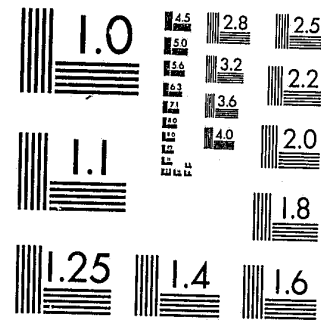


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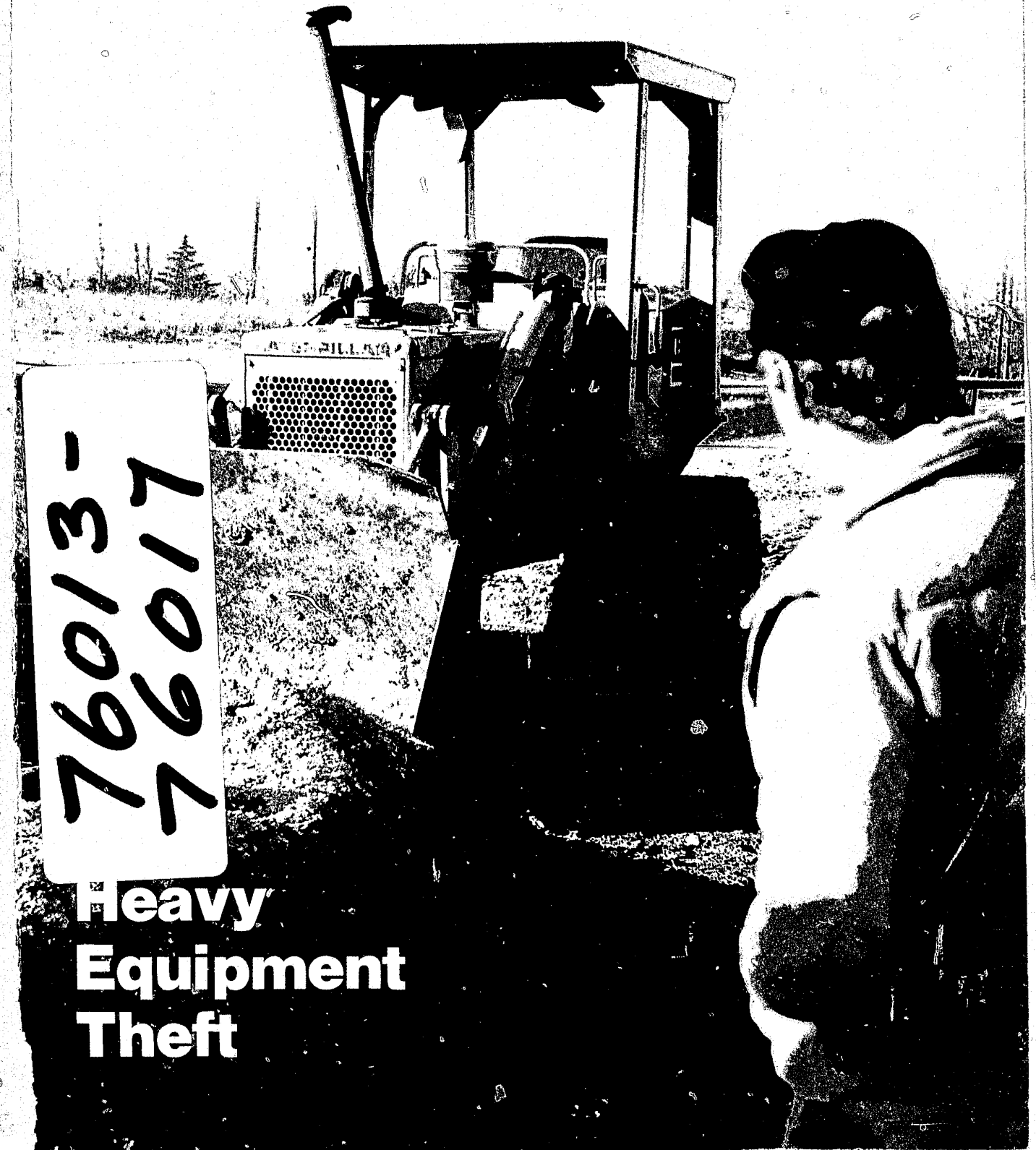
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**FBI** LAW ENFORCEMENT BULLETIN

MARCH 1981



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THE COVER: This month's cover highlights the problem of heavy equipment theft. See story p. 1.

Federal Bureau of Investigation  
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William H. Webster, Director

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# MURDER VICTIMIZATION A Statistical Analysis

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During the past 2 decades, 1960-1979, the number of reported murders in the United States has risen 140 percent. As the frequency of this most serious offense has increased, murder clearance rates have steadily declined from 92 percent in 1960 to 73 percent in 1979. Since the fear of becoming a homicide victim is a reality to the American public and the crime is a growing concern of law enforcement agencies, the Uniform Crime Reporting (UCR) Program recently launched a comprehensive homicide analysis project with its initial thrust directed at two areas:

Given an individual belonging to a specific sex and race category, how does his/her chance of murder victimization change by age? For instance, at what age would he or she be subjected to the highest and lowest chance of being murdered? and

What is the lifetime chance of murder victimization of an average U.S. citizen? In other words, what percentage of their deaths are caused by murder?

## Background

UCR data, gathered from over 15,000 law enforcement agencies nationwide, represent a wealth of information for use in analyzing crime problems. FBI Director William H. Webster has demonstrated a special interest in criminological research and has directed the UCR Program's increased emphasis on substantive crime analysis. The recent research effort focusing on murder victimization addresses a growing problem that has attracted the attention and concern of American citizens.

## Methodology

The UCR Program defines murder as "the willful and nonnegligent killing of one human being by another." Attempted murder, justifiable homicide, manslaughter by negligence, suicide, etc., are excluded. It should further be understood that in UCR, an incident is

classified as a murder through the medium of a law enforcement investigation. The findings of a medical examiner, court, grand jury, etc., are not considered.

Homicide data collected monthly through UCR's Supplementary Homicide Report (SHR) were the primary information source for the research project. Rather than aggregated, data from the SHR are incident-based, i.e., information is collected for each murder incident. Due to the refined nature of the data, murder statistics are far more comprehensive than those for other crimes, thereby providing an excellent basis for more indepth analysis.

The required vital statistics were provided by the National Center for Health Statistics, and population data from the U.S. Bureau of the Census were used to compute murder rates. In this study, the first phase of a comprehensive homicide analysis, both life expectancy and murder frequency were held constant rather than projecting long-range future changes.

#### Findings

To address the questions posed in the analysis, the interrelationship between UCR homicide data, vital statistics, and population data was examined. Survival statistics and homicide data were used to separate, at each age, the number of murder deaths from those caused by other reasons.

The first question addressed differences in the probability of murder victimization in terms of age. When graphically presented, the chance of murder victimization for males was, as expected, substantially higher at all ages than for females, regardless of race. With respect to age, the probability of murder victimization for males peaked during the "mid-to-late 20's."

The chance of murder victimization for females also maximized during the age range of the 20's, but the peak for females was not as pronounced as that for males. Childhood murder victimization proved highest at infancy and lessened with age. In fact, the lifetime low for murder victimization was shown to be between the ages of 5 and 10. Figure 1 illustrates the national murder experience by age and sex.

A more striking aspect of the murder victim data was the factor of race. For the sake of this analysis the U.S. population was divided into "white" and "all other," with the latter including all persons who were not white.

The analysis showed persons of races other than white were more likely to be murder victims. The "all other" male group showed a disproportionately higher chance of murder victimization at all ages. Even females in the "all other" category showed a higher

murder victimization chance than white males. To graphically illustrate these observations, murder rates have been depicted, by age, for "white" totals and for "all other" totals in figure 2. Similar murder victimization chances have been observed in other studies using non-UCR data.<sup>1</sup>

Now to address the second area of the analysis—what is the lifetime chance of murder victimization for an average U.S. citizen?

A group of 100,000 live-born babies was chosen as the basis for the computation. At each age, a number of the babies expired (some of the deaths being due to murder). If the same process were repeated each year as the "survivors" matured and 100,000 infants born alive were tracked until all died, we would then know how many of the 100,000 live births ended because of murder.

Figure 1

**Murder Rate by Age and Sex, United States, 1978**

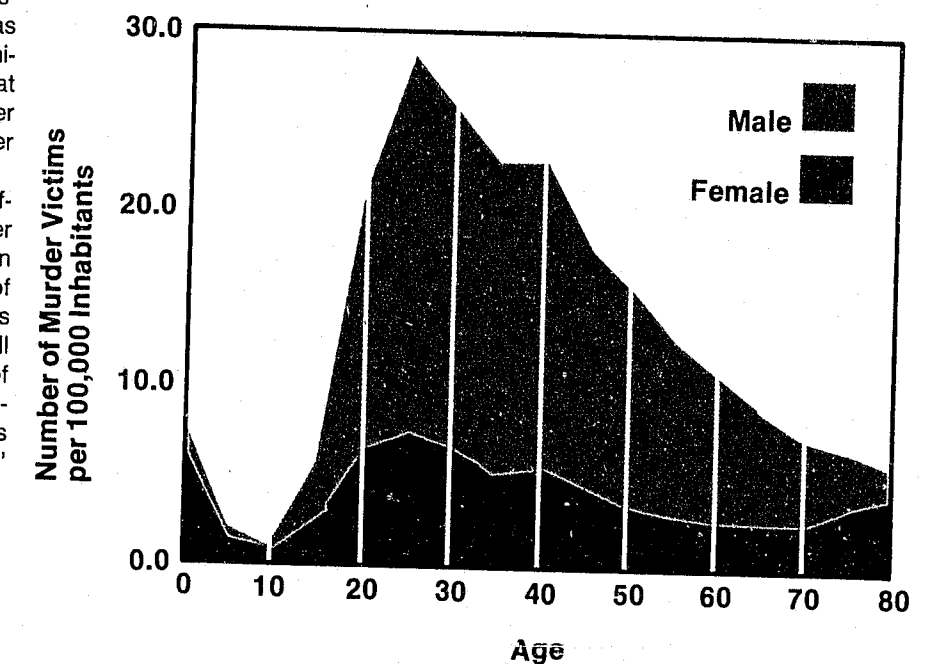


Table 1 describes the expected number of murder deaths out of 100,000 live births. For example, the table indicates that 538 out of 100,000 live-born white males are expected to be murder victims in their lifetime. It should be realized, however, that this figure (538) does not reflect the "annual" number of murder deaths per 100,000 inhabitants; it is a "lifetime" statistic. In other words, 0.538 percent (538 out of 100,000) of white males are expected to be murder victims, while the remaining percent will die from causes other than murder.

**Table 1**  
Expected Number of Lifetime Murder Victims Out of 100,000 Live Births

	Male	Female	Total
All Races	912	268	636
White	538	165	349
Other	3,460	806	2,088

As mentioned earlier, the current murder rates were kept constant throughout the computation, although historically they have shown a steady upward trend. UCR personnel avoided making a long-range forecast of murder crime rates. If the historical upward trend continues in the coming years,

Dr. Akiyama



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however, the actual number of lifetime murder victims listed in table 1 would be higher.

Viewed from another perspective, one can derive from the data in table 1 the ratio of deaths due to murder as compared to those due to other causes. Table 2, based on table 1, was generated from this viewpoint. It was seen, for example, that the "all other" male group evidenced the highest chance of lifetime murder victimization, with a ratio of 1 out of 29. In other words, an average of 1 out of 29 males belonging to the "all other" race category are expected to lose their lives due to murder, while the remaining 28 will die from causes other than murder.

**Table 2**  
Probabilities of Lifetime Murder Victimization

	Male	Female	Total
All Races	1 110	1 373	1 157
White	1 186	1 606	1 287
Other	1 29	1 124	1 48

The victimization rate for these males was more than six times higher than the rate for white males. Similarly, 1 out of 124 "all other" females are expected to suffer a murder death, a rate approximately five times higher than that for white females. The nationwide average ratio of murder deaths was 1 out of 157 individuals, or .6 percent of all deaths.

It should be noted that the lifetime victimization rate by murder showed a large variance both by sex and race. The variance due to sex is not totally surprising when the differences in general behavior patterns between males and females are considered. It is noteworthy that individuals other than whites are subjected to a substantially higher chance of murder victimization

than white persons. The statistics indicate that as addressed with respect to the first question, race is a factor accounting for a significant difference in lifetime murder victim chances.

**Table 3**  
Percent of Murder Deaths for Persons Aged 20-29

	Male	Female	Total
All Races	13.4	10.0	13.1
White	8.3	6.4	7.7
Other	31.3	20.8	28.0

As mentioned earlier, the age group of the 20's represents the peak murder victimization generation. Table 3 presents the proportion of murder deaths (out of all deaths) for those aged 20-29. In other words, the figures represent the percent of the expected number of murder victims of all deaths. It will be noted in table 3 for example that nationwide, 13.1 percent of individuals in their 20's are murdered (if they die at all in their 20's). Here again, the variance in murder victimization associated with differences in race is substantial. Nearly one-third (31.3 percent) of the deaths for "all other" males (if they die in their 20's) are caused by murder. It should be remembered, however, that the chance of death that any individual in this age group faces in his/her 20's is not high for any race.

As a person lives longer the chance of being a murder victim during the rest of his/her life reduces. For example, an average 30-year-old citizen (a survivor of 30 years) faces a murder chance of 1 out of 242 during the remaining years of life. The murder victimization ratio, 1 out of 157 mentioned earlier as the average for the total population, is applicable to an infant at age 0. At the age of 30, a male in the "all other" race category faces a "1 out of 41" murder victimization chance during the remainder of his life. Similarly, at the age of 30, a female in the "all other" race category faces 1 out of 205 chances of becoming a murder victim during the rest of her life,

a reduction from the 1 out of 124 chance at age 0. These statistics were generated for each age, though limitations of space do not permit a complete enumeration.

#### Summary

In terms of age, the following observations with respect to murder victimization were made:

- 1) Regardless of race, the chance of murder victimization for males is higher, at all ages, than for females.
- 2) Regardless of race, the chance of murder victimization peaks during the 20's both for males and females and reduces steadily after the age of 30. Child murder victimization, high at infancy, reaches the lifetime low between the ages of 5 and 10.
- 3) At all ages, persons of races other than white collectively are subjected to a substantially higher probability of murder victimization than whites.

It was noted that the chance of murder victimization for an average U.S. citizen is 1 out of 157. However, the term "an average United States citizen" may not be totally relevant, as murder victimization is not uniform throughout the different segments of the U.S. population. The chances are highly skewed in the direction of all races other than white, particularly males in that group, who have a 1 out of 29 chance of being victimized by murder.

As stated before, this lifetime murder victimization project is one dimension of the UCR homicide study. The ongoing homicide analysis project will continue to address other aspects of the homicide problem.

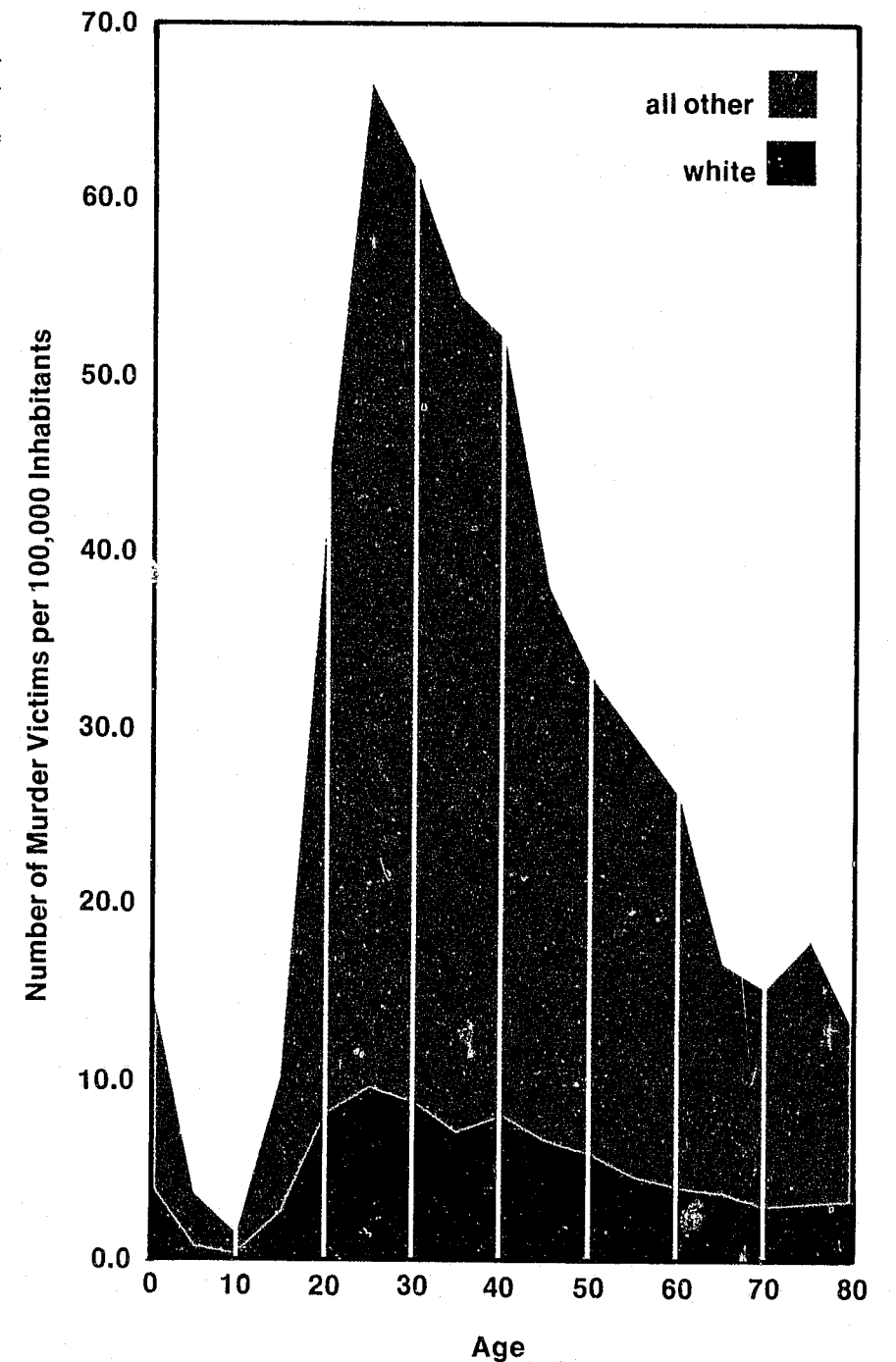
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#### Footnote

<sup>1</sup> "United States Life Tables by Causes of Death: 1969-1971" vol. 1, no. 5, National Center for Health Statistics, U.S. Department of Health, Education, and Welfare.

Figure 2

#### Murder Rate by Age and Race, United States, 1978



**END**