

SUICIDE IN OKLAHOMA: A STUDY OF RATE VALIDITY

By

JERRY RICHARD PARKER

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SUICIDE IN OKLAHOMA: A STUDY OF RATE VALIDITY

Thesis Approved:

Donald H. Tennant

Thesis Adviser

Edgar L. White

Richard S. Dodder

N. N. Durham

Dean of the Graduate College

935053

PREFACE

The object of this study is to investigate the process by which medical examiners label deaths as suicides. Particular attention is given to the social factors which may influence this labeling process. A conceptual and sociological definition of suicide is developed and applied to 812 cases of death in the state of Oklahoma, for the years 1972 and 1973. Comparison of information contained on medical examiner reports for cases of death which are differentially classified by the conceptual definition is done as a means of evaluating the validity of the suicide rate.

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TABLE OF CONTENTS

Chapter	Page
I. THE PROBLEM OF SUICIDE STATISTICS	1
II. REVIEW OF LITERATURE ON OFFICIAL SUICIDE RATES	9
III. SUICIDE AND THE LABELING ORIENTATION	20
IV. RESEARCH DESIGN	38
V. COLLECTION OF THE DATA	46
VI. ANALYSIS AND FINDINGS	63
Effect of Reclassification	63
Item Completion Ratios	65
Analysis of Definitional Group	70
VII. SUMMARY AND CONCLUSIONS	103
SELECTED BIBLIOGRAPHY	109

LIST OF TABLES

Table	Page
I. Deaths by Definitional Groups and Race	72
II. Deaths by Definitional Groups and Sex	73
III. Deaths by Definitional Groups and Marital Status . .	74
IV. Deaths by Definitional Groups and Specific Unmarried Status	75
V. Deaths by Definitional Groups and Occupational Status	76
VI. Deaths by Definitional Groups and Position in Work Force	78
VII. Deaths by Definitional Groups and Time of Injury	80
VIII. Deaths by Definitional Groups and Season of Death .	81
IX. Deaths by Definitional Groups and Personal History .	82
X. Deaths by Definitional Groups and Medical History .	84
XI. Deaths by Definitional Groups and Suicide Injury History	87
XII. Deaths by Definitional Groups and Person Finding Body	89
XIII. Deaths by Definitional Groups and Person Who Last Saw the Deceased	90
XIV. Deaths by Definitional Groups and Person Witnessing Injury	90
XV. Deaths by Definitional Groups and Summary Statements	92
XVI. Deaths by Definitional Groups and Presence of Fatal Wounds	94

Table	Page
XVII. Deaths by Definitional Groups and Presence of Gunshot Wounds	94
XVIII. Deaths by Definitional Groups and Autopsy	95
XIX. Deaths by Definitional Groups and Laboratory Work	95
XX. Deaths by Definitional Groups and Blood Alcohol Concentration	96
XXI. Deaths by Definitional Groups and Area of State	97
XXII. Deaths by Definitional Groups and S.M.S.A. Counties	98
XXIII. Deaths by Definitional Groups and Most Frequent Medical Examiners	99
XXIV. Deaths by Definitional Groups and Medical Examiner Groups	100
XXV. Deaths by Definitional Groups and Means of Death	101

CHAPTER I.

THE PROBLEM OF SUICIDE STATISTICS

The phenomenon of suicide has long held a fascination for sociologists. Indeed, "the theoretical treatment of suicide is one of the few classical subjects in sociology" (Douglas, 1967, p. xiii). In order to understand the prominent place which the study of suicide holds in sociology it is necessary to look at both the history of the discipline and at the history of statistics on suicide. Sociology began to emerge as an independent discipline in Europe during the late eighteenth and early nineteenth centuries. At this time many of those who would later be identified as the founders of sociology were seeking both an area and a method of study which would differentiate their young discipline from existing academic disciplines. While the morality of suicide had long been a subject of debate and philosophical speculation, it was not until the beginning of the nineteenth century that most European nations began to keep even fairly accurate official records on suicides. The nature of these records and the statistics compiled from them are very important. For most European countries these statistics showed a fairly regular increase in suicides each year. While each country seemed to have a characteristic rate, within the country the proportion of persons in each demographic subgroup who were reported as suicide remained fairly constant from year to year. Many early sociologists, especially Durkheim (1951), reasoned that the variation of rates

between countries and the stability of subgroup rates within countries could not be explained in terms of individual factors. They further reasoned that some social factors must therefore exist to explain variation in suicide rates. The existence of such social factors (and thereby of society) which influenced an act usually conceived to be highly personal and individual in nature provided an excellent justification for an emerging discipline which proposed to study society. Further, the regularity of suicide rates was a social phenomenon which closely paralleled the physical regularities found in the existing natural sciences. The investigation of such a social regularity seemed an ideal means of demonstrating the scientific (i.e., similar to the natural or physical sciences) nature of the discipline of sociology. Finally, the fact that there seemed to be a steady increase in suicide rates made the study of suicide an appropriate subject for sociology (Douglas, 1967). While it now seems likely that this increase in rates was due to improvements in the methods of gathering statistics, at the time this increase seemed to indicate an emerging social program (Douglas, 1967). Given the conservative nature of most early sociology, the cause of this problem was usually seen as the loosening of traditional social restrictions. Sociology, if it could explain or remedy this problem, and in doing so demonstrate the need for traditional social traditions, could assure itself a place as a legitimate academic discipline.

While not the first sociological work on suicide, it was Emile Durkheim's Suicide which finally and firmly established the importance of the study of suicide in sociology. Durkheim's work served three functions. First, it served as a synthesis of earlier works on suicide,

notably those of Boismont (1856), Legoyt (1881), Quelelet (1848), and Morselli (1903). Second, Durkheim showed suicide to be a produce of social factors, thereby demonstrating the relevance of sociological study of suicide. This idea of social causation, while advanced earlier by Legoyt (1881), received wider acceptance following Durkheim's work. Finally, his analysis of suicide from a scientific, rather than a moral, orientation did much to remove the stigma which had formerly been placed upon those who committed or attempted suicide.

The broad effect of Durkheim's masterpiece was to insist that suicide was not an irredeemable moral crime but a fact of society It had social causes which were subject to discernable laws and could be discussed and analyzed rationally (Alvarez, 1971, p. 89).

The subject of suicide could now be classified, studied, and explained (at least partially) supposedly without non-scientific moral overtones.

Durkheim's influence, both upon the study of suicide and upon the discipline of sociology, is much more pervasive than outlined above. In both his Suicide and The Rules of Sociological Method Durkheim set a strong methodological precedent on how social phenomenon, especially suicide, were to be studied. In reviewing studies of suicide since Durkheim, it is evident that both the concepts and methods used by many later sociologists were derived from Durkheim. That is, later sociologists have traditionally taken a deductive approach which assumed suicide, or suicide rates, to objective facts and seeks to isolate the causation of or social factors affecting suicide from comparisons of various suicide rates.

If one wants to know the several tributaries of suicide as a collective phenomenon one must regard it in its collective form, that is, through statistical data, from the start. The social rate must be taken directly as the object of analysis (Durkheim, 1951, pp. 147-148).

Following Durkheim's lead, most modern sociologists have also used officially gathered statistics on suicide (Douglas, 1967). Aside from the fact that official statistics have traditionally been used, the fact that suicide is (even given under-reporting) a relatively rare form of behavior (the United States rate is approximately 11 suicides per 100,000 population per year) makes the use of official statistics necessary for a deductive approach. In order to obtain a large number of cases to allow statistical comparison and treatment, it is necessary to use official statistics since the cost of setting up an independent data gathering system would be prohibitive. Also, the use of official statistics makes comparisons across various groups, which is essential to some theoretical treatments of suicide, possible, at least insofar as the method of compiling official statistics is nominally the same for the groups under consideration.

While sociological studies of suicide have frequently used official statistics, this use has often been qualified by the assertion that, while official statistics on suicide may not be absolutely reliable or valid, the relative reliability and/or the relative validity of official statistics is sufficient to permit their use. The assertion that suicide statistics are relatively reliable assumes that any error is random error, rather than systematic error or biasing. The assertion that suicide statistics are relatively valid is based on the assumption that, while the ratio of reported to actual suicide may not be unity, this ratio remains fairly constant from population to population. That is, if a systematic bias exists, it exists to the same extent in all official suicide statistics.

These assertions and assumptions have not been accepted by all sociologists. Gibbs (1968), Labovitz (1968), and most recently Douglas (1967) have contended that there is a strong possibility that dissimilar systematic biases exist in the reporting of official suicide statistics. The most complete discussion of such systematic biases is that of Douglas, who discusses five sources of systematic biases (Douglas, 1967). The most important of these is, according to Douglas, variation in the social imputation of motive. In order to understand the importance of variation in imputation of notice as a source of systematic bias, it is necessary to have some knowledge of definitions of suicide. While there is no universally agreed upon definition of suicide, the definition used by Durkheim is perhaps the one most widely known to sociologists: "We may say conclusively: the term suicide is applied to all cases of death resulting directly or indirectly from a positive or negative act of the victim himself, which he knows will produce this result" (Durkheim, 1951, p. 44). This definition clearly illustrates two central elements of most definitions of suicide. First, that the victim must have been the central agent of his own death ". . . a positive or negative act of the victim himself . . ." (Durkheim, 1951, p. 44). Secondly, that the victim must have knowledge that the consequences of his action are likely to be or produce death ". . . which he knows will produce this result" (Durkheim, 1951, p. 44). From Durkheim's subsequent discussion of animal suicides a third central element may be inferred--that of intention. The victim must have intended, or have as his motive, to die or to be dead. These three elements--agency, intention, and knowledge--are generally found in all theoretical definitions of suicide. Unlike agency, which

is an external behavior, and knowledge, which may fairly be imputed to most persons, intention is an internal state which is often difficult to establish. There is seldom any way of directly knowing what motivated a successful suicide. Coroners or medical examiners frequently must rely on external evidence to impute an internal state. It is hypothesized that common sense beliefs, and to some extent, sociological and psychological theories of suicide, are used by medical examiners and coroners in making such an imputation. Douglas (1967) contends that theories of various sorts are used in order to determine what external behaviors are relevant to such imputations. There is certainly the possibility of differing opinions among coroners and medical examiners as to which theory is to be used and, therefore, which evidence is deemed most relevant. Such variation, if it does indeed exist, could constitute a systematic bias, of differing proportions, in official suicide statistics.

Even if there were agreement on what theory of suicide was to be used, the possibility of a systematic bias in official statistics still exists. Here it may be useful to distinguish between two types of theories concerning suicide (Douglas, 1967). First, there are those theories which attempt to explain variation in suicide rates. These theories are usually based on analysis of suicide for groups of people (populations) and may be either testable or not applicable to individual cases of suicide. Secondly, there are those theories which attempt to explain or predict individual suicides. Generally these theories seek to isolate some factor, behavior, or situation common to all persons who commit (or at least get labelled as) suicide. Such theories have not as yet produced any factor which is invariably correlated with

suicide, although some factors (mental illness, alcoholism, loss of socio-economic status) do exhibit relatively high correlations. However, in relation to the determination of mode of death for a specific case, the fact that all suicides exhibit some common factor does not mean that the deaths of all persons who exhibit such a factor may be labelled as suicide. Both types of theories are valuable in that they explain either variation in suicide rate or successful suicides, but they are of little use in positively determining the mode of death for any specific case. For a medical examiner or coroner to assume that either type of theory is applicable to an as yet undetermined case, and to use the theory as the sole basis for imputating motivation or intention, is to open up the possibility of setting up a sort of self-fulfilling prophecy about who commits suicide. The end result of such a prophecy would be a systematic and self-sustaining bias in suicide statistics.

As Douglas (1967) admits, much of what he says about the introduction of a systematic bias into official suicide statistics, while logical and plausible, has not been empirically verified. As he states, ". . . but some of the arguments will, for the present, have to depend upon careful analysis of what is most plausible. There has been simply too little work done on the inductive problems of suicide statistics" (p. 193). Although sociologists have both used and attacked official statistics on suicide, very few studies have been done on the process by which those statistics are produced.

The purpose of this research is to provide such a study. The "inductive problems of suicide statistics" will be investigated. Inherent in such an undertaking is the assumption that suicide, while

certainly a type of behavior (however ill-defined or understood), is a label applied to certain types of deaths and thereby posthumously to certain persons. The process by which certain deaths are labelled as suicide is of crucial importance. As a means of investigating this process official records of deaths labelled as suicide will be reviewed to ascertain what factor or factors are used in determining suicide as the cause or manner of death. The emphasis of the study will be upon formulating an operational definition of suicide used by medical examiners, not upon determining how closely labelled suicides conform to theoretical sociological definitions of suicide, although this will be a secondary consideration. Such an operational definition would constitute a major portion of the labelling process. The general hypothesis presented by Douglas--that factor derived from common-sense and scientific theories or conceptions of suicide are used by medical examiners to impute motivation and thereby to label deaths and persons as suicides--will be tested. A comparison of case records of several medical examiners will be made in order to determine the existence and extent of variation in the social imputation of motive. As a means of isolating factors used to determine suicide as a mode of death, a comparison will be made between information present on suicide reports and information on reports of deaths where the mode remains unknown.

CHAPTER II

REVIEW OF LITERATURE ON OFFICIAL SUICIDE RATES

In order to conduct the research previously outlined, some understanding of both the nature of official suicide statistics and labelling analysis is necessary. For this reason literature relevant to each subject will be reviewed.

The question of the reliability of official statistics on suicide is not a new one in the discipline of sociology. Most authors who have dealt with the phenomenon of suicide have made some mention of the adequacy and/or inadequacy of official statistics. It is not the purpose of this review of the literature to give a detailed discussion of all the works on suicide, but rather to highlight the major criticisms and defenses of the use of official statistics in formulating and testing sociological theories.

Even before Durkheim's synthesis of the major works on suicide, several of the moral statisticians had noted problems in the collection of official statistics. Boismont (1856) realized that there was considerable shame and guilt associated with suicide, especially in a Catholic country such as France, and believed that families and even victims often attempted to hide or mask suicides. As will be seen later, this idea of hidden suicides decreasing the validity of official statistics is a common criticism of the use of official statistics. Legoyt (1881) recognized the possibility of a biasing of suicide

statistics along an urban (where he felt better methods of gathering statistics were used) - rural (where he felt statistics were less rigorously kept) continuum. This idea also has been elaborated on by later critics of official statistics. Strahan (1894), after what was perhaps the first comparison of the number of officially reported suicides using the number of officially reported deaths due to unknown causes, concluded that only about one-half of all actual suicides were reported as such. As will be seen later, this idea of the official under-reporting of suicides was to have significant effects on both the criticism and defense of official statistics. Aside from those who discussed the reliability and validity of suicide statistics per se, other authors were concerned with the adequacy of all officially collected statistics. Graunt (1665), in a study of vital statistics in London, demonstrated that data on both diseases and cause of death were frequently misclassified. Mayer (1969) later contended that problems of classification existed not only for mode of death, but even for the physiological causes of death.

Durkheim (1951) was, of course, aware of many of these early criticisms of official statistics. This is clearly illustrated by his discussion of the statistics on the motive of suicides:

But as Wagner long ago remarked, what are called statistics on the motives of suicide are actually statistics of the opinions concerning such motives of officials, often of lower officials, in charge of the information service. Unfortunately, official establishments of fact are known to be often defective when applied to obvious material facts comprehensible to any conscientious observer. How suspect must they be considered when applied not simply to recording an established fact but to its interpretation and explanation (Durkheim, 1951, p. 148).

It should be remembered that Durkheim is primarily questioning statistics on the motives of suicide and not statistics on the occurrence

of suicide. It is unclear from his writing why, although he believed one set of statistics (those on motives) to be invalid, he implicitly assumed another set (those on occurrence) to be at least valid enough for his purpose. Three explanations for these assumptions have been offered by later sociologists.

First, Durkheim did not see the establishment of whether or not a person had committed suicide. Indeed, given his definition of suicide, which makes no explicit mention of intention or motive (thus making it somewhat distinct from later sociological definitions), it is doubtful whether he saw the determination of suicide as a mode of death to be problematic at all. Second, it must be remembered that Durkheim was primarily interested in demonstrating the existence of social conditions affecting suicide rates. As such, his interest was in suicide rates as a measure of underlying social conditions. Thirdly, he felt that the stability of suicide rates for specific countries, and the variation, was in terms of varying social conditions, not in terms of various errors in gathering statistical data.

Durkheim's use of official statistics and his apparent justification of that use have been both criticized and incorporated by later sociologists. Krose (1906), in an early study of the inductive problems of suicide statistics concluded that changes in methods of gathering those statistics, especially in Prussia, Austria-Hungary, and Spain, invalidated many of the comparisons made by Durkheim. Von Mayr (1917) made a similar observation, although he considered only suicide statistics for Spain. While Krose and Von Mayr differed as to the number of suicides reported, the fact that methods of collecting suicide statistics do vary and are frequently changed is of some importance

because it highlights the need for sociologists to understand what method is being used and, more precisely, how it is being used.

Halbwachs (1930) incorporated some of the criticisms of both Krose and Von Mayr and added yet another important criticism of Durkheim's work. He noted that while Durkheim used official statistics to test his theory, one of his types of suicide, i.e., altruistic suicide, was seldom reported in such statistics as suicide. Verko (1951) repeated this criticism as well as supporting that of Krose and Von Mayr by presenting suicide rates for the periods Durkheim considered which were quite discrepant from those used by Durkheim. Both of these authors point out two persistent problems associated with the use of official statistics. First, how closely does the sociologist's definition of suicide conform to the definition by officials who compile suicide statistics. Second, where two sets of official statistics exist, which set should the sociologist use in testing or formulating his theories.

The most direct criticism of Durkheim's view of the determination of suicide as non-problematic is that of Douglas (1967). He contends that all social meanings, of which suicide is but one type, "are fundamentally problematic for both the members of the society and for the scientist attempting to . . . explain their action " (Douglas, 1967, p. 339). Douglas does not contend that the problematic nature of social meanings in itself makes official suicide statistics either unreliable or invalid; however, he does contend that the failure of most sociologists to realize this problematic nature has led to an almost unquestioning use of official statistics. It should be pointed out that one reason for Douglas' disagreement with Durkheim is the different

importance which they place upon intention or motivation as a conceptual element of suicide. Douglas sees intention, which is perhaps the hardest element of suicide (at least more difficult than agency) to establish, as much more important than did Durkheim. Suicide, as Durkheim defined it, is perhaps non-problematic, at least less problematic than determining the motivation behind individual suicides.

Durkheim's second reason for using official statistics, i.e., that they are measures of social conditions as cultural aptitudes for suicide, has also been questioned by Douglas. Douglas contends that suicide rates are instead artifacts of the information gathering system rather than measures of suicide or other social conditions. A great deal of this argument is due to a fundamental difference in theoretical orientation between Douglas and Durkheim, Douglas favoring an interactionist viewpoint over Durkheim's positivistic view. The superiority of one or the other of these theoretical orientations remains for now a somewhat moot point since Douglas presents little evidence to support his assertion that suicide rates are only artifacts. The high correlations between different official suicide rates within one country, such as those found by Halbwachs (1930), would seem to indicate that suicide rates are fairly good indicators of some social condition.

Durkheim's belief that the stability of suicide rates was an indication of their reliability has been advanced by many other sociologists. The foremost of these was Halbwachs (1930), who, while he criticized some of Durkheim's uses of official statistics, never the less incorporated this idea from Durkheim. Since he was aware of the weakness of official statistics, he proposed a sort of test of the reliability. He reasoned that drowning was the easiest means of

suicide to camouflage as accidental death. Therefore, if the rates for suicide by drowning were stable, it was not likely that they were often misclassified. Halbwachs found rates for drowning, and for several other means of suicide, to be stable and therefore concluded that the overall official suicide rate was not subject to serious unreliability or invalidity. Halbwachs does not consider that suicidal drownings of certain types might always be misclassified and therefore while invalid still remain stable. Nor does he consider a similar criticism advanced by Douglas that errors of misclassification could sum to zero and therefore still produce a stable rate. For example, certain types of drownings could be misclassified as accidental while certain types of homicide could be misclassified as suicide, thereby producing a stable suicide rate by drowning yet being both unreliable and invalid.

Durkheim's argument that the variability of suicide rates, especially variation between countries, is evidence of the reliability and validity of suicide statistics has also been attacked by Douglas. The counter-argument that such differences may be due to different definitions of suicide and investigative procedures as well as different desire and ability to hide suicide seems on the face convincing, although Douglas offers little evidence to support his argument. The research conducted by Schneidman, Farberow, Curphey, Litman, and Tabachnik (1963) were supplemental reports by members of the Los Angeles suicide prevention center used to assist that county's coroner in determining cause of death and resulted in and increased the number of suicides and are supportive of Douglas' argument. Likewise, research done by Stengel (1964) seems supportive of this argument. However,

research by Sainsbury (1968) and Barraclough (1968) indicates that while different coroners or medical examiner systems do produce different suicide rates, these differences are far from significant. They found an overall correlation of .95 between 1950 and 1960 suicide rates of 40 countries. Presumably some changes in officials and possibly changes in investigative systems occurred during these years; however, it is not known what the extent or effect of those changes were for individual countries. In a comparison of suicide rates for immigrants to the United States and rates of 11 countries from which those immigrants originated, a correlation of .87 was found. This would seem to indicate that different medical examiner or coroner systems, as between the United States and the 11 countries, make little difference in official rates. However, too little attention is given to the effect of immigration upon personal susceptibility to suicide to make this finding a certainty. A study of 1950-1952 and 1960-1962 rates for 39 English boroughs which had not changed coroners during the period and 19 boroughs which had given correlations of .45 and .49, respectively. This is perhaps the best evidence to support the fact that changes in medical examiners or coroners do not significantly change official suicide rates.

Durkheim's argument that variation in suicide rates coincident with obvious variation in social conditions within the same country is much more difficult to dispute than his other claim of reliability due to variation between countries. For example, the fact that suicide rates drop precipitously as soon as a war breaks out can hardly be attributed to sudden redefinitions of suicide on the part of coroners, or increased concealment attempts by relatives and friends of the

deceased. While Simpson (1950) has contended that the drop in suicide rates after the outbreak of a war is due to mislabelling and concealment of deaths of front-line soldiers, he fails to realize that, as Durkheim pointed out, this drop is not found exclusively among young rurals, but among most demographic subgroups. Other variations in suicide rates, notably cyclic variation as to day of the month, month of the year, day of the week, and hour of the day, could also be seen as supporting Durkheim's argument. While it seems likely that Douglas' view of rates generally as artifacts could be expanded to attempt to explain these rates, Tennant (1971) has correctly noted that Douglas has not attempted this.

While several other sociologists have criticized the adequacy of suicide statistics, Gibbs (1968) and Labovitz (1968) being two well known examples, most of their arguments have been incorporated and expanded by Douglas. Therefore, only his criticisms will be reviewed. Douglas has proposed five major sources of systematic biasing of official statistics on suicide. The first of these deals with the choice of which set, in instances where two sets exist, of official statistics to use. This criticism seems to hold little weight since (1) the existence of two sets of official statistics is not widespread, (2) it is seldom that, where two sets do exist, only one set is used, (3) dual sets are generally used as tests of theories of rate stability, not of theories of individual suicides, and (4) differing rates are generally reliable predictors of each other.

The second source of systematic bias which Douglas lists is bias due to subcultural differences in attempts to hide suicide. His argument is that of the greater the negative sanctions placed upon

suicide by the members of a subculture, then the greater the number of attempts to conceal or disguise a death so that it will not be labelled a suicide. Presumably, the greater the number of attempts at concealment, the greater the number of successful attempts. The fact that families often have access to both physical and motivational evidence which could influence the official determination of the cause of death in suicide cases would seem to lend credence to this hypothesis. Although no specific empirical studies have been done on this subject, the findings of Waldstein (1934) and Kruijt (1960) are interpreted as supporting the hypothesis.

While the second of Douglas' sources of a systematic bias deals with the significant others of the persons committing suicide, the third source of such bias is the official who makes the decision as to cause of death. These officials supposedly make this decision on the basis of the evidence which they can obtain. However, some sociologists have suggested that situational factors such as family wishes, the status of the individual in the community, the personal knowledge which the official may have about the victim, and financial consideration (in the case of double indemnity insurance policies) may affect official categorizations. While the extent to which such factors may influence officials is not known, the lower suicide rates of rural areas (in which the official would probably know more about the victim) may be seen as supportive of this argument. Enough cases of mislabelling due to these sorts of factors have been cited to suggest that this might be a source of a systematic bias.

The fourth of Douglas' sources of a systematic bias is variation in imputation of motive. Since this argument will be dealt with more

extensively in the review of the literature on labelling analysis, no discussion of it will be undertaken here. It is, however, noted that no direct evidence concerning this source of a bias is cited by Douglas.

Finally, Douglas suggests that a systematic bias could be introduced due to the differences in investigative procedures which various jurisdictions use to determine the cause of death. While it is true that new investigative procedures and better forensic pathology have made great progress in arriving at better methods to determine the cause of an individual's death, these advances have not been applied to all jurisdictions at the same time. In the United States today approximately one-third of the states still use an elected county coroner system with no qualifications for the office listed, while others have better trained and equipped medical examiner systems (Kornblum and Fisher, 1972). Even within states the procedures used to determine the official causes of death may vary from county to county or even between cities in the same county. This makes comparison of suicide rates between states subject to speculation as to its validity, since what would be labelled as an accidental death in one jurisdiction may be labelled a suicide in another. Curphey (1967) addresses himself to the problem of unreliability due to differing definitions of suicide and investigative procedures when he states the following:

. . . A very fundamental question initially with the true incidence of suicide, whether in this or any other country. It is generally agreed that present statistical evidence leaves much to be desired because of the dissimilarity in methods of reporting suicidal deaths and the wide spectrum in which the individuals responsible for the certification lie, ranging from the lay coroner with no scientific training, little personal interest, and a definite emotional bias conditioned by the social mores of his environment, on the one hand to the forensic pathologist,

On the other hand, who certifies these deaths on the basis of the findings of the pathologist, the toxicologist, and the trained lay investigator who is at the scene of the death. Because of the current state of statistical confusion, a prime prerequisite would be to document with a greater degree of accuracy the true incidence of suicidal deaths (Curphey, 1967, p. 464).

Curphey (1967) believes that suicide statistics could be improved by a multi-disciplinary medical examiner as opposed to a coroner system. While there is much evidence to support this, Curphey fails to mention that even trained scientific investigators may have biases which could affect their determination of the label attached to a death. Even if the procedures used to determine the cause of death were uniform, it is doubtful that this would alleviate the problem of comparability because there seems to be no uniform definition of what constitutes (either legally or theoretically) a suicide. Individual differences between officials as to their skill in using and knowledge about investigative procedures, coupled with varying official and working definitions of suicide may result in a systematic biasing of at least some suicide statistics. However, the findings of Sainsbury and Barraclough (1968) indicate that this systematic bias, if it indeed exists, is not significant.

CHAPTER III

SUICIDE AND THE LABELING ORIENTATION

This section proposes to examine the phenomenon of suicide from the perspective of the labeling orientation. This is not the usual method by which suicide has been investigated. Following Durkheim's pioneering analysis, most sociological studies and theories of suicide have taken a deductive or causal approach. Such an approach seeks to explain individual suicide and/or variation in suicide rates in terms of either psychological or sociological variables. With the exception of Douglas, few modern sociologists have examined suicide using the inductive or process approach which is basic to the labeling orientation.

There are at least two reasons for this failure to apply labeling analysis to suicide. The first of these is the strong precedent set by Durkheim for using the deductive or causal approach. As Douglas (1967, p. xiii) says, "To this day Durkheim's Suicide has dominated, with only a few important exceptions, the sociological works on suicide and much of all sociological methodology." It should be remembered that Durkheim was attempting to demonstrate the need for a science of sociology when he wrote Suicide. This need could be most dramatically demonstrated by showing social causation of an act which was generally believed to be highly individual in nature. Durkheim's emphasis was therefore on the social representations of suicide, i.e., suicide rates

and variations in these rates. Also, in order to remain "scientific," Durkheim avoided the moral debate which had characterized most earlier works on suicide. The "rightness" or "wrongness" of suicide and people's judgment about the morality of suicide were not scientific topics. Rates and causation were the proper subjects for sociological study, at least for Durkheim's purposes. As such, these have been by and large, the only aspects of suicide which were given serious attention for many years. The second reason for the lack of labeling analysis relative to suicide is related to the extensive use of official rates in the causal approach. This use of official rates minimizes the problem of defining suicide. Such problems of definition are considerable. Suicide as a behavior can have meaning, and therefore be defined, on at least three different levels. These are: (1) the collective (i.e., How do officials define suicide for official rates?), (2) the shared social (i.e., What are the shared, common-sense definitions of suicide which people hold?), and (3) the personal (i.e., How is suicide defined by the family and friends of the successful suicide or by the potential suicide?). The deductive-causal approach, with its focus on official rates, frequently ignores two levels of meaning or definition of suicide. Even official definitions of suicide are seldom adequately investigated.

Both of these failures are due to the fact that study of rates and causation focuses almost exclusively on suicide as an act, which of course it is, albeit a somewhat poorly understood one. But especially at the collective level, suicide is also a label attached by others to certain types of death and thereby posthumously to certain persons. Suicide may also be a label applied at the shared social and personal

level. However, the consequences of labeling at these levels are not likely to be as serious as at the collective level due to differences in social power of the labelers. In most societies there is a legal mandate to assign responsibility for a person's death. Therefore, deaths are classified as to mode of death, i.e., as either natural, accidental, homicide or suicide. In traditional studies of suicide little if any consideration is given to the process by which a death comes to be classified or labeled as suicide. It is assumed that the relationship between the act of suicide and the label of suicide is essentially clearcut and non-problematic. Classification, the decision of which label to apply, is seen as being dependent only on the behavior or act of the deceased.

"Labeling theory argued, on the contrary that the categorization of something or someone is an independent variable, so that it is problematic" (Douglas, 1970, p. 12). In looking at the process by which the mode of death is assigned, the idea that such a determination may be problematic is supported. The person responsible for assigning the mode of death (a medical examiner or coroner) is not usually directly involved in the circumstances of the death and is familiar with them only through reports made to him by others. The possibility of false or incomplete reporting therefore exists. Breed's finding that official reports of occupation, marital status and unemployment-employment were often in error in his study in New Orleans supports this idea (Breed, 1963). It has been theorized that there is a norm in many societies to speak well of the dead, especially in more traditional and rural areas of a society. The fact that rural areas generally have a lower suicide rate might be due to the operation of

such a norm on others who give evidence to coroners or medical examiners in rural areas. Even in urban areas of a society, the fact that suicide is essentially a private act may make accurate reporting of circumstances surrounding a death very difficult.

Even if reporting is completely accurate, many of the problems associated with determining the mode of death would still exist. To label a death a suicide involves applying some definition of suicide to an action or behavior. While definitions of suicide vary widely, most involve three essential elements. These are: (1) agency, the action resulting in death must have been performed, or at least precipitated by the deceased, (2) intention, the wish to die or to be dead must have been the reason or motivation for the act, and (3) knowledge, the deceased must have known that the result of his action was likely to be death. Applying any definition of suicide involves the making of some judgment as to the presence of each of these three elements. Knowledge and agency are usually the easiest to establish either from reports of others or from physical evidence. Intention however, often involves the making of an inference by a medical examiner or coroner as to the deceased's desire to wish to die. It is impossible to ask a successful suicide about his motivation. Occasionally a note, diary or recent conversation will provide good evidence that the deceased had actually intended to take his own life. However, such communication of intent are found in only about 30 per cent of official suicides. The possibility that notes may be destroyed by persons close to the deceased cannot be overlooked. Yet it is unlikely that a majority of suicides leave any clear proof of intention. In ambiguous cases where one or more elements of the definition of suicide is not conclusively present the mode of death which is assigned may depend upon which information is

most easily available to, and deemed relevant by, the coroner or medical examiner. Clearly the label which is applied to a death is dependent not only on the circumstances surrounding the death, but also on the circumstances surrounding the person labeling the death.

Durkheim and others have adequately demonstrated that the act of suicide may be caused by social factors. However, little attention has been given to the social factor affecting the application of the label of suicide. In this respect traditional sociological analysis of the social causation of the phenomenon of suicide is incomplete in that it has not seen that the acts of labeling a death a suicide, just as the act of committing suicide, may be affected by social factors. Early labeling analysis, although it was a significant break with social rate studies, was also incomplete because "Labeling theorists . . . do not describe the labeling process, but rather, affirm that the process exists and use this as grounds for attacking traditional concepts . . ." (Blum, 1970, p. 12). Significant interest in suicide as a label did not arise until Douglas and others began to study the comparability of suicide rates, especially those used by Durkheim. While the comparability of official suicide rates had been suspect for many years, their use was usually justified by the assumption that any error in rates was random error. It was not until Douglas demonstrated that variation in labeling procedures might (it should be remembered that much of what Douglas says is based upon "careful analysis of what seems most plausible") introduce a systematic bias or error that interest in the process of labeling a death a suicide was generated. Even today "What is needed to begin with is a microscopic analysis of the social uses of the categories (mode of death) to determine the general

properties of such use" (Douglas, 1970, p. 12).

Given the traditional distrust which sociologists have shown for official statistics and rates concerning other forms of deviant behavior (for example, juvenile delinquence, crime and sexual behavior), it is amazing that examination of the labeling process associated with suicide was so long in coming. Suicide is certainly a form of deviant behavior, both statistically and normatively. Like other forms of deviant behavior, suicide is subject to moral judgments. However, the nature and sanctions applied to these moral judgments varies widely. Historically, suicide has never been prescribed behavior for all members of a society, yet in certain times, cultures and circumstances, it has been seen as an honorable mode of death for certain members of society. Even today, the amount of negative sanctions which the act of suicide elicits is highly dependent both upon the situation of the person committing suicide and upon the person judging the act. It is likely that the suicide of a terminally ill person will not be judged as severely as the suicide of a young, healthy person. Likewise, it has been suggested that Catholics view suicide much more negatively than do Protestants. Social reaction to suicide is variable, just as is social reaction to other forms of deviance. It is this variation in social reaction which is the basic area of interest for the labeling orientation. If it can be asked why some people or behaviors are labeled criminal or mentally ill, while essentially similar behaviors or people are not; why can it not also be asked why essentially similar deaths are sometimes labeled as suicide and sometimes as accidental. Both the labels of suicide and other deviant labels seem to be differentially applied.

Aside from the differential application of labels, suicide is

similar to other forms of deviant behavior in at least two other ways. First suicide, like other forms of deviant behavior, may become, if the label is successfully applied, a master status. That is, the person's life may become organized around the label which has been applied to him. The mechanism of such a reorganization is no doubt different for suicide and say mental illness, but the objective results may be very similar. Just as the mental patient, even after he is cured and released may still be identified by some as mentally ill, so the memory which some persons hold of a person who takes his own life will always be influenced by his suicide. It is worth noting that the master status affects not only future interactions but may also be used to reorganize past interactions. Just as the past behaviors of a mental patient may be reinterpreted after his institutionalization, so the past behavior of a suicide may be reinterpreted as proof of intention or to lessen guilt. The master status of suicide may be applied to stigmatize not only the future recollections of an individual but also to stigmatize recollections of him prior to his death. The fact that suicide involves a certain amount of stigma is the basis of the second similarity between suicide and other forms of deviant behavior. Like other deviations, suicide is a more or less private act. Both the suicide and others close to him may attempt to conceal or disguise the act of suicide. This is especially true when either the suicide or his others fear that stigma may be secondarily attached to others, i.e., they may come to be seen as causing or driving him to suicide. Frequently to label a person as a suicide is to say something not only about the deceased but also about his family, friends, etc. just as to label a person as criminal is to say something about his family, upbringing, friends, etc.

The possibility that this could affect official suicide rates has already been noted. Unfortunately, this has not been as widely studied as has failure to report crimes.

The situation of suicide then is somewhat paradoxical. While it is similar in many respects to other forms of deviant behavior to which the labeling orientation has been applied, suicide has never been extensively dealt with in labeling analysis. No doubt this is partially due to the lack of a precedent for studying suicide in this way (and to the existence of a strong precedent for studying suicide in terms of rates and causes); but there are also other reasons. Labeling theory arose from symbolic interaction and is therefore concerned with the Median concept of self and interaction. Yet in the case of successful suicide there is no self in the traditional sense, nor is there interaction. Obviously there can be no reaction by the person labeled, he can neither disavow his deviation, nor can he become engulfed in the deviant role. Schur has alluded to this problem by describing suicide as "a deviation to which, because of its total and final nature we might expect the labeling perspective to have only limited relevance" (Schur, 1971, p. 34). Schur is no doubt correct that certain labeling analysis concepts cannot be applied to suicide in the same manner in which they are applied to other forms of deviation. Yet this need not limit the relevance of the orientation, if new interpretations or applications of the concepts can be formulated. One such reformulation might be a concept of virtual self. The concept of a self is after all an abstraction which in traditional usage has been associated with a living person. In the case of suicide a virtual self would be an abstraction associated with the memories or recollections of the deceased which those close to him

possess. The virtual self then exists in the minds of the suicides' others. Therefore, it is they who will disavow his deviance or negotiate his status. The fact that others may feel guilt due to the suicide may even lead to their engulfment in the suicide role. With a concept such as virtual self it is possible to fully apply the labeling orientation to the phenomenon (both act and label) of suicide.

According to Schur labeling occurs and therefore labeling analysis can be applied at three distinct levels: the interpersonal, the organizational and the collective or societal level. At each level there are three processes which may occur: stereotyping, retroactive reinterpretation and negotiation. This paper will deal primarily with the operation of these three processes at the interpersonal level, mentioning other levels of analysis only to highlight or clarify the workings of the processes. This is not to imply that suicide could not be studied at another or all of the levels of analysis. However, since relations are basic to both other levels, this hopefully will be the most productive single level of analysis.

A stereotype is a shared image of a category of people or of one person in such a category. As Lippman (1922, p. 81) suggested, all people have such images since a certain amount of stereotyping is necessary to conduct the business of living in a complex and heterogeneous society. Yet because stereotypes are simplifications and may be based on no actual contact with the stereotyped category, they are frequently incorrect. Stereotypes of what category of people attempt suicide or of what the potential suicide is like, do, of course, exist. The prevalence of certain myths about suicide, i.e., people who talk about suicide will not commit suicide, suicides are very prevalent among young females, etc.

is ample evidence of this. What Scheff has noted about stereotypes of mental illness may also be true of stereotypes of suicide (Scheff, 1966). Scheff noted that stereotypes of mental illness are learned in early childhood and reinforced in everyday usage, especially in media treatment of mental illness. While young children are probably isolated from frequent exposure to death to a greater extent than they are isolated from mental illness, it seems entirely likely that by adolescence most persons have some conception and stereotypes of suicides; media coverage of the suicide of prominent persons, or suicide by unusual means, no doubt reinforce some of these stereotypes of suicide. For example, the wide coverage of the death of Marilyn Monroe may reinforce the stereotype of females as more prone to suicide. Phillips' (1974) discussions and findings on the "Werther effect" substantiates this idea to a degree.

What is of particular interest to this study is not the stereotype of suicide held by the general public but rather stereotypes of suicide held by those charged with the official determination of mode of death. Douglas has contended that medical examiners and coroners do develop such stereotypes, especially about motives of suicide. He implies that just as the general public may have their stereotypes reinforced by mass media, coroner and medical examiners may have their stereotypes of suicide reinforced or initially formed by medical, sociological and psychological studies and theories of suicide. At the present time no specific studies of stereotypes held or used by medical examiners or coroners exists. Until such a study is done, the existence of such stereotypes must remain speculative.

It does, however, seem likely that stereotypes of suicide held by

the general public and by the others of suicide victims may influence medical examiners or coroners. Family protest of certification of a victim death as suicide would likely be more intense if either the victim or his method did not agree with their stereotype of suicide. Further, medical examiners and coroners may be aware of public stereotypes of suicide. The influence of such knowledge upon their determinations of cause of death is unknown but two possible reactions may be advanced. They may either be hesitant to classify a death as suicide which does not conform to their conception of the public stereotype of suicide for fear of public questioning of their decision (this is somewhat more probable where a coroner system exists); or in an attempt to disprove the public stereotype of suicide as they perceive it, they may be hesitant to classify as suicide a death which too closely conforms to the public stereotype. Both of these outcomes are for now only speculation as research on the effect of public stereotypes upon coroners and medical examiners has not been undertaken.

The second process usually discussed in labeling analysis, retroactive interpretation, is similar to stereotyping in that both involve a simplification, often incorrect, of complex events. However, retroactive reinterpretation also involves a restructuring or reevaluation of events rather than mere simplification. Retroactive reinterpretation is the process by which a person comes to be seen in a totally new light as the result of some event. In the case of suicide events prior to the death may be reinterpreted in terms of the possible labels which may be attached to the death. Generally the purpose of this reinterpretation is to determine or impute motivation or intention to the deceased' actions. Events which were not previously seen as having a suicidal

meaning, such as concern with health or depression, become reasons or a sort of evidence that the person was that way, i.e., suicidal, all along. The problem with such reinterpretation is that there is seldom a way of determining whether or not they are correct, since only the deceased could reliably answer that question. It should be noted that there are usually two groups who make retroactive reinterpretations, the others of the deceased and the medical examiner or coroner. Since these purposes in making such reinterpretations may be quite different as to the intention they hope to demonstrate, it is not surprising that both the prior events chosen to be reinterpreted and the manner in which these are handled may also be different. Others of the deceased, in an attempt to retain their prior, and probably non-suicidal, image of the deceased will often choose those events which would demonstrate no motivation for or intention of suicide. Medical examiners may, on the other hand, choose events which have previously been associated by theory or professional experience, with suicide. Family protests that "he couldn't have killed himself" or "he was never the kind to take his own life" highlight differences in the reinterpretation process. The problem of determining the correctness of a reinterpretation is complicated by the fact that while the family or other of the deceased may have more information on, or at least clues to, his intention, they also usually have more reason to construct a non-suicidal virtual self. The medical examiner, while he is probably less interested, in most cases, in reinterpreting events to yield a non-suicidal virtual self, must rely on third-hand information or upon statistical-theoretical relationships to make his reinterpretation.

It is not, however, always the case that the reinterpretations of

the others and the medical examiner or coroner are different. Such situations may be thought of as role engulfment of the virtual self. In these cases the others of the deceased may come to see him as having been suicidal, although somewhat concealed, all along. It is probable that in many cases the others knew, considering the number of successful suicides who make prior attempts at suicide, that the deceased was suicidal. In other cases it is possible that a reinterpretation may be used as a defense against perceived guilt feelings. If others reinterpret events so that they come to see the deceased as "going to kill himself sooner or later" or as "suicidal all the time," they may feel less guilt over not being able to prevent the suicide.

Whatever the consequences of retroactive reinterpretation for the others, this is of importance to this study only as it affects the reinterpretation which determines how a death will be officially labeled. Yet his reinterpretation may be greatly influenced by the reinterpretation of others, especially when those others conceal or destroy evidence which is inconsistent with or would tend to discredit their interpretation. Douglas and others have hypothesized that due to subgroup (usually Catholic vs. Protestant) variation in the amount of moral condemnation which suicide evokes, there exists subgroup differences in the need to hide suicide, i.e., construct and maintain non-suicidal retroactive reinterpretations. It has also been hypothesized that there are subgroup (economic class) differences in ability to hide suicides. "Specifically, it is hypothesized that the ability and willingness to control the communication process varies directly with the increasing social status" (Douglas, 1967, p. 210). Finally, the idea that certain groups (coroners vs. medical examiners) may be more

susceptible to pressure to accept family reinterpretation due to the manner in which they come to hold their position has been suggested by Douglas. The result of these three hypotheses, if true could constitute a significant systematic bias in official suicide statistics. An investigation of the process of retroactive reinterpretation for both others and officials is needed before this can be substantiated. Such an investigation would be a great contribution from the labeling orientation to the understanding of suicide.

One benefit of such an investigation would be to determine whether or not "what are called statistics of the motives of suicide are actually statistics of the opinions concerning such motives of officials" (Durkheim, 1951, p. 148). Durkheim's quotation points out the possibility that medical examiners and coroners may, and probably do, have some preconceptions of which events are important in determining the type of retroactive reinterpretation to be made. To the extent that these preconceptions exist, and given the education and experience of most medical examiners, it is unlikely that they would not have some preconceptions and influence the imputation of motive or intention, it is possible that a self-fulfilling prophecy could be generated.

The fact that there may be differences in how people reinterpret the events prior to a completed suicide and that they may hold different stereotypes of suicide necessitates consideration of the third labeling process listed by Schur. This process is negotiation. The classification of a person, especially when the label associated with the classification is seen as deviant or unfavorable, always involves the exercise of social power. Since very few persons in a negotiation will either have absolutely no social power or complete social power, some

bargaining occurs as to how much social power each party will utilize. The most common example of this is plea bargaining in criminal prosecutions although Scheff has pointed out that the same process may occur in the interaction between a psychiatrist and a patient (Scheff, 1968). Likewise, Edgerton has cited evidence of the same process in interaction between medical doctors and patients' families (Edgerton, 1969). It seems reasonable that a bargaining or negotiation process may also exist between medical examiners or coroners and the families of suspected suicides. Various medical examiners have indeed reported attempts by family members to influence their decisions. Most generally these attempts are aimed at getting the medical examiner to classify an actual suicide as an accidental or natural death, however, in certain types of cases pressure may be exerted to label accidental deaths as suicides. The observations made about relative power to enforce one retroactive reinterpretation is closely related to negotiation. However, the fact that negotiation must be entered into suggests that such situations involve a relative parity of social power. Since members of the general public would be more likely to have some parity of power with coroners, due to the elective nature of the office, than with medical examiners, it has been suggested that coroners are more likely than medical examiners to succumb to family or other pressure to mislabel suicides. Douglas has suggested that comparison of suicide rates of jurisdictions where different investigative procedures exist may result in a systematic biasing of suicide statistics.

The concept of a virtual self is very important in a consideration of negotiation. The family of a suicide victim may be considered to be negotiating for the deceased in order to maintain the virtual self as

they wish to remember it. The negotiation strategies used by family members and significant others of the deceased is of some interest. At least three strategies may be discerned. First, that of complete disagreement as to the accuracy of the classification of death as suicide. This is closely related to the labeling orientation concept of deviance disavowal. The major difference being that while in traditional labeling analysis the person is trying to convince others that he is "no longer that way;" in suicide the family is trying to convince others (medical examiners or coroners) that he "never was that way." Just as the deviant may enter new groups and adapt new life styles to support his claim of rehabilitation, so may the family of the suicide project his virtual self into life styles and groups which he in fact never participated in.

The second negotiation strategy does not attempt to dispute the factual label of suicide, but rather attempts to minimize the stigma associated with suicide. This technique usually involves the offering of mediating circumstances and may be thought of as analogous to the "techniques of neutralization" described by Sykes and Matza (1957, pp. 664-670). In a very complete discussion of the process of guilt neutralization Henslin (1970) listed 11 techniques of guilt neutralization. One of these, denying the suicide, is similar to the first type of negotiation strategy. Others which Henslin discusses are (1) defining others as responsible, (2) viewing impersonal factors as suicidogenic, (3) emphasizing the inevitability of the act, (4) emphasize the uncertainty of purposive human acts, (5) emphasize the irrevocability of the past, (6) minimize the suicide, (7) conceptualize the act as good, (8) define altruism as the suicide's motive, (9) atoning for

wrong doing, (10) using thought transference and (11) using "guilt neutralizers" (i.e., professional or non-professional persons who can reduce the perceived guilt). Two points are of interest here. The extent to which these techniques of guilt neutralization are used to personally redefine suicide and the extent to which they are used to attempt to get suicide officially redefined. Quantitative studies of each situation have unfortunately, not been undertaken. However, the possibility that medical examiners or coroners may serve as "guilt neutralizers" cannot be overlooked.

The final negotiation strategy might well be more properly called a negotiation outcome, since it is doubtful if many others actively plan for it to occur. This outcome is that the others of the suicide come to accept the suicide as such. The immediate result of this is the destruction of any remnant of a non-suicidal virtual self. The label of suicide, in a discrediting sense has been successfully applied at the official, shared social and personal level. The implications of this as a guilt reduction mechanism have previously been mentioned in the discussion of retroactive reinterpretation. It should be noted that Henslin (1970, p. 204) mentions this outcome as "conceptualizing the deceased negatively." This outcome may be conceptualized as role engulfment of the virtual self into the suicide role.

There are, no doubt, other ways in which concepts associated with labeling analysis, could be applied to the phenomenon of suicide. It has been the purpose of this paper to suggest some such applications, not to provide an exhaustive listing of them. To summarize, it may be stated that suicide is both an act and a label. As an act a deductive-causal approach may be the best strategy. However, to see suicide only

as an act, and therefore, to neglect the consequences of the label of suicide, is to give only a partial explanation of the phenomenon.

CHAPTER IV

RESEARCH DESIGN

The basic purpose of this research is to determine the process by which certain deaths come to be labelled as suicide. In this chapter the basic procedure used will be presented. Additionally, separate research goals which contribute to the understanding of the labeling process will be discussed.

Data for this research was gathered from a review of Oklahoma Medical Examiner case reports on 691 cases of suicide and 121 cases of death by unknown manner. Manner of death is used in this research to mean the quasi-legal classification of death by a medical examiner as either homicide, suicide, natural, accidental, unknown, or pending. While this information is probably more frequently called "cause of death," this researcher will use "manner of death" in keeping with medical usage. These cases do not represent all suicides or deaths by unknown manner for the years 1972 and 1973 due to the fact that some cases were still in the hands of medical examiners for review. However, these figures do represent approximately 99 per cent of all cases labelled as suicide and 64 per cent of all cases labelled as manner unknown. Case reports from the years 1972 and 1973 were used because, in the opinion of the state medical examiner's office, these were the first years in which Oklahoma had a state-wide, fully functioning, medical examiner system. With regard to Douglas' (1967) contentions

about suicide statistics, is it interesting to note that prior to 1972 even the state medical examiner's office views Oklahoma suicide statistics with a significant amount of skepticism.

Under Oklahoma law, county medical examiners are required to investigate all deaths in which suicide is suspected. They are further required to file reports with the state medical examiner's office on all such cases. Since these reports are reviewed and the decision of the county medical examiner as to the manner of death may be amended by the state medical examiner, these reports may be thought of as a justification or reason for the decision of the county medical examiner. As such the information and evidence presented in these reports, especially suicide case reports, constitute factors which they believe to be relevant to the determination of suicide as a manner of death. A compilation of the amount and type of evidence was made to provide a rudimentary working definition of suicide, as used by medical examiners. A table showing the amount and type of evidence found, with a discussion of importance and conclusions, may be found in Chapter VI.

It can correctly be pointed out that by looking only at cases of deaths labelled as suicide or manner unknown, a great many cases of actual suicide may have been omitted from study. That is, cases of actual suicide which have been inaccurately classified as homicide, accidental, or natural were not considered. This is, of course, a possibility; however, due to the large number of cases in each of these categories and the limited amount of time available, it was decided that a comparison of only those deaths labelled as suicide or as manner unknown would be both the most relevant and most feasible.

In each case report, 21 general items deemed relevant to the labeling process were reviewed. A listing of these items, with procedural guidelines as to how they were evaluated, may be found in the first section of Chapter V. After these items were recorded and the complete case report reviewed, each suicide case was categorized as to its conformity to a conceptual definition of suicide. This conceptual definition of suicide was derived from a synthesis of various definitions used in past sociological treatments of suicide. Basically, it involved a determination of whether the three factors most common to sociological definitions, i.e., intention, agency, and knowledge, were established.

As the categorization of various behaviors into a typology is always problematic and usually somewhat subjective, the following guidelines were used in order to minimize inconsistency to applying the conceptual definition. It was assumed that the victim was the agent of his own death unless the impossibility or improbability of this was specifically mentioned in the case report. In those cases where the reports did mention the improbability of agency, further evidence as to location of wound, type of wound, and physical capability of the deceased were investigated in order to determine how improbable agency was. For example, sometimes agency was decided on the basis of whether a person indeed had an arm length sufficient to pull a trigger on a rifle positioned directly in front of him. With regard to intention, it was assumed that the victim intended to take his own life unless evidence contrary to this was noted by medical examiners. This decision as to intention was usually less problematic than it may appear due to the means of suicide employed by most persons. If it can be proved that a

person did knowingly place a gun to his head and pull the trigger and was aware of the possible consequences of this act, then it appears reasonable to impute intention to die. The fact that the victim was not thought to be suicidal by others was not taken in itself as evidence of lack of intention. Persons who had met their death playing Russian roulette or chicken provide a special instance. Medical examiners consider these cases to be suicide since they reason the person knows there is a good probability he will be killed. They therefore infer at least indifference toward death and sometimes even intention to die from this. In this research it was reasoned that, while the victims of such behaviors knew that death could result from their actions, they also may have had good reason to believe, i.e., they may have known, that the chances for life were at least as good if not better than the chances of death. In these cases, therefore, an evaluation was made as to which type of knowledge was more relevant to the individual. If knowledge of death seemed more prevalent, intention was inferred. If knowledge of life chances was more prevalent, intention to die was not inferred. In cases where the deceased had been playing chicken, i.e., racing toward one another on motorcycles or in cars, it was assumed that knowledge that the other participant would change course at the last minute was predominant over knowledge of the possibility of death. As to the question of the victim's knowledge of the consequences of his action, aside from the special cases mentioned above, unless some statement as to mental disability or other evidence of unfamiliarity with the method used was explicitly present, it was assumed that the victim would have at least as much knowledge of consequences as the legal "reasonable and prudent man."

This application of the conceptual definition of suicide could produce eight possible categorizations of suicide. These are:

1. Those which show no evidence of either intent, agency, or knowledge.
2. Those which show evidence of intent only.
3. Those which show evidence of agency only.
4. Those which show evidence of knowledge only.
5. Those which show evidence of intent and agency.
6. Those which show evidence of agency and knowledge.
7. Those which show evidence of knowledge and intent.
8. Those which show evidence of intent, agency, and knowledge.

Category 6, that of agency and knowledge, was eliminated prior to beginning the research because it was felt that if a person knows (in the sense in which knowledge is applied here) that an action will kill him and yet performs the action, he must have intended to die.

Sacrificial suicide in which a person loses his own life to save others could provide an exception to this. However, it was not believed that situations of this sort would be found, and indeed they were not. Had there been an argument similar to that used with Russian roulette players would have been used to decide knowledge and intention.

Before formal data collection was begun 50 suicide and 10 manner unknown cases were reviewed to familiarize the researcher with items contained in the reports and to test the categorization system. These same cases were later re-analyzed to provide a check of the consistency with which the researcher applied the conceptual definition of suicide. Three of the cases were reclassified because the researcher had not assumed all elements of the definition present unless substantiated

otherwise. All three cases were reclassified in the direction of more evidence. In order to insure that the categorization of labelled suicide would be consistent, a further cross-check was employed. During the initial gathering of the data, all cases which were not felt to show all three conceptual elements were marked. After all the cases were reviewed, these cases (58) were carefully rechecked. Seven cases were found to be in error. Four of these were recording errors. Three cases in which reporting was very sketchy were reclassified in the direction of more elements of the conceptual definition being present. It is, of course, possible that deaths may have been overclassified; however, the possibility that deaths in which all definitional elements were present were classified as less than certain suicide has been lessened by these procedures.

The purpose of classifying cases according to a conceptual or sociological definition of suicide was to compare sociological definitions with those of the examiners. Douglas (1967) has contended that sociologists often use statistics on suicide assuming that their definitions of suicide and those of medical examiners or coroners correspond. By comparing the degree of correspondence, a test of this contention may be formulated. That is, any discrepancies between the sociological meaning of suicide and the medical examiner's definition of suicide (as formulated from amount and type of evidence present) may be noted and their significance discussed. This comparison and discussion may be found in section three of Chapter V.

Douglas (1967) has also hypothesized that certain factors, derived from scientific theories and common sense conceptions of suicide, are used by medical examiners to impute suicidal motivation or intention.

He further contends that variation in this imputation of motive is one significant factor which makes comparison of suicide statistics suspect. In order to test this contention, the following procedure was used. It was assumed that factors of the type Douglas discusses, if they do exist, would not be present with as great a frequency on manner unknown case reports as upon suicide case reports. Therefore, it should be possible to compare amounts and types of information present on these two types of case reports and isolate factors, if they exist, which seem to be used to impute suicidal motivation.

In order that the suicide and unknown manner of death case reports be made more comparable, it was decided that it would be necessary to restrict the unknown manner case reports. The intention here was to eliminate unknown cases which could not possibly have been suicide. In all 36 manner unknown case reports were eliminated from this study. These included: (1) cases of death of persons less than 10 years of age; (2) cases of death specifically noted by medical examiners as not being suicide, but not classified as any other manner of death; (3) cases in which so little evidence was present (only skeletal remains or bits of flesh) that no possible conclusions as to manner of death could be reached.

Since the remaining 121 manner of death unknown case reports could have been, although often by an extreme stretch of imagination, actual suicides, they differed, from a sociological point of view, very little from labelled suicides which showed no evidence of intention, agency, or knowledge. For this reason it was decided to compare them with labelled suicides showing no evidence of intention, agency, or knowledge and with labelled suicides showing evidence only of agency. These

comparisons are included with comparisons of suicide case reports and unknown case reports and may be found in section four of Chapter V.

CHAPTER V

COLLECTION OF THE DATA

Before any discussion of the conclusions reached in this research can be undertaken, it is necessary to delineate the procedures and conventions used in the collection of the data. Data for this research was obtained from case reports of deaths which had been classified by Oklahoma medical examiners as suicide or manner unknown during the years 1972 and 1973. The nature of these case reports requires detailed attention. Each case report contains, as a basic document, a Chief Medical Examiner's Office Form (C.M.E.-I). It was from this form that the majority of the data was taken. The front side of this one-page form is a matter of public record and contains information upon demographic characteristics, address, occupation, reason for investigation, time and geographic location of injury and death, notification of injury and/or death, description of the body, non-fatal and fatal wounds, probable cause of death (that is, whether accident, natural, suicide, homicide, unknown, or pending). The reverse side of the C.M.E.-I form is not a matter of public record because it contains information which is both potentially more sensitive and admittedly less reliable. If information on a C.M.E.-I form may be thought of as evidence as to manner of death, then the information on the reverse side may be thought of as the equivalent of hearsay evidence in a court of law. This is not, however, to say that factual information

may not be contained on the reverse side of the C.M.E.-I form or to say that medical examiners place no importance upon this information. It is, rather, a reminder that this information is necessarily more subjective and more open to interpretation by the individual medical examiner. Information on this side of the C.M.E.-I form includes past and present symptoms and diseases, personal history, conduct before death, medical attention and hospital or institutional care, previous chemical or mechanical injury, circumstances and witnesses of death and/or injury, and a narrative summary of the circumstances surrounding the death which is written by the medical examiner in charge of the case. As this information is not a matter of public record, this researcher is deeply indebted to Dr. A. J. Chapman, Chief Medical Examiner for the State of Oklahoma, for his permission to review this side of the C.M.E.-I form.

In addition to the basic C.M.E.-I form, several other documents may be included in the case reports. Laboratory analysis and autopsy report forms are included if these procedures have been used. Police and/or sheriff department reports are often included, especially in cases involving motor vehicles and firearms. Ballistics reports and diagrams of bullet, knife, or blunt force wounds are included when the medical examiner determines them to be necessary. Additionally, psychiatric reports, correspondences between medical examiners and medical examiners and medical examiners and family, insurance company inquiries, suicide notes, photographs, and diagrams of the death scene are sometimes included. All in all, the case reports provide, in most cases, an extensive amount of data on the life and death of the person whose death is being investigated.

However, the use of case reports as a source of data was not without its problems. The most serious of these was directly related to the nature of possible responses which may be made by the medical examiner completing the C.M.E.-I form. Informational items may be categorized as either open-ended (that is, a blank in which a response may be written is provided) or check (that is, a statement is made which may be checked if it is applicable to the case). In the case of open-ended items, the variability of responses made by medical examiners presented a problem of interpretation. The most common open-ended responses could, of course, be coded and interpreted similarly. However, responses which were rare, and therefore allowed no comparison with other reports as to meaning, were more difficult to interpret. The additional problem of the meaning of responses was noted. For example, does "residence" entered in the location of injury blank mean a home, an apartment, a rooming house room, or a prison? And, whichever of these it means, does it mean this to all medical examiners? That is, is there any standardization as to the usage of open-ended responses? The responses on C.M.E.-I forms are so varied that these questions could only be answered by reviewing enough cases to gain some understanding of the usage. In many cases other information on the C.M.E.-I form made the usage and meaning of responses more clear.

Items which were checked provided another type of problem. When an item was checked, for example the statement "fear of disease," it was evident that the medical examiner was aware that the deceased feared disease. However, the extent and nature of that fear was unknown. Whether the statement had the same meaning to all medical examiners was also undetermined. However, in most cases checked items

were explained or clarified in the narrative summary. A problem did, however, exist in instances where a blank was not checked, the problem being that failure to check a blank could mean, again referring to the example, either "did not fear disease" or "don't know that he feared disease." In interpreting checked blanks the convention that failure to check the blank meant "don't know" was followed. It was assumed that if a blank was not checked the effect of that information did not influence the decision of the medical examiner.

Another related problem was lack of completion of items on the C.M.E.-I form. This is perhaps the problem which most distrusses the chief medical examiner's office. County medical examiners are encouraged to complete or mark "not applicable" each item on the C.M.E.-I form. However, items are frequently not completed. While the overall completion ratio is 75 per cent (that is, on 808 C.M.E.-I forms, an average of the 16 items were completed, individual item completion ratios are highly variable.

Since individual items on the C.M.E.-I form presented unique problems as to how they were to be reviewed, interpreted, and recorded, it is necessary to outline the procedures used for each item. The first informational item was that of age of the deceased at the time of death. In most cases this was simply a matter of recording the age listed on the C.M.E.-I form. As a check for accuracy, in all cases where a death certificate was included in the case report (this includes most of the 1973 cases) a comparison of the ages listed on the two forms was made. In two cases, both definite suicides, a discrepancy of one year was noted between the two ages given. In these cases the age listed on the C.M.E.-I form was used since this

was the age of which the medical examiner was aware when he made his decision as to manner of death. Such a convention, of using information originally used by the medical examiner, even when it may be later proven wrong, was adopted because the purpose of this research was to understand the process by which medical examiners come to label deaths as suicides, rather than to describe persons who commit suicide.

Race (in this research race refers to what is strictly called ethnicity, in keeping with medical examiner usage) and sex were the next items reviewed. These were directly taken from C.M.E.-I forms where completed and taken from the narrative summary or death certificates in the rare cases where these items were not completed. No contradictions between C.M.E.-I and other forms were found for these items. For race the groups used were white/non-minority, negro, American Indian, Mexican-American, and other. This is in keeping with terms frequently used on C.M.E.-I forms.

Marital status was the fourth informational item reviewed on the C.M.E.-I form. The classifications of married, widowed, single, and divorced were used in accordance with the scheme used by medical examiners. An additional category of separated was included after the preliminary review of data indicated that this response was occasionally written in by medical examiners. Common law marriages were considered and recorded in the married category.

The address of the deceased was the fifth item considered. Here two problems were encountered. First, the address given was in some cases the home address of the deceased and in other cases it was the address at which the suicide attempt was made. In cases of suicide

where the person did not make the attempt at home it was difficult to determine which address was given. Secondly, due to the nature of the places in which some persons attempt suicide, no address, other than city or county, was given. In order to minimize these problems, it was decided that only the county in which the suicide attempt was made would be recorded. This procedure eliminated the need to choose between two addresses and still allowed the compilation of some data on the geographic distribution of suicide. Also, since the major geographical biases in medical examiner proficiency appear to be along an urban-rural continuum (from the review of literature), it was felt that the necessary comparisons could be made using data on counties.

Occupation, the next item considered, is of the open-ended type. As such, responses listed on the C.M.E.-I form are highly variant. In those cases in which some occupation was listed, a ranking of that occupation according to socio-economic status was desired. Therefore, the occupations listed in the 1970 Census of Occupations were grouped into five categories. These were (1) professional workers, (2) technical, administrative, and managerial workers, (3) clerical, sales, and skilled workers, (4) semiskilled workers, and (5) laborers. Farm workers who did not own the land were considered as laborers. Farm workers who own the land they worked were included in the technical, administrative, and managerial category. Persons in active military service were classified according to the nature of their job in the military. In cases where this was not known, the following convention was used: Officers were classified as technical, administrative, and managerial workers; non-commissioned officers were classified as clerical, sales, or skilled workers; enlisted personnel were classified

as laborers. The preliminary review of data indicated that several non-occupational, non-classifiable responses were used by medical examiners. For this reason, four additional categories were used. These were (6) unemployed, (7) student or school age (less than 16) child, (8) retired or not working due to physical disability, and (9) housewife or otherwise not classifiable. Persons were considered unemployed, students, or retired or disabled only when specifically indicated in the case report. The last category was used for housewives, persons in illegitimate (and therefore not listed) occupations, persons in prison, and other non-specific responses.

Type of death is an item which explains why a death is investigated by a medical examiner. As such, this item constitutes a legal reason for the investigation of the case rather than a manner (homicide, suicide, etc.) or cause (cancer, pneumonia, etc.) of death. According to Title 63 of the Oklahoma Statutes, Sections 931 through 955, a medical examiner must investigate all deaths which are (1) by violence, (2) by suspicious, unusual, or unnatural means, (3) after unexplained coma, (4) unattended by a licensed medical or osteopathic physician, (5) medically unexpected and occurring in the course of therapeutic procedure, (6) while in penal incarceration, (7) related to a disease which might constitute a threat to public health, or (8) such that the body will be in any manner made unavailable for pathological study. The interpretation of the phrase "suspicious deaths" is such that any death suspected of being a suicide, accident, or homicide must be investigated. The item on type of death is essentially a list of the above statements with a place to check which statement or statements are applicable. Additionally, if a death is classified as suspicious,

the suspected manner of death is to be entered. While telling little about the circumstances of the death, it was felt that since this item, in many suicide cases, served as a preliminary assessment of manner of death. For this reason, review of this item was deemed necessary.

Date and time of injury, rather than time of death, were the next informational items considered. The decision to use time and date of injury rather than time and date of death was made because it was felt that this information, while often less exact, was of more worth to this study. The reasoning behind this decision was that in most cases of suicide the intention is to achieve rapid death and that, unless postponed by medical means the time of death and of injury would closely correspond. Also, if time were used in any fashion to impute motivation, it was felt that time of injury would be the time used by medical examiners in making this imputation. Since, due to the private nature of most suicidal acts, precise time was not known, three-hour time intervals were used. When time was not given precisely enough to allow classification according to this scheme, no time data was recorded. If more than one possible date was given, no data on date of injury was recorded.

The item of notification deals with who notified the medical examiner of a case to be investigated. Rather than record the names of these persons, it was decided to record only the relationship of the notifying person to the deceased or the official position of the notifying person. The preliminary review of the data revealed nine frequently used responses. These, when written in, were recorded. The frequency of each of these will be discussed in a later section.

The next item reviewed dealt with place of injury. Place of injury was used rather than place of death for the same reason time and date of injury, rather than of death, was used. This is an open-ended item on the C.M.E.-I form. For this reason, a list of frequently used responses was compiled and used. These included (1) home or residence, meaning a single family dwelling whether rented or owned, mobile homes were included in this category; (2) apartments; (3) motels, hotels, inns, or other places of public accommodation where the deceased stayed for a short period of time; (4) rooming houses or boarding hotels; (5) residence of another person, usually the single family dwelling of a friend or relative of the deceased; (6) at the place of employment of deceased; (7) public highway or other public road; (8) penal institutions including jails, juvenile house of detention, state and federal prisons; and (9) other places not otherwise classified (the most frequent being fields or wooded areas). This item was usually taken directly from C.M.E.-I forms. However, in certain cases, police reports and narrative summaries were used to more precisely determine the exact type of location.

The next item reviewed was description of the body. The information of interest here was concerned with state of dress, presence, type and location of non-fatal wounds. Since these items were of the checked type, they were recorded directly from the C.M.E.-I form. In those cases where an autopsy was performed (44 per cent of all cases), the autopsy form was consulted to verify the accuracy of information on the C.M.E.-I form. In cases where some discrepancy was noted, the information on the autopsy form was used since it was felt that this information was more reliable than information gathered or recorded at

the scene of the injury or death. Since, in these cases, the medical examiner was no doubt aware of the autopsy findings, it was not felt that using autopsy findings gave this researcher any more information than the medical examiner had. Additionally, it seems to be common practice among medical examiners to give rather sketchy information on this item when an autopsy is done.

The information upon fatal wounds is contained in an open-ended item. Since the responses were various, only information on type and location of wounds were gathered. The following categories for type of wound were used in keeping with common medical examiner usage: (1) gunshot, (2) contact gunshot, (3) inter-oral gunshot, (4) stab, (5) incised, (6) burn, and (7) laceration. Location of the wound was recorded as if it were a checked item using the same scheme employed in the recording of non-fatal wounds. As with non-fatal wounds, autopsy forms, where present, were used as an additional source of information and check on accuracy.

Generally the C.M.E.-I form is signed by only one medical examiner, which greatly simplified the review and recording of this informational item. However, all cases are reviewed by a state medical examiner and may be amended by him. In cases where the initial classification was amended, the name of the medical examiner who made the amendment was recorded. The purpose of this was to insure that the name of the medical examiner was consistently the name of the person who made the final decision as to manner of death. Cases in which amendments were made were noted and will be discussed in a later chapter.

The review and recording of information in the personal history and conduct sections of the C.M.E.-I form was perhaps the most difficult

part of data collection. This is due to the fact that information of the type which should have been checked in the personal history or conduct items was often found in the narrative summary or other supplemental forms. What was of interest in this research was whether or not the medical examiner was aware of information of the type contained in the personal history and conduct items, not whether or not he checked a statement. For this reason, it was decided that a specific reference equivalent to one of the statements in the personal history or conduct item, would, if found in the narrative summary or supplemental documents, be recorded as if a statement in the personal history or conduct items had been checked. If personal history or conduct statements were checked they were, of course, recorded. The problem of interpretation of blanks which were not checked, which has previously been discussed, was also encountered in the review of these items. The following are statements on the personal history and conduct items. A short explanation of meaning or medical examiner usage is included where necessary. Personal history statements:

- (1) suicide attempts (meaning attempts prior to the attempt under investigation);
- (2) suicide threats;
- (3) hobbies, aptitudes, or skills with firearms, chemicals, etc. (meaning interest, skill, or familiarity with potentially dangerous substances, for example a person whose hobby was taxidermy would be familiar with the lethal nature of chemicals used to prepare animals for mounting);
- (4) domestic, premarital, or marital conflicts;
- (5) financial or business reverses;
- (6) social or religious conflicts;
- (7) legal difficulties (meaning cases pending or currently in court);
- (8) criminal record;
- (9) unemployment (meaning chronic unemployment rather than short term unemployment); and

(10) fear of disease. The following are conduct before death: (1) efforts to prevent help (either direct help at the time of the suicide attempt or help with problems which may have contributed to the suicide; (2) efforts to obtain help (similar to the above statement); (3) admitted suicide attempt (this item is generally used in those cases where death is not instantaneous and the person admits that he had intended to take his own life; (4) denied suicide attempt (same usage as the above statement); (5) refusal to talk (may refer to refusal to talk prior to or, in cases where death is not instantaneous, after the suicide attempt); (6) written declaration of intended suicide (generally meaning a suicide note; however, in this research, tape recordings of suicide notes were included); and (7) accusations against others (especially accusations that others had intended to harm the deceased).

The item entitled medical attention and hospital or institutional care is an open-ended item. For this reason, the responses, were recorded verbatim and the most frequent responses later selected for study. While information on physicians was available in this item, only responses about diagnosis or treatments was recorded. The responses which were most commonly made and were deemed especially relevant to suicide will be discussed in section four of this chapter. As in the case of personal history and conduct statements, statements pertaining to medical attentions and/or institutional care found in the narrative summary or supplemental forms were recorded as if they were made in the medical attention item.

Since most of the cases reviewed were labelled as suicides, the item entitled previous chemical or mechanical injury dealt primarily

with previous suicide attempts. Of particular interest was the means used in and the lethality of previous attempts. Since this was an open-ended item, the responses were recorded and the most frequent and relevant responses later compiled for study. These responses will be discussed in a later section.

The circumstances of death item is used by medical examiners to record three types of information. These are (1) found dead by, (2) last seen alive by, and (3) witnesses to injury or illness and death. Due to the semantics of these responses, careful analysis of information contained in this item was necessary. While not a common practice, some medical examiners record the names of doctors, nurses, and hospital personnel who witnessed the actual death or technically last saw the person alive or officially pronounced the person dead. For the purpose of this study, information on the person who first discovered the suicide attempt, last saw the person prior to the attempt, or witnessed the suicide attempt was deemed more important. Fortunately, in suicide and unknown cases, this is the type of information most frequently recorded by medical examiners. It is also a common practice to include the relationship of the person named in the responses to the deceased. Since for research purposes these relationships were of more importance than the names of the witnesses, etc., only this data on relationships was recorded. The response categories used were (1) spouse, (2) child or sibling, (3) parent, (4) other relatives, (5) friends or acquaintances, (6) police, (7) neighbors, and (8) other non-classified persons. In cases where no relationship was stated in the circumstances item, the narrative summary and supplemental forms were used to determine the relationship

of persons named to the deceased. In cases in which more than one person was named as a witness or person who discovered the suicide attempt or last saw the deceased before the suicide attempt, the closest relationship (in numerical order) was recorded.

The narrative summary of the circumstances surrounding the death was a very difficult item to review. This was in large part due to the great variation of response between medical examiners. Responses ranged from no narrative summary at all to rather simplistic notes such as "shot self--apparently suicide" to elaborate three-page, single-spaced monographs complete with diagrams and photographs. This item is considered very important by the state medical examiner's office. One of the most frequent correspondences between the state medical examiner's office and county medical examiners was a letter asking for a completion of a narrative summary. This is perhaps the reason for the high completion ratio (95 per cent of all cases had at least some narrative summary). Due to the variety of responses, it was impossible, even from the preliminary review of 60 cases, to determine any categories which could be applied to all narrative summaries. For this reason, it was decided that all possible information contained in the narrative summary would be transmitted to the recording sheet. After all cases were reviewed, a set of nine statements frequently contained in responses for cases labelled as suicide were chosen. These statements were often used by medical examiners to reconstruct the circumstances surrounding a death which they labelled as suicide. These response statements are important in that they not only tell something about the circumstances of the deceased, but also in that reflect a judgment on the part of the medical examiner as to

what type of information is important in justifying his decision to label a death as suicide. The frequency with which these statements are used is in itself good evidence that the characteristics described by the statements are considered symptomatic of suicide by some medical examiners. The responses or statements most frequently found were (1) no evidence of foul play, (2) means found (the gun, drugs, knife, or other probable means of death were found), (3) history of statements about death or other oral communication of intent to die or commit suicide, (4) found alive (the deceased did not die instantaneously), (5) depression or despondency (the nature of this statement was such that its usage was varied and no precise formulation of meaning possible), (6) mean recently obtained (for this research no specific time was determined to mean recently, if the medical examiner considered the obtaining of means to be recent, it was recorded as such), (7) note or notes found, (8) triggering event (this is this researcher's term for medical examiner statements to the effect that the deceased had recently undergone some significant change in life style), and (9) multiple means or fail safe procedures (a fail safe procedure being an action by the deceased which make failure to commit suicide virtually impossible; for example, shooting oneself in the head while driving at a high rate of speed). A more complete discussion of meaning, frequency, and importance of these statements may be found in a later section of this chapter.

The next informational item considered was not contained on the C.M.E.-I form and therefore was not available for all cases. This item was the autopsy form. Due to the complexity of these reports, this researcher's lack of medical expertise, and the fact that much

of the information on the autopsy form was also contained on the C.M.E.-I form, it was decided that these reports would be classified only as (1) consistent with suicide (a term frequently used by examiners), (2) not helpful in determining cause of death, or (3) inconsistent with suicide. Information considered was the possibility of self infliction, presence of powder residue or powder burns, classic reactions to drugs or poisons, presence of diseases, and type of wounds. While this classification in itself provides little information, the review of the autopsy form as a check on the accuracy of the non-fatal and fatal wounds item was very helpful. Additionally, autopsy information was often helpful in determining the possibility and probability that the deceased was the agent of his own death.

The laboratory reports, which were done in 52.5 per cent of the cases, were the next items reviewed. Of interest here were blood alcohol concentrations, carbon monoxide (especially in cases of asphyxiation and drowning), drug amounts and types, and poison amounts and types. This information was taken directly from laboratory report forms.

The final item considered was that of means used by the deceased in committing suicide, or in cases in which manner of death was unknown, the means, if known, by which death occurred. This item, while often discussed on C.M.E.-I and other forms, is basically an item in which the researcher listed the means of death. While not specifically listed on all case reports, in the vast majority of cases the means was discernible. In order to conform as closely as possible to medical examiner usage, two subclasses of means not commonly found in sociological research on suicide were added. These were (1)

gunshot wound with powder burns on skin and (2) gunshot wound with powder burns on skin and hand. The frequent usage of these terms by medical examiners suggests that great importance was attached to this type of information.

These then were the items reviewed. It has not been the purpose of this section to draw any conclusions as to the nature of the data or to the nature of the labeling process. These conclusions will be made and discussed in subsequent sections of this research. It has, however, been the purpose of this section to present the method by which data was collected. In doing so several problems of data collection have been discussed and hopefully answered satisfactorily. The conventions and procedures used in the collection of data are presented both to clarify the data and to suggest methods to others using case reports in suicide research. In this vein, some conclusions can be made. The most significant of these deals with the use of case reports. In Oklahoma at least, these reports provide a wealth of information on suicides. The researcher, in using these case reports, must be careful not to limit their worth by imposing a priority limit on the information or upon responses sought. The ingenuity of those attempting suicide and the variability of responses among medical examiners makes any such limitation unwise. Any research on suicide, except where only the simplest information is necessary, must remain open to unexpected and unusual responses.

CHAPTER VI

ANALYSIS AND FINDINGS

Effect of Reclassification

As discussed earlier, a conceptual or sociological definition of suicide was applied to each suicide case report. That is, each case which had been labelled a suicide case by a medical examiner was reviewed to see whether or not it contained the elements of agency, intention and knowledge basic to a sociological definition of suicide. Since no running tabulation of cases of each type was kept, as it was felt this might be influenced by the researcher's desire to have an acceptable number of cases for statistical testing in each category the results were somewhat surprising. Of the 691 cases labelled as suicide, 640 were found to contain all the definitional elements of suicide, 28 cases were found to contain evidence only of agency. That is, evidence to the effect that the person was the agent of his own death was found, but no evidence either of intention to commit suicide or of knowledge of the consequences of his act was contained in the case reports. Nineteen cases were found in which none of the definitional elements of suicide were substantiated in case reports. It should be pointed out that evidence of intention, agency and knowledge (or the case of agency suicides, evidence of intention and knowledge) may have existed and been known to the medical examiner; however, the medical examiner did not record or report this information on the

C.M.E.-I or additional case report forms. Therefore, to a researcher working from case reports, the 19 cases in which no evidence of agency, intention or knowledge were found, (hereafter referred to as equivocal cases) were in no way different from the 121 cases of death by unknown manner which were reviewed. These four groups of cases, definite suicides, agency suicides, equivocal suicides and unknowns, compose 99 per cent of all cases reviewed. Four other cases, two in which evidence of knowledge only and two in which evidence only of intention and agency were found, were reviewed. Due to the smaller number of cases of these types, these cases were eliminated from further consideration.

The results of this comparison of medical examiner certified (or labelled) suicides and sociological determined suicides is of some importance in evaluating Douglas' criticism of the use of official suicide statistics. Over a two year period, only 51 cases (four non-classified, 28 agency suicides and 19 equivocal suicides) of the 691 suicide cases reviewed would not be classified as suicide by a sociological definition of suicide. This represents only 7.38 per cent of all suicides. Even if these cases were all reclassified as unknown, the effect on the suicide rate would be negligible. In 1972, for example, Oklahoma's suicide rate would have decreased from 13.3 to 12.4. If only equivocal cases (19) were relabelled as unknown or some other manner of death, the suicide rate again for 1972 would have decreased from 13.3 to 12.9. Such variation is not significant, being no more than annual variation in rate. The above figures are, of course, for suicides which were under-reported, that is, if all unknown cases were actually suicides, and were classified as such, the effects

on the suicide would still be negligible. For example, the Oklahoma suicide rate for 1972 would have increased from 13.3 to 15.6. This assumption that all unknown cases were really suicides is highly unlikely. Indeed, it is more likely that any under-reporting and over-reporting would cancel each other out, creating little change in the suicide rate. Of course, misreporting of suicides as accidents, homicides or natural death was not studied in this research. Therefore, no conclusions may be drawn about the effect of this misreporting, if it exists, upon the official suicide rate.

It is not possible, due to variation in medical examiner systems between states, to generalize these conclusions to other states or to national suicide rates. However, it may be said that: (1) the likelihood that, if all things were known, all of the equivocal, agency, or unknown cases would be reclassified is rather small, and (2) even if these used were reclassified, the effect upon overall suicide rates would be negligible.

Item Completion Ratios

The purpose of this section is to present information on the amount of evidence present on case reports. Additionally, it is the intent of this section to draw some conclusions, based upon the amount of evidence present, about the working definition of suicide (that is, items deemed important by medical examiners in the determination of suicide as a manner of death).

For reasons which will have been mentioned in Chapter III and will be more fully explained in the following section of this chapter, the 812 cases reviewed were divided into four groups. These are:

(1) the definite suicide group (showing evidence of intent, agency and knowledge), (2) the agency group (showing evidence only that the deceased was the agent of his death), (3) the equivocal group (showing no evidence of intention, agency or knowledge), and (4) the unknown group (deaths classified as manner unknown and not eliminated from study for the reasons discussed in Chapter III). In addition, four cases were eliminated due to ambiguity as to how they should be classified according to the sociological definition of suicide.

Perhaps the most significant conclusion which can be drawn from a consideration of item completion deals with the method in which medical examiners respond to various open-ended items. It seems to be a practice among medical examiners to not respond to open-ended items (with the exception of the fatal wounds place and possible occupation items), unless some positive response can be made. That is, they seldom write in the word "none" as a response to an open-ended item. This may suggest that they hold open the possibility of some response existing in an open-ended item, but do not know the nature of that response. The fact that three open-ended items are both fairly easy to complete (in the case of place and occupation) and are considered important by medical examiners (as in the case in the fatal wounds item).

It should also be noted that a narrative summary is found in 95 per cent of all cases. This indicates that a high degree of importance is placed on this item. The fact that only 42 per cent of the cases in the equivocal group contained a narrative summary is a reflection of the lack of information in these cases. It is also a very probable reason for these cases being classified as equivocal. The fact that autopsies and laboratory reports were done with much less

frequency in these cases suggest, again, an overall lack of evidence as well as a lack of facilities to perform these tests.

With regard to variation in item completion ratios, i.e., the number of cases for which an item was completed over the total number of cases, the informational items, age, race, sex and marital status, show little variation between groups. This is no doubt due to the ease with which this type of information can frequently be obtained. The item on occupation, however, shows a great deal of variation as to completion. Especially notable is the fact that only 31 per cent of the equivocal group case reports contained information as to occupation. Since, from the standpoint of a sociological definition of suicide, these equivocal suicides are comparable to unknown cases, it is possible that a lack of information on occupation was used by medical examiners to infer suicidal intention.

The items of type of death and date and place of injury are unremarkable as to variation in group item completion ratios. However, the item time of injury shows significant variations. It was possible to determine the time of injury in 75 per cent of the definite suicides, while only 57 per cent and 38 per cent of the equivocal and unknown groups, respectively contained information on time of injury. This does not suggest that inability to determine time of injury is used to impute motivation, but rather reflects the fact that if time of injury cannot be determined, it is also likely that other information necessary to properly classify the death will not be present. A similar interpretation of variation in completion of the description of body item may be made.

The item which contains information on nonfatal wounds shows

remarkable variation with regard to the equivocal group. While approximately 52 per cent of all cases had some response on this item, only five per cent of the equivocal cases contained such information. This reflects the general lack of completion of reports on equivocal cases. This lack of completion and lack of information is the most general characteristic of these cases. The items on fatal wounds and medical examiner show no significant variation from the overall high item completion ratios.

The history, conduct, medical attention and previous injury items show a similar variation in group item completion ratios. In all these items the equivocal group has the lowest group item completion ratio (although in the case of the conduct item it is not significantly different from the unknown group). Again, the characteristic lack of information exists in these cases. The fact that these cases were labeled suicide, even though little information on these items were present, suggests, but does not confirm, that these items are not used to impute motivation.

The item containing information of the circumstances of death, that is, who found the person, who last saw the person prior to his injury and who witnessed the injury, again shows the characteristic lack of information for equivocal cases. The same is true of the narrative summary item.

The item on autopsy reports is especially interesting. Since an autopsy is an additional procedure used when some question as to manner of death is felt to exist, this item reveals much about the certainty with which a medical examiner regards his decision. Of particular interest is the fact that 50 per cent and 78 per cent of the agency and

unknown groups were autopsied. This indicates some uncertainty as to the manner of death in these cases, especially when contrasted to the usual 25 per cent of definite cases autopsied. Yet only 15 per cent of the equivocal cases were autopsied. This indicates that medical examiners did not consider these cases particularly troublesome. The same observation may be made in the case of laboratory reports.

With regard to the item on means of death, it is noteworthy that, while the item completion ratio for all suicides was 99 per cent, the item completion ratio for unknowns was 28 per cent. This indicates that the means of death is a very important determinant of manner of death. This, in itself, is not surprising. However, the fact that the means of death was known in only 89 per cent of the equivocal cases is indicative that this is not the only determinant in these cases.

Some discussion of the lack of completion of the means of death item is necessary. In most cases in which means of death was not listed this was due to uncertainty or inability to choose between two (and sometimes three) possible means of death. For example, if a person with a potentially toxic barbiturate blood level slashes his wrists deeply enough to sever an artery (therefore not a hesitation mark), it may be impossible to determine whether the means of death was overdose or exsanguination. However, since both of these means are suicidal the case would probably be classified as manner of death suicide. This would account for the lack of completion of the means of death item in most of the definite and agency cases. In unknown cases, the situation is similar except that one means of death may be suicidal and the other means of death may be accidental, natural or even homicidal. As in the case of a man who had a heart attack while (or just prior to) attempting

to hang himself. There was little doubt that the man would have died if he had hung himself, but did the massive heart attack (as found in autopsy reports) cause him to fall from the chair upon which he was standing? If he had not have had the heart attack might he not have reconsidered? It is, of course, impossible to know the answers to these questions. They are present merely as an example of why unknown and equivocal cases sometimes do not contain information upon means of death.

To summarize then, it may be said that equivocal cases are characterized by a general lack of information, even more so than unknown cases. It is, of course, not known whether this information was actually lacking or simply not reported. However, given the nature of medical examiner reports (i.e., they are to some extent a justification or defense of a county medical examiner's decision) it is likely that in a fair number of cases, the information is actually lacking.

Analysis of Definitional Group

The purpose of this section is to compare the characteristics as reported in case reports, of various definitional groups. For purposes of comparison the agency group and equivocal group were combined since neither met the conditions necessary for a sociological definition of suicide. These groups are referred to here simply as equivocal. If the hypothesis that medical examiners rely upon conceptions or theories of suicide to impute intention or motivation is true, it would be expected that the various groups would have different characteristics. More specifically, since unknown cases and equivocal suicide cases are conceptually alike in the degree of adherence to a sociological

definition of suicide, it would be expected that the equivocal cases would exhibit, with greater frequency, traits which have been statistically, theoretically or common-sensically associated with suicide. If such is found to be the case, then strong grounds exist for believing that it was these associated factors which caused medical examiners to label these deaths as suicide.

These then were the expected results, given the hypothesis is correct. However, this was not what was found in every case. In order to adequately present and interpret the data, the three groups will be compared on each informational item. The comparisons made, findings, statistical tests and whatever conclusions are possible will be given for each item.

With regard to age, one of the most frequently completed items, the results were noticeably different from those expected. It was expected that the equivocal suicide group would have a mean age greater than either the unknown group or the definite suicide group. The mean ages found were:

definite suicides	(N=640)	45.44 years
equivocal suicides	(N= 47)	39.74 years
unknowns	(N=121)	45.11 years

The only significantly different mean age was that of the agency group. A one-directional t-test between the unknown and equivocal group gave a value of 1.12 not significant at the .05 level. Several conclusions may be drawn from the above data. From the nearly equal mean ages of the definite, equivocal and unknown groups, it may be concluded that age is not a factor in labeling equivocal cases as suicide.

In the item on race, group differences were more pronounced than in

the case of age. Race is of interest to this research since suicide is often conceptualized as a behavior engaged in almost exclusively by whites. Therefore it was expected that the racial makeup of the equivocal group would be more predominantly white than any other group. This was indeed found. The data is presented below.

TABLE I
DEATHS BY DEFINITIONAL GROUPS AND RACE

	Definite	Equivocal	Unknown
White	604 (94.7)	46 (97.9)	95 (79.8)
Non-white	<u>34</u> (5.3)	<u>1</u> (2.1)	<u>24</u> (20.2)
Total	638	47	119

Chi-square = 34.47 at 2 degrees of freedom. Significant at the .001 level.

Note that race was not known for 2 Definite cases and 2 Unknown cases.

From the Chi-square value and from the fact that only one equivocal suicide was non-white it may be concluded that medical examiners are prone to use race as a decisional item in cases of equivocal suicide. The fact that the deceased was non-white, in these cases, may be used to infer the death was not suicide, while the fact that a person is white makes it more likely that his death, especially if little other information is available, will be labelled as suicide. It is, of course, true that suicide is much more present among non-minority

persons; however, the fact that two groups which were similar in their adherence to the sociological definition of suicide had radically different racial compositions supports the hypothesis that race (in this case being a member of the "white" or caucasian race) is used to impute motivation. Another explanation of the racial makeup of the unknown group is, however, possible. Given the lower socio-economic statuses which are accorded to non-whites and the possibility of their distrust of official and quasi-official agents, especially white agents, it is possible that they would provide medical examiners with less information of the type necessary to substantiate a decision of suicide. Even this, however, would not account for the racial makeup of the equivocal group.

Group differences as to the sex of the deceased are given in Table II. As has usually been the case in other research, males accounted for approximately 70 per cent of both the suicide and unknown cases. The sex of the deceased was known in every case for every group.

TABLE II
DEATHS BY DEFINITIONAL GROUPS AND SEX

	Definite	Equivocal	Unknown
Male	456 (71.2)	32 (68.1)	75 (62.0)
Female	<u>184</u> (28.7)	<u>15</u> (31.9)	<u>46</u> (38.0)
Total	640	47	121

Chi-square = 4.20 at 2 degrees of freedom. Not significant at the .05 level.

The male may be a slight indication that sex was used to impute suicidal intention in these cases. However, no significant differences in sexual makeup of groups were found using a chi-square test. Therefore it may be concluded that the sex of the deceased is not one of the factors used to impute motivation in arriving at the label of suicide.

Marital status was an item which has also been correlated with suicide. Most research since Durkheim (1951) has concluded that married persons have lower suicide rates. Therefore it was expected that the equivocal group would have higher proportions of unmarried (either single, widowed, divorced and separated) persons than the definite group. This was indeed found. The data is presented below.

TABLE III
DEATHS BY DEFINITIONAL GROUPS AND MARITAL STATUS

	Definite	Equivocal	Unknown
Married	311 (48.6)	16 (34.0)	42 (34.7)
Unmarried	253 (39.5)	23 (48.9)	45 (37.2)
Marital status unknown	<u>76</u> (11.9)	<u>8</u> (17.0)	<u>34</u> (28.1)
Total	640	47	121

Chi-square = 25.52 at 4 degrees of freedom. Significant at the .001 level.

From the data presented in Table III, it can be concluded that marital status may be a significant factor used by medical examiners in the imputation of suicidal intention.

However, it should also be noted that the significant chi-square value is at least partially attributable to the large number of unknown cases in which marital status was not known.

An analysis of the component categories which formed the unmarried category was done and the results are presented in Table IV. As may be seen from the table no specific unmarried status seems important in the decision to label a death as suicide.

TABLE IV
DEATHS BY DEFINITIONAL GROUPS AND
SPECIFIC UNMARRIED STATUS

	Definite	Equivocal	Unknown
Single	108 (42.7)	15 (65.2)	18 (40.0)
Widowed	54 (21.3)	2 (8.7)	11 (24.4)
Divorced	73 (28.8)	6 (26.1)	15 (33.3)
Separated	<u>18</u> (7.1)	<u>0</u> (0.0)	<u>1</u> (2.2)
Total	253	23	45

Chi-square = 7.92 at 6 degrees of freedom. Not significant at the .05 level.

The information available on occupation may be divided into two categories. First the data dealing with ranked occupational groups, and secondly, data dealing with unranked or non-occupational information. As mentioned earlier, the item on occupational status was completed in approximately 75 per cent of all cases. However, differences in group item completion ratios, which were discussed in section two of this chapter, should be remembered. Frequencies and percentages for responses which would be ranked on an occupational scale are shown below.

TABLE V
DEATHS BY DEFINITIONAL GROUPS AND
OCCUPATIONAL STATUS

	Definitie	Equivocal	Unknown
Professional	32 (14.5)	0 (0.0)	5 (13.2)
Technical, administrative and managerial	55 (24.9)	1 (11.1)	5 (13.2)
Clerical, Sales and skilled	38 (17.2)	1 (11.1)	8 (21.0)
Semi-skilled	38 (17.2)	5 (55.6)	3 (7.9)
Laborer	<u>58</u> (26.2)	<u>2</u> (22.2)	<u>17</u> (44.7)
Total	221	9	38

Chi-square = 17.96 at 8 degrees of freedom. Significant at the ,05 level.

Two group differences are of some importance. The most noticeable of these is the high proportion of unknown cases who were laborers, the lowest ranked occupational group. Also the fact that over one-half of the combined equivocal suicides were ranked as semi-skilled, the second lowest ranked occupational group. To test the significance of these observations a chi-square test was done. This yielded a chi-square value of 17.96 significant at the .09 level. This finding is supportive of the conclusion that medical examiners do, in cases in which some doubt exists as to manner of death, rely upon low occupational status to impute motivation and to label a death as a suicide. The reliability of this conclusion is, however, somewhat suspect due to the large proportion of unknown cases which were in the laborers occupational status. This finding can be partially explained by the fact that persons in the laborers class are, due to their educational, racial and social situation, less likely to have pertinent information necessary to determine suicide as a manner of death known about them. The fact that 34 (28 per cent) of the unknown cases had no information at all on occupation reflects this. Therefore, the conclusion about imputation of motivation was made with some, though not complete, certainty.

Some attention should be given to frequencies and percentages of persons in each group who were placed in nonrankable nonoccupational categories. This data is presented in Table VI. While there is considerable variation of percentages for groups, a chi-square test for relationships significant at the .05 level showed no relationships of any significance.

Hence it was concluded that these factors were not used by medical examiners in such a way as to bias the determination of manner of death.

TABLE VI
DEATHS BY DEFINITIONAL GROUPS AND
POSITION IN WORK FORCE

	Definite	Equivocal	Unknown
Unemployed	43 (10.3)	5 (13.2)	11 (13.2)
Retired	97 (23.1)	5 (13.2)	13 (15.7)
Student	38 (9.1)	6 (15.8)	7 (8.4)
Not in work force	88 (21.0)	5 (13.2)	18 (21.7)
Unknown	<u>153</u> (36.5)	<u>17</u> (44.7)	<u>34</u> (41.0)
Total	419	38	83

Chi-square = 7.61 at 8 degrees of freedom. Not significant at the .05 level.

Information on the frequency of auto related suicides and unknown deaths was also gathered as a part of this research. Due to the exceptionally small number of cases in which automobiles were involved, no statistical analysis was undertaken. However, it should be noted that all of the agency suicides which were auto-related (four cases) involved a lone driver with no passengers. Two additional definite suicides also involved a lone driver with no passengers. This indicates that medical examiners are certainly aware of the possibility of suicide by automobile. The fact that only agency, of the conceptual prerequisites could be established in four of the auto-related deaths may indicate a definite desire on the part of medical examiners not to be too quick in classifying a single driver, non-passenger auto mishap as

an accident.

Information was gathered on the preliminary classification of type of death listed by medical examiners. As explained earlier, this item deals only with why the case was referred to a medical examiner, not with the means or manner of death. This item was considered, however, because this preliminary classification might influence the decision of medical examiners as to manner of death. This was not, however, found to be the case. Most suicides were classified as violent or unnatural deaths. A cursory investigation of accidental and homicide deaths reveals this to be frequent classification in the cases also. The only data of note is the low proportion of suicides which were listed as "suspicious" deaths. For the definite group, only 8.1 per cent; for the equivocal group, only 12.3 per cent. Since the suspected manner of death is entered when a death is classified as suspicious, the infrequent use of this classification may be due to a desire upon the part of medical examiners not to make preliminary judgments.

With regard to time of injury only one major between group difference was noted. This is the large number of unknown cases for which time of injury could not be established. While this yields a significant chi-square value for the entire table, it is not supportive of any hypothesis regarding the use of time of injury to determine manner of death. Rather it is a product of the fact that unknown deaths were often not discovered quickly enough to accurately fix time of injury.

TABLE VII
DEATHS BY DEFINITIONAL GROUPS AND TIME OF INJURY

	Definite	Equivocal	Unknown
Midnight - 5:59 a.m.	81 (12.6)	3 (6.4)	11 (9.1)
6:00 a.m.-11:59 a.m.	137 (21.4)	12 (25.5)	7 (5.8)
Noon - 5:59 p.m.	118 (18.4)	7 (14.9)	13 (10.7)
6:00 p.m.-11:59 p.m.	147 (23.0)	11 (23.4)	15 (12.4)
Time Unknown	157 (24.5)	14 (29.8)	75 (62.0)

Chi-square = 72.1 at 8 degrees of freedom. Significant at the .001 level.

Likewise there is little reason to believe that this is causal of the label of unknown. Rather it reflects the fact that these injuries were not often witnessed or otherwise known of for some time.

The next data gathered dealt with the day, month and season during which injury occurred. No significant group differences were noted on any of these items. The data for season of death is presented in Table VIII.

The item dealing with notification, that is, who notified the medical examiner of the death or injury was next considered. However, due to apparent ambiguity as to the use of this item by medical examiners few conclusions can be drawn from this data. Some medical examiners use this item to indicate who found the body, others who called the medical examiner and still others who ignore the item.

TABLE VIII
DEATHS BY DEFINITIONAL GROUPS AND SEASON OF DEATH

	Definite	Equivocal	Unknown
Winter	149 (23.3)	13 (26.5)	30 (25.4)
Spring	156 (24.4)	7 (14.3)	25 (21.2)
Summer	161 (25.2)	15 (30.6)	30 (25.4)
Fall	<u>174</u> (27.2)	<u>14</u> (28.6)	<u>33</u> (28.0)
Total	690	49	118

Chi-square = 3.19 at 6 degrees of freedom. Not significant at the .05 level.

Note that season of death was not known in three unknown cases.

Police seem to be the most frequent (of all cases were reported by police or sheriffs departments) responses to this item. It is worth noting that in many counties, especially rural ones, the decision made by police or sheriff officers seems to carry some weight in the decision as to manner of death. Various statements to the effect that police or sheriffs officers agree with the decision to label a death as suicide were found in the reports.

Some of the more important, from the standpoint of testing Douglas' hypothesis about the imputation about motivation, is contained in the personal history and conduct items of the C.M.E.-I form. While the problem of interpreting a lack of response exists (i.e., does no response mean none or don't know), there is still much information available here. The personal history item contains ten statements

which may be checked to indicate that they apply to the deceased. These statements are: (1) suicide attempts, suicide threats, (2) domestic, premarital or marital conflicts, financial or business reversals, social or religious conflicts, (3) legal difficulties, criminal record and (4) unemployment, fear of disease and hobbies or aptitudes with lethal means. The fact that these statements are present on the C.M.E.-I form indicates that these statements may be considered as important in determining manner of death. The fact that a medical examiner checks one or more of these statements is good evidence that he considered this information relevant to his decision as to manner of death. The frequency and proportion of cases in which each statement was checked is shown below.

TABLE IX
DEATHS BY DEFINITIONAL GROUPS AND PERSONAL HISTORY

	Definite	Equivocal	Unknown
Suicide attempt, threats	225 (38.7)	8 (33.3)	4 (10.8)
Domestic, financial or social conflict	234 (40.3)	8 (33.3)	18 (48.6)
Legal or criminal difficulty	45 (7.7)	2 (8.3)	12 (32.4)
Hobbies, unemployment or fear of disease	<u>77</u> (13.3)	<u>6</u> (29.0)	<u>3</u> (8.1)
Total	581	24	37

Chi-square = 34.63 at 6 degrees of freedom. Significant at the .001 level.

Several conclusions may be made upon the basis of the above data.

First it should be noted that only a small proportion of the unknown cases had previously attempted or threatened suicide while the definite and equivocal groups had a relatively high percentage of cases in which suicide had been previously either threatened or attempted. This would indicate that knowledge of previous suicide threats as attempts was used to decide manner of death in some unknown cases. Secondly, the low frequency of equivocal suicides who were known to have been experiencing marital, social or business difficulties would indicate that information of this type was not used in determining manner of death. Finally the high proportion of equivocal cases in which either hobbies, skills as aptitude with lethal means, fear of disease or unemployment were noted tends to support the hypothesis that these types of social information are used by medical examiners to arrive at manner of death.

Information which has previously been both scientifically and common-sensically correlated with suicide was also found in the medical attention and hospital or institutional care item. For this reason a review of the frequency of various response for the three groups is necessary. The most frequent responses were: (1) none, indicating no medical attention or care of note, (2) psychiatric hospitalization, (3) psychiatric - out-patient or other psychiatric or psychological case where the person was not confined, (4) fatal illness, (5) chronic illness or disability, (6) recent medical attention (within six months of date of injury) not related to suicidal attempts, thoughts, etc. (Note that this item was included because some research has suggested that suicidal persons may use other illnesses to see a doctor in the hope that he will help them overcome suicidal tendencies or feelings),

(7) history of use of prescription medication and (8) medical attention related in some way to a previous suicide attempt (this does not include psychiatric or psychological counselling after the attempt). With the exception of Item 1, and depending on the nature of the response in Items 6 and 7, all the above responses may be seen as being common-sensically or scientifically correlated with (indeed sometimes even causal of) suicide. For this reason we would expect that they would be frequently reported on C.M.E.-I forms. Additionally, if Douglas' hypothesis about the imputation of motivation or intension is correct it would be expected that equivocal cases would have the highest frequency or response for these items.

TABLE X
DEATHS BY DEFINITIONAL GROUPS AND MEDICAL HISTORY

	Definite	Equivocal	Unknown
None	34 (5.3)	1 (2.1)	5 (4.1)
Psychiatric hospitalization	24 (3.8)	3 (6.4)	1 (0.8)
Psychiatric out-patient	87 (13.6)	11 (23.4)	11 (9.1)
Fatal illness	14 (2.2)	0 (0.0)	0 (0.0)
Chronic illness	55 (8.6)	1 (2.1)	9 (7.4)
Recent medical attention	51 (8.6)	2 (4.3)	2 (17.4)
Medical attention for previous suicide attempt	19 (3.0)	1 (2.1)	1 (0.8)
No data	<u>356</u> (55.6)	<u>28</u> (59.6)	<u>73</u> (60.3)
Total	640	47	121

Chi-square = 29.43 at 14 degrees of freedom. Significant at the .01 level.

Several conclusions are of interest here. First the fact that only 19 of the 47 past medical attention. This certainly negates the hypothesis that this group was labeled suicide exclusively on the basis of the statements contained in this informational item. However, it should be noted that 23.4 per cent of the equivocal group had been psychiatric out-patients and 29.8 per cent had been under some form of psychiatric care. This finding shows that there appears to be a practice of imputing motivation upon the basis of psychiatric treatment, either hospitalization (three cases) or out-patient care (11 cases) in the absence of other evidence about intention.

Also of interest are three other findings. First, no one, either the unknown or equivocal groups was known to have a fatal illness. This is significant and may be interpreted as meaning that presence of fatal illness is not used as a basis upon which to impute suicidal motivation. Secondly, nine of the unknown group were chronically ill, yet these deaths were not labelled as suicide. Therefore, it may be concluded that chronic illness is not a basis for the imputation of suicidal motivation. Third, twenty-one of the unknown cases had seen a physician recently for problems not known to be related to suicide. Yet again their deaths were not labelled as suicides, indicating that recent medical attention is likewise not a basis for imputation of suicidal motivation. Other statements including "none" and "medical attention for previous suicide attempt" showed no significant group differences.

In summary then, it may be stated that only two of the statements frequently used to describe medical attention and hospital or institutional care are used to impute suicidal motivation. These are

statements regarding psychiatric hospitalization and psychiatric outpatient care.

The item on previous chemical or mechanical injury, an open-ended item, was also reviewed as a part of this research. Since the responses to this item were so varied, only those statements about previous injuries obtained as a result of a previous suicide attempt were extensively dealt with. The responses considered were: (1) none, indicating no previous injury, either from suicide attempts or other sources, (2) previous attempt by similar means, (3) previous attempt by less lethal means, (4) unrelated previous injury--this was a sort of catch-all category for all non-suicide related injuries, (5) previous attempt by more lethal means, and (6) previous attempt by unknown means.

The degree of lethality was determined primarily by comparing the speed with which death would generally occur if the attempts were successful. Therefore suicide via a gunshot wound to the head was considered more lethal than a drug overdose. Likewise jumping from a building was considered more lethal than hanging oneself, due to the irrevocability of the act. No scale of lethality, ranking various means of suicide in order of increasing or decreasing lethality was constructed. While such a scale may be useful in abstract considerations of suicide, given the variation in degrees of commitment to use one means or another found in actual case reports, it was not felt that such a scale would be useful. It was considered more important to determine (and this determination is somewhat unavoidably subjective) whether the person seemed more, less or similarly lethal (or potentially lethal) in past use of suicidal means.

The frequency of each response considered are given for the three groups in the following table.

TABLE XI
DEATHS BY DEFINITIONAL GROUPS AND
SUICIDE INJURY HISTORY

	Definite	Equivocal	Unknown
No data	526 (81.8)	30 (85.1)	103 (84.4)
No previous suicide inuury	61 (9.5)	4 (8.5)	8 (6.6)
Previous attempt, similar lethality	11 (1.7)	2 (4.3)	1 (0.8)
Previous attempt, lesser lethality	28 (4.4)	0 (0.0)	0 (0.0)
Previous attempt, greater lethality	1 (0.2)	0 (0.0)	2 (1.6)
Previous attempt, unknown lethality	11 (1.7)	1 (2.1)	2 (1.6)
Previous injury, unrelated to suicide	<u>5</u> (0.8)	<u>0</u> (0.0)	<u>6</u> (4.9)
Total	643	47	122

Chi-square = 30.80 at 12 degrees of freedom. Significant at the .01 level.

Note that multiple entries in the Definite and Unknown categories give Numbers larger than the sample size.

Since only seven of the 47 cases labelled as suicide, yet not conforming to a sociological definition of suicide (that is, the equivocal group) had a past history of suicide listed, it can be concluded that this informational item is seldom, if ever, used as a basis for the imputation of motive or intention. This conclusion is especially supported by the fact that few of the unknown cases had a known history of past suicide attempts. While statistical tests were done, it should be remembered that due to the extremely low completion ratio for this item and the small sample size, few worthwhile conclusions can be drawn.

The next informational item considered was that dealing with circumstances of death. That is, who found the suicide, who last saw the suicide prior to the attempt and who witnessed the suicide attempt. This item was considered because it was felt that group differences within the category might reflect varying possibilities to conceal or camouflage the suicide. For this reason, rather than record the names of the persons listed, only the relation of the person mentioned to the deceased was recorded. It is interesting to note that this information present in the majority of cases and that it is suggested practice among medical examiners to specify this relationship. This would seem to indicate that they are aware of the possibility of concealment or camouflage. The categories are groupings of statements found most frequently, mentioned in the preliminary review of cases. They include: (1) Relative (spouse, child, parent or other relative), (2) acquaintance (friend or neighbor) and (3) other (police or person who did not know the deceased). In cases where two or more responses were made, for example if a relative and an acquaintance had both

witnessed the suicide attempt, only the closest relation was considered and recorded. Generally the higher the number the less close the relationship was considered. It was expected that the equivocal group would have the higher the proportion of cases which close relations that found and/or last seen and/or witnessed the suicide. Such a finding would certainly support the hypothesis that concealment (or at least the possibility of concealment) existed.

This was not, however, what was found. The tables below give the frequency of each response for each group.

TABLE XII
DEATHS BY DEFINITIONAL GROUPS AND
PERSON FINDING BODY

	Definite	Equivocal	Unknown
No data	57 (8.9)	12 (25.5)	16 (13.2)
Relative	320 (50.0)	15 (31.9)	36 (29.7)
Acquaintance	99 (15.5)	12 (25.5)	18 (14.9)
Other	<u>164</u> (25.6)	<u>8</u> (17.0)	<u>51</u> (42.1)
Total	640	47	121

Chi-square = 38.68 at 6 degrees of freedom. Significant at the .001 level.

TABLE XIII
DEATHS BY DEFINITIONAL GROUPS AND PERSON
WHO LAST SAW THE DECEASED

	Definite	Equivocal	Unknown
No data	154 (24.1)	19 (40.0)	51 (42.1)
Relative	320 (50.0)	17 (36.2)	36 (29.7)
Acquaintance	67 (10.5)	6 (12.8)	8 (6.6)
Other	<u>99</u> (15.5)	<u>5</u> (10.6)	<u>26</u> (21.5)
Total	640	47	121

Chi-square = 30.13 at 6 degrees of freedom. Significant at the .001 level.

TABLE XIV
DEATHS BY DEFINITIONAL GROUPS AND
PERSON WITNESSING INJURY

	Definite	Equivocal	Unknown
No data	543 (84.8)	40 (85.1)	113 (93.4)
Relative	59 (9.2)	2 (4.3)	2 (1.6)
Acquaintance	20 (3.1)	5 (10.6)	2 (1.6)
Other	<u>18</u> (2.8)	<u>0</u> (0.0)	<u>4</u> (3.3)
Total	640	47	121

Chi-square = 19.20 at 6 degrees of freedom. Significant at the .01 level.

The fact that 12 of the 47 equivocal cases were not completed makes any comparison of this group with other groups difficult. It is not likely that this lack of information is used as a determinant of the label suicide. Rather it is felt that this is consistent with the general lack of information for equivocal cases. The unknown group is noteworthy since the majority of these cases were found by persons not directly related to the deceased. In these cases it is possible that these persons who were not closely related to the deceased were unable to provide information of the type necessary to impute motivation or intention and thereby cause the death to be labelled suicide.

Additionally, it should be noted that while chi-square values are significant at the .01 or .001 levels, an analysis revealed that the distributions are not as would be expected. That is in terms of who found the body, who last saw the person alive and who witnessed the death, the equivocal group consistently was viewed by persons not related to the deceased. This negates the hypothesis that significant opportunities for concealment occurred in the equivocal group.

As mentioned earlier, the narrative summary was the most difficult item on the C.M.E.-I form to deal with. Nine responses were chosen as being both frequently used and relevant to the determination of cause of death as suicide.

The frequency of each response is shown in the following table for each group.

TABLE XV
DEATHS BY DEFINITIONAL GROUPS AND SUMMARY STATEMENTS

	Definite	Equivocal	Unknown
No summary	27 (4.2)*	12 (25.5)*	70 (57.8)*
No foul play	203 (33.1)	15 (42.9)	29 (56.9)
Means found	550 (89.7)	24 (68.6)	26 (51.0)
Statements about death	110 (17.9)	3 (8.6)	1 (2.0)
Depression, despondency	155 (25.3)	7 (20.0)	4 (7.8)
Means recently obtained	26 (4.2)	2 (5.7)	0 (0.0)
Note(s)	14 (2.3)	0 (0.0)	0 (0.0)
Triggering event	188 (30.7)	6 (17.1)	4 (7.8)
Multiple means	62 (10.1)	2 (5.7)	0 (0.0)
Comments from cases with summary	1308	59	64
Total comments, all cases	1335	71	134

Chi-square for cases with summary comment = 49.62 at 14 degrees of freedom. Significant at the .001 level.

Chi-square for all cases = 506.95 at 16 degrees of freedom. Significant at the .001 level.

*Percentages marked by an asterisk are based on the total number of cases per category. All other percentages are based on the number of cases with summary comments per category (N=613, N=37, N=51).

Several conclusions may be suggested from this data. First, from the fact that the equivocal group had a higher proportion of persons who were known to have made statements about death, been depressed, recently obtained the means which caused their death and experienced a triggering event than did the unknown group. It may be inferred that these items were used in deciding the manner of death. This is especially true since the definite group also had high proportions on these items. However, another argument may be advanced that since these items are found in a number of definite suicides then they are legitimate bases for the inference of suicide. In answer to this argument it can only be said that evidence sufficient to classify a death as a suicide on the basis of the sociological definition was not found. The discrepancy between the weightings which should be given to these items cannot be resolved here. Rather it can only be suggested that sociologists be aware that medical examiners probably rely more upon these factors than would a sociologist.

With regard to other informational items which were reviewed, Tables XVI, XVII, XVIII and XIX compare groups with respect to the presence of fatal wounds (i.e., gunshot, stab, slash, etc.) and now fatal wounds, presence of gunshot wounds, autopsy reports and autopsy reports and laboratory analysis. While all these tables are all significant, they only suggest that (1) equivocal suicides are less violent and (2) equivocal suicides, because they are less violent, require and receive more detailed investigation than do definite suicides. Additionally, they suggest that unknown deaths are well investigated and do not fall into that category because of lack of investigative work on the part of medical examiners. The data are

presented below.

TABLE XVI
DEATHS BY DEFINITIONAL GROUPS AND
PRESENCE OF FATAL WOUNDS

	Definite	Equivocal	Unknown
Fatal wound	427 (66.7)	14 (29.8)	14 (11.6)
No fatal wound	<u>213</u> (33.3)	<u>33</u> (70.2)	<u>107</u> (88.4)
Total	640	47	121

Chi-square = 140.07 at 2 degrees of freedom. Significant at the .001 level.

TABLE XVII
DEATHS BY DEFINITIONAL GROUPS AND
PRESENCE OF GUNSHOT WOUNDS

	Definite	Equivocal	Unknown
Gunshot wound	367 (57.3)	22 (46.8)	9 (7.4)
No gunshot wound	<u>272</u> (42.7)	<u>25</u> (53.2)	<u>112</u> (92.6)
Total	640	47	121

Chi-square = 101.52 at 2 degrees of freedom. Significant at the .001 level.

TABLE XVIII
DEATHS BY DEFINITIONAL GROUPS
AND AUTOPSY

	Definite	Equivocal	Unknown
Autopsy	161 (25.2)	17 (36.2)	94 (77.7)
No autopsy	<u>479</u> (74.8)	<u>30</u> (63.8)	<u>27</u> (22.3)
Total	640	47	121

Chi-square = 125.88 at 2 degrees of freedom. Significant at the .001 level.

TABLE XIX
DEATHS BY DEFINITIONAL GROUPS
AND LABORATORY WORK

	Definite	Equivocal	Unknown
Laboratory work done	321 (50.2)	27 (57.4)	77 (63.6)
No laboratory work done	<u>319</u> (49.8)	<u>20</u> (42.5)	<u>44</u> (36.4)
Total	640	47	121

Chi-square = 7.89 at 2 degrees of freedom. Significant at the .05 level.

Since alcohol consumption and suicide have been linked both theoretically and statistically, a comparison of groups by blood alcohol level (for those cases in which this data was present) was done. The data is presented below.

TABLE XX
DEATHS BY DEFINITIONAL GROUPS AND BLOOD
ALCOHOL CONCENTRATION

	Definite	Equivocal	Unknown
No alcohol	220 (69.2)	19 (79.2)	48 (63.2)
.01 - .05	17 (5.3)	1 (4.2)	6 (7.9)
.06 - .10	18 (5.7)	2 (8.3)	2 (2.6)
.11 - .15	23 (7.2)	2 (8.3)	6 (7.9)
.16 - .20	16 (5.0)	0 (0.0)	3 (3.9)
.21 - .25	13 (4.1)	0 (0.0)	5 (6.6)
.26 - .30	8 (2.5)	0 (0.0)	1 (1.3)
.31 - .35	1 (0.3)	0 (0.0)	1 (1.3)
.36 - .40	2 (0.6)	0 (0.0)	3 (3.9)
.41 - .45	<u>0</u> (0.0)	<u>0</u> (0.0)	<u>1</u> (1.3)
Total	318	24	76

Chi-square = 19.24 at 18 degrees of freedom. Not significant at the .05 level.

Since rural-urban differences in both the suicide rate and the efficiency of suicide statistical work had been suggested in the literature, a comparison of the location of death was made. As mentioned earlier location was recorded by county. Hence analysis of group differences was also done by county. Counties were grouped as to whether they were part of an S.M.S.A., contained a major city (population of 25,000 to 49,999) or met neither of the above requirements. For counties in S.M.S.A. a county by county analysis was done. As the data presented below show, no significant differences were found in either case. Therefore we may conclude that no significant rural-urban bias exists in Oklahoma suicide statistics.

TABLE XXI

DEATHS BY DEFINITIONAL GROUPS AND AREA OF STATE

	Definite	Equivocal	Unknown
County in S.M.S.A.	377 (58.9)	22 (46.8)	66 (54.4)
County with city of 25,000 - 49,999	62 (9.7)	6 (12.8)	10 (8.3)
Other Counties	<u>201</u> (31.4)	<u>19</u> (40.4)	<u>45</u> (37.2)
Total	640	47	121

Chi-square = 3.97 at 4 degrees of freedom. Not significant at the .05 level.

TABLE XXII
DEATHS BY DEFINITIONAL GROUPS AND S.M.S.A. COUNTIES

	Definite	Equivocal	Unknown
Canadian	6 (1.6)	1 (4.5)	1 (1.5)
Cleveland	27 (7.2)	2 (9.1)	4 (6.1)
Comanche	31 (8.2)	2 (9.1)	1 (1.5)
Creek	5 (1.3)	0 (0.0)	3 (4.6)
Leflore	9 (2.4)	0 (0.0)	2 (3.0)
Oklahoma	164 (43.5)	10 (45.5)	31 (47.0)
Osage	3 (0.8)	1 (4.5)	2 (3.0)
Sequoyah	6 (1.6)	0 (0.0)	4 (6.1)
Tulsa	<u>126</u> (33.4)	<u>6</u> (27.3)	<u>18</u> (27.3)
Total	377	22	66

Chi-square = 20.06 at 16 degrees of freedom. Not significant at the .05 level.

Case reports were also analyzed with regard to the identity of the medical examiner and his experience. A comparison of groups by the most experienced (in terms of number of cases handled in the period of the study) medical examiners revealed no significant differences as Table XXII shows. This suggests a certain uniformity of criteria among these medical examiners which would tend to negate arguments that individual medical examiners may bias suicide statistics due to idiosyncratic practices.

TABLE XXIII
DEATHS BY DEFINITIONAL GROUPS AND MOST
FREQUENT MEDICAL EXAMINERS

Medical Examiner Number	Definite	Equivocal	Unknown
12	12 (3.6)	1 (6.2)	1 (1.8)
26	50 (14.9)	4 (25.0)	16 (28.6)
62	15 (4.5)	1 (6.2)	2 (3.6)
74	35 (10.4)	2 (12.5)	2 (3.6)
89	45 (13.4)	3 (18.7)	10 (17.9)
90	23 (6.9)	1 (6.2)	6 (10.7)
101	11 (3.3)	0 (0.0)	2 (3.6)
119	25 (7.5)	0 (0.0)	2 (3.6)
153	18 (5.4)	0 (0.0)	1 (1.8)
155	14 (4.2)	0 (0.0)	0 (0.0)
162	15 (4.5)	1 (6.2)	0 (0.0)
185	12 (3.6)	0 (0.0)	1 (1.8)
193	<u>60</u> (17.9)	<u>3</u> (18.7)	<u>13</u> (23.2)
Total	335	16	56

Chi-square = 23.50 at 24 degrees of freedom. Not significant at the .05 level.

With regard to a comparison of the group frequencies between experienced and inexperienced medical examiners, Table XXIII does show significant differences specifically medical examiners other than those most frequently used appear to decide a disproportionate number of equivocal cases. Also frequently used medical examiners tend to decide a large number of unknown cases. This does not suggest any systematic biasing of suicide statistics but was rather felt to be an artifact of the operation of the medical examiner system. That is unknown cases are, due to their problematic nature and the need for laboratory or autopsy work, frequently referred to more experienced medical examiners. Likewise it is entirely possible that equivocal cases were so defined as classified because they were completed by medical examiners less familiar with reporting procedures.

TABLE XXIV

DEATHS BY DEFINITIONAL GROUPS AND MEDICAL EXAMINER GROUPS

	Definite	Equivocal	Unknown
Frequent Medical Examiner	335 (52.3)	16 (34.0)	72 (59.5)
Other Medical Examiners	<u>305</u> (47.7)	<u>31</u> (66.0)	<u>49</u> (40.5)
Total	640	47	121

Chi-square = 8.80 at 2 degrees of freedom. Significant at the .05 level.

The final informational item dealt with concerned means of death as Table XXIV shows significant differences were found. Two conclusions are noteworthy. First that equivocal suicides tend to be those which are less violent (witness the percentages of this group which are death by drug overdose, carbon monoxide poisoning and drowning). Second, that these deaths are of such a nature that it is difficult to distinguish between accident and suicide. The fact that these deaths were classified as equivocal in this study, yet as suicide in the medical examiners records suggests that the sociological definition of suicide used is more restrictive than the criteria used by medical examiners. Additionally in terms of reporting error it would appear that if such error does exist relative to a sociological definition of suicide it is in the direction of over-reporting.

TABLE XXV
DEATHS BY DEFINITIONAL GROUPS AND MEANS OF DEATH

	Definite	Equivocal	Unknown
No data	1 (0.2)*	3 (4.3)*	87 (71.9)*
Gunshot	402 (62.9)	20 (44.4)	8 (23.5)
Hanging	50 (7.8)	0 (0.0)	1 (2.9)
Strangulation	2 (0.3)	0 (0.0)	0 (0.0)
Drug Overdose	95 (14.9)	10 (22.2)	7 (20.6)
Poison	8 (1.2)	0 (0.0)	2 (5.9)
Pedestrian- motor vehicle	4 (0.6)	0 (0.0)	1 (2.9)

TABLE XXV (Continued)

	Definite	Equivocal	Unknown
Slashed wrist	3 (0.5)	0 (0.0)	0 (0.0)
Electrocution	1 (0.2)	0 (0.0)	0 (0.0)
Suffocation	6 (0.9)	0 (0.0)	0 (0.0)
Carbon monoxide	48 (7.5)	5 (11.1)	3 (8.8)
Stab or slash wound	9 (1.4)	2 (4.4)	0 (0.0)
Jumped/fell	6 (0.9)	0 (0.0)	1 (2.9)
Drowned	3 (0.5)	3 (6.7)	6 (17.6)
Exposure	0 (0.0)	0 (0.0)	3 (8.8)
Burn	1 (0.2)	1 (2.2)	1 (2.9)
Vehicular crash	1 (0.2)	4 (8.9)	1 (2.9)
Cases with data	639	45	34
Total cases	640	47	121

Chi-square for total cases = 652.27 at 32 degrees of freedom.
Significant at the .001 level.

Chi-square for cases with data = 206.85 at 30 degrees of freedom.
Significant at the .001 level.

*Percentages marked by an asterisk are total case percentages. All other percentages are cases with data percentages.

CHAPTER VII

SUMMARY AND CONCLUSIONS

While material from case reports was the primary data in this research, data of another sort was gained by interaction with medical examiners and staff members of the chief medical examiner's office. While this data is less rigidly empirical in nature than case report data, it is felt that it also contributes to the goal of understanding the process by which deaths come to be labelled as suicide. As such the conclusions reached from this data is a necessary part of this research. But there is yet another reason for including this data. Any research is, of course, dependent to a large extent upon the researcher. His biases, preconceptions, opinions, etc. will have an influence upon the results of his research. Therefore the second purpose or reason for including conclusions gained from this interactional data is to make clear the opinions, conceptions, and biases of this researcher.

Douglas' work, The Social Meaning of Suicide (1967) is at first quite impressive, if only because it is the only modern critique of the use of suicide statistics. Aside from this, his treatment of Durkheim's work and his section on "meanings" of suicide is excellent. His arguments are entirely logical and plausible. For these and other reasons it was initially thought that this research would support many of the propositions put forth by Douglas. This researcher's

bias then was in the direction of believing Douglas, rather than being skeptical of him. However, while there are many of Douglas' propositions which were not fully tested, and indeed many which were not tested at all, the general result of this research is not in support of Douglas' arguments. In particular, his argument about the useability of suicide statistics (admittedly within a single state and for a specific time period) was found to be highly suspect. It is, however, quite possible (and indeed probable) that research with a different temporal or geographic focus would have supported Douglas' arguments. For example, if research had been done on Oklahoma suicide statistics prior to 1961 or even prior to 1972, it is the opinion both of this researcher and, to some degree of the state medical examiner, that the use of theoretical correlates to impute suicidal intention would have been much more pervasive. Yet still the useability of suicide statistics may not have been impaired even for the years before a statewide medical examiner system was implemented.

During the years under consideration only a limited number of social factors were found to be used by medical examiners in their decision to label a death as suicide. These social factors include: (1) marital status, unmarried persons being overly represented in the equivocal group, (2) occupation, lower status persons being overly represented, (3) previous suicidal action, persons leaving previously made threats or attempts are overly represented, (4) psychiatric treatment, persons having had such treatment are overly represented, and (5) hobbies or aptitudes with potentially lethal means, fear of disease and unemployment, persons with these characteristics being overly represented in the equivocal group. With regard to four other

factors partial support of the hypothesis was found although it is unclear whether or not the use of such factors is unjustified. These factors include: (1) triggering events, (2) statements about death, (3) depression and (4) recently obtaining the means of death.

In general, and with the exception of the above factors, it was concluded that social factors are not used as decisional bases. Even in the use of the above factors it is not likely that any one factor was the sole basis for the decision to label a death as suicide. Rather it appears that certain combinations of the above factors with more concrete data were necessary for medical examiners to be sure, beyond a reasonable doubt, that a death was in fact a suicide. The fact that sociological and medical examiners definitions of suicide may differ has been demonstrated. However, that such differences are so serious as to preclude or make suspect the use of official statistics on suicide is certainly not supported.

It is not incorrect to characterize the medical examiner system in Oklahoma as still in its infancy. The number of cases handled per year and the number of medical examiners is still rising faster than state population. This to some extent accounts for the pervasive spirit of improvement found in the chief medical examiner's office. While the personnel of the chief medical examiner's office would be the first to admit that not all cases are properly handled or classified, there is the definite feeling that the competence of the entire medical examiner system in Oklahoma is improving. A review of the number of cases which are classified as suicide and unknown over the 10 years strongly supports this. In 1962, one year after the medical examiner system was legislatively adopted, the Oklahoma office classi-

fied 216 deaths as suicide given a rate of 9.8. In 1972 the rate was 12.6, and in 1973 it was 12.9. It is not likely that the entirety of this increase may be accounted for in terms of changes in the number of actual suicides. Rather, positive changes in the competence and completeness of the medical examiner system must be viewed as highly contributory.

It has been suggested that one measure of the competency of a medical examiner system is the number of deaths listed as due to unknown causes. The reasoning behind this being that an increase in the number of unknown deaths reflects a willingness on the part of medical examiners to admit that the classification of many deaths is problematic and that there exists instances where no matter how competent the medical examiner is, there is not enough evidence to make an accurate classification. If this reasoning is correct, then the Oklahoma system is improving. In 1962, 47 cases were listed as deaths due to unknown causes. In 1972 after a steady 10 year climb, 211 cases of death due to unknown causes were found.

It is unfortunate that it was not possible, within the scope of this research, to become acquainted with all the medical examiners in the state. However, during the course of this research the opportunity to interact with the medical examiner at the state office was afforded. Their dealing with county medical examiners provide another instance of the professionalism of the state office. It was not uncommon for letters to county medical examiners to be included in the case reports. These generally called for more information or answered questions posed by county medical examiners. In addition, seminars in forensic medicine are conducted and bulletins published and circulated dealing

with difficult cases or situations. A review of the contents of these indicates a strong tendency to consider all cases in which suicide is possible with a wary eye. While in most cases, the judgment and decisions of county medical examiners is upheld in the review of cases, 12 were found in which death classified as other than suicide were reclassified as suicide. This would indicate, to this researcher at least, a degree of professional competence.

The state medical examiner's office is certainly aware of the criticisms of suicide statistics and forensic pathology methods which have been advanced. They are especially aware of the role played by families and friends in discovering the suicide of someone close to them. Most personnel at the state medical examiner's office can recall at least one instance in which pressure, generally from family members, was exerted in an attempt to influence the medical examiner's decision as to how to classify a death. It appears to be the case however, that such attempts may leave a decidedly negative effect. That is, such attempts to pressure medical examiners appear only to encourage their desire to fully and extensively investigate a death, usually with the result that the death in question is labelled suicide.

In general, and somewhat impressionistically, the medical examiner's office seems to be quite concerned with the proper classification of deaths. This is reflected somewhat by the rise in deaths by unknown manner discussed earlier. While this is in part due to a lack of information on certain cases, it is also in some cases due to investigation that produces evidence which equally supports two versions of how a person died. The unwillingness of medical examiners to arbitrarily choose between the two versions may be considered as

evidence of their desire to remain objective.

Additional evidence of such desire may be found in the shop talk of medical examiners. It was not unusual for this researcher to overhear medical examiners discuss the merits of competing explanations of cases, both within the state of Oklahoma and in literature. Indeed a circulation of literature on difficult cases appears to be common practice among medical examiners at the state office. Additionally, it appears to be a growing practice to circulate such cases, with notes and explanations, to county medical examiners via publications by the state office.

It appears to be the feeling at the state medical examiner's office that while it is still a fact that certain cases are misclassified, the incidence of such misclassification has declined with the conversion from a county coroner system to a medical examiner system. Based upon the review of case reports, the comparison of the definitional groups and this researcher's interaction with medical examiners, this is also a conclusion of this research. Additionally, it may be stated that such misclassification does not appear to seriously harm the usefulness of suicide statistics for sociological work. Further, differences between definitions of suicide employed by medical examiners and sociologists, while existent, are hardly so serious as to call into question use of official statistics in sociological theory building.

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VITA

Jerry Richard Parker

Candidate for the Degree of

Master of Science

Thesis: SUICIDE IN OKLAHOMA: A STUDY OF RATE VALIDITY

Major Field: Sociology

Biographical:

Personal Data: Born in McAlester, Oklahoma, October 18, 1949, the son of Mr. and Mrs. Jerrel J. Parker.

Education: Graduated from McAlester High School, McAlester, Oklahoma, in May, 1967; received the Bachelor of Science degree in Sociology from Oklahoma State University in 1972; completed requirements for Master of Science degree at Oklahoma State University in December, 1975; enrolled in doctoral program at University of Minnesota, 1974-75.

Professional Experience: Graduate teaching assistant, Department of Sociology, Oklahoma State University, 1974; graduate teaching assistant, Department of Sociology, University of Minnesota, 1974-75; research assistant, Department of Sociology, University of Minnesota, 1975.