Bootstrapping: Is It More Likely to Occur with Youth Who Are of Color and/or from Low-Income Families?

Edward Cahoon Byrnes, Ph.D. Graduate School of Social Work University of Utah

Lynn C. Holley, Ph.D., A.C.S.W. School of Social Work College of Public Programs Arizona State University

Russell K. VanVleet, M.S.W. Leif Rundquist, L.C.S.W. Graduate School of Social Work University of Utah

John R. DeWitt, Ph.D. Utah Division of Youth Corrections

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Background

Findings from the "Minority Overrepresentation in the Utah Juvenile Justice System" study included that youth and staff involved in the system perceive that bootstrapping (the practice of adding charges in a single criminal episode) by law enforcement is more likely to occur with youth who are of color and who are from low income families. This study aimed to use arrest records (to determine the number of charges per episode), JIS data (to determine race, ethnicity and disposition of all charges) and social files (to explore data related to youth's socioeconomic status) to explore whether study participants' perceptions were accurate.

Project staff originally planned to obtain the arrest records of all youth arrested in Ogden, Utah for one calendar year. Ogden was selected as the study site because (1) A review of youth's social files made it impractical to select a statewide sample and (2) relative to other Utah cities, Ogden is racially diverse. Youth's arrest records—combined with JIS race data and social file data related to family socioeconomic status—would allow the research team to explore whether bootstrapping occurred with identifiable subsets of youth (e.g., youth of color; white youth from low-income families; youth of color from low-income families). Using arrest records from the police department would have the advantage of including all warrants (rather than only those that were forwarded to the court).

Obtaining access to arrest and JIS data

Bootstrapping is a phenomenon that is not widely understood and an attempt to study it met with some initial resistance. Efforts were first made to obtain records from the Ogden City Police Department but that department was reluctant to participate in the Study. Sheriff Brad Slader of the Weber County Sheriff's Office volunteered to assist in the data collection. However, after several attempts to find the data in the Sheriff's Office it was discovered that the arrest records were routinely forwarded either to the Court or the County Attorneys Office. It was also determined that even if the records had been available, the Sheriff's Office, since it only enforced the law within the County, not the City, would not be the best resource for the study. Mark DiCaria, Weber County Attorney, agreed to assist. Researchers then contacted his office but once again after reviewing what was available in their database were referred to the Juvenile Court. After determining that our best data source was the Juvenile Court it was necessary to gain clearance for the study from the Administrative Judge in that District. Russ Van Vleet then met with Judge Kent Bachman and Ray Wahl, State Juvenile Court Administrator, to review the intent of the study. Permission was granted to proceed. The entire process of locating the best data available for the study purposes covered approximately six months of the study time.

In June 2001, Tom Jensen, Deputy Juvenile Court Administrator for the Second District Juvenile Court agreed to provide the 2000 Ogden data from the JIS.

Developing and Piloting the Instrument

The JIS database was used to obtain data related to youth's race and incident/disposition histories. In addition, an instrument was developed to gather social file information related to youth's socioeconomic status and arrest report data. (See Attachment A). Desired information related to youth's socioeconomic status included family income, types of legal representation (public, private, or none) for each incident, youth's educational and employment statuses, and parents' educational attainment and employment status. Desired arrest record data included location of incidents and types of vehicles (if relevant) in which youth were riding.

Upon obtaining the JIS data (n = 2,899 youth) in November 2001, we selected a small stratified random sample of cases (n = 40). This sample included 5 youth each who were identified as White, Black, Spanish (Latino/a), American Indian (Native American), and Other; it also included 15 youth whose race was listed as "unknown" so we could determine if this information is available in youths' social files.

Working after hours and paid from study funds, court clerks gathered the 40 requested social files. Dr. Holley flew in from Tempe, Arizona (Dr. Holley had accepted a faculty position at Arizona State University and relocated to Tempe as this study began) and tested the pilot instrument with Mr. VanVleet and a research assistant on December 2, 2001 to learn whether all the desired data were available in the case files. This pilot test revealed that we were not able to locate all the required information (e.g., race of youth of "unknown" race sometimes was absent from social files, much of the socioeconomic information was not available, many social files did not include all the arrest warrants). We therefore requested that Court staff review the same youth files and complete the Youth Information Forms in order to (1) determine if someone more familiar with the files would be able to locate all the desired information and (2) assess inter-rater reliability.

Again working after hours and paid from study funds, court clerks gathered the same social files that were included in the initial pilot and filled out the Youth Information Forms. Because not all information obtained in these two separate reviews was consistent, we arranged for a third review to be conducted jointly with Court Staff and Research Staff. (Due to difficulties in arranging for court staff to work after hours during times when project staff also could be present, this review had to be delayed until April 2002.) This third review confirmed that some data that are required for this study apparently are not available. Specifically, we could not locate arrest warrants for many youth. In addition, of the 25 social files that were examined for information regarding family income, only 7 (28%) records included this information, and many records were missing other socioeconomic-related data (e.g., parental education, parental employment).

In addition, we also encountered some inconsistencies with the race data. These reviews of social files confirmed that all five youth listed as White in the database were White. Of the five youth whose race was listed as Latino/a ("Spanish") all social files

included this information. Among youth whose race was listed in the computer database as Black, however, only 4 of the 5 case records indicated that the youth were Black; no information about race could be located in the fifth social file. Of the five youth whose race was listed as "Indian" (Native American), three social files confirmed this race, while one social file indicated that the youth was actually White and Latino and the other youth was White. Among the five youth listed as "other," social files indicated that two youth are Latino; one is White and Latino; one is African American and Native American; and the race of the other youth is not mentioned in the file (i.e., "unknown"). Finally, of the 15 youth whose race was listed as "unknown," social files indicated that 6 are White, 1 is Black, 1 is Latino, and the races of 4 were not included in the social files. (The remaining 3 of these 15 social files were non available for review or had been destroyed.) In sum, and of importance for the following analysis, of the 20 youth listed as either white, Latino, Black, or Native American, the races of three (15%) apparently were inaccurate. It is important to note that our database file included data from the 2000 calendar year and while the files pulled for review by the researchers and court clerks identified some discrepancies in race identification, race was identified in the vast majority of the files as indicated in our quantitative review

Conclusion

As described above, some of the data that are required for this study—as originally designed—have proven to be unavailable at the current time. Due to these severe limitations in existing data, we offer the following analysis using a sampling of archival data from 1,053 cases out of 2,728 from Ogden, Utah who had clear racial data present in the Utah Juvenile Information System (JIS).

<u>Method</u>

In the absence of socioeconomic data, the research question addressed in this report is "Is there a difference in the number of charges that Minority versus White youth have filed against them from an episode of law enforcement contact?" The research question was answered using a sampling of archival data from the Utah Juvenile Information System (JIS). This methodological description will begin with an operational definition of terms used in the study, followed by a description of how data were collected and selected.

Operational Definitions

<u>Bootstrapping</u>: Bootstrapping is defined here as the presence of more than one charge being filed during an episode of law enforcement contact.

<u>Episode</u>: An episode is defined as a law enforcement contact occurring on a single date. Episodes may or may not involve a formal arrest or detention, and always involve a referral of the youth to Juvenile Court for charges.

<u>Charge</u>: A charge is defined as a referral to the Juvenile Court for an offense that is not a technical violation of probation or parole rules. A charge may include status offenses, those offenses that would not be criminalized for adults but are for minors. A charge may also include traffic offenses since such offenses are often the stimuli for law enforcement contacts.

Race: Race follows the nomenclature of the race element in the social field of the JIS PARMS definitions. This nomenclature includes African American, Asian American, Caucasian, Chicano, Latino, and Native American.

Minority Status: Minority status is defined as a youth whose race was definitively described in the JIS as either White or a member of a Minority group. The resulting variable identifies youth as being either White or Minority. Youth whose race was not definitively described in the JIS were excluded from this study.

<u>Gender:</u> Gender refers to a youth being either a male or female, based on JIS information.

Data Collection

Utah Juvenile Information System (JIS)

The JIS contains information in a set of three distinct files. Case files contain social information about each youth who comes into contact with the Juvenile Court for any reason. History files contain details about the nature of every contact that individual youth have with the Juvenile Court, including referrals for charges and the dates of those referrals. Placement files record every placement that a youth has within the juvenile justice system, and the dates of such placements. Each youth with data in the JIS has a unique identifier that is labeled his or her legal number. The present study used data from the case and history files and youth legal numbers.

The JIS was queried to specifically identify all referrals for charges made to the Juvenile Court during calendar year 2000 that came from the city of Ogden, Utah. Ogden was selected because there is a greater proportion of Minority youth residing there than are present overall in the State of Utah. As Figure 1 illustrates, there is a significantly greater proportion of Minority youth living in Ogden. This means that (a) there is a greater likelihood of identifying Minority youth in Ogden, and (b) all other things being equal, there is a greater likelihood of law enforcement contact with Minority youth in Ogden as well. The data support the purposive sampling of youth from Ogden to analyze potential bootstrapping of Minority youth.

Sampling

There were 7,423 referrals to the Juvenile Court for charges during calendar year 2000. These 7,423 referrals were made to the court on 2,899 individuals. Of these 2,899 individuals there was clear race data available for 2,825 (97.4%) of these individuals,

with race data not clearly reported for 74 (2.6%) individuals. There were 23 (0.8%) cases that had race coded as "Other," and these were removed from the sampling pool to enhance the clarity of how race was defined. Considering that race reporting was highly problematic in the past, the calendar year 2000 data represent an improvement that enables researchers to more reliably examine questions of race. Nevertheless, these authors caution the reader to bear in mind that, based on the small purposive sample (n = 40) used to check for the JIS race data reliability, it is possible that a small percentage of youth's races may be incorrectly categorized.

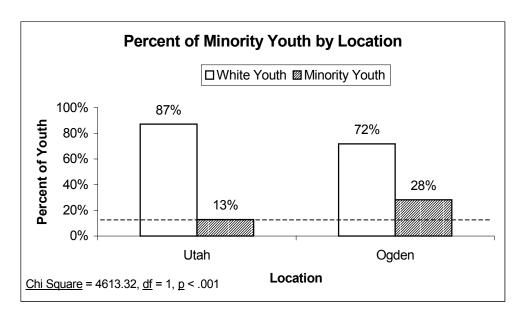


Figure 1. Percent of White and Minority youth by location.

The rationale for the approach to sampling is that this study seeks to analyze differential bootstrapping between White and Minority youth. This means that Minority youth must be adequately represented in this study to accurately answer the research question. Based on the purpose of the study and the need for Minority youth representativeness, a disproportionate stratified random sampling strategy (Kish, 1965) was applied to the group of 2,728 individuals who had clear racial data present. The number of cases needed to be statistically representative for each race, as identified in the JIS, was arrived at based on a 95% confidence interval and 5% margin of error. An additional strata of gender was applied to account for gender differences in arrest rates. The final sample of youth referred to the Juvenile Court in Ogden during calendar year 2000 was 1,053. Table 1 shows the results of the sampling method.

		Nun	Percent		
Race	Gender	In Population	Sampled	Sampled	
African	Male	69	54	78%	
American	Female	30	25	83%	
Asian	Male	14	14	100%	
American	Female	8	8	100%	
Caucasian	Male	1421	303	21%	
Caucasian	Female	584	227	39%	
Chicano or	Male	423	251	59%	
Latino	Female	187	148	79%	
Native	Male	15	15	100%	
American	Female	8	8	100%	
Tota	l Cases Sam	1053	39%		

Table 1. Results of disproportionate stratified random sampling strategy.

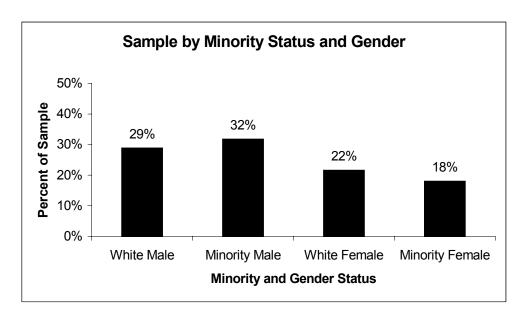


Figure 2. Minority status and gender for sample (N = 1,053).

Results

The results of this study will begin with a description of the participants, followed by a brief discussion about episodes of Juvenile Court referral. The results will conclude with an analysis of bootstrapping, specifically differential bootstrapping between White and Minority youth.

Participants

The average age of the participants was $15.4 \, (\underline{SD} = 1.97)$. The sample of 1,053 cases included 334 (32%) Minority males, 189 (18%) Minority females, 303 (29%) White males, and 227 (22%) White females. The distribution of participants by Minority status alone includes 523 (49.7%) Minority and 530 (50.3%) White youth. In addition to ensuring a representative sampling of Minority youth, this sample is sufficiently equivalent, in terms of Minority status, to allow for valid comparative analysis of differential bootstrapping (Keppel, 1991). Figure 2 displays the distribution of the sample by Minority status and gender.

Episodes

The rationale for examining differences in the number of episodes of Juvenile Court referrals follows the same rationale as examining bootstrapping. The difference between episodes and bootstrapping is that episode data describe the frequency with which Juvenile Court referrals are made, and bootstrapping data describe the number of charges that are reported for each Juvenile Court referral. The similarity is that both data can approximate characteristics of law enforcement contacts with youth, and differential treatment of youth by law enforcement officers.

Episodes and Minority Status

The youth in the sample had between one and eight episodes resulting in charges. The episode data were not particularly revealing in terms of central tendencies, but an examination of percentiles did indicate a difference between White and Minority youth. Percentiles refer to the percent of youth from the sample who have a given number of episodes. This means that percentiles should be interpreted as the percentage (20, 40, 60, 80, or 100) of youth who have that many or fewer episodes (or charges within episodes in the bootstrapping analysis). For example, if the 60th percentile of episodes for Minority youth is two, it means that 60% of Minority youth had two or fewer episodes, and that 40% of Minority youth had two or more episodes.

As Figure 3 illustrates, the race groups are exactly the same in episodes until they reach the 60th and 80th percentiles. At these higher percentiles the increasing number of episodes for Minority youth becomes apparent. The hypothesis that the greater number of episodes occurring with Minority youth was greater than would be expected by chance alone was tested using the Mann-Whitney U test, a nonparametric equivalent to the t-test for nominal X ordinal data sets (Pett, 1997), which revealed a statistically significant difference between White and Minority youth on their frequency of episodes referred to the Juvenile Court. This means that Minority youth are more likely to have episodes of Juvenile Court referral, and that random chance alone does not explain this disparity.

Although the differences between White and Minority youth may appear small, with differences of only one episode between the groups at the 60th and 80th percentiles, one should consider that these differences, when aggregated across a sample of over one

thousand youth, have practical significance in terms of how law enforcement and juvenile justice resources are applied.

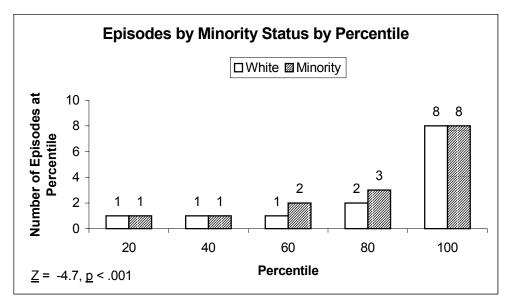


Figure 3. Episodes by Minority status by percentile.

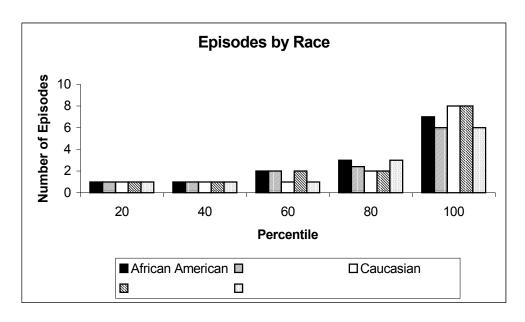


Figure 4. Episodes by race by percentile.

Episodes and Race

Figure 4 illustrates that there are variations among racial groups in the number of episodes of Juvenile Court referral that they have. As one can see, African American youth have a steady increase in the number of episodes that they experience between the 60th and 100th percentile. Although it does not appear until the 100th percentile, Latino youth also have a remarkable increase in their number of episodes of Juvenile Court referral. The hypothesis that there are variations between races in the number of Juvenile Court referral episodes was tested using a Kruskall-Wallis test, the nonparametric equivalent of Analysis of Variance (ANOVA), which is the appropriate hypothesis test for these data (Pett, 1997). The Kruskall-Wallis test was statistically significant. This means that there are differences between youth that are detectable based on race in the number of episodes of Juvenile Court referral.

To better understand where the truly significant racial differences occurred, a set of pairwise contrasts was used (Keppel, 1991). Specifically, the number of Juvenile Court referral episodes between White youth and their African American, Asian American, Latino, and Native American counterparts were individually tested. Since pairs were tested, a series of Mann-Whitney U tests were used. To account for the increased risk of a Type I statistical error that is inherent when using multiple hypothesis tests (Keppel, 1991), the alpha level for statistical significance was adjusted for the number of tests, resulting in an alpha level of .0125 (.05 / 4) for results to be considered statistically significant. Test results revealed that there were significant differences in the contrasts between White youth and their African American and Latino counterparts. It is worth noting that the differences between White youth and Asian American and Native American youth would not have been statistically significant even at the conventional .05 alpha level. The data show that African American and Latino youth are considerably more likely that White youth to have a higher number of episodes of Juvenile Court referral. Figures 5 and 6 display the differences in Juvenile Court referral episodes between White youth and African American and Latino youth, respectively.

Bootstrapping

Before proceeding with an analysis of the bootstrapping data it is informative to examine the percent of youth by their number of episodes. As one can see in Figure 7, the White and Minority youth exhibit differences in the percent who have one or two episodes, and the percent of youth having episodes converges beyond the third episode. Additionally, only 6% of White and 12% of Minority youth have four or more episodes, respectively. These data indicate that the most likely sources for finding racial differences are within the first three episodes, so the bootstrapping analysis will be conducted for the first three episodes.

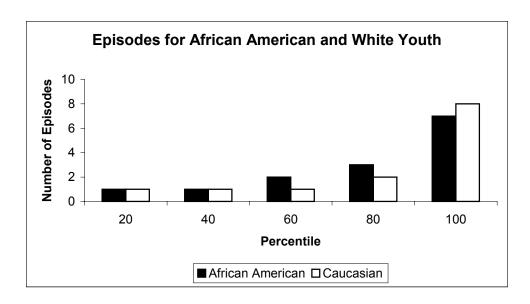


Figure 5. Episodes for African American and White youth by percentile.

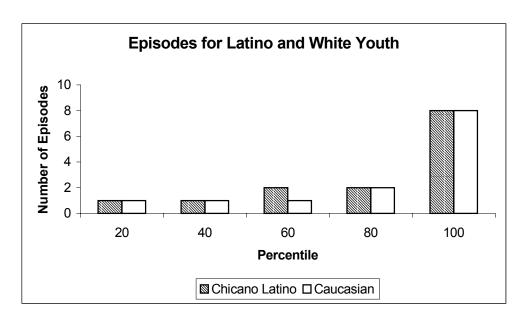


Figure 6. Episodes for Latino and White youth by percentile.

Table 2 displays the counts of youth by the number of episodes of Juvenile Court referrals that they had. There were 1,053 youth (530 White and 523 Minority) who had at least one episode of a Juvenile Court referral, 383 (157 White and 226 Minority) who had at least two episodes, and 180 (72 White and 108 Minority) who had at least three episodes. These cases were used in answering the bootstrapping question. There were only 91 youth, less than 9% of the sample, who had at least four episodes. Examining the data from table 2 and figure 7 one can see that the decreasing number of youth who had larger numbers of episodes would preclude inferential analyses on the basis of statistical power (Cohen, 1988). The risk of applying inferential analyses to these smaller numbers, is that with these sample sizes (at four or more episodes) the risk of erroneously finding no significant effect dramatically increases.

	Episode														
Number of	1			2		3		4			5				
Charges	White	Minority	Total N at Charge	White	Minority	Total N at Charge	White	Minority	Total N at Charge	White	Minority	Total N at Charge	White	Minority	Total N at Charge
1	384	390	774	113	167	280	51	85	136	22	45	67	9	19	28
2	87	70	157	31	40	71	14	12	26	7	7	14	5	6	11
3	32	37	69	6	10	16	3	6	9	1	4	5	2	1	3
4	18	14	32	6	7	13	4	5	9	0	1	1	0	0	0
5	4	8	12	0	2	2	0	0	0	1	3	4	0	1	1
6	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
7	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
8	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
9	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0
13	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
14	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0
20	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Total N at Epsiode	530	523	1053	157	226	383	72	108	180	31	60	91	16	27	43
* No youth within this episode had this number of charges.															

Table 2. Numbers of youth at episode counts by race.

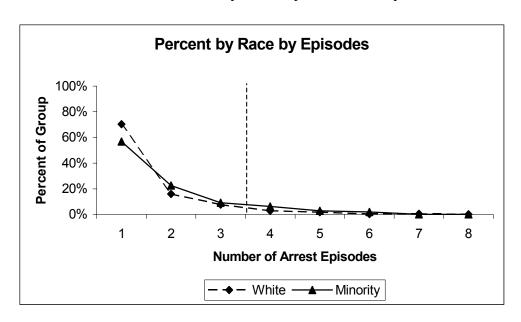


Figure 7. Percent of youth by episodes by Minority status.

As with the episode data, measures of central tendency do not reveal any appreciable information from the data. The percentile approach to describing these data, as was used with the episode analyses, is again appropriate here. As Figure 8 demonstrates, there were no differences based on Minority status during any of the first three episodes between the 20th and 80th percentiles. At the 100th percentile, which is the maximum number of charges per episode, an inconsistent pattern of charges per episode emerges. Specifically, one Minority youth had the greatest maximum number of charges for the first episode, one White youth had the greatest maximum number of charges for the second episode, and the maximum number of charges for the third episode was equal for both White and Minority youth [(4 and 5 youth, respectively)]. The hypothesis that there would be differences in charges between White and Minority youth, beyond what could be explained by chance, was tested using the Mann-Whitney U test, which was again the

appropriate statistical test given the nature of the data (Pett, 1997). Although the use of three hypothesis tests, one for each episode, would indicate the need to adjust the level of statistical significance downward to .017 (Keppel, 1991), the hypothesis tests failed to reach significance at even the .05 level. The data indicate that there are no statistically reliable bootstrapping effects evident based on Minority status.

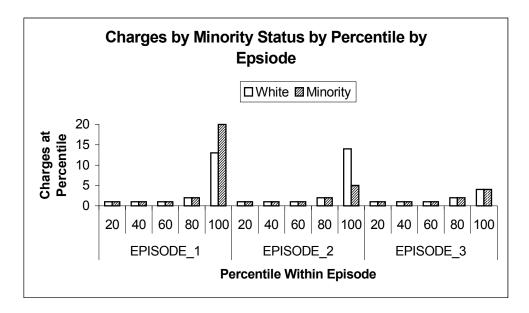


Figure 8. Charges by episode by percentile by Minority status.

Figures 9, 10, and 11 display the number of Juvenile Court referrals per episode by race for episodes one, two, and three, respectively. Data concerning the first episode reveal no apparent racial differences influencing the number of charges until the 100th percentile, where White and Latino youth had a remarkable increase in charges. During the second episode all racial groups had an increase in charges at the 100th percentile, with White youth being the most dramatic and Asian American youth having the smallest increment of increase in charges. During the third episode Asian American and Native American youth showed the greatest increase in charges at the 80th percentile, and the racial groups were equal at the 100th percentile. The data show an inconsistent pattern of charges per episode when racial groups are compared.

The hypothesis that there are variations between races in the number of charges per episode was tested using a series of three Kruskall-Wallis tests, one for each episode. Given that three episodes were tested, the statistical significance level was adjusted downward to .017 to account for the increased chance of a Type I statistical error. The Kruskall-Wallis tests revealed no statistically significant differences between the racial groups on the number of charges that they had at episodes one, two, and three. It is worth noting that there would have been no significant differences between the racial groups at the conventional .05 statistical significance level. Treating the Kruskall-Wallis test as an omnibus test of main effects, there was no rationale to proceed with pairwise

comparisons (Keppel, 1991). This means that when a more fine grain analysis was applied to the question of bootstrapping, no significant racial differences emerged.

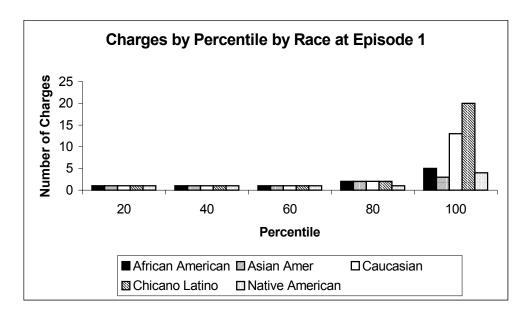


Figure 9. Number of Juvenile Court referrals for episode one by percentile by race.

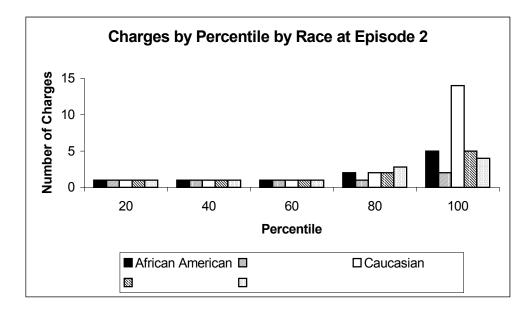


Figure 10. Number of Juvenile Court referrals for episode two by percentile by race.

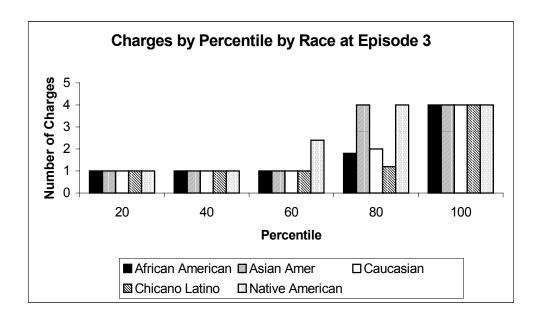


Figure 11. Number of Juvenile Court referrals for episode three by percentile by race.

Discussion

This discussion will briefly describe the methodological strengths and weaknesses of this study, followed by depicting the results. A broad methodological consideration for future research will be offered in conclusion. The results do not indicate any policy or practice recommendations in terms of bootstrapping, so none will be offered.

The methodological strengths of the study include sampling strategies, appropriate data description, and matching analyses with characteristics of the data. The purposive sampling strategy for selecting Ogden was useful for obtaining a sufficient pool of Minority youth. The sampling strategy ensured that the results could be appropriately generalized to Minority youth residing in Ogden who have been referred to Ogden Juvenile Court. Typical methods of presenting descriptive data, such as measures of central tendency, would have failed to illustrate the racial differences that conclusively did, and did not exist, as revealed by using percentiles and maximum charges within episodes. The data clearly failed to meet the assumptions of the usual parametric hypothesis tests. Although these statistical tests are more familiar to most readers, their use would have created an unacceptable risk of inaccurate findings, which may lead to erroneous conclusions. The use of appropriate hypothesis tests ensures that the results of this study are valid.

Although the sampling strategies of purposively sampling from a more racially diverse city and disproportionately sampling Minority youth were well justified given the research question, these strategies preclude generalizing the results to the State of Utah in its entirety. Another limitation is that referrals to Juvenile Court for charges only describe situations where law enforcement formally refers youth to the Juvenile Court, and should not be considered as an appropriate proxy variable for less formal policing

practices. Further, as described previously, the reliability of the race categorizations in the JIS needs to be considered. Because these data were not 100% reliable in the 40 cases sampled in the first stage of this study, analyses based on the full sample of youth from Ogden may be called into question.

It is clear from the results that although bootstrapping was not demonstrated, there is another concern about Minority youth referrals to Juvenile Court in Ogden. The episode data clearly demonstrated that Minority youth were substantially more likely than White youth to have more episodes of referral to Juvenile Court. Additionally, there were substantial differences in charges within episodes between White youth and their African American and Latino counterparts. Although it may be that African American and Latino youth commit more offenses, the data indicate that law enforcement practices in Ogden warrant examination in terms of the frequency with which Minority youth, especially African Americans and Latinos, are referred to Juvenile Court.

Recommendations for future research

We believe that our original research plan, if it could have been practically implemented, would have yielded more valid information that could greatly aid our understanding of whether bootstrapping occurs disproportionately among youth who are of color and/or from low-income families. In order to conduct such research, however, the following steps are recommended.

First, researchers need to have access to all youth arrest warrants. The practice of how warrants are stored must be reviewed with law enforcement agencies and the juvenile court. In seeking to understand whether bootstrapping occurs disproportionately among certain groups, there are obvious limitations to using only those arrest records that are forwarded to the court. If law enforcement were treating youth differently on the basis of race or socioeconomic status, it is logical to assume that youth against whom charges are dropped (i.e., not forwarded to the courts) are more likely to be wealthier and/or white. Thus, until researchers can have access to all warrants, it is unlikely that public perceptions can be demonstrated to be either inaccurate or accurate. Of course, we recognize that even including all arrest warrants would be insufficient in examining this issue. That is, such a study design does not include information related to youth who are stopped by law enforcement but not charged. What factors influence the decisions of law enforcement officers regarding whether or not to write a warrant? Nevertheless, including all arrest warrants would take us a step closer to understanding this issue.

Second, data related to youth's socioeconomic status that currently are missing from the social files need to be collected. Finally, steps need to be taken to ensure that accurate race and ethnicity information is included in the social files and the JIS. In this area, it is important to revise the system so that multiple races and ethnicities can be recorded for youth.

The approach used in this study was nomothetic and an ideographic approach may be more informative (Kazdin, 1982). Nomothetic approaches to research gather small

amounts of information on large numbers of people, and ideographic approaches gather large amounts of information on small numbers of people. It could be that more informative data about the interface of Minority youth and law enforcement will be gained from applying ideographic methodologies.

Summary

Despite the challenges in implementing the original research plan that could not be overcome, there were two important findings. There was a clear, measurable difference between White and Minority youth in the number of episodes of Juvenile Court referrals that they had. The difference in episodes remained statistically significant when White youth were compared with African American and Latino youth. The data did not, however, support the idea that Minority youth had significantly more charges filed against them than White youth within a Juvenile Court referral episode. These results mean that the differences between White and Minority youth in their respective numbers of episodes of Juvenile Court referrals were substantial enough to be detected using statistical methods, and that differences between these youth in the number of charges filed against them within episodes was not sufficiently substantial to be detected. Explaining the underlying reasons for the significant difference that was observed in episodes, and the absence of such a difference in terms of charges filed within episodes, is beyond the scope of this study. The underlying causes of the present findings, and of the belief, documented in previous qualitative research, that bootstrapping is occurring remains worthy of further investigation.

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