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Soaring Crime Rate: An Etiological View, The

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THE SOARING CRIME RATE: AN ETIOLOGICAL VIEW

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There is an increasing concern with what has been referred to as "crime in the streets". We are all too familiar with the warnings of anarchy, the clamor for action and the exhortations for tough remedies. As the concept of "law and order" has gained increasing prominence in the political arena, many persons have turned to double locks and to guns to protect their persons and property.

It is the rare individual indeed, in spite of the hue and cry, who is actually confronted with the kind of traumatic experience that justifies this kind of alarm.[1] Rather, the anxiety over crime is engendered by the media through its extensive coverage of actual crimes and by the statistical summaries of soaring crime rates released by public agencies. These reports periodically generate concern and even hysteria but it may well be that this is their purpose. Continued announcements of the number of deaths on the highways are designed to curtail accidents. Perhaps it is fancied that a similar ploy directed toward crime will convince criminals to give up their anti-social ways. Such results are not, however, to be counted on. It is more likely that those agencies which release crime statistics do so with the hope of mustering greater resources to combat the so-called rising tide of crime.

These statistical reports are generally issued by public agencies which present their statistics as objective facts that speak for themselves. These

take the form of percentage increases over specified amounts of time, sometimes expressed for all crimes for all places, other times, for specific crimes and specific places. Facts, however, do not speak for themselves—someone must interpret them. The purpose of this study was to explore a method designed to give a more accurate and meaningful estimate and interpretation of the "crime problem". Three major requisites were needed in order to achieve this end. The first was an accurate estimate of the crime rate. The second was an accounting of the etiological factors associated with the crime rate. The third was to link the crime rate with etiology and to interpret this relationship over time within some appropriate theoretical framework.

The literature reflecting the academic and correctional view is replete with references to the inadequacies of crime statistics. In perhaps the most penetrating analysis Sellin, from an academic perspective, almost dismisses crime statistics as a waste of time.[2] Beattie, from the perspective of the correctional professional who has spent a lifetime in analyzing crime statistics, comes to a similar but less drastic conclusion.[3] Both deplore the inaccuracies generated by collection procedures and definitions of criteria. Dinitz and Reckless have noted that "... many criminologists though neither the public nor press, have just about decided that the official data are perilously close to being worthless and may do more harm than good if taken too seriously".[4] Some criminologists have defended the Uniform Crime Reports by arguing that it serves the purpose for which it is intended by providing a source of information for policing agencies.[5] This may be true if the reports are con-

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[1] It is not the author's intention to defend the criminal and demean the victim. Any experience with crime, no matter how remote, can be an unpleasant one. No one screams louder than the burglar who has been burglarized. Even in prison the inmate expects law and order to protect him from the "criminals" he sees everywhere (except himself). However, from strictly an objective viewpoint, few people are "real" victims of "real" crimes; some are victim-prone or even victim provocateurs.

[2] Sellin, *The Significance of Records of Crime*, in M. WOLFGANG, L. SAVITZ, & N. JOHNSTON, THE SOCIOLOGY OF CRIME AND DELINQUENCY 59–68 (1962).
[3] Beattie, *Problems of Criminal Statistics in the United States, id.* at 37–43.
[4] S. DINITZ & W. RECKLESS, CRITICAL ISSUE IN THE STUDY OF CRIME 61–62 (1968).
[5] Kitsuse and Cicourel argue that the official statistics are excellent social facts. They base this on a shift in focus from the definition of deviance as a behavioral act to that of a structural response. Kitsuse

fined to the police and used for administrative purposes. However, when they are released to the public through the mass media and have consequences beyond their intent, there should be an obligation to provide information to temper those consequences.[6] Chilton notes that this broader use requires greater accuracy. Both he and Lejins suggest that the current methods and information might continue to be useful to the police while a special national crime research center be developed to serve other purposes.[7]

The bulk of the work in crime statistics has been concentrated on crime rate computation—which might account for the fact that it has received the most criticism. This computation concerns the complex question of how many crimes have been committed over a given period of time. The question is complex because it requires, among other things, a definition of crime, standardized methods for collecting the information and some framework for the interpretation of the results. For the most part, the calculation of crime rates has been based upon "crimes reported to the police". This information is systematically collected by some public agency, periodically reported as a given number of crimes per a given amount of population, compared with a previous rate of crime and interpreted in terms of a percentage of change.[8] Although some attempts have been made to refine this statistic, controversy over its accuracy still remains.[9]

An accurate accounting of etiological factors linked to the crime rate has received very little attention. Sellin regrets this tendency to ignore the character of the population in the formulation of crime rates. Several known correlates take this into account.[10] They reflect the conditions out of which crime emerges. If a community or a society changes the nature of its population (more or less males, youths or certain ethnic groups) there would be a consequence for crime rates. There would also be differences in the kinds of crimes committed. For example, a community with a significant change in the sex ratio might have fewer assaults and more abortions.

Once some statistical rate of crime is computed, the traditional framework for interpretation has been to simply compare the newest rate with the previous one. Inevitably, the crime problem is then considered to be relatively worse or better than previous times. However, if one considers the sources of crime this method becomes more inadequate than it already is.

Any interpretation of crime rates needs to consider the conditions for crime as well as the crime itself. Durkheim attempts to do this in his notion of the "normal and the pathological". He states, "There is no society that is not confronted with the problem of criminality. Its form changes; the acts thus characterized are not the same everywhere; but, everywhere and always, there have been men who have behaved in such a way as to draw upon themselves penal repression." [11] He goes on to state,

> There is, then, no phenomenon that presents more indisputably all the symptoms of normality, since it appears closely connected with the conditions of all collective life. To make of crime a form of social morbidity would be to admit that morbidity is not something accidental, but, on the contrary, that in certain cases it grows out of the fundamental constitution of the living organism; it would result in wiping out all distinction between the physiological and the pathological. No doubt it is possible that crime itself will have abnormal forms, as, for example, when its rate is unusually high.

& Cicourel, *A Note on the Uses of Official Statistics*, 11 SOCIAL PROBLEMS 131–39 (Fall 1963).

[6] An increased crime rate may not be due just to an increase in criminal acts, but a change in the reaction to the criminal acts as well. A heightened sensitivity to deviance perhaps brought on by reports of increased crime rates may in turn contribute to the increase.

[7] Chilton, *Persistent Problems of Crime Statistics*, in DINITZ & RECKLESS, *supra* note 4, 89–95. Lejins, *Uniform Crime Reports*, *id*, at 82–88.

[8] The basic assumption that reported crimes and unreported ones maintain some kind of constant ratio over time is a precarious one. It becomes even more fallible when the social conditions for crime are considered. For example, an increase in urbanization is likely to increase undetected and unreported crimes. A community that increases its socio-economic status would be expected to increase the reporting of crime. Both urbanization and higher socioeconomic status can occur at the same time. For a discussion of the problems of measurement in criminalistics *see* THE PRESIDENT'S COMMISSION ON LAW ENFORCEMENT AND ADMINISTRATION OF JUSTICE, THE TASK FORCE REPORT: SCIENCE AND TECHNOLOGY 55–56 (1967).

[9] In an attempt to increase accuracy in order to gauge the effectiveness of rehabilitation and prevention programs Sellin and Wolfgang have developed a promising index of the degree and nature of changes in delinquency over a period of time. Using sophisticated statistical procedures they were able to design a method for the scaling of offenses, thus weighting the qualitative factors inherent in the variety of delinquent crimes. This procedure gave more weight to the more serious crimes, so determined by a panel of raters. T. SELLIN & M. WOLFGANG, THE MEASUREMENT OF DELINQUENCY (1964).

[10] Reckless refers to groups of people who tend to be arrested more often than others (*e.g.*, young males) as categoric risks. The correlates of crime as used in this study refers to certain social conditions (*e.g.*, urbanization) as well as demographic factors. Taken together, the correlates of crime are a construct referred to here as an Etiology Index. W. RECKLESS, The CRIME PROBLEM 97–98 (4th ed. 1967).

[11] E. DURKHEIM, THE RULES OF THE SOCIOLOGICAL METHOD 65–66 (8th ed. 1964).

This excess is, indeed, undoubtedly morbid in nature. What is normal, simply, is the existence of criminality, provided that it attains and does not exceed, for each social type, a certain level, which it is perhaps not possible to fix in conformity with the preceding rules." [12]

Aside from the biological analogy, the notion that the presence of crime is normal and becomes morbid when excessive for a given social system would appear to be a sound one. If the "normal" crime ratio could be determined, one which is tied to etiological conditions, the concept of morbidity could then be used to interpret the changes that occur. If a given community changes from a rural to a more urban one, and has a large increase of young males, one would expect a significant increase in crime. Theoretically, it is possible that the increase that does occur under those conditions could be either more or less than the expectation. One way to express the relationship between the expectation of crime and the actual crime is through some kind of ratio. The Durkheimian notion of morbidity can then be used to interpret the "crime problem" over time. The relationship between the crime rates and the etiological factors and the framework for their interpretation can be expressed in terms of the formula:

$$\frac{\text{crime rate}}{\text{etiology index}} = \text{Morbidity Ratio}$$

Computing A Morbidity Ratio

In order to pursue the idea of a morbidity ratio for heuristic purposes, a comparison was made between two time periods for a specific geographical area. Census data were available for 1960 and 1966 in a community that increased in population during that period from 642,241 to 926,796.[13] During the same period of time the crime rate rose from 9.3 per thousand in 1960 to 13.9 per thousand in 1966.[14] The population had increased about

44% while the crime rate was said to have increased about 49%.

The numerator of the Morbidity Ratio represents the number of felonies reported to the police per thousand population. The denominator represents the addition of three weighted correlates of crime. The correlates selected were males between 15 and 29 years of age, minorities (in this case Mexican-Americans and Blacks) and urbanization. These correlates were selected for two reasons. There is consensus in the literature that they are among the most significant correlates of crime and they were determined to be particularly pertinent for the community sampled. The males and minorities were computed on the bases of the numbers per thousand population. Urbanization was computed on the bases of the Urbanization Index developed by Shevky and Bell.[15] The Urbanization Index employs three variables, single-family dwellings, fertility and females in the labor force, and combines them into one score to approximate the extent of urbanization in a community. The Urbanization Index also involves the use of rates computed on a per thousand population basis.

Because of the differential impact of the indices of etiology on crime rates, an arbitrary weighting process was adopted from the clues offered through a survey of the literature.[16] Following the literature, the three indices of etiology were ranked in order of their estimated contribution to the crime rate and then assigned an arbitrary weight simulating a correlation coefficient (one that might be obtained from a multiple regression equation). The resulting assigned weights were .4 for the rate of males 15–29 years of age, .3 for the rate of minorities, and .2 for the Urbanization Index. The denominator for the Morbidity Ratio then became:

Etiology Index = [.4 (males 15–29 per 1000 population) + .3 (minorities per 1000 population) + .2 (Urbanization Index)]

[12] *Id.* at 66.

[13] The 1966 population was available from a special county census taken that year utilizing the United States Census Bureau's census tracts. 1 UNITED STATES BUREAU OF THE CENSUS, UNITED STATES CENSUS OF POPULATION: 1960 pt. 1 (1963). The census was conducted by the Santa Clara County Planning Department in Cooperation with the California Department of Finance. CALIFORNIA DEPARTMENT OF FINANCE, FINAL TABULATION OF 1966 CENSUS OF SANTA CLARA COUNTY.

[14] The basis for the crime rate was "felonies reported to the police." The only reason for selecting this criterion was its ready availability for the county being assessed. CALIFORNIA BUREAU OF CRIMINAL STATISTICS, CRIME IN CALIFORNIA (1966); CALIFORNIA BUREAU OF CRIMINAL STATISTICS, CRIME IN CALIFORNIA (1960).

[15] E. SHEVKY & W. BELL, SOCIAL AREA ANALYSIS (1955).

[16] The literature does occasionally report some specific attempts to relate crime rates to certain etiological indices of crime. However, these attempts, as pointed out by Hirschi and Selvin, too often indicate conflicting results or involve small areas and small numbers. At this stage in the development of a Morbidity Ratio it was necessary to adopt arbitrary eights based on an interpretation of inadequate information. *See* T. HIRSCHI & H. SELVIN, DELINQUENCY RESEARCH 15–30 (1967); M. WOLFGANG, L. SAVITZ, & N. JOHNSON, THE SOCIOLOGY OF CRIME AND DELINQUENCY §§3-4 (1962); Schmid, *Urban Crime Areas*, 25 AM. SOCIOLOGICAL REV. 527–42, 655–78 (1960).

TABLE 1
The Morbidity Ratio and Percent Change

Indices	1960	1966	Change
Crime Rate..........	9.3	13.9	+49
Males 15–29..........	127.4	217.3	+70
Minorities...........	102.8	101.9	−1
Urbanization.........	28.0	33.0	+18
Morbidity Ratio......	106.4	112.0	+5

Although there is some relationship between each of the correlates, they do contribute both independently and significantly to the etiology of crime and consequently were added together as part of a crude index.

Substituting in the formula, the Morbidity Ratio for 1960 is 106.4 while it is 112.0 for 1966. (See Table 1.) Compared with the crime rate increase of 49%, the Ratio increase of only 5% is quite revealing. In other words, while the crime rate rose significantly, so did the etiological factors that generate crime. Consequently, the difference between the years 1960 and 1966 could be interpreted as either slightly morbid, or with no significant change at all.

Close examination of the indices helps to explain the minimal change in the Morbidity Ratio. The answer lies in the nature of the larger population. The 44% increment between 1960 and 1966 was largely due to an increase in the number of young male adults. This category of the population is the most felony prone. In addition, urbanization increased somewhat with its implicit as well as explicit consequences for the emergence of social conditions conducive to crime. The distribution of minorities in the population remained relatively stable so that, in this particular case, its consequence for crime remained about the same.

Summary & Discussion

There is considerable agreement as to the inadequacies of crime statistics. This study explores a method to determine a more accurate reflection of the crime problem. Three requisites for this purpose were used: the crime rates, an etiology index, and a framework for interpretation referred to as a Morbidity Ratio. A formula was constructed relating the requisites to each other and then the formula was applied to a community with an increased crime rate of almost 50% over a six year period. The results indicated that the conditions for crime (the Etiology Index) had increased at about the same rate as the crime rate. Thus the crime rate, though increasing about 50% was about what would be expected and therefore the increase could not be considered excessively morbid.

The results represent an extremely crude application of the formula. There are several ways in which it might be improved. The actual crime rate can be computed on the basis of a more accurate estimate of the number of crimes committed. The work of Sellin and Wolfgang could be adopted for this purpose.[17] A better method for computing the Etiology Index could involve the accumulation of the raw scores of the "correlates of crime" and the "incidence of crime" from the census tracts and then the application of a regression equation to generate the weights for each of the correlates. Finally, a standard score could be computed for each of the correlates in the Index in order to offset the variations in the computations and thus the effects of the size of their scores.[18]

The morbidity ratio refers to the relationship between the actual crime rate and the expected crime rate based on an estimate of the etiological conditions for crime. Once the formula is refined by sharpening both the calculation of crime and etiological rates, then theoretically, if the ratio between the two is one, the crime rate would be normal in the Durkheimian sense. If the ratio is less than one, the crime rate would be below normal. If more than one, it would be above normal or morbid in Durkheimian terms.

Considering the rapid social changes that are currently occurring, it seems likely that the ratio is apt to be a morbid one. The interpretation of the ratio could then involve increases or decreases in morbidity over time. For example, in some given year the Morbidity Ratio may be 10 and the following year it may be 11. In this case the Morbidity Ratio rose 10%. Using just the crime rates for the same years would most likely indicate a much larger increase. Yet, the Morbidity Ratio more accurately describes the crime picture as it not only considers the crimes but the conditions for them as well.

It might be worthwhile to select some given year, compute the Morbidity Ratio, and convert that score to a base unit (for example, a base of

[17] T. Sellin & M. Wolfgang, *supra* note 10.
[18] These statistical techniques were not used because the necessary information for the computations was not available. It would require some modification in the data gathering process utilized by the pertinent Agencies. At this stage in the development of the formula it was felt that for heuristic purposes a crude comparison of two points in time was adequate.