Ethnic and Gender Equity in Missouri Juvenile Court Decisions: Preliminary Findings

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Missouri Office of the State Courts Administrator

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Foremost, however, we would like to extend our greatest appreciation to the judges, juvenile officers, and employees in the 17 circuits who graciously volunteered to collect data for a large number of referred youth. The effort carried out by juvenile office employees in the 5th, 10th, 12th, 13th, 14th, 15th, 16th, 18th, 19th, 20th, 21st, 22nd, 32nd, 33rd, 35th, 41st, and 45th Judicial Circuits was invaluable and will have long-standing impact.

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I. INTRODUCTION

A. Background

Pursuant to the Juvenile Crime and Crime Prevention Bill of 1995, the Missouri Office of the State Courts Administrator (OSCA) developed a comprehensive juvenile offender classification to help structure key decisions made by juvenile officers. The system incorporated an actuarial risk assessment tool, used to classify youth into one of three risk levels based on the likelihood he/she will become engaged in future delinquent or criminal behavior. Officers combine results of the risk assessment with offense severity to formulate disposition and sanction recommendations to give to the courts. They also complete a needs assessment to help identify treatment needs. If a juvenile is supervised in the community, the risk level guides the level of supervision the juvenile officer provides. OSCA staff recently developed a reassessment for youth on supervision to ensure that the assigned level of contact and case plan content are appropriate.

Another phase of the crime prevention effort is a legislative mandate to determine if racial disparities occur in the juvenile justice system. Specifically, the legislation states that "…juvenile officers and juvenile courts, shall at least biennially review a random sample of assessments of children and the disposition of each child's case to recommend assessment and disposition equity throughout the state" (211.141.5 RSMo. Supp.1995). Another section of the legislation states that "Standards, training and assessment forms . . . shall be developed considering racial disparities in the juvenile justice system." (211.326.6 RSMo. Supp.1995). OSCA contracted with the National Council on Crime and Delinquency (NCCD) to conduct a study that meets these requirements.

The purpose of this study was to examine decision points in the juvenile court process and compare decisions made by the ethnicity and gender of the youth. The court process covers all decisions to be made regarding juvenile charges: intake, screening, case processing, and disposition, both formal and informal.

The two primary research questions were:

1. Is there disproportionate representation by ethnicity or gender at any decision point in the juvenile court process? For example, are minority male youth confined at a greater rate than White male youth with similar adjudicated offenses and offense histories? When offense histories are similar, are female youth more likely to be placed on formal supervision compared to male youth?

2. If there is disproportionate representation of minorities or females, are there referral or youth characteristics correlated with ethnicity or gender and are contributing to minority and/or female over-representation at a stage of the juvenile court process?

B. Review of the Literature

Most studies of the juvenile justice system indicate that minority youth are disproportionately represented at various decision points of the case disposition process. Some researchers suggest that small differences at each juvenile justice decision point result in a cumulative large discrepancy in youth representation (Minorities in the Juvenile Justice System, 1999; Pope and Feyerherm, 1990; Bishop and Frazier, 1988; Zatz, 1987). Whether the effect is additive or not, case decisions, and therefore the depth of involvement with juvenile justice agencies, often differ for youth by their gender as well as their ethnicity (Pope and Feyerherm, 1990).

These differences begin at the time of referral for an offense, the very first decision point in the process. For example, the arrest rate of females is increasing at a rate much higher than that of males (Snyder, 2001; Stahl, 2001; Wordes and Jones, 1998; Poe-Yamagata and Butts,

1996). Arrest rates of youth of color, and especially of African American youth, far exceed those of White youth (Messner et al, 2001, Wordes and Jones, 1998).

African American youth account for approximately 15% of the U.S. youth population, but represent nearly one-fourth of juvenile arrests, one-third of all juvenile court referrals, and approximately one-half of detained youth (Hinton-Hoytt et al., 2001; Crutchfield et al., 1994). Minority youth are more likely to be detained than White youth (Wilson, 2001; Wordes and Jones, 1998; Wu et al., 1997; Dunn et al., 1993). This finding holds true even after controlling for other factors such as type and severity of offense (Minorities in the Juvenile Justice System, 1999; Hawkins, 1995; Wordes et al., 1994). From 1985 to 1995 detention rates for all racial and ethnic groups increased with the exception of White youth (Wordes and Jones, 1998). Detention rates also differ for males and females. Male youth are more likely to be detained than females, and their detention rate is increasing faster than that of females (Wordes and Jones, 1998).

Disproportionality of youth by gender also exists in case processing. Although female arrests have been increasing at a rate that exceeds that of males, males are still significantly more likely to be recommended for and assigned to formal processing than are females (Poe-Yamagata and Butts, 1996; Bishop and Frazier, 1988). One study found that, after controlling for other characteristics, being male was a significant predictor of commitment (Fader et al., 2001). Cases involving male youth have also been more likely to be transferred to criminal court than cases involving females (Poe-Yamagata and Butts, 1996).

As was observed for the intake process, minority youth are overrepresented in formal processing. Though only about one-third of the U.S. youth population is composed of individuals identified as minorities, approximately two-thirds of the youth committed to correctional facilities are minority youth (Hinton-Hoytt et al., 2001). African American youth are more likely to be formally processed and committed compared to White youth (Poe-Yamagata and Jones, 2000; Dunn, et al., 1993). This is true among youth with similar charges

and other delinquency characteristics (Poe-Yamagata and Jones, 2000; Farrington, 1996; Pope and Feyerherm, 1990; Bishop and Frasier, 1988). For example, three-fourths of drug offenses and over 64% of person offenses involving African Americans were petitioned, compared to one-half of drug and 55% of person offenses involving White youth (Poe-Yamagata and Jones, 2000).

Geographic location can also be a significant factor in juvenile justice case outcomes. Cases in urban areas tend to be processed more severely at each decision point than cases in non-urban areas (Minorities in Juvenile Justice, 1999; Pope and Feyerherm, 1990). This may be the result of offense severity; nationally and in select states, higher rates of delinquency have been observed in urban areas, regardless of the ethnic/racial population composition (Wilson, et al., 2001; Hawkins, et al., 2000). Urbanization has been found, however, to be related to disproportionately higher confinement rates for minority youth (Minorities in Juvenile Justice, 1999; Myers and Talarico, 1996). Juvenile arrest rates also differ significantly by state (Snyder, 2001). This may be the result of differences in youth behavior or in community tolerance, but also raise the question whether police or juvenile justice agency practices have a relationship to the overrepresentation of youth in case processing.

The disproportionate representation found in juvenile justice may be a direct effect of youth gender or ethnicity, or an indirect effect of differences in other case characteristics, such as the severity of the incident, or youths' history of delinquency. For example, research has shown that poverty and other measures of a lower socio-economic status are strongly related to juvenile delinquency (Messner, Raffalovich and McMillan, 2001; Kurtz et al., 1993). Kurtz's study showed that economic status was a greater predictor of case decisions than was ethnicity. Other factors found to be related to juvenile delinquency are youths' achievement or adjustment in school and their family structure (Devine et al., 1998; Wordes et al., 1994).

Findings from previous research informed the data collection and analysis of sampled Missouri youth referred for delinquent or status offenses. The following sections review information known for youth reported to OSCA during the study period. The first section describes the overall sample and methodology, while subsequent sections review each decision point examined.

II. STUDY DESIGN

A. Methods

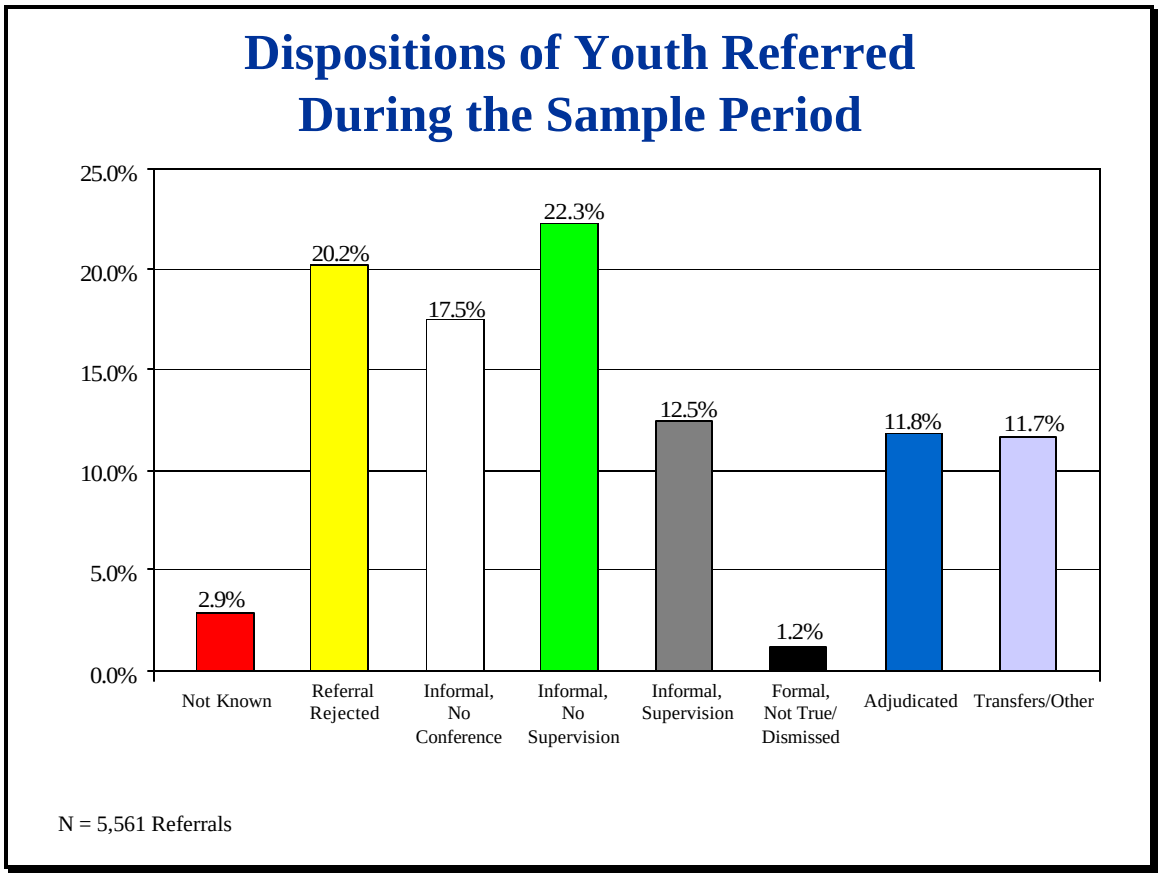
Juvenile courts in 17 of Missouri's 45 judicial circuits participated in the study. While participation was voluntary, OSCA and NCCD staff solicited the participation of circuits to help ensure that urban and African American youth were adequately represented. The proportion of sampled referrals of African American youth is greater than the average proportion of African American youth referred statewide.

The sample consisted of all youth referred to OSCA in the 17 participating circuits during a set period of time. Three metropolitan circuits[1] collected information about every youth referred between August 15 and September 30, 2003. All other circuits collected information about youth referred during August, September, and October 2003. At the start of the data collection period, officers reviewed study procedures and forms in regional meetings. Juvenile officers completed the Division of Youth Services (DYS) statistics form and a survey developed by circuit representatives for each juvenile referred for either a law or a status violation. In addition, for youth placed on supervision, officers submitted either the state's risk and needs assessments or an equivalent assessment.

[1] These circuits are Jackson County, St. Louis County, and St. Louis City.

During the sample periods, 5,561 youth were referred to Missouri's juvenile courts for delinquent or status offenses.[2] Figure 1 shows that 20.2% of these referrals were rejected. The majority of referrals received various informal dispositions (52.3%). A small number (2.9%) of referrals were missing dispositions on both the DYS and survey forms, and another 11.7% were transferred to other juvenile courts or agencies, thus making their dispositions unknown. Since the purpose of the study was to assess juvenile dispositions, referrals where the disposition was unknown because of transfer or missing data had to be excluded from the analysis.

Figure 1



[2] Child abuse or neglect referrals were excluded (n = 50).

Table 1 reviews dispositions for referrals by the ethnicity of the youth.[3] A greater percentage of African American referrals were rejected; 30.7% compared to 13.0% among Whites and 23.4% among youth of all other race/ethnicities. A greater proportion of referrals for White youth (63.1%) were informally disposed compared with those for African American (37.2%) and other (48.9%) youth. Between 8% to 11% of youth in each ethnic group were adjudicated. The rate of referrals excluded from subsequent analysis because of transfer to another agency or an unknown disposition differed only slightly by youth ethnicity (the range was 12.1% to 19.1%).

Table 1

Referral Disposition by Youth Race/Ethnicity

Referral Disposition	White/Caucasian		Black/African American		Other		Unknown		Total	
	N	%	N	%	N	%	N	%	N	%
Not known	37	1.2%	112	5.2%	4	2.8%	7	10.0%	**160**	**2.9%**
Rejected	412	13.0%	667	30.7%	33	23.4%	14	20.0%	**1,126**	**20.2%**
Informal, no conference	607	19.1%	348	16.0%	13	9.2%	6	8.6%	**974**	**17.5%**
Informal, no supervision	900	28.3%	291	13.4%	35	24.8%	15	21.4%	**1,241**	**22.3%**
Informal, supervision	498	15.7%	169	7.8%	21	14.9%	5	7.1%	**693**	**12.5%**
Formal, not true/dismissal	18	0.6%	46	2.1%	0	0.0%	0	0.0%	**64**	**1.2%**
Adjudicated	359	11.3%	267	12.3%	12	8.5%	17	24.3%	**655**	**11.8%**
Transfer/other	348	10.9%	271	12.5%	23	16.3%	6	8.6%	**648**	**11.7%**
Total	**3,179**	**100.0%**	**2,171**	**100.0**	**141**	**100.0**	**70**	**100.0**	**5,561**	**100.0**

[3] The other group includes 55 Hispanic/Latino youth, 15 Asian youth, and 71 youth with an indicated ethnicity of "other."

B. Sample Description

Table 2 reviews the characteristics of the 4,753 sampled referrals and their most serious offense by ethnic group. The majority of referred youth were 15 years of age or older, approximately two-thirds were male, and 58.4% of the referrals occurred in a town or rural area. Less than 20% were referrals for a violent or weapons offense, and only 13.8% were adjudicated.

Table 2

Sample Characteristics by the Ethnicity of Referred Youth

	White/Caucasian		Black/African American		Other		Unknown		Total	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Reporting Circuit										
5	308	11.0%	40	2.2%	9	7.9%	5	8.8%	**362**	**7.6%**
10	195	7.0%	24	1.3%	5	4.4%	0	0.0%	**224**	**4.7%**
12	61	2.2%	28	1.6%	1	0.9%	0	0.0%	**90**	**1.9%**
13	252	9.0%	155	8.7%	20	17.5%	0	0.0%	**427**	**9.0%**
14	120	4.3%	30	1.7%	1	0.9%	1	1.8%	**152**	**3.2%**
15	102	3.7%	27	1.5%	4	3.5%	0	0.0%	**133**	**2.8%**
16	23	0.8%	69	3.9%	3	2.6%	39	68.4%	**134**	**2.8%**
18	235	8.4%	40	2.2%	15	13.2%	0	0.0%	**290**	**6.1%**
19	66	2.4%	43	2.4%	1	0.9%	0	0.0%	**110**	**2.3%**
20	191	6.8%	5	0.3%	2	1.8%	0	0.0%	**198**	**4.2%**
21	514	18.4%	612	34.2%	19	16.7%	2	3.5%	**1,147**	**24.1%**
22	44	1.6%	473	26.5%	22	19.3%	0	0.0%	**539**	**11.3%**
32	189	6.8%	55	3.1%	2	1.8%	0	0.0%	**246**	**5.2%**
33	163	5.8%	139	7.8%	2	1.8%	5	8.8%	**309**	**6.5%**
35	121	4.3%	27	1.5%	4	3.5%	0	0.0%	**152**	**3.2%**
41	49	1.8%	4	0.2%	0	0.0%	5	8.8%	**58**	**1.2%**
45	161	5.8%	17	1.0%	4	3.5%	0	0.0%	**182**	**3.8%**
Total	**2,794**	**100.0%**	**1,788**	**100.0%**	**114**	**100.0%**	**57**	**100.0%**	**4,753**	**100.0%**
Gender										
Male	1,844	66.0%	1,271	71.1%	75	65.8%	6	10.5%	**3,196**	**67.2%**
Female	949	34.0%	517	28.9%	39	34.2%	1	1.8%	**1,506**	**31.7%**
Unknown	1	0.0%	0	0.0%	0	0.0%	50	87.7%	**51**	**1.1%**
Total	**2,794**	**100.0%**	**1,788**	**100.0%**	**114**	**100.0%**	**57**	**100.0%**	**4,753**	**100.0%**
Years of Age at Time of Referral										
12 or younger	482	17.3%	334	18.7%	31	27.2%	9	15.8%	**856**	**18.0%**
13	341	12.2%	255	14.3%	15	13.2%	9	15.8%	**620**	**13.0%**
14	542	19.4%	360	20.1%	22	19.3%	5	8.8%	**929**	**19.5%**
15	612	21.9%	401	22.4%	29	25.4%	15	26.3%	**1,057**	**22.2%**
16	741	26.5%	394	22.0%	14	12.3%	17	29.8%	**1,166**	**24.5%**
17 or older	61	2.2%	42	2.3%	3	2.6%	1	1.8%	**107**	**2.3%**
Unknown	15	0.5%	2	0.1%	0	0.0%	1	1.8%	**18**	**0.4%**
Total	**2,794**	**100.0%**	**1,788**	**100.0%**	**114**	**100.0%**	**57**	**100.0%**	**4,753**	**100.0%**

Table 2

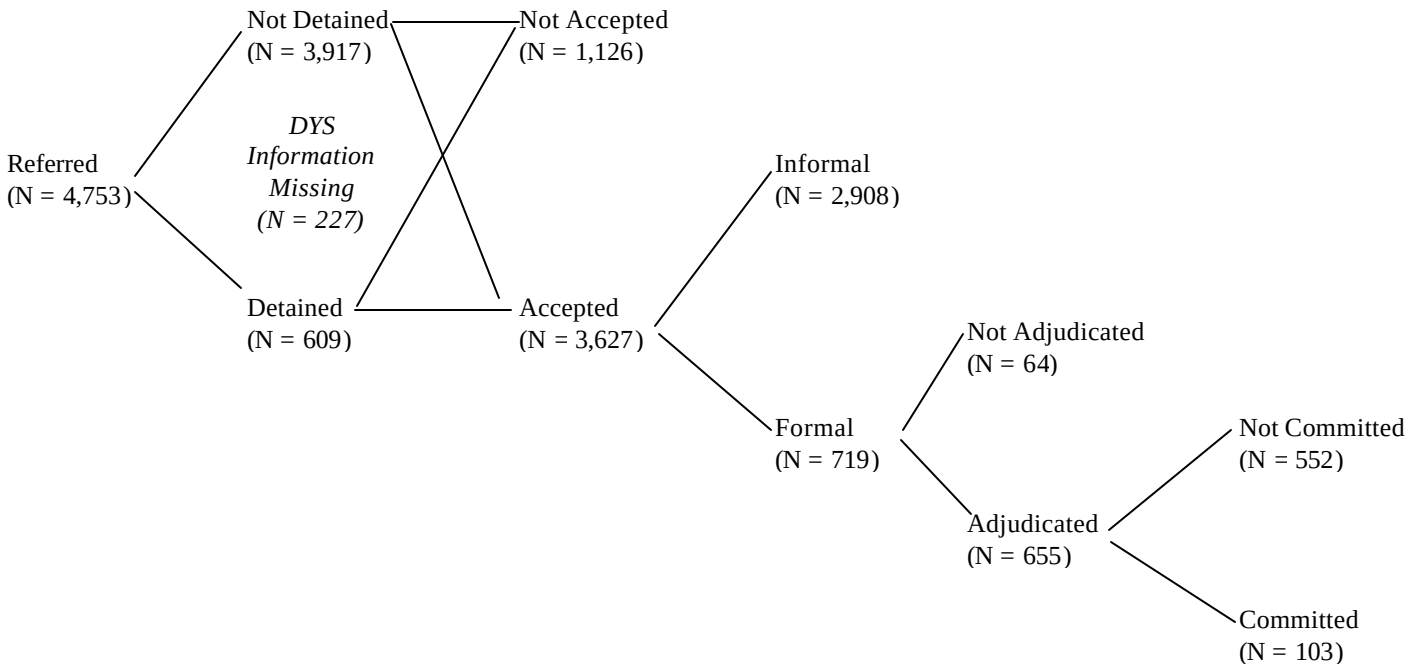
Sample Characteristics by the Ethnicity of Referred Youth

	White/Caucasian		Black/African American		Other		Unknown		Total	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Incident Location										
Rural or town	2,121	75.9%	563	31.5%	65	57.0%	25	43.9%	**2,774**	**58.4%**
City and fringe	663	23.7%	1,220	68.2%	49	43.0%	30	52.6%	**1,962**	**41.3%**
Unknown	10	0.4%	5	0.3%	0	0.0%	2	3.5%	**17**	**0.4%**
Total	**2,794**	**100.0%**	**1,788**	**100.0%**	**114**	**100.0%**	**57**	**100.0%**	**4,753**	**100.0%**
Most Serious Offense Type										
Violent/Weapon	414	14.8%	404	22.6%	19	16.7%	12	21.1%	**849**	**17.9%**
Property/Theft	852	30.5%	719	40.2%	33	28.9%	18	31.6%	**1,622**	**34.1%**
Status	1,053	37.7%	407	22.8%	38	33.3%	9	15.8%	**1,507**	**31.7%**
Other (public order, etc.)	473	16.9%	256	14.3%	24	21.1%	17	29.8%	**763**	**16.1%**
Unknown	2	0.1%	2	0.1%	0	0.0%	1	1.8%	**5**	**0.1%**
Total	**2,794**	**100.0%**	**1,788**	**100.0%**	**114**	**100.0%**	**57**	**100.0%**	**4,753**	**100.0%**
Disposition										
Rejected	412	14.7%	667	37.3%	33	28.9%	14	24.6%	**1,126**	**23.7%**
Informal, no conference	607	21.7%	348	19.5%	13	11.4%	6	10.5%	**974**	**20.5%**
Informal, no supervision	900	32.2%	291	16.3%	35	30.7%	15	26.3%	**1,241**	**26.1%**
Informal, supervision	498	17.8%	169	9.5%	21	18.4%	5	8.8%	**693**	**14.6%**
Formal, not true or dismissed	18	0.6%	46	2.6%	0	0.0%	0	0.0%	**64**	**1.3%**
Adjudicated	359	12.8%	267	14.9%	12	10.5%	17	29.8%	**655**	**13.8%**
Total	**2,794**	**100.0%**	**1,788**	**100.0%**	**114**	**100.0%**	**57**	**100.0%**	**4,753**	**100.0%**
Number of Prior Referrals										
None	1,193	42.7%	695	38.9%	67	58.8%	11	19.3%	1,966	41.4%
One	617	22.1%	339	19.0%	17	14.9%	20	35.1%	993	20.9%
Two or more	984	35.2%	754	42.2%	30	26.3%	26	45.6%	1,794	37.7%
Total	**2,794**	**100.0%**	**1,788**	**100.0%**	**114**	**100.0%**	**57**	**100.0%**	**4,753**	**100.0%**
Prior Adjudication										
No	2,424	86.8%	1,479	82.7%	96	84.2%	48	84.2%	4,047	85.1%
Yes	370	13.2%	309	17.3%	18	15.8%	9	15.8%	706	14.9%
Total	**2,794**	**100.0%**	**1,788**	**100.0%**	**114**	**100.0%**	**57**	**100.0%**	**4,753**	**100.0%**

The following diagram and table provide an overview of how all sampled referrals were disposed and reviews dispositions by ethnicity and gender at each decision point. Compared to White youth, a greater proportion of African American youth were detained (14.5% versus 12.9%), but referrals of African American youth were less likely to be accepted (62.7% versus 85.3%). A greater proportion of African American youth were formally processed (27.9% versus 15.8%) than White youth. A greater proportion of White youth, however, were adjudicated. A slightly greater proportion of White youth were committed, as well.

A slightly greater proportion of males were detained as well as processed formally compared to the rates for female youth. A greater proportion of referrals of females, however, were accepted. Adjudication and commitment rates were very similar for males and females.

Figure 2



	Detained	Accepted	Formal	Adjudicated	Commit
Sampled Youth (n = 4,753)	12.8%	76.3%	19.8%	91.1%	15.7%
White/Caucasian Youth (n = 2,794)	12.9%	85.3%	15.8%	95.2%	16.7%
Black/African American Youth (n = 1,788)	14.5%	62.7%	27.9%	85.3%	13.9%
Other Youth (n = 114)	11.8%	71.1%	14.8%	100.0%	50.0%
Missing Ethnicity (n = 57)	14.3%	75.4%	39.5%	100.0%	0.0%
Male Youth (n = 3,196)	14.7%	74.5%	22.9%	91.0%	15.9%
Female Youth (n = 1,506)	10.8%	79.9%	13.1%	90.5%	16.8%
Missing (n = 51)	100.0%	80.4%	39.0%	100.0%	0.0%

Note: Percentages indicate the proportion of these youth that received the action at the top of the column. Please note that where 100% and 0% occur, the total group size (i.e., denominator) is very small.

III. YOUTH REPRESENTATION AT KEY DECISION POINTS

A. Intake Decisions

1. Detention

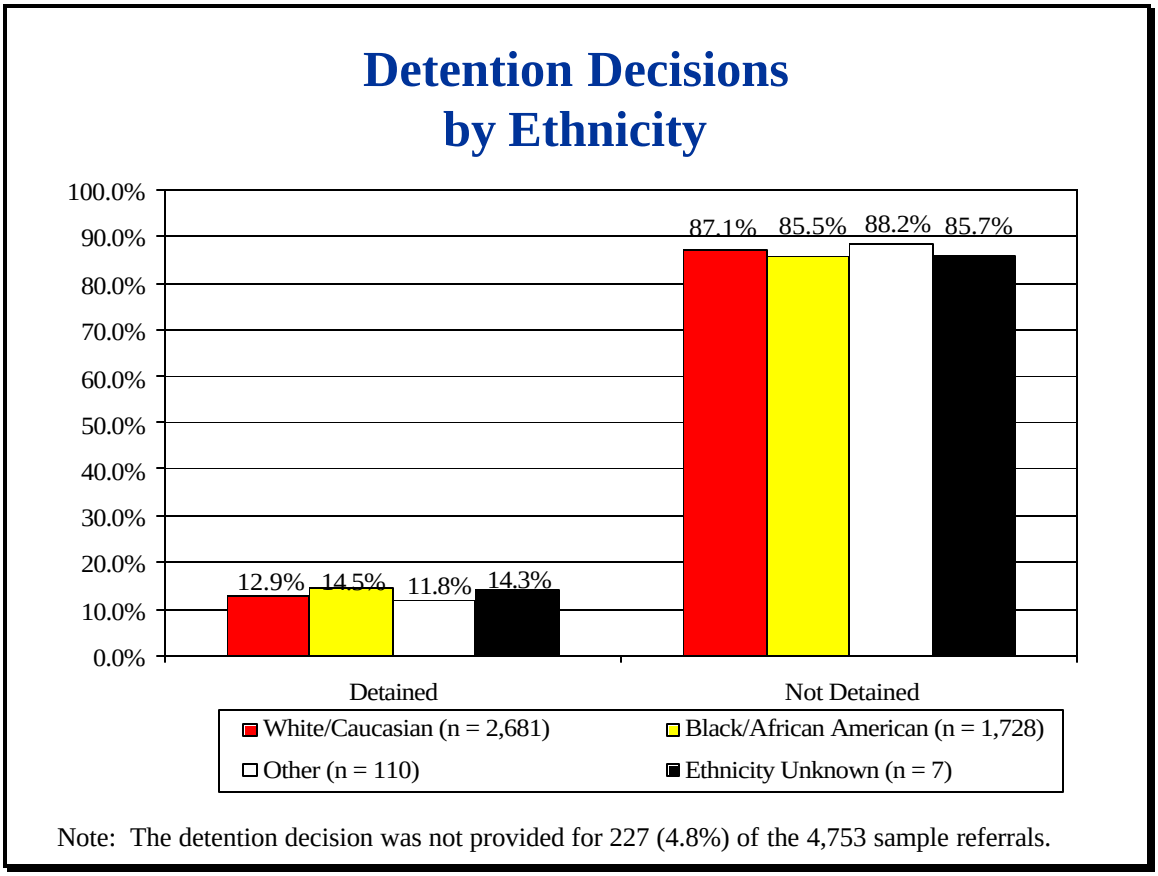
This section describes detention decisions made for the sample referrals. Approximately 12.7% of youth (n = 605) were held in secure care, 3,917 (82.3%) youth were not detained, and data were not available for 235 (4.9%) of the referrals.[4]

Figures 3 and 4 review detention rates for sampled youth by their gender and ethnicity. The detention rate among African American youth (14.5%) referred was slightly higher than that of White youth (12.9%), but the difference was not significant. A lower proportion of females (10.8%) were detained compared to males (14.7%; see Figure 4).

Detention rates varied significantly, however, by circuit (see Appendix B, table B2). This is likely the result of local detention policies and practices, and the nature of detention facilities. For instance, some circuits may have dedicated intake staff making the detention decision, and/or employ objective screening criteria. In addition, some circuits may have community alternatives to detention that are unavailable to others.

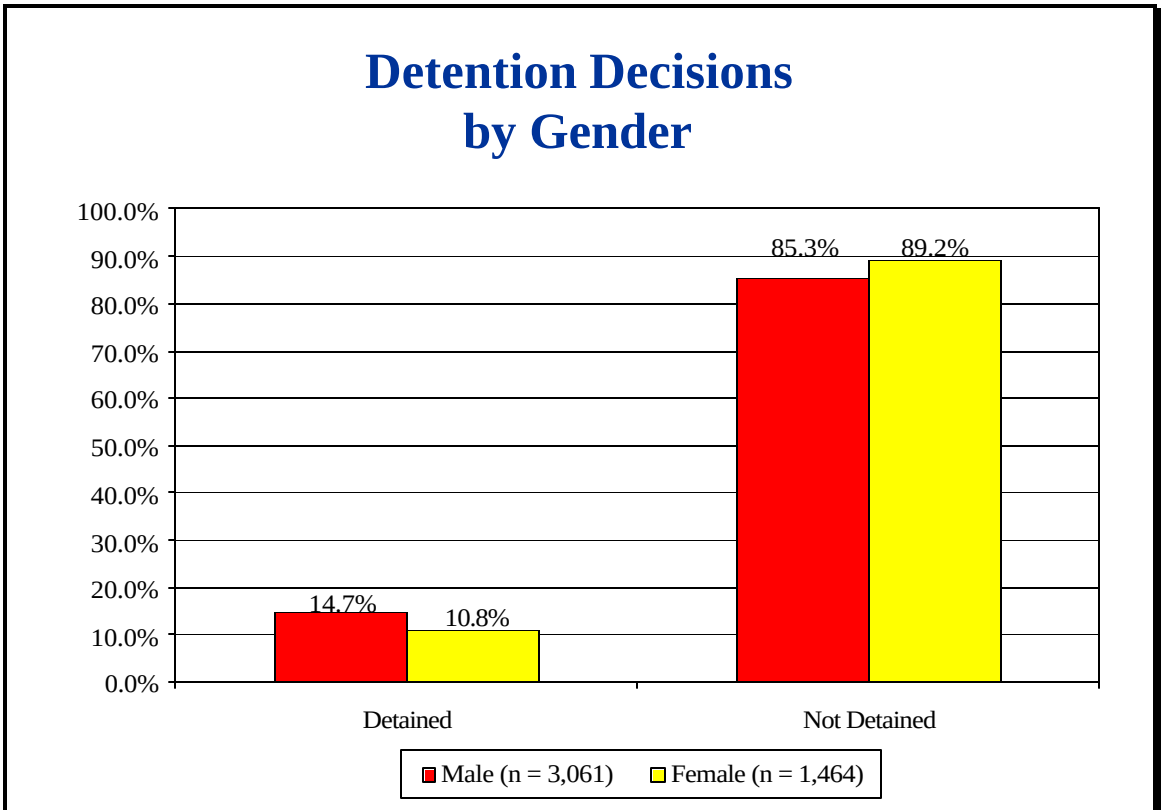
[4] The Division of Youth Services (DYS) statewide juvenile information form was the source for detention data. This information was missing for 235 youth. Twenty percent (49 of 235) of the referrals were also lacking the youth's ethnicity. Sixty-seven of the youth were African American and 114 were White.

Figure 3



Note: The detention decision was not provided for 227 (4.8%) of the 4,753 sample referrals.

Figure 4



Note: The detention decision was not provided for 227 (4.9%) of the 4,753 sample referrals. Gender could not be determined for one additional youth who was detained.

2. Referral Acceptance

The next decision made by staff was whether to accept or reject the referral for further processing. Among the overall sample of 4,753 referrals, 76.3% (n = 3,627) were accepted for further processing.

Referrals for White youth were more likely to be accepted (85.3%) than for African American youth (62.7%; see Figure 5). Acceptance rates were similar for males (74.5%) and females (79.9%; see Figure 6). Again, the proportion of youth referred and accepted for investigation varied by circuit (see Appendix B, Table B3).

Figure 5

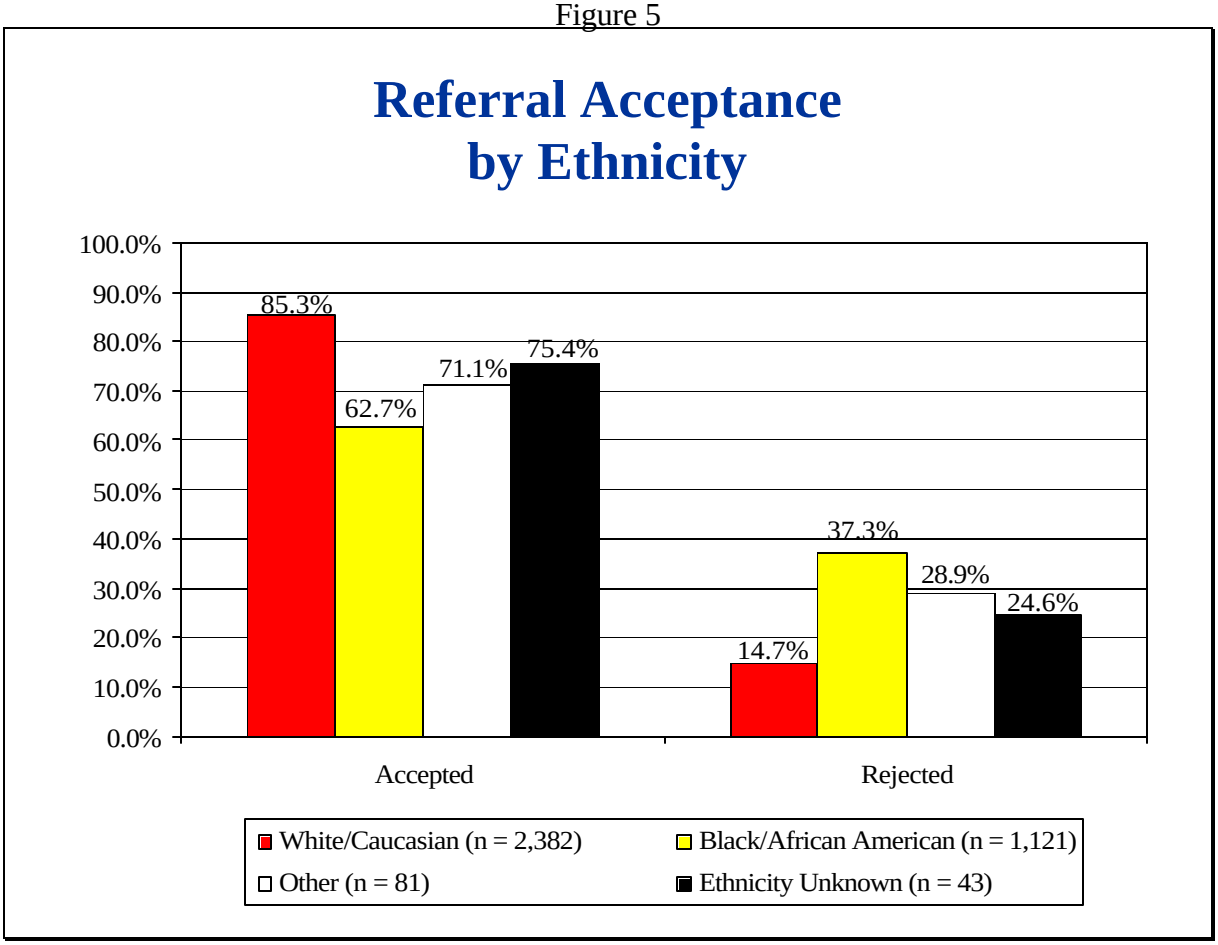
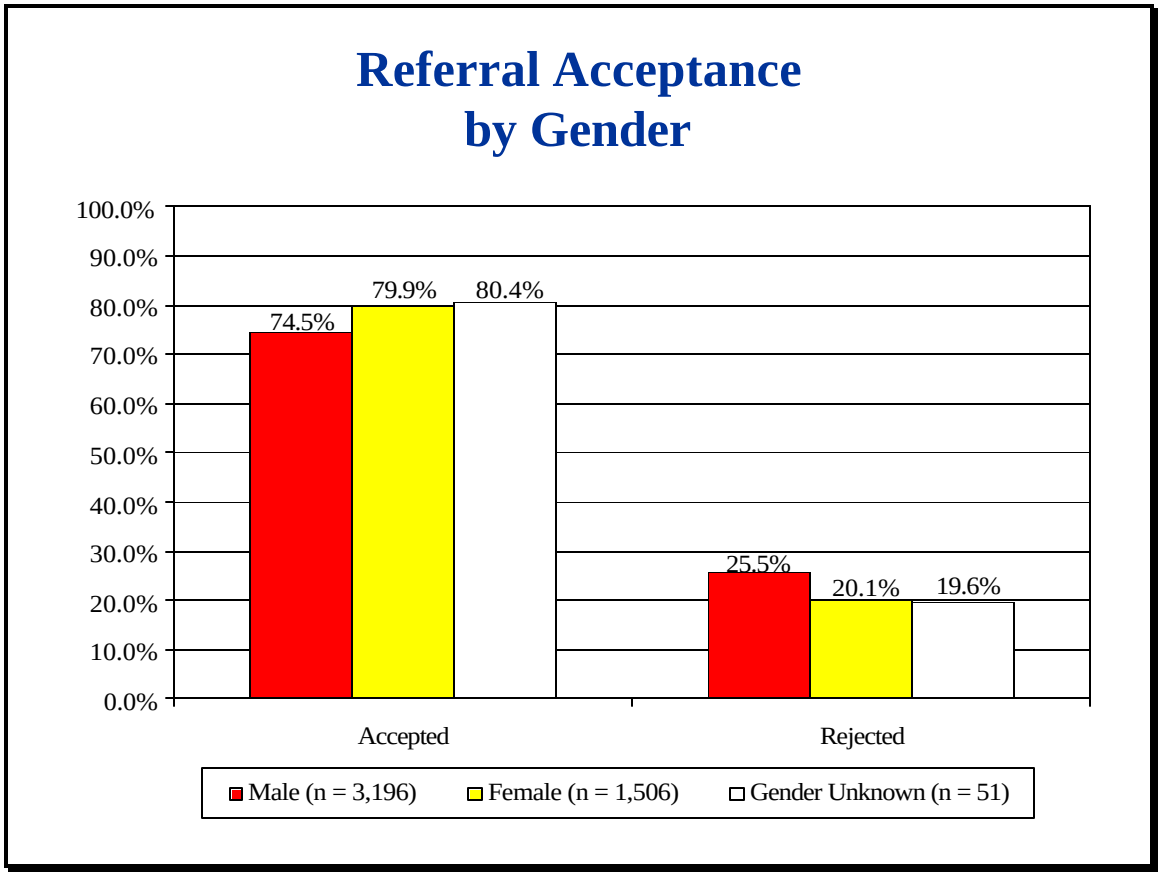


Figure 6



B. Case Processing Decisions

Once a referral is accepted, it may be formally or informally processed. Formal processing means filing a petition that may result in a dismissal of charges if they are found not to be true, or in adjudication of the youth. Adjudicated youth receive court-assigned sanctions that range from restitution or community service to commitment.

Cases that are informally processed may receive supervision or simply be informally adjusted. In making an informal disposition, officers may request an informal adjustment conference to meet with the youth and family to discuss the decision. The conference is not always requested. Sometimes officers know that a case will be processed formally based on presenting offense characteristics and bypass it. Youth may also be assigned informal

adjustment without a conference. This is most likely when the offense is not serious and there is no history of delinquency. When a juvenile officer does decide to request an official informal adjustment conference, the youth and primary caretaker participate in an interview during which the officer completes a risk and needs assessment.[5]

1. Request for an Informal Adjustment Conference

Table 3 reviews youth characteristics by an officer's decision to request an official informal adjustment conference. Among youth informally or formally processed,[6] more than half had an informal conference requested (55.6%). The percentage of referrals lacking this information, however, was very high (31.4%). While African American youth were less likely than White youth to have a conference request noted, missing data rates are much higher for African American youth (47.0% compared to 24.5% for White youth).[7]

[5] These case process options are referred to as informal adjustment with no conference, informal adjustment with no supervision, informal adjustment with supervision, and formal processing. If a juvenile officer does not request an official informal adjustment conference with the youth and family but processes the referral informally (for example, when the youth is simply counseled and warned regarding the referral), the disposition appears as informal adjustment, no conference (a.k.a. no action). Informal processing after conducting a conference results in one of two outcomes: either the youth is counseled and warned about the referral (informal adjustment conference, without supervision); or the youth is placed on informal supervision (informal adjustment conference, with supervision). As mentioned previously, the juvenile officer may also file a petition with the Juvenile Court to proceed formally with the case either prior to or after the conference (adjudication).

[6] This includes youth formally and informally processed, regardless of whether supervision was assigned.

[7] The original sample for circuit 22 was not representative, and an alternative population of referrals from the sample period were provided in an electronic form. This resulted, however, in a greater proportion of referrals lacking the supplemental information, such as conference requests, that were collected at the time on paper.

Table 3

Officer Request for an Informal Process

	Conference Requested		Not Requested		Unknown		Total	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Total	**2,017**	**55.6%**	**472**	**13.0%**	**1,138**	**31.4%**	**3,627**	**100.0%**
Youth Ethnicity								
White/Caucasian	1,525	64.0%	274	11.5%	583	24.5%	2,382	**100.0%**
Black/African American	429	38.3%	165	14.7%	527	47.0%	1,121	**100.0%**
Other	47	58.0%	8	9.9%	26	32.1%	81	**100.0%**
Unknown	16	37.2%	25	58.1%	2	4.7%	43	**100.0%**
Gender								
Male	1,312	55.1%	341	14.3%	729	30.6%	2,382	**100.0%**
Female	690	57.3%	107	8.9%	407	33.8%	1,204	**100.0%**
Unknown	15	36.6%	24	58.5%	2	4.9%	41	**100.0%**

Of the 1,988 referrals for which a conference was requested, most (95.9%) families and youth participated in the process (see Table 4).

Table 4

Family/Youth Conference Participation

	Participated		Did Not Participate		Unknown		Total	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Total	**1,934**	**95.9%**	**42**	**2.1%**	**41**	**2.0%**	**2,017**	**100.0%**
Youth Ethnicity								
White/Caucasian	1,474	96.7%	20	1.3%	31	2.0%	1,525	**100.0%**
Black/African American	400	93.2%	21	4.9%	8	1.9%	429	**100.0%**
Other	47	100.0%	0	0.0%	0	0.0%	47	**100.0%**
Unknown	13	81.3%	1	6.3%	2	12.5%	16	**100.0%**
Gender								
Male	1,261	96.1%	28	2.1%	23	1.8%	1,312	**100.0%**
Female	660	95.7%	13	1.9%	17	2.5%	690	**100.0%**
Unknown	13	86.7%	1	6.7%	1	6.7%	15	**100.0%**

2. Informal Versus Formal Processing

Figures 7 and 8 present data on juvenile officers' decision to informally or formally process a referral by a youth's ethnicity and gender. Figure 7 shows that more African American youth were processed formally compared to White youth (27.9% vs. 15.8%). A greater percentage of males (22.9%) compared to female youth (13.1%) were petitioned (see Figure 8).

Figure 7

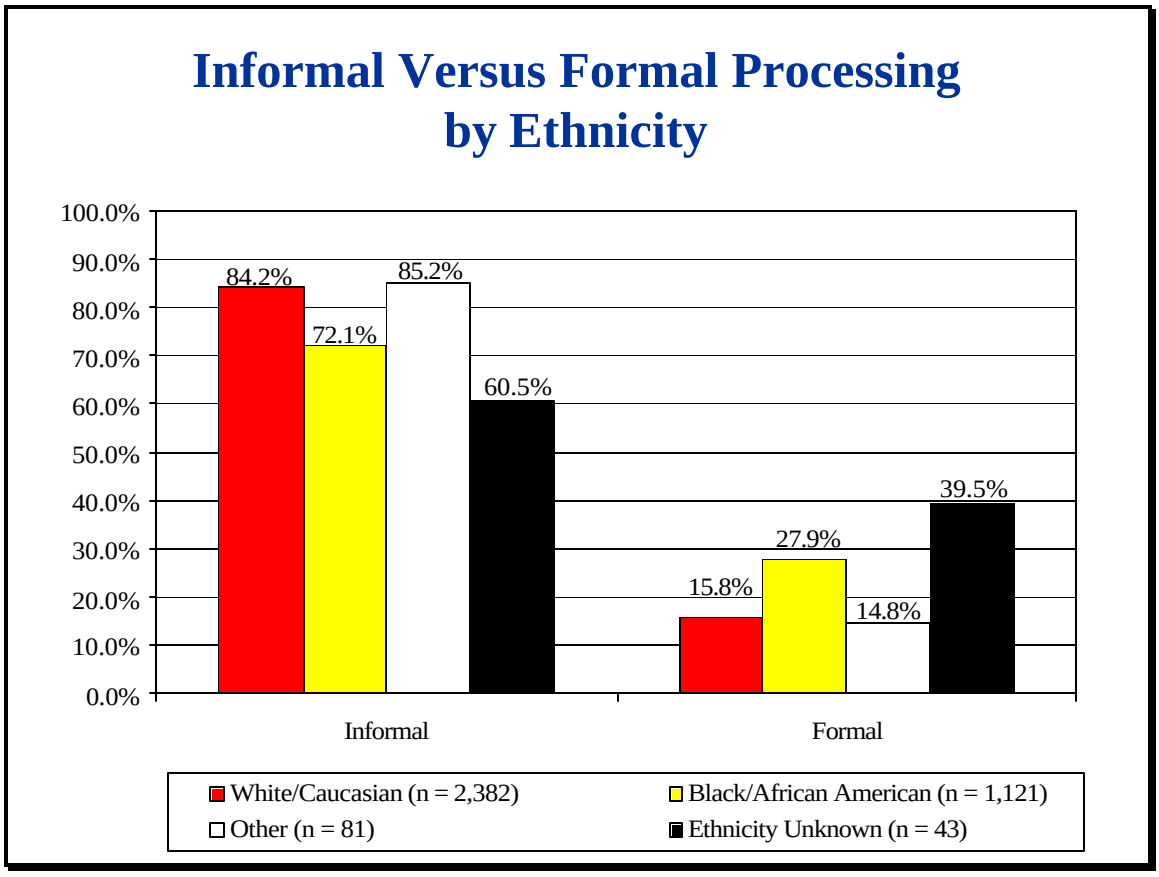
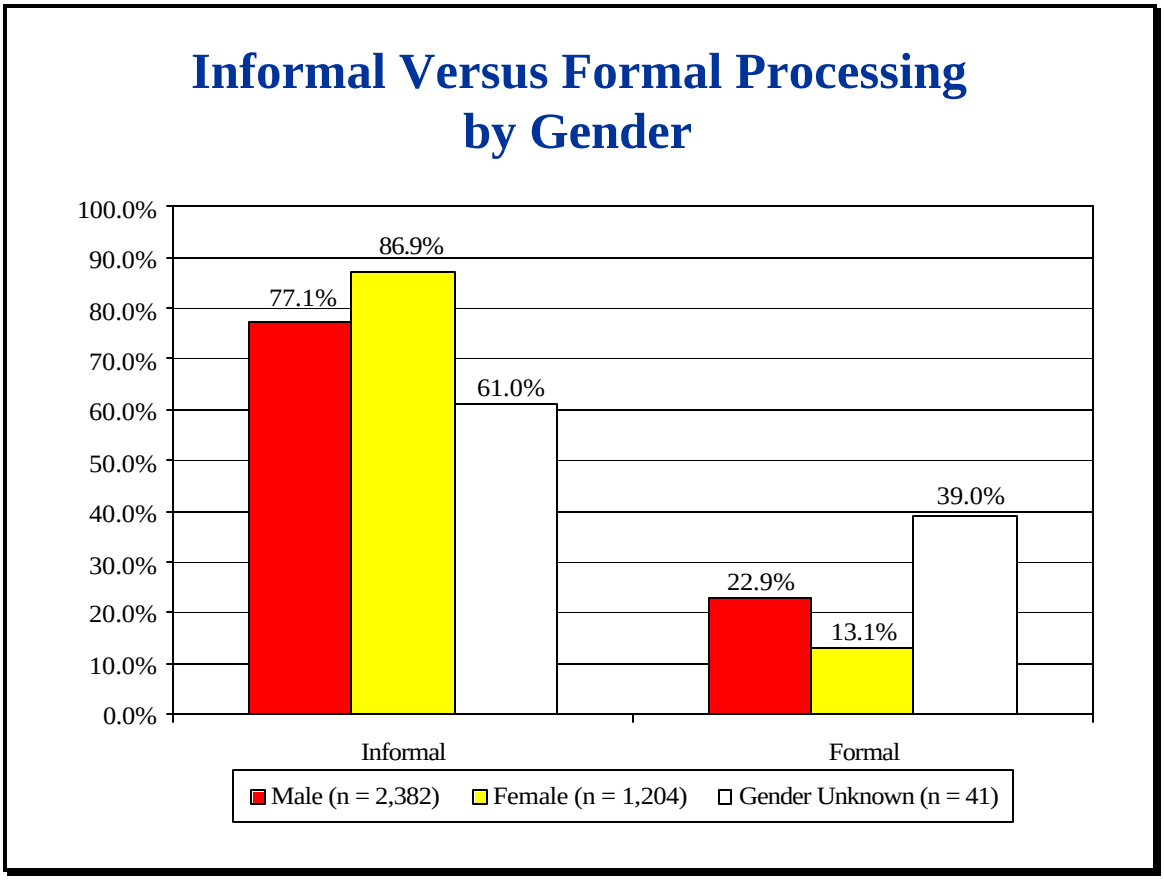


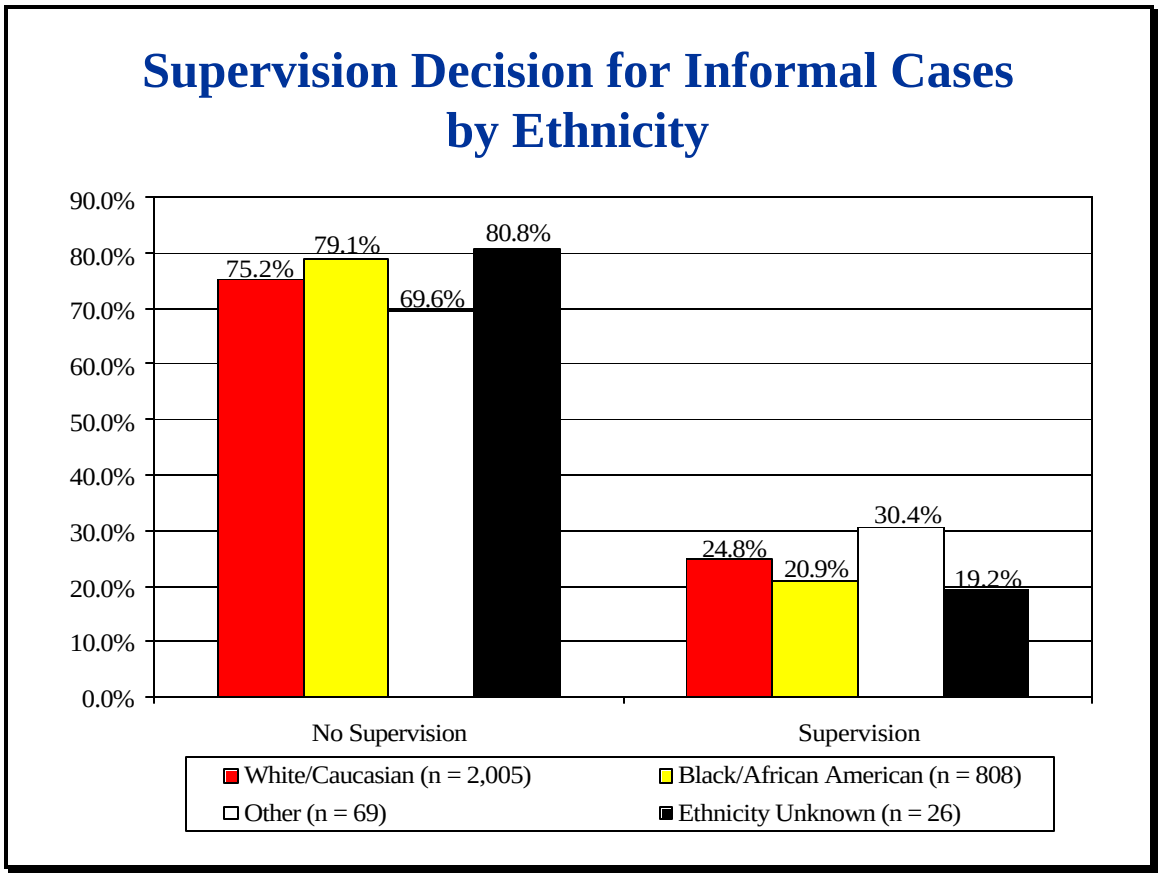
Figure 8


Informal Versus Formal Processing by Gender
100.0%
90.0%
80.0%
70.0%
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
77.1%
86.9%
61.0%
22.9%
13.1%
39.0%
Informal
Formal
Male (n = 2,382)
Female (n = 1,204)
Gender Unknown (n = 41)

3. Supervision of Informal Cases

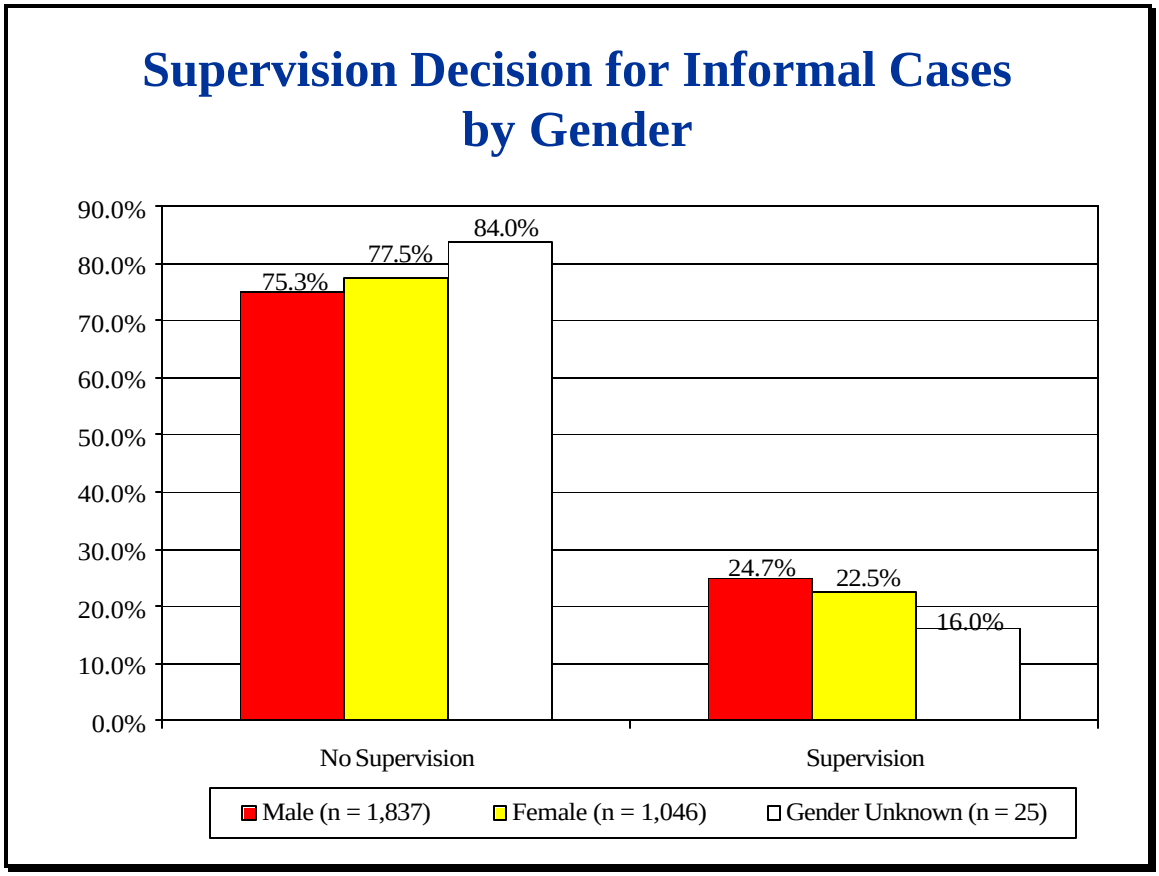
When assigning youth to an informal case disposition,[8] an officer may or may not assign the youth to supervision. Figure 9 shows that among the sampled referrals assigned to an informal disposition, the proportion of African American youth (20.9%) was only slightly lower than the proportion of White youth (24.8%) assigned to supervision. Figure 10 shows that a slightly greater proportion of males (24.7%) received supervision than did females (22.5%).

Figure 9



[8] This includes youth with a disposition of informal no conference, and informal with or without supervision.

Figure 10


Supervision Decision for Informal Cases by Gender
90.0%
80.0%
70.0%
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
75.3%
77.5%
84.0%
24.7%
22.5%
16.0%
No Supervision
Supervision
Male (n = 1,837)
Female (n = 1,046)
Gender Unknown (n = 25)

4. Formally Processed Cases

Adjudication may result in the assignment of multiple sanctions, ranging in severity from a warning to commitment in a secure facility. Table 5 shows the highest sanctions recommended by officers and assigned by the court.[9] The proportion of African American youth with missing recommendation information is much higher than that of White youth, which restricts confidence in the findings. In terms of actual court sanctions, a slightly smaller proportion of African American youth were committed compared to White youth (also see Figure 11).

Table 5

Highest Sanctions Recommended and Assigned for Formal Cases

	White/ Caucasian		Black/African American		Other		Unknown		Total	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Total	**359**	**100.0%**	**267**	**100.0%**	**12**	**100.0%**	**17**	**100.0%**	**655**	**100.0%**
Highest Sanctions Recommended by Officer										
None indicated	16	4.5%	9	3.4%	0	0.0%	1	5.9%	**26**	**4.0%**
Warn and counsel, community service, restitution and/or fees	18	5.0%	4	1.5%	0	0.0%	1	5.9%	**23**	**3.5%**
Supervision	177	49.3%	115	43.1%	5	41.7%	9	52.9%	**306**	**46.7%**
Intensive supervision, day treatment, or residential placement	50	13.9%	35	13.1%	2	16.7%	6	35.3%	**93**	**14.2%**
Commitment	69	19.2%	34	12.7%	5	41.7%	0	0.0%	**108**	**16.5%**
Missing information	29	8.1%	70	26.2%	0	0.0%	0	0.0%	**99**	**15.1%**
Highest Sanctions Assigned by Court										
None indicated	70	19.5%	55	20.6%	0	0.0%	13	76.5%	**138**	**21.1%**
Warn and counsel, community service, restitution and/or fees	6	1.7%	6	2.2%	0	0.0%	0	0.0%	**12**	**1.8%**
Supervision	176	49.0%	144	53.9%	5	41.7%	0	0.0%	**325**	**49.6%**
Intensive supervision, day treatment, or residential placement	47	13.1%	25	9.4%	1	8.3%	4	23.5%	**77**	**11.8%**
Commitment	60	16.7%	37	13.9%	6	50.0%	0	0.0%	**103**	**15.7%**

[9] While there is information about the sanctions recommended and assigned to adjudicated youth, the information may not be representative. Information was missing for 15.0% of the referred youth, and the number of commitments is very low. Commitments may take longer to process, which could mean that a number of them are missing from the sample (even with the follow up data collection effort in February).

Table 6 reviews the highest recommended and assigned sanctions by youth gender.[10] Although a slightly greater proportion of females (16.8%) were committed by the court compared to male youth (15.9%), the difference is not significant (also see Figure 12). A slightly greater proportion of males were assigned to formal supervision than were females (48.6% compared to 46.4%).

Table 6

Highest Sanctions Recommended and Assigned for Formal Cases

	Male		Female		Missing		Total	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Total	**496**	**100.0%**	**143**	**100.0%**	**16**	**100.0%**	**655**	**100.0%**
Highest Sanctions Recommended by Officer								
None indicated	20	4.0%	5	3.5%	1	6.3%	**26**	**4.0%**
Warn and counsel, community service, restitution and/or fees	13	2.6%	9	6.3%	1	6.3%	**23**	**3.5%**
Supervision	236	47.6%	61	42.7%	9	56.3%	**306**	**46.7%**
Intensive supervision, day treatment, or residential placement	56	11.3%	32	22.4%	5	31.3%	**93**	**14.2%**
Commitment	85	17.1%	23	16.1%	0	0.0%	**108**	**16.5%**
Missing information	86	17.3%	13	9.1%	0	0.0%	**99**	**15.1%**
Highest Sanctions Assigned by Court								
None indicated	12	2.4%	8	5.6%	0	0.0%	**20**	**3.1%**
Warn and counsel, community service, restitution and/or fees	9	1.8%	3	2.1%	0	0.0%	**12**	**1.8%**
Supervision	256	51.6%	69	48.3%	0	0.0%	**325**	**49.6%**
Intensive supervision, day treatment, or residential placement	53	10.7%	21	14.7%	3	18.8%	**77**	**11.8%**
Commitment	79	15.9%	24	16.8%	0	0.0%	**103**	**15.7%**
Missing information	87	17.5%	18	12.6%	13	81.3%	**118**	**18.0%**

[10] While there is information about the sanctions recommended and assigned to adjudicated youth, the information may not be representative. Information was missing for 15.0% of the referred youth, and the number of commitments is very low. Commitments may take longer to process, which could mean that a number of them are missing from the sample (even with the follow up data collection effort in February).

Of adjudicated youth, 15.7% (103 of 655) were committed to the Division of Youth Services (DYS). Figures 11 and 12 show that the proportion of youth committed did not significantly differ by ethnicity nor gender.

Figure 11

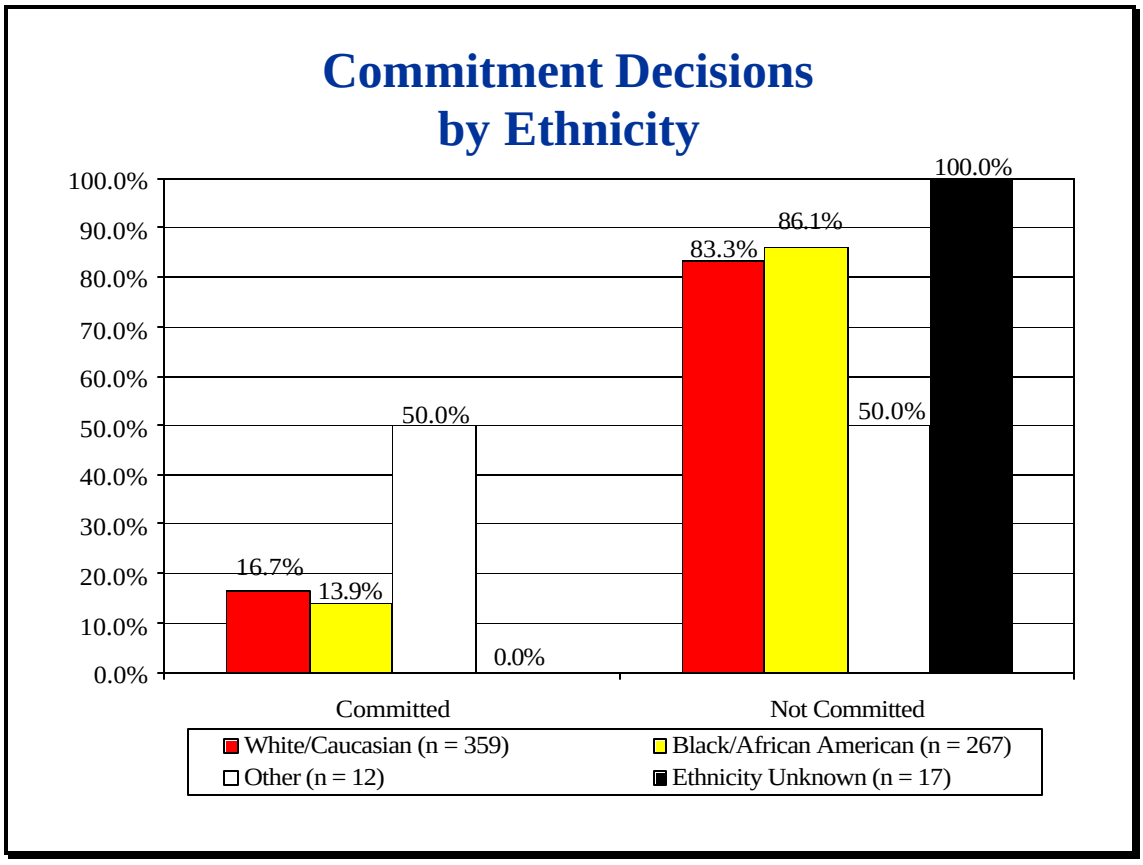
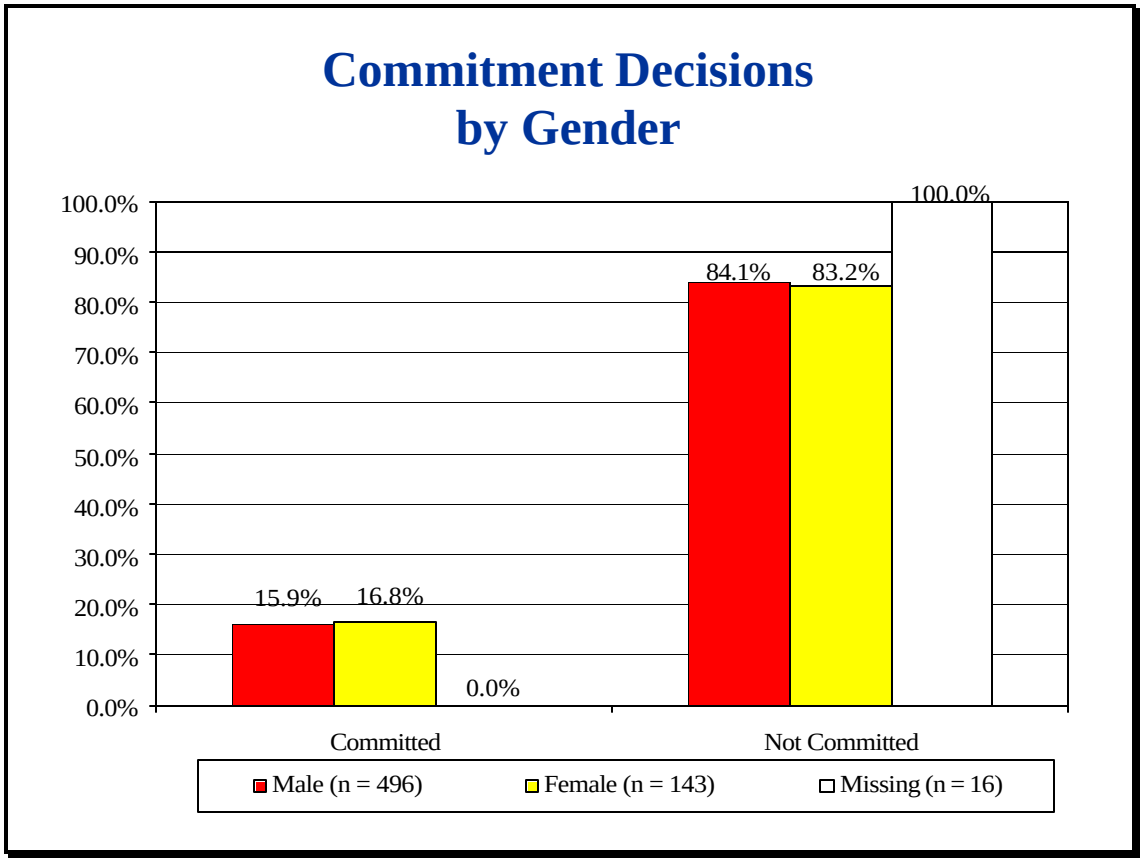


Figure 12



IV. SIGNIFICANT EFFECTS AT KEY DECISION POINTS

The previous examination of decisions made by youths' ethnicity and gender is a preliminary step. Observed differences, such as the acceptance rate of African American versus White youth, may be partially attributable to factors other than ethnicity such as differences in the nature of youths' current offense, history of delinquency, family characteristics, or treatment needs. For example, it is expected that referrals for felony offenses were more likely to be processed formally relative to referrals for misdemeanor offenses. It is also likely that more youth with a history of delinquency were processed formally compared to youth with no such history. If a greater proportion of African American than other youth were previously delinquent or referred for a felony offense, it may be that this difference in case characteristics results in

more African American youth formally processed in comparison to other referred youth. This type of situation is described as an indirect effect of ethnicity as opposed to a direct effect. In other words, while differences by ethnicity exist, the cause of the difference may be characteristics of the offense or youth other than ethnicity itself.

A multivariate analysis of each decision can help determine whether an observed difference in case processing is attributable to youth gender or ethnicity, or other case and referral characteristics.[11] The primary referral characteristics examined in the multivariate analyses were the number of law and status violations associated with the referral, and whether the youth was under the influence of substances at the time of the incident. Offense characteristics focused on the most serious referred charge, including the offense class, whether it is a property offense, a violent or person offense, or a felony. Additional information examined was a youth's delinquent history (number of prior referrals, whether there was a prior adjudication, prior petition filed as a result of a technical violation, prior mental health diagnosis or treatment), age, sex, and ethnicity.

Logistic regression was used to estimate the impact of youths' ethnicity or gender on each decision.[12] This method is used to model dichotomous outcomes, such as whether an event occurred. It also controls for other case characteristics that may be related to that decision. For example, males and females may have had different detention rates, but this may be the result of differences in the severity of their offense and/or whether they were under the influence of drugs or alcohol at the time of the incident. When all of the case characteristics are regressed on the detention decision, the influence of each independent characteristic is isolated by controlling for all of the other attributes.

[11] For example, a greater percentage of African American youth had a non-status offense, as well as an assault or weapons offense, compared to the White youth referred during the period.

[12] For other discussions and/or examples of logistic regression and other multivariate analyses, see Pope, Lovell, and Hsia, 2002; Disproportionate Minority Confinement Technical Assistance Manual, 2000; Analysis of Juvenile Disproportionate Minority Confinement in Georgia, 2001; Wu, Cernkovich, and Dunn, 1997; Bishop and Frazier, 1996.

Not all referral and prior history observations were included in the regressions. In addition to youth ethnicity and gender, case characteristics highly correlated with the given decision were tested for inclusion in the regression, and those with significant coefficients or that improved the model fit were retained.

A. Intake Decisions

1. Detention

Table 7 shows the logistic regression findings when case characteristics were modeled to estimate the detention decision. The first column specifies the characteristic included, while the second column shows its estimated beta coefficient (ß)[13] and its significance.[14] The third column shows the estimated odds ratio and its confidence interval. The odds ratio is the exponent of the beta coefficient, and its confidence interval the exponent of ß plus or minus the standard error. The 95% confidence interval indicates the range of values between which the actual odds ratio is likely to be. In other words, we can be 95% confident that the true odds ratio falls between the estimated ratios given.

An odds ratio of one indicates that the presence of this characteristic does not have an impact on the odds of the estimated event occurring. An odds ratio of greater than one means greater than average odds, while less than one indicates reduced odds. The confidence interval provides useful information about the strength of the estimated odds. If the lower ratio of the confidence interval is below one and the higher ratio is above one, we cannot be sure if the characteristic referenced increases, decreases, or has no significant effect on the outcome within the given model. If, however, the lowest value of the confidence interval is well above one, we

[13] Logistic regression models the logarithm of the odds of success for variables or outcomes with two choices (for example, yes or no). The equation is $\log(p/1-p) = ß_0 + ß_1x$, where p is the proportion of success and x is the explanatory variable. The beta coefficient (ß) is the value that is multiplied by the variable value.

[14] Significance is at the .05 level and is based on the Wald statistic.

can be 95% sure that the characteristic significantly increases the odds of the outcome occurring, given this estimation of the outcome.

For example, in the estimate for detention, the number of law violations associated with the referral has an estimated odds ratio of 1.07 which is insignificant. Although its confidence interval is above one, the lowest and highest estimated ratios (0.98 – 1.17) are very close to one. This indicates that the number of associated law charges has no impact on the estimated likelihood of being detained. In comparison, having a prior adjudication has an estimated odds ratio of 2.19. In other words, having a prior adjudication significantly increases the odds of being detained. The confidence interval for this estimated ratio indicates that we can be 95% sure that the actual odds ratio for having a prior adjudication falls within 1.70 and 2.82.

The case characteristics with the greatest odds of resulting in detention were referral characteristics and youths' prior delinquent history. The highest odds ratio was estimated for youth referred for a felony offense (3.29). Being under the influence of substances at the time of the incident had the second highest odds ratio (3.10) for the detention decision. Youth meeting these conditions are more likely to be detained compared to other youth. After controlling for the prior history and referral descriptors listed in Table 7, whether the youth is male or African American does not appear to impact the detention decision.

Table 7
Logistic Regression Results for Detention Decision

Case Characteristics	B	Odds Ratio (confidence interval)
Under the influence of drug or alcohol	*1.132	3.10 (2.31 – 4.17)
Violent and/or person offense	*0.382	1.47 (1.16 – 1.85)
# of associated law violations	0.067	1.07 (0.98 – 1.17)
# of associated status violations	*0.322	1.38 (1.22 – 1.57)
Most serious referred charge is a felony	*1.191	3.29 (2.64 – 4.11)
# of prior referrals	*0.073	1.08 (1.04 – 1.11)
Prior adjudication (yes/no)	*0.783	2.19 (1.70 – 2.82)
Youth age	*0.098	1.10 (1.04 – 1.17)
Youth is male	0.134	1.14 (0.93 – 1.41)
Youth is Black/African American	0.017	1.02 (0.83 – 1.24)
Constant	-4.308	
Chi Square (.df)		423.278 (10)
-2 Log Likelihood		3,005.185
% Classified Correct		86.1%
Total Cases		4,265

While ethnicity does not appear to be directly related to detention decisions statewide overall, this is not true for areas of the state. Reviewing detention rates by region showed a significant difference in rates (8.8% for urban and 16.9% for rural locations). When the detention decision was estimated separately within these two groups, African American youth referred in urban areas had a significant odds ratio greater than one. Among referrals from rural locations, African American youth also had an odds ratio significantly greater than one.[15] This suggests that after controlling for incident location as well as the influence of other case characteristics, African American youth had significantly greater odds of being detained.

[15] The significance of characteristics and their odds ratios differed for the two estimations. This suggests that the impact of referral and case characteristics differed for urban compared to rural referrals. When the detention decision was estimated for the entire sample, the differences in the detention decision between urban and rural referrals may have outweighed differences between African American and other youth. To test this theory, rurality was added as a characteristic in the estimate for the entire sample. When rurality is included in the estimate of the detention decision, having occurred in a rural area was the second most significant factor with an odds ratio of 3.02 (and a confidence interval of 2.37 – 3.84). In this estimate, being African American also significantly increased the odds of being detained.

2. Referral Acceptance

Several referral characteristics included in the referral acceptance regression model proved significant. Under the influence of drug or alcohol has the greatest estimated odds ratio, indicating that referrals of youth under the influence are most likely to be accepted. A high number of law violations charged in the referral is also more likely to result in referral acceptance.

Several characteristics increased the likelihood that a referral would be rejected. After controlling for a youth's prior history, age, ethnicity, sex, and other referral characteristics, referrals for violent or person offenses and referrals with a high number of status violations were less likely to be accepted. Referrals of males and African American youth were also significantly less likely to be accepted after controlling for referral characteristics and a youth's delinquency history.

Table 8
Logistic Regression Results for Referral Acceptance Decision

Case Characteristics	B	Odds Ratio (confidence interval)
Under the influence of drug or alcohol	*0.911	2.49 (1.65 – 3.76)
Referred for a violent or person offense	*-0.219	0.81 (0.68 – 0.97)
# of associated law violations	*0.079	1.08 (1.00 – 1.17)
# of associated status violations	*-0.184	0.83 (0.75 – 0.92)
# of prior referrals	*0.042	1.04 (1.02 – 1.07)
Youth age	-0.038	0.96 (0.92 – 1.02)
Youth is male	*-0.354	0.70 (0.60 – 0.82)
Youth is Black/African American	*-1.151	0.32 (0.27 – 0.37)
Constant	2.363	
Chi Square (.df)		358.936 (8)
-2 Log Likelihood		4,419.197
% Classified Correct		75.8%
Total Cases		4,284

As was observed for the detention decision, there are rural and urban differences in the case characteristics related to referral acceptance. In rural areas, the odds ratio for males was not significantly different from one, which suggests that youth gender did not impact the decision to accept a referral. Among urban referrals, the odds ratio for males was significantly less than one. In rural and urban locations, referrals of African American youth had significantly lower odds of being accepted.[16]

B. Case Processing Decisions

1. Informal Versus Formal Processing

As with previous decisions, Table 9 shows that referral and prior history characteristics were estimated to have the greatest impact on the decision to file a petition.[17] Felony offense referrals and prior petition for a technical violation have the greatest odds ratios, indicating that they are the primary case characteristics influencing the decision to process a case formally by filing a petition with the court.

The odds of formal processing were also significantly greater for referrals of male and African American youth (1.52 and 1.51 respectively). These ratios, however, are much lower than those of referral and prior history characteristics.[18]

[16] Among referrals from rural locations, all other estimates were similar to those found in the estimate for the overall sample. Among urban referrals, the number of associated law violations had the greatest odds ratio. See Appendix A, Table A4.

[17] Formal means that a petition was filed at some point during the process. Informal includes referrals with a disposition of informal no conference, and informal with or without supervision.

[18] There were only minor differences in estimates generated for urban and rural locations. The odds were similar for African Americans and males in both areas, although the odds ratio for urban males was not significant.

Table 9
Logistic Regression Results for Formal Processing Decision

Case Characteristics	B	Odds Ratio (confidence interval)
Under the influence of drug or alcohol	*1.041	2.83 (1.93 – 4.15)
# of associated law violations	*0.277	1.32 (1.16 – 1.50)
Most serious referred charge is a felony	*2.153	8.61 (6.37 – 11.65)
Number of prior referrals	*.073	1.08 (1.03 – 1.12)
Prior adjudication (yes/no)	*1.764	5.83 (4.23 – 8.05)
Prior petition for a technical violation	*2.230	9.30 (5.52 – 15.66)
Prior mental health diagnosis or treatment	*0.388	1.47 (1.09 – 2.00)
Youth is male	*0.417	1.52 (1.14 – 2.02)
Youth is Black/African American	*0.412	1.51 (1.15 – 1.98)
Constant	-3.546	
Chi Square (.df)		849.106 (9)
-2 Log Likelihood		1,722.285
% Classified Correct		87.1%
Total Cases		2,654

2. Supervision of Informal Cases

Based on the results of a conference with the family and case characteristics, juvenile officers may assign youth with an informal case disposition to supervision by an officer, or informally adjust the referral without imposing supervision. Columns two and four of Table 10 show the results when previously mentioned case characteristics were used to estimate the decision to supervise an informal case. The findings indicate that referral characteristics such as being referred for a felony offense or having used substances at the time of the incident have the highest estimated odds ratios (i.e. the greatest impact) on an officer's decision to supervise an informal case.

Male youth do not have a significant odds ratio in this estimate. This suggests that males and females, when their referrals were handled informally, are just as likely to be supervised. The odds ratio for African American youth was also insignificant.

Conducting an informal conference or filing a petition likely required assessment beyond the youth's delinquent history and referral characteristics. Some circuits completed a risk and needs assessment of youth processed informally. A separate regression model was estimated for referred youth with an informal disposition and for whom risk information was available[19] (1,692 youth of the 2,908 youth processed informally; see columns 4 and 5). This sample of youth, while it differs from that used to develop the previously reviewed model, provided information about other case characteristics that may be influencing the supervision decision among informal cases.

The second set of columns in table 10 reviews the estimated regression for the youth with a conference and risk information available. Of the risk factors present on the Missouri state risk assessment, problematic use of substances and ineffective parent management style significantly increased the odds that a youth would be supervised when processed informally. When controlling for these characteristics as well as those in the previous model of this decision, the odds ratios for referral characteristics and prior delinquent history were lowered. The odds ratios for African American youth and males remained insignificant.[20]

[19] As mentioned previously, youth with an informal disposition includes the dispositions of informal no conference, and informal with or without supervision. Risk and needs information were combined from the state risk and needs assessment or equivalent assessments.

[20] Estimates for the informal supervision decisions did not differ by incident location. It is important to note that sampled referrals handled informally in urban areas were infrequent (14.9% of 905 referrals) relative to those in rural areas (27.9% of 1,994).

Table 10
Logistic Regression Results for Informal Supervision Decision

	Case Characteristics Only		Risk Factors Included	
Case Characteristics	**B**	**Odds Ratio (confidence interval)**	**B**	**Odds Ratio (confidence interval)**
Under the influence of drug or alcohol	*0.768	2.16 (1.56 – 2.97)		
Most serious charge is a property offense	*0.306	1.36 (1.11 – 1.67)	*0.317	1.37 (1.08 – 1.75)
Most serious referred charge is a felony	*0.017	2.76 (1.99 – 3.84)	*0.961	2.61 (1.81 – 3.77)
Number of prior referrals	*0.107	1.12 (1.07 – 1.16)	*0.075	1.08 (1.03 – 1.13)
Prior adjudication (yes/no)	0.311	1.36 (0.96 – 1.94)		
Youth is male	0.025	1.02 (0.84 – 1.24)	-0.021	0.98 (0.78 – 1.22)
Youth is Black/African American	-0.184	0.83 (0.67 – 1.03)	0.211	1.24 (0.95 – 1.61)
Problematic substance use			*0.904	2.47 (1.91 – 3.19)
Caretaker management style is ineffective			*0.436	1.55 (1.24 – 1.92)
Constant	-1.617		-1.401	
Chi Square (.df)		121.299 (7)		135.222 (7)
-2 Log Likelihood		2,783.217		2,066.431
% Classified Correct		77.0%		68.6%
Total Cases		2,681		1,692

3. Formally Processed Cases

The last decision modeled was whether or not adjudicated youth were committed.[21] Among the sampled youth, 655 were adjudicated and 103 were committed. This sample is much smaller than that used to model earlier decisions, but still produced significant relationships between youth and referral characteristics and the commitment decision.

When the commitment decision was estimated using the primary case characteristics available for all sampled youth, a prior mental health diagnosis or treatment had the greatest odds ratio (2.67) and thus estimated to have the strongest influence on the commitment decision (see

[21] As mentioned previously, it is possible that the sample of committed youth is slightly different than the population of committed youth. An unknown percentage of referrals petitioned during the sampled period may not have reached disposition by the end of the data collection period. Data was received at least 5 months after the sample period, so it is reasonable to assume that this percentage is small.

Table 11, columns 2 and 3). Males and African American youth were not significantly more or less likely to be committed.

As with the previous decision regarding supervision of informal cases, additional youth and family characteristics from risk and needs assessments were assessed for inclusion in the estimate.[22] The revised estimate shows that poor adjustment to school or work, problematic substance use and prior out of home placement significantly increased the odds of being committed (see columns 4 and 5 of Table 11). Youth referred for a felony offense were most likely to be committed in this estimate. The odds ratios for male and African American youth remained insignificant.[23]

Table 11
Logistic Regression Results for Commitment Decision

	Case Characteristics Only		Risk Factors Included	
Case Characteristics	**B**	**Odds Ratio (confidence interval)**	**B**	**Odds Ratio (confidence interval)**
Most serious referred charge is a felony	*0.771	2.16 (1.28 – 3.67)	*1.017	2.77 (1.56 – 4.89)
# of prior referrals	*0.100	1.11 (1.03 – 1.18)	*0.088	1.09 (1.02 – 1.17)
Prior felony (yes/no)	0.229	1.26 (0.94 – 1.68)		
Prior petition for a technical violation	*0.588	1.80 (1.01 – 3.21)	*0.813	2.25 (1.22 – 4.16)
Prior mental health diagnosis or treatment	*0.983	2.67 (1.61 – 4.44)	*0.883	2.42 (1.38 – 4.23)
Youth is male	-0.244	0.78 (0.44 – 1.40)	-0.127	0.88 (0.47 – 1.64)
Youth is Black/African American	-0.146	0.86 (0.50 – 1.48)	0.075	1.08 (0.58 – 2.00)
Youth adjustment to school/employment			*0.847	2.33 (1.36 – 4.01)
Problematic substance use			*0.638	1.89 (1.09 – 3.28)
Prior out-of-home placement			*0.572	1.77 (1.03 – 3.06)
Constant	-2.586		-3.490	
Chi Square (.df)		53.957 (7)		77.301(9)
-2 Log Likelihood		425.141		362.158
% Classified Correct		81.6%		81.9%
Total Cases		490		432

[22] Risk information was available for 432 of the 655 adjudicated youth.

[23] Urban versus rural location was not significant when tested for inclusion in the estimates, nor were any interactions.

V. SUMMARY

This research examined the representation of youth at key decision points in the juvenile justice process. The decisions reviewed were detention, referral acceptance, filing of a petition, whether an informal case is supervised by an officer, and youth commitment. Youth representation at these decision points was assessed in two ways. The first was a simple comparison of the proportion of youth subgroups, to determine when decisions differed for youth by gender and ethnicity. The second was logistic regression modeling of each decision, to determine the impact of ethnicity and gender after controlling for relevant case characteristics. Based on this sample of youth referred to participating circuits, it appears that the representation of youth by gender and ethnicity differed at some decision points.

While the focus was on the gender and ethnicity of youth, other case characteristics known to be important in case decision-making were included in the analysis. For each decision reviewed, characteristics of the sampled referral and youths' delinquent history had a much greater influence on case process decisions than did the ethnicity or gender of the youth.

A greater proportion of referred males were detained as well as petitioned. After controlling for other case characteristics, however, being male was not significant to the detention decision. Although males were more likely to be detained and petitioned, referrals of male youth were significantly less likely to have the referral accepted for investigation. Case processing decisions such as informal supervision and commitment were similar for males and females.

African American youth were under-represented at referral acceptance, but over-represented at two other decision points. Statewide, ethnicity was insignificant to the likelihood of detention. When evaluated separately, however, referred African American youth were more likely to be detained in urban areas and in rural areas. Although White youth were more likely to have a referral accepted, African American youth were more likely to be formally processed

(petitioned). Among cases disposed of informally, African American youth were no more or less likely to be supervised than were White youth. At formal disposition, youth ethnicity did not appear to have a significant influence in the commitment decision.

These findings indicate that representation by gender and ethnicity is significantly different at a few decision points. The sample employed here observed a large number of referrals from 38% of the court circuits that volunteered to participate. The proportion of sampled referrals involving African American males was greater in this sample than the average proportion observed statewide. A statewide referral study should disclose similar findings, but the magnitude of the differences observed may differ.

One limitation of this study is that it does not indicate why differences in youth representation were observed at some points in the referral process. Case level data do not disclose the case processing procedures or disposition resources available in the participating court circuits, nor the extent to which the policies of local courts, police, or prosecutors influence case processing decisions. Further qualitative investigation could help determine why overrepresentation by youth ethnicity or gender occurred and indicate approaches that may help reduce the disparity.

As a next step OSCA staff could survey the case processing policies and procedures of participating circuits. It may also be helpful to interview local supervisors and officers to determine what factors influence their case processing decisions. For example, detention rates differed dramatically between circuits. This may be a consequence of local police practices, limited alternatives to detention, or differences in existing detention screening policy. Surveying field staff may be the only way of identifying the local practice and policy issues that may result in overrepresentation. Interviewing attorneys, court advocates, and judges may also be informative since they also influence case disposition decisions.

Once there is a better understanding of the reasons for overrepresentation, the changes in practice necessary to address the issue will be easier to identify. For example, it is likely that a statewide detention screening assessment would increase the consistency of detention decisions. A detention screening assessment would identify the criteria for detainment for all court personnel, including attorneys and judges. Development of more alternatives to detention where pertinent would also impact the detention rate and may reduce overrepresentation. Structuring how informal cases are disposed of could be accomplished by using offense characteristics or information collected in a detention screening tool or the risk assessment to help determine whether a youth is warned and counseled, served as an informal case, or informally served and supervised.

A better understanding of the practices related to case disposition decisions would help determine the type and extent of changes that would most effectively reduce the observed differences in youth representation. Therefore, a survey of circuit court practices is the primary next step. OSCA staff may want to consider detention screening development as a second step.

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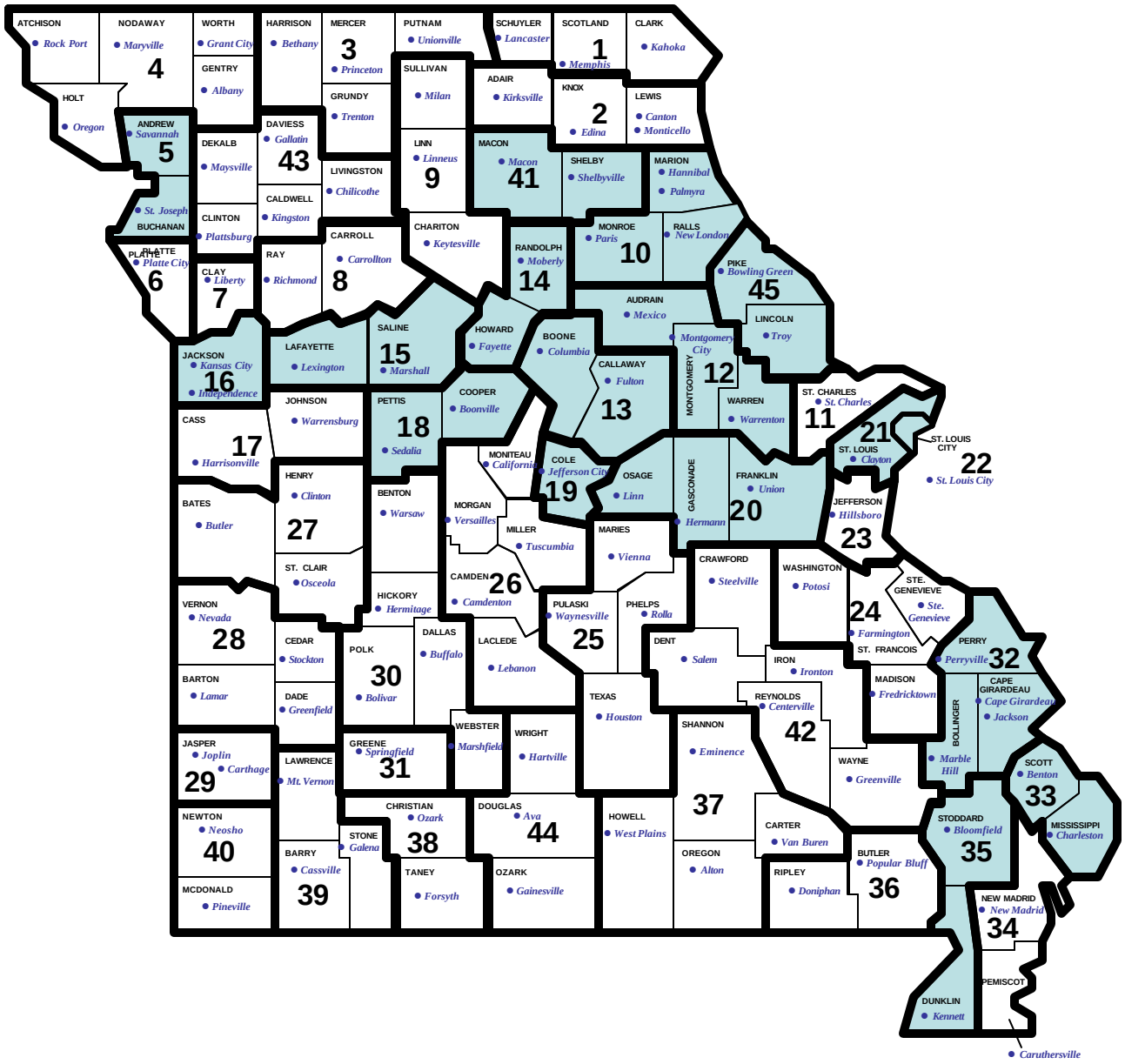
Appendix A

Decisions by Geographic Locations

Study Sites

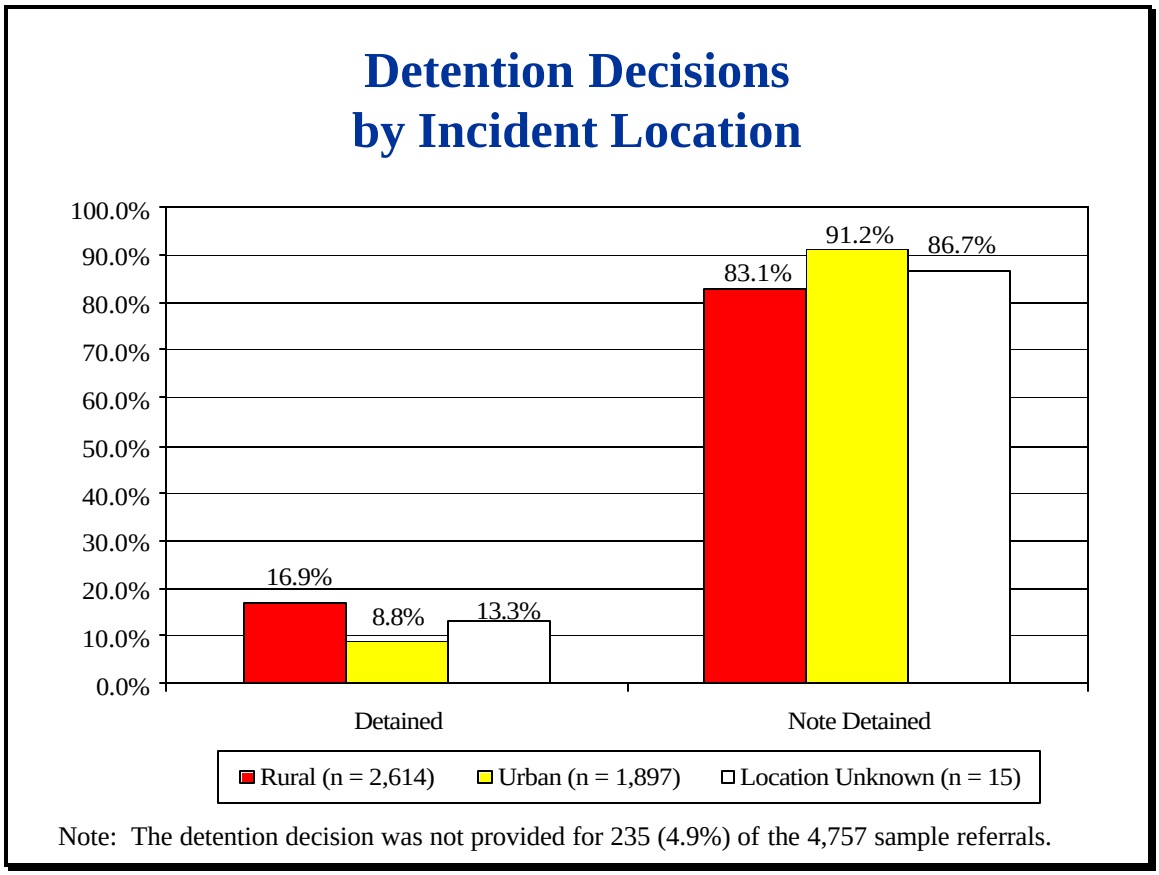
● *County Seat*



Youth Representation at Key Decision Points by Incident Location

Sampled youth from towns or rural areas had a detention rate nearly twice that of urban areas (16.9% compared to 8.8%; see Figure A1).

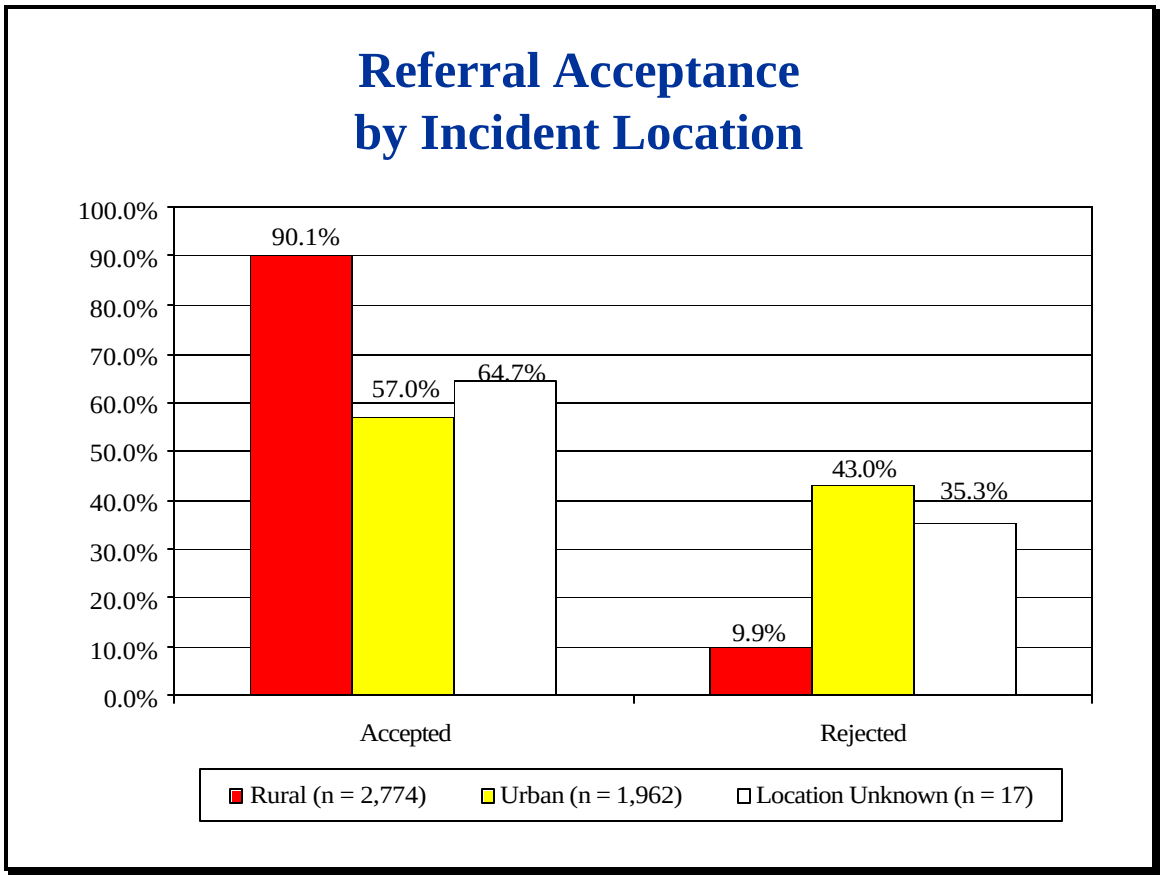
Figure A1



Note: The detention decision was not provided for 235 (4.9%) of the 4,757 sample referrals.

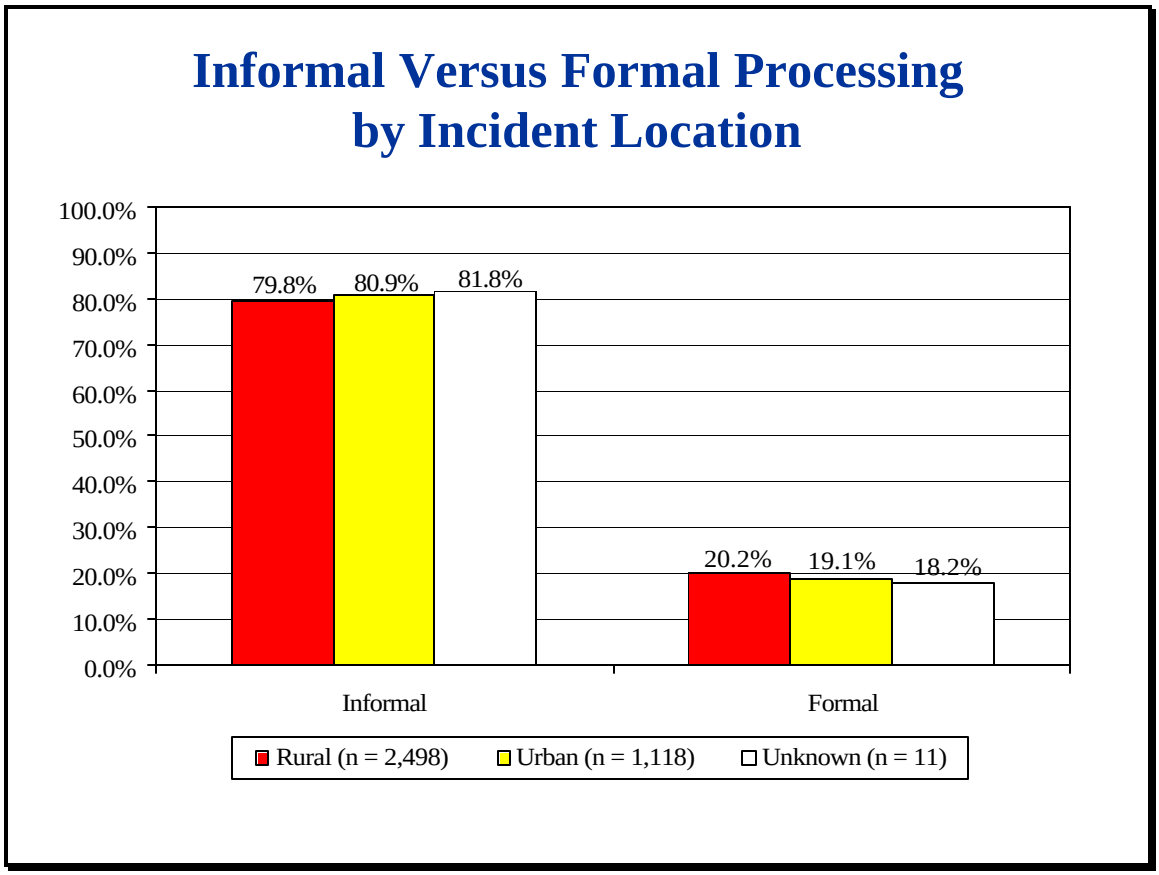
Rural courts accepted a greater proportion of referrals than did urban courts (see Figure A2).

Figure A2



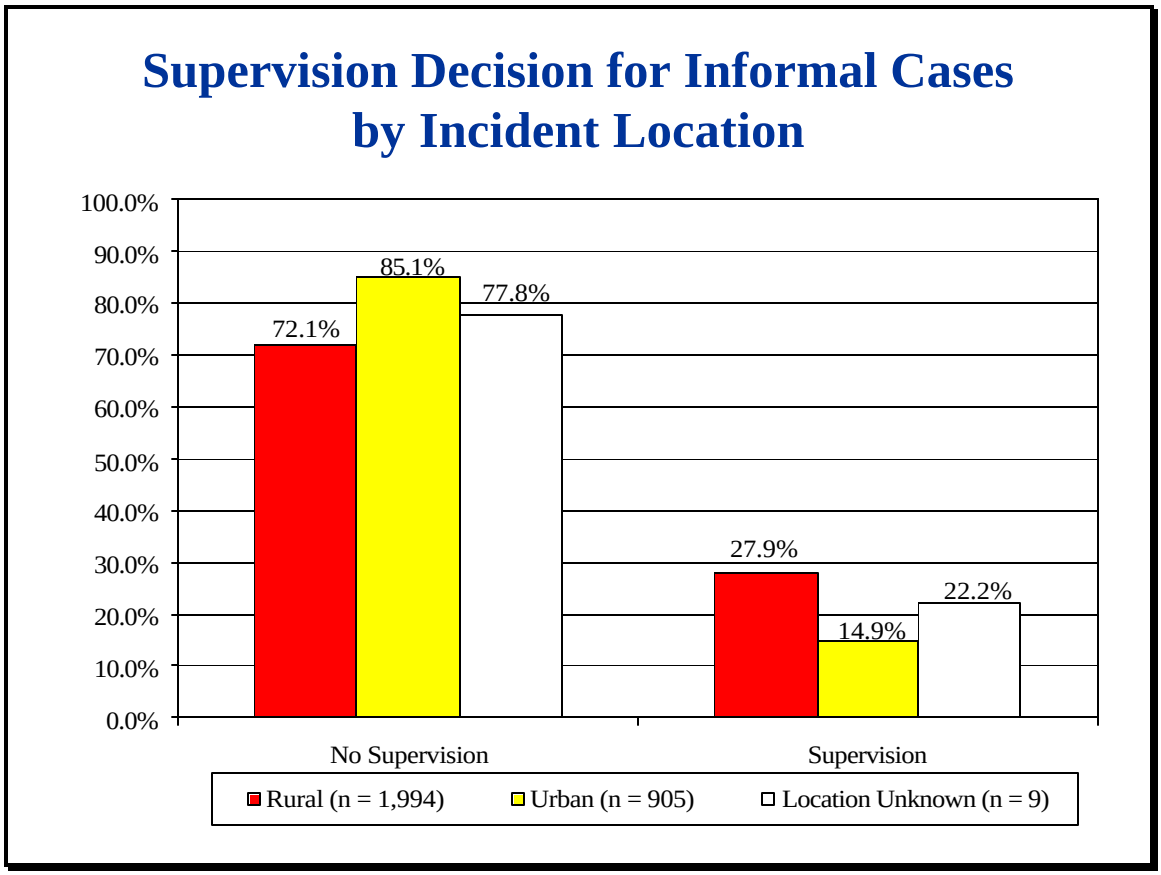
A similar proportion of referrals were processed formally, regardless of where the incident took place (see Figure A3).

Figure A3



The greatest difference is by geographic location; youth in rural areas or towns were much more likely to be supervised compared to urban youth (27.9% vs. 14.9%; see Figure A4).

Figure A4



Missing data rates are too high to draw any conclusions about conference requests (see Table A1).

Table A1

Officer Request for an Informal Process

	Conference Requested		Not Requested		Unknown		Total	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Total	**2,017**	**55.6%**	**472**	**13.0%**	**1,138**	**31.4%**	**3,627**	**100.0%**
Incident Location								
Rural town	1,746	69.9%	343	13.7%	409	16.4%	2,498	**100.0%**
City and fringe	267	23.9%	126	11.3%	725	64.8%	1,118	**100.0%**
Unknown	4	36.4%	3	27.3%	4	36.4%	11	**100.0%**

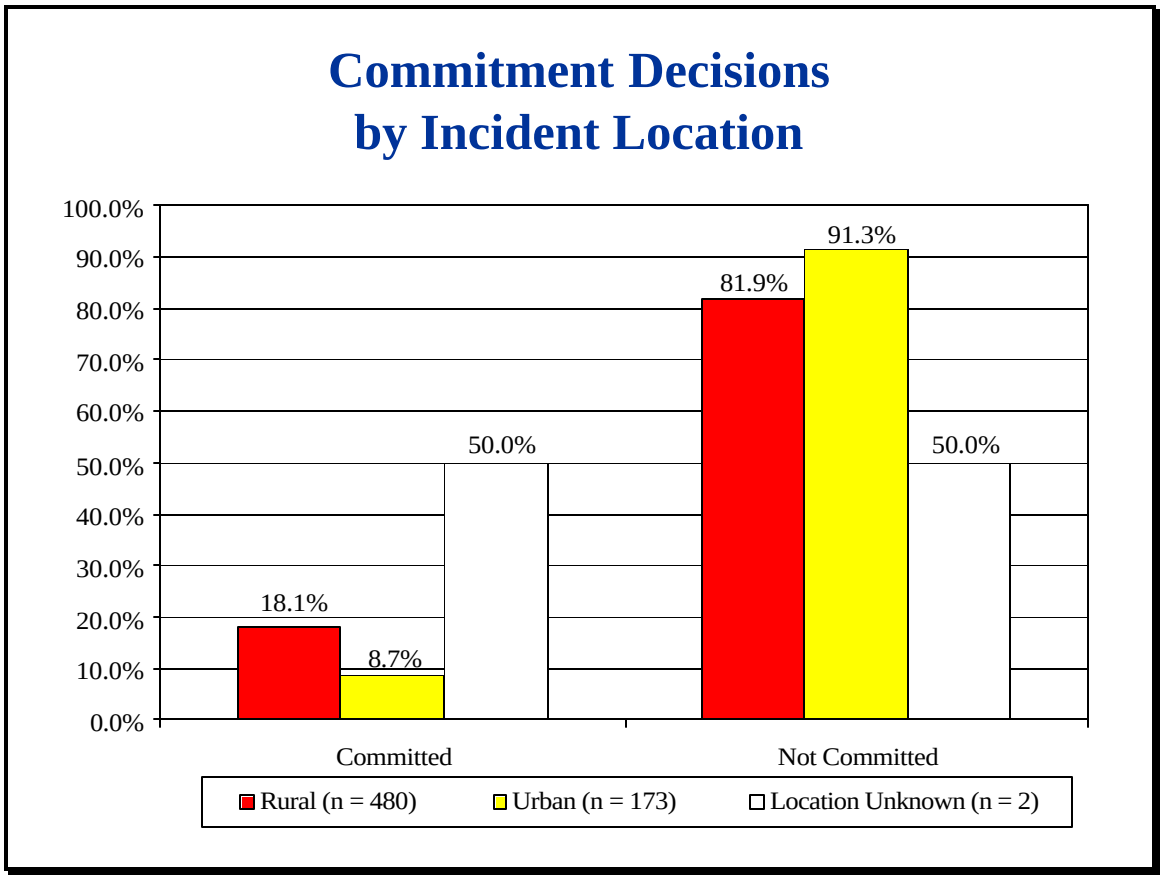
Table A2

Family/Youth Conference Participation

	Participated		Did Not Participate		Unknown		Total	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Total	**1,934**	**95.9%**	**42**	**2.1%**	**41**	**2.0%**	**2,017**	**100.0%**
Incident Location								
Rural town	1,672	95.8%	37	2.1%	37	2.1%	1,746	**100.0%**
City and fringe	259	97.0%	5	1.9%	3	1.1%	267	**100.0%**
Unknown	3	75.0%	0	0.0%	1	25.0%	4	**100.0%**

A greater proportion of referrals in rural locations resulted in commitment compared to those in urban areas (see Figure A5).

Figure A5



Logistic Regression Decision Models for Rural versus Urban Referrals

While ethnicity does not appear to be significantly related to detention decisions statewide overall, this is not true for areas of the state. Reviewing detention rates by region showed a significant difference in rates (8.8% for urban and 16.9% for rural locations). When the detention decision was estimated separately within these two groups, African American youth referred in urban areas had a significant odds ratio greater than one. Among referrals from rural locations, African American youth also had an odds ratio significantly greater than one.[24] This suggests that after controlling for the influence of other case characteristics, African American youth had significantly greater odds of being detained regardless of the location.

Table A3
Logistic Regression Results for the Detention Decision

	Rural Referrals		Urban Referrals	
Case Characteristics	**B**	**Odds Ratio (confidence interval)**	**B**	**Odds Ratio (confidence interval)**
Under the influence of drug or alcohol	*0.877	2.40 (1.75 – 3.30)	*1.324	3.76 (1.56 – 9.08)
Violent and/or person offense	*0.327	1.39 (1.03 – 1.87)	*0.534	1.70 (1.15 – 2.53)
# of associated law violations	*0.117	1.24 (1.02 – 1.24)	0.133	1.14 (0.94 – 1.39)
# of associated status violations	*0.217	1.24 (1.02 – 1.51)	*0.590	1.80 (1.47 – 2.21)
Most serious referred charge is a felony	*0.816	2.26 (1.67 – 3.06)	*1.797	6.03 (4.16 – 8.73)
# of prior referrals	*0.044	1.04 (1.01 – 1.08)	*0.127	1.14 (1.07 – 1.21)
Prior adjudication (yes/no)	*0.764	2.15 (1.60 – 2.88)	0.389	1.48 (0.86 – 2.53)
Youth age	*0.179	1.20 (1.11 – 1.28)	0.013	1.01 (0.91 – 1.13)
Youth is male	0.097	1.10 (0.86 – 1.41)	0.284	1.33 (0.85 – 2.08)
Youth is Black/African American	*0.406	1.50 (1.15 – 1.96)	*0.447	1.56 (1.02 – 2.41)
Constant	-5.035		-4.596	
Chi Square (.df)		244.491 (10)		230.260 (10)
-2 Log Likelihood		2,004.204		869.702
% Classified Correct		82.6%		91.2%
Total Cases		2,419		1,833

[24] For the same characteristics, odds ratios differed for the two estimations. This suggests that the impact of referral and case characteristics differed for urban compared to rural referrals.

As was observed for the detention decision, the significance of case characteristics related to referral acceptance slightly differed for urban compared to rural areas. In rural areas, the odds ratio for African Americans was not significantly different from one, which suggests that youth ethnicity did not impact the decision to accept a referral. In urban locations, referrals of African American youth had significantly lower odds of being accepted. For both types of referrals, the odds ratio for males was significantly less than one.

Table A4
Logistic Regression Results for the Referral Acceptance Decision

	Rural Referrals		Urban Referrals	
Case Characteristics	**B**	**Odds Ratio (confidence interval)**	**B**	**Odds Ratio (confidence interval)**
Under the influence of drug or alcohol	*0.982	2.67 (1.38 – 5.17)	0.005	1.05 (0.54 – 1.85)
Referred for a violent or person offense	*-0.302	0.74 (0.53 – 1.04)	-0.097	0.91 (0.72 – 1.15)
# of associated law violations	0.015	1.02 (0.88 – 1.17)	*0.310	1.36 (1.16 – 1.60)
# of associated status violations	*0.497	1.64 (1.19 – 2.26)	-0.113	0.89 (0.76 – 0.05)
# of prior referrals	*0.061	0.94 (0.90 – 0.98)	0.023	1.02 (0.99 – 1.06)
Youth age	0.027	1.03 (0.96 – 1.10)	0.048	1.05 (0.99 – 1.11)
Youth is male	*-0.363	0.70 (0.51 – 0.99)	*-0.377	0.69 (0.56 – 0.84)
Youth is Black/African American	-0.027	1.03 (0.74 – 1.43)	*-0.645	0.52 (0.43 – 0.64)
Constant	2.089		-0.001	
Chi Square (.df)		45.350 (8)		109.467 (8)
-2 Log Likelihood		1,513.70		2.409.604
% Classified Correct		89.6%		60.0%
Total Cases		2,436		1,835

Referral and prior history characteristics were estimated to have the greatest impact on the decision to file a petition.[25] For the entire sample, the odds of formal processing were significantly greater for referrals of males and African American youth. These ratios, however, were much lower than those of referral and prior history characteristics. There were only minor differences in estimates generated for urban and rural locations. The odds were similar for African Americans and males in both areas, although the odds ratio for urban males was not significant.

Table A5
Logistic Regression Results for the Formal Processing Decision

	Rural Referrals		Urban Referrals	
Case Characteristics	**B**	**Odds Ratio (confidence interval)**	**B**	**Odds Ratio (confidence interval)**
Under the influence of drug or alcohol	*0.933	2.54 (1.69 – 3.82)	*1.359	3.89 (1.20 – 12.66)
# of associated law violations	*0.545	1.72 (1.44 – 2.06)	-0.119	0.89 (0.67 – 1.17)
Most serious referred charge is a felony	*1.790	5.99 (4.16 – 8.63)	*2.951	19.12 (10.18 – 35.91)
Number of prior referrals	0.011	1.01 (0.96 – 1.06)	*0.300	1.35 (1.22 – 1.50)
Prior adjudication (yes/no)	*1.800	6.05 (4.21 – 8.68)	*1.470	4.35 (1.94 – 9.76)
Prior petition for a technical violation	*2.407	11.11 (6.26 – 19.69)	1.027	2.79 (0.79 – 9.87)
Prior mental health diagnosis or treatment	*0.428	1.53 (1.09 – 2.15)	0.157	1.17 (0.54 – 2.54)
Youth is male	*0.505	1.66 (1.20 – 2.30)	0.126	1.13 (0.59 – 2.17)
Youth is Black/African American	*0.476	1.61 (1.15 – 2.25)	*0.728	2.07 (1.15 – 3.72)
Constant	-3.466		-4.156	
Chi Square (.df)		624.841 (9)		264.606 (9)
-2 Log Likelihood		1282.423		364.277
% Classified Correct		85.7%		90.5%
Total Cases		1,837		811

[25] Formal means that a petition was filed at some point during the process. Informal includes referrals with a disposition of informal no conference, and informal with or without supervision.

Estimates for the informal supervision decisions differed only slightly by incident location. When the decision was estimated separately for urban and rural areas, African American youth and males in urban and rural areas had an insignificant odds ratio. This indicates that ethnicity and race had little direct impact on the supervision decision. It is important to note that sampled referrals handled informally in urban areas were infrequent (14.9% of 905 referrals) relative to those in rural areas (27.9% of 1,994).

Table A6
Logistic Regression Results for the Informal Supervision Decision

	Rural Referrals		Urban Referrals	
Case Characteristics	**B**	**Odds Ratio (confidence interval)**	**B**	**Odds Ratio (confidence interval)**
Most serious charge is a property offense	*0.295	1.34 (1.04 – 1.73)	-0.793	2.21 (0.85 – 5.77)
Most serious referred charge is a felony	*1.066	2.90 (1.99 – 4.24)	-1.825	0.16 (0.01 – 2.14)
Number of prior referrals	*0.075	1.08 (1.03 – 1.13)	0.210	1.23 (0.98 – 1.55)
Youth is male	0.023	1.02 (0.81 – 1.29)	-0.745	0.48 (0.20 – 1.15)
Youth is Black/African American	0.051	1.05 (0.79 – 1.41)	0.192	1.21 (0.49 – 2.98)
Problematic substance use	*0.890	2.44 (1.87 – 3.18)	*1.245	3.47 (1.09 – 11.11)
Caretaker management style is ineffective	*0.362	1.44 (1.14 – 1.80)	*1.266	3.55 (1.36 – 9.22)
Constant	-1.403		-1.197	
Chi Square (.df)		124.917 (7)		27.212 (7)
-2 Log Likelihood		1,898.622		136.235
% Classified Correct		69.0%		69.5%
Total Cases		1,570		118

A model for the commitment decision is shown below, but no conclusions can be drawn from the comparison. No variables in the logistic model for urban referrals were significant, which makes it difficult to compare coefficients. This is likely the result of a low number of referrals eligible for the analysis; regression data were available for 50 of the urban referrals. For example, among urban youth referred that had a prior petition for a technical violation, the odds ratio is zero because none of these youth were committed.

Table A7
Logistic Regression Results for the Commitment Decision

	Rural Referrals		Urban Referrals	
Case Characteristics	**B**	**Odds Ratio (confidence interval)**	**B**	**Odds Ratio (confidence interval)**
Most serious referred charge is a felony	*1.041	2.83 (1.55 – 5.18)	3.30	27.10 (0.18 – 3983.90)
# of prior referrals	*0.105	1.11 (1.03 – 1.20)	0.200	1.22 (0.78 – 1.90)
Prior petition for a technical violation	*0.937	2.55 (1.33 – 4.89)	-21.218	0.00 (0.00 – .)
Prior mental health diagnosis or treatment	*0.731	2.08 (1.16 – 3.73)	0.705	2.02 (0.57 – 72.15)
Youth is male	-0.163	0.85 (0.44 – 1.65)	-0.395	0.67 (0.02 – 30.03)
Youth is Black/African American	0.312	1.37 (0.70 – 2.65)	-1.655	0.19 (0.01 – 6.82)
Youth adjustment to school/employment	*1.085	2.96 (1.67 – 5.24)	-0.486	0.62 (0.01 – 55.28)
Prior out of home placement	0.498	1.65 (0.92 – 2.93)	20.439	7.52E+08 (0.00 - .)
Problematic substance use	0.504	1.66 (0.92 – 2.97)	0.679	1.97 (0.28 – 138.73)
Constant	-3.494		-22.711	
Chi Square (.df)		75.651 (9)		18.017 (9)
-2 Log Likelihood		323.275		14.491
% Classified Correct		80.5%		96.0%
Total Cases		380		50