INFORMATION TO USERS

This reproduction was made from a copy of a document sent to us for microfilming. While the most advanced technology has been used to photograph and reproduce this document, the quality of the reproduction is heavily dependent upon the quality of the material submitted.

The following explanation of techniques is provided to help clarify markings or notations which may appear on this reproduction.

1. The sign or "target" for pages apparently lacking from the document photographed is "Missing Page(s)". If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting through an image and duplicating adjacent pages to assure complete continuity.

2. When an image on the film is obliterated with a round black mark, it is an indication of either blurred copy because of movement during exposure, duplicate copy, or copyrighted materials that should not have been filmed. For blurred pages, a good image of the page can be found in the adjacent frame. If copyrighted materials were deleted, a target note will appear listing the pages in the adjacent frame.

3. When a map, drawing or chart, etc., is part of the material being photographed, a definite method of "sectioning" the material has been followed. It is customary to begin filming at the upper left hand corner of a large sheet and to continue from left to right in equal sections with small overlaps. If necessary, sectioning is continued again—beginning below the first row and continuing on until complete.

4. For illustrations that cannot be satisfactorily reproduced by xerographic means, photographic prints can be purchased at additional cost and inserted into your xerographic copy. These prints are available upon request from the Dissertations Customer Services Department.

5. Some pages in any document may have indistinct print. In all cases the best available copy has been filmed.

University Microfilms International
300 N. Zeeb Road
Ann Arbor, MI 48106

Alston, Maude Holloway

SUICIDE AMONG WORKING WOMEN: AN OCCUPATIONAL MODEL

The University of North Carolina at Greensboro PH.D. 1983

SUICIDE AMONG WORKING WOMEN: AN OCCUPATIONAL MODEL

by

Maude Holloway Alston

A Dissertation Submitted to the
Faculty of the Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

Greensboro
1983

Approved by

Rebecca M. Smith
Dissertation Advisor

APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of the Graduate School at the University of North Carolina at Greensboro.

Dissertation Adviser: Rebecca M. Smith

Committee Members: Lynne Sanford Koester

Margaret V. Hazzett

William A. Powers

March 29, 1983
Date of Acceptance by Committee

March 29, 1983
Date of Final Oral Examination

ALSTON, MAUDE HOLLOWAY. Suicide Among Working Women: An Occupational Model. (1983) Directed by: Dr. Rebecca Smith. Pp. 120.

The increase in suicide among women has recently become more evident. In those states where there are large numbers of women in the labor force, suicide rates are high. This research sought to support the idea that suicide among women may be work related. The major purpose of the study was to develop an occupational model to identify elements of social control in occupations of women.

The major predictor variable used was traditionality of occupation. In addition, other predictor variables were age, race, and marital status. The criterion variable was suicide.

Information on these variables was obtained from four states which coded occupational information in suicide data between 1975 and 1979. These states were Alaska, Georgia, Nebraska, and North Carolina.

Primary and secondary analyses were conducted. The primary analysis compared suicide rates for women in non-traditional, moderately traditional, and highly traditional occupations. Percentage distributions of suicide for each level of traditionality by age, race, and marital status were also described. Data for both men and women were used for comparison.

The secondary analysis used chi-square to test for a relationship between occupation and suicide. The contingency coefficient was used to test the strength of the relationship between occupation and suicide.

The prediction was that the highest suicide proportions would be in the nontraditional occupational categories, especially for the age groups 15-25 and 56+, the nonwhite group, and the married group. Overall findings of the primary analysis were these: (a) suicide rates were highest for women in moderately traditional occupations, not nontraditional occupations, and lowest in highly traditional occupations, (b) no age groups had the greatest proportions of suicides for women in the nontraditional occupational category, (c) the marital status categories which had the highest proportions in nontraditional occupations were the single and divorced groups, not the married group, and (d) the highest proportion of nonwhite women was in the highly traditional occupational category, not the nontraditional category.

The secondary analysis revealed a relationship between occupation and suicide, but the strength of the relationship was small. The conclusion was that the occupational model of suicide can explain and predict suicide.

ACKNOWLEDGMENTS

Appreciation is extended to the members of the graduate advisory committee for their guidance and support throughout the study: Dr. Rebecca M. Smith, Professor of Child Development and Family Relations, Chairperson, Dr. Lynne Koester, Associate Professor of Child Development and Family Relations, Dr. William Powers, Associate Professor of Mathematics and Dr. Virginia Hargett, Associate Professor of Nursing.

Special appreciation is extended to Dr. Rebecca M. Smith, Chairperson, whose input was invaluable. Special appreciation is also extended to Ms. Margaret J. Martin, Lecturer, Department of Mathematics, who provided expert technical advice.

Special thanks go to Mrs. Diane Koonce, whose typing expertise was sincerely appreciated.

My deepest gratitude is extended to God, who gave me the burden for suicide, and for giving me a mate as supportive as my husband Maurice. I thank my children, Stephen, Kevin, Eric, and Chandra for their love and support throughout the course of this study.

TABLE OF CONTENTS

CHAPTER

Page

CHAPTER

LIST OF FIGURES

LIST OF TABLES

LIST OF TABLES
(continued)

CHAPTER I

INTRODUCTION

The rising incidence of suicide within this country has begun to generate increasing concern (Breed, 1970; Davis, 1978a, 1978b, 1979; Henry & Short, 1977; Hendin, 1969; Maris, 1969). Nationally, it is the ninth leading cause of death, and in 1977, the latest period of compilation, suicide rates exceeded those for two conditions which previously had higher mortality rates, i.e., arteriosclerosis and diabetes (Vital Statistics of the U.S., 1977).

Between 1950 and 1957, there was a slow, downward trend in suicide rates. In 1958, however, these rates began to increase so that by 1969 the age-adjusted rate for suicide had increased by 18.3 percent (U.S. Department of Health, Education, and Welfare, 1976). By 1977 the age-adjusted rate for suicide was the highest since 1940, at 13.3 deaths per 100,000 population (Vital Statistics of the U.S., 1977).

Suicide rates for males have consistently remained higher than those for females (Burvill, 1972; Davis, 1978a, 1978b, 1979; Durkheim, 1951; Gibbs, 1957; Gibbs & Martin, 1964; Henry & Short, 1977; Maris, 1969; Since 1950, however,

the sex differential has decreased (Burvill, 1972; Vital Statistics of the U.S., 1977). Burvill (1972) showed not only a decreasing sex ratio within this country, but in other English-speaking countries between the two periods of 1954-56 and 1964-66. He stated that these findings reflected actual increases in female rates rather than a decline in male rates as suggested by the World Health Organization.

In 1950, males committed suicide three times more often than females. By 1969, this male-female ratio had decreased to 2.6 (U.S. Department of Health, Education, and Welfare, 1976). Between 1969 and 1977 male suicides had increased by 19.3 percent, while female suicides had increased by 47 percent, male rates being 2.9 times female rates (Vital Statistics of the U.S., 1977). Moreover, these increases are occurring in women of all ages, whereas in men most of the increases have occurred in younger males (Burvill, 1972).

Suicide rates for whites continue to exceed those for blacks, but this disparity is also decreasing (Banks, 1970; Davis, 1978a, 1978b, 1979; Hendin, 1969; Maris, 1969; Seiden, 1972; Slater, 1973; Vital Statistics of the U.S., 1977.) The increase in black suicide is reflected largely in deaths of young males (Banks, 1970; Davis, 1978a, 1978b, 1979; Hendin, 1969; Seiden, 1972), but female deaths among young blacks are also increasing (Howze, 1977; Maris, 1969;

U.S. Department of Health, Education, and Welfare, 1976; Slater, 1973). Slater (1973) cited statistics from the Metropolitan Life Insurance Company which showed an 80 percent increase in suicides among black females from 1952 to 1970. Within this same period black male suicides increased by 30 percent, white males by 10 percent, and white females by 49 percent (Slater, 1973).

There clearly has been a greater increase in female than in male suicide rates in recent years. The complexity of suicide defies any single explanation for the rise of suicide among women. One variable which has received only scant attention in suicide research involving women is female labor force participation (Gibbs, 1957; Gibbs & Martin, 1964; Lester, 1973; Newman, Whittemore & Newman, 1973).

Gibbs and Martin's (1964) theory of Status Integration, which is based on occupational categories, found that in states where the ratio of male-to-female suicide deaths is high, few women are in the labor force. Deductively, according to this view, increased labor force participation by women could reveal a lower male-to-female suicide ratio.

Two studies which were based on Gibbs and Martin's theory of Status Integration reported different findings for a relationship between female labor force participation and suicide rates for this group. Newman, Whittemore, and Newman (1973), using regression analysis on ecological data,

found that the percentage of women in the labor force was one of the variables which was positively correlated with suicide rates of the total population in two metropolitan areas. Lester (1973) replicated this study by using several predictors of suicide rates. Among these measures was the percentage of women in the labor force in Buffalo, New York. He found that suicide rates among women was not significantly correlated with this occupation.

Despite the disparate findings of these two studies--the only ones in the literature which have dealt exclusively with women--there is other evidence that suicidal behavior may be work related (Breed, 1963, 1970; Powell, 1958). Breed (1970), in a study of suicide among males in New Orleans, found that friends' and relatives' accounts of work histories of white males in the population revealed "work-role failure" and "downward mobility" prior to suicide. While black males in the study had not experienced occupational demotion prior to suicide, there was an occupational 'floor effect.' That is, they were concentrated in occupations where status could be no lower. Thus, the two groups were similar in terms of relative positions in a cultural milieu where occupational status and associated directional mobility dictate one's relation to a broader social system (Powell, 1958).

Previous studies of suicide in which women were included have used broad categories of occupations (Gibbs,

1957; Gibbs & Martin, 1964; Lester, 1973; Newman, Whittemore & Newman, 1973) and/or data based on the total population (Newman, Whittemore & Newman, 1973). No studies have attempted to find out if relationships exist between the percentages of women in specific occupations and suicide rates for these groups. Women are concentrated in traditional occupations, e.g., clerical, retail sales, elementary education, and nursing (Epstein, 1970; Glenn & Feldberg, 1977; Howe, 1977); Mott, 1979; Oppenheimer, 1970). Broad census data do not distinguish hierarchical subsets within these configurations.

Powell (1958), in a study of suicide in Tulsa, did look at some discrete categories. However, the study did not incorporate into the framework key variables which have been shown by Durkheim (1951) to be positively correlated with suicide. Later researchers (Gibbs, 1957; Gibbs & Martin, 1964; Maris, 1969) also found these variables to be correlated with suicide. These include race, age, sex, and marital status.

In short, no study has examined suicide rates among either women or men in terms of specific occupations.

It is important to view increased suicide rates among women in light of increased, but possibly discriminatory, labor force participation. The psychic pain which results from any form of discrimination may result in low self-esteem and feelings of hopelessness. These traits have

been found to be present in suicidal persons (Hendin, 1969; Howze, 1977; Seiden, 1970). It is also important to analyze how intervening demographic variables influence suicide rates among women. Generally, in completed suicides, these demographic variables are limited to age, race, sex, and marital status.

The major purpose of this research was to develop a model of occupation and suicide. The next purpose was to test the model by comparing suicide rates across occupational categories with specific analyses for age, race, and marital status.

CHAPTER II

REVIEW OF LITERATURE ON OCCUPATIONAL ENVIRONMENT OF WOMEN

During the 1970's more women entered into the labor force than in any other decade of the century (Norwood & Waldman, 1979). The greatest increases have been among women from 25 to 34. Over 70 percent of these women were married and living with their husbands, worked full-time, and had at least one child under 18 (Norwood & Waldman, 1979). In other words, the typical new female entrant into the labor force is relatively young, is in a stable marital relationship, and has children. Having these characteristics, i.e., marriage, parentage, employment, youth, and being female have traditionally been assumed to make the probability of suicide rather low, as Durkheim proposed in the early twentieth century. Durkheim's analysis of cross-cultural suicide patterns established that rates of males consistently exceeded those of females. Further, the unmarried, the childless, and the older adult had higher rates than their counterparts (Durkheim, 1951). Also, Maris (1969), in a study of suicide in Chicago, found that the high suicide rates among older males in his study may have been a function of "occupational deprivation" due to retirement. He stated that

> occupational retirement signifies not only a change in one's job status but also a change in the material bases for one's self conception and in the external sources of order and control. (p. 95)

Thus it appears that the typical working woman in the labor force does not present a picture of a likely candidate for suicide. However, it must be emphasized that Durkheim (1951) and Maris (1969) referred specifically to men. Durkheim (1951) believed that women were protected from suicide primarily because of their biologically determined low sensitivity to social issues. In speaking of egoistic suicide, he stated that "society is less necessary to her because she is less impregnated with sociability" (p. 215). Maris stated that most women do not experience occupational deprivation, therefore he felt that their suicide patterns were not related to work. In short, Durkheim did not believe that women were intellectually capable of being sensitive enough to social conditions to commit suicide. Maris, while conceding that this view was inaccurate, did not believe that suicide among women is work related.

Durkheim's perceptions may have reflected the common values of the era in which he developed his work. It is hardly likely that women in this age would be equally isolated from social concerns as they were at the turn of the century.

It is not possible to prove that suicide among women is caused solely by negative elements within the occupation environment. However, it is frequently asserted that women indeed do experience continuous and pervasive "occupational deprivation" (Barrett, 1979; Bourne & Wikler, 1977; Coser & Rokoff, 1971; Epstein, 1970; Glenn & Feldberg, 1977; Howe, 1977; Norwood & Waldman, 1979; Roby, 1976; Rossi, 1965; Brown, 1980; U.S. Commission on Civil Rights, 1978; Williams, 1976). As a result, expectation and reality in women's occupational world are usually incongruent (Coser & Rokoff, 1971). Moreover, women are becoming increasingly perceptive of these incongruencies (Coser & Rokoff, 1971; Glenn & Feldberg, 1977; Williams, 1976) as well as those which exist between "effort and attainment" (Coser & Rokoff, 1971; Epstein, 1970; Millman & Kanter, 1976). Thus, many working women are excluded from a social involvement which only occupation can provide.

Why Women Work

Women may work for a variety of reasons. Nye and Berardo (1973) attributed many of these reasons to contemporary structural changes. Barrett (1979) stated that the major change is in the economic sphere. At the same time there has been a preponderance of functional changes within many societies so that tasks traditionally allocated to the housewife may be performed by others (Nye & Berardo, 1973).

Another change which has contributed to the increase of women in the labor force is legitimation of her working role. According to Barrett (1979) legitimation has occurred largely due to economic necessity. In 1975, 68 percent of women in the labor force were married to men who earned less than $10,000 per year. Barrett stated:

> Many of the remaining 32 percent make important contributions to their households' incomes; these earnings often provide the margin that enables a family to purchase a home, provide education for the children, and the like. (p. 69)

Thus, while economic rewards may be one of the major reasons why women work, great differences exist between the sexes in these rewards. Such differences exist even when the type of work and other employment conditions are the same (U.S. Department of Labor, 1979). Women, on the average, earn 60 percent of what men earn (Fuchs, 1971; Weisskoff, 1972). Fuchs found that this ratio increased only slightly when data were adjusted for factors which could account for differences.

Norwood and Waldman (1979) reported that the variability in income between the sexes usually results from placement within occupations and industries which perpetuates discrepancies. They cite, as an example, the large proportion of women who are in retail sales; the majority of men in sales occupations deal with larger commodities and/or wholesale trade. This differential placement affects salaries accordingly.

Women in professional as well as nonprofessional occupations earn less than men. In 1976, for example, women scientists averaged between $1700 to $6600 less than men yearly (U.S. Department of Labor, 1979). Women in other major occupational groups such as Professional and Technical workers, and Managers, Officials, and Proprietors earn 69 and 56 percent, respectively, of what men do in these groups (U.S. Department of Labor, 1972).

Two of the basic rights within a free enterprise system are those which guarantee each worker (a) an income proportional to his or her labor and other resources, and (b) the right to make his or her economic decisions. Women are often not afforded these rights. The implications of this are in the socially alienative character of such practices and the concomitant effects on self-esteem. This may be particularly problematic if other correlates of suicide are present (Williams, 1976).

Where Women Work

In spite of increased labor force participation women remain concentrated in traditional occupations (Cashion, 1977; Howe, 1977; Norwood & Waldman, 1979; Oppenheimer, 1970). In 1977, women constituted 40 percent of the labor force; however, their distribution within the total work force was far from random. Women constituted 79 percent of all clerical workers, 64 percent of all elementary-

school teachers, 87 percent of all retail sales clerks, 83 percent of all nurses, and 76 percent of all textile workers (U.S. Department of Labor, 1977).

Industrial placement of women is also predictable. This shows concentrations in retail trade, finance, insurance, and real-estate, personal and related services, and government (U.S. Department of Labor, 1972). This placement is difficult to qualify, however, without the accompanying occupation. For example, Furugori (1974) cited a study by the Pennsylvania Commission on the Status of Women and found that women make up almost 70 percent of all workers within the banking industry (a sub-industry of Finance, Insurance, and Real Estate). However, the study showed that 90 percent of these women are in clerical positions. Thus women remain in occupations and industries which are predominantly female.

Oppenheimer's (1970) demographic study showed that occupations of women in the labor force have not changed significantly since 1900. She attributes this static quality to a differential demand system for men and women workers. That is, a segregated labor market exists, and the two sexes tend to be concentrated in different and noncompetitive labor markets. Other researchers have asserted that this dual labor market system is contrived, and perpetuates social and economic inequity (Howe, 1977; Millman & Kanter, 1976; Roby, 1976). Therefore, despite

an achievement-oriented ideology within this country (Williams, 1976), it is commonly believed by many that this ideology is sex-specific. That is, there seems to be "men's work" and "women's work" (Barrett, 1979; Cashion, 1977; Epstein, 1970; Millman & Kanter, 1976; Rossi, 1965; Williams, 1976). Williams (1976) stated that

> because of the growing participation and acceptance of women in the labor force, a growing egalitarian ideology, and an increasing need for skilled labor evaluated by achieved criteria, one would expect that over the long run the amount of occupational differentiation by sex should decline in the industrial nations. This trend should be particularly apparent in the United States, since this nation has some of the highest levels of female labor force participation among industrial nations. There is reason to believe, however, given the supply and demand characteristics of employment markets and the numerous institutional arrangements supporting the sex typing of occupations, that such a decline may be a slow process and that no precipitous decline in occupational differentiation by sex may be observed over the relatively short period since industrialization. There is certainly reason to believe that sexual segregation may exist for a very long time in some occupations because of the nature of the work and women's primary loyalty to home and family. (p. 41)

Williams' (1976) pessimistic projection of women's place in the labor market may be realistic, as the picture has not changed significantly since early industrial development within this country (Oppenheimer, 1970). However, some occupations may be more resistant to change than others, and this could be a function of the traditionality or nontraditionality of specific occupations.

Traditional and Nontraditional Occupations

Women in both traditional and nontraditional occupations and/or industries may feel frustration, despair, and hopelessness at the lack of progress in obtaining occupational equality. Whether this is more problematic for one group than the other is a moot question. Women in traditional occupations are more likely to be involved with peers on a microlevel (Blauner, 1964). Also, the low aspirations of women in some traditional occupations may preserve ego strength (Blauner, 1964; Millman & Kanter, 1976). Blauner's (1964) description of textile workers' environment, which has a large proportion of women, attests to the normative integration and cohesion within this industry, for example.

It is still questionable whether the characteristics of the traditional occupation environment may serve as a buffer against feelings of alienation and hopelessness. Also, within occupations where women predominate there is seldom the degree of autonomy which is found in less traditional ones (Blauner, 1964; Millman & Kanter, 1976). In other words, this group of women is highly regulated by the occupational society. Maris (1969) has defined regulation as the existence of hierarchical relationships which determine relative degrees of power. Thus, this group by virtue of its subordinate status within the labor society may be highly regulated.

While women in traditional occupations are subjected to regulation of activities, women in nontraditional occupations may experience as much, if not more, control over their activities as their male counterparts (Boughton, 1980; Bourne & Wikler, 1977; Epstein, 1970; Millman & Kanter, 1976). Boughton (1980) found this to be particularly true when such occupations are held within nontraditional industries. Her case studies involving women in this configuration cited numerous instances of consistent harassment, inequitable and degrading assignments, and even physical violence.

Problems encountered by nontraditionally employed women have also been found by Epstein (1974). Her interviews with women lawyers revealed concentration in such "female specializations" as matrimony, real estate, and probate work. Lyle and Ross (1973), too, found that women lawyers perform subservient roles such as research instead of courtroom duties. These researchers also found women in architecture were assigned to "background work," while work on sites and that dealing with customers were handled by men.

Perhaps the major difficulty encountered by women in nontraditional occupations is the ambivalence between traditional sex roles and occupational ones (Coser & Rokoff, 1971; Epstein, 1971, 1974). Coser and Rokoff stated that this ambivalence results in conflicting expectations of

roles and for behavior in the occupational sphere, noting that such women are required to "work like a man" but to give normative priority to their families. The expectation that career and family be perfectly wedded among women may result in low evaluation of themselves (Epstein, 1971). Further, these women do not generally have the peer support which is found in traditional occupations (Epstein, 1971).

Since 1970, women have been making greater entries into traditionally male professions. This increase in numbers, however, has not decreased discriminatory practices, particularly of a social type. Bourne and Wikler's (1977) study involving women in medicine found no overtly discriminatory practices such as admission procedures. Instead, they asserted that "the choices women make for further training and specialization are shaped and circumscribed by features of what we shall call a 'discriminatory environment'" (p. 430). This environment, according to the researchers' series of case studies, involved subtle "acts of commission" and "of omission" (p. 431). The researchers cite specific examples of jokes demeaning to women,"insults and communication (verbal and nonverbal) indicating disrespect and disinterest....exclusion from conversation and informal learning experiences" (p. 431).

According to Epstein (1970), the consequence of such "sex-typing" and "status-set typing" act as barriers to career choices for professionally oriented women. Epstein

used Robert Merton's conceptualization of occupational "sex-typing" as normative expectations that a majority of one sex will be associated with a specific occupation. She conceptualized "status-set" typing as "when a class of persons who share a key status (e.g., lawyer) also share other matching statuses (e.g., white Protestant) and when it is considered appropriate that this be so" (p. 966). Epstein cited data which show, by way of illustration, that the percentage of women lawyers increased from 1 percent in 1910 to 3.5 percent by 1950. By 1960, no further gains had been made. In 1969, women made up only 9.5 percent of all lawyers and judges, 11 percent of all doctors, 9 percent of all industrial engineers, and 30 percent of all accountants (Norwood & Waldman, 1979).

Rossi (1965) stated that in spite of the dramatic rise in the numbers of women in specific fields, the relatively greater increases among men have led to a decline in the proportions of women actually represented in these fields. She further stated that in engineering, for example, women replace men only at lower levels of the field when the upper limits of the field broaden and become filled by men.

Howe (1977) and Norwood and Waldman (1979) have stated that the same type of horizontal mobility occurs within the ranks of what they refer to as "pink collar workers." That is, when men come into those occupations which are almost exclusively female, they concentrate on getting the "stepping-

stone" jobs. Women's mobility in these positions is more circumscribed.

Thus there is evidence that women in both traditional and nontraditional occupations are in a segregated occupational environment. Whether this environment is more problematic for one group than for the other is a theme that will be developed further in subsequent chapters.

Unemployment Among Women

It is not only the type of work, the working environment, and differential reward system that perpetuate two separate and unequal labor markets within this country. Minorities and women are more likely to be unemployed than the white, or majority, male (Barrett, 1979; Norwood & Waldman, 1979; Mott, 1979; U.S. Commission on Civil Rights, 1978). Women, particularly black ones, are also more likely to be in the classification of workers referred to as "discouraged" (Rexroat, 1978; U.S. Commission on Civil Rights, 1978). That is, these workers have experienced long periods of unemployment and/or have sought employment without success. The Commission concluded that

> although the unemployment rate fluctuates continuously with changing economic conditions, the disparities (ratios to the majority male rate of unemployed) are more persistent and indicate a basic inequality in the labor market. The disparity will change only as the inequality is altered. (p.2)

Not only do women experience higher unemployment than men but the gap between unemployment rates for the two

groups is widening. In 1972 unemployment among women was 7 percent in contrast to 5 percent among men (U.S. Department of Labor, 1972). The Commission on Civil Rights (1978) reported that unemployment for all persons increased between 1970 and 1976. However, during this time the disparity between jobless rates of white males and those of women and minorities increased, so that unemployment in the latter groups actually worsened relative to the former group.

Implications of the unemployment rate among women are spoken to by the Commission on Civil Rights (1978):

> One component of the unemployment rate warrants separate attention. Young women and minority men have the highest rates of unemployment of all groups in the Nation. In addition to its inherent problems, the state of being unemployed seems to be associated with activities and reactions...that can be detrimental to themselves and the communities in which they live. (p. 29)

A Corollary of Occupational Segregation

Troll (1975), although confirming the generally held view that people work for a variety of reasons, has declared that one's position in the occupational world determines every aspect of our life. This includes activities of daily living such as food, clothing, and shelter as well as participation in social groups. Self-esteem and health then become directly related to occupation. Therefore, the function which occupation seems to serve is that of establishing a connection to micro- or macrosacrifice of which the individual is a part (Powell, 1958; Troll, 1975).

Suicide is a complex phenomenon; therefore, it is unlikely that occupational segregation could be the sole cause of suicide within groups. However, this form of segregation, as with any other type, may imply a lack of control over one's actions. Seligman (1975) stated that when this happens, that is, when one's actions make no difference to the outcome of a situation, depression results. While not all suicide victims are depressed, this is one of the psychological indicators of suicide (Clifton & Lee, 1976; Peck, 1979).

As Powell (1958) pointed out, it is through occupation that one's "general social status" and subsequent social relationships evolve. This is because a culture mandates a "common value system." In this culture the common value

system is one of occupation, and the individual attempts to bring aspirations into harmony with the cultural ideal. However, barriers are frequently in existence, and Powell stated that "when the ends of action become contradictory, unaccessible [sic], or insignificant, a condition of anomie arises" (p. 132). Thus cultural norms which presuppose achievement orientation and upward mobility restrict women to vicarious achievement of these goals (Henry & Short, 1977). The normlessness and hopelessness which result may be sufficient to cause suicide if other correlates of suicide are present.

Helplessness and Hopelessness

The inability to control a course of action, regardless of one's voluntary actions is referred to by Seligman (1975) as "uncontrollable;" that is, the perception that there is no control over events, leads to feelings of hopelessness. Seligman's (1975) experiments with laboratory animals and humans showed that responses to helplessness and hopelessness involve motivational, cognitive, and emotional disturbances. He suggested

> that what produces self-esteem and a sense of competence, and protects against depression, is not only the absolute quality of experience, but the perception that one's own actions controlled the experience.(p. 99)

Aspirations and achievements among women are influenced by a variety of social forces beyond their control. Not only are they

subjected to a variety of subtle forms of discrimination such as sexual harassment (MacKinnon, 1979), they are also subjected to inequitable assignments, offensive jokes, etc. (Barrett, 1979; Bourne & Wikler, 1977; Coser & Rokoff, 1971; Epstein, 1970). Further, women's consciousness-raising groups are beginning to admit that the prognosis for change appears bleak (Brown, 1980; "Women Continue," 1980). Thus normative changes which may be a factor in suicide among women may be characterized by increased awareness of the working role, but with constraints so pervasive that hope for change is severely limited.

The sex and/or racial statuses of women continue to undermine the aspirations of this group for social and economic equality. Epstein (1973) stated that these statuses are automatic bases for exclusion from prestigious occupations such as medicine, law, and engineering. She noted that when persons have more than one of these 'wrong' statuses the negative effects tend to be cumulative and lead to "social bankruptcy." Such an explanation may account for the relatively small numbers of persons with more than one "negative" status which are represented in certain professions (Bourne & Wikler, 1977; Epstein, 1973).

Epstein (1973) claims that the black female professional is an exception to the negative status concept. In fact, she stated, the two negatives become a positive, since these traits allow the satisfaction of current affirmative

action policies. However, the absolute numbers of such women are extremely small (Epstein, 1973). Also, while more minority women are entering occupations other than service ones, they assume substandard positions in almost all occupations (U.S. Department of Labor, 1979; Wallace, 1980).

Thus, occupational discrimination is characterized by its alienative nature, and may pose a threat to self-perception and ego strength. It is a problem for the majority of working women, and may be particularly problematic for some subgroups within the population of working women. We have noted that minority women experience disproportionate hardships within the labor market. Moreover, education, short of college graduation, does not appreciably increase earning capability and employability of such women (Sweet, 1973). Two other variables which influence the treatment of women in the labor force are marital status and age.

Marital Status

The marital status of working women may influence their positions in the labor market. Epstein (1971), citing census data, reported that in 1968, although most women in the labor market were married, they were largely concentrated in low status positions. By contrast, she cited studies which showed that disproportionate numbers of

women who were upwardly mobile were single, widowed, and divorced. These findings are reinforced by Bureau of Labor Statistics (1979) which showed that divorced or single women had incomes higher than married or widowed women. Norwood and Waldman (1979) reported that this preferential treatment of unmarried women may reflect organizations' beliefs that married women will invariably leave to have children. Weisskoff (1972) stated that this "labor cost" argument is not based on fact. She noted that the increase of young married women of childbearing age in the labor force indicates the emergence of new work patterns which actually increase work stability.

Age

Older working women may also experience disproportionate hardships within the labor market. Department of Labor statistics (1979) show that at approximately 35 years of age, men's careers show continued advancement. Conversely, this same age period for women often shows "dead-end careers and a lack of labor force mobility" (p.5). Also, unemployment periods among older women looking for work tend to be more protracted (Klein, 1975).

Along with older women, teenage women in the labor market also experience unemployment and low status positions (Grossman, 1975). The status of this group may reflect inexperience and commitment to school; therefore, this low

status may be temporary for some teenage workers. However, some teenage workers often have the same responsibility as older women. Grossman (1975), Wallace (1980), and the U.S. Department of Labor (1974) reported that many black teenage workers may be single parents and/or heads of households.

The occupational environment, then, of older women and younger women may generate hardships. The effects of race, age, and marital status on women's status in the labor market may show some relationship to suicide rates among working women, either singly or interactively. The next chapter will show the development of an occupational model of suicide.

CHAPTER III

DEVELOPMENT OF AN OCCUPATIONAL MODEL OF SUICIDE

In the preceding chapters a comparison was made between the occupational environments of women in traditional and nontraditional occupations. This was based on the assumption that suicide may be a corollary of the restraint imposed on women in the labor market. Such restraint may be a function of either the traditionality or nontraditionality of an occupation.

In this chapter an occupational model will be developed to examine the independent variables of occupation, age, race, and marital status, in relation to the dependent variable, suicide.

Durkheim's (1951) typologies of suicide, developed in the late nineteenth century, are the major framework used to present the model.

The Context and Consequences of Durkheim's Theory of Suicide

Before reviewing Durkheim's (1951) theory, it is necessary to explain the philosophical issues which formed the basis for his conceptualization of suicide rates.

Durkheim's theory was an attempt to explain the social phenomenon of suicide, not individual acts. This attitude evolved as a result of the biological and organismic orientations which were prevalent during the times of his major works (Parsons, 1949). Therefore, Durkheim believed that while a society is composed of individuals, it is an existence in itself (Maris, 1969; Turner, 1978).

As a result of this belief, Durkheim analyzed suicide rates in terms of the number of deaths per specific population. He did not believe that "extrasocial" variables, such as psychopathology, climate, imitation, race, alcoholism, and sex influenced social suicide rates. Tests of the theory, using demographic characteristics of European countries, supported his hypothesis that no significant association existed between the social suicide rate and extrasocial variables.

A frequent criticism of Durkheim's (1951) theory is his treatment of the individual. This indifference to the individual was perceived as problematic even among immediate post-Durkheim theorists (Maris, 1969). Maris sees the relationship between the individual and society, as Durkheim proposed, as ambiguous. That is, the "extrasocial" variables which were discounted by Durkheim (1951) were disqualified on the basis of his persuasive rhetorical but arbitrary conceptualization of social and nonsocial

variables (Maris, 1969). Therefore, according to Maris, Durkheim committed the ecological fallacy. That is, he used social characteristics to explain the suicide rates of subsets of individuals.

Many other contemporary suicidologists also stress the need to analyze variables concerning the individual, and tend to view suicide as the interactive effects of social and individual turmoil (Breed, 1963, 1970; Dublin, 1963; Farber, 1968a; Hendin, 1969; Henry & Short, 1977). Dublin (1963) stated that

> suicide involves both the individual and society. External circumstances over which he has no control effect the character and mold the life of the individual. Hardships of various kinds...often lead men to the thought of self-destruction. (p.v)

The purpose of the preceding discourse is to elucidate and verify the unit of analysis used in the present study: the individual. This paralleled the approaches used by Maris (1969) and Peck (1979) who used individual units of analyses within Durkheim's framework. This involved a demographic/epidemiological approach similar to that of Linden and Breed (1976). These researchers used a non-mathematical formula, incorporating susceptibility of the individual, etiological agents, and environmental characteristics. Thus it is hoped that sufficient as well as necessary correlates of suicide will be identified within the population used in the present study.

Durkheim's Theory of Suicide

Durkheim's (1951) theory forms the framework for most sociological and social-psychological studies of suicide. The central tenet underlying this theory is that suicide reflects the inability of a society to integrate, and thus regulate the individual. That is, a "collective conscience" acts in such a manner as to prevent deviant behavior. Only if a society is "healthy" is it possible to control deviancy in the individual. Analyzing religious, political, and domestic societies, Durkheim synthesized two levels of generalization before finding the common denominator which is presented in the third level generalization. This states:

> Suicide varies inversely with the degree of integration of the social groups of which the individual is a part (p. 209).

Durkheim (1951) introduced two variables, integration and regulation. These are continuous variables, and the typologies developed by Durkheim represent opposite ends of a continuum. Therefore strong as well as weak integration and regulation lead to suicide. Four typologies of suicide reflect the relationship between the individual and society: (1) Egoistic (2) Anomic (3) Altruistic (4) Fatalistic.

Egoistic/Altruistic Suicide

These polar types of suicide represent excessive and inadequate individuation respectively. Egoism is the

result of limited interaction in social groups, leaving persons without the influence of collective beliefs. Thus, integration is felt to be the end result of a number of people sharing collective sentiments. Integration may decrease when the society loses its hold on the individual due to internal upheaval; this may also occur when the individual leaves the society as the group credo becomes questionable and no longer fits his/her needs. As an illustration of this, Durkheim argued that the spirit of free inquiry which exists in Protestant religions predisposes this group to suicide more readily than those of Catholics and Jews. That is, when the individual is not answerable to group values and norms, conduct is based on personal interests.

While egoistic suicide is the result of detachment from a social group, altruistic suicide occurs when there is lack of differentiation between the group and the individual. Durkheim stated that in this type of suicide the ego is blended with the group which then influences conduct. Therefore, the individual is not distinguishable from the group and there is little sense of personal reality. Thus, altruistic suicide is the result of a high level of integration such that the renunciation of life is either obligatory, praiseworthy, or simply for the privilege and honor of the act.

Anomic/Fatalistic Suicide

Where egoism and altruism represent polar ends of the integration continuum, anomie and fatalism are polar ends of the regulation continuum.

Anomic suicide is the result of alterations in the norms of a society, leaving the individual without the regulation which is necessary to ensure social order. While Durkheim initially stated that anomie results from temporary, but abrupt, normative changes, he later qualified this to suggest that any changes in structural and functional components of a society can produce this state. Three types of anomie illustrate conditions of disequilibrium:

Acute economic anomie. Inherent in any economic changes is disturbance of the collective order, i.e., incongruent means and ends. Therefore, suicide rates increase during times of economic crisis as well as periods of unexpected prosperity.

Chronic economic anomie. Rather than resulting from sudden economic changes, this state evolves as a gradual erosion takes place in the spheres of trade and industry. Initially, these areas, in the interest of economic progress of a society, were freed from social control. Instead, they were placed under the controls of systems of "moral forces," e.g. religions and governments. Durkheim asserted that these regulatory forces had lost their influence over industry and trade, thus leaving these areas without any form of control and resulting in a form of chronic anomie.

Domestic anomie. Durkheim used two classes of empirical findings to demonstrate this form of anomie. The first of these is the acute anomie of widowhood, which involves the means-end balance so characteristic of anomie. On the other hand, a more chronic form exists in marriage. For example, Durkheim showed that while divorce and suicide covaried for both sexes, divorced men had higher suicide rates than divorced women. He attributed this manifestation among men to the anomic means-end imbalance. That is to say that men's "passions," and thus their monogamy are socially regulated; they are forced to attach themselves to marriage, which includes the whole feeling set of this state. Therefore, when marriage is dissolved a state of anomie results.

Durkheim noted women's exclusion from this type of anomie; the same domestic environment, assumed to be a factor in suicide among men, afforded women a higher "coefficient of preservation." In those countries where divorce rates were high, women had lower suicide rates than men. Durkheim accounted for the differential effects of divorce on women to their undeveloped "mental life," resulting in the inability to internalize the complete feeling set that comprises marriage. He commented that "she thus does not require so strict a social regulation as marriage, and particularly as monogamic marriage" (p. 272). Thus, domestic anomie is perceived to be less problematic for married women.

Fatalistic Suicide

Continuation of the discussion of domestic anomie led Durkheim to conclude that excessive regulation can result in suicide. This is a fatalistic suicide, briefly described in a footnote. Of this type of suicide, Durkehim states:

> It is suicide deriving from excessive regulation, that of persons with futures pitilessly blocked and passions violently choked by oppressive discipline (p. 276).

In summary, Durkheim identified four basic types of suicide. These are not mutually exclusive and represent different dimensions of social integration and/or regulation.

Critiques of Durkheim's Theory

Among the criticisms which are expressed most frequently against Durkheim's theory are (a) his conceptualization of social integration, and (b) the lack of emphasis on fatalistic suicide.

Social Integration

Contemporary sociological theories, using Durkheim's third level generalization are variations on the theme of social integration. Generally, researchers have dealt with this by examining the social characteristics of specific geographic areas, e.g. cities, states, countries, and their differential suicide rates. Inferences are then made about the integrative qualities of one area relative to another.

For example, Cavan (1928) and Maris (1969) investigated suicide rates in Chicago; they both found that high suicide areas were characterized by high instances of social isolation. Maris found strong evidence for the excessive individuation, which Durkheim asserted to be indicative of egoistic suicide, in the city's "skid row" areas. Thus, integration is usually perceived to entail involvement in a social group such that there are common values, sentiments, norms and goals. In truth, Durkheim did not define social integration. Gibbs (1971) criticized Durkheim's omission by stating that:

> at no time does he provide either a real or a nominal definition of social integration, much less an operational one. It is not even made clear whether social integration relates to consensus in value or whether it is found in actual behavior (e.g., the frequency, duration, and regularity of social interaction). (p. 306)

Integration or regulation? Not only is there difficulty with the concept of integration; there is also lack of consensus on whether integration and regulation are separate or identical concepts. The basis for this disagreement no doubt stems from Durkheim's lack of consistency in distinguishing between the two. While his egoistic suicide purportedly is the effect of inadequate integration, he still refers to the normative control which groups impose on their members. Specifically, in speaking of the greater proclivity toward suicide among Protestants,

vis-a-vis Catholics and Jews, Durkheim attributed this to the absence of an extensive credo in the former religion, the purpose of which is to ensure individual adherence. Another comment made during the discussion of egoism further attests to the regulatory aspect of this type of suicide as well as altruistic components. He stated that

> when society is strongly integrated it holds individuals under its control, considers them at its service and thus forbids them to dispose willfully of themselves. (p. 209)

The ambiguity involving these concepts has persisted, and there is little agreement as to whether these are one and the same. Gibbs and Martin (1964) cited several instances in which Durkheim's integration also has a regulatory component. Thus, the concepts, to them, are overlapping ones. Parsons (1949), on the other hand, felt that regulation referred to social control and integration to value consensus. Maris conceptualized integration as involvement in interdependent relationships and regulation denoting involvement in "subordinate-superordinate" relationships, i.e. relative degrees of power.

Cummings (1968) used the terms social control, regulation, and integration synonymously. She and Weber (1961) argued that members of a social system willingly submit to a form of social control as a legitimate price to pay for being involved with a group.

In summary, there is no consensus on whether the concepts of integration and regulation are the same. The

concept of regulation will be used in this analysis since it has been asserted that women commit suicide when regulation or control is high (Cashion, 1977; Johnson, 1976). While Durkheim postulated that there is high suicide for women when regulation is high only in domestic societies, Cashion (1977) and Johnson (1976) insist that women commit suicide when regulation or control is high regardless of the society in which they are involved.

Fatalistic Suicide as a Contemporary Issue

Even if regulation is a useful component of a society, could not this form of restraint at some point on a continuum become onerous? Gibbs (1971), who in an earlier work expressed some concern over the lack of clarity between integration and regulation, stated that Durkheim's third level generalization should be qualified to suggest this possibility. It is this line of questioning that has prompted suicidologists to take a closer look at fatalistic suicide.

It was noted that Durkheim predicted and found an inverse relationship between social integration and suicide rates. Since there is no empirical definition of the former concept, however, Gibbs (1971) implied that Durkheim's use of existing suicide data allowed him to ascribe this nebulous concept to these rates. That is, as long as there were no glaring inconsistencies between the two concepts,

Durkheim could prove the inverse relationship that was needed to support the theory. Maris noted that such an inconsistency does exist in the description of fatalistic suicide since there is a direct relationship between fatalistic suicide and social integration.

Durkheim must have considered that fatalistic suicide was more than a rare phenomenon. The fact that his brief description of this followed anomic suicide, which is a failure of regulation, attests to this. However, he chose to ignore it.

Maris stated that the major reason for Durkheim's negation of fatalism is that it contradicts the general theory. That is, the tacit agreement which members of a society give to some form of control ensures social order and mutual interdependence. However, Durkheim himself noted that for regulation or control to be acceptable, the individual has to perceive that ascribed upper and lower limits are equitable for all members. Doubtlessly, this sort of regulative force might be considered fair by most men; it could hardly apply to women.

Fatalism is the result of excessive social regulation or control. That is when means and ends are incompatible and the individual is powerless to reverse this condition (Durkheim, 1951; Peck, 1979). Breed (1973, 1970), Maris (1969), and Peck (1979) all found evidence of this phenomenon. Cashion (1977) and Johnson (1976) also noted that

the climate for this form of suicide among women, in particular, is favorable.

No attempt is being made in this study to identify a specific typology of suicide due to the lack of consensus in defining regulation and integration. More specifically, the decision is based on Johnson's (1965) argument for a unicausal explanation of suicide. Johnson (1965) insisted that (a) altruistic and fatalistic suicides do not occur in Western societies, and (b) anomic and egoistic suicides are synonymous since they both indicate the same dimension. His proposition states that "the more integrated (i.e., regulated) a society, group, or social condition is, the lower its suicide rate" (p. 886). Following Gibbs' (1971) assertion, this may be true up to a point. That is, when integration (regulation) passes a certain point on a continuum, suicide is more likely. Integration/regulation among working women is probably at the high end of the continuum.

Regulation within Occupations

It has been shown that women in both traditional and nontraditional occupations experience external control over their occupational statuses and roles. However, control may be structurally different. The following conceptualization of the labor force, devised by the writer, illustrates

this difference based on the literature review describing the two labor markets.

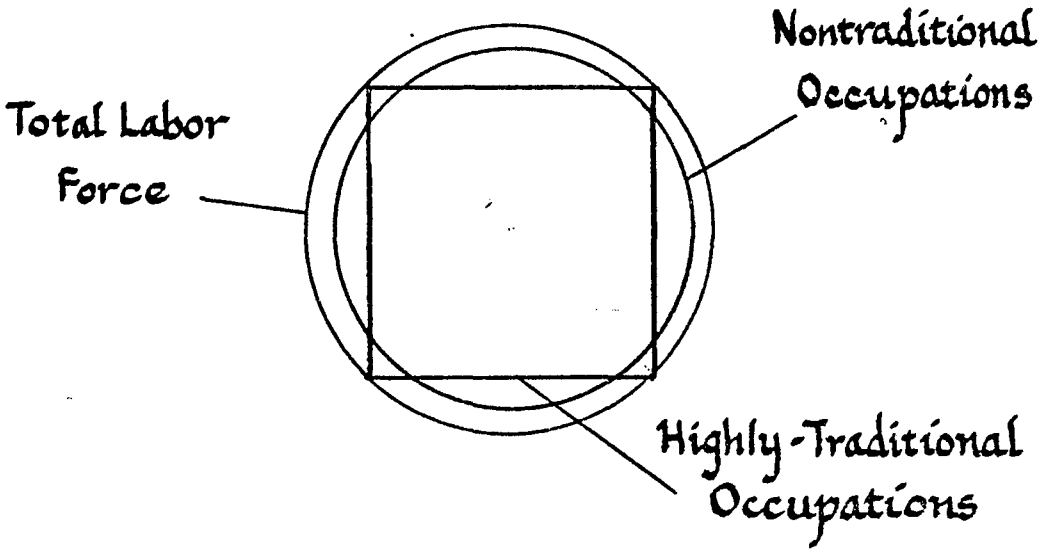

Figure 1. Structural model of the female labor force.

The model shows that the very structure of the traditional labor market among women can never be congruent with the total labor force, no matter how large. Thus limitations have become institutionalized. Would the lowered aspirations and/or peer involvement within this group be sufficient buffers against feelings of hopelessness and powerlessness? Women in nontraditional occupations, on the other hand, are structurally similar to the total labor force. Thus it would seem that women in nontraditional occupations could be expected to be fully assimilated into the total labor force, and thereby experience more autonomy.

This does not seem to be the case. Further, such women are less likely to have the same type of peer involvement and support as those in traditional occupations.

Durkheim was careful to point out that regulation of behavior is effective only if considered fair by persons within a society. He commented that:

> When it is maintained by custom and force, peace and harmony are illusory; the spirit of unrest and discontent are latent; appetites superficially restrained are ready to revolt. (p. 251)

The view of the world which is therefore encompassed in this model is based on the following assumptions:

1. Women commit suicide when regulation of behavior is high.
2. Regulation may vary with the traditionality or nontraditionality of occupations.

Regulation as a Form of Social Control

As noted previously, the concept of regulation is often used as a synonym for social control. This may be misleading because it is often unclear when regulation is so defined where it falls on a continuum. While regulation is an inherent component of social structures (Durkheim, 1951), it is regulation that approaches the upper end of this continuum which may be problematic for women (Cashion, 1977; Johnson, 1976).

Another difficulty in the conceptualization of regula-

tion and social control is the lack of consistency in defining the latter concept. Janowitz (1975) traced the historical perspective of social control. He noted that the initial definition of social control was a generic one, and referred to the ability of social groups to practice self regulation. While this broad definition has persisted, Janowitz discussed the more narrow definitions which later surfaced. These usually refer to either the socialization process or the restraint experienced over behavior in a social group. Clark and Gibbs (1964), Gibbs (1964), and Gibbs and Martin (1964) stressed the need for a consistent conceptualization of social control.

The narrow definition of social control, i.e., the restraint of behavior, and specifically that formulated by Stewart and Cantor (1964) is used in the present study:

> By social control we mean the structures, both formal and informal which condition and limit the actions of groups and roles. (p. 17)

This definition is analagous to "powerlessness," defined by Blauner (1964) as the state of being restrained and manipulated by people or by systems, e.g., technology, and being unable to change or modify one's condition.

Status and Social Control

The assumption that occupational structures constitute a form of social control is based on the concept of status.

Maris (1969) stratified occupations into upper, middle, and lower status categories; Powell (1958) used a white-collar, blue-collar delineation. Both studies were attempts to support predictions of an inverse relationship between status and suicide. Confirmation of these predictions refuted Durkheim's and Henry and Short's (1977) findings which showed a direct relationship between status and suicide.

It is important to reiterate that Maris's occupational data dealt exclusively with males. Cashion (1977) maintained that the status of women, not that of occupation, determines the degree of social control in the labor market.

The difficulty in using occupational status as a predictor for suicide rates among women is that the Census Bureau's Professional, Technical, and Kindred Workers category is one which Maris (1969) called upper status and where he found lower suicide rates. However, Powell (1958) found that nurses, who are customarily placed in upper status categories, had suicide rates six times higher than women in the general population. On the other hand, secretaries, who are hierarchically lower on the status scale, had lower rates. It is Powell's findings which reinforced the decision to use the traditional/nontraditional continuum in this study.

An Occupational Model of Suicide

The last decade has shown a tremendous increase in the absolute numbers of women in the labor force. Almost at

the same time there has been a dramatic rise in suicide among women. Female labor force participation is not new; neither is segregation within the labor force new. What is new is the increased awareness of social control within the market and the limited power to reverse these conditions.

Women in both traditional and nontraditional occupations are subjected to social control by the occupational society. Some social control is necessary, and in fact, acceptable to most people within a society as a condition for being a member of the group. What is onerous, however, are the capricious, arbitrary, and inequitable standards of social control. This model produces the following research questions:

1. Is there a relationship between occupation and suicide?
2. Is there a relationship between the suicide rates of women in traditional, moderately traditional, and nontraditional occupations?
3. When holding constant demographic data of age, race, and marital status, are suicide rates related to highly traditional, moderately traditional, and nontraditional occupations of women?
4. Are suicide rates different between women and men in the same occupational configurations?
5. When holding constant demographic data of age, race, and marital status, are suicide rates related

to highly traditional, moderately traditional, and nontraditional occupations of men?

The type of data which is usually available precludes specific answers to the research literature questions as posed. However, a summary of the research and conceptual issues of the occupational environment of women and correlates of suicide within that environment revealed that regulation as a form of social control seems to be directly related to suicide. All womens' occupations are socially controlled regardless of the level of traditionality. However, control may be structurally different; within traditional occupations social control has become institutionalized. Therefore, women in this group may lower aspirations as an ego-protecting mechanism; such adaptation may decrease the risk of suicide. Women in nontraditional occupations, being structurally similar to the total labor force, may have illusions of freedom from control, but in fact, experience as much social control as their counterparts. That is, even when women enter occupations traditionally for males, they still fill the controlled positions.

There was evidence within the literature that other traits would tend to exacerbate the phenomenon of social control within an occupation. These included ethnicity and/or race, older and younger women, and specific marital statuses.

In view of these issues the following predictions were generated:

1. There will be a strong relationship between occupation and suicide.

2. As women's occupations progress up the traditional/nontraditional continuum suicide rates will increase. Therefore, highly traditional occupations will have the lowest suicide rates; moderately traditional ones will have the next highest, and nontraditional occupations will have the highest rates.

3. In occupational configurations where suicide rates are high among women, certain groups will have higher percentages. These groups will be nonwhite, married, those in the 15-25 age range, and those 55 and above.

CHAPTER IV

METHODS AND PROCEDURES

The major research purpose was to develop an occupational model to explain suicide among women. The model was also designed to compare and contrast suicide rates of men and women within highly traditional, moderately traditional, and nontraditional occupations.

The major theoretical framework used to present the model was taken from Durkheim's Suicide (1951). Critiques of Durkheim's work were incorporated into the model. The independent variables were occupation: highly traditional, moderately traditional, or nontraditional, age, race, and marital status. The dependent variable was suicide rates and proportions.

Subjects

The primary subjects used in the study were 623 women who had committed suicide in the states of Alaska, Georgia, Nebraska, and North Carolina. These were the only states that coded discrete occupational data on death certificates for the period between 1975 and 1979.

Data on 2,339 men who had committed suicide were also obtained from the aforementioned states. This group was used for comparison purposes only.

Excluded from the sample were unemployed persons, those whose occupations were unknown at the time of death, the never-employed, and those under 15 years of age.

Occupational data used to compute suicide rates were extracted from Characteristics of the Population (U.S. Bureau of the Census, 1970) for the states from which suicide data were obtained.

The female subjects included 505 (81 percent) white women, and 118 (19 percent) nonwhite women. Ages of the subjects ranged from 15 to 81. Their marital status breakdown was this: 10 percent of the subjects were single, 66.8 percent married, 12 percent widowed and 11.2 percent divorced.

The male subjects included 1843 (79 percent) white and 496 (21 percent) nonwhite. Ages of these male subjects ranged from 15 to 84. Their marital status breakdown was this: 20 percent of these subjects were single, 60 percent married, 7 percent widowed, and 13 percent divorced.

Data Collection

The suicide, occupational, and demographic data for describing the subjects had already been collected by the four states mentioned previously. Data included a computer printout from each state which gave the following information: occupational codes, age, sex, race and marital status (see Appendix B). Each state sent an occupational classification which

involved the coding process used by the U.S. Census Bureau. This classification was used to classify subjects as to the level of occupational traditionality (see Appendix C).

Procedure

The procedure involved first classifying all occupations listed in Characteristics of the Population (U.S. Bureau of the Census, 1970) as to the level of traditionality. This was to serve as a baseline for classification. Whereas Oppenheimer (1970) defined traditional occupations for women as those in which women comprise 70 percent or more of the working populations, this delineation seemed to be too narrow. Therefore, the following classification was used to indicate a traditional/nontraditional continuum of occupations for females:

Highly traditional: 70-100% of all workers are female

Moderately traditional: 50- 69% of all workers are female

Nontraditional: 1- 49% of all workers are female

The opposite continuum was used to classify male occupations:

Highly traditional: 70-100% of all workers are male

Moderately traditional: 50- 69% of all workers are male

Nontraditional: 1- 49% of all workers are male

Next, each subject was classified as to traditionality of occupation by these continua.

Frequencies of the nonsuicide population within traditionality of occupational group were calculated to serve as the denominator for suicide rates. Then frequencies of the suicide population within each group were calculated to serve as the numerator for suicide rates. Specific suicide rates were computed by dividing the total number of suicides within each occupational category by the total population within each category, and multiplying the quotient by a base of 100,000. Suicide rates for men and women were calculated separately.

Bases for Rates used in the Study

Vital statistics rates are proportions of vital events and are expressed per home base which is a multiple of 10, e.g., 1,000 or 100,000. Specific rates, that is, those referring to specific groups such as sex, age, and race are generally expressed per 1,000. The base which is used has to result in a rate which is greater than 1. Computation of the rates, using 1,000 as a base, resulted in rates less than 1, therefore 100,000 was used as a base to increase the size of the rates for easier comparability.

Analysis of Data

The primary analysis used a descriptive procedure to compare suicide rates among the three levels of occupational traditionality for each sex. This involved a description of the frequencies within each classification.

Demographic characteristics of the subjects within each classification system were compared.

The secondary analysis used chi-square to determine whether there was a relationship between the variables. Chi-square was chosen because the group of subjects was nonrandom and the variables were nominal. The contingency coefficient (C) using the chi-square value in the computation, was used to determine the strength of the relationship between the variables.

Data were a total of all four states, averaged across the four years so that rates and percentage distributions are per year.

CHAPTER V

RESULTS AND DISCUSSIONS

The occupational model predicted that there would be a relationship between occupation and suicide for women. Specifically, the model sought to support the prediction that women in nontraditional occupations would have higher suicide rates than those in highly traditional occupations.

It was also predicted that women in nontraditional occupations would have the most suicides for (a) the 15-25 and 56+ age ranges, (b) the nonwhite group, and (c) the married group.

Primary Analysis

The primary analysis compared suicide of women and men across traditionality of occupation. Rates of suicide could be calculated only for total suicides across traditionality of occupations. Rates were calculated by dividing the number of suicides in each occupational category by the number of nonsuicides in each occupation and multiplying by a base of 100,000. Since there was no breakdown of nonsuicides for age, race, and marital status, rates for these variables could not be calculated. Therefore, only the percentages of suicides for the levels of age, race, and marital status were used.

Suicide Rates for Women by Occupation

The first prediction made was that suicide rates are related to the traditionality level of occupations. That is, lower suicide rates were expected in highly traditional occupations.

The data for Alaska, Georgia, Nebraska, and North Carolina for 1975-1979 (all data came from these sources) supported the prediction that suicide rates would be lowest for women in highly traditional occupations. However, the highest rates were found in moderately traditional occupations (see Table 1).

Table 1

Specific Suicide Rates Per 100,000: Women by Traditionality of Occupation in Alaska, Georgia, Nebraska, and North Carolina 1975-1979

	Occupation		
	Nontraditional	Moderately Traditional	Highly Traditional
Suicide Rates	42.9	53.5	33.8

Table 1 shows that women in nontraditional occupations had suicide rates of 42.9 per 100,000. Those in moderately traditional ones had rates 53.5 per 100,000, and those in

highly traditional ones had the lowest rates of all at 33.8 per 100,000.

Age by Occupation

It was predicted that in the nontraditional occupational category the largest percentages of female suicides would be in the 15-25 age range and/or in the 56+ age range.

There were no numbers available for nonsuicides in the five age groups; therefore, rates could not be calculated (see Table 2). The figures shown are the numbers of suicides and the percentage distribution of suicides for each age in each of the three occupational columns. Since the numbers and percentage distributions of suicide in each column of occupations may only be a reflection of the numbers of people in the five age groups in the nonsuicide population, the comparison has to be made by rows.

In the nontraditional occupations, 16.2 percent of the suicides were 15-25 years old; in the moderately traditional occupations, 17.5 percent were 15-25 years old; and in the highly traditional occupations, 10.0 percent were 15-25 years old. Therefore, the conclusion is that there is a greater proportion of 15-25-year-olds committing suicide in the moderately traditional, not the nontraditional occupations as predicted. Looking at the 56+ age row, it was also found that the greatest proportion of suicides (32.5) was in the moderately traditional, not the nontraditional (22.2) as predicted.

Table 2

Percentage Distribution of Female Suicides for Age Groups by Traditionality of Occupation

Age	Occupation					
	Nontraditional		Moderately Traditional		Highly Traditional	
	N	%	N	%	N	%
15-25	19	16.2%	7	17.5%	47	10.0%
26-35	32	27.3	12	30	99	21.2
35-45	19	16.2	4	10	86	18.4
46-55	21	17.9	3	7.5	106	22.7
56+	26	22.2	13	32.5	128	27.4
Totals	117	100.0%	40	100.0%	466	100.0%

The percentage of women in the 15-25 age range in nontraditional occupations was lower (16.2) than that in moderately traditional occupations (17.5), but was considerably larger than in the highly traditional occupations (10.0).

In the older age groups, the percentage distribution of suicides was much higher in moderately traditional and highly traditional occupations. Although the percentage distribution of suicides in each age group may only reflect the proportion of that age in the nonsuicide population, it was noticeable that the age range of 26-35 and 56+ showed higher suicide percentages in each occupational configuration than the other three age groups.

Race by Occupation

It was predicted that the proportions across occupational traditionality of suicide for nonwhite women would be greater than for white women in nontraditional categories.

The prediction was not supported (see Table 3). The percentage of white women suicides in the nontraditional occupations (75.2) was greater than the percentages in the other two occupational categories. For nonwhite women, the opposite was found; a smaller percentage (24.7) of suicides was found in the nontraditional occupations than in the other two.

Table 3

Percentage Distribution of Female Suicides for Race by Traditionality of Occupation

Race	Occupation		
	Nontraditional	Moderately Traditional	Highly Traditional
White	75.2%	72.5%	72.1%
Nonwhite	24.7	27.5	27.8
Totals	100.0%	100.0%	100.0%

Suicide and nonsuicide populations. In the four states from which suicide data were obtained, there was no breakdown of occupational traditionality by race. However, it was felt that a comparison of suicide and nonsuicide women, by whatever other data were available from the nonsuicide population, would allow a more objective analysis. Information was available for the distributions of all working women by race and marital status.

The percentage of nonwhite women in the nonsuicide population was 21.9 percent (see Table 4). The suicide population of nonwhite women in each occupational category consistently exceeded this. The percentages of white women in the suicide population in each occupational

Table 4

Percentage Distribution of Female for Race by the Population of Non-Suicides and Suicides

Race	Population			
	Nonsuicides	Suicides		
		Nontraditional	Moderately Traditional	Highly Traditional
White	78.0%	72.5%	72.5%	72.1%
Nonwhite	21.9	24.7	27.5	27.8
Totals	100.0%	100.0%	100.0%	100.0%

category were consistently less than the proportion of white women in the nonsuicide population.

Marital Status by Occupation

It was predicted that in nontraditional occupations there would be the highest proportions of married women. This prediction was not supported. In nontraditional occupations, 46.1 percent of the married had committed suicide, but 54.7 percent of the married in highly traditional occupations had committed suicide (see Table 5).

Table 5

Percentage Distribution of Female Suicides for Marital Status by Traditionality of Occupation

Marital Status	Occupation		
	Nontraditional	Moderately Traditional	Highly Traditional
Single	23.9%	17.5%	13.9%
Married	46.1	35.0	45.7
Divorced	20.5	17.5	16.3
Widowed	9.4	30.0	15.0
Totals	100.0%	100.0%	100.0%

Table 6

Percentage Distribution of Females for Marital Status by the Population of Non-Suicides and Suicides

Marital Status	Population			
	Nonsuicides	Suicides		
		Nontraditional	Moderately Traditional	Highly Traditional
Single	20.4%	23.9%	17.5%	13.9%
Married	64.1	46.1	35.0	54.7
Divorced	7.7	20.5	17.5	16.3
Widowed	7.6	9.4	30.0	15.0
Totals	100.0%	100.0%	100.0%	100.0%

Note: The reason for no occupational breakdown for nonsuicides is that such information was not available.

Suicide Rates for Men and Women by Occupation

Although women within nontraditional occupations had higher suicide rates than those within highly traditional occupations, women within moderately traditional occupations had the highest rates of all of the occupational groups. In comparison, lowest rates among men were found in nontraditional occupations, with the highest rates in moderately traditional occupations. The latter findings were the same as occurred among women (see Table 7).

Table 7

Specific Suicide Rates per 100,000: Males and Females by Traditionality of Occupation

Occupation					
Nontraditional		Moderately Traditional		Highly Traditional	
Men	Women	Men	Women	Men	Women
13	42.9	119	53.5	85.6	33.8

When men were compared with women in nontraditional occupations, women's suicide rates exceeded the rates of the men by a 3:1 ratio. Within moderately traditional occupations, the highest for both men and women, men's rates are twice as high as women's. In highly traditional

occupations, where the second highest rates among men occur, the ratio of male to female suicides is 2.5:1. For age, race, and marital status, percentage distributions are used for men as for women, the rationale being that data were not available for men which would allow the compilation of rates.

Age by Occupation for Men

Within nontraditional occupations, it was predicted that the highest percentages of women would be in the 15-25 age range and in the 56 and above age range. Women in nontraditional occupations did not have the highest proportions in either the low age group or the high one (see Table 2). However, women in moderately traditional occupations had the highest proportions of all ages in the 56+ age group.

In nontraditional occupations for men, the highest proportions were found in the 56+ age group only. However, the increase in this group from the succeeding one is consistent across all three levels of traditionality.

Table 8

Percentage Distribution of Male Suicides for Age by Traditionality of Occupation

Age	Occupation					
	Nontraditional		Moderately Traditional		Highly Traditional	
	N		N		N	
15-25	55	17.6%	31	18.3%	271	14.5%
26-35	78	25.0	54	31.9	379	20.1
36-45	46	14.7	25	14.7	335	18.0
46-55	52	16.6	26	13.6	294	15.8
56+	81	27.9	33	19.5	579	31.0
Totals	312	100.0%	169	100.0%	1858	100.0%

Race by Occupation

The highest proportion of white male suicides was in highly traditional occupations at 80.9 percent; the lowest proportion was in moderately traditional occupations at 64.4 percent (see Table 9). The highest percentage of nonwhite men suicides was in moderately traditional occupations at 35.5 percent. The lowest percentage was in highly traditional occupations at 19 percent.

Table 9

Percentage Distribution of Male Suicides for Race by Traditionality of Occupation

Race	Occupation		
	Nontraditional	Moderately Traditional	Highly Traditional
White	73.0%	64.4%	80.9%
Nonwhite	26.6	35.5	19.0
Totals	100.0%	100.0%	100.0%

Suicide and nonsuicide populations. In Table 10 the white male nonsuicides were 82 percent but the suicide proportions in all occupational categories were less. The proportion of nonwhite males in the nonsuicide population was 17 percent; the percentage of nonwhite males in the

Table 10

Percentage Distribution of Males for Race by the Population of Nonsuicides and Suicides

Race	Population			
	Nonsuicides	Suicides		
		Nontraditional	Moderately Traditional	Highly Traditional
White	82.1%	73.0%	64.4%	80.9%
Non-white	17.6	26.6	35.5	19.0
Totals	100.0%	100.0%	100.0%	100.0%

suicide population was higher than this in all three occupational groups.

The difference in the distribution of nonwhite males in the suicide and nonsuicide populations was congruent with the findings which involved nonwhite women. Differences between the two populations were also congruent for white men and women.

Marital Status by Occupation for Men

Similar to women, the highest proportion of married men suicides was found in highly traditional occupations at 59.2 percent. It was predicted that there would be more married women suicides in nontraditional occupations than in either highly traditional or moderately traditional occupations; the reverse was true. There were more married women suicides in highly traditional occupations, and this was also true for men (see Table 11).

The second highest proportion among male suicides was found in the single, nontraditional occupational category.

Suicide and nonsuicide populations. When compared to the nonsuicide population, the percentage distributions of divorced and widowed women within all levels of traditionality were proportionally higher (see Table 4). When male suicide subjects were compared with the nonsuicide population, divorced and widowed subjects within all levels of traditionality also make up a larger proportion of the total than did the nonsuicide population (see Table 12).

Table 11

Percentage Distribution of Male Suicides for Marital Status by Traditionality of Occupation

Marital Status	Occupation		
	Nontraditional	Moderately Traditional	Highly Traditional
Single	27.5%	24.2%	20.4%
Married	51.2	52.6	59.2
Divorced	6.0	4.1	8.9
Widowed	15.3	16.5	12.2
Totals	100.0%	100.0%	100.0%

As with women, the proportions of suicide married men in all occupations were less than this proportion in the nonsuicide population. Similar to women, also the proportions of suicide divorced and widowed men in all occupations exceeded the proportion in the nonsuicide population (see Table 12).

The proportions of suicide single men in nontraditional and moderately traditional occupations were greater than in the nonsuicide population. The proportion of suicide single men in highly traditional occupations were less than in the nonsuicide population. The findings which

involved suicide single men in highly traditional occupations was the same as for women (see Table 6).

It appears that the divorced and widowed men are the ones who are suiciding in greater proportions than would be expected. However, divorced and widowed women are suiciding more than men in proportion to what would be expected.

Secondary Analysis

The primary analysis of the data involved a description of the demographic characteristics of suicide victims. The main question that the model was designed to answer was whether there was a relationship between three levels of occupations (nontraditional, moderately traditional, and highly traditional) and suicide for women. Of interest also was the similarity between men and women. The secondary analysis of this question was made using chi-square to compute a contingency coefficient for an assessment of the strength of the relationship between occupation and suicide.

Two separate analyses were made: (1) a bivariate analysis between suicide and nonsuicide groups and the three levels of occupational traditionality for women and an identical analysis for men, (2) the proportions of persons in each occupational strata for the suicide and nonsuicides are also presented. The contingency coefficient (C) is given for each analysis.

Results of the analysis of bivariate data based on the chi-square value revealed a relationship between occupation and suicide (see Table 13) for women. Although there was a relationship between occupation and suicide the strength of the relationship was very small. The contingency coefficient (C) for women was .025; the contingency coefficient for men was .002. The maximum value of the contingency coefficient for 2 x 3 tables on which the data were presented is .707. When values are close to zero, using the contingency coefficient, there is little if any association between variables. Conversely, when values are close to unity there is almost perfect association. Note in Table 14 that the proportion of suicides across occupations for women in nontraditional and moderately traditional occupations exceeds that in the nonsuicide population. The relationship between occupation and suicide held true for men as well as women (see Table 15). However, for men, the proportions of suicides across occupation are almost the same as the proportions of nonsuicides across occupation (see Table 16).

These findings supported the basic assumption of the study, that is, that there was a relationship between occupation and suicide for the men and women in the four states studied from 1975 to 1979. The primary analysis showed some demographic characteristics of the suicide population that did speak to the particular role which occupation may play in the incidence of suicide.

Table 12

Percentage Distribution of Males for Marital Status by Population of Nonsuicides and Suicides

Marital Status	Population			
	Nonsuicides	Suicides		
		Nontraditional	Moderately Traditional	Highly Traditional
Single	21.0%	27.5%	24.2%	20.4%
Married	73.2	51.2	52.6	59.2
Divorced	3.9	6.0	4.1	8.9
Widowed	1.0	15.3	16.5	12.2
Totals	100.0%	100.0%	100.0%	100.0%

Note: The reason for no occupational breakdown for nonsuicides is that such information was not available.

Table 13

Frequencies of Suicides and Nonsuicides

by Traditionality of Occupation for Females

Population	Occupation		
	Nontraditional	Moderately Traditional	Highly Traditional
Suicide	117	40	467
Nonsuicide	4,588	1,357	27,331
Total	4,705	1,397	27,798

Chi-square = 22.7

C = .025

C_m= .707 (for a 2 x 3 table)

Table 14

Proportional Distribution of Suicides and Nonsuicides by Traditionality of Occupation for Females

Population	Occupation			
	Nontraditional	Moderately Traditional	Highly Traditional	Totals
Suicide	.187	.064	.75	1.00
Nonsuicide	.137	.040	.82	1.00

Table 15

Frequencies of Suicides and Nonsuicides

by Traditionality of Occupation for Males

Population	Occupation		
	Nontraditional	Moderately Traditional	Highly Traditional
Suicide	287	148	1,887
Nonsuicide	369,955	123,443	2,191,633
Totals	370,242	123,591	2,193,510

Chi-square = 19.6

C = .002

C_m= .707 (for a 2 x 3 table)

Table 16

Proportional Distribution of Suicides and Nonsuicides by Traditionality of Occupation for Males

Population	Occupation			
	Nontraditional	Moderately Traditional	Highly Traditional	Totals
Suicide	.122	.06	.81	1.00
Nonsuicide	.137	.04	.81	1.00

Discussion

The highest suicide rates for women were found in nontraditional and moderately traditional occupations. The lowest suicide rates for women were found in highly traditional occupations. The highest suicide rates for men were in moderately traditional and highly traditional occupations (see Table 7). The conceptual basis of the study is social control. If people suicide when social control is high, the differential findings for men and women could reflect women's relative autonomy even within the structurally restrictive setting of the highly traditional work force. The highly traditional work force of women is institutionalized. That is, occupational boundaries are generally

ascribed. Because of this, women may adapt to the structural constraints within these occupations, since to attempt to change may be perceived as futile. Adaptation to constraints imposed by the central work force may involve the development of some independent functions within the structure, thereby making one's position more acceptable. Women in highly traditional occupations are also likely to have a large peer network, and to receive more social rewards for staying in their "place."

Most researchers who have studied the occupational environment of women agree that women who enter nontraditional occupations usually receive special rewards. At the same time, though, this group of women is more likely to experience special challenges. It is unlikely that any one of these challenges would be of the magnitude to cause suicide. However, if there are severe stressors in other areas of these women's lives, suicide could be a possibility.

It was surprising to find that the highest suicide rates of all levels of traditionality were among women in moderately traditional occupations (53.5). It was posited that rates in this group would lie between nontraditional (42.9) and highly traditional (33.8) occupations. However, in reflecting on the contradiction which was found, there is the possibility that the area of moderate traditionality could reflect occupational advancement. If this interpre-

tation is correct, increasing social control would be expected as women leave traditional structures.

Another possibility exists for the relatively larger proportions of female suicides in moderately traditional occupations. It has been proposed by some suicidologists that suicide rates may be high when there is too much social control as well as when there is too little (Johnson, 1965; Maris, 1969). If it is assumed that high social control exists in both nontraditional and highly traditional occupations, it is possible that the area of moderate traditionality may indicate a place where there is too little social control. Earlier, it was argued that only high social control would influence suicide among women. Future research could qualify this position to suggest such a possibility, although this is not an interpretation that is compatible with the assumptions of the study.

A further interpretation of the higher suicide rates in moderately traditional occupations is that even if this area does reflect occupational advancement, the concept of change, not status, could be a decisive factor in suicide. Change in life-style was found in the literature to be a correlate of suicide (Henry & Short, 1977).

The increase in suicide rates from highly traditional to moderately traditional occupations is explicable from many viewpoints. This occurrence appears to reflect in-

creasing social control. If this is true, however, why are suicide rates lower for women in nontraditional occupations than in moderately traditional ones? The answer to this may lie in those characteristics which cause some women to go into nontraditional occupations in the first place. It could be conjectured that women in nontraditional occupations were a special breed to begin with. That is, they may be more internally controlled. Nevertheless, it is still important to remain aware that suicide rates in this group were higher than in highly traditional occupations.

The highest suicide rates among men (119) were also found in moderately traditional occupations (highly traditional = 85.6; nontraditional = 13.0). It is entirely possible that within this group the concept of change also could be operating.

An ideal way to describe demographic characteristics of the suicide population would be to use suicide rates. It was not possible to obtain discrete occupational data from the nonsuicide groups to use as the denominator in the computation of suicide rates. Therefore, percentages were used to quantify the demographic variables of age, race, and marital status. The tables in which suicide and nonsuicide subjects are compared imply only that the nonsuicide population is being compared with one suicide occupational population at a time. It is safe to assume

that the suicide population fits into one of the mutually exclusive occupational categories.

While there was not the high proportion of women suicides in the 15-25 age range that was expected, there was an increase from this group to the succeeding one (see Table 2). It was not possible to compare the variable of age between suicide and nonsuicide populations of women. However, the large proportion of suicides in the 26-35 age range is consistent with the premise that at about 35, women's careers usually end in dead-end jobs. The fact that these larger proportions occurred primarily in non-traditional and moderately traditional occupations could indicate the interactive effects of occupational traditionality and age.

The relatively high percentages of suicides for both men and women in the 56+ age group could be a function of retirement. The proportion for men in this age group was larger than that found among women with one exception; this was in moderate traditionality. The implications of this are numerous, the most feasible one being the concept of change, but of a different nature than found in younger age groups. In the older age group, women could be coming back down the occupational ladder as younger women enter the work force.

Nonwhite was another category which did not reach the level of suicide as expected. Interesting variations were evident within occupational configurations: the lowest

percentage of suicide among nonwhite women was in highly traditional occupations (24.7). The lowest percentage of suicides for white women was in moderately traditional occupations. While data from the nonsuicide population were not available in a form which would have allowed more comprehensive comparisons, data on the distributions of white and nonwhite nonsuicide women, nct based on occupation, were available (see Table 4). This helped to assess the congruency of the suicide population by race with the nonsuicide one. This comparison was also done between suicide and nonsuicide men (see Table 10).

The suicide population of nonwhite men in each traditionality proportionally exceeded the nonsuicide population. The same was true for nonwhite women. There were fewer white men and women in the suicide population, encompassing all occupations, than in the nonsuicide population.

One of the assumptions of the study was that nonwhite women in the labor force would be more socially controlled. One of the manifestations of high social control expected was higher suicide proportions of these women in nontraditional and moderately traditional occupations. Since these occupational categories were assumed to be more controlled, it was expected that this would be more problematic for nonwhite women. The area of high occupational traditionality was not considered to be a problem

for nonwhite women. Instead, what was actually found was a higher proportion of nonwhite women in the latter occupational configuration. Thus it appears that more social control exists for nonwhite women in highly traditional occupations, although not by much more than in moderately traditional ones (see Table 4).

In retrospect, it is entirely reasonable that highly traditional occupations would be perceived to be more socially controlled by nonwhite women. The chances for upward mobility would be expected to be more limited within this group. Also, since this category includes so many unskilled and personal service workers, it is possible that unemployment could be particularly high, and this could be characteristic of acute economic anomie which was conceptualized by Durkheim (1951).

Another problem encountered by the nonwhite female in particular is that such women are more likely to be heads of household; this would include persons in young age groups. Therefore, not being married (it was shown that married women had lower suicide proportions), and having a means/end imbalance operative, could be crucial determinants in the ability to cope. This could be indicative of acute economic anomie as well as domestic anomie.

It was not the purpose of this study to perform comprehensive comparisons between the races. Future research

should, however, attempt to more closely identify as many of the correlates of suicide as possible in major groups within the population. For example, if divorce is a correlate of suicide, how might this status differentially affect the white and nonwhite women?

Married women were expected to comprise the larger percentages of suicide in all occupations than their non-suicide counterparts. However, the reverse was true for women as well as for men. Both married men and women suicided less. What was surprising, however, were differences between the suicide and nonsuicide populations of men and women in terms of divorce and widowhood. It was expected that the proportions of divorced and widowed women in the suicide population would be less than in the nonsuicide population. The findings pertaining to women contradicted this assumption (see Table 6). Thus it is possible that women do not perceive marriage to be as threatening and constraining as was posited.

Summary

The purpose of this research was to determine whether the traditionality level of occupation was related to suicide among women. The research also sought to assess the influence which specific demographic variables would have on the incidence of suicide in each level of occupational traditionality. An analysis of suicide among men was also done in order to compare men and women.

The increase in suicide particularly among women since 1950 could be related to occupation, no matter how peripherally. Usually when suicide data are collected and interpreted men and women are combined. This could solve a logistical problem since the absolute numbers of suicide among women are relatively small. However, such an approach could obscure important differences between the sexes. This research was based on the premise that men and women commit suicide under differing conditions. That is, men suicide when social control is low; women suicide when social control is high (Cashion, 1977). Too often it is assumed that men and women suicide under similar, or even identical, conditions. It is true that there were similarities; the larger numbers of both sexes in moderately traditional occupations is an example. Another similarity was the larger numbers of married persons in the nonsuicide population than in the suicide population. Focusing on areas of similarity, however, could preclude asking certain questions which could be critical. For example, why do nonwhite men in highly traditional occupations kill themselves less often than nonwhite women? It is important to be cautious in interpreting multivariate research from a univariate perspective.

It was initially proposed that the precipitants and antecedents of suicide would be different for men and women. This research sought to examine the relationship

of occupation to suicide among men and women to determine differential characteristics of the occupational environments as a possible predictor of suicide. While a low relationship was found, there are certain characteristics within the suicide population that do reflect the necessity for taking occupation seriously. Further, it is important to stratify subjects in a manner which gives as much substantive information as possible. For example, if this study had used broad occupational classifications for the suicide population, instead of discrete ones, many of the subtle details which were found may have been overlooked. It is also important to use as many means of analysis as are reasonable in order to obtain a more comprehensive picture. If the contingency coefficient based on the chi-square value had been the only means of analysis used in the study, the interpretation of the role which occupation may play in suicide could be quite narrow in scope. This could discourage future serious studies of occupational suicide.

This research reflects the importance of considering more than one type of analysis in particular if a non-random group is being used. If a purely demographic description had been used in the model, it could have been assumed that there would be a strong relationship between the independent variable of occupation and the dependent variable of suicide. Conversely, if the con-

tingency coefficient based on the chi-square value had been the only analysis used, the unique characteristics of the suicide population could have been overlooked. Either of the procedures just described, when used exclusively, could distort the picture of occupational suicide.

The results of this research were explained by the concept of regulation, or social control. There are many factors in the occupational sphere which could be considered to be suicidogenic: when women are in nontraditional occupations, the social control which may be encountered could be sufficient to cause suicide. This could be especially true if other correlates of suicide are present. It has been assumed that occupation of any type is a deterrent to suicide. This is true, but incomplete; it is also the quality of experiences within any occupation which is important.

CHAPTER VI

SUMMARY AND RECOMMENDATIONS

This research analyzed the increasing incidence of suicide among women, primarily, and the degree of social control which this group encounters in the labor market. Analytical procedures which quantify the relationship between occupation and suicide were used. The use of data which clarify the quality of experiences within all levels of occupational traditionality should also be used.

Summary

The purpose of this descriptive study was to develop a conceptual model to explain suicide behavior of women primarily. The model also sought to describe the relationship of occupation and demography to suicide.

The predictor variables which were used were occupation (nontraditional, moderately traditional, highly traditional), age, race, and marital status. The criterion variable was suicide rates and percentages. While the study was primarily concerned with women, data on men were included.

Information on the variables was available from four states (Alaska, Georgia, Nebraska, and North Carolina) for

a total of 623 women and 2,339 men. This included all persons who had suicided within these states between 1975 and 1979.

Since this was a descriptive study no formal hypotheses were formulated. However, three predictions were generated. Each prediction and the findings are presented below:

1. There will be a strong relationship between occupation and suicide. For women, the chi-square value of 22.7 did show a relationship. However, the strength of the relationship (.025) was small. For men, the chi-square value of 19.8 also revealed a relationship between occupation and suicide. As with women, the strength of the relationship between occupation and suicide was small for men (.002).

2. Suicide rates for women will be lower in highly traditional occupations than in moderately traditional occupations and will be highest in nontraditional occupations. While suicide rates within highly traditional occupations (33.8) were lower than in any other configuration, rates were highest within moderately traditional occupations (53.8) instead of in nontraditional occupations (42.9) as expected. The highest suicide rates of all were also found within moderately traditional occupations (119) for men. Thus, if the conceptual definition

of social control is accepted, women in nontraditional occupations do experience more constraints than those in highly traditional ones. The high rates of women in moderately traditional occupations could be a function of increased social control as this group moves out of traditional occupational structures. On the other hand, increased suicide rates within this class may be solely a function of change in the status quo. This conclusion could be particularly applicable to men.

Suicide rates of men in nontraditional occupations (13) were lower than in either of the other two categories. This finding substantiated the earlier position that the status of men in this group is always greater than women's in those areas where women predominate.

3. In those nontraditional occupational configurations where suicide rates are expected to be highest among women, the following groups will have higher proportions than their counterparts: non-whites, the married, those in the 15-25 age range, and those 56 and above.

The highest proportion of suicides for nonwhites was in the highly traditional, not the nontraditional category. However, for white women, the proportion of suicides in all occupational categories was slightly less than this group's distribution in the nonsuicide population, while the proportion of nonwhite suicide women in all occupational categories was more than found in the nonsuicide population.

It was assumed that marriage posed the greatest risk to women, particularly in those occupations with the highest suicide proportions, i.e., nontraditional and moderately traditional occupations. This was not the case; the greatest percentage of suicides occurred among married women in the highly traditional occupational category. Although the nonsuicide population was not stratified by traditionality of occupation and marital status concomitantly, the proportion of married women in each of these three occupational categories was less than that for the general population. This would permit some reconsideration of the role which marriage may play in suicide. Such a reflection is particularly pertinent since there were more divorced and widowed women in the suicide population than in the general population. There were also more divorced and widowed men in the suicide population. These findings were expected since it was posited that men need regulative effects of marriage more than women do. It is possible that both groups benefit from marriage.

The 15-25 age group did have a higher percentage of suicides in the nontraditional and moderately traditional occupational categories than in the highly traditional category. The 56+ age group had the highest percentage of suicides in moderate and high occupational groups, not in the nontraditional occupational group.

One of the age groups in which there were relatively high percentages of suicide was the 26-35 group. There were no data available to compare these percentages with a nonsuicide population. However, it is within this range that women may experience greater perception of control, since careers may peak at this time and thereafter recede.

It is important to be aware of the role which occupation may play in creating a climate which is favorable for suicide. Future research needs to be aware of this problem. It would be particularly helpful if this research could be conducted in such a manner so that inferences could be made to a target population. The use of nonrandom data used in this study precluded this. Therefore, the findings apply only to subjects who were obtained for the study.

Recommendations

If this research were replicated it is recommended that, in addition to obtaining random samples, an attempt be made to obtain data including several years. It is difficult to draw conclusions when events are based on limited occurrences.

If a stratified random sample were available, it would be helpful to obtain information on as many variables as possible, and to use stepwise discriminant function analysis.

This would help to see the contribution which variables could add to an analysis. For example, it is known that the presence or absence of children, and/or religion are important variables.

Even if data were not available whereby it would be possible to use inferential analyses, the usefulness of other purely descriptive studies should not be overlooked. There are several forms which future descriptive analyses need to be concerned with: Justification for the unit of analysis (the individual) was given earlier. At the same time it was pointed out that assessment of the interactive effects of social conditions and the individual was not only reasonable, but necessary. Therefore, when data are obtained, it is important to analyze social factors in those areas where there are high suicide rates. This should include such factors as unemployment rates and economic characteristics. Of particular importance to a descriptive occupational study is extensive and comprehensive individual and social data. Therefore, the interactive effects of these factors might be more easily determined if data are used only from those states which would allow such an assessment. While this procedure would eliminate the number of subjects available, it would allow a more comprehensive picture of social and individual factors which could be interacting to facilitate the incidence of suicide.

The State of North Carolina provided data which could be used to provide the information just described. This included a breakdown of suicides by counties within the state as well as industrial placement of suicide occupations. There were several counties in the state which had unusually high rates of suicide for women in general. It would be helpful to compare rates in these counties in terms of traditionality levels of occupation.

It would be very valuable to obtain information on specific occupations within each configuration to conceptually describe elements of social control. For example, textile workers in North Carolina would conform to the criteria set up for moderate traditionality. Also, in most states, psychologists and accountants also conform to these criteria. Therefore, such analyses would be very helpful. Also needed to interpret these data are methods which are comparable from one area to the other.

Limitations

Obtaining of the information just described is an idealistic venture. The nature of suicide data is sometimes imprecise and limited. This will vary from one area to the other. Thus other studies could be limited to the data which are available. There are certain limitations inherent in descriptive studies. The first of these is being limited to simply describing findings. Another

limitation exists in the nature of the occupational classification system which is used in death records. Occupations which are listed can refer to usual occupation instead of the current one. This could change the interpretation of the influence of specific occupations on suicide.

A purely logistical problem which was encountered adds to the limitations. This was the small number of states which code occupational information on suicide records. This limited the total amount of information which was available. Apparently this is an expensive procedure which few states can afford.

Implications

In spite of the limitations of the study, it is felt that there are implications for the investigation. These may be on the individual as well as the societal level. If it can be proposed that a suicidogenic atmosphere may prevail within some subgroups, policies could be designed to correct deficiencies. On the individual level such an approach could considerably lessen the feelings of hopelessness which are endemic within certain occupations. This is particularly important for the large groups of women who are heads of household. On the societal level, it is necessary to be aware of the economic burden which suicide may impose on a society. These acts reduce

revenues through the loss of taxes paid and other contributions. It also causes psychological and/or physical pain for survivors of the victims, often resulting in requiring help from tax-supported organizations, perhaps for extended periods.

The description of the occupational environment which was included in this dissertation is an important consideration in a serious study of suicide. It was stressed that no one factor is responsible for suicide. However, occupation is one of the primary means by which American culture validates the worth of individuals. Such cultural validation then becomes the individual's perception of the self. Occupational discrimination may result in feelings of low self-esteem. When low self-esteem is combined with perceived hopelessness to reverse conditions, suicide is a real possibility. It is for these reasons that any study of suicide involving women should include occupation.

BIBLIOGRAPHY

Banks, L. Black suicide. Ebony, May 1970, pp. 76-84.

Barrett, N.S. Women in the job market: Unemployment and work schedules. In R.E. Smith (Ed.), The subtle revolution: Women at work. Washington, D.C.: The Urban Institute, 1979.

Blauner, R. Alienation and freedom. Chicago: University of Chicago, 1964.

Boughton, B. Nontraditional jobs bring extra hardships, hassles. Greensboro Daily News, August, 1980, pp. B-1; B-11.

Bourne, P.G., & Wikler, N.J. Commitment and the cultural mandate: Women in medicine. Social Problems, 1977, 25, 430-440.

Breed, W. Occupational mobility and suicide among white males. American Sociological Review, 1963, 28, 179-188.

Breed, W. The Negro and fatalistic suicide. Pacific Sociological Review, 1970, 13, 156-162.

Brown, W. Sex discrimination persists in workplace, women's groups say. Washington Post, April, 1980, p. A-18.

Burvill, P.W. Recent decreased ratio of male:female suicide rates. International Journal of Social Psychology, 1972, 18, 137-139.

Cashion, B. Covert sexism in the study of suicide. Chambersburg, Pennsylvania: Wilson College, 1977. (ERIC Document Reproduction service No. ED 156930)

Cavan, R.S. Suicide. Chicago: University of Chicago Press, 1928.

Clark, A.L. & Gibbs, J.P. Social control: A reformulation. Social Problems, 1964, 12, 398-414.

Clifton, A.K. & Lee, D.E. Self-destructive consequences of sex-role socialization. Suicide and Life-Threatening Behavior, 1976, 6(1), 11-22.

Coser, A.L., & Rokoff, G. Women in the occupational world: Social disruptions and conflict. Social Problems. 1971, 18, 535-554.

Cummings, E. Systems of social regulation. New York: Atherton Press, 1968.

Davis, R. Black suicide and the relational system: Theoretical and empirical implications of communal and familial ties (DP # 481-78). Madison: The University of Wisconsin, 1978 (a).

Davis, R. Black suicide in the seventies: Current trends and perspectives (DP # 438-78). Madison: The University of Wisconsin, 1978 (b).

Davis, R. Black suicide in the seventies: Current trends. Suicide and Life-Threatening Behavior, 1979, 9, 131-140.

Dublin, L. Suicide: A sociological and statistical study. New York: Free Press, 1963.

Durkheim, E. Suicide. (G. Simpson, & A. Spaulding, Eds. and trans.). New York: The Free Press, 1951.

Epstein, C.F. Encountering the male establishment: Sex status limits on women's careers in the professions. American Journal of Sociology, 1970, 75, 965-982.

Epstein, C.F. Woman's Place. Berkley: University of California, 1971.

Epstein, C.F. Positive effects of the multiple negative: Explaining the success of black professional women. American Journal of Sociology, 1973, 78, 150-173.

Epstein, C.F. Ambiguity as social control: Consequences for the integration of women in the professional elites. In P.L. Stewart & M.G. Cantor (Eds.), Varieties of work experience. New York: John Wiley & Sons, 1974.

Farber, M.L. Theory of suicide. New York: Funk & Wagnall, 1968.

Fuchs, V.R. Differences in hourly earnings between men and women. Monthly Labor Review, 1971, 94, 9-15.

Furogori, T. A micro labor supply model of women under the existence of discrimination. Unpublished doctoral dissertation, State University of New York at Buffalo, 1974.

Gibbs, J.P. A sociological study of suicide. Unpublished doctoral dissertation, University of Oregon, 1957.

Gibbs, J.P. In R.K. Merton & R. Nisbet. (Eds.), Contemporary social problems (3rd ed.). New York: Harcourt Brace Jovanovich, 1971.

Gibbs, J.P., & Martin, W.P. Status integration and suicide. Eugene: University of Oregon Books, 1964.

Glenn, E.N., & Feldberg, R.L. Degraded and deskilled: The proletarianization of clerical work. Social Problems, 1977, 35, 52-64.

Grossman, A.S. Women in the labor force: The early years. Monthly Labor Review, 1975, 98, 3-9.

Hendin, H. Black Suicide. New York: Basic Books, 1969.

Henry, A.F., & Short, J.F. Suicide and homicide (2nd ed.). Glencoe, Illinois: The Free Press, 1977.

Howe, L.K. Pink-collar workers. New York: G.P. Putnam's Sons, 1977.

Howze, B. Suicide: Special references to black women. Journal of Non-White Concerns, 1977, 5, 65-72.

Janowitz, M. Sociological theory and social control. American Journal of Sociology, 1975, 81, 83-108.

Johnson, B.D. Durkheim's one cause of suicide. American Sociological Review, 1965, 30, 875-886.

Johnson, K.K. Durkheim revisited: "Why do women kill themselves?" Suicide and Life-Threatening Behavior, 1976, 6, 145-153.

Klein, D.P. Women in the labor force: The middle years. Monthly Labor Review, 1975, 98, 10-16.

Lester, D. Completed suicide and females in the labor force. Psychological Reports, 1973, 32, 730.

Linden, L.L. & Breed, W. The demographic epidemiology of suicide. In E.S. Schneidman (Ed.), Suicidology: Contemporary developments. New York: Grune & Stratton, 1976.

Lyle, J.R., & Ross, J.L. Women in industry. Lexington, Massachusetts: Lexington Books, 1973.

MacKinnon, C.A. Sexual harassment of working women. New York: University Press, 1979.

Maris, R.W. Social forces in urban suicide. Homewood, Illinois: Dorsey Press, 1969.

Millman, M., & Kanter, R.M. Another voice: Feminist perspectives on social life and social science. New York: Octagon Books, 1976.

Mott, F.L. Racial differences in female labor-force participation. In K.W. Feinstein (Ed.), Working women and families (Vol. 4). Beverly Hills: Sage Publications, 1979.

Newman, J.F., Whittemore, K.R., & Newman, H.G. Women in the labor force and suicide. Social Problems, 1973, 21, 220-230.

North Carolina Vital Statistics. Leading Causes of Mortality, (Vol. 1). Raleigh: 1978.

Norwood, J.L., & Waldman, E. Women in the labor force: Some new data series (Bureau of Labor Statistics Report No. 575, U.S. Department of Labor). Washington, D.C.: U.S. Government Printing Office, 1979.

Nye, F.I., & Berardo, F.M. The employed mother and her family. In F.I. Nye & F.M. Berardo (Eds.), The family: Its structure and interaction. New York: Macmillan, Inc., 1973.

Oppenheimer, V.K. The female labor force in the United States: Demographic factors governing its growth and changing composition. (Population Monograph Series No. 5). Beverly Hills: University of California at Berkley, 1970.

Parsons, T. The structure of social action (2nd ed.). Glencoe, Illinois: Free Press, 1949.

Peck, D.L. Fatalistic suicide. Palo Alto, California: R. & E. Research Associates, Inc., 1979.

Powell,, E.H. Occupation, status, and suicide: Toward a redefinition of anomie. American Sociological Review, 1958, 23, 131-139.

Rexroat, C. The changing cost of being a black woman. Sociology of Work and Occupation, 1978, 5, 341-359.

Roby, P. Sociology and women in working-class jobs. In M. Millman & R.M. Kanter (Eds.), Another voice: Feminist perspectives on social life and social science. New York: Octagon Books, 1976.

Rossi, A. Barriers to the career choice of engineering, medicine, or science among American women. In J.A. Mattfield & G.C. Van Aken (Eds.), Women and the Scientific Professions: The M.I.T. Symposium on American Women in Science and Engineering. Cambridge, Massachusetts: The M.I.T. Press, 1965.

Seiden, R.H. We're driving young blacks to suicide. Psychology Today. August 1972, pp. 24-26.

Seligman, M.E.P. Helplessness on depression, development, and death. New York: Charles Scribner's Sons, 1975.

Slater, J. Suicide: A growing menace to black women. Ebony, September 1973, pp. 152-154; 156; 158-161.

Stewart, P.L., & Cantor, M.G. Varieties of work experience. New York: John Wiley & Sons, 1974.

Sweet, J.A. Women in the labor force. New York: Seminar Press, 1973.

Troll, L.C. Early and middle adulthood. Monterey, California: Brooks/Cole, 1975.

U.S. Commission on Civil Rights. Unemployment and occupations: Social Indicators of Equality for Minorities and Women, August, 1978.

U.S. Department of Commerce, Bureau of the Census. 1970 Census of the population. Vol. 1: Characteristics of the population, 1970.

U.S. Department of Health, Education, and Welfare. Mortality trends for leading causes of death, 1950-1969 (Series 20, No. 16). Rockville, Maryland: National Center for Health Statistics, 1976.

U.S. Department of Labor, Women's Bureau. Facts on women workers of minority races. Washington: U.S. Government Printing Office, May, 1974.

U.S. Department of Labor, Women's Bureau. The earning gap between women and men. Washington: U.S. Government Printing Office, 1979.

U.S. Department of Labor, Women's Bureau. Why women work. Washington: U.S. Government Printing Office, July, 1972.

Vital Statistics of the U.S. Monthly Vital Statistics Report, Final Mortality Statistics. Washington: U.S. Government Printing Office, 1977.

Wallace, P.A. Black women in the labor force. Cambridge, Massachusetts: M.I.T. Press, 1980.

Weber, M. The three types of legitimate rule. In A. Etzioni (Ed.), Complex organizations: a sociological reader. New York: Holt, 1961.

Weisskoff, F.B. "Women's place" in the labor market. American Economic Review, 1972, 62, 161-166.

Williams, G. Trends in occupational differentiation by sex. Sociology of Work and Occupations, 1976, 3, 38-62.

Women continue to seek equality in job market. Greensboro Daily News, May 1980, p. D-1.

APPENDIX A

Letters

STATE OF NORTH CAROLINA
DEPARTMENT OF HUMAN RESOURCES
Division of Health Services

JAMES B. HUNT, JR.
GOVERNOR

SARAH T. MORROW, M.D., M.P.H.
SECRETARY

HUGH H. TILSON, M.D.
DIRECTOR

P. O. Box 2091 Raleigh 27602

(919) 733-4728

August 5, 1980

Mrs. Maude Alston
4601 Tower Road
Greensboro
North Carolina 27401

Dear Mrs. Alston:

Enclosed you will find the following information which you recently requested:

1. A printout showing suicide deaths to North Carolina residents by county of residence, occupation and industry codes for race/sex groups, 1976 and 1978;
2. Two printouts showing suicide deaths to North Carolina residents by occupation and industry codes, county of residence, race/sex groups, marital status and age groups for each year, 1976 and 1978;
3. Tables showing decodes for occupation and industries; the industry code 000 indicates that the industry code is blank on the death certificate;
4. A list of North Carolina counties and county codes which you will need to decode county codes on the printouts.

I hope this information will be useful to you. Please let us know if we can be of additional assistance.

Sincerely,

Rhonda Johnson

Rhonda Johnson
Statistical Research Assistant
State Center for Health Statistics

RJ:sg

Enclosures

Edwards, Ph.D.
issioner

47 TRINITY AVENUE, S.W., ATLANTA, GEORGIA 30334

March 2, 1981

Ms. Maude Alston
4601 Tower Road
Greensboro, N.C. 27410

Dear Ms. Alston:

Enclosed is the printout of 1979 suicide deaths by occupational code, age, sex, race, and marital status. I have included a copy of the occupational codes. The rest of the printout should be self-explanatory. Age groups are in five year intervals, sex and race appear where indicated, and marital status appears as heading of separate table.

If you have any further questions or if I can be of any further assistance, please do not hesitate to contact me.

Sincerely,

Bill McQuade

Bill McQuade
Statistical Analyst
Planning, Budget & Evaluation Unit

BM/ch

Enclosures

4601 Tower Road
Greensboro, NC 27410

March 10, 1981

Bureau of Vital Records
Director of Statistical Analysis
Juneau, Alaska 99801

Dear Sir or Madam:

I am a Ph.D. student at The University of North Carolina at Greensboro. Currently, I am conducting research on suicide among working men and women within this country.

It is important that I obtain occupational and demographic information from states in which these data are coded in suicide statistics for any period of the 1970's. I need information on the following variables of suicide: occupation, age groups, sex, race, and marital status. If industrial classifications are also available, this would be helpful.

I was informed by the National Center for Health Statistics that Alaska is one of the states which codes discrete occupational data in suicide statistics. I realize the complexity of this request, and sincerely appreciate your efforts in this matter.

Sincerely,

(Mrs.) Maude H. Alston

MHA:jca

STATE *of* NEBRASKA

DEPARTMENT OF HEALTH
301 CENTENNIAL MALL, SOUTH
P.O. BOX 95007
LINCOLN, NEBRASKA 68509

March 18, 1981

Maude Alston
4601 Tower Road
Greensboro, NC 27410

Dear Ms. Alston:

As you requested, I am enclosing information on Nebraska suicides by occupation for 1975-1979. You will find a listing for each year's suicides with the occupation codes and numbers of deaths.

Also enclosed is a condensed version of the 1970 Census occupation classification system. In using it, please keep in mind that the occupations listed after each code are examples, and should not be considered all-inclusive.

I hope you will find this information helpful. Please feel free to contact me again with any questions you might have.

Sincerely,

Kay Pinkley

Kathryn Pinkley
Data Coordinator
Division of Health Data
and Statistical Research

STATE OF ALASKA
DEPT. OF HEALTH AND SOCIAL SERVICES
OFFICE OF THE COMMISSIONER
OFFICE OF INFORMATION SYSTEMS

JAY S. HAMMOND, GOVERNOR

104

POUCH H-01G
JUNEAU, ALASKA 99811
PHONE: (907) 465-3144

May 19, 1981

Mrs. Maude H. Alston
4601 Tower Road
Greensboro, North Carolina 27410

Dear Ms. Alston,

I have enclosed four computer printouts showing the information that you requested for suicides. Industry and Occupation codes are available for 1978 and 1979 deaths only. I have also enclosed documentation that defines the codes used for race, industry and occupation. The codes for sex and marital status are as follows:

Sex	M = Male
	F = Female
Marital Status	1 = Never Married
	2 = Married
	3 = Widowed
	4 = Divorced
	9 = Unknown

If you should have any questions please contact me at (907) 465-3216.

Yours truly,

Elizabeth Walter

Elizabeth Walter
Statistical Technician

Enclosures

ILH

APPENDIX B

Data Collection Forms

Table 170. **Detailed Occupation of the Experienced Civilian Labor Force and Employed Persons by Sex: 1970 and 1960**

[Data based on sample, see text. For meaning of symbols, see text]

The State	1970						1960			
	Experienced civilian labor force				Employed		Experienced civilian labor force		Employed	
	16 years old and over		14 years old and over		14 years old and over		14 years old and over		14 years old and over	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Total	1 203 817	845 273	1 214 528	849 826	1 187 025	811 780	1 079 799	597 163	1 042 511	562 967
Professional, technical, and kindred workers	116 331	105 242	112 074	99 831	111 301	98 255	62 129	60 936	61 631	60 245
Accountants	8 281	3 348	8 281	3 348	8 241	3 333	4 788	1 101	4 761	1 085
Architects	880	23	880	23	870	23	514	5	513	5
Computer specialists	2 855	777	2 855	777	2 855	767	120	75	119	74
Computer programers	1 814	607	1 814	607	1 814	597	84	45	83	44
Computer systems analysts	911	170	911	170	911	170	36	15	36	15
Computer specialists, n.e.c.	130	-	130	-	130	-	-	15	-	15
Engineers	16 578	350	16 578	350	16 476	350	8 728	58	8 625	58
Aeronautical and astronautical	78	-	78	-	78	-	159	4	159	4
Chemical	722	3	722	3	717	3	294	-	294	-
Civil	2 613	61	2 613	61	2 593	61	2 007	16	1 958	16
Electrical and electronic	4 156	85	4 156	85	4 140	85	2 169	7	2 162	7
Industrial	3 738	150	3 738	150	3 712	150	1 399	23	1 381	23
Mechanical	1 930	-	1 930	-	1 918	-	1 323	4	1 306	4
Metallurgical and materials	58	-	58	-	58	-	42	-	42	-
Mining	21	-	21	-	21	-	15	-	15	-
Petroleum	10	-	10	-	10	-	37	-	36	-
Sales	800	5	800	5	795	5	570	-	570	-
Engineers, n.e.c.	2 452	46	2 452	46	2 434	46	713	4	702	4
Farm management advisors	253	72	253	72	249	72	424	239	424	239
Foresters and conservationists	1 378	124	1 378	131	1 368	114	1 069	101	1 061	89
Home management advisors	-	199	-	199	-	199	-	-	-	-
Lawyers and judges	3 521	158	3 526	158	3 512	158	2 834	41	2 829	41
Judges	374	42	374	42	368	42	116	14	116	14
Lawyers	3 147	116	3 152	116	3 144	116	2 718	27	2 713	27
Librarians, archivists, and curators	445	2 851	445	2 858	435	2 826	201	1 415	201	1 398
Librarians	369	2 824	369	2 831	359	2 799	167	1 415	167	1 398
Archivists and curators	76	27	76	27	76	27	34	-	34	-
Mathematical specialists	251	151	251	151	244	151	129	83	126	75
Actuaries	37	30	37	30	37	30	28	-	27	-
Mathematicians	17	12	17	12	17	12	27	15	27	15
Statisticians	197	109	197	109	190	109	74	68	72	60
Life and physical scientists	2 548	420	2 548	423	2 544	412	1 581	174	1 574	174
Agricultural	321	62	321	65	321	59	150	8	150	8
Atmospheric and space	171	17	171	17	171	17	23	-	23	-
Biological	323	147	323	147	323	147	148	59	148	59
Chemists	1 531	183	1 531	183	1 527	183	1 046	87	1 043	87
Geologists	96	5	96	5	96	-	56	-	52	-
Marine	25	-	25	-	25	-	-	-	-	-
Physicists and astronomers	77	6	77	6	77	6	32	4	32	4
Life and physical, n.e.c.	4	-	4	-	4	-	126	16	126	16
Operations and systems researchers and analysts	974	119	974	119	974	119	309	15	306	15
Personnel and labor relations workers	4 384	1 728	4 384	1 728	4 374	1 673	976	547	976	534
Physicians, dentists, and related practitioners	8 674	688	8 674	688	8 659	686	7 180	424	7 162	419
Chiropractors	256	12	256	12	256	12	178	-	178	-
Dentists	1 379	22	1 379	22	1 379	22	1 133	20	1 133	20
Optometrists	349	14	349	14	349	14	246	16	246	16
Pharmacists	1 811	241	1 811	241	1 802	241	1 543	129	1 538	124
Physicians, medical and osteopathic	4 559	365	4 559	365	4 553	365	3 714	259	3 703	259
Podiatrists	24	-	24	-	24	-	83	-	81	-
Veterinarians	286	29	286	29	286	29	283	-	283	-
Health practitioners, n.e.c.	10	5	10	5	10	5	-	-	-	-
Registered nurses, dietitians, and therapists	1 103	19 212	1 108	19 223	1 108	18 931	408	13 698	400	13 435
Dietitians	113	1 160	113	1 160	113	1 138	46	914	42	893
Registered nurses	509	17 291	509	17 302	509	17 067	243	12 600	241	12 368
Therapists	481	761	486	761	486	726	119	184	117	174
Health technologists and technicians	1 342	3 538	1 342	3 542	1 326	3 483	458	1 571	450	1 557
Clinical laboratory technologists and technicians	549	1 634	549	1 634	543	1 613	182	717	180	712
Dental hygienists	20	223	20	223	20	218	-	101	-	100
Health record technologists and technicians	35	164	35	168	35	168	19	170	19	168
Radiologic technologists and technicians	147	769	147	769	147	746	167	426	164	423
Therapy assistants	26	34	26	34	26	29	8	-	7	-
Health technologists and technicians, n.e.c.	565	714	565	714	555	709	82	157	80	154
Religious workers	8 179	623	8 183	628	8 160	618	7 059	538	7 009	526
Clergymen	7 811	239	7 815	239	7 792	239	6 725	71	6 680	71
Religious workers, n.e.c.	368	384	368	389	368	379	334	467	329	455
Social scientists	914	237	914	237	897	233	272	78	266	77
Economists	526	56	526	56	522	52	170	24	168	23
Political scientists	-	-	-	-	-	-	-	-	-	-
Psychologists	169	143	169	143	164	143	69	22	65	22
Sociologists	21	10	21	10	21	10	-	-	-	-
Urban and regional planners	170	8	170	8	162	8	12	-	12	-
Social scientists, n.e.c.	28	20	28	20	28	20	21	32	21	32
Social and recreation workers	2 054	3 336	2 054	3 347	2 025	3 206	711	1 232	703	1 197
Social	1 395	2 984	1 395	2 990	1 381	2 893	431	1 003	426	982
Recreation	659	352	659	357	644	315	280	229	277	215
Teachers, college and university	8 475	4 006	8 483	4 017	8 452	3 958	3 451	1 294	3 437	1 282
Biology	448	116	448	116	448	109	146	64	146	63
Chemistry	323	51	323	51	323	51	175	43	175	42
Engineering	315	31	315	36	315	36	234	21	233	21
Physics	306	26	306	26	302	26	234	-	233	-
Other life and physical sciences	175	8	175	8	175	8	117	-	117	-
Mathematics	571	147	571	147	571	147	234	43	233	42
Economics	193	4	193	4	193	4	73	21	73	21
English	664	483	664	483	658	476	321	213	320	211
History	458	73	458	73	458	69	190	43	189	42
Miscellaneous social sciences	593	172	593	172	593	167	88	64	88	63
Other specified teachers	2 360	1 702	2 364	1 708	2 359	1 703	720	509	716	501
Not specified teachers	2 069	1 193	2 073	1 193	2 057	1 162	919	273	914	276

NORTH CAROLINA RESIDENTS, 1976

RACESEX GROUPS: 1=WHITE MALES; 2=WHITE FEMALES; 3=NONWHITE MALES; 4=NONWHITE FEMALES

MARITAL STATUS: 1=NEVER MARRIED; 2=MARRIED; 3=WIDOWED; 4=DIVORCED; 9=UNKNOWN

OCC/IND	COUNTY	RACESEX	MARITAL STATUS	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85 AND OVER	TOTAL
065/000	092	2	1				1							1
RACESEX TOTAL							1							1
COUNTY TOTAL							1	1						2
OCCIND TOTAL							1	1	1					3
075/000	023	2	4						1					1
RACESEX TOTAL									1					1
COUNTY TOTAL									1					1
075/000	045	2	2							1				1
RACESEX TOTAL										1				1
COUNTY TOTAL										1				1
075/000	060	2	2						1					1
RACESEX TOTAL									1					1
COUNTY TOTAL									1					1
075/000	080	2	2					1						1
RACESEX TOTAL								1						1
COUNTY TOTAL								1						1
OCCIND TOTAL								1	2	1				4
083/000	084	1	2				1							1
RACESEX TOTAL							1							1
COUNTY TOTAL							1							1
OCCIND TOTAL							1							1
085/937	042	2	2							1				1
RACESEX TOTAL										1				1
COUNTY TOTAL										1				1
OCCIND TOTAL										1				1
086/000	004	1	2					1						1
RACESEX TOTAL								1						1
COUNTY TOTAL								1						1

APPENDIX C

Occupational Classification Forms

OCCUPATIONAL CLASSIFICATION SYSTEM

"n.e.c." means "not elsewhere classified"

PROFESSIONAL, TECHNICAL, AND KINDRED WORKERS

Code	
001	Accountants
002	Architects
	Computer specialists
003	Computer programs
004	Computer systems analysts
005	Computer specialists, n.e.c.
023	Engineers
024	Farm management advisors
025	Foresters and conservationists
026	Home management advisors
	Lawyers and judges
030	Judges
031	Lawyers
	Librarians, archivists, and curators
032	Librarians
033	Archivists and curators
	Mathematical specialists
034	Actuaries
035	Mathematicians
036	Statisticians
	Life and physical scientists
042	Agricultural scientists
043	Atmospheric and space scientists
044	Biological scientists
045	Chemists
051	Geologists
052	Marine scientists
053	Physicists and astronomers
054	Life and physical scientists, n.e.c.
055	Operations and systems researchers and analysts
056	Personnel and labor relations workers
	Physicians, dentists, and related practitioners
061	Chiropractors
062	Dentists
063	Optometrists
064	Pharmacists
065	Physicians, medical and osteopathic
071	Podiatrists
072	Veterinarians
073	Health practitioners, n.e.c.
	Nurses, dietitians, and therapists

PROFESSIONAL, TECHNICAL, AND KINDRED WORKERS
(Continued)

Code	
074	Dietitians
075	Registered nurses
076	Therapists
	Health technologists and technicians
080	Clinical laboratory technologists and technicians
081	Dental hygienists
082	Health record technologists and technicians
083	Radiologic technologists and technicians
084	Therapy assistants
085	Health technologists and technicians, n.e.c.
	Religious workers
086	Clergymen
090	Religious workers, n.e.c.
	Social scientists
091	Economists
092	Political Scientists
093	Psychologists
094	Sociologists
095	Urban and regional planners
096	Social scientists, n.e.c.
	Social and recreation workers
100	Social workers
101	Recreation workers
140	Teachers, college and university
145	Teachers, except college and university, or unspec
	Engineering and science technicians
150	Agriculture and biological technicians, except
151	Chemical technicians
152	Draftsmen
153	Electrical and electronic engineering technicians
154	Industrial engineering technicians
155	Mechanical engineering technicians
156	Mathematical technicians
161	Surveyors
162	Engineering and science technicians, n.e.c.
	Technicians, except health, and engineering and science
163	Airplane pilots
164	Air traffic controllers
165	Embalmers
170	Flight engineers
171	Radio operators

PROFESSIONAL, TECHNICAL, AND KINDRED WORKERS
(Continued)

Code	
172	Tool programmers, numerical control
173	Technicians, n.e.c.
174	Vocational and educational counselors
	Writers, artists, and entertainers
175	Actors
180	Athletes and kindred workers
181	Authors
182	Dancers
183	Designers
184	Editors and reporters
185	Musicians and composers
190	Painters and sculptors
191	Photographers
192	Public relations men and publicity writers
193	Radio and television announcers
194	Writers, artists, and entertainers, n.e.c.
195	Research workers, not specified

MANAGERS AND ADMINISTRATORS, EXCEPT FARM

201	Assessors, controllers, and treasurers; local public administration
202	Bank officers and financial managers
203	Buyers and shippers, farm products
205	Buyers, wholesale and retail trade
210	Credit men
211	Funeral directors
212	Health administrators
213	Construction inspectors, public administration
215	Inspectors, except construction, public administration
216	Managers and superintendents, building
220	Office managers, n.e.c.
221	Officers, pilots, and pursers, ship only
222	Officials and administrators; public administration, n.e.c.
223	Officials of lodges, societies, and unions
224	Postmasters and mail superintendents
225	Purchasing agents and buyers, n.e.c.
226	Railroad conductors
230	Restaurant, cafeteria, and bar managers
231	Sales managers and department heads, retail trade

PROFESSIONAL, TECHNICAL, AND KINDRED WORKERS
(Continued)

Code	
233	Sales managers, except retail trade
235	School administrators, college
240	School administrators, elementary and secondary or unspecified
	Executive (Official)
244	Wholesale or retail trade
245	Other than wholesale/retail trade
	Salaried Managers/Administrators, n.e.c.
246	Wholesale or retail trade
247	Other than wholesale/retail trade
	Self-employed, n.e.c.
248	Wholesale or retail trade
249	Other than wholesale/retail trade
250	Managers/Administrators, n.e.c.

SALES WORKERS

260	Advertising agents and salesmen
261	Auctioneers
262	Demonstrators
264	Hucksters and peddlers
265	Insurange agents, brokers, and underwriters
266	Newsboys
270	Real estate agents and brokers
271	Stock and bond salesmen
281	Sales representatives, manufacturing industries
282	Sales representatives, wholesale trade
283	Sales clerks, retail trade
284	Salesmen, retail trade
285	Salesmen of services and construction
286	Salesmen and sales clerks, n.e.c.

CLERICAL AND KINDRED WORKERS

301	Bank tellers
303	Billing clerks
305	Bookkeepers
310	Cashiers
311	Clerical assistants, social welfare
312	Clerical supervisors, n.e.c.
313	Collectors, bill and account
314	Counter clerks, except food

CLERICAL AND KINDRED WORKERS
(Continued)

Code	
315	Dispatchers and starters, vehicle
320	Enumerators and interviewers
321	Estimators and investigators, n.e.c.
323	Expeditors and investigators, n.e.c.
325	File clerks
326	Insurance adjustors, examiners, and investigators
330	Library attendants and assistants
331	Mail carriers, post office
332	Mail handlers, except post office
333	Messengers and office boys
334	Meter readers, utilities
	Office machine operators
343	Computer and peripheral equipment operators
345	Keypunch operators
355	Office machine operators, n.e.c.
360	Payroll and timekeeping clerks
361	Postal clerks
362	Proofreaders
363	Real estate appraisers
364	Receptionists
	Secretaries
370	Secretaries, legal
371	Secretaries, medical
372	Secretaries, n.e.c.
374	Shipping and receiving clerks
375	Statistical clerks
376	Stenographers
381	Stock clerks and storekeepers
382	Teacher aides, exc. school monitors
383	Telegraph messengers
384	Telegraph operators
385	Telephone operators
390	Ticket, station, and express agents
391	Typists
392	Weighers
395	Miscellaneous and not specified clerical workers

CRAFTSMEN AND KINDRED WORKERS
(code apprentices to appropriate job category)

401	Automobile accessories installers
402	Bakers
403	Blacksmiths
404	Boilermakers
405	Bookbinders

CRAFTSMEN AND KINDRED WORKERS
(Continued)

Code	
410	Brickmasons and stonemasons
412	Bulldozer operators
413	Cabinetmakers
415	Carpenters
420	Carpet installers
421	Cement and concrete finishers
422	Compositors and typesetters
424	Cranemen, derrickmen, and hoistmen
425	Decorators and window dressers
426	Dental laboratory technicians
430	Electricians
433	Electric power linemen and cablemen
434	Electrotypers and stereotypers
435	Engravers, exc. phonoengravers
436	Excavating, grading, and road machine operators; exc. bulldozer
440	Floor layers, exc. tile setters
441	Foremen, n.e.c.
442	Forgemen and hammermen
443	Furniture workers
444	Furriers
445	Glaziers
446	Heat treaters, annealers, and temperers
450	Inspectors, scalers, and graders; log and lumber
452	Inspectors, n.e.c.
453	Jewelers and watchmakers
454	Job and die setters, metal
455	Locomotive engineers
456	Locomotive firemen
461	Machinists
495	Mechanics and repairmen n.e.c.
501	Millers; grain, flour, and feed
502	Millwrights
503	Molders, metal
505	Motion picture projectionists
506	Opticians, and lens grinders and polishers
510	Painters, construction and maintenance
512	Paperhangers
514	Pattern and model makers, exc. paper
515	Photoengravers and lithographers
516	Piano and organ tuners and repairmen
520	Plasterers
522	Plumbers and pipe fitters
525	Power station operators
530	Pressmen and plate printers, printing

CRAFTSMEN AND KINDRED WORKERS
(Continued)

Code	
533	Rollers and finishers, metal
534	Roofers and slaters
535	Sheetmetal workers and tinsmiths
540	Shopfitters
542	Shoe repairmen
543	Sign painters and letterers
545	Stationary engineers
546	Stone cutters and stone carvers
550	Structural metal craftsmen
551	Tailors
552	Telephone installers and repairmen
554	Telephone linemen and splicers
560	Tile setters
561	Tool and die makers
563	Upholsterers
575	Craftsmen and kindred workers, n.e.c.
580	Members of the Armed Forces, non-officers, n.e.c.
581	Officers of the Armed Forces, n.e.c.

OPERATIVES, EXCEPT TRANSPORT

601	Asbestos and insulation workers
602	Assemblers
603	Blasters and powdermen
604	Bottling and canning operatives
605	Chainmen, rodmen, and axmen, surveying
610	Checkers, examiners, and inspectors; manufacturing
611	Clothing ironers and pressers
612	Cutting operatives, n.e.c.
613	Dressmakers and seamstresses, except factory
614	Drillers, earth
615	Drywall installers and lathers
620	Dyers
621	Filers, polishers, sanders, and buffers
622	Furnacemen, smeltermen, and pourers
623	Garage workers and gas station attendants
624	Graders and sorters, manufacturing
625	Produce graders and packers, except factory and farm
626	Heaters, metal
630	Laundry and dry cleaning operatives, n.e.c.
631	Meat cutters and butchers, exc. manufacturing
633	Meat cutters and butchers, manufacturing
634	Meat wrappers, retail trade
635	Metal platers

OPERATIVES, EXCEPT TRANSPORT
(Continued)

Code	
636	Milliners
640	Mine operatives, n.e.c.
641	Mixing operatives
642	Oilers and greasers, exc. auto
643	Packers and wrappers, n.e.c.
644	Painters, manufactured articles
646	Photographic process workers
	Precision machine operatives
650	Drill press operatives
651	Grinding machine operatives
652	Lathe and milling machine operatives
653	Precision machine operatives, n.e.c.
656	Punch and stamping operatives
660	Riveters and fasteners
661	Sailors and deckhands
662	Sawyers
663	Sewers and stitchers
664	Shoemaking machine operatives
665	Solderers
666	Stationary firemen
674	Textile operatives
680	Welders and flame-cutters
681	Winding operatives, n.e.c.
695	Miscellaneous and not specified operatives

TRANSPORT EQUIPMENT OPERATIVES

701	Boatmen and canalmen
703	Bus drivers
704	Conductors and motormen, urban rail transit
705	Deliverymen, routemen, truck drivers
706	Fork lift and tow motor operatives
710	Motormen; mine, factory, logging camp, etc.
711	Parking attendants
712	Railroad brakemen
713	Railroad switchmen
714	Taxicab drivers and chauffeurs

LABORERS, EXCEPT FARM

751	Construction laborers, including carpenters' helpers
785	Laborer, except construction and farm

FARMERS AND FARM MANAGERS

Code	
801	Farmers and Farm Managers

FARM LABORERS AND FARM FOREMEN

822	Farm Laborers and Farm Foremen

SERVICE WORKERS, EXC. PRIVATE HOUSEHOLD

	Cleaning service workers
901	Chambermaids and maids, except private household
902	Cleaners and charwomen
903	Janitors and sextons
	Food service workers
910	Bartenders
911	Busboys
912	Cooks, except private household
913	Dishwashers
914	Food counter and fountain workers
915	Waiters
916	Food service workers, n.e.c. except private household
921	Dental assistants
922	Health aides, exc. nursing
923	Health trainees
924	Lay midwives
925	Nursing aides, orderlies, and attendants
926	Practical nurses or nurse unspecified
	Personal service workers
931	Airline stewardesses
932	Attendants, recreation and amusement
933	Attendants, personal service, n.e.c.
934	Baggage porters and bellhops
935	Barbers
940	Boarding and lodging housekeepers
941	Bootblacks
942	Child care workers, exc. private household
943	Elevator operators
944	Hairdressers and cosmetologists
950	Housekeepers, exc. private household (dorm, etc.)
952	School monitors
953	Ushers, recreation and amusement
954	Welfare service aides

SERVICE WORKERS, EXC. PRIVATE HOUSEHOLD
(Continued)

Code	
	Protective service workers
960	Crossing guards and bridge tenders
961	Firemen, fire protection
962	Guards and watchmen
963	Marshalls and constables
964	Policemen and detectives
965	Sheriffs and bailiffs
990	MAINTENANCE - UNSPECIFIED
995	HOMEMAKER, HOUSEWIFE OR DOMESTIC
997	NEVER EMPLOYED AND PROBABLY NOT CODE 995
998	UNDETERMINABLE IF EVER EMPLOYED
999	EMPLOYED BUT OCCUPATION NOT REPORTED

INSTRUCTIONS FOR CODING OCCUPATION ON DEATH CERTIFICATES

Use occupation classification to code 3-digit occupation as specifically as possible using the following rules:

a) If entry is "domestic" and "own home" is not indicated, whether housewife or servant indeterminable; code all domestics to 995.

b) If entry is "day work" or "public work," code 995 for female and 785 for male.

c) If entry is "housewife" or equivalent, code 995 (includes any adult female who was not disabled and appears to have never worked).

d) Code 997 if decedent unemployable (invalid, child, student, etc.), if decedent male and never worked, or if occupation/industry unknown and decedent under age 20.

e) If impossible to determine whether decedent has ever worked, as in the case of dash or blank without social security number ending with A, code to 998.

f) If entry is "retired" only, ?, unknown, or social security number ends with A, code 999.

g) If 2 occupations are given, code the first except, when another occupation is mentioned with farmer, housewife or domestic, code the other occupation.

h) If "nurse" only, i.e., "registered" not specified, code to 926 (in analysis, 075 and 926 probably should be combined).

i) Military officers go to 581, except ship officers (221).

j) Regarding codes 244-249, these synonymous terms apply:

Executive (official): President, Vice-President, Secretary, Treasurer, Chairman of Board, Executive, etc.

Salaried Manager/Administrator: Executive Director, Director, etc.

Self-employed: Owner, merchant, operator, dealer, etc. If "self-employed" and industry not indicated, use code 250.

k) In coding occupation = supervisor, see index. If not indexed:

1) Code to occupation being supervised, i.e., supervising architect = 002.

2) If supervisor of a work crew or in wholesale/retail trade, code 441 except supervisor of sales = 231 or 233.

3) If clerical or federal government supervisor, code 312.

4) If local or state government supervisor, code 222.

l) in coding occupation = superintendent, see index. If not indexed, use code 246.