



United States
General Accounting Office
Washington, D.C. 20548

General Government Division

B-255277

January 20, 1994

The Honorable John Conyers, Jr.
Chairman, Committee on Government Operations
House of Representatives

Dear Mr. Chairman:

In response to your request that we examine racial disparities in arrests, we agreed to analyze national data on arrests and offenders for four serious crimes in order to (1) identify and measure any racial differences in arrests and (2) compare any such racial differences in arrests to racial distributions in offenders as reported by crime victims. We examined data for 1986 through 1990. We used the Federal Bureau of Investigation's (FBI) Uniform Crime Report (UCR) data on the race of persons arrested and the Bureau of Justice Statistics' National Crime Survey (NCS) data on the race of offenders as reported to the police by crime victims.

We limited our review to four crimes of violence--rape, robbery, aggravated assault, and simple assault--for which data were available on the race of persons arrested and the persons identified as offenders. Victims of these four types of crimes were able to identify the race of their assailants because of the personal contact involved in the crimes. Three of these crimes--rape, robbery, and aggravated assault --are included in the FBI's Crime Index.¹ These three crimes account for more than 95 percent of reported arrests for serious crimes of violence in a given year. Simple assault is a crime of violence involving personal contact between victims and offenders, and it accounts for more than 75 percent of reported arrests for other crimes of violence.

We excluded murder and nonnegligent manslaughter from our review because they are not part of the NCS. Also, we did not review serious property crimes, such as burglary, larceny, automobile theft, or arson, even though these crimes are recorded in the NCS because victims of these types of

¹The FBI's Crime Index includes the crimes of murder, rape, robbery, aggravated assault, burglary, larceny, motor vehicle theft, larceny, and arson.

crimes are usually unable to identify the offenders. We excluded drug trafficking and white-collar crimes because there were no data available on the race of persons involved in these crimes. Due to data limitations, we compared racial differences only between blacks and whites. Data limitation also precluded an examination of gender differences. We attempted to examine the data for juvenile offenders, but the NCS estimates of the number of juvenile offenders by race were imprecise.

APPROACH TO MEASURING RACIAL DIFFERENCES

For the four crimes included in our review, we conducted an aggregate analysis of the racial distributions of the estimated number of arrests and the estimated number of offenders in criminal incidents that victims reported to the police. (The details on the estimation and measurement procedures are discussed in Attachment I.) We used the following approach to identify, measure, and assess racial differences.

To identify differences, we measured racial disproportions and racial disparities in arrests and offenses. Racial disproportions measured the number of times more likely blacks or whites, respectively, were arrested or identified as offenders than they were members of the general population. Black arrest disproportions were computed by dividing the percentage of black arrests, in each of the four crimes, by the percentage of blacks in the population. For example, in 1990 about 12 percent of the general population was black; however, blacks were about 60 percent of the persons arrested for robbery, a ratio of 5:1 (60 divided by 12). Thus, for robbery, blacks were arrested at a rate about five times higher than their percentage in the general population. Black offender disproportions were computed in a similar manner using data on the number of blacks identified by victims as offenders.

Alternatively, racial disparities measured the number of times more likely than whites that blacks were arrested or identified as offenders. These were computed by dividing the black rate by the white rate. For example, in 1990 in the general population, blacks were arrested for robbery at a rate of about 433 per 100,000 blacks while whites were arrested at a rate of almost 37 per 100,000 whites. The ratio of these rates--our measure of racial disparities for the general population--indicates that in 1990, in the general population, blacks were about 12 times more likely to be arrested for robbery than were whites. Black offender disparities were computed in a similar manner.

Thus, the measures of racial disproportions identified differences within a racial group's composition of arrests and offenders relative to their general population percentages, and the measures of racial disparities identified differences between racial groups (blacks and whites) in arrests and offending.

To assess racial differences in arrests, we made two comparisons. First, we compared arrest outcomes in relation to blacks and whites representation in the general population; second, we compared them in relation to blacks and whites representation among persons identified as offenders in crimes that victims reported to the police. The second comparison controlled for racial differences in the likelihood that blacks and whites were reported by victims to the police as offenders.

Measures of Racial Differences in Arrests

The tables which follow report our measures of racial differences in arrests. The tables are presented to reveal the following information: (1) the racial composition of and disproportions in arrests and persons identified as offenders (tables 1 through 3); (2) the arrest rates and differences in arrest rates in relation to the general population (tables 4 and 5); (3) the rates at which blacks and whites were identified by victims as offenders in the crimes that victims reported to the police (tables 6 and 7); and (4) the relative rates at which blacks and whites were arrested after controlling for the racial differences in the rates at which they were identified as offenders (table 8).

More specifically, table 1 shows the percentages of blacks and whites among persons arrested, while table 2 shows the percentages of blacks and whites among offenders that victims reported to the police. Table 3 combines the information from tables 1 and 2 by computing racial disproportions, and it reports these disproportions for arrests and for persons identified as offenders.

Table 1: Percentage of Blacks and Whites Among Persons Arrested, by Offense, 1986 to 1990

Offense	Race	1986	1987	1988	1989	1990
Rape	White	52.0	50.2	52.7	51.7	55.1
	Black	46.6	48.4	45.8	46.6	43.2
Robbery	White	37.0	35.6	36.3	34.0	37.7
	Black	62.0	63.3	62.6	65.0	61.2
Aggravated Assault	White	58.8	58.0	57.6	57.5	60.0
	Black	39.8	40.4	40.7	40.9	38.4
Simple Assault	White	65.7	61.8	62.0	62.0	64.1
	Black	32.7	36.3	36.3	36.5	33.9

Sources: Annual UCR data, Tables 24 and 38.

Table 2: Percentage of Blacks and Whites Among Persons Victims Identified as Offenders in Crimes Reported to the Police, by Offense, 1986 to 1990

Offense	Race	1986	1987	1988	1989	1990
Rape	White	55.2	42.9	31.7 ^a	53.1	56.0
	Black	42.1	46.0	63.8 ^a	40.7	35.2
Robbery	White	43.2	37.5 ^a	34.7 ^a	27.1 ^a	31.7 ^a
	Black	51.7	57.5 ^a	60.3 ^a	63.5 ^a	55.8 ^a
Aggravated Assault	White	61.5 ^a	66.5 ^a	54.7 ^a	58.3 ^a	54.1 ^a
	Black	29.3 ^a	29.4 ^a	37.1 ^a	32.8 ^a	34.3 ^a
Simple Assault	White	68.3 ^a	66.0 ^a	71.3 ^a	64.2 ^a	60.7 ^a
	Black	28.4 ^a	28.1 ^a	23.7 ^a	26.4 ^a	30.0 ^a

^aThe difference between the black and white percentages of offenders is statistically significant at the 95-percent confidence level.

Sources: NCS data on offender demographic characteristics.

Table 3: Black Disproportion Among Persons Arrested and Persons Identified as Offenders by Victims in Crimes Reported to the Police, by Offense, 1986 to 1990

Offense	Disproportion	1986	1987	1988	1989	1990
Rape	Arrest	4.1	4.2	4.0	4.0	3.7
	Offender	3.7	4.0	5.5	3.5	3.0
Robbery	Arrest	5.4	5.5	5.4	5.6	5.2
	Offender	4.5 ^a	5.0	5.2	5.5	4.8
Aggravated Assault	Arrest	3.5	3.5	3.5	3.5	3.3
	Offender	2.6 ^a	2.6 ^a	3.2	2.8 ^a	2.9
Simple Assault	Arrest	2.9	3.2	3.1	3.1	2.9
	Offender	2.5	2.4 ^a	2.0 ^a	2.3 ^a	2.6

^aThe difference between the black offender and arrest disproportions is statistically significant at the 95-percent confidence level.

Sources: NCS and UCR data.

Table 4 reports race-specific arrest rates for the four crimes. These rates were measured as the number of arrests divided by the number in the general population. They are reported per 100,000 general population. Table 5 reports the relative arrest rates, that is, the ratio of the black-to-white arrest rates that appeared in table 4. The data in table 5 show how many times more likely blacks in the general population are arrested relative to whites in the general population.

Table 4: Arrest Rates per 100,000 Population, by Offense and Race, 1986 to 1990

Offense	Race	1986	1987	1988	1989	1990
Rape	Total	18.9	18.4	19.4	19.4	19.3
	White	11.5	10.7	11.9	11.8	12.5
	Black	77.3	77.3	76.9	78.0	71.3
Robbery	Total	74.3	69.9	74.8	82.0	82.6
	White	32.0	29.0	31.7	32.6	36.6
	Black	403.4	385.2	405.4	458.6	433.2
Aggravated Assault	Total	179.3	178.2	208.8	227.9	233.8
	White	122.5	120.3	140.4	153.4	164.5
	Black	624.9	626.9	735.9	802.1	769.1
Simple Assault	Total	362.5	398.0	452.2	486.1	498.9
	White	276.8	286.4	327.3	351.0	375.8
	Black	1037.5	1258.6	1420.7	1528.0	1447.4

Sources: UCR and NCS data.

Table 5: Relative Arrest Rates: Ratio of Black-to-White Arrest Rates, by Offense, 1986 to 1990^a

Offense	1986	1987	1988	1989	1990
Rape	6.8	7.2	6.5	6.6	5.7
Robbery	12.6	13.3	12.8	14.1	11.8
Aggravated Assault	5.1	5.2	5.2	5.2	4.7
Simple Assault	3.7	4.4	4.3	4.4	3.9

^aRatios were computed from the values in table 1.

Sources: UCR and NCS data.

Measures of Differences in Arrests After
Adjusting for Differences in Offense Rates

The previous measures of arrest rates compare all persons in the general population and assume that they have the same risk of arrest. However, research indicates this is not the case. For the four crimes we used in our analysis, the risk of arrest varies with the degree to which victims report crimes to the police. For instance, if those robbery victims who reported the crimes to police more frequently identified blacks rather than whites as their assailants it would be expected that blacks would be more likely than whites to be arrested for robbery.

Consequently, if the black criminal offender rate for crimes reported to the police exceeds the rate for whites, we would expect that black arrest rates would also exceed the arrest rates for whites, all else being equal. We would also expect black and white arrest rates to be similar to the rates at which blacks and whites are reported as assailants by victims of the four crimes we reviewed, again, all else being equal. In other words, if blacks were 55 percent and whites were 45 percent of the reported assailants, we would expect blacks to be somewhat more than half of those arrested and whites somewhat less than half.

In tables 6 and 7, we report the rates at which blacks and whites were identified as offenders by victims in the crimes reported to police. Table 6 shows the offender rates per 100,000 population. Table 7 uses the data from table 6 to compute the number of times more likely than whites that blacks were identified as offenders.

Table 6: Estimated Offender Rates per 100,000 Population, by Offense and Race, 1986 to 1990

Offense	Race	1986	1987	1988	1989	1990
Rape	Total	382.5	403.1	432.5	432.1	391.5
	White	245.3	201.1	160.2	268.5	257.2
	Black	1409.2	1615.5	2389.0	1513.1	1181.8
Robbery	Total	4690.2	4060.3	5441.6	4515.2	4163.2
	White	2355.8	1773.8	2201.3	1432.5	1549.2
	Black	21205.8	20318.3	28416.9	24714.2	19915.2
Aggravated Assault	Total	6470.9	5560.3	6147.0	6344.6	6322.5
	White	4629.8	4303.9	3920.2	4329.9	4014.3
	Black	16614.5	14236.6	19754.8	17912.3	18562.8
Simple Assault	Total	8052.1	7661.7	7654.1	7752.1	9494.5
	White	6395.0	5883.4	6372.2	5829.0	6762.7
	Black	19987.1	18758.6	15712.8	17660.6	24413.2

Sources: NCS data.

Table 7: Relative Offender Rates: Ratio of Black-to-White Offender Rates, by Offense, 1986 to 1990^a

Offense	1986	1987	1988	1989	1990
Rape	5.7	8.0	14.9	5.6	4.6
Robbery	9.0	11.5	12.9	17.2	12.9
Aggravated Assault	3.6	3.3	5.0	4.1	4.6
Simple Assault	3.1	3.2	2.5	3.0	3.6

^aRatios of black to white offender rates were computed from the data in table 3.

Sources: NCS data.

Finally, in table 8, we report the number of times more likely than whites that blacks are arrested relative to each racial group's representation among persons identified as offenders by victims in the crimes victims reported to the police.

Table 8: Relative Arrest Rates, Controlling for Offender Rates: Ratio of Black-to-White Arrest-to-Offender Rates, by Offense, 1986 to 1990^a

Offense	1986	1987	1988	1989	1990
Rape	1.2	0.9	0.4	1.2	1.2
Robbery	1.4 ^b	1.2	1.0	0.8	0.9
Aggravated Assault	1.4 ^b	1.6 ^b	1.0	1.3	1.0
Simple Assault	1.2	1.4 ^b	1.7 ^b	1.4 ^b	1.1

^aRatios were computed from the data in tables 2 and 4.

^bThe ratio's difference from 1 is statistically significant at the 95-percent confidence level.

Sources: UCR and NCS data.

RESULTS

We examined the measures discussed above for all persons and for adult arrests and offenders. We found similar patterns in relative arrest rates, offender rates, and arrest rates in relation to offender rates for all persons and for adults.

The data show racial differences in arrests when we compare arrests to general population percentages. For example, in table 3, black arrest disproportions--the percentage of blacks arrested compared to the percentage of blacks in the general population--were greater than 1 for each type of offense, and for robbery they were more than 5. However, black offender disproportions--the percentage of blacks identified by crime victims as their assailants--revealed that blacks were from 2 to 5 times more likely to be reported by crime victims as offenders than the percentage of blacks in the general population (see table 3). Similarly, when we compared black and white arrest rates with their respective numbers in the general population, blacks were more likely to be arrested than whites (see table 5).

However, when we compare arrest rates with offender rates, for offenders reported by victims of the four crimes we studied, the racial disparities in arrests diminish. For example, for 1986 through 1990, relative to the general population blacks were 12 to 14 times more likely than whites to be arrested for robbery (see table 5). However, when compared with the estimated number of whites and blacks who committed robberies that were reported to the police by robbery victims, blacks were about as likely as whites to be arrested for robbery (see table 8). In other words, the racial differences in the rates at which blacks and whites are reported by victims to the police as assailants account for the majority of the overall racial differences in arrests across the four crimes we reviewed.²

These data show that measures of racial disproportionality and racial disparity in arrest are sensitive to the base against which arrest outcomes are compared. Use of the general population as a basis for comparing racial disparities reveals a different picture from comparisons using the number of offenders reported to the police. Reporting racial disparities based on the general population assumes that the racial composition of general population measures the risk of arrest, or that there are no differences in the rates at which blacks and whites commit the crimes we reviewed. However, the data on the reported number of offenders show that blacks and whites are reported as offenders in these crimes at vastly different rates.

The data on the estimated number of black offenders for each of the four crimes in our analysis are based on victim reports to the police on the offender's race. There are two potential biases with this measure: first, victims may choose not to report crimes committed by persons of a particular race, or they may err in identifying the race of their offenders. When we compared racial differences in arrests for all crimes suffered by victims--that is, the crimes they reported to the police plus the ones they did not report to the police, but which they reported on the crime survey--our results did not change.

Second, the extent to which victims err in identifying the race of the offenders could affect the results of our analysis. There is no reliable method of analyzing this potential error, and, in our analysis we presume victim identifications were accurate.

²It should also be noted that the data show that blacks also are disproportionately victims in the four crimes used in our analysis. The racial disparity in criminal victimization for robbery is the largest; blacks are twice as likely as whites to be the reported victims of a robbery.

Differences in the likelihood of being identified as an offender may be because of victims' reporting biases and/or reflect differences in the incidence of crime. To the extent that victims want criminal incidents to result in arrests, it is unlikely that they would purposefully mislead the police about the characteristics, including race, of their assailants, although they may have biased perceptions about offenders whom they cannot positively identify.

The data also show that reported racial differences in offending accounts for varying amounts of the racial disparities in arrests across the four crimes. Reported differences in offending account for more of the racial disparities in general population arrest rates for the more serious crimes of rape and robbery than they do for the less serious crimes of aggravated and simple assault. For rape and robbery, for example, the overall differences in arrest rates (reported in table 5) were virtually eliminated in all of the years (except for rape in 1986) after controlling for racial differences in offending (see table 7), as reported by the relative arrest rate ratios for rape and robbery in table 8. For example, in 1988, blacks in the general population were about 13 times more likely than whites in the general population to be arrested for robbery. (See table 5.) Similarly (as shown in table 7), blacks were about 13 times more likely than whites to be identified as robbery offenders in 1988. Consequently, as shown in table 8, blacks and whites had roughly the same likelihood of arrest for robbery in 1988 after controlling for the racial differences in offending rates.

On the other hand, for the less serious crime of simple assault, the racial differences in arrests were reduced but not completely eliminated after controlling for racial differences in offending. Specifically, as table 5 shows, in the general population, blacks were about 4 times more likely than whites to be arrested for simple assault. After controls for racial differences in simple assault offenders, the arrest disparity diminished (see table 8) but it did not disappear completely for the years 1987 through 1989. In those years, blacks were 1.4 to 1.7 times more likely to be arrested for simple assault than were whites.

The differences across crimes in the amount of the racial differences in arrests accounted for by the racial differences in offending suggests that measures of racial differences in arrests should be made on a crime-specific basis using measures of racial differences in involvement in criminal activity. Measures of racial differences in arrests made in comparison to the racial composition of the general population do not account for racial differences in offending; similarly, measures of the differences made without disaggregating crimes may mask differences in the

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degree to which racial differences in offending account for racial differences in arrests.

As agreed with your Committee, this letter completes our review. Should you have any questions, please call me at 512-8777.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Laurie E. Ekstrand".

Laurie E. Ekstrand
Associate Director, Administration
of Justice Issues

(181953)

Attachment I: Methods

Methods of Estimating Arrests and Offenders

We followed standard procedures used by criminological researchers to produce national estimates of arrests and offenders by race. That is, we produced national estimates of the racial distribution of arrests by applying the percentage distribution of arrests by race (as calculated from Table 38 of Crime in the U.S.) to the UCR estimate of the total number of arrests nationally (Table 28 of Crime in the U.S.). The resulting estimate of the number of arrests nationally is based on the assumption that the racial distribution of arrests is the same for the portion of the U.S. population that is covered by the UCR and the one that is not.

To produce national estimates of the racial distribution of offenders, we used the NCS national household surveys of victims for the years 1986 through 1990. Survey data on the number of criminal incidents involving offenders of a particular age, race, and/or gender combination were first incident-weighted, then weighted by the number of offenders reported by the victim(s).³ This procedure provided national estimates of the number of offenders by demographic characteristics. Throughout this letter, we refer to the estimates of the number of offenders in incidents reported by victims to the police as offenders, and we refer to the rates at which blacks and whites are reported as offenders as the offender or offending rate.

Methods of Measuring Racial Differences in Arrests

Our analysis used two measures of racial differences: racial disproportions and racial disparities. Racial disproportions measured race-specific differences in the composition of arrests and offenders with the race-specific composition of the general

³Each criminal incident in the NCS had a weight that was the reciprocal of the probability that the incident would appear in the sample. Multiplying this incident weight by the number of offenders in the incident produced national estimates of the number and demographic characteristics of offenders involved in rape, robbery, aggravated assault, and simple assault. In our estimates of the number of offenders, we included "series victimizations" as defined by the NCS. We excluded incidents with the following characteristics from our counts: (1) crimes committed outside the U.S.; (2) single offenders of unknown race; (3) multiple offenders of mixed race or with an unknown number of offenders.

population. That is, racial disproportions compared black arrest and offender percentages to black population percentages, and did the same for whites. Racial disparities, however, measured black arrest and offender outcomes in comparison to those of whites.

For each measure of racial differences, we made two comparisons. First, we compared arrest outcomes to the general population; second we compared arrest outcomes to the estimated number of offenders. The second comparison enabled us to control for racial differences in offending.

More specifically, the measure of racial disproportions in arrests was the ratio of the percentage of blacks and whites arrested for each crime to the percentage of blacks and whites in the general population. For example, in 1990 about 12 percent of the general population was black; however, blacks were about 60 percent of the persons arrested for robbery, a ratio of 5:1 (60 divided by 12). Thus, for robbery, blacks were arrested at a rate about five times higher than their representation in the general population. Similarly, the measure of racial disproportions in offending was the ratio of the percentage of black and white offenders to the percentage of blacks and whites in the general population. If the racial disproportion in arrests exceeds the percentage of blacks (or whites) in the general population, then blacks (or whites) are more likely to be arrested than their representation in the general population. If the racial disproportion in arrests equals the racial disproportion in offending, then blacks are about equally likely to be arrested as they are to be identified among offenders.

For each of the four crimes used in our review, the results on the percentages of arrests and offenders are reported in tables 1 and 2. The measures of the racial disproportions in arrests and offending are reported in table 3.

We measured racial disparities in arrests by comparing black arrest rates to those of whites. First, we calculated arrest rates as the ratio of the number of blacks and whites arrested for each of the four crimes to the number of blacks and whites in the general population (see table 4). Second, we calculated the ratio of black arrest rates to white arrest rates (see table 5). A value of 1 for this ratio indicated identical black and white arrest rates when those rates were calculated after taking into account the racial distribution of the population. A ratio of less than one indicated the number of times blacks in the general population were less likely to be arrested than whites in the general population. A ratio greater than one indicated the number of times blacks in the general population were more likely to be arrested than whites in the general population.

For example, in 1990 in the general population, blacks were arrested for robbery at a rate of about 433 per 100,000 blacks while whites were arrested at a rate of almost 37 per 100,000 whites. The ratio of these rates--our measure of racial disparities for the general population--indicates that in 1990, in the general population, blacks were about 12 times more likely to be arrested for robbery than were whites.

To compare arrest rates after controlling for racial differences in the rates of offenders as reported by victims, we calculated a set of measures for offender rates and then compared arrest and offender rates. First, the offender rate measures are similar to those used for arrest rates: Offender rates were the ratio of the number of black and white offenders to the number of blacks and whites in the general population (see table 6). Second, to show racial differences in offenders, we took the ratio of these rates (see table 7). As with the arrest rate ratios, values of greater than 1, 1, or less than 1 indicated that blacks in the general population were more likely, as likely, or less likely than whites to be identified as offenders by victims who reported the incidents to the police.

Third, to compare racial disparities in arrests in relation to racial differences in offender rates, we took the ratios of black arrests to black offenders and white arrests to white offenders. Next, to compute the relative likelihood of arrest for black offenders as compared to white offenders, we used the ratio of these two ratios (see table 8). A value of 1 for this ratio indicated that there was no difference in the relative likelihood of arrests for black offenders compared to white offenders. A value of less (more) than 1 for this ratio indicated that blacks were less (more) likely than whites to be arrested after accounting for the racial differences in the rates at which members of these two racial groups were identified by victims as offenders in the crimes reported to the police.

