

---

The Effect of Unemployment Duration on National Suicide Rates: A Time Series Analysis, 1948-1982

Author(s): STEVEN STACK and AIN HAAS

Source: *Sociological Focus*, Vol. 17, No. 1 (January 1984), pp. 17-29

Published by: [Taylor & Francis, Ltd.](#)

Stable URL: <http://www.jstor.org/stable/20831304>

Accessed: 12/03/2014 11:59

---

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at <http://www.jstor.org/page/info/about/policies/terms.jsp>

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.



Taylor & Francis, Ltd. is collaborating with JSTOR to digitize, preserve and extend access to *Sociological Focus*.

<http://www.jstor.org>

# The Effect of Unemployment Duration on National Suicide Rates: A Time Series Analysis, 1948-1982\*

STEVEN STACK

*The Pennsylvania State University*

*SOCIOLOGICAL FOCUS*

*Vol. 17 No. 1*

*January 1984*

AIN HAAS

*Indiana University*

*Periods of increasing unemployment are associated with increases in suicide rates. Unemployment increases suicide among laid off persons, new entrants, reentrants to the labor market, and groups indirectly affected — the underemployed, those fearing unemployment, the families of the unemployed, and even those suffering from falling real wages, a condition endemic in major recessions. The present investigation deals with a neglected unemployment measure: the duration of unemployment, a condition known to be critical to the generation of extreme behavior such as suicide. Controls are introduced from alternative perspectives on the problem including the incidence of divorce. The data analyzed refer to yearly measures of the variables over a 31 year period. The results of a Cochrane-Orcutt iterative regression analysis indicate that the greater the duration of unemployment the greater the suicide rate. Using ex post forecasting techniques it is estimated that increases in unemployment during the Reagan administration have been associated with at least 929 additional deaths from suicide. The duration of unemployment increases suicide rates for both males and females. The model explains between 59 and 88 percent of the variance in suicide.*

**D**uring the first two years of the Reagan administration, the unemployment rate rose suddenly from 7.4 percent in January 1981 to 10.8 percent in November 1982 — the highest level since the Great Depression (U.S. Bureau of Labor Statistics, 1982a, 1982b). Even among groups that are usually left relatively untouched by the problem, the rate rose dramatically. Adult males, for example, experienced an increase from 6.0 percent to 10.1 percent in this period. A less noticed indicator, the median duration of unemployment, also changed markedly: from 7.4 weeks to 10.1. Whether these developments are seen as manifestations of a “new class war” (Piven and Cloward, 1982) involving such things as the dismantling of the job creating CETA-Program and a tight money supply policy, or a legacy of earlier administrations’ inattention to the principles of supply-side economics, there is a renewed interest in the human costs of unemployment.

Since the times of the Great Depression, sociologists have researched the linkage

*\*We would like to thank The Pennsylvania State University for providing computer time and Debi Welsby-Shade for her help in typing the manuscript. This is a revised version of a paper read at the annual meetings of the North Central Sociological Association, Columbus, Ohio. We are grateful to the U.S. Public Health Service for making available the most recent data on suicide mortality.*

between unemployment and social problems (Bakke, 1934, 1940; Jahoda et al., 1933; Gore, 1978; Briar, 1978; Ferman and Gordon, 1979; Catalano and Dooley, 1983; Liker and Elder, 1983; Leventman, 1981; Elder and Liker, 1982). The first section of the present paper develops a theoretical framework linking economic conditions to mental health problems. Unlike Durkheim (1966:277-290) who speculated on the psychological states associated with anomie, we are careful to document these states with empirical evidence. In a second section it then deals with the specific linkage between unemployment and suicide. Finally, it tests this theory with time series data from 1948-1978 covering unemployment indicators and suicide rates, the chief indicator herein of the social costs of unemployment. Control variables are introduced for variables from other theoretical perspectives on suicide including marital integration and role conflict explanations. In this manner, the relative worth of the unemployment variable can be tested against leading alternative explanations of suicide. This weighting scheme has been absent in the previous and renowned work of Brenner (1977a). The analysis stops at 1978 since there is a time lag of approximately four years for the publication of the final statistics on stress-related death rates such as suicide and alcoholism. The present paper then uses *ex post* forecasting techniques to estimate the number of suicides resulting from the increase in unemployment in under the Reagan administration.

### THE IMPACT OF UNEMPLOYMENT ON MENTAL HEALTH

Some caution needs to be exercised in interpreting the micro-research on the effects of unemployment. Research on the psychological and social effects of unemployment is largely restricted to the category of job losers, who usually constitute less than half the unemployed. Not all of the unemployed lose a job. For example, many are seeking work for the first time. Others quit their job, and, hence, do not lose it like those who are laid off. Still others, such as middle-aged women, reenter the labor force after a period of inactivity, and are unable to find work. Little is known about the effects of unemployment among quitters, new entrants, or reentrants. It is assumed that while we would find the strongest negative effects among the job losers, most categories of the unemployed would be marked by similar consequences.

Investigations on the effects of unemployment on unemployed individuals date back to the years of the Great Depression (Bakke, 1940; Jahoda et al., 1933; Komarovsky, 1940). The recession of the mid 1970s and 1980s has brought a resurgence of interest in this area. On the whole, the consequences faced by the unemployed today are quite similar to those experienced by the jobless of the 1930s. The typical psychological and social effects are:

- lowered self esteem
- increasing alienation from society and its institutions
- marital strife and tensions
- depression
- anxiety and worry
- deep shame over not being able to find work
- social isolation from friends, relatives, and the community
- stress
- physical illness

These patterns tend to hold for both manual and nonmanual workers (Aiken, 1968; Braginsky and Braginsky, 1975; Leventman, 1981; Cobb, 1974; Powell and Driscoll, 1973; Cobb and Kasl, 1977; Kahn, 1981; Ferman, 1963; Slote, 1969).

As a group the unemployed have lower self esteem. Without the meaning of work they are more apt to feel like nobodies than the employed population. As the duration of unemployment increases studies indicate that even conservative, patriotic Americans can become alienated from society. They begin to look at the economic and political institutions as callous and not caring about people. The economic hardships of the unemployed account in part for their higher levels of depression, anxiety, and stress. Unemployed males often feel like failures in providing for their families. This often increases marital strife. The tendency to retreat from social relationships has been explained in terms of their not having the necessary monies to participate in socializing. In addition, to the extent they are beset with psychological problems, they often feel that they have little to offer other persons. Some avoid people because they don't want to drag others into their web of mental troubles.

Research has explained why some of the unemployed are more affected by unemployment than others. Factors such as social support, financial resources, and gender roles mediate the linkage between unemployment and its negative effects. In her study of 100 laid off working class, married males, Gore (1978) found that the higher the social support of the unemployed the lower the negative effects of unemployment. To the extent that unemployed men reported being needed and accepted by their families and friends, they were less depressed and less apt to become physically ill. Ones without strong social support were especially high in depression and illness since their job was one of their few sources of self worth (Gore, 1978). In data drawn from an overtime study of 5,000 families, Cohn (1978) has also noted the existence of factors that moderate the effects of unemployment. Persons who can turn to alternative roles or who can derive some sense of esteem from past accomplishments will be more protected against the negative effects of job loss. For example, Cohn found that unemployed mothers' sense of esteem fell less than that of childless women who could not turn to mothering as a source of self worth. Briar's (1978) study of 52 unemployed persons in Seattle focused on economic resources as a mediating factor. She found support for the notion that persons with savings, good credit, unemployment benefits, and other supplemental sources of income were less psychologically affected by the hardships of unemployment than persons without some or all of these financial cushions.

While it is acknowledged that the effects of unemployment will vary according to the social, economic, psychological and other resources of groups, it is contended that, on the whole, periods of high unemployment will increase social problems such as suicide. While some individuals can cope well enough with unemployment, at the societal level the personal resources of the population are inadequate to offset the material and psychological consequences of unemployment.

Thus far, the review has been restricted to microstudies. However, the negative effects of unemployment can also be dealt with at the macro level of analysis. The consequences of unemployment will reach beyond the person currently unemployed. For example, others will live in fear of losing their jobs, especially those who are employed in firms that are already terminating employees. The spouse and children of an unemployed worker also

suffer from economic and psychological hardships. New entrants as well as reentrants to the labor force are likely to suffer from underemployment. Periods of high unemployment are also apt to bring a decline in the rate of change in real wages, a factor affecting many if not most persons. In an analysis of the national unemployment rate between 1965 and 1970 Brenner (1977a) found that a one percent increase in unemployment was associated with many social problems:

20,240 additional deaths from heart attacks  
 495 deaths from alcoholism  
 920 more suicides  
 648 additional homicides  
 3,340 additional state prison admissions  
 4,226 more state mental hospital admissions

The cumulative impact of the 1.4 increase in unemployment in the year 1970 in the next few years was estimated as resulting in an additional 51,570 deaths due to the stress associated with high unemployment rates (Brenner, 1977b).

### THE RELATIONSHIP BETWEEN UNEMPLOYMENT AND SUICIDE

From the discussion on the negative impact of unemployment on society, it is contended that periods high in unemployment should increase suicide. First from a personality approach to suicide, we would expect suicide to increase given the change in the modal personality (Fromm, 1955). For example, the depression, loss of self-esteem, shame, anxiety, and other psychological consequences of unemployment are all aspects of the personality profile of the typical suicide victim (Lester and Lester, 1971). To the extent that unemployment brings out these personality traits it is anticipated that suicide should increase. Second, at the social level, we know that prolonged unemployment increases the amount of social isolation among the unemployed. The unemployed retreat more and more from social relationships the longer they are without work. Their greater isolation from peer groups as well as groups at the workplace would be predictive of greater suicide potential according to a social integration theory of suicide (Durkheim, 1966).

There has long been a general agreement that unemployment increases suicide (Durkheim, 1966; Henry and Short, 1954). The research of the seventies and eighties soundly reaffirmed this notion often through the use of advanced quantitative techniques (Brenner, 1977a; Hammermesh and Soss, 1974; Li, 1974; Shapiro and Ahlburg, 1982; Stack, 1981, 1983a). Unemployment emerged as the most important determinant of suicide rates in a path analysis by Li (1974) and was found to be even more important than the rate of marital dissolution in a time series analysis of the years 1933-1970 (Stack, 1981). These studies all have the drawback of being based on aggregate data. However, individual based research reported by Stillman (1980) indicates that unemployed workers have a suicide rate thirty times the national average.

A shortcoming of the past research on the relationship between unemployment and suicide is that it is based on the overall rate of unemployment (e.g., Stack, 1981; Li, 1974). It has ignored an important dimension of the problem: the duration of unemployment.

One of the key findings of the micro research on the unemployed is that the longer the duration of unemployment, the more deleterious its effects (Braginsky and Braginsky, 1975; Briar, 1978). The longer the length of unemployment the greater the likelihood that social and material coping resources will be exhausted. It would be expected that a period of high unemployment marked by a relatively long duration of unemployment would have a higher suicide rate than a period with the same high unemployment rate but with a relatively short duration of unemployment. Hence, the central hypothesis of the present paper is:

- H<sub>1</sub> The greater the average duration of unemployment, the higher the suicide rate.

### CONTROL VARIABLES

In order to test for any spuriousness in the zero order relationship between unemployment and suicide, the present investigation draws control variables from other prominent theories of suicide. The first control variable, the rate of divorce, is drawn from Durkheim's (1966) social integration perspective on suicide. This model has been subject to recent criticism (Pope, 1976; Stack, 1983b). Following Pope's (1976) reformulation of Durkheim's concepts the present paper views the divorcee as low in integration-regulation, two relatively inseparable dimensions of social life. Research since Durkheim has confirmed a positive relationship between divorce and suicide (Maris, 1969, 1981; Gibbs, 1969; Heer and MacKinnon, 1974; Danigelis and Pope, 1979; Stack, 1980, 1981b). These researchers contend that populations with high rates of divorce are high in anomie/egoism. They have lost bonds to children and/or a spouse, are high in sexual tensions, often blame themselves for the loss of their spouse, and suffer from downward economic mobility. These and other signs of their low integration/regulation contribute to a higher rate of suicide among the divorced. The present study contends that:

- H<sub>2</sub> The higher the incidence of divorce, the higher the rate of suicide.

A second control variable is introduced from a role-conflict theory of suicide (Stack, 1978). The index of role conflict in the present paper is mother's labor force participation (MPLF) where the mother has preschool age children. Strain between the roles of mother and worker can increase suicide potential. In addition, MPLF may increase suicide for males. Males who are married to such women have been found to have higher rates of psychological troubles and marital dissatisfaction than their counterparts (Kessler and McRae, 1981, 1982; Burke and Weir, 1976). A mother in the labor force may constitute a form of role-failure for the male. His power in family matters declines. He is no longer the only breadwinner. His young children are being brought up by persons outside the nuclear family. Suicide potential increases, as indicated by research on suicide has documented such an increase (Stack, 1978).

However, there are other reasons to anticipate that MPLF may reduce suicide potential. Financial pressures on the family are greatly alleviated by MPLF. The marital relationship could be enhanced by the wife becoming less isolated from contact with other adults and having new avenues of fulfillment, as well as the two spouses having more in common as a result of the blurring of traditional lines of sex segregation in the home



and in the workplace (Haas, 1980). In addition, young males (who are the most likely to have pre-schoolers and working wives) are the least likely to have sexist attitudes. For this set of reasons, it might be anticipated that MPLF may reduce both male and female suicide.

Finally, a third position is possible. The costs and benefits of MPLF might cancel each other out or reveal a shifting balance through time, as public acceptance and institutional support for gender equality spread. The present paper entertains the Stack (1978) hypothesis:

- H<sub>3</sub> The greater the mothers' participation in the labor force the greater the role conflict and the greater the suicide rate.

## METHODOLOGY

In testing the hypotheses presented above, we will use aggregate data for the United States during the period 1948-1978. It is more difficult to get data on the individual level — i.e., to find out whether a particular worker is unemployed, has been jobless for a long time, is divorced, has pre-school age children and a working wife, and has committed suicide. It would be very difficult to find enough cases of suicide in a survey, or to get the kind of geographic and temporal comprehensiveness that is possible to get from a time series of national statistics.

In addition to the convenience of aggregate data, there is a theoretical rationale for a macro-level analysis: the effects of massive and/or prolonged unemployment are diffuse, not limited just to those who have actually lost their jobs. Thus, there is a need to examine the impact of fluctuations in unemployment on a societal scale, which calls for aggregate data.

The rate of suicide is measured as the number of suicides per one hundred thousand population. Suicide rates are computed for males, females, and the total population. The data are from Diggory (1976) and the U.S. Public Health Service (personal communication). They cover the period from 1948 to 1978. The unit of analysis is the year, with the rate of suicide in the entire United States being the dependent variable. The data stops at 1978 since that is the year for which the most recent data on suicide were available at the time of this writing, 1982. The data on suicides come from official sources. These have been criticized due to the alleged underreporting of the behavior (Douglas, 1967). However, good refutations of the critics' arguments have been made (Gibbs, 1971; Mendelsohn and Pescosolido, 1979; Sainsbury and Barraclough, 1968), and it has been contended that the measurement errors in the official data are not serious enough to preclude reliable analysis.

The rate of unemployment is measured as the average duration of unemployment. The data are taken from the U.S. Bureau of Labor Statistics (1982:461). Some caution should be exercised in the interpretation of the results based on these data. Critics have charged that the official unemployment data underestimate the amount of the problem (Leggett and Gioglio, 1978; Sweezy, 1975). For example, part time workers who desire full time work and persons who have given up their search for employment are not counted. The latter category of discouraged workers who are omitted from the measurement of employment duration constitute the greatest limitation of the data used herein. However, these are the only data available. It is assumed that the relative size of the discouraged

worker category is directly related to the average duration of unemployment. As average duration increases, the probability that people will give up looking for work increases. To the extent that this logic is true, the average duration of unemployment is a reliable index.

The rate of divorce is measured as the number of divorces per 1,000 married females. The data are from the U.S. Bureau of the Census (1976:64; 1972-1980). A crude divorce rate was not used due to its sensitivity to changes in the age structure of the population (Kenkel, 1977).

The rate of mothers' participation in the labor force is measured as the percentage of married women, with husband present and with children under six years of age, who are in the labor force. It is anticipated that the group of married women who might experience the greatest role conflict would be those with preschool age children. Older children are normally enrolled in school. Mothers of older children can more readily avoid role conflict given their lower involvement in child care. The data are from U.S. Bureau of the Census (1976:134; 1972-1980). A limitation of this index is that it does not distinguish between full time and part time women workers. The former will experience more role conflict and overload. However, the vast majority of working women are full time workers, so this is not a major limitation. In any event, data were unavailable to construct a more refined measure based on full time workers. The measure used in the present study is an improvement over the past research which is based on the proportion of women in the labor force. The latter index counts women such as single females who are unlikely to experience role conflict between work and household duties.

## THE ANALYSIS

The present study used econometric techniques based on the Cochrane-Orcutt iterative procedure. Arima methods were not utilized in analyzing the data because of the small sample size ( $N = 31$ ) in the present investigation. A basic multivariate Arima model ordinarily requires approximately 100 observations and the number of necessary observations increases as one adds on additional independent variables. Furthermore, the Arima and econometric modes of analysis have been recognized as identical in every substantial respect. Multivariate Arima models are "better" than the econometric models only because their series are "better" than short time series often used in the econometric models (McCleary and Hay, 1980). Hence, the choice of the econometric method is not viewed as a serious limitation of the present work.

Cochrane-Orcutt techniques constitute one of the most widely used econometric methods of pseudo generalized least squares estimation. This mode of analysis first uses ordinary least squares methods to obtain estimates of the residuals; these are then used to obtain a "first round estimate of  $p$ ." The value  $p$  is then used to transform the data where  $Y' = Y_t - pY_{t-1}$  for the dependent variable and  $X' = X_t - pX_{t-1}$  for each of the independent variables. Then the method of ordinary least squares regression is applied to the transformed data to obtain new estimates of the residuals and  $p$ . An advantage of this technique is that each variable has a different  $p$  value. This procedure continues until the values of the estimators converge. For a further discussion of the Cochrane-Orcutt iterative procedure see Ostrom (1978). As a check on the Cochrane-Orcutt procedure, other analyses (not reported here) were also done using other econometric



techniques including the Hildreth-Lu grid search, first difference method, Box-Cox, and Box-Tidwell procedures. The results were nearly identical.

Table 1. The Effects of Duration of Unemployment, Divorce Rate, and Mothers' Participation in the Labor Force on Selected Suicide Rates (1948-1978)

	Total Suicide Rate	Male Suicide Rate	Female Suicide Rate
<u>Variable</u>			
Duration of Unemployment	.091 <sup>a*</sup> .171 <sup>b</sup>	.186* .308	.057* .251
Divorce Rate	.198* .529	.370* 1.10	.029 .071
Mother's Parti- cipation in the Labor Force	-.015 -.072	-.093* -.561	.033 .115
Constant Term	7.89	12.29	3.78
Durbin-Watson d statistic	2.06	1.95	2.09
Autocorrelation	none	none	none
R <sup>2</sup>	.88	.83	.59

Notes: \* associated t-statistic statistically significant at .05 level

a = regression coefficient

b = standardized regression coefficient

Table 1 gives the results of the Cochrane-Orcutt iterative regressions. According to the Durbin Watson d statistic all three equations are free of the problem of autocorrelation. The Geary test also found no evidence of autocorrelation (Parker, 1980). In the case of the total suicide rate, controlling for the other variables, the greater the duration of unemployment the greater the suicide rate. In addition, there is a similar direct, significant relationship between the male suicide rate and the duration of unemployment. Finally, in like manner, the greater the duration of unemployment, the greater the female suicide rate. The economic perspective on suicide is supported for all three indicators of suicide.

With respect to the divorce variable, controlling for the other independent variables, increases in the divorce rate are positively related to both the total and male rates of suicide. However, the divorce rate bears no independent effect on the female suicide rate. This is consistent with the finding that the institution of marriage protects males more than females from suicide (Durkheim, 1966).

Mothers' labor force participation is unrelated to the total and female rate. In the case of female suicide, this is indicative of a balance between the costs and benefits of MPLF. In the case of male suicide, a significant negative relationship exists. This supports the thesis that the benefits derived by males from MPFL outweigh the costs.

The relative importance of the duration of unemployment in the explanation of suicide rates varies. For females, it is the most important factor; for males, it comes in third place; for the overall rate it is in second place. It is, however, the only variable that is significantly associated with all three rates. The amount of variance in suicide explained by the model varies from 59 to 88 percent.

### EX POST FORECASTS

The final issue addressed by the analysis is the prediction of the incidence of suicide for the years of the Reagan Administration. This is done through *ex post* forecasting techniques (Ostrom, 1978). Here the known values of unemployment indicators for the years 1981-82 are used in the prediction equation for suicide based on the years 1948-1978. Unemployment duration (UDUR), as noted earlier, increased from January 1981 to November 1982. It would be anticipated that this would increase the suicide rate. The forecasts are given in Table 2. The *ex post* forecasts based on UDUR indicate that the total suicide rate increased from 11.64 in 1980 to 12.04 in 1982. This represents 929 additional suicides. This increase is disproportionately due to the increase in the male suicide rate. The estimated male suicide rate increased 0.6 units, compared to an increase of 0.2 units for the estimated female rate.

These forecasts are compared to those based on alternative unemployment predictor variables. Panel 2 of Table 2 estimates suicide rates on the basis of the overall rate of unemployment. On the basis of these forecasts, the rise in unemployment under the Reagan Administration is associated with an increase in suicide amounting to 1,208 deaths. Panel 3 of Table 2 estimates suicide rates using an interaction term, unemployment duration multiplied by the overall unemployment rate, as a forecasting variable. This factor predicts an increase of 1,649 suicides during the first two years of Reaganomics. The forecasts based on the duration of unemployment, then, are the most conservative estimates of increases in suicide under Reaganomics.

### DISCUSSION

The present paper tested a model of suicide where a neglected economic condition competed against sociological variables as explanatory factors. Sociological factors, indicators of integration/regulation in family life, tended to be more important than the economic factor in explaining the variance in suicide. However, the latter variable, as measured by duration of unemployment, was significantly related to all three suicide rates. Nevertheless, the results suggest that the previous time series models of Brenner (1977a, 1977b) are misspecified. Analyses of suicide need to incorporate more concepts than just the economic factor.

The results of mothers' participation in the labor force do not support the role conflict theory of suicide as it applies to family-oriented role conflict. MPLF is related to male

Table 2. Ex-Post Forecasts of Suicide Rates Under Alternative Unemployment Indicators

<u>Unemployment Duration As Forecaster</u>			
<u>Year</u>	TSR <sup>a</sup>	MSR <sup>b</sup>	FSR <sup>c</sup>
1980	11.64	17.56	5.78
1981	11.85	17.87	5.86
1982	12.04 <sup>d</sup>	18.16	5.98

Increase in Suicides: 929

<u>Unemployment Rate As Forecaster</u>			
	TSR	MSR	FSR
1980	11.89	18.04	5.84
1981	11.99	18.22	5.87
1982	12.41	18.94	6.01

Increase in Suicides: 1,208

<u>Unemployment Rate x Unemployment Duration As Forecaster</u>			
	TSR	MSR	FSR
1980	11.80	17.83	5.84
1981	12.02	18.18	5.93
1982	12.51	18.98	6.15

Increase in Suicides: 1,649

a = Total Suicide Rate

b = Male Suicide Rate

c = Female Suicide Rate

d using 232.3 million persons for the estimated 1982 year end population

suicide, but it reduces suicide. This finding supports the notion that the benefits derived by males from MPLF counteract any costs of MPLF.

The findings on divorce are consistent with the previous time-series research on the total suicide rate (Stack, 1981a). However, the present investigation notes that the overall association between divorce and suicide is due to the latter's male component. Female suicide trends were *not* associated with divorce trends. This is, however, consistent with the general notion that females can cope better with the problem of divorce and the feminist notion of the liberation of the female from a stressful marriage (Ehrenreich, 1974). In addition, this finding might be anticipated from the standpoint of the integration/regulation theory of suicide. Females still normally obtain custody of the children in divorce suits.

Hence, females are more apt than males to maintain day to day interaction patterns with children. Indeed, given that the woman alone is now fully responsible for the parenting of children, one might anticipate an even higher denial of self-interest, or less egoism, among divorced women. In addition, running a household without the assistance of a spouse would increase the regulation of one's time. These increases in integration/regulation, however, are evidently offset or neutralized by the general trauma of divorce (Weiss, 1975). Durkheim neglected these differences in family life circumstances between divorced males and females.

The suicide trends over the thirty years in the present study indicate a general increase in the behavior. This finding in itself questions both Durkheim's theory of suicide and his theory of society. Durkheim contended that further industrialization would transform the mode of integration from the mechanical mode to the organic mode based on the division of labor, and suggested that the sudden rise in suicide rates at the onset of industrialization was a transitional rather than permanent condition. Today, ninety years after the publication of *Suicide*, suicide rates continue to increase. This is a sign that the organic solidarity forecasted by Durkheim has not developed. Indeed, the "anomic division of labor," and more generally, the anomie and egoism of his times may be best understood as part of the normal state of capitalist society (Bonger, 1969).

## REFERENCES

- Aiken, Michael  
1968 *Economic Failure, Alienation, and Extremism*. Ann Arbor: University of Michigan Press.
- Bakke, E. Wright  
1934 *The Unemployed Man*. New York: E. P. Dutton.  
1940 *Citizens Without Work: A Study of the Effects of Unemployment Upon the Workers' Social Relations and Practices*. New Haven: Yale University Press.
- Bonger, Willem  
1969 *Criminality and Economic Conditions*. Bloomington: Indiana University Press.
- Braginsky, D. D. and B. M. Braginsky  
1975 "Surplus people: Their lost faith in self and system." *Psychology Today*, August.
- Brenner, Harvey  
1977a "Health costs and benefits of economic policy." *International Journal of Health Services* 7:581-623.  
1977b "Personal stability and economic security." *Social Policy*:3-5.
- Briar, Katherine  
1978 *The Effects of Long Term Unemployment*. Palo Alto, CA: R. and E. Research Associates.
- Burke, R. J. and T. Weir  
1976 "Relationship of wives' employment status to husband, wife, pair satisfaction and performance." *Journal of Marriage and the Family* 38:279-87.
- Catalano, Ralph and David Dooley  
1983 "The health effects of economic instability." *Journal of Health and Social Behavior* 24:46-60.
- Cobb, Sidney  
1974 "Physiologic changes in men whose jobs were abolished." *Journal of Psychosomatic Research* 18:245-58.
- Cobb, Sidney and S. Kasl  
1977 *Termination: The Consequences of Job Loss*. Washington, D.C.: U.S. Dept. of Health, Education, and Welfare.
- Cohn, Richard  
1978 "The effect of employment status change on self attitudes." *Social Psychology* 41:81-93.
- Danigelis, Nick and Whitney Pope  
1979 "Durkheim's theory of suicide as applied to the family." *Social Forces* 57:1081-1106.
- Diggory, James  
1976 "United States suicide rates, 1933-1968: An analysis of some trends." Pp. 30-65 in Edwin Schneidman (Ed.), *Suicidology: Contemporary Developments*. New York: Grosse & Stratton.
- Douglas, Jack  
1967 *The Social Meanings of Suicide*. Princeton: Princeton University Press.
- Durkheim, Emile  
1966 *Suicide*. New York: Free Press.

- Ehrenreich, Barbara  
1974 *Complaints and Disorders: The Sexual Politics of Sickness*. Old Westbury, New York: Feminist Press.
- Elder, Glen and Jeffery Liker  
1982 "Hard times in women's lives: Historical influences across forty years." *American Journal of Sociology* 88:241-69.
- Ferman, Louis  
1963 *Death of a Newspaper*. Kalamazoo, Michigan: W. E. Upjohn Institute for Employment Research.
- Ferman, Louis and Jeanne Gordon (Eds.)  
1979 *Mental Health and the Economy*. Kalamazoo, Michigan: Upjohn Institute.
- Fromm, Erich  
1955 *The Sane Society*. Greenwich, Connecticut: Fawcett.
- Gibbs, Jack and Walter T. Martin  
1964 *Status Integration and Suicide*. Eugene: University of Oregon Press.
- Gibbs, Jack P.  
1969 "Marital status and suicide in the United States: A special test of the status integration theory." *American Journal of Sociology* 74:521-33.  
1971 "Suicide." Pp. 271-312 in Robert K. Merton and Robert Nisbet (Eds.), *Contemporary Social Problems*. New York: Harcourt.
- Gore, Susan  
1978 "The effect of social support in moderating the health consequences of unemployment." *Journal of Health and Social Behavior* 19:157-65.
- Haas, Linda  
1980 "Role-sharing couples: A study of egalitarian marriage." *Family relations* 29:289-96.
- Hammermesh, Daniel and Neal M. Soss  
1974 "An economic theory of suicide." *Journal of Political Economy* 82:83-98.
- Heer, David and Douglas MacKinnon  
1974 "Letters to the editor: Suicide and marital status: A rejoinder to Rico-Velasco and Mynko." *Journal of Marriage and the Family* 36:6-10.
- Henry, Andrew F. and James F. Short, Jr.  
1954 *Suicide and Homicide*. New York: Free Press.
- Jahoda, Marie, Paul Lazarsfeld, and Hans Zeisel  
1933 *Marienthal: The Sociography of an Unemployed Community*. New York: Aldine-Atherton.
- Kahn, Robert  
1981 *Work and Health*. New York: John Wiley.
- Kenkel, William  
1977 *The Family in Perspective*, Fourth Ed. Santa Monica: Goodyear Publishing Company.
- Kessler, Ronald and James McRae  
1982 "The effect of wives employment on the mental health of married men and women." *American Sociological Review* 47:216-26.  
1981 "Trends in the relationship between sex and psychological distress, 1957-1976." *American Sociological Review* 45:443-52.
- Komarovsky, Mirra  
1940 *The Unemployed Man and His Family*. New York: Dryden.
- Leggett, J. C. and J. Gioglio  
1978 "Break out the double digit: Mass unemployment in the city of New Brunswick." *Review of Radical Political Economics* 10:32-46.
- Lester, David and Gene Lester  
1971 *Suicide: The Gamble with Death*. Englewood Cliffs: Prentice Hall.
- Leventman, Paula  
1981 *Professionals Out of Work*. New York: Free Press.
- Li, Wen  
1974 "Structural interpretation of suicide." *Sociological Focus* 7:89-100.
- Liker, Jeffrey and Glenn Elder  
1983 "Economic hardship and marital relations in the 1930's." *American Sociological Review* 48:343-59.
- McCleary, Richard and Richard Hay  
1980 *Applied Time Series Analysis*. Beverly Hills, CA: Sage.
- Maris, Ronald  
1969 *Social Forces in Urban Suicide*. Homewood, Illinois: Dorsey Press.  
1981 *Pathways to Suicide*. Baltimore: Johns Hopkins University Press.
- Mendelsohn, Robert and Bernice Pescosolido  
1979 "The self as victim: Rethinking sociological theories of suicide." Paper presented at the annual meetings of the American Public Health Association.
- Ostrom, Charles  
1978 *Time Series Analysis*. Beverly Hills, California: Sage.
- Parker, Robert Nash  
1980 "Correlation in time series regression: The Geary test." *Sociological Methods and Research* 9:99-114.
- Piven, Frances Fox and Richard Cloward  
1982 *The New Class War: Reagan's Attack on the Welfare State and Its Consequences*. New York: Pantheon.
- Pope, Whitney  
1976 *Durkheim's Suicide: A Classic Reanalyzed*. Chicago: University of Chicago Press.
- Powell, Douglas H. and Paul Driscoll  
1973 "Middle class professionals face unemployment." *Society* 10:18-26.
- Sainsbury, P. and B. Barraclough  
1968 "Differences between suicide rates."

- Nature 220:1252.
- Shapiro, Morton and Dennis Ahlburg  
 1982/ "Suicide: The ultimate cost of unemployment." *Journal of Post Keynesian Economics* 5:276-80.
- Slote, A.  
 1969 *Termination: The Closing at Baker Plant*. New York: Bobbs-Merrill.
- Stack, Steven  
 1978 "Suicide: A comparative analysis." *Social Forces* 57:644-53.  
 1980 "The effects of marital dissolution on suicide." *Journal of Marriage and the Family* 42:83-92.  
 1981a "Divorce and suicide: A time series analysis, 1933-1970." *Journal of Family Issues* 2:77-90.  
 1981b "Suicide and religion: A comparative analysis." *Sociological Focus* 14:207-20.  
 1982 "Economic problems." Chapter 11, pp. 294-325 in Melvin DeFleur (Ed.), *Social Problems in American Society*. Boston: Houghton Mifflin.  
 1983a "The effect of the decline of institutionalized religion on suicide, 1948-1978." *Journal for the Scientific Study of Religion* 22:239-52.  
 1983b "The effect of religious commitment on suicide: A cross-national analysis." *Journal of Health and Social Behavior* 24: In press.
- Stillman, Donald  
 1980 "The devastating effect of plant closings." Pp. 72-88 in Mark Green and Robert Massie (Eds.), *The Big Business Reader*. New York: Pilgrim Press.
- Sweezy, Paul  
 1975 "Capitalism and unemployment." *Monthly Review* 27:1-14.
- U.S. Bureau of the Census  
 1976 *Historical Statistics of the United States: Colonial Times to 1970. Part 1*. Washington, D.C.: U.S. Government Printing Office.  
 1972- U.S. Statistical Abstract. Washington, D.C.: U.S. Government Printing Office.  
 1980 D.C.: U.S. Government Printing Office.
- U.S. Bureau of Labor Statistics  
 1982a *Labor Force Statistics Derived from the Current Population Survey: A Databook, Vol. 1*. Washington, D.C.: U.S. Government Printing Office.  
 1982b *The Employment Situation*. November, Washington, D.C.: U.S. Government Printing Office.
- Weiss, Robert  
 1975 *Marital Separation*. New York: Basic Books.