at risk, in order to avoid redundancy. However, for the arrest and referrals, there is no overlap between Hispanic/Latino and any other categories.

1. AREA REPORTED

2. MINORITY
GROUP:

Black or African-American

State : Ohio

County : Butler

Data Items	Rate of Occurrence - White Youth	Rate of Occurrence - Minority Youth	Relative Rate Index
1. Population at risk (age 10 through 17)			
2. Juvenile Arrests	50.44	143.56	2.85
3a. Refer to Juvenile Court	136.16	121.29	0.89

Key:

Statistically significant results:

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Results that are not statistically significant

Regular font

Group is less than 1% of the youth population

*

Insufficient number of cases for analysis

**

Missing data for some element of calculation

Definitions of rates:

Recommended Base

Base Used

2. Juveniles Arrested - rate per 1000 population

per 1000 youth

3. Referrals to Juvenile Court - rate per 100 arrests

per 100 arrests

1. AREA REPORTED

State : Ohio
 County : Butler

2. MINORITY
 GROUP:

Asian

Data Items	Rate of Occurrence - White Youth	Rate of Occurrence - Minority Youth	Relative Rate Index
1. Population at risk (age 10 through 17)			
2. Juvenile Arrests	50.44	0.00	**
3a. Refer to Juvenile Court	136.16	0.00	**

Key:

Statistically significant results:

Results that are not statistically significant
 Group is less than 1% of the youth population

Insufficient number of cases for analysis

Missing data for some element of calculation

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Regular font

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**

Definitions of rates:

Recommended Base

2. Juveniles Arrested - rate per 1000 population

3. Referrals to Juvenile Court - rate per 100 arrests

Base Used

per 1000 youth

per 100 arrests

1. AREA REPORTED

State : Ohio
 County : Butler

2. MINORITY
 GROUP:

Hispanic or Latino ethnicity

Data Items	Rate of Occurrence - White Youth	Rate of Occurrence - Minority Youth	Relative Rate Index
1. Population at risk (age 10 through 17)			
2. Juvenile Arrests	50.44	58.47	1.16
3a. Refer to Juvenile Court	136.16	143.10	1.05

Key:

Statistically significant results:

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Results that are not statistically significant

Regular font

Group is less than 1% of the youth population

*

Insufficient number of cases for analysis

**

Missing data for some element of calculation

Definitions of rates:

Recommended Base

Base Used

2. Juveniles Arrested - rate per 1000 population

per 1000 youth

3. Referrals to Juvenile Court - rate per 100 arrests

per 100 arrests

1. AREA REPORTED

State : Ohio
 County : Butler

2. MINORITY
 GROUP:

Native Hawaiian or other Pacific
 Islanders

Data Items	Rate of Occurrence - White Youth	Rate of Occurrence - Minority Youth	Relative Rate Index
1. Population at risk (age 10 through 17)			
2. Juvenile Arrests	50.44	0.00	*
3a. Refer to Juvenile Court	136.16	0.00	*

Key:

Statistically significant results:
 Results that are not statistically significant
 Group is less than 1% of the youth population
 Insufficient number of cases for analysis
 Missing data for some element of calculation

Bold font
 Regular font
 *
 **

Definitions of rates:

Recommended Base

2. Juveniles Arrested - rate per 1000 population
 3. Referrals to Juvenile Court - rate per 100 arrests

Base Used

per 1000 youth
 per 100 arrests

1. AREA REPORTED

State : Ohio
 County : Butler

2. MINORITY
 GROUP:

American Indian or Alaska Native

Data Items	Rate of Occurrence - White Youth	Rate of Occurrence - Minority Youth	Relative Rate Index
1. Population at risk (age 10 through 17)			
2. Juvenile Arrests	50.44	0.00	*
3a. Refer to Juvenile Court	136.16	0.00	*

Key:

Statistically significant results:
 Results that are not statistically significant
 Group is less than 1% of the youth population
 Insufficient number of cases for analysis
 Missing data for some element of calculation

Bold font
 Regular font
 *
 **

Definitions of rates:

Recommended Base

2. Juveniles Arrested - rate per 1000 population
 3. Referrals to Juvenile Court - rate per 100 arrests

Base Used

per 1000 youth
 per 100 arrests

1. AREA REPORTED

State : Ohio
 County : Butler

2. MINORITY
 GROUP:

Other/ Mixed

Data Items	Rate of Occurrence - White Youth	Rate of Occurrence - Minority Youth	Relative Rate Index
1. Population at risk (age 10 through 17)			
2. Juvenile Arrests	50.44	0.00	*
3a. Refer to Juvenile Court	136.16	134.91	*

Key:

Statistically significant results:

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Results that are not statistically significant

Regular font

Group is less than 1% of the youth population

*

Insufficient number of cases for analysis

**

Missing data for some element of calculation

Definitions of rates:

Recommended Base

Base Used

2. Juveniles Arrested - rate per 1000 population

per 1000 youth

3. Referrals to Juvenile Court - rate per 100 arrests

per 100 arrests

1. AREA REPORTED

State : Ohio
 County : Butler

2. MINORITY
 GROUP:

All Minorities

Data Items	Rate of Occurrence - White Youth	Rate of Occurrence - Minority Youth	Relative Rate Index
1. Population at risk (age 10 through 17)			
2. Juvenile Arrests	50.44	123.68	2.45
3a. Refer to Juvenile Court	136.16	125.36	0.92

Key:

Statistically significant results:

Bold font

Results that are not statistically significant

Regular font

Group is less than 1% of the youth population

*

Insufficient number of cases for analysis

**

Missing data for some element of calculation

Definitions of rates:

Recommended Base

Base Used

2. Juveniles Arrested - rate per 1000 population

per 1000 youth

3. Referrals to Juvenile Court - rate per 100 arrests

per 100 arrests

Relative Rate Index Compared with White Juveniles							
State : Ohio				Reporting Period 1/1/2006 through 12/31/2006			
County : Butler							
	Black or African- American	Hispanic or Latino ethnicity	Asian	Native Hawaiian or other Pacific Islanders	American Indian or Alaska Native	Other/ Mixed	All Minorities
2. Juvenile Arrests	2.85	1.16	**	*	*	*	2.45
3. Refer to Juvenile Court	0.89	1.05	**	*	*	*	0.92
4. Cases Diverted	#REF!	0.00	0.00	0.00	0.00	0.00	0.00
5. Cases Involving Secure Detention	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6. Cases Petitioned	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7. Cases Resulting in Delinquent Findings	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8. Cases resulting in Probation Placement	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9. Cases Resulting in Confinement in Secure Juvenile Correctional Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10. Cases Transferred to Adult Court	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Group meets 1% threshold?	Yes	Yes	Yes	No	No	No	
	<i>0.00</i>						

Key:

Statistically significant results:

Results that are not statistically significant

Group is less than 1% of the youth population

Insufficient number of cases for analysis

Missing data for some element of calculation

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Regular font

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Population Based Relative Rate Index Values

Reporting Period 1/1/2006
through 12/31/2006

State : Ohio
County : Butler

	White	Black or African-American	Hispanic or Latino ethnicity	Asian	Native Hawaiian or other Pacific Islanders	American Indian or Alaska Native	Other/Mixed	All Minorities
2. Juvenile Arrests	1.00	2.85	1.16	--	--	--	--	2.45
3a. Refer to Juvenile Court	1.00	2.54	1.22	0.02	--	--	--	2.26
3b. Referrals Minus Arrests	1.00	1.68	1.38	0.07				1.72
4. Cases Diverted								
5. Cases Involving Secure Detention								
6. Cases Petitioned								
7. Cases Resulting in Delinquent Findings								
8. Cases resulting in Probation Placement								
9. Cases Resulting in Confinement in Secure								
10. Cases Transferred to Adult Court								
Group meets 1% threshold?		Yes	Yes	Yes	No	No	No	

Significance Testing

The spreadsheet provides a test of statistical significance for use in guiding analysis. The test which is used is based on the chi square distribution. It calculates the expected number of cases involving white youth and minority youth that would be expected to have the targeted decision (for example *guilt*), if there were no differences in the rates of that decision. It then calculates how discrepant that actual results are from that expectation, and compares the size of the discrepancy to what could be expected to occur by chance at a given significance level. The 'standard' significance level is $p=.05$, meaning that a discrepancy of this magnitude (or larger) might occur by chance in 1 of 20 comparisons ($.05 = 1/20$). For those who wish to use a different level of significance, choices below allow choosing the option of .10, .05, or .01

Significance level	0.05
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Data Sufficiency Test

The Relative Risk Index is based on the computation and comparison of rates. Under some circumstances these rates may be computed based on small numbers, which makes the rates relatively unreliable. In general, rates based on five or fewer events from a possible base of 50 or fewer potential events should be viewed with caution. In the individual work sheets for each race / ethnic group, a column appears which indicates whether the data meets these standards. For those who wish to use other levels in their analysis of these data, the number of events and the size of the base population may be adjusted below.

Minimum Number of Target Events	5
Minimum Size of Base Population	30

Data Entry Section

AREA REPORTED

State : Ohio

County : Butler

Reporting Period 1/1/2007
through 12/31/2007

	Total Youth	White	Black or African-American	Hispanic or Latino	Asian	Native Hawaiian or other Pacific Islanders	American Indian or Alaska Native	Other/Mixed	All Minorities
1. Population at risk (age 10 through 17)	39,774	35,006	3,800	1,080	870	0	98	0	5,848
2. Juvenile Arrests	2,360	1,636	518	46	7	0	1	152	724
3a. Refer to Juvenile Court	3,349	2,350	673	93	9	0	1	223	999
3b. Referrals Minus Arrests	989	714	155	47	2	0	0	71	275
4. Cases Diverted	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5. Cases Involving Secure Detention	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6. Cases Petitioned (Charge Filed)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7. Cases Resulting in Delinquent Findings	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8. Cases resulting in Probation Placement	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9. Cases Resulting in Confinement in Secure Juvenile Correctional Facilities	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10. Cases Transferred to Adult Court	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Meets 1% rule for group to be assessed?		Yes	Yes	Yes	Yes	No	No	No	

DATA SOURCES & NOTES

Item 1. Population: *Easy Access to Juvenile Populations*

Item 3. Referral: Butler County

Item 5. Detention:

Item 7. Delinquent:

Item 9. Confinement:

Item 2. Arrest: Butler County

Item 4. Diversion:

Item 6. Petitioned:

Item 8. Probation:

Item 10. Transferred:

Note: Population at risk data did not include information for *Native Hawaiian or other Pacific Islanders* or for *Other/Mixed*

The population at risk data treats *Hispanic or Latino* as an ethnicity, therefore this population is not included in the *Total Youth* population at risk, in order to avoid redundancy. However, for the arrest and referrals, there is no overlap between Hispanic/Latino and any other categories.

1. AREA REPORTED

2. MINORITY GROUP:

Black or African-American

State : Ohio

County : Butler

Data Items	Rate of Occurrence - White Youth	Rate of Occurrence - Minority Youth	Relative Rate Index
1. Population at risk (age 10 through 17)			
2. Juvenile Arrests	46.73	136.32	2.92
3a. Refer to Juvenile Court	143.64	129.92	0.90

Key:

Statistically significant results:

Bold font

Results that are not statistically significant

Regular font

Group is less than 1% of the youth population

*

Insufficient number of cases for analysis

**

Missing data for some element of calculation

Definitions of rates:

Recommended Base

Base Used

2. Juveniles Arrested - rate per 1000 population

per 1000 youth

3. Referrals to Juvenile Court - rate per 100 arrests

per 100 arrests

1. AREA REPORTED

State : Ohio
 County : Butler

2. MINORITY
 GROUP:

Asian

Data Items	Rate of Occurrence - White Youth	Rate of Occurrence - Minority Youth	Relative Rate Index
1. Population at risk (age 10 through 17)			
2. Juvenile Arrests	46.73	8.05	0.17
3a. Refer to Juvenile Court	143.64	128.57	**

Key:

Statistically significant results:

Bold font

Results that are not statistically significant

Regular font

Group is less than 1% of the youth population

*

Insufficient number of cases for analysis

**

Missing data for some element of calculation

Definitions of rates:

Recommended Base

Base Used

2. Juveniles Arrested - rate per 1000 population

per 1000 youth

3. Referrals to Juvenile Court - rate per 100 arrests

per 100 arrests

1. AREA REPORTED

State : Ohio
 County : Butler

2. MINORITY
 GROUP:

Hispanic or Latino

Data Items	Rate of Occurrence - White Youth	Rate of Occurrence - Minority Youth	Relative Rate Index
1. Population at risk (age 10 through 17)			
2. Juvenile Arrests	46.73	42.59	0.91
3a. Refer to Juvenile Court	143.64	202.17	1.41

Key:

Statistically significant results:

Bold font

Results that are not statistically significant

Regular font

Group is less than 1% of the youth population

*

Insufficient number of cases for analysis

**

Missing data for some element of calculation

Definitions of rates:

Recommended Base

Base Used

2. Juveniles Arrested - rate per 1000 population

per 1000 youth

3. Referrals to Juvenile Court - rate per 100 arrests

per 100 arrests

1. AREA REPORTED

State : Ohio
 County : Butler

2. MINORITY
 GROUP:

Native Hawaiian or other Pacific
 Islanders

Data Items	Rate of Occurrence - White Youth	Rate of Occurrence - Minority Youth	Relative Rate Index
1. Population at risk (age 10 through 17)			
2. Juvenile Arrests	46.73	0.00	*
3a. Refer to Juvenile Court	143.64	0.00	*

Key:

Statistically significant results:

Results that are not statistically significant

Group is less than 1% of the youth population

Insufficient number of cases for analysis

Missing data for some element of calculation

Bold font

Regular font

*

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Definitions of rates:

Recommended Base

2. Juveniles Arrested - rate per 1000 population

3. Referrals to Juvenile Court - rate per 100 arrests

Base Used

per 1000 youth

per 100 arrests

1. AREA REPORTED

State : Ohio
 County : Butler

2. MINORITY
 GROUP:

American Indian or Alaska Native

Data Items	Rate of Occurrence - White Youth	Rate of Occurrence - Minority Youth	Relative Rate Index
1. Population at risk (age 10 through 17)			
2. Juvenile Arrests	46.73	10.20	*
3a. Refer to Juvenile Court	143.64	100.00	*

Key:

Statistically significant results:

Bold font

Results that are not statistically significant

Regular font

Group is less than 1% of the youth population

*

Insufficient number of cases for analysis

**

Missing data for some element of calculation

Definitions of rates:

Recommended Base

Base Used

2. Juveniles Arrested - rate per 1000 population

per 1000 youth

3. Referrals to Juvenile Court - rate per 100 arrests

per 100 arrests

1. AREA REPORTED

State : Ohio
 County : Butler

2. MINORITY
 GROUP:

Other/ Mixed

Data Items	Rate of Occurrence - White Youth	Rate of Occurrence - Minority Youth	Relative Rate Index
1. Population at risk (age 10 through 17)			
2. Juvenile Arrests	46.73	0.00	*
3a. Refer to Juvenile Court	143.64	146.71	*

Key:

Statistically significant results:

Bold font

Results that are not statistically significant

Regular font

Group is less than 1% of the youth population

*

Insufficient number of cases for analysis

**

Missing data for some element of calculation

Definitions of rates:

Recommended Base

Base Used

2. Juveniles Arrested - rate per 1000 population

per 1000 youth

3. Referrals to Juvenile Court - rate per 100 arrests

per 100 arrests

1. AREA REPORTED

State : Ohio
 County : Butler

2. MINORITY
 GROUP:

All Minorities

Data Items	Rate of Occurrence - White Youth	Rate of Occurrence - Minority Youth	Relative Rate Index
1. Population at risk (age 10 through 17)			
2. Juvenile Arrests	46.73	123.80	2.65
3a. Refer to Juvenile Court	143.64	137.98	0.96

Key:

Statistically significant results:

Bold font

Results that are not statistically significant

Regular font

Group is less than 1% of the youth population

*

Insufficient number of cases for analysis

**

Missing data for some element of calculation

Definitions of rates:

Recommended Base

Base Used

2. Juveniles Arrested - rate per 1000 population

per 1000 youth

3. Referrals to Juvenile Court - rate per 100 arrests

per 100 arrests

Relative Rate Index Compared with White Juveniles							
State : Ohio				Reporting Period 1/1/2007 through 12/31/2007			
County : Butler							
	Black or African- American	Hispanic or Latino	Asian	Native Hawaiian or other Pacific Islanders	American Indian or Alaska Native	Other/ Mixed	All Minorities
2. Juvenile Arrests	2.92	0.91	0.17	*	*	*	2.65
3. Refer to Juvenile Court	0.90	1.41	**	*	*	*	0.96
4. Cases Diverted	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5. Cases Involving Secure Detention	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6. Cases Petitioned	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7. Cases Resulting in Delinquent Findings	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8. Cases resulting in Probation Placement	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9. Cases Resulting in Confinement in Secure Juvenile Correctional Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10. Cases Transferred to Adult Court	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Group meets 1% threshold?	Yes	Yes	Yes	No	No	No	
	<i>0.00</i>						

Key:

Statistically significant results:

Bold font

Results that are not statistically significant

Regular font

Group is less than 1% of the youth population

*

Insufficient number of cases for analysis

**

Missing data for some element of calculation

Population Based Relative Rate Index Values

Reporting Period 1/1/2007
through 12/31/2007

State : Ohio
County : Butler

	White	Black or African- American	Hispanic or Latino	Asian	Native Hawaiian or other Pacific Islanders	American Indian or Alaska Native	Other/ Mixed	All Minorities
2. Juvenile Arrests	1.00	2.92	0.91	0.17	--	0.22	--	2.65
3a. Refer to Juvenile Court	1.00	2.64	1.28	0.15	--	0.15	--	2.54
3b. Referrals Minus Arrests	1.00	2.00	2.13	0.11				2.31
4. Cases Diverted								
5. Cases Involving Secure Detention								
6. Cases Petitioned								
7. Cases Resulting in Delinquent Findings								
8. Cases resulting in Probation Placement								
9. Cases Resulting in Confinement in Secure								
10. Cases Transferred to Adult Court								
Group meets 1% threshold?		Yes	Yes	Yes	No	No	No	

Significance Testing

The spreadsheet provides a test of statistical significance for use in guiding analysis. The test which is used is based on the chi square distribution. It calculates the expected number of cases involving white youth and minority youth that would be expected to have the targeted decision (for example *guilt*), if there were no differences in the rates of that decision. It then calculates how discrepant that actual results are from that expectation, and compares the size of the discrepancy to what could be expected to occur by chance at a given significance level. The 'standard' significance level is $p=.05$, meaning that a discrepancy of this magnitude (or larger) might occur by chance in 1 of 20 comparisons ($.05 = 1/20$). For those who wish to use a different level of significance, choices below allow choosing the option of .10, .05, or .01

Significance level	0.05
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Data Sufficiency Test

The Relative Risk Index is based on the computation and comparison of rates. Under some circumstances these rates may be computed based on small numbers, which makes the rates relatively unreliable. In general, rates based on five or fewer events from a possible base of 50 or fewer potential events should be viewed with caution. In the individual work sheets for each race / ethnic group, a column appears which indicates whether the data meets these standards. For those who wish to use other levels in their analysis of these data, the number of events and the size of the base population may be adjusted below.

Minimum Number of Target Events	5
Minimum Size of Base Population	30